

**CITY OF LEAGUE CITY
UNIFIED DEVELOPMENT CODE
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CHAPTER 125: Article 1. General Provisions

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Sec. 1.1 Title

This Chapter 125 of the Code of the City of League City shall be known as “Development Regulations.” Chapter 125 of the Code of the City of League City, Texas, entitled “Zoning Ordinance,” originally passed and approved August 10, 1999 (Ord. 99-52) together with all amendments thereto; Article I of Chapter 102, of the Code of the City of League City, Texas, entitled “Subdivision and Development Ordinance,” adopted October 28, 2003 (Ord. 2003-64), together with all amendments thereto; Article II of Chapter 102 of the Code of the City of League City, Texas, entitled “Provision of Parkland, “ adopted January 8, 2018 (Ord. 2018-45); Article III of Chapter 102 of the Code of the City of League City, Texas, entitled “Tree Preservation, Mitigation and Maintenance” adopted September 25, 2018 (Ord. 2018-28) and Chapter 90 of the Code of the City of League City, Texas, entitled “Signs,” originally adopted on July 12, 1984 (Ord. 84-35), together with all amendments thereto, are hereby amended and recodified as the City of League City Development Regulations.

Sec. 1.2 Authority

These Development Regulations are adopted under authority of the constitution and laws of the State of Texas, including particularly Chapters 211, 212, 216 and 242 of the Texas Local Government Code, and pursuant to the provisions of the Code of Ordinances and Charter of the City.

Sec. 1.3 Purpose

1.3.1 The regulations of this Chapter 125 are adopted in accordance with the League City 2035 Comprehensive Plan and most recently adopted Future Land Use Plan for the purpose of promoting the health, safety, morals, and general welfare and protecting and preserving places and areas of historical, cultural, or architectural importance and significance.

1.3.2 These Development Regulations are designed to:

- a. Lessen congestion in the streets;
- b. Secure safety from fire, panic and other dangers;
- c. Promote health and general welfare;
- d. Provide adequate light and air;
- e. Prevent overcrowding of land;
- f. Avoid undue concentration of population;
- g. Facilitate the adequate provision of transportation, water, sewer, schools, parks, and other public requirements-;
- h. Promote the character of areas of the city;
- i. Limit the uses in areas of the city that are particularly suitable for particular uses; and,
- j. Conserve the value of buildings and encourage the most appropriate use of land throughout the City.

1.3.4 In so implementing these Development Regulations, the City may, as needed, utilize policies in the comprehensive plan including but not limited to the Future Land Use Plan and corresponding provisions, as well as the design and construction standards approved by ordinance by the City Council.

Sec. 1.4 Jurisdiction

- 1.4.1** All development and use of land within the corporate limits of the City shall conform to the requirements of this Chapter unless specifically exempted herein or by law.
- 1.4.2** As authorized by Chapters 212 and 216 of the Texas Local Government Code, the City shall apply the applicable subdivision and sign regulations of this Chapter to the City's extraterritorial jurisdiction (ETJ).

Sec. 1.5 Rules of Construction

- 1.5.1 *General.*** In interpreting and applying the provisions of this Chapter, these provisions shall be held to be the minimum requirements necessary for the promotion of the public health, safety, convenience, comfort, prosperity and general welfare.
- 1.5.2 *Conflicting Provisions.*** No provision of this article is intended to, nor shall any part hereof be construed, modify, repeal or conflict with any other ordinance, rule, regulation or state or federal law. The requirements of this article are in addition to the requirements of any other ordinance, rule, regulation, or other provision of law, and where any provision of this article imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control. Prohibitions set out in state or federal law are also prohibited within the City. Compliance with state or federal law does not grant relief from complying with this UDC, unless preempted by state or federal law.
- 1.5.3 *Delegation of authority.*** Whenever a provision appears requiring the department head or some other officer or employee to do some act or perform some duty, the department head or other officer may designate, delegate, and authorize professional-level subordinates to perform the required act or duty, unless the terms of the provision or section specify otherwise.
- 1.5.4 *Authority to interpret.*** Unless otherwise specified in this section, the director shall have the authority to determine the meaning, applicability, and interpretation of any provision of this Chapter. Any person aggrieved, or any officer, department, board or commission of the city affected by an interpretation of the director may appeal the interpretation to the Board of Adjustment in accordance with Section 2.3.
- 1.5.5 *Text.*** Illustrations, figures, and captions are provided for purposes of describing, clarifying or presenting examples of the definitions in the text and do not replace or limit the meaning of the text. In case of any difference of meaning or implication between the text and any illustration, figure or caption, the text shall control.

1.5.6 Tense. Words used in the past or present tense include the future as well as the past or present, unless the context clearly indicates the contrary.

1.5.7 Number. Words used in the singular number include the plural and words used in the plural number include the singular, unless the context of the particular usage clearly indicates otherwise.

1.5.8 Words and Phrases. Nontechnical words and phrases shall be construed according to the common and approved usage of language. Technical words and phrases and such others as may have acquired a peculiar and appropriate meaning in law shall be construed and understood according to such meaning.

1.5.9 Shall, will, must, and may. The word "shall," "will" and "must" are mandatory implying an obligation or duty to comply with the particular provision. The word "may" is permissive.

1.5.10 Conjunctions. Unless the context clearly indicated the contrary, conjunctions shall be interpreted as follows:

- a. *And* indicates that all connected items, conditions, provisions, or events shall apply.
- b. *Or* indicates that one or more connected items, conditions, provisions, or events shall apply.
- c. *Either...or* indicates that the connected items, conditions, provisions, or events shall apply singularly but not in combination.

Sec. 1.6 Permanent Structure

Every business within the City must be operated out of a building, as defined in this Chapter except as otherwise provided by this Chapter. The building out of which the business operates must be located on a contiguous parcel of land to the business.

Sec. 1.7 Effective Date

The effective date of this Chapter shall be September 29, 2020.

Sec. 1.8 Vested Rights

1.8.1. The purpose of this section is to:

- a. Recognize that, in accordance with Chapter 245 of the Local Government Code of the State of Texas, an owner of real property may be accorded rights that allow development of a project pursuant to the rules and regulations as such rules existed on the date of first permit in a series of permits for the project;
- b. Define a methodology that establishes and protects such vested rights of owners of real property while also promoting the vision for the Community as established in the Comprehensive Plan and the current requirements applicable to development; and,
- c. Clarify the vested condition of projects approved and/or in progress to the August 10, 1999 adoption of zoning in League City.

1.8.2 This section shall apply to:

- a. Any instance in which a property owner submits an application in accordance with the requirements of this Chapter that is intended to result in approval, certification or similar action of one or a series of permits necessary for completion of a project, including preliminary plat, final plat, amended plat, minor plat, master site plan, site development plan, business registration, or permits for tree removal, building construction, grading or irrigation;
- b. Any instance in which a property owner acquires an approved development agreement from City Council; or,
- c. Any planned unit development (PUD) established by City Council prior to February 11, 2014.

1.8.3. This section shall not apply to:

- a. An application for a zoning change, except for a special use permit or planned unit development.
- b. Nothing contained within this Chapter shall limit the City's right to exempt a project or parts of a project or permit in accordance with Chapter 245 of the Local Government Code nor abridge the City's authority with respect to dormant projects as provided by Chapter 245 of the Local Government Code.
- c. Date of filing of an application as established by this Chapter shall serve as the date of filing exclusively for purposes of recognizing and maintaining vested rights.

1.8.4 A new project shall be considered to be vested if:

- a. A complete application if filed for a permit that is required to initiate, continue or complete a project;

- b. A property owner has acquired a development agreement from City Council.
- 1.8.5** An existing project shall be considered vested until it has become dormant or been allowed to expire in accordance with the requirements of this chapter.
- 1.8.6** A project that is vested shall remain vested until completion of the project or until the project becomes dormant or allowed to expire in accordance with the requirements of this chapter.
- 1.8.7** Vested rights are exclusively conveyed to the project for which permits have been granted
- 1.8.8** Vested rights shall not be considered to be associated with a specific parcel, owner or applicant.
- 1.8.9** If a project requires an amendment that impacts items for which the project has been vested or amendment requires a zoning change that will impact items for which the project has been vested, the project shall be considered a new project and shall become vested to the requirements in existence at the time of application for the most recent amendment.
- 1.8.10** Vested rights exist in projects approved and/or in progress prior to August 10, 1999 adoption of zoning in League City as follows:
- a. Vesting rights existing for all elements provided for under Chapter 245 of the Local Government Code for which documentation has been made available to the City.
 - b. Elements for which documentation is unavailable shall be governed by requirements established in the zoning ordinance as adopted August 10, 1999 with the exception that requirements specifically related to Planned Unit Development designations shall be in accordance with the zoning ordinance as amended January 9, 2001.
 - c. For active projects designated Planned Unit Development on the zoning map associated with the zoning ordinance adopted August 10, 1999 the concept plan utilized by the City in subsequent related proceedings shall be considered the concept plan for the project in place prior to August 10, 1999.
- 1.8.11** A project shall expire if:
- a. A successful application expires
 - b. No progress has been made within five years of the date that the first permit application for the project was filed; or
 - c. The last permit issued that vests a project expires after the fifth (5th) anniversary of the date that the first permit application of the project was filed and is, therefore, considered dormant.
- 1.8.12** Progress toward completion of the project shall include at least one of the following:

- a. A complete application for a final plat or plan is submitted;
- b. A good faith attempt is made to file a complete application for a permit necessary to begin or continue towards completion of the project;
- c. Costs have been incurred for developing the project including, without limitation, costs associated with roadway, utility, and other infrastructure facilities, designed to serve, in whole or in part, the project in the aggregate amount of five percent of the most recent appraised value of the real property on which the project is located, exclusive of land acquisition;
- d. Fiscal security is posted with the City to ensure performance of an obligation required by the City; or
- e. Utility connection fees or impact fees for the project have been paid to the City.

1.8.13 Thirty (30) days prior to declaration that a project is expired the city shall notify a property owner in writing of the impending expiration of the project along with options that will allow the project to continue, including:

- a. Indication of proof that progress has been made in accordance with standards established in Chapter 245 of the Local Government Code, or
- b. Request for a single, one-year extension to be approved by the City Council in order to establish progress in accordance with standards established in Chapter 245 of the Local Government Code. The request shall include information necessary to show that a one-year extension will allow the property owner to establish sufficient progress.

1.8.14 If a one-year extension is granted and a project remains unable to make sufficient progress, then the project shall expire at the end of the one-year extension.

1.8.15 An application shall be considered expired 45 days from the date at which the application was filed if:

- a. The applicant has failed to provide documents or other information necessary to comply with all technical requirements, form and content necessary to be considered a complete permit application;
- b. Within ten (10) business days of the date from which the application was filed, the City has provided written notice of the failure to provide specific documents or other information and delineated the date at which the application will expire if said information is not provided in the manner necessary to consider the application complete; and,
- c. The applicant fails to provide the specific documents or other information in the manner necessary to consider the application complete within the time provided in the written notice.

1.8.15 Unless otherwise specified, a permit that represents one or more of a series necessary to complete a project shall be considered expired on the second anniversary of the date of approval of the application, unless progress has been made toward completion of the project that is directly related to said permit.

Sec. 1.9 Relationship to Deed Restrictions

Public regulation of land is entirely separate from and independent of private deed restrictions. The City does not enforce private deed restrictions. Where there is a conflict between this Chapter and any private restrictions, the more restrictive provisions shall apply. The provisions of this Chapter are not intended to abrogate any deed restriction, covenant, easement or any other private agreement or restriction on the use of land. In addition, no weight shall be given to the effect of deed restrictions in construing this Chapter.

Sec. 1.10 Businesses Creating Nuisances

Any business that is a nuisance to the surrounding neighbors or endangers public health, safety or welfare shall not be operated.

Sec. 1.11 Transitional Provisions

1.11.1 *Nonconformances.* Any legally established use as of the effective date of this Chapter that is not permitted in the Table of Permitted Uses for the district in which it is located shall be considered a nonconforming use. Nonconforming use status may place significant restrictions on renovation, alteration, expansion or reconstruction of the use. Refer to Section 3.14.17.

1.11.2 *Building Permits.* Nothing in this Chapter shall require any change in the plans, construction or designated use of a building actually and lawfully under construction, or previously approved, on the date of passage of the ordinance from which this Chapter is derived, and a substantial part of which has been completed as determined by the Building Official within one (1) year from the effective date of this Chapter. Where excavation or demolition or removal of an existing building has been substantially begun preparatory to rebuilding, such excavation or demolition or removal shall be deemed to be actual construction, provided that work shall be completed in conformance with the Building Code.

1.11.3 *Approved Site Development Plans.* This Chapter shall require a change to a site development plan approved prior to the adoption of this chapter provided a building permit is issued within 60 days of the effective date of this Chapter and construction starts consistent with the terms and conditions of the building permit and proceeds to completion in a timely manner.

1.11.4 *Approved Concept Plans.* Nothing in this Chapter shall require a change to a concept plan for a Planned Unit Development, approved prior to the adoption of this Chapter. Any additional approval required to implement a concept plan for which application is made after the effective date of this chapter shall follow the requirements in effect at the time of application for such additional approval. Refer to Section 3.10 PUD Planned Unit Development Overlay District.

Sec. 1.12 Severability

If any section, subsection, sentence, clause, or phrase of this Chapter is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this Chapter. City Council hereby declares that it would have passed this Ordinance, and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional.

CHAPTER 125: Article 2. Administration, Applications, and Procedures

Sections:

§ 2.1 City Planner

§ 2.2 Building Official

§ 2.3 Board of Adjustment

§ 2.4 Historic Commission

§ 2.5 Planning and Zoning Commission

§ 2.6 City Council

§ 2.7 Remedies and Enforcement Powers

§ 2.8 Applications and Procedures

§ 2.9 Written Interpretation

§ 2.10 Building Permit

§ 2.11 Commercial and Industrial Operations

§ 2.12 Flood Damage Prevention

§ 2.13 Site Development Plan Review

§ 2.14 Variance

§ 2.15 Text or Map Amendment (Rezoning)

§ 2.16 Special Use Permits

Sec. 2.1 City Planner

2.1.1 *Designation.* The City Administrator shall designate the City Planner to whom reference is made throughout this ordinance.

2.1.2 *Delegation.* Where this ordinance assigns a responsibility, power, or duty to the City Planner, the City Planner may delegate that responsibility, power, or duty to any other agent or employee of the City.

2.1.3 *Appointment of Interim*, In the event the position of City Planner is unfilled for a

period of more than 15 days, the City Administrator shall appoint an Interim City Planner, who shall temporarily assume the responsibilities specified in this ordinance until a new City Planner is appointed.

2.1.4 *Powers and Responsibilities*. The City Planner or designee shall perform the duties and possess the powers as follows:

- a. Make written administrative interpretations of this ordinance; and
- b. Review and make recommendations on site development plans, rezoning, text amendments, planned unit developments, special use permits and variances.
- c. Performs the duties as necessary and appropriate to uphold the provisions of the ordinance.

2.1.5 *Limited Nonconformance Approval*. The City Planner is authorized to approve building permit applications, including a site plans associated therewith, that while do not exactly conform with all applicable provisions of this Chapter do substantially comply to the regulations, provided that all of the following criteria are met:

- a. The nonconformance is minor and is not contrary to the public interest nor the spirit of Chapter 125;
- b. The nonconformance results from an inability to strictly comply which could not have been reasonably foreseen prior to the design of the project and submittal to the City of a building permit application;
- c. Allowing the nonconformance would facilitate the meeting of an enhanced standard found in another provision of the Development Regulations, resulting in an otherwise superior project;
- d. The nonconformance is not related to: (1) a required building setback of five (5) feet or less; or (2) modifying or encroaching upon an easement unless written consent is obtained from all holders of interest therein;
- e. The nonconformance is not of a magnitude that would require a variance to allow under this Chapter; and
- f. The City Planner consults with the Executive Director of Development Services and the City Engineer before approving any applications authorized by this subsection.
- g. Any nonconformance in a building permit that is approved pursuant to this section shall be considered site specific and such approval shall have no precedential value in the consideration of other building permit applications."

2.1.6 *Appeal of Administrative.* Appeal from any administrative decision of the City Planner or designee shall follow the procedures established in Section 2.3.5

Sec. 2.2 Building Official

- 2.2.1 Designation.** The City Administrator shall designate the Building Official for the City who shall be the Building Official to whom reference is made throughout this chapter.
- 2.2.2 Delegation.** Where this ordinance assigns a responsibility, power, or duty to the Building Official, the Building Official may delegate that responsibility, power or duty to any other agent or employee of the City.
- 2.2.3 Powers and Duties.** The Building Official shall perform the duties and possess the powers set forth in this chapter, including the authority to issue building permits, certificates of occupancy, and sign permits.
- 2.2.4 Appeal.** Appeal from any administrative decision of the Building Official shall follow the procedures established in Section 2.3.

Sec. 2.3 Board of Adjustment

- 2.3.1** The Board of Adjustment is authorized in appropriate cases and subject to appropriate conditions and safeguards, to make variances to the terms of the Zoning regulations that are consistent with the general purpose and intent of this chapter and in accordance with any applicable rules contained in this chapter.
- 2.3.2 Membership.** The Board of Adjustment must consist of at least five (5) members to be appointed for terms of two (2) years. In addition, two (2) alternate members of the board shall be appointed for 2-year terms. Such alternate board member(s) shall have authority to participate in any meeting when the attendance of such alternates(s) is required to obtain a quorum for the conduct of business of the board.
- 2.3.3 Appointment.** The City Council must provide the procedure for appointment. The City Council may authorize each member of the Council, including the mayor, to appoint one member to the Board.
- a. The City Council may remove a Board member for cause, as found by the Council, on a written charge after a public hearing. A vacancy on the board shall be filled for the unexpired term.
 - b. The City Council may provide for the appointment of alternate Board members to serve in the absence of one or more regular members when requested to do so by the mayor or City Administrator. An alternate member serves for the same period as a regular member and is subject to removal in the same manner as a regular member. A vacancy among the alternate members is filled in the same manner as a vacancy among the regular members.
- 2.3.4 Quorum.** Each case before the board of Adjustment must be heard by at least 75 percent of the members.

2.3.5 Meetings. The Board shall comply with the following:

- a. The Board by majority vote may adopt its own bylaws and shall,
- b. Meetings of the Board shall comply with the provisions of Chapter 551 of the Texas Local Government Act (The Open Meetings Act) and Chapter 552 of the Texas Local Government Act (The Public Information Act).
- c. Chapter 171 of the Texas Local Government Code shall govern the regulation of conflicts of interest of any member of the Board.
- d. Except for public hearings, no member of the public shall speak at a Board meeting unless invited to do so by the Board.
- e. The Board shall keep minutes of its proceedings that indicate the vote of each member on each question or the fact that a member is absent or fails to vote. The Board shall keep records of its examinations and other official actions. The minutes and records shall be filed immediately in the Board's office and are public records.

2.3.6 Authority of the Board. The Board of Adjustment may:

- a. Hear and decide an appeal that alleges error in an order, requirement, decision, or determination made by an administrative official in the enforcement of the Zoning regulations;
- b. Hear and decide variances to the terms of the Zoning regulations when the Ordinance requires the Board to do so;
- c. Authorize in specific cases a variance from the terms of the Zoning regulations if the variance is not contrary to the public interest and, due to special conditions, a literal enforcement of the Ordinance would result in unnecessary hardship, and so that the spirit this Chapter is observed and substantial justice is done; and
- d. Hear and decide other matters authorized by City Council.

2.3.7 Decisions by the Board.

- a. In exercising its authority, the Board may reverse or affirm, in whole or in part, or modify the administrative official's order, requirement, decision, or determination from which an appeal is taken and make the correct order, requirement, decision, or determination, and for that purpose the Board has the same authority as the administrative official.
- b. The concurring vote of 75 percent of the members of the board is necessary to:
 - 1. Reverse an order, requirement, decision, or determination of an administrative official;
 - 2. Decide in favor of an applicant on a matter on which the Board is required to pass under the Zoning regulations; or

3. Authorize a variation from the terms of the Zoning regulations.

2.3.8 Appeal to Board of Adjustment.

- a. Any of the following persons may appeal to the Board of Adjustment a decision made by an administrative official:
 1. Person aggrieved by the decision which is defined to mean a person who provides some showing that he or she has suffered some unique harm or damage that is different from the harm or damage, if any, suffered by other members of the general public; or
 2. Any officer, department, board, or commission of the City affected by the decision.
- b. The appellant must file with the board and the official from whom the appeal is taken a notice of appeal specifying the grounds for the appeal. In order to appeal a decision by an administrative official, the appellant must submit the application, fee and all relevant documents to the Planning Department within 10 days of the administrative official's action. On receiving the notice, the official from whom the appeal is taken shall immediately transmit to the Board all the papers constituting the record of the action that is appealed.
- c. An appeal stays all proceedings in furtherance of the action that is appealed unless the official from whom the appeal is taken certifies in writing to the Board facts supporting the official's opinion that a stay would cause imminent peril to life or property. In that case, the proceedings may be stayed only by a restraining order granted by the board or a court of record on application, after notice to the official, if due cause is shown.
- d. The Board shall set a reasonable time for the appeal hearing and shall give public notice of the hearing and due notice to the parties in interest. A party may appear at the appeal hearing in person or by agent or attorney. The Board shall decide the appeal within a reasonable time.
- e. Rulings on appeals to the Board of Adjustment are not intended to serve as precedent for any subsequent interpretations which shall be made on a case-by-case basis.

2.3.9 Limitation on Reconsideration. When the Board of Adjustment issues a decision on an appeal, a variance application or on any other matter the Board is authorized to hear, the Board may not reconsider such matter for a period of 12 months of the date of the Board's action unless the Board has denied the requested action without prejudice; provided, however, on receipt of written request by the original appellant describing substantially changed conditions in the community since prior consideration of the proposal so as to justify an earlier review of the matter, the Board may waive the 12-month delay period and authorize the reconsideration of the matter.

2.3.10 Appeal from the Decisions by the Board of Adjustment. An appeal of a decision by the

Board of Adjustment must be filed with a court of competent jurisdiction within 10 days after the decision is filed in the Board office.

Sec. 2.4 Historic Commission

2.4.1 The Historic Commission, originally created by Ordinance 97-38, is continued and confirmed, subject to this Ordinance.

2.4.2 *Membership.* The Historic Commission has seven regular members and one architectural advisory member. Appointments, terms of office, administrative provisions, etc. are prescribed by Chapter 2, Article VIII of the City Code of Ordinances. To be considered for appointment, a person must demonstrate an established interest in historical preservation, by residence, investment, education, training, study or vocation. In addition, the following criteria shall be taken into account for appointments:

- a. membership in the League City Historical Society;
- b. residence in an Historic Conservation Overlay District;
- c. ownership of property in an Historic Conservation Historic District;
- d. knowledge and experience of architectural, cultural, social, economic, ethnic, and political history of the City; and
- e. for the architectural advisory member, relevant professional credentials and experience in historic preservation.

2.4.3 *Quorum.* A quorum is a majority of the regular members appointed and qualified (excluding vacant positions), but never fewer than three. When a quorum is present, a simple majority of the regular members present may act on behalf of the Commission.

2.4.4 *Designation of Officers.* The Commission shall designate a presiding officer and a vice presiding officer from among its regular members.

- a. The Commission may:
 1. designate other officers, including acting officers;
 2. designate special advisors to the Commission, and
 3. remove or replace any of its designees at any time.
- b. Unless sooner removed or replaced, a designee serves until the end of the designee's term of office as a member of the Commission (and thereafter until a successor is designated).

2.4.5 *Meetings.* The Commission shall schedule one regular meeting per month. The presiding officer, or a majority of the regular members appointed and qualified (excluding vacant positions), may call special meetings or cancel or re-schedule any meeting. The

Commission shall:

- a. adopt rules for the conduct of its meetings and other business;
- b. keep minutes of its meetings, and
- c. file copies of its minutes with the City Secretary and the Texas Historical Commission (for the Commission's certified local government file).

2.4.5 Powers and Duties. of The Historic Commission shall perform the duties and possess the powers as set forth in this Ordinance, including issuance of certificates of appropriateness (refer to Section 3.12 Historic Overlay District of this Ordinance). The Commission shall also:

- a. familiarize itself with buildings, structures, sites, districts, areas and lands within the City;
- b. make recommendations regarding Historic Conservation Overlay Districts, including designation, changes and regulations;
- c. recommend private and public action for historic preservation and restoration, including not only expenditures but also incentives such as waiving or abating fees, charges or taxes or freezing tax values;
- d. submit preservation plans and other material for inclusion in the City comprehensive plans;
- e. annually review preservation plans and the state of development and preservation in Historic Conservation Overlay District and report the results to the City Council and the Texas Historical Commission;
- f. in appropriate cases, including cases of undue hardship, recommend variances and changes in preservation regulations to City officers and agencies.

2.4.6 Historic Preservation Officer. The City Administrator shall appoint a qualified city official or staff person to serve as historic preservation officer for the City. The historic preservation officer shall:

- a. administer the city's historic preservation ordinances;
- b. advise the Historic Commission;
- c. coordinate the city's preservation historic activities with those of state and federal agencies (including the Texas Historical Commission and the National Park Service) and with local, state and national non-profit historic preservation organizations; and
- d. make historic preservation regulations available to owners and other affected persons.

Sec. 2.5 Planning and Zoning Commission

2.5.1 Creation. A League City Planning and Zoning Commission (the Commission) is hereby created with authority as established in Sec. 211.007, Texas Local Government Code.

2.5.2 Members and Quorum. Members of the League City Planning and Zoning Commission as of the effective date of this Ordinance shall be reappointed and reaffirmed as members of the Commission. The Commission shall operate using the bylaws adopted by the Commission and approved by City Council, and shall for parliamentary procedures purposes, be governed by Robert's Rules of Order.

2.5.3 Powers and Duties. The Commission shall perform the duties and possess the powers as set forth in this Chapter, including recommendations to City Council for final action on rezoning, text amendments, and major development applications. At the discretion of the City Council, the Commission shall also have the duty and responsibility to:

- a. Perform and carry out the duties as prescribed in this section relative to the Commission.
- b. Hear testimony on behalf of the applicants and consider the facts, findings, and recommendation of the City Planner or designee.
- c. Identify the appropriateness of requested rezoning issues and text amendments considering conformance with adopted zoning regulations, official zoning map, and comprehensive plan.
- d. Interpret zoning district boundaries in cases of conflict or question.
- e. Make determinations as to the appropriate zoning district for new and unlisted uses.
- f. Make recommendations to the City Council, in the form of a "Final Report", related to approval or denial of an application in addition to stating the reasons for such approval or denial.
- g. Maintain compliance with Chapter 551, Open Meetings Act, of the Texas Local Government Code, as may be amended from time to time.
- h. Make, amend, extend, and add to the master plan for the physical development of the City.
- i. Perform other such duties and be vested with such powers as the City Council shall from time to time prescribe.

2.5.4 Appeals. Any party aggrieved by the actions of the Commission may appeal such action to the City Council as per City policy.

Sec. 2.6 City Council

2.6.1 Powers and Duties. City Council shall perform the duties and possess the powers as set forth in this Ordinance and in accordance with the Texas Local Government Code, including final action on rezoning, text amendments, and major development applications.

2.6.2 Appeal. Any party aggrieved by City Council's actions may appeal such action to the court of record.

Sec. 2.7 Remedies and Enforcement Powers

2.7.1 Violations. Any person violating any provision of this ordinance or failing to comply with any requirement of this chapter will be guilty of a misdemeanor and subject to a fine not to exceed the maximum allowed by law. Each day during or upon which such person shall violate or continue to violate any provision of this ordinance or shall fail to comply with any requirement of this ordinance shall constitute a distinct and separate offense. The violation of any provision of this ordinance or failure to comply with any requirements of this ordinance shall each constitute a distinct and separate offense. In particular, it is unlawful for any person:

- a. To make use of any premises for a purpose other than what is permitted in the zoning district in which the premises is located.
- b. To erect, construct, convert, enlarge, reconstruct, repair, structurally alter, maintain or any use any building or structure for a purpose other than what is permitted in the zoning district where the building or structure is located, subject to the provisions of nonconformities.
- c. To construct or locate more than 1 single family detached dwelling or more than 1 two-family dwelling on 1 platted lot.
- d. That owns, occupies, or controls any premises containing a dwelling unit to knowingly cause or allow the dwelling unit to be permanently occupied by more than 1 family at any one time. For purposes of this provision a family is permanently occupying the premises if it continuously occupies the dwelling unit for more than 30 days.

2.7.2 Enforcement. If a building or other structure is erected, constructed, reconstructed, altered, repaired, converted, or maintained or if a building, other structure or land is used in violation of this Ordinance, the City may institute appropriate action to:

Prevent unlawful erection, construction, reconstruction, alteration, repair, conversion, maintenance or use;

- a. Restrain, correct, or abate the violation;

- b. Prevent the occupancy of the building, structure, or land; or
- c. Prevent any illegal act, conduct business, or use on or about the premises.

Sec. 2.8 Applications and Procedures

2.8.1 Pre-application Meeting. Prior to the submission of an application required by this ordinance a prospective applicant may request a review by the City Planner or designee and representatives from other City departments, as appropriate, to discuss procedures, standards, or regulations required by this ordinance. A pre-application meeting is required for major development applications including subdivisions, and Planned Unit Developments. Upon receipt of such request, the City Planner or designee, or Building Official, as appropriate, shall afford the potential applicant an opportunity for such a pre-application meeting at the earliest reasonable time.

There is no fee associated with a request for a pre-application meeting; however, additional requests for a pre-application meeting for the same site within a period of 1-year from the date of the initial meeting may incur a fee associated with any City costs to do so.

2.8.2 Application Forms and Fees. The following regulations shall apply to all applications.

- a. **Forms.** Applications shall be submitted on forms and in such numbers as required by the City.
- b. **Primary Contact.** For all applications, a single agent shall be identified for all official communications with the City. The agent may be either the applicant / property owner or a representative of the applicant / property owner. If a contact is not specified, the applicant shall be considered the primary contact.
- c. **Fees.** Filing fees shall be established from time to time by the City Administrator to defray the actual cost of processing the application.

2.8.3 Review of Plans. All development is subject to development review in accordance with this section.

Sec. 2.9 Written Interpretations

2.9.1 Authority. The City Planner or designee shall have authority to make written interpretations of this chapter.

2.9.2 Request for Interpretation. A written request for interpretation shall be submitted to the

City Planner or designee.

2.9.3 Interpretation by the City Planner. The City Planner or designee shall take the following steps:

- a. Review and evaluate the request in light of the text of this ordinance, the Official Zoning Map and any other relevant information;
- b. Consult with other staff, as necessary; and
- c. Render an opinion.
- d. The interpretation shall be provided to the applicant in writing.

2.9.4 Official Record. The City Planner or designee shall maintain an official record of interpretations which shall be available for public inspection during normal business hours.

2.9.5 Appeals. Appeal from any administrative decision of the City Planner or designee shall follow the procedures established in Section 2.3.

Sec. 2.10 Building Permit

2.10.1 Creation of Building Site. No permit for the construction of a building upon any tract or plot shall be issued until a building site or lot has been created by compliance with the following conditions:

- a. The lot or tract is part of a plat of record, properly approved and recorded in accordance with state law, City ordinances and other applicable laws and regulations.
- b. All utility and drainage easements, alleys, streets and other public improvements necessary to meet the normal requirements for platting shall be provided, including the designation of building areas and easements, alleys and streets that have been properly dedicated, and the necessary public improvements.

2.10.2 Permit for Construction.

- a. No permit for the erection, alteration, reconstruction, conversion or use of any building shall be issued by the Building Official without the applicant submitting a plan, drawn to scale, correctly showing the location and actual dimensions of such building and accessory buildings, with measurements from all lot lines to all foundation lines of buildings.
- b. In addition, the applicant shall provide a true statement, signed by the applicant, showing the use and occupancy for which such buildings are intended.

- c. No permit shall be issued by the Building Official unless such plan shall show in every detail that such building is to be erected and used in conformity with all the provisions of this Article.
- d. A record of such application and plans shall be kept in the office of the Building Official. An approved set of building plans, including a site plan, shall remain on the job site at all times and shall be available to the inspector upon his or her request. Failure of any applicant or of his agents or employees to erect, alter, move or maintain any buildings in conformance with such plans on which such permit is issued, shall render such permit void. The Building Official is hereby authorized and directed to revoke any such permit by giving written notice to the applicant or his agents or employees, and all work upon such building shall be immediately discontinued on the serving of such notice until such buildings shall be changed so as to comply with such plans and permits.

2.10.3 Referral to Other City Planner. If any of the following conditions apply, the Building Department shall refer the applicant to the City Planner or designee for review of the project by the City staff:

- a. The value of the building is increased more than 50 percent;
- b. The footprint of the building is changed;
- c. The usable square footage increases by 10 percent or more;
- d. The use changes from a commercial, industrial, residential or public service category to another category;
- e. The alteration, reconstruction, or conversion impacts traffic, drainage, utilities, or parking as determined by City staff.

Sec. 2.11 Commercial and Industrial Business Registration

All commercial and industrial development shall be required to obtain a Business Registration in accordance with Chapter 26, Article V.

Sec. 2.12 Flood Damage Prevention Permit

All development in areas of special flood hazard shall be required to obtain a development permit in accordance with Chapter 50, Article II, Division 2.

Sec. 2.13 Site Development Plan Review

2.13.1 Master Development Plan. A master development plan must be provided for all

business and commercial projects to be developed in phases or sections.

a. *Filing Procedures.*

1. The master plan shall be approved by the Planning and Zoning Commission in concept only. This master plan shall be submitted and approved prior to or with the first section of development of the site and shall accompany submission of all sections thereafter. All properties within a single site must be contiguous and immediately adjacent to one another or be the subject of additional development plans and filing fees.
2. One reproducible polyester film of the signed master development plan will be filed with the City Planner or designee and shall remain on file for the use of any person who may be interested in the plan.

b. *Graphic Requirements.* The master plan shall include the following graphic requirements:

1. Plans shall be standard sheet size, 24 inches by 36 inches in overall dimensions.
2. An overall map of the total property showing blocks, reserves, street layout, etc., shall be included.
3. A storm water drainage overlay or plan view with existing topographic contours, areas to be filled, if any, and drainage areas, including major drainage ways, outlined shall be included.
4. A wastewater overlay or plan view shall be included.
5. A water main overlay or plan view shall be included.
6. Locations of any known geological fault lines shall be indicated in plan view or in a geological report from a professional engineer.
7. Original boundary and topographic data must be certified by a registered public surveyor. Also, any area to be filled must be shown, with appropriate proposed elevations.
8. A description of all proposed land uses with approximate acreage devoted to each type of use.
9. A general development plan showing the approximate location of buildings, parking lots, building heights and setbacks from all property boundaries.
10. A description of the maximum densities for residential uses and the maximum floor area for nonresidential uses.
11. A description of significant environmental features including watercourses and flood plains.

12. Show all areas devoted to open space on a general landscape plan.

13. Lighting plan

c. *Changes to Master Development Plans.* The City Planner or designee may approve changes to the master development plans that are not substantial or significant. Changes that are found to be substantial and significant would require approval of the Planning and Zoning Commission. Substantial or significant changes would include:

1. Increases the density and/or intensity of residential uses of more than five percent;
2. Increases in total floor area of all nonresidential buildings covered by the plan of more than five percent;
3. Increases of floor area for any one nonresidential building covered by the plan of more than five percent;
4. Increases of lot coverage of more than five percent;
5. Increases in the height of any building of more than ten percent;
6. Changes in ownership patterns or stages of construction that will lead to a different development concept.
7. Decreases of any peripheral setback of more than ten percent;
8. Decreases of area devoted to open space of more than five percent or the substantial location of such areas; or,
9. Changes to traffic circulation patterns that will affect traffic outside of the project boundaries.

2.13.2 Site Development Plan. A site development plan must be provided for all new business and commercial development and all existing commercial development where significant alterations are planned. The site development plan shall consist of a graphic and informative description of a specific design for a development meeting the requirements as listed in the Development Handbook. The site development plan shall be prepared with careful regard to the location of the parking facilities in relation to adjoining and neighborhood commercial, industrial, multifamily and other residential improvements, and all shall be devised to have the least adverse effects on such adjoining or neighboring properties. The development plan shall be submitted as part of the building permit application.

a. *Procedures.*

1. At the discretion of the City Planner or designee, the applicant shall provide an introductory presentation of the proposed project to the Planning and Zoning Commission. No formal action to finally approve or disapprove the proposed project will take place at the introductory meeting.

2. To the extent practical, the Building Official or designee will provide written comments to the applicant within 15 working days of official receipt of the site development plan.
3. When the work provided for in the approved plans and specifications has been satisfactorily completed, reproducible as-built plans shall be submitted by the applicant prior to occupancy approval to replace the approved plans that are on file at the engineering office. These plans shall be labeled "as built" and certified and dated by a Registered Professional Land Surveyor or Registered Professional Engineer.
4. Submitted prints and drawings are not returnable to the applicant.

b. Graphic Requirements.

1. Plans shall be standard sheet size, 24 inches by 36 inches in overall dimensions.
2. Location and length of boundary lines shall be shown. A heavy-lined plan perimeter shall be shown, which will be the result of an accurate boundary survey of the property by a Registered Professional Land Surveyor, with bearings and distances referenced to section/original survey comers, and showing the lines of adjacent lands and lines of adjacent streets and their names and widths (dashed lines). The correct geographic legal description of the property, including metes and bounds description, if necessary, shall be included on the face of the plan.
3. An inset map showing orientation of the area being developed in relation to adjacent areas and principal streets shall be included.
4. The proposed name of the commercial establishment shall be indicated.
5. The location, right-of-way width, driving surface width and names of existing and proposed streets within the development and immediately adjacent to it, and the proposed method of street surfacing, shall be indicated. The width of street paving, measured at right angles, or radially when curved, shall be indicated. Street design dimensions or references to the minimum standards for tangents, arcs, radii, etc., shall be indicated.
6. The alignment of proposed streets with existing City streets shall be shown. Depending upon the location and design of the development, the Planning and Zoning Commission may require that one or more streets be designated arterials, and that stub-outs for arterial streets be platted to provide for ingress and egress to present or future developments.
7. The appropriate width, depth and location of all existing or proposed building sites or facilities shall be indicated.
8. The location of building setback lines shall be indicated.

9. The name, location, width and purpose of all existing and proposed easements shall be indicated.
10. Existing and proposed utilities on and adjacent to the site shall be indicated. Sizes of existing utilities, and the location of proposed junctions with the existing system, shall be shown.
11. The north point, scale and date (month and year) shall be indicated.
12. The scale shall be a maximum of 100 feet to the inch.
13. Names of owners of adjacent property, names of streets, watercourses, pipelines and easements up to a distance of 200 feet shall be indicated.
14. One-foot elevation contours extending to 25 feet beyond the development boundary, based upon the latest United States Coast and Geodetic Survey shall be shown. A topographic map not more than 18 months old, prepared by a Registered Professional Land Surveyor, shall be included. Additionally, the location and elevation of the highest and lowest points within the development will be shown. A statement shall be included on the face of the plat that the property does or does not lie within the defined 100-year floodplain. Location of the 100-year floodplain boundary contour, floodway contour and Federal Emergency Management Agency flood zone shall be indicated on the face of the plat when such contour or zone divides the development area.
15. Land adjacent to the development in which any party to the development has a legal or financial interest shall be shown.
16. Location of fire hydrants, proposed and existing storm drainage system, security lighting and streetlights, and type of poles, shall be shown.
17. The location and identification of lots, streets, public highways, sidewalks, alleys, parks and other features, with accurate dimensions, in feet and decimals of feet, with the length of radii, tangents and arcs to all curves, and with all other information necessary to reproduce the development on the ground, will be set out within the perimeter lines.
18. City-approved numbering is to be added to all lots or units, preferably by an overlay document.
19. Traverse lines along streams and easements shall be shown adjacent to the high bank of streams and waterways.
20. A parking and housing unit table shall be included if applicable.
21. Itemized landscaping and screening plans shall be included.

2.13.3 Delegation of Approval Responsibility. Following City staff review and resolution of their written comments, properly filed site development plans may be approved by the

City Engineer or designee. The Planning Manager or designee may, for any reason, elect to present the site development plans to the Planning and Zoning Commission for their action.

2.13.4 Processing Fees

- a. **Plan Review Fees.** Fees shall be established by resolution as approved by the City Council. The fees shall be payable to the City and shall be presented at the time the building permit application is submitted to the Building Department for staff review. Fees are not refundable.
- b. **Fees based on Actual Costs.** The City reserves the right to assess fees based upon actual cost incurred by the City for multiple iteration of reviews of construction plans and specifications, and for the review of offsite plans of infrastructure improvements needed to service the development. Fees charged shall be based on rates posted and made available by the Planning Department for inspection by the applicant.
- c. **Capital Recovery Fees.** Capital recovery fees (CRF) established by the City Council must be paid before the issuance of any building permit.

Sec. 2.14 Variance

2.14.1 General. The Zoning Board of Adjustment (the Board) is authorized to permit variances from the regulations of the Zoning regulations in accordance with Section 2.3 of this chapter. The Board shall have the authority to grant upon such terms and conditions as it deems necessary.

2.14.2 Applicant Responsibility. Variance requests for all sections of the Zoning regulations are the responsibility of the applicant. Approval of a site development plan that deviates from the requirements of the Zoning regulations shall be void unless a variance has been specifically requested and approved in accordance with this ordinance

2.14.3 Difficulties or Hardships. When an applicant shows that a provision of the regulations would cause practical difficulties, unnecessary hardship, or results are inconsistent with the general purpose of this ordinance if strictly adhered to, and a departure may be made without destroying the intent of the regulations, the Board may, at its sole discretion, authorize a variance that would be in harmony with the general purpose and intent of this ordinance. Such departure shall not be construed to be a change in this ordinance. However, the spirit of this ordinance shall be observed, public safety and welfare secured, and substantial justice done as follows:

- a. Permit such modification of the height area and yard requirements as may be necessary to secure an appropriate improvement on a lot;
- b. Permit the addition or enlargement of a non-conforming building, provided that such work complies with all height and area regulations of the zone in which it is located, and that the total aggregate floor area of such work does not exceed 50 percent of the floor area of the non-conforming building;

- c. Permit the extension of an existing or proposed conforming use into an adjoining more restricted zone;
- d. Permit the modification of the conditions under which specific uses are allowed in certain zones;
- e. Permit the modification of the automobile parking or loading requirements where, in the particular instance, such modification will not be inconsistent with the purpose and intent of this ordinance; and
- f. Permit the repair of an existing non-conforming building as long as the value of the repairs do not exceed 50 percent of the appraised tax value.

2.14.4 *Criteria for Approval.* The following adjustments must be present for the Board to grant a variance:

- a. Such variance will not be contrary to public interest.
- b. Such variance will not authorize the operation of a use other than those uses specifically authorized for the district in which the property for which the variance is sought is located.
- c. Such variance will not substantially or permanently injure the appropriate use of adjacent conforming property in the same district.
- d. Such variance will not alter the essential character of the district in which it is located or the property for which the variance is sought.
- e. Such variance will be in harmony with the spirit and purposes of this ordinance.
- f. The plight of the owner of the property for which the variance is sought is due to unique circumstances existing on the property, and the unique circumstances were not created by the owner of the property and are not merely financial, and are not due to, or the result of, general conditions in the district in which the property is located.
- g. The variance will not substantially weaken the general purposes of this ordinance or the regulations herein established for the specific district.
- h. The variance will not adversely affect the health, safety, and welfare of the public.

2.14.5 *Application Required.* An application for a variance from the regulations of this ordinance shall be filed with the Planning Department's established rules of procedure. An application may be filed by owner of the property or an authorized agent, or by the City Planner or designee.

2.14.6 *Fee Required.* The appropriate filing fee shall accompany every application. No fee shall be charged for requests filed by the City Planner or designee.

2.14.7 Notice. After receiving a proper application, the City Planner or designee will schedule a public hearing on the variance before the Board. Such notices shall be given in the same manner notice is given for a rezoning application.

Sec. 2.15 Text or Map Amendment (Rezoning)

2.15.1 Application Required. Any proposal to amend, supplement or change the regulations or restrictions of this ordinance, or the boundaries of the zoning districts, shall be filed with the City. An application as provided and instructed by the City shall be filed by the owner of property or his authorized agent, or by the City Planner or designee. All applications shall include such submittal requirements as a statement of the reason(s) why the amendment (rezoning) is being requested, the legal description of the property including a copy of a plat or a survey, and other information or documentation necessary to process the application as required by the City Planner or designee, Planning and Zoning Commission, or the City Council.

2.15.2 Fee Required. Applications shall be accompanied by the appropriate filing fee. No fee shall be charged for proposals filed by the City Planner or designee.

2.15.3 Notice. The City Council may from time to time amend, supplement or change, by ordinance, the regulations, restrictions or boundaries of such districts herein or subsequently established. A public hearing shall be held by the City Council before adopting any proposed amendment, supplement or change.

- a. **Property owner or designated representative.** The property owner or designated representative shall meet with the property owners of real property lying within 200 feet of the boundaries of the property upon which the use is proposed prior to submittal of the application. The meeting announcement shall be delivered via U.S. mail. The city may provide the list of property owners as identified on the most recently approved municipal tax roll upon request. Documentation of the meeting in the form of a copy of the meeting announcement, the list of notified property owners and a list of the signatures from meeting attendants shall accompany the application. The meeting shall be held within five miles of the boundaries of the City of League City limits.
- b. **City.** Written notice of all public hearings before the Planning and Zoning Commission and City Council on proposed changes in zoning classification shall be sent to owners of real property lying within 200 feet of the property upon which the change in classification is proposed. Notice to be given 15 days before the date set for hearing to all such owners who appear on the last approved City Tax Roll. Such notice may be served by depositing the notice, properly addressed and postage paid, in the United States Mail. When property lying within 200 feet of the property proposed to be changed is located in territory which was annexed to the City after the final date for making the renditions which are not less than included on the last approved City Tax Roll, at least 15 days notice of the time and place of the public hearing shall be published in an official newspaper or a paper of general circulation in the City.



2.15.4 Posted Notice (Signs). The City Planner or designee shall direct the erection of at least 1 sign upon each property proposed to be rezoned. Where possible, such sign or signs shall be located in a conspicuous place or places upon such property at a point or points nearest any right-of-way, street, roadway or public thoroughfare adjacent to such property. The City shall be responsible for making, installing and removing such signs, the costs for which shall be included as part of the fees the City assesses to applicants for rezoning requests.

- a. Such sign or signs shall be so erected not less than 15 days before the date set for public hearing before the Planning and Zoning Commission. Any such sign or signs shall be removed subsequent to the occurrence of either final action by the City Council or withdrawal of the application for amendment.
- b. Such sign or signs shall substantially indicate that a zoning amendment is proposed and shall further set forth that additional information can be acquired by telephoning the number indicated thereon.
- c. Such erection and/or the continued maintenance of any such sign or signs shall not be deemed a condition precedent to the holding of any public hearing, to the recommendation concerning or adoption of any proposed zoning amendment or to any other official action concerning any such amendment.

2.15.5 Published Notice. Notice of a public hearing before the City Council shall be given by publication one time in the official newspaper or a paper of general circulation in the municipality at least 15 days before the time of the hearing.

2.15.6. Criteria for Considering Text or Map Amendments (Rezoning). The Planning and Zoning Commission shall use, but not be limited to, the following criteria as reference in support of their recommendation for approval or denial:

- a. Conformance of the proposed zoning and use with the City's Comprehensive Plan and other City policies;
- b. The character of the surrounding area;
- c. The zoning and use of nearby properties, and the extent to which the proposed zoning and use would be compatible;
- d. The suitability of the property for the uses permitted by right in the proposed zoning district;
- e. The extent to which approval of the application would detrimentally affect nearby properties;
- f. The extent to which the proposed use would adversely affect the capacity or safety of that portion of the street network or present parking problems in the vicinity of the property;
- g. The extent to which approval of the application would harm the value of nearby

properties;

- h.** The gain to public health, safety, and welfare due to denial of the application as compared to the hardship imposed upon the owner as a result of denial of the application; and
- i.** That there are exceptional circumstances or conditions applicable to the property involved or to the intended use or development of the property that do not apply generally to other property in the same zone or neighborhood.

2.15.7 *Planning and Zoning Commission Hearing and Recommendation.* The Planning and Zoning Commission shall hold public hearings on all properly filed proposals. After closing of the public hearing on a proposal, the Planning and Zoning Commission shall transmit to the City Council its recommendation on said proposal.

2.15.8 *City Council Hearing and Action.*

- a. *Proposal Recommended for Approval.*** Every proposal to amend a zoning boundary which is recommended favorably by the Planning and Zoning Commission and every proposed amendment to the regulations of this ordinance shall be forwarded to the City Council for setting and holding of a public hearing thereon. No change, however, shall become effective until after the adoption of an ordinance for same and its publication as required by law.
- b. *Proposal Recommended for Denial.*** When the Planning and Zoning Commission determines that a proposal to amend a zoning boundary should be denied, it shall so report to the City Council. After receiving the final report from the Planning and Zoning Commission, the City Council may approve the proposal or deny the proposal, with or without prejudice as to re-filing, and that decision shall be final unless an appeal is filed with the City Secretary's Office within 12 days following City Council action.

2.15.9 *Appeal.*

- a. *Written Allegation Required.*** An appeal from the decision of the Planning and Zoning Commission may be taken by any person who is aggrieved by the action of the Planning and Zoning Commission on a specific proposal. The appeal shall be reduced to writing, showing that:

 1. The Planning and Zoning Commission was prejudiced in its deliberation;
 2. New information is available which was not considered by the Planning and Zoning Commission;
 3. The Planning and Zoning Commission committed some error in its deliberation;
or
 4. For other reasons, the requested change should be granted.

The Secretary shall forward the appeal to the City Council with the regular report of Planning and Zoning Commission action on the subject proposal.

b. City Council Action. Upon receipt of written appeal, the City Council may:

1. Refer the original proposal and appeal to the Planning and Zoning Commission for a new hearing and a report and recommendation;
2. Schedule its own hearing on the proposal;
3. Deny the appeal in its entirety; or
4. Deny the application without prejudice as to re-filing upon showing that unnecessary hardship will otherwise result and that the intent and spirit of the ordinance will be observed.

2.15.10 Limitation On Reapplication. When a proposal is denied by the City Council or when the applicant has withdrawn the proposal after the giving of public notice, no new applications of like nature shall be accepted by the City or scheduled for a hearing by the Planning and Zoning Commission within a period of 12 months of the date of denial or withdrawal unless the proposal is denied without prejudice; provided, however, on receipt of written request by the original applicant describing substantially changed conditions in the community since prior consideration of his proposal so as to justify an earlier review of this matter, the City Council may waive the mandatory delay period and authorize the acceptance of a new application.

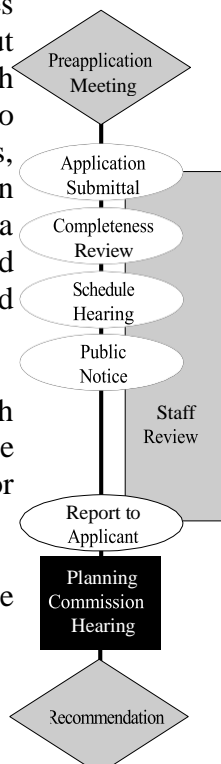
2.15.11 Joint Hearings. In conformance with the Local Government Code, the City Council may hold a joint public hearing with the Planning and Zoning Commission on a request for a change in zoning classification. In case of a joint hearing, The City Council must not act on the request until it receives the report from the Planning and Zoning Commission.

Sec. 2.16 Special Use Permits

2.16.1 General. A special use permit may allow certain uses of land, buildings, or structures that may not be appropriate under all circumstances in any given zoning district but may be appropriate where adequate measures can be taken to assure compatibility with surrounding uses, public need, and the City as a whole. It is the intent of this section to allow for such uses by the granting of a special use permit, subject to the procedures, which are applicable to rezoning, as stated herein. The City Council, upon recommendation of the Planning and Zoning Commission, may by ordinance, grant a special use permit for special uses that are otherwise prohibited by this ordinance, and may impose appropriate conditions and safeguards to conserve and protect property and property values in the neighborhood.

2.16.2 Application Required. Any proposal for special use permit review shall be filed with the City. A completed application form as provided and instructed by the City shall be filed by the owner of the property or his authorized agent, or by the City Planner or designee.

2.16.3 Fee Required. Applications shall be accompanied by the appropriate filing fee. No fee



shall be charged for special use permit applications filed by the City Planner or designee.

2.16.4 Notice. Notices shall be given in the same manner notice is given for a rezoning application.

2.16.5 Planning and Zoning Commission Hearing and Recommendation. The Planning and Zoning Commission shall hold public hearings on all properly filed special use permit applications. After closing of the public hearing on an application, the Planning and Zoning Commission shall transmit to the City Council its recommendation on said application.

2.16.6 City Council Hearing and Action.

a. Application recommended for approval. Every special use permit application that is recommended favorably by the Planning and Zoning Commission shall be forwarded to the City Council for setting and holding of a public hearing thereon.

b. Application Recommended for Denial When the Planning and Zoning Commission determines that a special use permit should be denied, it shall so report to City Council. After receiving the final report from the Planning and Zoning Commission, the City Council may approve the proposal or deny the proposal, with or without prejudice as to refilling. And that decision shall be final unless an appeal is filed with the City Secretary's office within 12 days following City Council action.

2.16.7 Amendment to the Special Use Permit.

a. Upon review and recommendation by the Development Review Committee, the City Manager or designee may administratively authorize minor changes in the approved SUP if the activities proposed by the amendment are not materially different from the activities covered by the existing SUP.

b. Upon review and recommendation by the Development Review Committee, if the City Manager or designee determines that the amendment cannot be administratively authorized, then the same application and approval process described in this section shall apply as when the SUP was initially approved.

2.16.8 Suspension or Revocation of Special Use Permit. Any operator or owner having a special use permit under the authority of this section is subject to immediate citation, injunction, abatement or any other remedy permitted by law. The special use permit is subject to suspension or revocation for any of the following reasons:

- a.** Noncompliance with any applicable federal, state or city code;
- b.** Noncompliance with any special condition imposed at the time of approval of the special use permit;
- c.** Violation of any provisions of the Code of Ordinances pertaining to the use of land, construction or uses of buildings structures or activities conducted on the premises;

or

- d. Where conditions in the neighborhood or surrounding property have changed to the extent that approval of the permit would be clearly unwarranted if being applied for at the time of revocation.

2.16.9 Procedure for Suspension or Revocation.

- a. When possible under the circumstance, the City shall give written notice to the owner or operator specifying the nature of the failure and giving the owner or operator a reasonable time to cure, taking into consideration the nature and extent of the failure, the extent of the efforts required to cure, and the potential impact on the health, safety, and welfare of the community.
- b. If the owner or operator fails to comply within ten (10) days after notice, or fails to comply immediately if there is an imminent health and safety issue, the City may suspend the Special Use Permit pursuant to the provisions of this ordinance and recommend revocation to City Council.
- c. Revocation proceedings may be initiated by a majority vote of the City Council or the Planning and Zoning Commission.
- d. An appeal of any decision of the City Council to revoke a special use permit may be filed in the District Court of the appropriate county. Any appeal taken shall not suspend the order of revocation during the process of the appeals unless so ordered by the District Court.

2.16.10 Expiration and Extension of Special Use Permit

- a. Special Use Permits for oil and gas wells, pipelines and pump stations shall expire upon: one (1) year after the date of City Council approval unless a permit has been issued pursuant to Chapter 42 of the Code of Ordinances; or the expiration of a permit issued pursuant to Chapter 42 of the Code of Ordinances.
- b. If a permit has not been issued pursuant to Chapter 42 of the Code of Ordinances, then one extension of a special use permit for oil and gas wells, pipelines and pump stations may be granted for not more than one (1) year from the date of expiration. Upon review and recommendation by the Development Review Committee, the City Manager or his designee may approve the request upon receipt of a written request showing good cause for the extension.

2.16.11 Limitation on Reapplication. When a proposal is denied by the City Council or when the applicant has withdrawn his proposal after the giving of public notice, no new applications of like nature shall be accepted by the City or scheduled for a hearing by the Planning and Zoning Commission within a period of 12 months of the date of denial or withdrawal. The Planning and Zoning Commission may waive the 12 month requirement after the applicant provides a written justification for their reason of withdrawal or there is a substantial change to the site that warrants new consideration of the application.

CHAPTER 125: Article 3. Zoning Regulations

Sections:

§ 3.1 Purpose

§ 3.2 Establishment of Base Zoning Districts

§ 3.3 Residential Single Family Districts

§ 3.4 Residential Multi-Family Districts

§ 3.5 Commercial and Mixed Use Districts

§ 3.6 Industrial Districts

§ 3.7 Public and Semi-Public District

§ 3.8 Open Space District

§ 3.9 Olde Towne Districts

§ 3.10 PUD Planned Unit Development Overlay District

§ 3.11 CRC Commercial Revitalization Overlay District

§ 3.12 HCD Historic Overlay District

§ 3.13 Use of Land and/or Buildings

§ 3.14 Standards for Specific Uses

Sec. 3.1 Purpose

The purpose of this Section is to establish base and overlay zoning districts for the City of League City. These zoning districts are intended to:

- a.** Regulate and manage the location and use of buildings and land for residence, commerce and trade, industry, transportation, communications and utilities, and other purposes;
- b.** Regulate and manage the location, height and size of buildings and structures hereafter erected or structurally altered, the size of yards, setbacks, and other open spaces, and the density of population; and
- c.** Establish site development and design standards, subdivision standards, and requirements for adequate public facilities and services.

Sec. 3.2 Establishment of Zoning Districts

3.2.1 Base Zoning Districts. For the purposes of this ordinance, the City of League City is hereby divided into base zoning districts. Base zoning districts are shown in Table 3.2.1 below.

Table 3.2.1 Establishment of Base Zoning Districts	
<i>Base Zoning Districts</i>	<i>Base District Name</i>
Residential Single Family Districts	Residential Single Family 20 (RSF-20) Residential Single Family 10 (RSF-10) Residential Single Family 7 (RSF-7) Residential Single Family 5 (RSF-5) Residential Single Family 2 (RSF-2)
Residential Multi-Family Districts	Residential Multi-Family 2 (RMF-2) Residential Multi-Family 1.2 (RMF-1.2)
Commercial and Mixed Use Districts	Neighborhood Commercial (CN) General Commercial (CG) Commercial Office (CO) Commercial Mixed Use (CM)
Industrial Districts	Limited Industrial (LG) General Industrial (IG)
Public and Semi-Public District	Public and Semi-Public (PS)
Open Space District	Open Space (OS)
Olde Towne Districts	Olde Towne (OT) Olde Towne Transition (OTT)

3.2.2 Overlay Zoning Districts. For the purposes of this ordinance, overlay zones may be applied to the base zoning districts established in Section 3.2.1 above. Overlay zoning districts are shown in Table 3.2.2 below.

Table 3.2.2 Establishment of Overlay Zoning Districts	
<i>Overlay Zoning</i>	<i>Overlay District Name</i>
Planned Unit Development District	Planned Unit Development (PUD)
Commercial Revitalization Conservation Overlay District	Commercial Revitalization District (CRC)
Historic Overlay District	Historic District (HD)

3.2.3 Zoning District Map. The boundaries of these base and overlay zoning districts are hereby established as shown on the Official Zoning Map, which accompanies and is made part of this ordinance. The City Planner or designee shall be responsible for custody of the Official Zoning Map and shall promptly make any changes approved by the City Council. The provisions of an ordinance establishing a district, amending a district classification, or amending a district boundary shall control over any conflicting information shown on the Official Zoning Map.

The Official Zoning Map, together with all notations, references, and other information shown thereon and all amendments thereto, shall be as much a part of this ordinance as if fully set forth and described herein. The Official Zoning Map, properly attested, is on file in the office

of the City Planner or designee and is fully accessible to the public during normal business hours.

3.2.4 Interpretation of Zoning District Boundaries. Where uncertainty exists with respect to the boundaries of the various zoning districts as shown on the Official Zoning Map accompanying and made a part of this ordinance the following rules shall apply:

- a. In cases where a zoning district boundary line is given a position adjoining, coincident with, or within a street or alley or non-navigable stream, it shall be deemed to be in the center of the street, alley or stream, and if the actual location of such street, alley or stream varies slightly from the location as shown on the district map, then the actual location shall control.
- b. In cases where a zoning district boundary line is shown as being located a specific distance from a street line or other physical feature, this distance shall control.
- c. In cases where a zoning district boundary line is shown adjoining or coincident with a railroad, it shall be deemed to be in the center of the railroad right-of-way and distances measured from a railroad shall be measured from the center of the designated mainline track.
- d. Where the zoning district boundary lines are not otherwise indicated, and where the property has been or may hereafter be divided into blocks and lots, the zoning district boundaries shall be considered to be the lot lines, and where the zoning districts designated on the Official Zoning Map are bounded approximately by lot lines, said lot lines shall be considered to be the boundary of such zoning districts unless said boundaries are otherwise indicated on the Map or by ordinance.
- e. In unsubdivided property, unless otherwise indicated, the zoning district boundary line on the Official Zoning Map shall be determined by the use of the scale contained on such map.
- f. Zoning district boundary lines indicated as approximately following City Limits shall be considered to follow the City Limits.
- g. All water areas within the City Limits are considered to be within a zoning district and controlled by applicable district regulations. Zoning district boundary lines over water areas are located by noted and scaled dimensions, by relation to physical features, by coincidence with the City Limit line, or by a straight line projection of the centerlines of streets as indicated on the district maps. Straight line district boundaries over water areas shall be assumed to continue as straight line until they intersect with each other or with the City Limit line.
- h. Zoning district boundary lines indicated as following shorelines shall be considered to

follow such shorelines, and in the event of change in the shoreline, shall be considered as moving with the actual shoreline.

- i. Where existing physical or natural features contradict those shown on the Official Zoning Map, or if case any other uncertainty exists, the location of zoning district boundaries shall be determined by the City Planner or designee in accordance with the provisions in Section 2.9 of this Chapter
- j. The City Planner shall keep a record of interpretations made pursuant to this Section that will be available to the public. When an interpretation relates to the Official Zoning Map, a record of measures taken to correct the placement of the zoning district boundary line on the map to remove permanently any ambiguity also shall be included in the record of interpretations.

3.2.5 *Zoning Upon Annexation*

Any new addition and annexation of land to the City of League City shall be zoned “RSF- 7”, unless otherwise classified by the Planning and Zoning Commission and City Council at the time of annexation. The rezoning of annexed lands shall follow the procedures and requirements for the rezoning of other lands within the City as set forth in Section 2.15 of this Chapter.

Sec. 3.3 Residential Single Family Districts

3.3.1 Purpose. The specific purpose of the *RSF Residential Single Family Districts* is to create, maintain, and enhance neighborhood residential areas that are characterized by detached, single-unit structures with typical lot sizes ranging anywhere from 2,000 to 20,000 square feet in size. Future development must remain single family residential in nature, although some attached single-family units, small-scale public, and non-residential uses may be permitted in certain districts. Five *RSF Residential Single Family Districts* are established:

- a. ***RSF-20 Residential Single Family.*** This district reflects existing “large lot” single family areas of the City and is intended to provide for very low density suburban residential development. The minimum lot size is 20,000 square feet.
- b. ***RSF-10 Residential Single Family.*** This district reflects existing single family areas of the City and is intended to provide for low density suburban residential development. The minimum lot size is 10,000 square feet.
- c. ***RSF-7 Residential Single Family.*** This district reflects existing single family areas of the City and is intended to provide for medium density residential development. The minimum lot size is 7,000 square feet. This district is intended to replace the existing SD- R Suburban Development-Residential District in undeveloped areas of the City.
- d. ***RSF-5 Residential Single Family.*** This district reflects existing single family areas of the City and is intended to provide for medium density residential development. The minimum lot size is 5,000 square feet. Zero-lot line and attached single-family units are permitted. Mobile homes are conditionally permitted but are regulated as a special use in this district.

e. RSF-2 Residential Single Family. This district is intended to provide for high density, small

Table 3.3.2: Single Family Districts					
<i>Development Regulations</i>	<i>RSF-20</i>	<i>RSF-10</i>	<i>RSF-7</i>	<i>RSF-5</i>	<i>RSF-2</i>
Minimum lot area (square feet)	20,000	10,000	7,000	5,000	2,000
Minimum lot width (feet)	120	80	50	50	25
Minimum lot width for Townhouses	--	--	--	--	20
Maximum Height (feet)	42	42	42	42	42
Minimum Front Setback (feet)	30	25	25	20	20
Minimum Front Setback for cul-de-sac lots (feet)	20				
Minimum Side Setback	20	15	5	5	5
Minimum Side Setback for townhouses and Duplexes	--	--	--	--	15
Minimum Street Side Setback (corner lot)	20	15	10	10	15
Minimum Rear Setback	30	25	10	10	10
Minimum Rear Setback for townhouses and duplexes	--	--	--	--	15
Minimum Rear Setback for accessory structures when rear lot line abuts alley	--	--	6	6	6
Maximum impervious surface (lot) coverage (See Sec. 5.7)	Per plat hydrologic & hydraulic report. Limited to 55% if no report.				50%

lot single family residential development with a minimum lot size of 2,000 square feet. Zero-lot line units are permitted.

3.3.2 Development Regulations. Table 3.3.2 below prescribes the development regulations for *RSF Residential Single Family Districts*. Refer also to Section 3.14 Standards for Specific Uses.

3.3.3 Regulations specific to RSF-2 zoning district and zero-lot line dwellings.

- 1. Side Yard.** Zero-lot line, duplexes and townhouses are permitted in the RSF-2 districts. For such development, the yard requirement on the zero-lot line or attached side will be waived. In no case shall a distance of less than 10 feet separate dwelling units along the opposite side yard. A perpetual easement related to maintenance, eaves, and drainage of at least 4 feet shall be provided the lot adjacent to the zero-lot line property, which with the exception of walls and fences, shall be kept clear of structures. This easement shall be noted on the plat and incorporated into each deed transferring title to property. The 15-foot side yard setback shall apply to townhouses and duplexes only.
- 2. Street Side Yard.** A zero-lot line dwelling unit shall not be built to the street side yard.

3.4 Residential Multi-Family Districts

3.4.1 Purpose. The specific purpose of the *RMF Residential Multi-Family Districts* is to create, maintain, and enhance neighborhood residential areas with multi-family housing that is

typically located near the City’s major arterial roads, is part of mixed use development, and is characterized by a mix of attached housing in small and large multi-unit buildings. While future development will be primarily residential in nature, some small-scale public and non-residential uses may be on the ground floor in a mixed use building on an arterial street may be permitted in certain districts. Two *RMF Residential Multi-Family Districts* are established:

- a. **Multi-Family Residential (RMF-2).** This district reflects existing multi-family areas of the City and is intended to provide for medium density residential development with a maximum density of 22 dwelling units per acre. Future development may take the form of two-family dwellings (duplexes), multiplexes, and townhouses.
- b. **Multi-Family Residential (RMF-1.2).** This district is intended to provide for high density multi-family residential development with a maximum density of 36 dwelling units per acre. Future development may take the form of multiplexes and apartments.

3.4.2 Development Regulations. Table 3.4.2 below prescribes the development regulations for *RMF Residential Multi-Family Districts*. Refer also to Section 3.14 Standards for Specific Uses.

Table 3.4.2: Residential Multi-Family Districts		
<i>Development Regulations</i>	<i>RFM-2</i>	<i>RFM-1.2</i>
Maximum Dwelling Units per Acre	22	36
Minimum Lot Width (feet)	75	75
Minimum Lot Width for duplex and townhouse dwellings (feet)	20	20
Minimum Unit Size (square feet)	850	650
Maximum Height (feet)	42	48
Minimum Front Setback (feet)	20	25
Minimum Front Setback for duplex and townhouse dwellings (feet)	20	20
Minimum Side Setback for 1 story (feet)	15	15
Minimum Side Setback for 2 stories (feet)	20	20
Minimum Side Setback for 3+ stories (feet)	30	30
Minimum Street Side Setback - corner lot (feet)	20	25
Minimum Rear Setback for 1 story (feet)	15/	20
Minimum Rear Setback for 2 stories (feet)	20	25
Minimum Rear Setback for 3+ stories (feet)	30	30
Minimum Rear Setback for attached single family, two-family and townhouse dwellings when rear lot line abuts alley (feet)	10	10
Minimum Common Open Space	See Art. 5 Park Dedication	
Maximum impervious surface (lot) coverage (See Sec. 5.7)	50%	60%

Sec. 3.5 Commercial and Mixed Use Districts

3.5.1 Purpose. The specific purpose of the *C Commercial and Mixed Use District* is to create,

maintain, and enhance commercial and mixed use areas that serve as local activity centers for surrounding neighborhoods as well as regional centers serving city and area residents. Commercial and mixed use areas are typically located on or near the City’s major arterial roads and represent a range of development scales and intensities that may include residential uses where appropriate. Four *C Commercial and Mixed Use Districts* are established:

- a. ***CN Neighborhood Commercial.*** This district is intended to provide for areas of smaller-scaled and pedestrian-oriented neighborhood-serving commercial and mixed use development (typically with floorplates of less than 10,000 square feet) that includes retail, services, office, eating and drinking, housing, smaller-scaled public uses, etc.
- b. ***CG General Commercial.*** This district reflects existing and future areas of larger-scaled pedestrian- and auto-oriented commercial development (typically with floorplates of more than 10,000 square feet) located on the City’s major arterial roads and include a wide variety of community-serving uses that include retail, services, office, auto-related businesses, eating and drinking, recreation and entertainment, public and semi-public uses, etc. Residential uses are not permitted in this district.
- c. ***CO Commercial Office.*** This district is intended to provide for areas of large-scale integrated professional office development of quality design in a landscaped setting serving high technology, and research and development. Secondary support uses—such as business services and institutional uses—serving the development are encouraged.
- d. ***CM Commercial Mixed Use.*** This district is intended to provide for areas of large-scale pedestrian- and auto-oriented region-serving mixed use development that includes a mix of retail formats (both large and small), office and business services, commercial lodging, office-oriented research and development, recreation and entertainment, etc. Multi-family residential uses are permitted in this district. Development in this district will occur under a master development plan.

3.5.2 Development Regulations. Table 3.5.2.a below prescribes the development regulations for *C Commercial and Mixed Use District*. Refer also to Section 3.14 Standards for Specific Uses.

Table 3.5.2: Commercial and Mixed Use Districts				
<i>Development Regulations</i>	<i>CN</i>	<i>CG</i>	<i>CO</i>	<i>CM</i>
Minimum Lot Area (square feet)	5,000	10,000	10,000	25,000
Minimum Lot Width (feet)	25	75	75	100
Minimum Lot Frontage (feet)	25	75	75	100
Maximum Height (feet)	30	125	60	125
Minimum Front Setback (feet)	--	20	20	--
Minimum Side Setback – nonresidential (feet)	10	15	10	20
Minimum Side Setback – residential (feet)	15	30	20	40
Minimum Side Street Side setback - corner lot (feet)	10	15	10	15
Minimum Rear Setback – nonresidential (feet)	15	20	15	20
Minimum Rear Setback – residential (feet)	20	40	30	40
Maximum impervious surface (lot) coverage (See Sec. 5.7)	90%	85%	80%	80%

3.5.3 Building Streetscape

1. **Building Articulation.** No blank walls greater than 15 feet in length, excluding garage doors, shall be permitted on all street frontages excluding alleys. Building surfaces shall include offsets, recesses, or projections that create shade or cast shadows to provide visual interest for at least 25 percent of the frontage. Examples include, but are not limited to, attached columns, recessed windows or window bays, horizontal/vertical banding or decorative cornices
2. **Storefront Continuity.** Ground floor of retail buildings shall have a storefront appearance along all street frontages excluding alleys.
3. **Minimum Build-to Lines.** Fifty percent (50%) of the front façade shall be built to the sidewalk along the primary street frontage.

Sec. 3.6 Industrial District

3.6.1 Purposes. The specific purposes of the *I Industrial Districts* are to create, maintain, and enhance industrial areas that serve as important employment generators while protecting the function of such industrial areas from the encroachment of potentially incompatible land uses, and protecting adjacent land use from adverse impacts from industrial uses. Industrial areas are typically located on or near the City’s major arterial roads and may require rail access. Two *I Industrial Districts* are established:

- a. **IL Limited Industrial.** This district is intended to provide for areas of large-scale industrial development with limited off-site impacts, including research and development, high technology, biotechnology, small-scale distribution, and activities requiring flexible floorspace. Secondary support uses—such as office, business services, and institutional uses—are encouraged. Such development will be screened and buffered from adjacent commercial and residential districts. Development in this district will occur under a unified plan.
- b. **IG General Industrial.** This district is intended to provide for areas of large-scale industrial development with potentially significant off-site impacts, including manufacturing, processing, and assembly; warehouse and distribution; large equipment supply and sales; etc. Such uses may occur outside buildings and may require heavy truck and/or rail access. Such development will be screened and buffered from adjacent commercial and residential districts.

3.6.2 Development Regulations. Table 3.6.2 below prescribes the development regulations for *I Industrial Districts*. Refer also to Section 3.14 Standards for Specific Uses.

Table 3.6.2: Industrial Districts		
<i>Development Regulations</i>	<i>IL</i>	<i>IG</i>

Minimum Lot Area (square feet)	25,000	25,000
Minimum Lot Width (feet)	100	100
Minimum Lot Frontage (feet)	100	100
Maximum Height (feet)	125	125
Minimum Front Setback (feet)	20	20
Minimum Side Setback – nonresidential (feet)	15	20
Minimum Side Setback – residential (feet)	60	100
Minimum Street Side Setback - corner lot (feet)	20	25
Minimum Rear Setback – nonresidential (feet)	15	20
Minimum Rear Setback – residential (feet)	60	100
Minimum Building Separation (feet)	20	20
Maximum impervious surface (lot) coverage (See Sec. 5.7)	80%	80%

3.6.3 Building Streetscape. No unadorned blank walls greater than 50 feet in length, excluding garage doors, shall be permitted on the primary street frontage. Building surfaces shall include an offset, recess, or projection providing shadows or visual interest for at least 25 percent of the frontage.

Sec. 3.7 Public and Semi-Public District

3.7.1 Purpose. The specific purpose of the *PS Public and Semipublic District* is to provide for a range of public and institutional development, including government facilities, park and recreation facilities, hospitals, educational facilities, cultural and institutional facilities, and other similar and supporting uses. This district also applies to City, State, and federal lands.

3.7.2 Development Regulations. Table 3.7.2 below prescribes the development regulations for the *PS Public and Semipublic District*. Refer also to Section 3.14 Standards for Specific Uses.

Table 3.7.2: Public and Semi-Public Districts	
<i>Development Regulations</i>	<i>PS</i>
Minimum Lot Area (square feet)	5,000
Minimum Lot Width (feet)	50
Minimum Lot Frontage (feet)	50
Maximum Height (feet)	80
Maximum Height 0-50 feet from Residential Zoning (feet)	42
Maximum Height 51-75 feet from Residential Zoning (feet)	55
Maximum Height Greater than 75 feet from Residential Zoning (feet)	81
Minimum Front Setback (feet)	20
Minimum Side Setback – nonresidential (feet)	15
Minimum Side Setback – residential (feet)	20
Minimum Street Side Setback - corner lot (feet)	15
Minimum Rear Setback – nonresidential (feet)	20
Minimum Rear Setback -residential (feet)	40
Minimum Building Separation (feet)	20

Maximum impervious surface (lot) coverage (See Sec. 5.7)	80
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3.7.3 Building Streetscape. No unadorned blank walls greater than 15 feet in length, excluding garage doors, shall be permitted on the primary street frontage. Building surfaces shall include an offset, recess, or projection providing shadows or visual interest for at least 25 percent of the frontage.

Sec. 3.8 Open Space District

3.8.1 Purposes. The specific purpose of the *OS Open Space District* is to identify existing public and private open space in the City and to provide for appropriate use and development within lands zoned as such in the future. Such lands include undeveloped open space, drainage ways, and utility easements. Future open space set-asides resulting from new development, excluding City parkland requirements, will be zoned *OS Open Space District*.

3.8.2 Development Regulations. Table 3.8.2 below prescribes the development regulations for the *OS Open Space District*. Refer also to Section 3.14 Standards for Specific Uses.

<i>Development Regulations</i>	<i>OS</i>
Maximum Height (feet)	35
Minimum Front Setback (feet)	20
Minimum Side Setback (feet)	10
Minimum Street Side Setback - corner lot (feet)	15
Minimum Rear Setback (feet)	20
Minimum Building Separation (feet)	20
Maximum impervious surface (lot) coverage (See Sec. 5.7)	10

Sec. 3.9 Olde Towne Districts

3.9.1 Purpose and Intent. The specific purpose of the *Olde Towne Districts* is to implement the vision of the Main Street Livable Centers Study for a more walkable, vibrant, mixed-use neighborhood in the heart of League City, Texas by:

- a. Coordinating public and private investments;
- b. Establish a central Olde Towne location for the community;
- c. Providing greater walkability along Main Street (FM 518) and to the adjoining neighborhoods; and
- d. Enhance the quality of development within Olde Towne.

Therefore, the goals of the Olde Towne Districts are to:

- a. Promote a more functional and attractive community through quality development techniques;
- b. Support property owner flexibility in land use and creativity;
- c. Prescribe a higher level of detail in building design and form than in the current standards of the City's Zoning regulations; and,
- d. Encourage better functional development patterns to create higher quality pedestrian environments along Main Street and across the railroad tracks.

3.9.2 Components of the Code.

- a. **Olde Towne Zoning Map.** The districts in Olde Towne and the regulations within this Section shall apply only to parcels within the Olde Towne Districts as established on the City of League City Zoning Map. The regulations within these districts are subject to these rules and regulations exclusively.
- b. **Zoning Districts. Two Olde Towne Districts** are established: Olde Towne and Olde Towne - Transition. Each District shall establish uses and building form standards including standards for building placement, functional design, and parking.
 1. **OT Olde Towne Zoning District.** This district is intended to enhance, and establish historical character in the Main Street area, focusing on commercial uses, live-work and upper floor residential opportunities.
 2. **OTT Olde Towne - Transition Zoning District.** This is intended to be a neighborhood transition zone. This zone is intended to allow for a range of residential, live-work, and lower intensity office and retail uses as a transition between the more active Main Street and scale of the adjoining neighborhoods.

3.9.3 Administration.

a. Applicability:

1. The uses and buildings on all properties within the Olde Towne District classification shall conform exclusively to these regulations unless specifically referenced as otherwise in this ordinance.
2. Table 3.9.3 (Applicability Matrix) shall determine the extent to which different sections of this ordinance apply to any proposed development or redevelopment.
3. Terms used throughout this section are defined in Appendix A- Definitions. For terms not defined in either section, they shall be accorded commonly accepted meanings.
4. Where in conflict, numerical and written standards shall take precedence over graphic

standards.

b. Approval Authority.

1. All development and redevelopment that complies with the Olde Towne Districts may be approved administratively by the City Planner unless requiring Historic Commission review per Subsection (c) below.
2. Any development or redevelopment that does not comply with this section or qualify for a minor modification listed in Table 3.9.3: Applicability Matrix shall be processed as a regular Site Development Plan and referred to the Planning and Zoning Commission for final action.

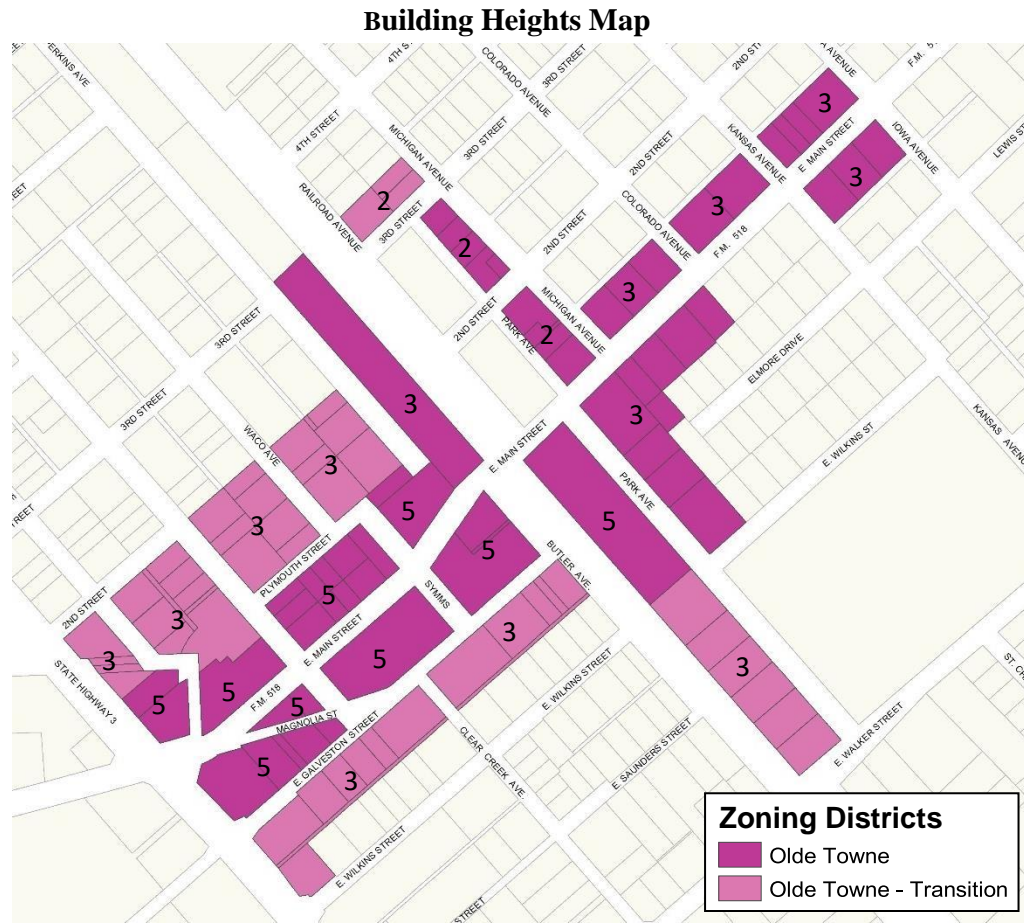
c. Historic Commission. Any exterior modifications to a structure within the Historic District Boundary shall be reviewed by the Historic Commission prior to its approval.

Table 3.9.3: Applicability Matrix Olde Towne Districts				
Legend				
✓ indicates standards in the section apply □ indicates standards in the section apply to the extent practical as determined by the City Planner “blank cell” indicates that standards in the section do not apply				
Type of Development Request	Sec. 3.13.2	Sec. 3.9.4 Development Regulations	Sec. 3.9.5- Building Design Standards	Sec. 3.9.6- Streetscape and Landscape Standards
A. New Construction	✓	✓	✓	✓
B. Change of use/expansion of existing use (with NO increase in building area)	✓			
C. Interior remodel with no change in any street facing façade, no increase of any existing nonconformity or no increase of building area and does not create any new non-conformity				
D. Façade changes to existing buildings (regardless of value of improvements proposed)				
i. Addition of non-air conditioned space such as patios, porches, arcades, canopies, and outdoor seating areas (shall be permitted so long as no existing non-conformity is increased nor a new non-conformity is created)	□	□	□	
ii. Changes to any street facing facades (shall be permitted so long as no existing non-conformity is increased nor a new non-conformity is created)	□	□	□	
E. Expansion of Floor Area				
i. 0% - 49% increase in floor area regardless of increase in value of improvements	✓	□	□	□

ii. 50% or greater increase in floor area AND less than both (i) 50% increase in value of improvements (ii) Any proposed improvements valued at \$100,000 or more (standards in the section shall apply to the expansions only)	✓	✓	✓	☐
iii. 50% or greater increase of floor area AND more than either (i) 50% increase in value of improvements or (ii) Any proposed improvements valued at \$100,000 or more (Standards in applicable sections shall apply to the site including retrofitting of the existing building and site.)	✓	✓	✓	✓
F. Expansion of parking area only (not in conjunction with a building or use expansion)				
i. Up to 6 spaces (shall not be placed in any area that increases any existing non-conformity or creates a new non-conformity)		☐		☐
ii. 7 or more additional spaces (shall not be placed in any area that increases any existing non-conformity or creates a new non-conformity)		✓		✓

3.9.4 Development Regulations. Table 3.9.4 below prescribes the development regulations for the *Olde Towne Districts*. This section shall establish all standards for new construction or additions to building sites as they relate to all improvements on the site.

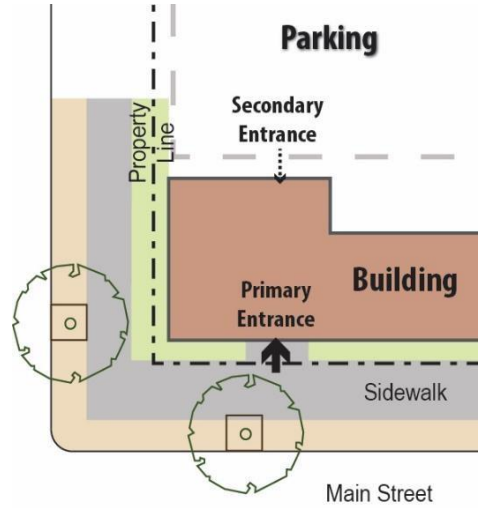
Table 3.9.4: Olde Towne Districts		
<i>Development Regulations</i>	<i>OT</i>	<i>OTT</i>
Minimum Lot Area (feet)	2,500	3,750
Minimum Lot Width (feet)	25	25
Minimum Lot Frontage (feet)	25	25
Maximum Height	See Building Heights Map	
Floor Height (feet) 1 st floor min. clearance	12	--
Floor Height (feet) Upper Floors min. clearance	9	--
Minimum Front Setback (feet)	0	0
Maximum Front Setback (feet)	15	20
Minimum Side Setback (feet)	--	--
Minimum Street Side Setback - corner lot (feet)	0	0
Maximum Street Side Setback - corner lot (feet)	15	20
Minimum Rear Setback adjacent to residential (feet)	--	10
Minimum Rear Setback adjacent to nonresidential	--	--
Minimum Building Frontage (percent of lot width)	70	50
Maximum impervious surface (lot) coverage (See Sec. 5.7)	90%	85%



The numbers on the map indicate the maximum number of building stories allowed.

3.9.5 Building Design Standards. This section shall address all external building design, including architectural design and style, for new and existing non-residential, multi-family, and mixed use buildings.

- a. **Building Orientation and Entrances.** Buildings shall be oriented towards the streets. All primary entrances shall be oriented to the public sidewalk for ease of pedestrian access. Secondary entrances may be permitted from another street or from a rear parking lot.
- b. **Building Entrances.** Entrances shall be defined and articulated by any of the architectural elements such as lintels, pediments, pilasters, columns, porticos, porches, overhangs, railings, balustrades, and others as appropriate. All building elements should be compatible with the architectural style, materials, colors, and details of the building as a whole. Entrances to upper level uses may be defined and integrated into the design of the overall building facade.
- c. **Articulation.** No blank walls greater than 15 feet in length, excluding garage doors, shall be permitted on all street frontages excluding alleys. Building surfaces shall include an offset, recess, or projection providing shadows or visual interest for at least 25 percent of the frontage.



d. Pedestrian-Friendly Building Massing and Scale.

1. A building's massing shall serve to define entry points and help orient pedestrians.
2. Buildings and/or facades shall emphasize and frame or create important termini of vistas.
3. Building facades, to the extent practicable, shall maintain a minimum twenty-five feet (25') building facade width to present an architectural rhythm along the street.
4. Architectural elements shall be designed to the appropriate scale and proportions.



Variations in building rhythm using architectural features



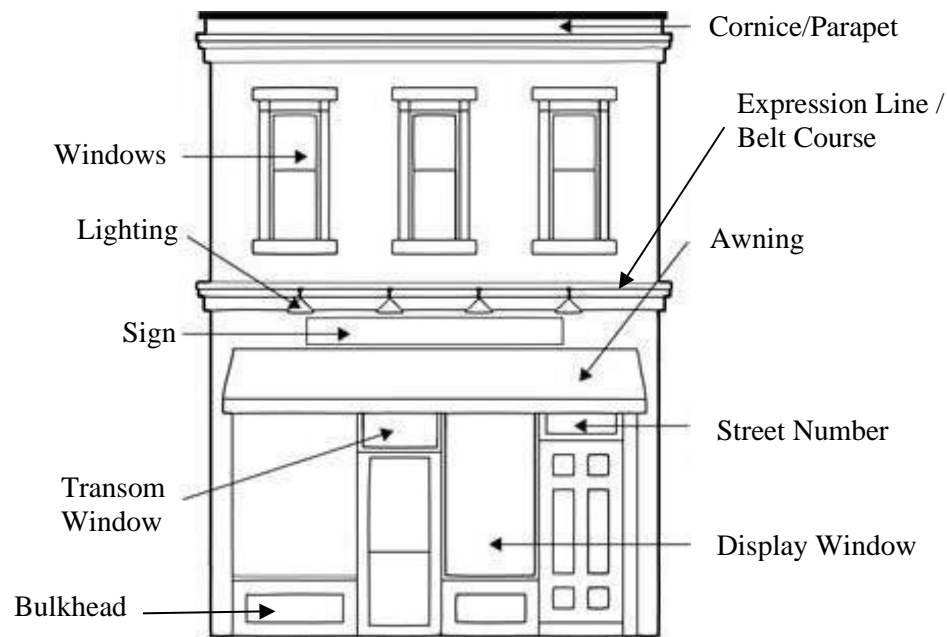
Allowed signage and awning encroachments into the setback line



Retail buildings with balconies and architectural details that add interest along the streetscape

e. Architectural Elements and Storefronts.

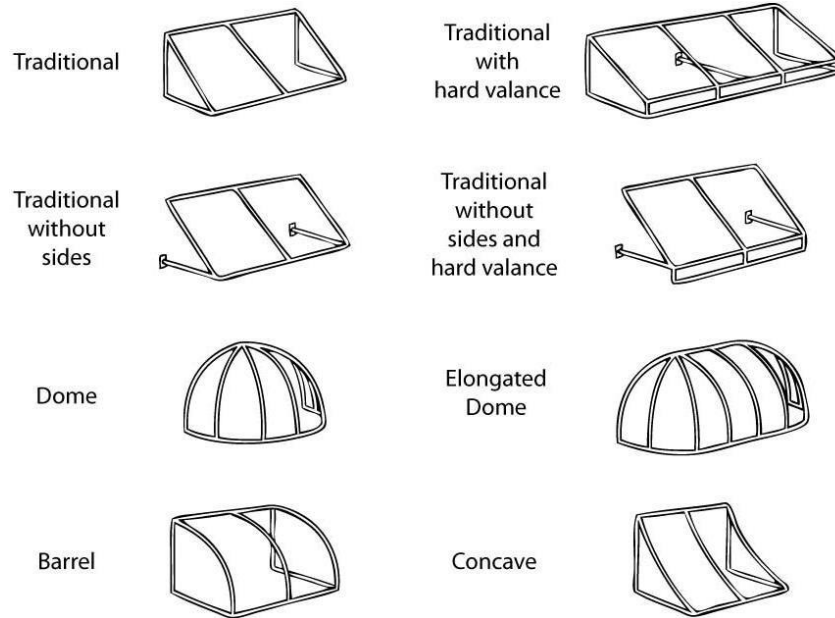
1. A rhythm within the elevation on any individual building facades is required. This may be achieved with architectural elements such as bays, columns, doors, windows, etc.
2. Breaks in the predominant rhythm may also be used to reinforce changes in massing and important elements such as building entrances, terminated vistas, or corner sites.
3. Retailers located at the street level shall primarily use storefronts to orient and advertise merchandise to customers. For retail storefronts, a transom, display window area and bulkhead at the base shall be utilized. Storefronts on facade treatments that span multiple tenants shall use architecturally compatible materials, colors, details, awnings, signage, and lighting fixtures.



Desired character of storefront design for non-residential, multi-family, and mixed use buildings.

- e. **Windows.** Windows on the second and above stories shall be or give the appearance of being operational.
- f. **Shutters.**
 - 1. Shall be or give the appearance of being operational.
 - 2. Shall be made of a solid material that is not hollow. Vinyl or PVC are not permitted.
- g. **Roofs.** The type, shape, texture, and color of the roof of a building shall be designed to complement the architectural style of the building. A roof shall be considered as an integral part of the design of a building and shall be architecturally compatible with the style, materials, colors, and details of the building.
- h. **Expression Line.** An expression line or equivalent architectural element shall delineate divisions between floors of all buildings, and a cornice or parapet shall delineate the tops of facades that do not utilize a pitched roof.
- i. **Awnings:** If used:
 - 1. Shall be of the following materials: cloth, fabric, woven material, and similar materials. No pre-fabricated metal or plastic/vinyl awnings shall be permitted.
 - 2. Style can be traditional or traditional without sides, dome, barrel, or concave.
 - 3. Valances may be hard or soft.
 - 4. Shall be of a fade-resistant quality and colors shall compliment the façade and signage colors.
 - 5. Shall either be placed over individual sets of windows or doors or along the entire length of the building façade.
 - 6. Vertical clearance beneath the awning shall be a minimum of 8 feet.
 - 7. Awnings shall be maintained in good repair and condition without holes, rips, or faded designs/colors.

3.9.5.h: Allowed Awning Style Types



j. Building Materials and Finishes.

1. Exterior color/ contrast or harmonizing colors for trim- no more than 4 colors including base, trim, and accent colors.
2. Matte or low-luster finish or non-reflective finish for any painted surfaces
3. Building corner treatments:
 - a) Where two corners meet of the same material, no corner treatment is required.
 - b) Where two corners meet of different materials, a corner treatment of one material shall expand a minimum of 1- foot on both building faces from the corner.



Desirable building corner treatment



Undesirable building corner treatment

k. Building Height and Height Transition.

1. **Building Height Allowance.** Buildings may exceed the maximum building height by 25% along no more than 20% of the building’s frontage along each corresponding street façade.

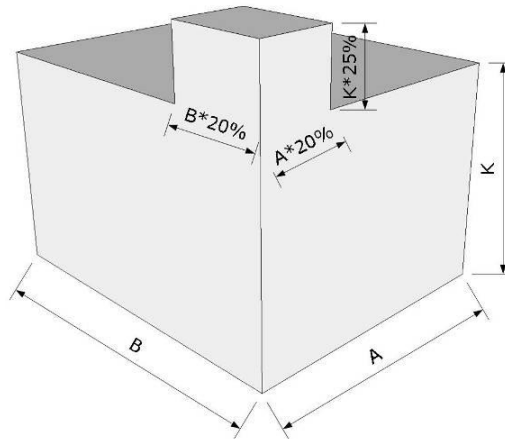
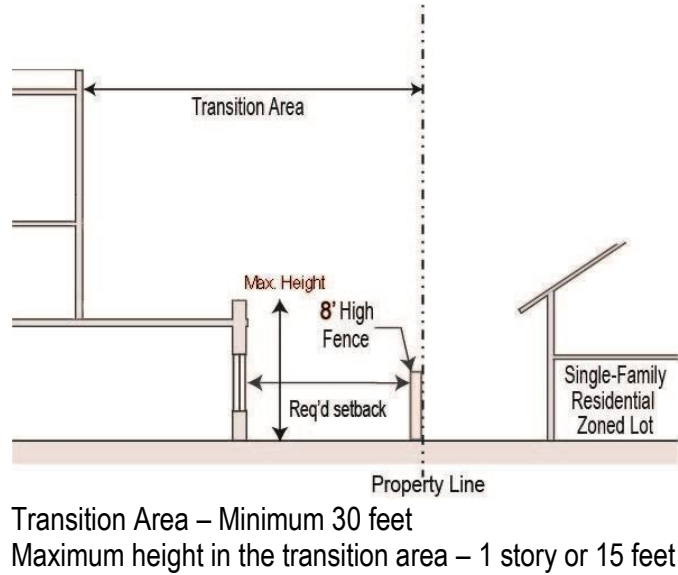


Illustration showing Building Height Allowance

2. Height Transition.

- a) The following transition standards (related to Figure 3.9.5.k.2: Height Transition Diagram) shall apply to all new building construction and all upper story additions to existing buildings located adjacent to any existing single-family residential zoned lots (to the rear or to the side). This requirement shall NOT apply if an alley or other similar R-O-W separates the subject lot and the existing single-family detached residential lot. See Figure 3.9.5.k.2 below.

Figure 3.9.5.k.2: Height Transition Diagram



b) A fence shall be required when adjacent to any existing single-family detached

residentially zoned lot and shall be optional for all other adjacencies. The required fence shall be a minimum of eight (8) feet in height and constructed of masonry or block.

l. Design of Structured Parking Facilities.

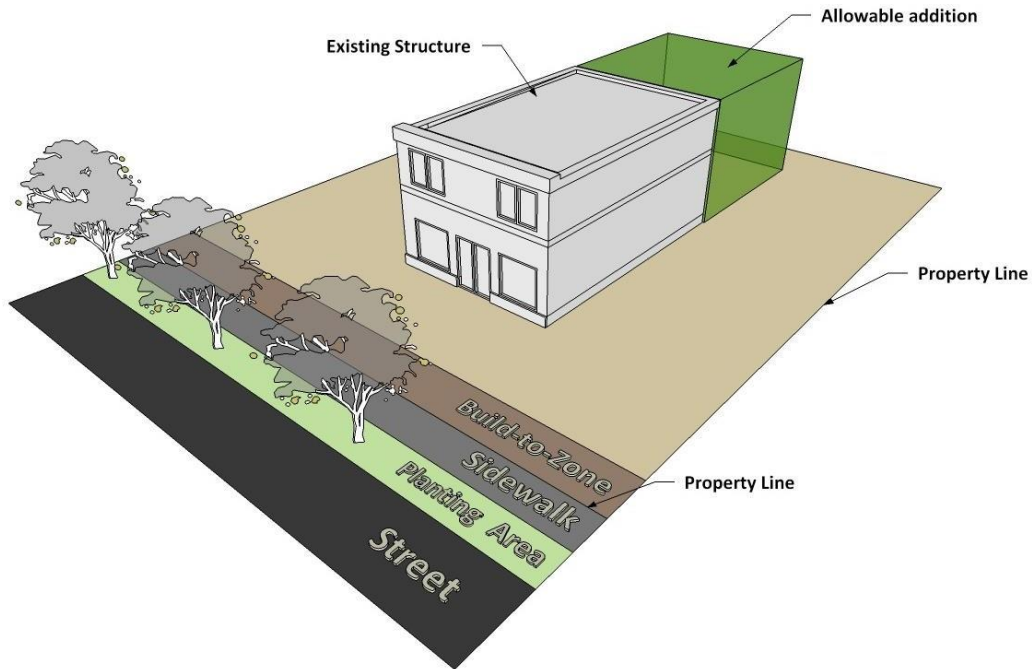
1. All frontages of parking structures located on Main Street shall not have parking uses on the ground floor to a minimum depth of 30 feet along the Main Street frontage.
2. The amount of Main Street frontage devoted to a parking structure shall be minimized by placing the shortest dimension(s) along the Main Street frontage.
3. Parking structure facades on Main Street shall be designed with both vertical (façade rhythm of approximately 25 feet) and horizontal (aligning with horizontal elements along the block) articulation.
4. Any internal areas of a parking structure shall be screened from view on sides fronting rights-of-way.
5. When parking structures are located at corners, corner architectural elements shall be incorporated such as corner pedestrian entrance, signage, and glazing.
6. Parking structures and adjacent sidewalks shall be designed so pedestrians are clearly visible to entering and exiting automobiles.
7. When a parking structure fronts Main Street and a secondary street, the entrance shall

be located on the secondary street. The parking structure entrance shall be designed to complement the adjacent store fronts.



Appropriate design of Structured Parking Facilities

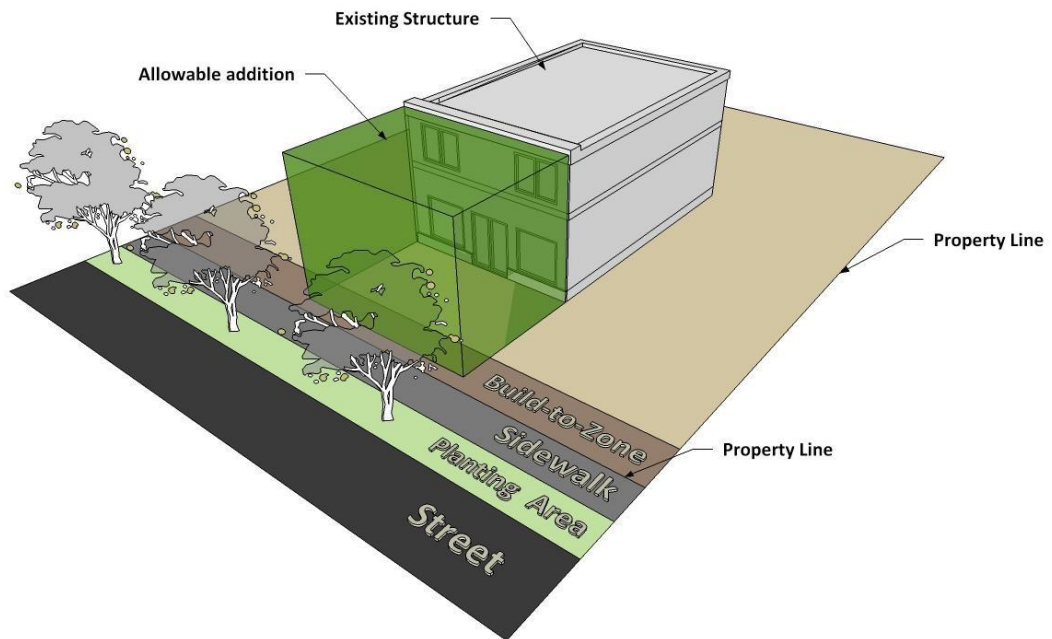
m. Changes to Non-Conforming Structures.

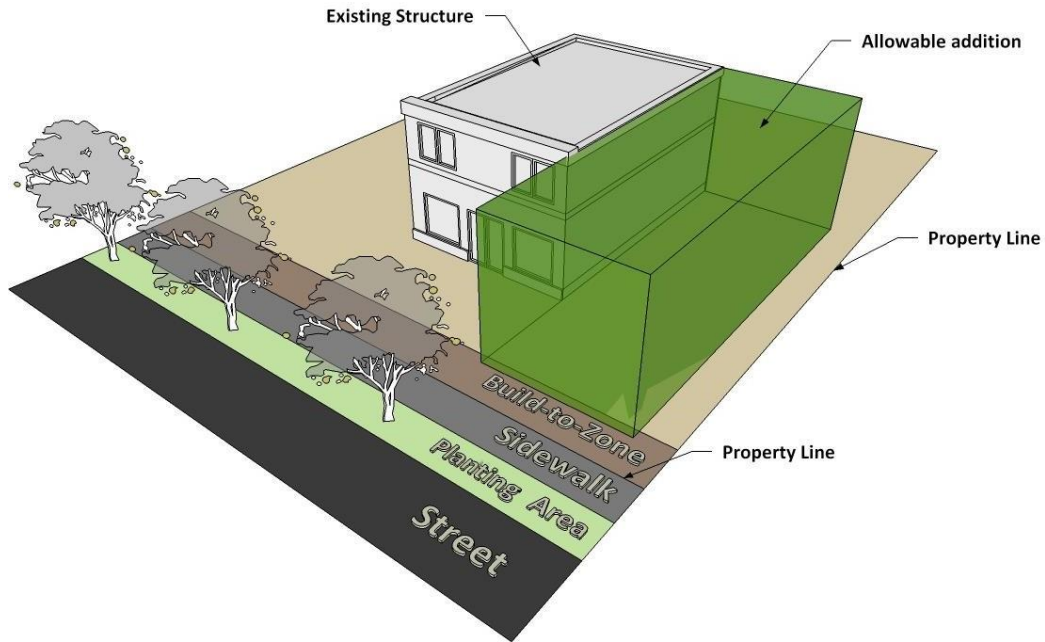


1. ***Allowable addition for historic structures.*** Structures deemed historic may allow additions on the rear and side of the structure without conforming to the build to line.

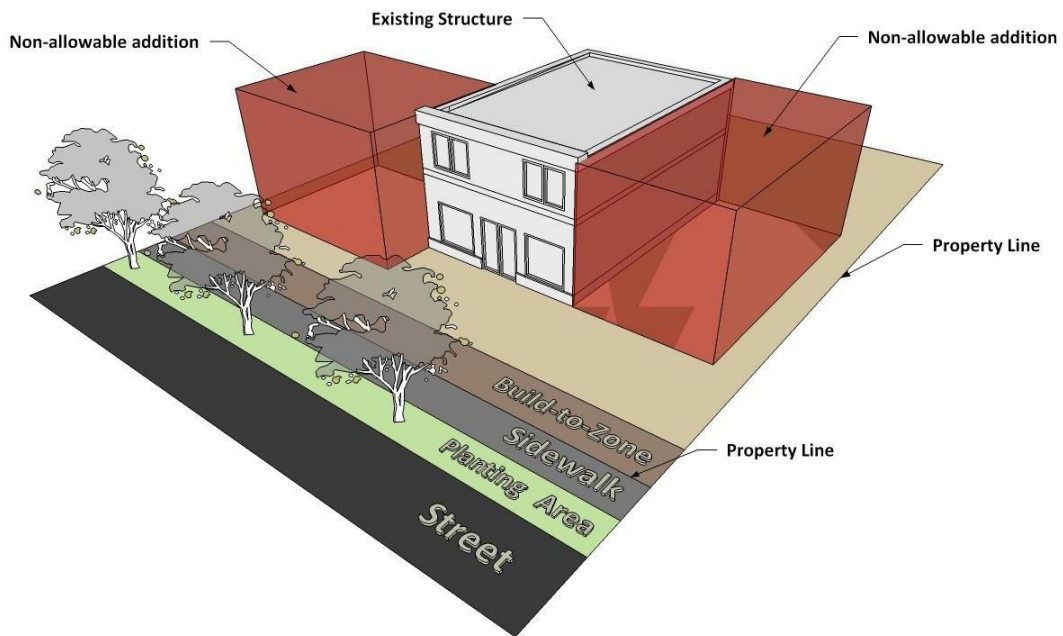
2. **Allowable additions for existing single-family residential structures.** Existing single-family residential structures may expand the residential use up to 50% of the square footage of the structure, subject to the development standards for Residential properties in the Historic District.

3. **Allowable additions for non-historic structures.** The following illustrations show potential allowable additions to nonconforming structures and sites. Additions shall meet the build-to-zone standards of the zoning district they are located in.





4. **Non-allowable additions.** The following illustration shows potential non-allowable additions to nonconforming structures and sites since the additions do not comply with the build-to zone standards of the character zone.



n. **Off Street Parking.**

1. *Nonresidential*: 1 space per 350 square feet. The first 2,000 sq. ft. of nonresidential uses in all buildings [new and existing] shall be exempt from this requirement.
2. *Residential*: 1.3 spaces per unit
3. *Shared Parking*. Shared parking may be permitted within 1,200 feet of the subject property with approval of the City Planner.

o. Driveways and Service Areas.

1. Driveways, service areas, and off-street loading shall not be allowed along the Main Street frontage of any lot unless the property has no other street frontage nor does it have a shared or cross access easement to an adjoining property with alternative driveway access.
2. Driveway spacing shall be subject to TxDOT standards along Main Street and city standards on all other streets.
3. Shared driveways, joint use easements, or joint access easements, including alley easements, shall be required to adjoining properties when driveway and service access is off Main Street.
4. Service and loading/unloading areas shall be screened per standards in this Section.

p. Building Encroachments.

1. The minimum vertical clearance from the finished sidewalk shall be 8 feet.
2. In no case, shall an encroachment be located over an on-street parking or travel lane.
3. In no case, shall an encroachment interfere with any canopies or root zones of preserved Butler Oaks within the area of the Olde Towne Districts.
4. Any encroachments over City right-of-way may require additional permits by the City.
5. Any encroachment over TxDOT right-of-way may require additional permits by TxDOT.

3.9.6 *Streetscape and Landscape Standards.* Standards in this section apply to both Olde Towne and Olde Towne – Transition Zoning Districts.

a. Sidewalks

1. A minimum of a 5-foot-wide sidewalk is required for all street frontages.

2. Where a commercial frontage is built within the build-to-zone, the entryway and surrounding area shall be paved flush to the grade of the sidewalk and be built up to the sidewalk.

b. Screening Standards.

1. Any frontage along Main Street or open space with surface parking within the setback range shall be defined by a 3-foot high street screen. Furthermore, along all streets (except alleys), service areas shall be screened in such a manner that the service area shall not be visible to a person standing on the property line on the far side of the adjoining street. Required street screens shall be of one of the following:
 - a. The same building material as the principal structure on the lot; or
 - b. A vegetative screen composed of shrubs planted to be opaque at maturity; or
 - c. A combination of the two.
2. The required street screen shall be located at the minimum setback line along the corresponding frontage.
3. Street screens cannot block any required sight triangles along a cross street or driveway.
4. Street screens may include breaks to provide pedestrian access from any surface parking or service area to the public sidewalk.

c. Landscaping Standards.

1. **Planting Distance.** Street trees shall be planted every 30 linear feet along street frontages or when practical as determined by the City Planner.
2. The following Table 3.9.6.c.2 details the minimum street tree planting clearances. Where special conditions exist, the City may waive planting location standards. Such a waiver will be on a case-by-case basis and will require written approval of the City Arborist.

Table 3.9.6.c.2: Street Tree Planting Clearances			
	Small Trees (up to 35' height)	Medium Tree (up to 60' height)	Large tree (over 60' height)
Driveways	5'	5'	10'
Fire Hydrants	5'	5'	5'
Intersections	35'	35'	35'
Water Meters	5'	5'	5'
Utility Boxes	5'	5'	5'

Utility Poles	5'	10'	10'
Stop Signs	35'	35'	35'
Regulatory Signs	Not to block	Not to block	Not to block
Public Right-of-Way	No encroachment	No encroachment	No encroachment

3. **Butler Oaks and Other Protected Trees:** If building a structure in the build-to-zone would harm or cause the removal of a protected tree, the City Planner may approve different setbacks.
4. **Table 3.9.6.c.4** lists the preferred plantings for the Olde Towne Districts.

Table 3.9.6.c.4: Preferred Plantings Matrix

	Genus	Species	Common Name (* trees appropriate for street tree requirement)
Large Trees	Betula	Nigra	River Birch
	Carya	illinoensis	Pecan
	Magnolia	grandiflora	Southern Magnolia
	Magnolia	grandiflora	'Little Gem' Magnolia, 'Teddy Bear' Magnolia *
	Quercus	Alba	White Oak *
	Quercus	Falcate	Southern Red Oak *
	Quercus	macrocarpa	Bur Oak
	Quercus	Nigra	Water Oak
	Quercus	shumardii	Shumard Oak *
	Quercus	texana	Texas Oak *
	Quercus	virginiana	Live Oak
	Plantanus	occidentalis	American Sycamore
Taxodium	distichum	Baldcypress *	
Small Trees	Ceris	spp.	Redbud *
	Citrus	spp.	Citrus *
	Ilex	vomitorea	Native Yaupon
	KLagerstroemia	Indica	Crape Myrtle *
	Pinus	thunbergii	Japanese Black Pine
	Vitex	agnus castus	Chaste Tree *
Shrubs	Abelia	grandiflora	Abelia
	Azalea	Indica	Azalea
	Musa	spp.	Banana
	Myrica	cerifera	Southern Wax Myrtle
	Nandina	spp.	Nandina
	Osmanthus	fragrans	Sweet Olive
	Rosa	spp.	Antique varieties
	Sabal	Minor	Dwarf Palmetto
Ground	Aspidistra	Elatior	Cast Iron Plant

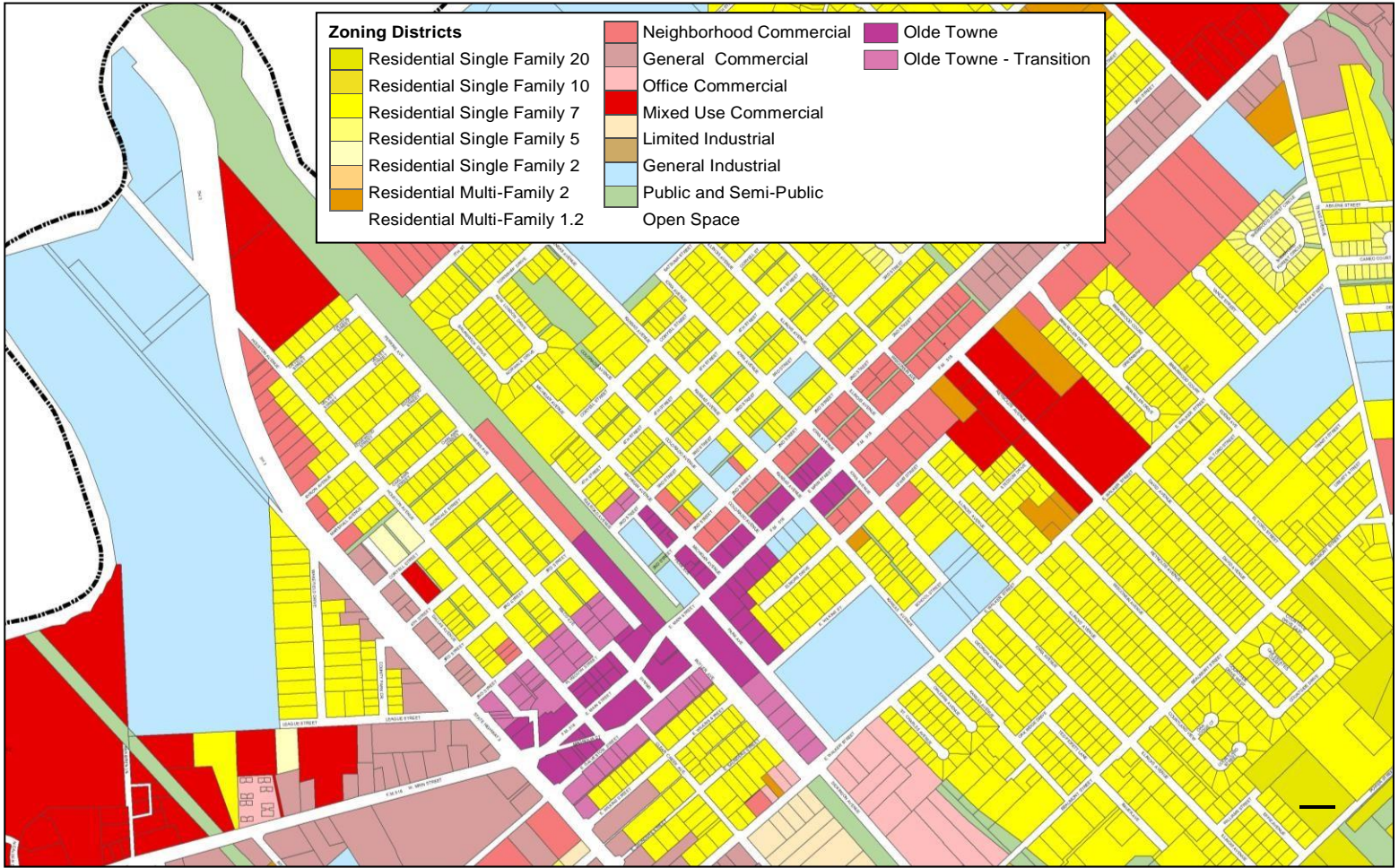
**Covers, Ferns,
Perennials**

Brunfelsia	pauciflora	Yesterday, Today, and Tomorrow
Crinum	spp.	Crinum Lily
Cyrtomium	falcatum	Holly Fern
Ginger	spp.	Ginger
Hemerocallis	spp.	Daylily
Iris	spp.	Iris
Lantana	spp.	Lantana
Malvaviscus	arboreus	Turk's Cap

Vines

Campsis	radicans	Trumpet Vine
Ficus	Pumila	Fig Ivy
Gelsemium	sempervirens	Carolina Jessamine
Rosa	banksiae	Lady Banks Rose
Rosa	spp.	Antique varieties
Trachelospermum	jaminoides	Confederate Jasmine

Zoning District Map



Sec. 3.10 -PUD Planned Unit Development Overlay District

3.10.1 Purpose. The *-PUD Planned Unit Development Overlay District* is intended to encourage high quality development in the City by providing additional flexibility in the planning and development of projects. Such flexibility is intended to result in development that is more efficient, environmentally sensitive, visually pleasing, safe, and socially integrated than traditional zoning might provide. The *-PUD Overlay District* is also meant to provide the City with the ability to better manage development in areas that are adjacent to residential development. The specific purposes of the *-PUD Overlay District* are to:

- a. Establish a procedure for the development of land under unified controls to increase flexibility from the strict application of land use regulations, development standards, and procedures intended primarily for individual lots;
- b. Ensure orderly and thorough review procedures that will result in quality design, protection of open space and sensitive areas, and the creation and improvement of common open space and pedestrian and bicycle circulation, particularly in residential areas;
- c. Achieve efficient land use patterns while permitting creative and innovative approaches to the development of urban and suburban residential, commercial, and industrial land;
- d. Encourage mixed development patterns, architectural styles, and building forms to avoid monotony in large developments by allowing greater freedom in selecting the means to provide access light, open space, amenities; and
- e. Provide for flexibility in the strict application of certain of the land use regulations and performance standards found in the base zoning districts to take advantage of special site characteristics, location, and/or land uses.
- f. Consider the impact on adjacent developed properties, particularly residential areas, and enter into a documented dialog to address their issues and concerns.
- g. All *-PUD Overlay Districts* shall have an underlying zoning designation.

3.10.2 Zoning Map Designator. A *-PUD Overlay District* will be combined with the base zoning district(s) applied to the area and will be shown on the Zoning Map by a *-PUD* designator applied to the base district(s) designation.

3.10.3 Applicability. The applicability of the *-PUD Overlay District* shall be as follows:

- a. **Allowable Locations.** No *-PUD Overlay District* may be applied to an area of the City that is not served by critical infrastructure, such as potable water, sanitary sewer, storm sewer, and paved streets, except where one or more of such services not currently in place is included in the City's master plan for installation or construction within a 3-year period from the date of the application for a Planned Unit Development. In addition, no *-PUD Overlay District* may be applied to an area that is located more than 1-mile from a major

arterial street, as designated by the City Planner or designee, or shown on the Master Transportation Plan.

- b. *Minimum Area.*** No -PUD Overlay district may be applied to a land area less than 5- acres for residential development and 2-acres for non-residential development.

3.10.4 *Land Use Regulations.* Any use authorized in the Base District Regulations, may be included in a -PUD Overlay District, provided such use is consistent with the land use concepts in the Comprehensive Plan for the area to be included in the -PUD Overlay District, and is not disruptive or inconsistent with current neighboring development, particularly residential areas. Existing uses are permitted and may continue. All uses in the -PUD Overlay District shall be in accordance with the Master Plan approved for the District.

3.10.5 *Development Regulations.* The total number of dwelling units in a -PUD Overlay District shall not exceed that permitted by the Comprehensive Plan density for the total area of parcels designated for residential use. Other development regulations, such as for building scale, building form and location, pedestrian orientation, parking accommodation, open space and landscaping, and other standards shall be as prescribed by the Development Plan approved for the District and may depart from conformance with the standards specified in the base zoning district where the - PUD Overlay District is applied if specifically approved by the Planning and Zoning Commission and/or City Council.

3.10.6 *Initiation.* A -PUD Overlay District may be initiated by a property owner or authorized agent, the Planning and Zoning Commission, or the City Council. If the property is not under a single ownership, then all owners shall join in the application and a map showing the extent of ownerships shall be submitted with concept plans and materials.

3.10.7 *Criteria for Consideration of -PUD Overlay District Application.* The Planning and Zoning Commission shall consider an application for rezoning to a -PUD Overlay District as prescribed under Section 3.10 and shall at the same time consider a proposed Concept Plan for the area. A recommendation of the Planning and Zoning Commission to rezone to a -PUD Overlay District shall be accompanied by a resolution recommending approval of the Concept Plan. In addition to the criteria for considering an application for a zoning map amendment, Planning and Zoning Commission shall recommend approval or conditional approval of the Concept Plan to the City Council upon finding that:

- a.** The Concept Plan is consistent with the adopted Comprehensive Plan and other applicable policies and is compatible with surrounding development;
- b.** The Concept Plan will enhance the potential for superior urban design and amenities in comparison with the development under the base district regulations that would apply if the Concept Plan were not approved;
- c.** Deviations from the base district regulations that otherwise would apply are justified by compensating benefits of the Concept Plan; and

- d. The Concept Plan includes adequate provisions for utilities, services, and emergency vehicle access; and public service demands will not exceed the capacity of existing and planned systems. See the Adequate Public Facilities Ordinance for these requirements.

3.10.8 Procedures for -PUD Overlay District Application. In addition to the procedures for an application for a zoning map amendment, an application for rezoning to a -PUD Overlay District shall be processed in the following manner.

- a. **Pre-Application Conference.** Prior to submitting an application for a Planned Unit Development, the prospective applicant shall request a review by the City Planner or designee and representatives from other City departments, as appropriate, to discuss the prospective development with respect to compatibility with existing and anticipated land uses in the vicinity and the City's adopted planning rationale. The pre-application conference is intended to guide the prospective applicant in the preparation of a Concept Plan to be submitted for Planning and Zoning Commission consideration and City Council approval. There is no fee associated with a request for a pre-application conference; however, additional requests for a pre-application conference for the same site within a period of 1-year from the date of the initial conference may incur a fee associated with any City costs to do so.
- b. **Submission and Approval of Concept Plan.** The applicant shall submit a Concept Plan (bubble plan) as part of the application for rezoning to a -PUD Overlay District. The City Planner or designee shall prepare a written report on the Concept Plan that will summarize the anticipated impacts of the proposed development on planning goals, utilities, emergency services, vehicular traffic, taxes, and properties within a 500-foot distance of the site for which the development is proposed. The Concept Plan, a list of requested variances, and report by the City Planner or designee shall be submitted for consideration by the Planning and Zoning Commission and recommendation to City Council. Upon approval by City Council of the Concept Plan, the applicant may proceed with the preparation of a Master Plan and proceed to subsequent steps for approval with reasonable assurance that if the agreed upon concept is carried forth, then preliminary and final plat approvals will be granted by the City. Following approval of the Concept Plan by City Council, the applicant shall prepare a Master Plan. Recommendation for approval or denial of a -PUD Overlay District shall be made by the Planning and Zoning Commission and approved or denied by City Council.
- c. **Approval of Master Plan.** After City Council has approved the -PUD Overlay District, then the applicant shall submit a Master Plan for consideration and approval by the Planning and Zoning Commission. The applicant may proceed with platting after approval of the Master Plan. The Master Plan must not have more than a 15 percent change in the land use or a significant change in geographic location from the previously approved Concept Plan for the -PUD Overlay District. Changes that alter the uses permitted by more than 15 percent and/or have a significant change in geographic location shall require submittal of a revised Concept Plan to be considered and approved by the Commission and City Council via a public hearing and notified in the same manner as a text or map amendment. When determining whether or not a "PUD" development has exceeded 15

percent and should be considered by City Council, each of the following shall be considered:

1. ***The total acreage change to the "PUD" development based on the original Concept Plan document.*** The Concept Plan establishes the land use acreages and represents the baseline in determining the percentage of change. (Example: In a 100-acre "PUD", an increase of 10 acres of residential and a decrease of 10 acres of commercial is still a total change of 10 acres and the percentage of change of the total acreage is 10 percent.)
 2. ***Percentage of change (increased or decreased) within each land use category based on the original Concept Plan document.*** For residential uses, the density units per acre shall also be calculated. (Example: In a 100-acre "PUD", a decrease from 15 to 10 acres in the residential land use category represents a 5 percent change in acreage. However, an increase in density units per acre (dua) from 100 dua to 150 dua represents a 50 percent density increase.)
 3. ***Intangibles*** such as re-locating a thoroughfare shown on the Transportation Plan, changing the general concept or changing the location of uses that may not necessarily have anything to do with the acreage of land uses per se, but may be just as important in evaluating whether or not a "PUD" should be reconsidered by the Commission and City Council.
- d. ***Lapse of Approval and Renewal of Master Plan.*** A Master Plan shall be effective on the date the ordinance creating the -PUD Overlay District is approved and shall expire after 2 years unless a building permit has been issued and a vested right established. An approved Master Plan may specify a development staging program exceeding 2 years. The Planning and Zoning Commission may recommend, and the City Council may renew, a Master Plan for a period of up to 2 years if it finds the renewal consistent with the purposes of this Section. Application for renewal shall be made in writing to the City Planner or designee not less than 30 days or more than 120 days prior to expiration.
- e. ***Revisions to Master Plan.*** Changes to the Master Plan that do not alter the basic relationship of the proposed development to adjacent property; do not alter the uses permitted or increase the density, building height or coverage of the site; do not decrease the off-street parking ratio or reduce the yards provided at the boundary of the site; and do not significantly alter the landscape plans or signage as indicated on the approved development may be recommended by the City Planner or designee and approved by the Planning and Zoning Commission. The Master Plan must not have more than a 15 percent change in the land use or a significant change in geographic location from the previously approved Concept Plan for the -PUD Overlay District. Changes that alter the uses permitted by more than 15 percent and/or have significant change in geographic location shall require submittal of a revised Concept Plan to be considered and approved by the Commission and City Council via a public hearing and notified in the same manner as a text or map amendment. When determining whether or not a "PUD" development has exceeded 15 percent and should be considered by City Council, each of the following shall be considered:
1. ***The total acreage change in the "PUD" development based on the original Concept Plan document.*** The Concept Plan establishes the land use acreages and represents the

baseline in determining the percentage of change. (Example: In a 100-acre "PUD", an increase of 10 acres of residential and a decrease of 10 acres of commercial is still a total change of 10 acres and the percentage of change of the total acreage is 10 percent.)

2. **Percentage of change (increased or decreased) within each land use category based on the original Concept Plan document.** For residential uses, the density units per acre shall also be calculated. (Example: In a 100-acre "PUD", a decrease from 15 to 10 acres in the residential land use category represents a 5 percent change in acreage. However, an increase in density units per acre (dua) from 100 dua to 150 dua represents a 50 percent density increase.)
 3. **Intangibles** such as re-locating a thoroughfare shown on the Transportation Plan, changing the general concept or changing the location of uses that may not necessarily have anything to do with the acreage of land uses per se, but may be just as important in evaluating whether or not a "PUD" should be reconsidered by the Commission and City Council.
- f. Annual Report.** The developer shall submit an annual progress report to the City Planner by September 1 of each year for review and acceptance. The report shall contain a discussion of the development schedule and any deviations from the originally approved schedule. The City Planner shall refer the annual report to the Planning and Zoning Commission and the City Council for review. Acceptance of the annual report by the City Planner or designee is required prior to any staff review of any aspect of the -PUD Overlay District project, including building permits and revisions.

3.10.9 Required Plans and Materials. An application for rezoning to a -PUD Overlay District requires the approval of a Concept Plan by City Council and approval of a Master Plan by the Planning and Zoning Commission. This section outlines the information required for each plan.

a. Concept Plan. The Concept Plan shall include the following information:

1. A site inventory analysis showing existing vegetation, natural watercourses or standing water, flood prone areas, and any other known hazard areas. This analysis shall include graphic and textural materials indicating how the proposed development will affect such natural features and identify what, if any, trees intended for removal.
2. An accurate survey of the subject property showing the existing topographical contour intervals of not more than five feet, and a plan showing the proposed topography at minimum five-foot contour intervals and significant change in drainage.
3. A summary of the proposed development program, including: detailed tabulation showing the proposed acreage of each land use and underlying zoning districts; description of the open space program, including the location and function of developed and/or improved open space, its relationship to any natural or historic values on the site, and its status as either public or private open space.
4. A traffic impact analysis as required by the City Engineer.
5. A scale drawing showing the proposed street and circulation system design, including

a layout diagram, landscaping, and pedestrian amenities; building sites or lots; areas reserved for use as parks, playgrounds, utility easements, and school sites; lands to be dedicated to the City; general location and description of existing and proposed utility services (including size of water and wastewater mains); and the existing zoning classification and underlying zoning districts, if applicable, of all abutting properties.

6. A determination that adequate public facilities exist to service the proposed development (road, sewerage, water, fire suppression, and storm drainage) as determined by the City Engineer and/or by the City's Adequate Public Facilities Ordinance.
 7. An estimate of the projected population within the -PUD Overlay District to assist the City and the applicable School District(s) in determining future needs.
 8. A summary of requested variance(s) from any provision in the League City Code of Ordinances.
 9. A development schedule indicating the rate of anticipated development to completion from the date on which construction begins. As part of the PUD Plan, the development schedule shall be adhered to by the owner, applicant, and any successor in interest.
 10. Perspective illustrations, either hand drawn or computer generated, indicating the general form and character of development, including representative examples of residential and non-residential buildings.
 11. A statement explaining the reasons that justify use of a -PUD Overlay District for the project in relation to the findings.
 12. Verbal and/or illustrative plans on the specific architectural and aesthetic elements to be included in the development project that must be substantially more generous than the underlying zoning requires.
- b. *Master Plan.*** In addition to presenting the final form of the various elements required in the Concept Plan above, the Master Plan shall include the following information:
1. A description of proposed governance institute or institutions, such as homeowner's associations, and initial governance documents, if applicable.
 2. A plot plan showing adherence to the Buffer Yards requirements.
 3. A depiction of existing surface drainage patterns and proposed retention and detention areas is required. Depict historical flows and proposed flows along with the existing flows.

Sec. 3.11 -CRC Commercial Revitalization Overlay District

3.11.1 Purposes. The *-CRC Commercial Revitalization Overlay District* is intended to preserve the character of an established commercial corridor while providing opportunities for infill development that is consistent with and enhances the prevailing built character. The *-CRC Overlay District* applies to commercial development on the FM 518 corridor between Pecan Drive and FM 270, excluding properties within the Olde Towne Districts and encourages small-scale commercial uses to locate nearer the street with parking located to the rear or side of buildings. The use regulations and development standards included in the *-CRC Overlay District* will facilitate neighborhood maintenance, upgrading, and the development of vacant or underutilized lots while reducing the potential for incompatible land uses. Circulation and access in the district will be consistent with the FM 518 Corridor Access Management Plan.

3.11.2 Zoning Map Designator. The *-CRC Overlay District* will be combined with the base zoning district(s) applied to the area and will be shown on the Zoning Map by a *-CRC* designator applied to the base district(s) designation.

3.11.3 Applicability. Except as otherwise noted in this Section, the regulations of the underlying base zoning district(s), and any other applicable overlay district, shall apply to property in the *-CRC Overlay District*. In the case of a conflict between the provisions of an underlying base zoning district or other applicable overlay district and the *-CRC Overlay District*, the provisions of the *-CRC Overlay District* shall govern.

3.11.4 Development Regulations. Table 3.11.4 below prescribes the development regulations for the *-CRC Commercial Revitalization Overlay District*, including building density, building form and location, and vehicle accommodation.

Table 3.11.4: Commercial Revitalization Overlay District	
<i>Development Regulations</i>	<i>CRC</i>
Minimum Lot Area (square feet)	5,000
Minimum Lot Width (feet)	50
Minimum Lot Frontage (feet)	50
Maximum Height (feet)	45
Minimum Front Setback	--
Minimum Side Setback – nonresidential	10
Minimum Side Setback – residential	15
Minimum Street Side Setback (corner lot)	10
Minimum Rear Setback – nonresidential	15
Minimum Rear Setback – residential	20
Minimum Build-to Lines (percent)	50
Maximum impervious surface (lot) coverage (See Sec. 5.7)	85

3.11.5 *Building Streetscape.*

1. ***Minimum Build-to Lines.*** Along the primary street frontage, fifty percent (50%) of the front façade shall be built to the sidewalk.
2. ***Storefront Continuity.*** Ground floor of retail buildings shall have a storefront appearance along the primary street frontage.
3. ***Articulation.*** No unadorned blank walls greater than 15 feet in length, excluding garage doors, shall be permitted on the primary street frontage. Building surfaces shall include an offset, recess, or projection providing shadows or visual interest for at least 25 percent of the frontage.
4. ***Driveways.*** The number and location of driveways shall comply with the FM 518 Corridor Access Management Plan.

Sec. 3.12 HCD Historic Overlay District

3.12.1 *Historic Overlay District.* On July 8, 1997, the City of League City authorized the establishment of historic districts. These districts provide the most powerful tool to protect the character of our historic neighborhoods.

3.12.2 *Purpose.* The Historic Overlay District is intended to:

- a. protect, enhance and perpetuate places and areas which represent distinctive and important elements of the League City's historical, cultural, and architectural history;
- b. insure the harmonious, orderly and efficient growth and development of the city that is sensitive to its historic resources.
- c. preserve the old town atmosphere;
- d. increase public knowledge and appreciation of the city's historic past and unique sense of place;
- e. foster civic and neighborhood pride and a sense of identity;
- f. promote economic prosperity and welfare of the community by encouraging the most appropriate use of historic resources within the City;
- g. create a more livable urban environment; and,
- h. encourage stabilization, restoration, and improvements of such properties and their values.

3.12.3. *Historic Preservation Officer.* The Executive Director of Planning and Development shall appoint a qualified staff person to serve as Historic Preservation Officer (hereafter referred to

as Preservation Officer). This officer shall administer this ordinance and advise the Commission on matters submitted to it. The officer shall also be responsible for coordinating the City's preservation activities with those of state and federal agencies and with local, state, and national nonprofit preservation organizations when required.

3.12.4 *Historic Overlay District Designation.* This designation establishes a historic overlay district which includes contributing (historic) and non-contributing structures. The area within the historic overlay contains a mixture of residential and commercial uses, cottage style retail and office spaces, including plazas, parks, and natural open spaces. It is an area of suburban village development with majestic oak trees and landscaping developed in a street grid pattern that is both walkable and bike friendly.

3.12.5 *Compliance with Historic Designation.* The property owners within this district shall comply with the requirements of this section, other ordinances of the city and to the League City Design Guidelines. Buildings or places within the Historic Overlay District which lack historical, architectural, or cultural importance or value must comply with the provisions of this section except as noted.

3.12.6 *Criteria for Historic Designation.*

a. *Landmarks.* Properties that are listed as a Recorded Texas Historic Landmark (RTHL), State Archeological Landmark (SAL) or listed on the National Register of Historic Places (NR) shall be considered as recognized local Landmarks. An individual Landmark may be designated if it is at least fifty (50) years old and it substantially complies with two or more of the following:

1. Possesses significance in history, architecture, archeology, or culture.
2. Is associated with events that have made a significant contribution to the broad patterns of local, regional, state, or national history.
3. Is associated with events that have made a significant impact in our past.
4. Represents the work of a master designer, builder, or craftsman.
5. Embodies the distinctive characteristics of a type, period, or method of construction.
6. Represents an established and familiar visual feature of the city.

b. *Criteria for creating or adding to a Historic District.* The criteria for including area in a Historic Overlay District (by creation or addition) are as follows:

1. The included area must be a geographically definable area possessing significant concentration, linkage or continuity of buildings, structures, sites, areas or lands that are united by architectural, historical, or cultural importance or significance.
2. The included area must meet three or more of the following criteria:

- i. It has character, interest or value as part of the development, heritage or cultural characteristics of the City, the State, or the United States.
 - ii. It includes one or more Texas Historic Landmark, National Historic Landmarks or places entered into the National Register of Historic Places.
 - iii. It includes distinguishing characteristics of an architectural type, period, or method of construction.
 - iv. It is identified with the work of an architect or master builder who influenced the development of the City.
 - v. It includes elements of design, detail, materials or craftsmanship that represent a significant innovation.
 - vi. It has a close relationship to distinctive buildings, sites or areas that can be preserved under a plan based on architectural, historic, or cultural motif.
 - vii. It portrays the environment of a group of people in an area characterized by a distinctive architectural style.
 - viii. It exemplifies the cultural, economic, social, ethnic, or historical heritage of the City, state or nation.
 - ix. It includes the location of a significant historical event.
 - x. It is identified with a person or persons who significantly contributed to the culture and development of the City, state or nation.
 - xi. It contributes significantly to community identity, spirit, or pride.
3. Applications for including an area in a Historic District may be by a petition of property owners and shall be filed with the Historic Preservation Officer. The application shall contain a report to the Commission containing the following information:
- i. a list of representative buildings and places within the included area and a description of the significance of each one;
 - ii. a map clearly showing the boundaries of the included area and the locations of the representative buildings and places (identified by a number or letter);
 - iii. a written description, with photographs, of each representative building and place, including color, condition, architectural style, date of construction (if known), builder and architect (if known), the chain of uses and ownership, materials, construction techniques, recognition by governmental agencies (for architecturally or historic significance), cultural importance or value (if made the basis of the application), any proposed restrictions upon use or construction, and anticipated effects on public facilities (including utilities, streets, and other public improvements, existing or proposed); and
 - iv. all applicable fees; and
 - v. a petition signed by 100% of the number of owners of parcels of land lying wholly or partly within the included area (other than streets). For this purpose, parcels and owners are determined by the most current records of the central appraisal district at the time of filing. To be effective, the signature of an owner must be affixed in the same form and manner as would be required for a deed conveying the whole parcel (and more than one signature may be required).

4. The Commission may also consider creating or adding to a Historic District on its own motion or at the request of the Council. The Commission shall apply the criteria listed in Item 2 of this subsection and make a recommendation to the Planning & Zoning Commission, which shall handle the recommendation as a proposed amendment to this Ordinance (refer to Section 2.15). A recommendation from the Historic Commission to create or add to a Historic Overlay District shall include a draft ordinance with:
 - i. A description of the boundaries of the included area;
 - ii. Findings that the area meets the criteria prescribed by this section; and
 - iii. A classification of existing occupancies and structures and their effects upon the character, safety, economic and physical impact of the district; and
 - iv. If a new district is proposed, recommendation may include provisions for buildings or places which lack historical, architectural, or cultural importance or value.

3.12.7 Zoning. Except as noted in this Section, the underlying base zoning district shall apply to property within the Historic Overlay District. In case of a conflict between this section and the provisions of the base zoning district or with any other regulations, the Historic District Overlay regulations shall prevail.

Use Regulations

CLASSIFICATION	Residential	Commercial
Residential		
Single Family Dwelling	P	
Single Family with Secondary dwelling	S	
Attached Single Family Dwelling	P	
Public and Semi-Public		
Parks and Recreation	P	P
Public Safety Facilities	P	P
Religious Assembly	P	P
Schools, public and private	P	P
Commercial		
Alcoholic Beverage Sales – on premise consumption		S
Alcoholic Beverage Sales – off premise consumption		S
Animal Sales and Service	S	S
Artisan	S	P
Banks and other financial institutions – no drive-thru		P
Banks and other financial institutions – with drive-thru		S
Bed and Breakfast	P	P
Catering Business		P
Clubs and Lodges		P
Cultural Institutions	S	P
Day Care	S	S
Eating and Drinking Est – may include Live Entertainment (less than 3000 sq. ft. including all seating areas)	S	P
Event Venue	S	P
Micro-Brewery, Micro-Distillery and Micro-Winery with Live Entertainment		P
Food and Beverage Sales less than 20,000 square feet	S	P
Live/Work Units	P	P

Offices	S	P
Personal Instructional Services	S	P
Personal Services	S	P
Retail Sales	S	P
Temporary Sales	S	P

3.12.8 Development Regulations.

- a. **Nonresidential.** Nonresidential zoning districts shall follow the Olde Town District development regulations. Deviations may include the following:
 - i. Sidewalks are required in non-residential zoning districts in the Historic District. The Preservation Officer may approve alternate sidewalk designs to the extent necessary to preserve or protect a historic structure, place or large tree.
 - ii. Curbs and gutters are only required along streets without open ditches.
- b. **Residential.** Residential zoning districts shall follow the residential standards found in the Design Guidelines.
- c. **Sidewalks** Sidewalks are not required on residentially zoned properties in the historic district.
- d. **Parking.** The Zoning Board of Adjustments may issue a special exception to relax parking regulations in the Historic District, to the extent necessary to preserve or protect a historic building, place, or large tree. Relaxation may include the use of off-sites paces, leased spaces, tandem spaces, shared, spaces, on-street spaces, etc.
- e. **Interpretations.** City officials, boards, and commissions are authorized and encouraged to interpret and apply other ordinances, rules, and regulations liberally to minimize conflicts to preserve and protect historic buildings and places.
- f. **Design Guidelines.** Architectural regulations are found in the most recently adopted League City Historic District Design Guidelines and are adopted by reference. These regulations apply to other structures and places, even if no certificate of appropriateness is required.

3.12.8 Certificate of Appropriateness (COA).

- a. **General Information.** No person or entity shall construct, reconstruct, alter, restore, rehabilitate, move or demolish exterior portions any building, or architectural feature of a building within the District, nor shall any person make any material change in other exterior elements visible from a public right-of-way which affect the appearance and cohesiveness of any property within the Historic District without approval of a COA. Submitting an application for a COA does not constitute approval of the COA. All development within the Historic District shall be subject to review by the Preservation

Officer. No other permits for such work shall be issued unless a COA, if required, has been issued. Any property owner within the Historic District who is considering changes to the exterior of their property should meet with or call the City of League City Preservation Officer at (281) 554-1080 to determine if a COA is required for the proposed work.

All work must comply with the applicable preservation regulations and the approved COA including any conditions and restrictions imposed by the Historic Commission. A COA does not constitute a Building Permit and the undertaking may require a Building Permit to perform the work.

- b. *Ordinary Maintenance and Repair.*** Nothing in this ordinance shall be construed to prevent the ordinary maintenance and repair of any exterior architectural feature of a landmark or property within a historic district which does not involve a change in design, material, or outward appearance that require the issuance of a building permit. In-kind repair/replacement and repainting is included in this definition of ordinary maintenance unless painting involves an exterior masonry surface that was not previously painted. The Preservation Officer shall make the decisions as to what is "ordinary maintenance and repair." Masonry includes brick, stone, cast stone, limestone, marble and granite.
- c. *Application.*** A COA may be issued by the Historic Commission (which requires a public hearing) or the Preservation Officer, when the proposed improvements are compatible with the historic character of the Historic District. Only the owner of a building may apply for a COA. A complete application must be submitted for both types of approval. The application shall include elevation drawings of the proposed changes (if available), detailed description of proposed work, samples of material, site plan showing location of structures affected and proposed structure (if applicable), photographs, and other descriptions sufficient to communicate the nature and extent of the proposed work. For work requiring a COA, the COA is required in addition to, and not in lieu of, any required building permit.
- d. *Criteria for COA Approval.*** In considering an application for a COA, the Preservation Officer and/or Historic Commission shall be guided by the adopted design guidelines, and where applicable, the following from *The Secretary of the Interior's Standards for Rehabilitation of Historic Buildings*:

 - 1. Every reasonable effort shall be made to adapt the property in a manner which requires minimal alteration of the building, structure, object, or site and its environment.
 - 2. The distinguishing original qualities or character of a building, structure, object, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.

3. All buildings, structures, objects, and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.
4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, object, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.
5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, object, or site shall be kept where possible.
6. Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should reflect the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.
7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.
8. Every reasonable effort shall be made to protect and preserve archeological resources affected by, or adjacent to, any project.
9. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural, or cultural material, and such design is compatible with the size, scale, color, material, and character of the property, neighborhood, or environment.
10. Whenever possible, new additions or alterations to buildings, structures, objects, or sites shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the building, structure, object, or site would be unimpaired.

e. **Matrix.** The following matrix outlines approving authority for a COA.

Reason for Certificate of Appropriateness	Commission Level	Staff Level	No COA Required
Addition or Alteration to structure that increases square footage of footprint	√		

Reason for Certificate of Appropriateness	Commission Level	Staff Level	No COA Required
Additions or Alterations that adds more stories to existing structure	√		
Addition of exterior architectural details with no proof the features previously existed	√		
Any work begun or completed without a Certificate of Appropriateness	√		
Awnings and Canopies	√		
Construction of a new structure	√		
Demolition of all or a portion of a contributing structure	√		
Replacement of Doors, Windows, Siding, or exterior features (new location, new material, or new design) on contributing structure	√		
Roof replacement with change to shape or pitch of the roof	√		
Roof replacement with materials not listed in guidelines	√		
Moving structure (considered historic or non-contributing) into historic district	√		
Moving a structure to a different location on the same lot or to a different lot within the historic district	√		
Moving contributing structure out of the historic district	√		
Fences design or material not consistent with the Design Guidelines	√		
Addition of storm windows/doors/burglar bars/accessibility ramps/solar panels/satellite dishes or antennae.	√		
Replacement Awnings and Canopies		√	
Exterior emergency repairs when further damage to structure may result if repairs are not completed immediately		√	
Exterior repairs and/or maintenance with in-kind materials		√	
Exterior replacement (doors, windows, siding, features) with material from Design & Materials on non-contributing structures		√	
Fence Design and material consistent with the Design Guidelines		√	
Roof replacement with in-kind material or Architectural Shingles and no change to structure, shape or pitch of the roof		√	
Signs installed without damage to significant historic material and do not compromise historic exterior structural features		√	
Time Extensions for Certificate of Appropriateness		√	
Tree Removal on property or in rights-of-way		√	

Reason for Certificate of Appropriateness	Commission Level	Staff Level	No COA Required
Replacement of awnings and canopies		√	
Removal of non-historic decorative elements such as shutters, brackets, skylights, canopies, or awnings		√	
Installation of exterior architectural details that have been partially lost, damaged beyond repair, or removed, if you can provide proof that they existed, either through existing elements that are still in place or by historical documentation, such as architectural plans or photographs		√	
Removal of storm windows and storm doors			√
Removal of burglar bars			√
Removal of accessibility ramps or lifts			√
Removal of solar panels			√
Removal of satellite dishes or antennae			√
Repainting previously painted masonry surfaces			√
Temporary emergency weather protection, such as plywood coverings over windows			√
Landscaping			√
Demolition of a noncontributing structure - (Demolition Permit is required.)			√
Moving a noncontributing structure out of a historic district – (Permit to disconnect utilities from building department; Routing permit for League City Police Department; and if new location is in League City a Building permit for the new location required.)			√
Reconstruction of the portion of a noncontributing structure that was completely or partially destroyed by a fire, natural disaster, or other damage not intentionally caused by the owner of the structure only if the reconstruction is built within the same footprint and has the same exterior features as the contributing or noncontributing structure. (Building permit may be required)			√
Work that only affects the interior of the building, not normally visible from a street. (Building permit may be required)			√

f. Application Review. In reviewing an application, the Preservation Officer and/or the Historic Commission may request additional information from the owner. Site visits by the Preservation Officer may be necessary. Generally, it is not necessary for the property owner to be home as only the exterior of the property will be viewed. The Preservation Officer may refer any request for a COA to the Commission if the Preservation Officer and the applicant disagree over the appropriateness of the request or, if in the Preservation Officer’s opinion, the request may have an adverse effect on surrounding properties.

- g. **Commission Level Approval:** For applications requiring Commission approval, the Commission shall hold a public hearing on each application. Staff shall post a notice on the property (i) at least 15 days prior to the hearing, (ii) at or near the principal entrance to the affected property, and (iii) so that it is clearly legible by a person standing within a street or other public way.
- h. **Decision.** After reviewing an application, if the Commission finds the proposed work meets the standards for issuance, the Commission shall issue a COA. The Commission may impose conditions and restrictions on a certificate, to the extent reasonably necessary to meet the standards for issuance. Otherwise, the Commission shall disapprove the application. All descriptions of the work provided by the applicant (and any other representations made by the applicant) are deemed to be included in each certificate, regardless of whether they are attached or referenced, but are subject to the certificate of appropriateness and any conditions or restrictions imposed.
- i. **Notification.** The Preservation Officer shall promptly notify the applicant and the Building Official of the disposition of each application. Building permits and other approvals are usually required, in addition to a COA.
- j. **Failure to Act on COA.** If the Commission neither issues a COA nor disapproves an application by the decision deadline, the Preservation Officer shall issue a COA covering all the work applied for, without conditions or restrictions. The decision deadline is the 45th day following the date the application is filed (or, in case of an application including any major demolition or removal, the 90th day). In this paragraph, “major demolition or removal” means demolition or removal of 250 square feet or more of building space, measured by the affected floor area.
- k. **Appeals.** A person aggrieved by any action of the Commission may appeal to the Zoning Board of Adjustment. Appeals must be in writing and filed with the Preservation Officer not later than the 30th day following the day the applicant is notified of the action. The Board shall give notices, hold a hearing and make a decision in the same manner as prescribed for Commission action under this section. For this purpose, decision deadlines are measured from the date an appeal is filed with the Preservation Officer.
- l. **Expirations and Extensions.** Certificates of Appropriateness may expire and/or be extended in the following circumstances:
 - 1. **Expiration:** COAs shall expire:
 - i. If work is not commenced within 12 months of the date of issuance;
 - ii. If work is suspended or abandoned for 90 days or more after commencement excluding days when the certificate is stayed pursuant to appeal or court action;
or
 - iii. If work is not completed within 24 months of date of issuance.

2. **Extensions.** The Historic Commission or the Preservation Officer may grant one or more 90-day extensions of time for completing the work authorized by the COA when:
 - i. The applicant submits a written explanation of the need for additional time;
 - ii. The Preservation Officer finds that the explanation justifies the extension; and
 - iii. The applicant agrees to complete the work within the extended time period or be subject to revocation of the COA.

3.12.9 Relocation of Contributing Structures. A property owner seeking to move a contributing building shall submit an application for a certificate of appropriateness requesting approval to move or relocate the structure.

a. Moving a Contributing Structure within the Historic District. To move a contributing structure to a different location on the same lot or to a different lot within the historic district, the applicant must meet all of the following criteria:

1. The structure can be relocated without significantly diminishing the integrity of the historic district in which it is located.
2. The structure can be moved without significant damage to its physical integrity. Note: It may be necessary to install structural supports within the building during the move. Consult a qualified structural mover, who can assess the condition of the structure and take the appropriate steps to stabilize it before, during, and after relocation. Secure the building to prevent unauthorized entry while it is unoccupied.
3. The structure will be located to an area that is compatible with and retains the distinguishing qualities and historical and architectural character of the contributing structure.
4. There are compelling circumstances justifying the relocation of the structure.
5. The front and side setbacks of the structure in its new location will be compatible with the front and side setbacks of existing contributing structures in the new area. Note: the original primary building on a lot should not be relocated behind a new main house.

b. Moving a Contributing Structure out of the Historic District. Moving a contributing structure out of a historic district is equivalent to demolishing that building. The applicant must comply with all of the criteria listed 1. above. They also must establish that relocation is necessary to prevent an unreasonable economic hardship by meeting all of the following criteria (the same criteria that are required for demolition). The applicant must prove that:

1. The property is incapable of earning a reasonable return, regardless of whether the return is the most profitable return, including without limitation, regardless of whether the costs of maintenance or improvement of the property exceed its fair market value;
2. That the owner has demonstrated that the property cannot be adapted for any other use,

whether by the current owner, by a purchaser, or by a lessee, which would result in a reasonable return;

3. That the owner has demonstrated reasonable efforts to find a purchaser or lessee interested in acquiring the property and preserving it, and that those efforts have failed; and
4. If the applicant is a nonprofit organization, determination of an unreasonable economic hardship shall instead be based upon whether the denial of a Certificate of Appropriateness financially prevents or seriously interferes with carrying out the mission, purpose, or function of the nonprofit corporation.

c. ***Moving a structure into the Historic District.*** Moving any structure (historic or non-contributing) into a Historic District requires the Historic Commission to a certificate of appropriateness. The request will be reviewed and approved as new construction.

3.12.10 Demolitions.

a. ***Demolition/Partial Demolition*** A property owner seeking to demolish all or a portion of a contributing building shall submit an application for a certificate of appropriateness requesting approval for a partial or total demolition of the structure to the Planning Department. For issuance of certificates of appropriateness for demolition of all or a portion of a contributing building, the applicant must prove a preponderance of the following factors:

1. neither restoration nor repair is feasible, considering the condition of the building;
2. the cost of restoration or repair is unreasonable;
3. the building has little or no existing or potential usefulness, including economic usefulness;
4. the building is not important for maintaining the character of the district or for achieving the historic preservation purposes of this Ordinance.

b. The demolition application shall include but may not be limited to all of the following:

1. **Proof of Ownership.** The applicant must provide proof of ownership.
2. **Owner's Signatures.** The application must be signed by all owners of the property or provide power of attorney to sign for other owners.
3. **Statement of Reasons.** A statement of the reasons that the demolition is being sought and documentation in support of each reason cited.
4. **Burden of Proof.** The applicant has the burden of proof in presenting all necessary facts and documentation to warrant approval of the application.

5. For a partial demolition, state the square footage of the area to be demolished measured by the affected floor area.

c. **Demolition by Neglect.** No owner or person with an interest in real property included within a designated historic district shall permit the property to fall into a serious state of disrepair so as to result in the deterioration of any exterior architectural feature which would, in the judgment of the Commission, produce a detrimental effect upon the character of the historic district as a whole or the life and character of the property itself. Examples of such deterioration include:

1. Deterioration of exterior walls or other vertical supports.
2. Deterioration of roof or other horizontal members.
3. Deterioration of exterior chimneys.
4. Deterioration or crumbling of exterior stucco or mortar.
5. Ineffective waterproofing of exterior walls, roof, or foundations, including broken windows or doors.
6. Deterioration of any feature that may create a hazardous condition which could lead

d. **Procedure.** The procedure to address demolition by neglect is as follows:

1. **Documentation of Neglect.** The Code Enforcement Officer and the Building Official shall document evidence of disrepair or neglect on designated properties located within a historic district.
2. **Notification of Property Owner.** If the disrepair or neglect does not rise to a level that warrants the Building Official's intervention, the Code Enforcement Officer shall notify the property owner in writing, informing the owner of the specifics of the alleged deterioration and requesting that the owner appear before the Historic Commission within 45 days of the date of the notification. The notification shall be provided to the owner either personally or by regular mail.
3. **Hearing.** The Commission shall conduct a hearing in accordance with the public hearing procedures. The purpose of the hearing is to enable the Commission to make a fuller and more accurate determination of the existence and degree of deterioration and the urgency for corrective action. The owner may appear before the Commission in person or by agent.

4. **Required Action Upon Finding of Demolition by Neglect.** If the Commission determines that the deterioration has produced a detrimental effect on the historic integrity of the property, the Commission may order the owner to cure the deterioration by repair or other appropriate actions within a reasonable time period. The owner must obtain a certificate of appropriateness (if required) for making the necessary repairs to correct the deterioration.

- e. **Claim of Economic Hardship.** Upon receiving a notification or corrective order under this Section, the property owner may make a claim of economic hardship through the procedure provided in Section entitled “Economic Hardship” in which case the corrective order issued under this Section shall be stayed until the Commission makes its determination on the claim.

- f. **Corrective Order if Claim Unsuccessful.** In the event of a finding of no economic hardship, the Commission may direct the Code Enforcement Officer to proceed with a corrective order as provided under this Section. The Commission may direct the Code Enforcement Officer to coordinate with the property owner on a compliance plan and schedule to address the detrimental deterioration that is the focus of the corrective order.

- g. **Potential Voluntary Measures if Claim Successful:** In the event of a finding of economic hardship, the Commission may recommend options for addressing the detrimental deterioration while relieving the economic hardship, and the Commission may also recommend voluntary actions the property owner may take to address the detrimental deterioration.

3.12.11 Economic Hardship

- a. After receiving notification from the Commission of the denial of a certificate of appropriateness for demolition of a contributing structure due to the effect of this ordinance, the owners may file a claim for economic hardship.

- b. **Information required.** A property owner claiming an economic hardship shall submit the following information to the Preservation Officer. If any of the required information is not reasonably available to or otherwise cannot be obtained by the owner, the owner shall describe the reasons. The Preservation Officer or Commission may specify that certain information items are not relevant or necessary for a particular case.
 1. Nature of ownership (individual, business, or non-profit) or legal possession, custody and control.
 2. Amount paid for the property, date of purchase, or other means of acquisition of title such as gift or inheritance and the party from whom purchased or otherwise acquired including a description of the relationship between the owner and the person from whom the property was purchased..
 3. Financial resources of the owner and any parties in interest.

4. Drawings, photographs, or written descriptions depicting the current condition of the structure.
 5. Assessed value of the land and improvements according to the two most recent assessments from the Galveston Central Appraisal District.
 6. Real Estate taxes for the previous two years.
 7. Verification of the presence or absence of a lien against the property from any agency.
 8. Current fair market value of the structure and property as determined by an independent licensed appraiser.
 9. All appraisals obtained by the owner or prospective purchasers within the previous two years in connection with the potential or actual purchase, financing, or ownership of the property.
 10. Any listing of the property for sale or rent, price asked, and any offers received within the previous two years.
 11. If the property is income-producing:
 - i. Annual gross income from the property for the previous two years;
 - ii. Itemized operating and maintenance expenses for the previous two years, including proof that adequate and competent management procedures were followed including but not limited to assurance of regular maintenance and inspection intervals of the property;
 - iii. Annual cash flow, if any, for the previous two years and proof that efforts have been made by the owner to obtain a reasonable return on his investment based on previous service;
 - iv. All capital expenditures during the current ownership;
 - v. Annual debt service, if any, for the previous two years; and
 - vi. Two separate detailed cost analyses conducted independently by contractors registered with the City who are proficient in rehabilitation and repair of historic structures that estimate the cost of making the building structurally sound and safe for use or occupancy.
 - vi. A restoration study of the structure performed by a licensed architect that analyzes the feasibility of restoration or adaptive reuse of the structure.
- c. *Criteria for Approval.*** No building permit or demolition permit shall be issued unless the Commission makes a finding that hardship exists. When a claim of economic hardship is made, the owner must clearly demonstrate that:
1. the property is incapable of earning a reasonable return, regardless of whether that return represents the most profitable return possible;
 2. neither the current owner nor any purchaser can adapt the property to comply with general zoning regulation, which would result in a reasonable return;

3. the property owner has made diligent attempts efforts to find a purchaser interested in acquiring the property and preserving it in compliance with historic preservation regulations but have failed.
 4. the applicant has worked in good faith with the Commission, any local preservation groups and other interested parties, in a diligent effort to seek an alternative that would result in preservation of the property. Such efforts must be shown to the Commission.
- d. **Criteria for Denial.** Claims of economic hardship by the owner shall not be based on conditions resulting from:
1. Evidence of demolition by neglect or other willful and negligent acts by the owner.
 2. Purchasing the property for substantially more than market value at the time of purchase.
 3. Failure to perform normal maintenance and repairs.
 4. Failure to diligently solicit and retain tenants.
 5. Failure to provide normal tenant improvements.
- e. **Public Hearing.** The Commission shall hold a public hearing on the application within sixty (60) days from the date the application is received by the Preservation Officer. Following the hearing, the Commission has thirty (30) days in which to prepare a written recommendation to the (building inspector or other official). If the Commission does not act within ninety (90) days of the receipt of the application, a permit may be granted.
- f. **Decision.** All decisions of the Commission shall be in writing. A copy shall be sent to the applicant and a copy filed with the building inspector. The Commission's decision shall state the reasons for granting or denying the hardship application.
- g. **Appeal.** An applicant for a certificate of appropriateness dissatisfied with the action of the Commission relating to the issuance or denial of a certificate of appropriateness shall have the right to appeal to the City Council within thirty (30) days after receipt of notification of such action. The City Council shall give notice, follow publication procedure, hold hearings, and make its decision in the same manner as provided in the general zoning ordinance of the city.

3.12.12 Enforcement. All work performed pursuant to a certificate of appropriateness issued under this ordinance shall conform to any requirements included therein. It shall be the duty of the building inspector or other city official to inspect periodically any such work to assure compliance. In the event work is not being performed in accordance with the certificate of appropriateness, or upon notification of such fact by the Commission and verification by the Planning staff, the Building official shall issue a stop work order and all work shall immediately cease. No further work shall be undertaken on the project as long as a stop work is in effect.

Sec. 3.13 Use of Land and/or Buildings

3.13.1 Use of Land and/or Buildings. The use of land and/or buildings shall be in accordance with those listed in the following Table of Permitted Uses. No land or building shall hereafter be used and no building or structure shall be erected, altered, or converted other than for those uses specified in the zoning district in which it is located. The regulations for each district are established by letter designations as follows:

"P" indicates the land use is permitted in the zoning district.

"S" indicates the land use may be permitted after review and approval of a Special Use Permit by the City Council.

indicates the use is prohibited in the zoning district.

3.13.2 Classification of New & Unlisted Uses. In cases where a specific land use or activity is not listed or defined, the City Planner or designee shall assign the land use or activity to a classification that is substantially similar in character.

USE	RSF-20	RSF-10	RSF-7	RSF-5	RSF-2	RMF-2	RMF-1.2	CN	CG	CO	CM	IL	IG	PS	OS	OT	OTT	CRC	HD-R	HD-C
RESIDENTIAL																				
Child Care Family Home, Listed	P	P	P	P	P	P	P													
Child Care Family Home, Registered	S	S	S	S	S	S	S													
Dwelling, Caretaker Unit												P	P							
Dwelling, Duplex				S	P	P	P													
Dwelling, Live/Work Unit								P		P	P					P	P		P	P
Dwelling, Multi-Family						P	P													
Dwelling, Single Family	P	P	P	P	P														P	
Dwelling, Single Family with Secondary Dwelling	S	S	S	S	S														S	
Dwelling, Townhouse					P	P	P										P			
Dwelling Units, Single-Family or Multi-Family Residential 2 nd floor and above								P		P	P					P				
Manufactured Home				S		S	S													
Industrialized Home	P	P	P	P	P	P	P													
Group Residential, Assisted Living Facility (Must comply with Sec. 3.14.11)						P	P	P	P	P	P									
Group Residential, Continuing Care Facility (Must comply with Sec. 3.14.11)						P	P	P	P	P	P									
Group Residential, Disabled Group Dwelling (Must comply with Sec. 3.14.11)	P	P	P	P	P	P	P	P	P	P	P									
Group Residential, Emergency Shelter (Must comply with Sec. 3.14.11)						P	P	P	P	P	P									
Group Residential, Halfway House (See Sec. 3.14.11)												S	S							
Group Residential, Homeless Shelter (See Sec. 3.14.11)									S		S	S	S							
Group Residential, Nursing Home (Must comply with Sec. 3.14.11)						P	P	P	P	P	P									
PUBLIC AND SEMI-PUBLIC																				
Cemeteries	S	S	S	S	S	S	S							S	S					
Clubs and Lodges								S	P	S	P	S		P		P	P	P		
Colleges, Public or Private								S	P	P	P	P		P		P	P	S		
Cultural Institutions	S	S	S	S	S	S	S	P	P	P	P	P		P			P	P	S	P

USE	RSF-20	RSF-10	RSF-7	RSF-5	RSF-2	RMF-2	RMF-1.2	CN	CG	CO	CM	IL	IG	PS	OS	OT	OTT	CRC	HD-R	HD-C
Day Care						S	S	P	P	P	P			P						
Educational Research and Development									P	P	P	P		P		P		S		
Event Venue									S		S					S			S	P
Government Offices and Facilities, large scale									P	P	P	P		P	S					
Government Offices and Facilities, small scale								P	P	P	P	P		P	S	P		P		
Hospitals, may have heliport								S	P	P	P			P						
Parks and Recreation	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Public Maintenance Facilities (See Sec. 3.14.5)									S			P	P	S						
Public Safety Facilities	S	S	S	S	S	S	S	P	P	P	P	P	P	P		P	P	P	P	P
Religious Assembly	P	P	P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P
Schools, Public or Private	S	S	S	S	S	S	S	P	P	P	P			P		P	P	S	P	P
COMMERCIAL																				
Alcoholic Beverage Sales, On-Premise Consumption (Must comply with LC Ordinance Ch. 10 and TABC)								S	S	S	S					S		S		S
Alcoholic Beverage Sales, Off-Premise Consumption (Must comply with LC Ordinance Ch. 10 and TABC)									P		P					S				S
Ambulance Services									P	P	P	P	P	P						
Animal Sales and Services, no outdoor kennels or outdoor storage								S	P		S					P	P		S	S
Animal Sales and Services with outdoor kennels, areas, and runs									S		S	S						S		
Automobile/Vehicle/Equipment Sales and Rental									P		S							S		
Used Vehicle Sales only as accessory use to Automobile/Vehicle/ Equipment Sales and Rental									P		P							P		
Automobile Rentals								P	P	P	P	P	P					S		
Car Wash									S		S	P						S		
Vehicle Fueling Stations								S	S		S	P						S		
Light Vehicle Service								S	P		S	P						S		
Auto Repair and Other Heavy Vehicle Service									S			P	P							

USE	RSF-20	RSF-10	RSF-7	RSF-5	RSF-2	RMF-2	RMF-1.2	CN	CG	CO	CM	IL	IG	PS	OS	OT	OTT	CRC	HD-R	HD-C
Banks and Other Financial Institutions (with drive-through See Section 3.14.2)								P	P	P	P							P		S
Bed and Breakfast Establishment	S	S				P	P	P	P		P					P	P		P	P
Building Materials Sales and Services (See Sec. 3.14.4)									P		P	P	P					P		P
Business Services								P	P	P	P	P				P	P	P		P
Catering Business								S	P	P	P	P	P			P	P	P		
Convention Center									P	P	P			P						
Eating and Drinking Establishments, Full Service								P	P	S	P			P	P	P				
Eating and Drinking Establishments, Limited Service								P	P	S	P			P	P	P		P		
Eating and Drinking Establishments, with Drive-Through Facility (See Sec. 3.14.2)								S	P	S	P					S		P		
Eating and Drinking Establishments, with Live Entertainment (Must comply with LC Ordinances Ch.42, Art.2)								S	P	S	P					P		P		
Eating and Drinking Establishments, with Outdoor Seating								S	P	S	P			P	P	P		P		
Eating and Drinking Establishments, with Outdoor Seating - as accessory use														P	P			P		
Eating and Drinking Establishments, less than 3000 sq. ft. including all seating areas. May have Live Entertainment																		P	S	P
Food and Beverage Sales				S	S	S	S	P	P		P	P	P	P		P		P		
Food and Beverage Sales less than 20,000 sq. ft.																			S	P
Home Improvement Sales and Services (See Sec. 3.14.4)								S	P		P	P						P		
Hotel (See Sec.3.14.7)									P	S	S					P		S		
Laboratory, Commercial								S	P	P	P	P	P	P				P		
Live/Work Unit								P		P	P					P	P		P	P
Maintenance and Repair Services								P	P	P	P	P	P					P		
Massage Establishments and Massage Services								P	P	P	P			P		S		P		
Micro-brewery, Micro-distillery, and Micro-winery									P		P					P				P
Nurseries and Garden Supply Stores (See Sec. 3.14.4)								P	P		P	P								
Offices								P	P	P	P	P	P	P		P	P	P	S	P

USE	RSF-20	RSF-10	RSF-7	RSF-5	RSF-2	RMF-2	RMF-1.2	CN	CG	CO	CM	IL	IG	PS	OS	OT	OTT	CRC	HD-R	HD-C	
Parking Facilities								S	P	P	P			P		P	P	P			
Pawn shops (Must comply with Texas Pawn-shop Act Texas Finance Code, Title 4, Chapter 371).									P		S							P			
Personal Instructional Services								P	P		P					P	P	P	S	P	
Personal Services								P	P	S	P					P	P	P			
Recreation and Entertainment, Large-scale, Outdoor	S	S	S	S	S	S	S	S	P	S	S	S	S	P	P						
Recreation and Entertainment, Small-scale, Indoor	S	S	S	S	S	S	S	S	P	S	P	S	S			P		P			
Recreational Vehicle Park (See Sec. 3.14.6)									S												
Retail Sales (See Sec. 3.14.4)								P	P		P	P				P	P	P	S	P	
Self-Storage (See Sec. 3.14.5)									S		S	P	P								
Sexually Oriented Businesses (Must comply with LC Code of Ordinances Ch. 26, Art. III)												P	P								
Temporary Sales and Uses (Must comply with Sec. 3.14.15)												P	P	P	P				P	S	P
Temporary Sales																					
Undertaking, Funeral and Interment Services								S	P		P			P				P			
INDUSTRIAL																					
Contractor's Storage (See Sec. 3.14.5)												P	P								
Nursery and Landscaping Materials, Wholesale (Must comply with Sec. 3.14.12)												P	P								
Production Industry, Artisan (See Sec. 3.14.4)								S	S	S	S	P				P	P	S	S	P	
Production Industry, General (See Sec. 3.14.4)												S	P								
Production Industry, Limited (See Sec. 3.14.4)									S		S	P	P								
Recycling Collection												P	P								
Research and Development									S	S	S	P	P	P							
Warehousing and Indoor Storage (See Sec. 3.14.5)									P	S	S	P	P								
Warehousing and Outdoor Storage (See Sec. 3.14.5)												P	P								
Wholesaling and Distribution, Store Facilities (See Sec. 3.14.5)									P		P	P	S								
Wholesaling and Distribution, Non-Store Facilities (See Sec. 3.14.5)									P	S	S	P	P								

3.14 Standards for Specific Uses.

3.14.1 The section provides regulations that apply to specific uses in all zoning districts where the specific use is allowed by right or by a special use permit.

3.14.2 *Drive-Through Facilities.* Drive-through service facilities must be located, developed, and operated in compliance with the following standards.

- a. ***Buffer Yards.*** A minimum five-foot (5') buffer yard along the side and rear property lines is required for businesses with drive-throughs. The buffer yard shall have trees and plantings. Buffer yards shall meet the standards of Section 4.20. Buffer yard planting may be located in a required setback area. If there is any conflict between this requirement and buffer yard requirements in other sections of this ordinance, the wider buffer yard requirement shall apply.
- b. ***Drive-Through Queue Area.*** Each facility shall provide sufficient queue area at a minimum of 20 feet per vehicle in advance of the service to accommodate a minimum of six (6) vehicles per establishment. The queue area may not interfere with other on-site circulation and parking facilities.
- c. ***Litter.*** One permanent trash receptacle must be installed.
- d. ***Menu Boards.*** Menu boards must be located at least 50 feet from any R district boundary. Noise levels measured at the property line of a drive-through service facility may not increase the existing ambient noise levels in the surrounding area.
- e. ***Pedestrian Walkways.*** Pedestrian walkways must have clear visibility, and be emphasized by enhanced paving or markings when they intersect the drive through aisles.

3.14.3 *Home Occupation.* The City of League City desires to encourage home occupations that are compatible with residential neighborhoods. No permit shall be required for a home occupation. However, home occupations shall be operated only in accordance with the following provisions.

- a. No person other than members of the family residing on the premises shall be engaged in a home occupation.
- b. The use of the dwelling unit for the home occupation shall be clearly incidental and subordinate to its use for residential purposes by its occupants.
- c. The home occupation shall be conducted entirely within the dwelling unit or an accessory structure.
- d. There shall be no change in the outside appearance of the dwelling or premises, or other visible evidence of the conduct of such home occupation.
- e. No traffic shall be generated by such home occupation in greater volumes than would be

expected in residential neighborhood, provided that deliveries to the premises shall not be prohibited.

- f. No equipment or process shall be used in such home occupation that creates noise, vibration, glare, fumes, odors, or electrical interferences, outside the dwelling unit. In the case of electrical interferences, no equipment or process shall be used which creates visual or audible interference in any television or radio receivers off the premises or causes fluctuations in line voltage off the premises.

3.14.4 *Outdoor Retail Sales and Merchandise Displays.* Outdoor retail sales and merchandise displays shall be located, developed, and operated in compliance with the following standards.

- a. ***Outdoor area.*** Outdoor retail sales and merchandise displays shall not obstruct ingress and egress to a building, obstruct fire lanes, interfere with vehicular circulation or sight distance, be located in landscaped areas, or extend into the right-of-way. Outdoor retail sales and merchandise display areas shall be adjacent to the structure containing the business selling the merchandise. Site Development Plans shall designate permitted areas for outdoor retail sales and merchandise display.
- b. ***Maximum Area.*** Other than for automobile/vehicle/equipment sales and rental uses, the maximum area of outdoor retail sales shall be 5 percent of the gross floor area of the use.
- c. ***Height.*** Display merchandise shall not exceed a height of 10 feet above finished grade. Construction equipment including forklifts, boom trucks, cranes, buckettrucks and similar equipment shall be displayed in an unextended position.
- d. ***Temporary Use of Parking Area.*** The temporary use of a parking area for sales and display may be permitted pursuant to Section 4.19.

3.14.5 *Outdoor Storage.* Outdoor storage areas that are accessory, incidental, and subordinate to the principal use may be located outside an enclosed building, provided that such storage:

- a. Is limited to a height of 6 feet;
- b. Is enclosed by a screening fence or wall at least 6 feet in height;
- c. Does not exceed 25 percent of the floor area of the principal building located on the lot, excluding space used for the parking or storage of vehicles; and
- d. Is not located between the building and the street property line.

3.14.6 *Recreational Vehicle (RV) Parks.* Recreation vehicle (RV) parks shall be located, developed, and operated in compliance with the following standards.

- a. ***Public and Private Streets.*** Rights-of-way, design and paving standards shall conform to City standards.

b. *Driveways and Interior Roads.*

1. *Setbacks.* Setbacks, at a minimum, shall meet those required in the district within which the recreational vehicle is located.
2. *General Requirements.* All RV parks shall be provided with safe and convenient vehicular access from abutting public streets or roads to the internal parking area or RV site. All surfaces shall be paved with concrete or flexible base.
3. *Access.* Access to RV parks shall be designed to minimize congestion and hazards at the entrance or exit and allow free movement of traffic on adjacent streets. The entrance road to the RV park off a public street shall conform to Section 4.19.
4. *Interior Paving Widths.* Interior driveways and roadways planned for two-way traffic should be 25 feet wide. One-way roads should be 15 feet wide. Inside turning radii should be a minimum of 25 feet, and outside turning radii 40 feet.
5. *Illumination.* All RV parks shall be furnished with uniform perimeter, roadway and pad site lighting units which direct the light downward and within the RV park.

c. *Office and Parking Areas.*

1. Off-street parking areas shall be provided near the office for 1 RV for every 1-acre of gross site area. Each parking space shall be 10 feet wide and 60 feet long.
2. Each RV park shall have a designated office on the site which is a permanent building, and a sign on the property providing information as to the office location.

d. *Caretaker's Quarters.* One existing residential structure may be retained or one new residential structure may be permitted for the occupancy of the owner or operator of the RV park. A mobile home may be permitted if in compliance with Section 66-10.

e. *Pad Site Layout.*

1. Pull-through parking sites shall have full hookups and shall be not less than 12 feet wide and 57 feet long.
2. Motor home pull-through sites shall have full hookups and shall be a minimum of 12 feet wide and 72 feet long.
3. Back-in sites for small RVs shall have a combination of full and partial hookups and shall be not less than 12 feet wide and 20 feet in length. Any small RV with plumbing facilities will be required to have hookups.
4. Each site shall be supplied with an enclosed utility stand for all utility services. All utility services shall be underground.

5. Each site shall be level, with a maximum of 1-inch variation for every 5 feet, side-to-side and end-to-end.

f. *Water and Wastewater Systems.*

1. Adequately sized circulating looped water lines approved by the Engineering Department shall be installed and connected with the City lines, at the owner's expense, for domestic use and fire protection.
2. Adequately sized sanitary sewer lines approved by the Engineering Department to dispose of sanitary wastes shall also be installed and connected with the City sanitary sewer system at the owner's expense.
3. Properly located and adequately sized easements as approved by the Engineering Department for publicly maintained water or sewer lines on private property shall require dedication by separate instrument unless dedicated by plat.
4. Dedication of right-of-way for public use will require a separate instrument unless dedicated by plat.

g. *Drainage Systems.* An adequate drainage system shall be designed by a Texas licensed engineer retained by the property owner to drain the RV park site into an approved drainage system, in accordance with plans and specifications approved by the City Engineer.

h. *Required Recreation Areas.* Recreational vehicle parks must include a common area, which shall be a minimum of 10 percent of the RV park area. Amenities may be constructed in lieu of open space. Such amenities shall be approved by the Parks Board. Recreation areas shall be so located as to be free of traffic hazards.

i. *Refuse Handling.* The method of storage, collection and disposal of refuse in the RV park shall be approved by the Fire Marshal prior to site development plan approval. It shall also comply with Section 4.11.

j. *Landscaping and Planting.* Any portion of the site not required for pad sites, driveway or parking areas, but not less than 15 percent of the site area, shall be planted with greenery, shrubbery and trees. Planting shall include 1 tree for every 30 feet of street frontage, distributed evenly, planted not more than 20 feet from the front lot line. In addition, 1 tree shall be planted for every 50 feet of site depth and rear lot line, distributed evenly. Utilization of established trees will be considered in-lieu of this requirement.

3.14.7 *Hotels.* The following standards shall apply to full service hotels, limited service hotels and residence hotels through December 31, 2022. After December 31, 2022, all standards shall revert to those in effect as of January 1, 2019.

a. *Exterior Building Facade.*

1. *Building Materials.* A minimum of 90% of all exterior walls, including parking

structures, garages, and accessory structures, shall be constructed of: stone, brick or tile laid up by unit and set in mortar; stucco (exterior Portland cement plaster with three coats of metal lath or wire fabric lath); cultured stone, brick or cast stone; architecturally finished block – i.e. burnished block, glazed block, and split-faced concrete masonry units (not to exceed 40 percent of each façade); architectural glass (less than 25 percent reflectance); or a maximum of ten percent of the façade may include accent materials not listed in this section.

2. A minimum of two distinct building materials are required, each covering at least 20 percent of the exterior building façade on each side. For a unique style of architecture, the City Planner may grant administrative approval to use less than the required number of materials.
3. *Prohibited Materials.* Prohibited materials are: aluminum siding or cladding (excludes composite aluminum cladding, such as Alucobond); galvanized steel or other bright metal; wood or plastic siding; cementitious fiberboard, unfinished concrete block; exposed aggregate; wood roof shingles; and reflective glass.

b. *Roofing Materials.* Variations in roof lines shall be used to add interest and reduce the scale of large buildings. Roof features shall complement the character of the overall development.

1. *Flat Roofs.* Flat roofs shall be permitted.
2. *Overhanging Eaves.* Overhanging eaves shall extend no less than three feet past the supporting walls. Overhanging eaves may be reduced to no less than two feet as long as it is embellished by an articulated cornice.
3. *Pitched Roofs.* Pitched roofs shall have a minimum pitch of 4/12. This requirement shall not apply to roofs for entries or dormers. Asphalt shingles, industry approved synthetic shingles, standing seam metal or roofs are allowed for sloping roofs.

c. *Entry Features.*

1. All public entrances shall incorporate arcades, roofs, alcoves, porticoes and awnings that protect pedestrians from the sun and weather. This requirement shall not apply for loading areas.
2. Primary building entrances are to be defined and treated as a signature element of the building and articulated with architectural elements such as pediments, columns, porticos, and overhangs.
3. A porte cochere or other covered area shall be provided immediately adjacent to the building entrance nearest the registration desk with an area for temporary parking of at least two vehicles underneath the covered area for guests checking in and out.
4. Some design element such as, but not limited to, water features, sculptures, and public

art shall be provided at the building entrance. Water features must be designed in proportion to the primary building entrance.

- d. ***Façade Articulation.*** Building façades fronting public and private streets and driveways shall have massing changes and architectural articulation to provide visual interest and texture and reduce large areas of undifferentiated building façade. Buildings should avoid oversimplified, one-dimensional façades that lack human scale. Design articulation should not apply evenly across the building façade but should be grouped for greater visual impact employing changes in volume and plane. Architectural elements include projecting volumes, windows, balconies, loggia, canopies, pediments, and moldings that break up the mass of the building.
- e. ***Design Elements.*** Design features used as part of the building's entry feature may not be counted towards the design element requirement. Building shall include a minimum of at least four design features. These features include, but are not limited to: overhangs; canopies or porticos; recesses/projections; arcades; raised corniced parapets over the entrance; peaked roof forms; arches; outdoor patios; tower elements (at strategic locations); roof deck terraces; display windows; integral planters that incorporate landscaped areas or seating areas; water features; public art/sculptures; trellises; balconettes; and architectural pavers such as scored, stamped, or stained concrete in the porte-cochere area.
- f. ***Site Design.***
 - 1. All outside equipment such as air conditions, pool equipment, satellite dishes, etc., shall be screened from view by a masonry wall or landscaping. Individual window air conditioning units are prohibited.
 - 2. Hotels shall conform to Crime Prevention through Environmental Design (CPTED) principles and provide good visibility in all public areas, open space areas, driveway entrances from public streets, driveway intersections, and parking lots. Lighting, for example, shall be used to create safe and secure public areas while illuminating only those areas for which lighting is designed, and shall be designed to reduce glare and not impact adjacent uses.
- g. ***Other Standards.***
 - 1. Access to guest rooms shall be restricted exclusively to interior corridors, which shall be accessed via the main lobby of the building or entryways.
 - 2. The hotel shall install and maintain, in properly operating order surveillance cameras in each interior hallway and lobby area, in the parking lots and at each exterior door. The cameras shall be placed so as to provide visibility to the front and rear exteriors of the building. Monitors shall be provided for security and other hotel personnel so that on-site activities may be viewed at all times. Surveillance cameras shall be in operation 24 hours a day and records of images shall be kept a minimum of 30 days.
 - 3. A minimum of 250 guest rooms.

4. A minimum guest room size of 375 square feet.
5. An open and unobstructed lobby area (excluding the work area for hotel employees) that is designed as part of the check-in/check-out area for guests. The lobby shall be a minimum size of five square feet per guest room.
6. A lounge or waiting area with a minimum size of ten square feet per guest room. Atriums or other open space areas (excluding the lobby) may be counted as waiting area if seating is provided.
7. Conference/meeting spaces that total a minimum of 20,000 square feet with the largest space a minimum of 10,000 square feet.
8. Recreation facilities including a swimming pool with a minimum surface area of 1,000 square feet; and an exercise room or comparable recreation facilities such as sports courts.
9. At least one interior restaurant with a full-service kitchen, cooking and service staff offering meals during normal dining hours (breakfast, lunch and dinner). Restaurant(s) shall be open to the public and provide seating for a minimum of 200 guests.
10. Daily housekeeping service; room service; concierge service; and a bellman.
11. On-site management 24 hours a day to provide check-in/check-out services, custodial and maintenance response, or other guest services.
12. A business center featuring personal computers with internet access, facsimile and copy machines.

3.14.8 Oil and Gas Well Drilling. The regulations required by this Ordinance for a Special Use Permit are in addition to and are not in lieu of permits required by Chapter 42 (Environment) of the Code of Ordinances, any other provision of this ordinance, or any other governmental agency. No well may be drilled within the corporate limits of the City of League City without a Special Use Permit for such purposes. Where a zoning overlay district encumbers real property where an application for a Special Use Permit for oil and gas well drilling is requested, the applicable Concept and/or Master Plans shall also be amended in accordance with this ordinance.

- a. Location and distance setback requirements.** The Operator or designated representative shall establish a drill site within which the well bore will be located and an operation site within which the storage tanks will be located.
1. The proposed drill site shall not be located within any floodway as identified by FEMA on the most current FIRM.
 2. The proposed drill site shall not be within fifty (50) feet of any alley, street, road, highway, right-of-way or future right-of-way as shown on the Thoroughfare Plan of the City or equivalent thereof.

3. The proposed well bore shall not be within six hundred (600) feet of any fresh water well. The measurement shall be in a direct line from the closest well bore to the fresh water well bore. The setback may be reduced to no less than two hundred (200) feet from the fresh water well if all current surface property owners within a radius of two hundred (200) to six hundred (600) feet from the fresh water well sign a notarized affidavit consenting to the encroachment at the time the Special Use Permit Application is submitted to the City. The Operator or designated representative shall submit the notarized affidavits noting the property legal descriptions with the Special Use Permit application. The reduction of the distance requirement for fresh water wells is subject to the regulations of the Texas Commission on Environmental Quality, Railroad Commission and any other state or federal requirements.
4. The proposed well bore shall not be within three hundred (300) feet of any off-site building or structure for the support, shelter, enclosure or partial enclosure of movable property of any kind for which a building permit has been issued on or before the date the Special Use Permit Application is accepted by the City. The measurement shall be in a direct line from the closest well bore to the nearest portion of the building or structure. The setback may be reduced from the building or structure if all current surface property owners within the affected radius sign a notarized affidavit consenting to the encroachment at the time the Special Use Permit Application is submitted to the City. The Operator or designated representative shall submit the notarized affidavits noting the legal descriptions with the Special Use Permit application. The reduction of the distance requirement is subject to the regulations of the Railroad Commission and any other state or federal requirements.
5. The proposed well bore shall not be within six hundred (600) feet of any off- site pool, building or structure for the support, shelter, enclosure or partial enclosure of persons or animals for which a building permit has been issued on or before the date the Special Use Permit Application is accepted by the City. The measurement shall be in a direct line from the closest well bore to the nearest portion of the pool, building or structure. The setback may be reduced from the pool, building or structure if all current surface property owners within the affected radius sign a notarized affidavit consenting to the encroachment at the time the Special Use Permit Application is submitted to the City. The Operator or designated representative shall submit the notarized affidavits noting the legal descriptions with the Special Use Permit application. The reduction of the distance requirement is subject to the regulations of the Railroad Commission and any other state or federal requirements.
6. The proposed well bore shall not be within six hundred (600) feet of a public or private park or within six hundred (600) feet of a dwelling unit, religious assembly building, hospital building, public or private school boundary, or day care boundary for which a building permit has been issued on or before the date the Special Use Permit application is accepted by the City. The distance shall be calculated from the proposed well bore, in a straight line, without regard to intervening structures or objects, to the primary structure of the protected use or boundaries of a park, school or day care, whichever is applicable. The Planning and Zoning Commission may recommend and the City

Council may approve a reduction in the setback distance. The applicant must show that the reduction is necessary in order to gain access to minerals owned by or leased to the applicant. Upon showing evidence that there are no other viable alternatives that would impact the adjacent property owners to a lesser degree while still providing access to the minerals, a reduction in the setback distance may be approved. If a reduction is approved, then additional requirements may be imposed for nuisance and aesthetic control.

7. The proposed battery and storage tanks cannot be within three hundred (300) feet or the distance mandated by the applicable state entity, whichever is greater, of any off-site building or structure, public or private park, dwelling unit, religious assembly building, hospital building, public or private school boundary, or day care boundary for which a building permit has been issued on or before the date of the production permit application.

b. *Notice Requirements.*

1. The Operator or designated representative shall meet with property owners lying within 600 feet of the drilling and production zone prior to submittal of the application. The meeting announcement shall be delivered via U.S. mail. The City may provide the list of property owners as identified on the most recently approved municipal tax roll upon request. Documentation of the meeting in the form of a copy of the meeting announcement, the list of notified property owners and a list of the signatures from meeting attendants shall accompany the application. The meeting shall be held within five miles of the boundaries of the City of League City limits.
2. The City shall provide notice (including written and posting of signs) of all public hearings in the same manner as prescribed for all other special use permits except the radius shall be 600 feet of the boundaries of the property to be used for drilling and operations.

c. *Special Use Permit Application.* The Special Use Permit applicant shall submit the following information with the application:

1. Submit a copy of the application filed with the Railroad Commission along with the approved permit by the Commission for operations within the City, copies of the Water Board letter from the Texas Commission on Environmental Quality, and any casing exceptions applied for and/or granted.
2. A map showing the proposed transportation routes and roads for equipment, water, chemicals or waste products used or produced by the operation. The map shall include a list of the length of all roadways that will be used to access the site.
3. A preliminary site layout delineating the proposed drill site and operation site, including but not limited to the proposed location of all major components, improvements and equipment; rigs; proposed well(s); tanks; lights; separators; storage sheds; fire hydrants proposed to supply water to the site; impacted vegetation, creeks

and other topographic features; easements; adjoining roadways; and surrounding property, parks, buildings and structures within 600 feet of the site.

4. Exhibits showing the types of mitigation measures that will be utilized to buffer noise, dust, vibration, odors, lighting, and structures. Mitigation measures shall at a minimum include the requirements for fencing, landscaping and buffer yards required by Chapter 42 of the Code of Ordinances. However, fencing, landscaping and buffer yards shall be increased above the minimum and other screening methods incorporated when necessary to mitigate nuisance impacts based upon the proposed drilling and operations program.
5. Proposed mitigation measures to include permanent and temporary methods for noise abatement that meet the noise restrictions required for oil and gas well drilling in Article III, Chapter 42 of the Code of Ordinances.
6. An accurate legal description of the property to be used for the drilling and operation, the parcel, and the production unit and name of the field and reservoir as used by the Railroad Commission. Property recorded by plat should reference subdivision, block and lot numbers.
7. A description of public utilities required during drilling and operation.
8. An estimate of the total volume of water needed, the approximate dates the water supply will be needed at the site, and the maximum instantaneous withdrawal rate in gallons per minute from each point of withdrawal.
9. A copy of the determination by the Texas Commission on Environmental Quality of the depth of ground water aquifers bisecting the proposed well bore to help determine the surface casing setting depth.
10. A preliminary Spill Prevention, Control and Countermeasure Plan utilizing requirements established by the Environmental Protection Agency, Texas Commission on Environmental Quality, Department of Transportation, and the Texas Railroad Commission (or their successor agencies).
11. Emergency Action Response Plan establishing written procedures to minimize any hazard resulting from drilling, completion or producing of oil and gas wells. The Plan should include drive-to-maps from public rights-of-way to operation site and evacuation routes for surrounding area that utilize the same roadways.
12. A preliminary Risk Management Assessment to identify, assess, and prioritize risks including coordination and economical application of resources to minimize, monitor, and control the probability and/or impact of incidents.
13. A preliminary Hazard Mitigation Plan describing actions that will be taken before, during or after a disaster to eliminate or reduce risks to human life and property in accordance with City Ordinances and established policies.

14. Geologic report addressing how fracking, subsidence and other environmental impacts will be mitigated.
 15. A copy of any incident reports or written complaints received from and operator's response submitted to the Railroad Commission, Texas Commission on Environmental Quality, Texas General Land Office, Environmental Protection Agency, Occupational Safety & Health Administration, or other applicable governmental agency.
 16. A determination on the feasibility of alternative drill site locations.
 17. A determination that adequate water supply exists for the proposed drilling operation.
- d.** Upon a completed Special Use Permit application and remittance of all fees, City staff will review the application and may submit it to a technical advisor for review. A report shall be submitted to the Planning and Zoning Commission with findings on:
1. Mitigation measures for noise, dust, vibration, odors and lighting to include screening, landscaping, and sound barrier walls.
 2. Operation, plan, design, layout or any change in the on-site and technical regulations in Chapter 42, Environment Code of Ordinances.
 3. Any other matters reasonably required by public interest.
- e.** The burden of proof on all matters considered in the hearing shall be upon the Operator or designated representative.
- f.** The Planning and Zoning Commission and City Council shall consider the following in deciding whether to grant a Special Use Permit for Oil or Gas Well drilling:
1. Whether the operations proposed are reasonable under the circumstances and conditions prevailing in the area considering the particular location and the character of the improvements located there;
 2. Whether the drilling of such wells would conflict with the orderly growth and development of the City;
 3. Whether there are other alternative drill site locations;
 4. Whether the operations proposed are consistent with the health, safety and welfare of the public when and if conducted in accordance with the conditions to be imposed;
 5. Whether the impact upon the adjacent property and the general public by operations conducted in compliance with the conditions are reasonable and justified, balancing the right of the owners(s) of the mineral estate to explore, develop, and produce the minerals.

- g. In making its decision, the City Council shall have the power and authority to refuse any Special Use Permit and grant variances to drill any oil or gas well at any particular location within the City, when by reason of such particular location and other characteristics, the drilling of such wells at such particular location would be injurious to the health, safety or welfare of the inhabitants in the immediate area of the City.

3.14.9 Pipelines. The regulations required by this ordinance for a Special Use Permit are in addition to and are not in lieu of permits required by Chapter 42 (Environment) of the Code of Ordinances, any other provision of this ordinance, or by any other governmental agency. No pipeline may be installed or modified within the corporate limits of the City of League City without a Special Use Permit for such purposes. Where a zoning overlay district encumbers a property where pipelines are requested, the applicable Concept and/or Master Plans shall also be amended in accordance with this ordinance.

- a. The Special Use Permit applicant shall submit the following information with the application:
 - 1. Submit a copy of the application filed with the Railroad Commission along with the approved permit by the Commission for operations within the City, copies of the Water Board letter from the Texas Commission on Environmental Quality, and any casing exceptions applied for and/or granted.
 - 2. Map showing proposed transportation routes and roads for equipment, water, chemicals or waste products used or produced by the operation. The map shall include a list of the length of all roadways that will be used to access the site.
 - 3. Preliminary drawings of the pipeline route through the City inclusive of, but not limited to, horizontal and vertical dimensional representation, nominal diameter of pipe and materials of construction. Include fire hydrants proposed to supply water to the site; impacted vegetation, creeks and other topographic features; easements; adjoining roadways; and surrounding property, parks, buildings and structures within 500 feet of the pipeline alignment.
 - 4. Preliminary documentation regarding the kind (such as saltwater disposal lines, flowlines, intralease piping, gathering, or transmission) and character of the pipeline including construction material, radiography requirements, cathodic protection, maximum pressure level, a list of the materials that will be transported through the pipeline, and where the materials will be transported.
 - 5. For above-ground pipelines, exhibits showing the types of mitigation measures that will be utilized for screening of the pipelines. Mitigation measures shall at a minimum include the requirements for screening and landscaping required by Chapter 42 of the Code of Ordinances. However, fencing and landscaping shall be increased above the minimum and other screening methods incorporated when necessary based upon the proposed pipeline location.

6. An accurate legal description of the property to be used for the pipeline easement. Property recorded by plat should reference subdivision, block and lot numbers.
7. A description of public utilities required for the pipeline operation.
8. A preliminary Spill Prevention, Control and Countermeasure Plan utilizing requirements established by the Environmental Protection Agency, Texas Commission on Environmental Quality, Department of Transportation, and the Railroad Commission of Texas (or their successor agencies).
9. Emergency Action Response Plan establishing written procedures to minimize any hazard resulting from the construction and operation of the pipeline in accordance with all applicable state and federal agencies having jurisdiction. The Plan should include drive-to-maps from public rights-of-way to the operation site and evacuation routes for surrounding area that utilize the same roadways.
10. A preliminary Risk Management Assessment to identify, assess, and prioritize risks including coordination and economical application of resources, to minimize, monitor, and control the probability and/or impact of incidents.
11. A preliminary Hazard Mitigation Plan describing actions that will be taken before, during or after a disaster to eliminate or reduce risks to human life and property in accordance with City Ordinance and established policies.
12. A copy of any incident reports or written complaints received from and operator's response submitted to the Railroad Commission, Texas Commission on Environmental Quality, Texas General Land Office, Environmental Protection Agency, Occupational Safety and Health Administration, or other applicable governmental agency for all pipelines operated by the proposed Operator.
13. A determination on the feasibility of alternative pipeline alignments.

b. *Notice requirements:*

1. The Operator or designated representative shall meet with property owners of real property lying within 500 feet of the alignment of the pipeline prior to submittal of the application. The meeting announcement shall be delivered via U.S. mail. The City may provide the list of property owners as identified on the most recently approved municipal tax roll upon request. Documentation of the meeting in the form of a copy of the meeting announcement, the list of notified property owners and a list of the signatures from meeting attendants shall accompany the application. The meeting shall be held within five miles of the boundaries of the City of League City limits.
 2. The City shall provide notice (including written and posting of signs) of all public hearings in the same manner as prescribed for all other special use permits.
- c.** Upon a completed Special Use Permit application and remittance of all Special Use Permit application fees, City staff will review the application or submit it to a technical advisor for review. A report shall be submitted to the Planning and Zoning Commission with

findings on:

1. Mitigation measures for screening of above-ground pipelines to include screening, landscaping, and sound barrier walls.
 2. Operation, plan, design, layout, or any change in the on-site and technical regulations in Chapter 42, Environment Code of Ordinances.
 3. Any other matters reasonably required by public interest.
- e. The burden of proof on all matters considered in the hearing shall be upon the Operator or designated representative.
- f. The Planning and Zoning Commission and City Council shall consider the following in deciding whether to grant a Special Use Permit for a Pipeline:
1. Whether the operations proposed are reasonable under the circumstances and conditions prevailing in the area considering the particular location and the character of the improvements located there;
 2. Whether there are other alternative pipeline alignment locations; and
 3. Whether the operations are consistent with the health, safety and welfare of the public when and if conducted in accordance with the pipeline operation permit conditions to be imposed.
- g. In making its decision, the City Council shall have the power and authority to refuse any Special Use Permit and grant variances for a pipeline at any particular location within the City, when by reason of such particular location and other characteristics, the pipeline at such particular location would be injurious to the health, safety or welfare of the inhabitants in the immediate area of the City. Sec. 3.14.10 Pump Stations

3.14.10 Pump Stations. The regulations required by this ordinance for a Special Use Permit are in addition to and are not in lieu of permits required by Chapter 42 (Environment) of the Code of Ordinances, any other provision of this ordinance, or by any other governmental agency. No pump station may be operated within the corporate limits of the City of League City without a Special Use Permit for such purposes. Where a zoning overlay district encumbers a property where a pump station is requested, the applicable Concept and/or Master Plans shall also be amended in accordance with this ordinance.

a. Location and distance setback requirements.

1. The proposed site shall not be within any floodway as identified by FEMA on the most current FIRM.
2. The proposed pump station shall not be within fifty (50) feet of any alley, street, road, highway, right-of-way or future right-of-way as shown on the Thoroughfare Plan of

the City or equivalent thereof. (The Department of Public Works may permit temporary access in with consideration of the nature of the request and the number of hours and/or days that any street or alley may be blocked, encumbered or closed.)

3. The proposed pump station shall not be within six hundred (600) feet of any fresh water well. The measurement shall be in a direct line from the pump station to the fresh water well bore. The setback may be reduced to no less than two hundred (200) feet from the fresh water well if all current surface property owners within a radius of two hundred (200) to six hundred (600) feet from the fresh water well sign a notarized affidavit consenting to the encroachment at the time the Special Use Permit Application is accepted by the City. The Operator or designated representative shall submit the notarized affidavits noting the property legal descriptions with the Special Use Permit application. The reduction of the distance requirement for fresh water wells is subject to the regulations of the Texas Commission on Environmental Quality, the Railroad Commission and any other state or federal requirements.
4. The proposed pump station shall not be six hundred (600) feet of any off-site pool, building or structure for the support, shelter, enclosure or partial enclosure of persons or animals for which a building permit has been issued on or before the date the Special Use Permit Application is accepted by the City. The measurement shall be in a direct line from the closest well bore to the nearest portion of the building or structure. The setback may be reduced from the building or structure if all current surface property owners within the affected radius sign a notarized affidavit consenting to the encroachment at the time the Special Use Permit Application is submitted to the City. The Operator or designated representative shall submit the notarized affidavits noting the legal descriptions with the Special Use Permit application. The reduction of the distance requirement is subject to the regulations of the Railroad Commission and any other state or federal requirements.
5. The proposed pump station site shall not be within six hundred (600) feet of a public or private park or within six hundred feet of a dwelling unit, religious assembly building, hospital building, public or private school boundary, or day care boundary for which a building permit has been issued on or before the date of the Special Use Permit application. The distance shall be calculated from the proposed pump station site, in a straight line, without regard to intervening structures or objects, to the primary structure of the protected use or boundaries of a park, school or day care, whichever is applicable. The Planning and Zoning Commission may recommend, and the City Council may approve a reduction in the setback distance if the applicant demonstrates that the reduction is necessary because of the type of pump station and its operations. If a reduction is approved, then additional requirements may be imposed for nuisance and aesthetic control.

b. *Notice requirements.*

1. The Operator or designated representative shall meet with property owners of real property lying within 600 feet of the boundaries of the property prior to submittal of the application. The meeting announcement shall be delivered via U.S. mail. The City

may provide the list of property owners as identified on the most recently approved municipal tax roll upon request. Documentation of the meeting in the form of a copy of the meeting announcement, the list of notified property owners and a list of the signatures from meeting attendants shall accompany the application. The meeting shall be held within five miles of the boundaries of the City of League City limits.

2. The City shall provide notice (including written and posting of signs) of all public hearings in the same manner as prescribed for all other special use permits except the radius shall be 600 feet of the boundaries of the property.

c. **Application.** The Operator or designated representative shall submit exhibits with the application to include the following information:

1. Submit a copy of the application filed with the Railroad Commission along with the approved permit by the Commission for operations within the City, copies of the Water Board letter from the Texas Commission on Environmental Quality, and any casing exceptions applied for and/or granted.
2. Map showing proposed transportation routes and roads for equipment, water, chemicals or waste products used or produced by the operation. The map shall include a list of the length of all roadways that will be used to access the site.
3. A preliminary site layout delineating the proposed site, including but not limited to the proposed location of all major components, improvements and equipment; storage sheds; fire hydrants proposed to supply water to the site; water (including but not limited to water wells) and power supply; impacted vegetation, creeks and other topographic features; easements; adjoining roadways; and surrounding property, parks, buildings and structures within 600 feet of the site.
4. Exhibits showing the types of mitigation measures that will be utilized to buffer noise, dust, vibration, odors, lighting, and structures. Mitigation measures shall at a minimum include the requirements for screening and landscaping required by Chapter 42 of the Code of Ordinances. However, screening and landscaping shall be increased above the minimum and other screening methods incorporated when necessary to mitigate nuisance impacts.
5. Proposed mitigation measures to include permanent and temporary methods for noise abatement that meet the noise restrictions required for the pump station in Article III, Chapter 42 of the Code of Ordinances.
6. An accurate legal description of the property to be used for the site. Property recorded by plat should reference subdivision, block and lot numbers.
7. A description of public utilities required for the pump station.
8. An estimate of the total volume of water needed, the approximate dates the water supply will be needed at the site, and the maximum instantaneous withdrawal rate in

gallons per minute from each point of withdrawal.

9. A preliminary Spill Prevention, Control and Countermeasure Plan utilizing requirements established by the Environmental Protection Agency, Texas Commission on Environmental Quality, Department of Transportation and the Railroad Commission of Texas (or their successor agencies).
 10. Emergency Response Action Plan establishing written procedures to minimize any hazard resulting from the pump station in accordance with all applicable state and federal agencies having jurisdiction. The Plan should include drive-to-maps from public rights-of-way to the operation site and evacuation routes for surrounding area that utilize the same roadways.
 11. A preliminary Risk Management Assessment to identify, assess, and prioritize risks including coordination and economical application of resources to minimize, monitor, and control the probability and/or impact of incidents.
 12. A preliminary Hazard Mitigation Plan describing actions that will be taken before, during or after a disaster to eliminate or reduce risks to human life and property in accordance with City Ordinance and established policies.
 13. A copy of any incident reports or written complaints received from and operator's response submitted to the Railroad Commission, Texas Commission on Environmental Quality, Texas General Land Office, Environmental Protection Agency, Occupational Safety and Health Administration, or other applicable governmental agency for all pipelines operated by the proposed Operator.
 14. A determination on the feasibility of alternative pump station site locations.
 15. A determination that adequate water supply exists for the proposed drilling operation.
- d.** Upon a completed application and remittance of all Special Use Permit application fees, City Staff will review the application or submit it to a technical advisor for review. A report shall be submitted to the Planning and Zoning Commission with findings on:
1. Mitigation measures for noise, dust, vibration, odors and lighting to include screening, landscaping, and sound barrier walls.
 2. Operation, plan, design, layout or any change in the on-site and technical regulations in Chapter 42, Environment Code of Ordinances.
 3. Any other matters reasonably required by public interest.
- e.** The burden of proof on all matters considered in the hearing shall be upon the Operator or designated representative.
- f.** The Planning and Zoning Commission and City Council shall consider the following in

deciding whether to grant a Special Use Permit for a pump station:

1. Whether the operations proposed are reasonable under the circumstances and conditions prevailing in the area considering the particular location and the character of the improvements located there;
 2. Whether the compressor station would conflict with the orderly growth and development of the City;
 3. Whether there are other alternative pump station site locations; and
 4. Whether the operations proposed are consistent with the health, safety and welfare of the public when and if conducted in accordance with the conditions to be imposed.
- g. In making its decision, the City Council shall have the power and authority to refuse any Special Use Permit and grant variances for a pump station at any particular location within the City, when by reason of such particular location and other characteristics, the pump station at such particular location would be injurious to the health, safety or welfare of the inhabitants in the immediate area of the City.

3.14.11 Group Residential Facilities. Group Residential Facilities must be located, developed and operated in compliance with the following standards.

- a. **Location of Disabled Group Dwelling.** A disabled group dwelling shall not locate in such close proximity to other disabled group dwellings so as to form a cluster of such facilities that poses a substantial risk of creating a residential area distinguishable from other residential areas primarily occupied by persons who do not require routine support services because of a disability. There shall be a rebuttable presumption that such a risk is present if a disabled group dwelling locates so near to other disabled group dwellings that any one disabled group dwelling is within 600 feet of at least three other disabled group dwellings.
- b. **Location of Halfway Houses and Homeless Shelters.** Halfway houses and homeless shelters shall not be located within one-half mile of another halfway house or homeless shelter, or within 1,000 feet of a park or K-12 school.
- c. **Architecture and Character.** Group residential facilities located in RSF residential single-family zoning districts shall be designed, constructed and maintained to uphold the single-family residential architectural character of the surrounding area.
- d. **Location of Parking.** Except for disabled group dwellings, group residential facilities located in RSF residential single-family zoning districts shall provide for their required parking on the side or rear of the property. All parking areas shall be paved and screened from surrounding residential uses by an opaque fence of wood or masonry, no less than six feet, and no more than eight feet in height.
- e. **State License.** Applicable state license or certification shall be provided prior to the issuance of an Operations Permit.

- f. **Evacuation Plan.** Group Residential Facilities shall prepare and provide an evacuation plan to the Fire Department prior to receipt of an Operations Permit.
- g. **Operations Permit.** All Group Residential Facilities shall obtain an Operations Permit from the City of League City.

3.14.12 Nursery and Landscaping Material and Wholesale

- a. **Hours of Operation.** When abutting a residential use or zoning district, said business shall not operate between the hours of 9:00 pm and 7:00 am.
- b. **Minimum Setback.**
 - 1. Loading and Service areas: 50 feet from any residential use or zoning district.
 - 2. Outdoor Merchandise Display/Sales and other Outdoor Storage: 50 feet from any residential use or zoning district.
 - 3. Plant placement: 20 feet from any residential use or zoning district.
- c. **Screening.** Outdoor storage shall be enclosed by a solid masonry or concrete wall or wood fence having a minimum height of eighteen (18) feet. The business shall also meet the buffer yard requirement in Section 4.20.
- d. **Materials Management.**
 - 1. Materials stored outdoors shall not exceed a height of eighteen (18) feet.
 - 2. Materials stored outdoors shall not be located between the building and the street property line, except for the placement of plants.
 - 3. Appropriate measures shall be taken to contain, cover or otherwise secure materials that are likely to generate wind-blown dust or debris that may affect adjacent properties, including bulk mulch, sand, soil, fill, rock, and similar materials.
 - 4. Outdoor storage may be on unimproved surfaces.
- e. **Fencing.** If chain link fencing is used on site, it shall not be visible from any property line.

3.14.13 Dogs In Outdoor Dining Areas. A food service establishment may permit a customer to be accompanied by a dog in an outdoor dining area if:

- a. The food service establishment posts a sign in a conspicuous location in the area stating that dogs are permitted;

- b. The customer and the dog access the outdoor dining area directly from the exterior of the food service establishment;
- c. The dog does not enter the interior of the food service establishment;
- d. The customer keeps the dog on a leash and controls the dog;
- e. The customer does not allow the dog on a seat, table, countertop, or similar surface; and
- f. In the area, the establishment does not:
 - i. prepare food; or
 - ii. permit open food, except for food that is being served to a customer.

3.14.14 *Accessory Structures and Uses*

- a. **General.** Structures and uses ancillary to a permitted principal use are considered accessory structures and uses. Accessory structures and uses are subject to the same regulations that apply to principal uses in each district, except as otherwise specified by this Section. Accessory structures may not be constructed without the primary structures that they support. This Section establishes regulations for residential and nonresidential accessory structures and uses, excluding home occupations.
- b. **Accessory Structures.** Accessory structures shall be located, developed, and operated in compliance with the following standards:
 1. **Location.** Detached accessory structures shall be located to the rear or to the side of the principal building.
 2. **Setbacks.** The minimum setbacks are determined by the zoning district in which the property is located, with the following exceptions:
 - i. An accessory structure shall be setback a minimum of ten feet (10') from the rear lot line.
 - ii. If an alley abuts the rear lot line, the rear setback for an accessory structure is six feet (6').
 3. **Maximum Size.** The total floor area of all accessory structures shall not exceed thirty percent (30%) of the square footage of the livable area of the residence on the premises, or fifteen percent (15%) of the lot area, whichever is greater. This requirement shall not apply to swimming pools or barns and agricultural related structures.
 4. **Maximum Height.** The maximum height of residential accessory structures shall be 25 feet. The maximum height of non-residential accessory structures shall be determined by the maximum height permitted in the zoning district in which it is located.
 5. **Shipping Containers.** Shipping containers may be used as accessory structures in General Commercial (CG), Mixed Use Commercial (CM), and Industrial zoning districts provided the following requirements are met:

- i. A building permit must be obtained for the placement of a container.
- ii. No container may be placed closer to the front property line than the principal building on the property, nor in a required landscaped area, retention basin, travel way or drive aisle, fire lane, required parking space, sidewalk, loading zone, or any other location where said container may cause a hazardous condition.
- iii. Containers may not be stacked.
- iv. No container may be connected to any electrical power source or plumbing line unless said container meets the requirements of the City's building, plumbing, and fire codes and the appropriate permits obtained for such connections.
- v. No container may be used for any human occupancy unless said container meets the requirements of the City's building and fire codes as a habitable space and the appropriate permit(s) obtained for such occupancy.
- vi. All containers shall be completely screened from view from any abutting street, right-of-way, or property by means of an opaque fence or wall with a height at least one foot greater than the height of the storage container and constructed of a material compatible with that of the primary building on the property on which the container is placed.
- vii. Shipping containers may be used as accessory structures without meeting the requirements above in the following situations:
 - viii. Retail establishments located in General Commercial, Mixed Use Commercial, or Industrial zoning districts may use shipping containers for storage on a seasonal basis, without building permit or screening, subject to the following:
 - ix. Beginning no earlier than October 15 and ending no later than January 15 (maximum of 92 days) in any given year;
 - x. To the extent practicable, containers shall be placed in the rear yard of the property behind the main building;
 - xi. Containers may be used for storage on city-owned property with approval of the City Manager;
 - xii. Containers may be used for the temporary storage of equipment, supplies, merchandise, or similar materials on a lot or parcel during construction undertaken pursuant to a valid building permit. Upon completion or abandonment of construction, or expiration of the building permit, containers shall be removed at the owner's expense. No container may be placed in a required landscaped area, retention basin, travel way or drive aisle, fire lane, required parking space, sidewalk, loading zone, or any other location where said container may cause a hazardous condition; or
 - xiii. In the case of emergencies, such as floods, windstorms, fires, or other acts of God, and man-made disasters such as sewage backups, water leaks, electrical overloads and other such events that damage property, the City Planner or Chief Building Official or designees shall have the discretion to allow the temporary placement and use of shipping containers on said property if such placement and use is reasonably deemed necessary or beneficial in recovery, restoration, mitigation of further damage, and/or reconstruction efforts.

c. Accessory Uses. Principal uses authorized as permitted uses are deemed to include accessory uses. The following accessory uses are permitted within non-residential districts:

1. Caretaker units, other than mobile homes, for security or maintenance personnel;
2. Gates and guard houses;
3. Cafeterias, dining halls, and other similar limited service eating and drinking establishments when operated primarily for the convenience of employees, residents, clients or visitors to the principal use;
4. Gift shops, newsstands, and similar commercial activities operated primarily for the convenience of employees, residents, clients or visitors to the principal use;
5. Parking garages and off-street parking areas;
6. Other necessary and customary uses determined by the City Planner or designee to be appropriate, incidental, and subordinate to the principal use on the lot.

3.14.15 Temporary Structures and Uses

- a. **General.** Structures and uses ancillary to a permitted principal that are intermittent in nature are considered temporary structures and uses. Temporary structures and uses are subject to the same regulations that apply to principal uses in each district, except as otherwise specified by this Section. This Section establishes regulations for temporary structures and uses.
- b. **Temporary Structures.** Temporary structures shall be located, developed, and operated in compliance with the following standards:
 1. **Construction Trailers.** Construction trailers are permitted only on a lot or parcel during construction undertaken pursuant to a valid building permit. Construction trailers may be occupied for office or security purposes or may be used for storage of equipment and material used in construction on the site. Upon completion or abandonment of construction or expiration of the building permit, construction trailers buildings shall be removed at the owner's expense. Temporary construction trailers shall be located and developed in compliance with the following standards:
 - i. **Setbacks.** Setbacks shall be the minimum required in the district within which the construction trailer is located.
 - ii. **Signage.** The parking of a vehicle, trailer, or other device that is parked in such a manner that it is used principally as a portable sign is prohibited.
 2. **Sales Trailers.** Sales trailers, including modular offices, used for the sale and lease of residential real estate are permitted only on a lot or parcel during construction undertaken pursuant to a valid building permit. Upon completion or abandonment of construction or expiration of the building permit, sales trailers buildings shall be removed at the owner's expense. Temporary sales trailers shall be located and developed in compliance with the following standards:

Zoning Commission.

- ii. **Temporary parking lots** for overflow parking of principal uses on site or adjacent to the site. The period of time for which the use may be permitted shall be determined by the Planning and Zoning Commission. *Exception:* The City Planner and Building Official or designees may approve for a period of up to 30 days, except that two extensions of up to 30 days may be possible upon application and approval.
 - iii. **Other Temporary Uses.** All other temporary uses that are not described in this section may be considered by the Planning and Zoning Commission.
3. **Building and Fire Permits.** Temporary uses shall obtain applicable building and fire permits prior to commencement of activities.
 4. **Setbacks.** The temporary use shall be set back a minimum of 50 feet from any adjacent, occupied residential lot or parcel.
 5. **Parking.** Any parking for the use shall be on site or adjacent to the site. The number of spaces required shall conform to the requirements of Section 4.19.
 6. **Signage.** All signage shall conform to the requirements Article 8: Signs.
 7. **Additional Requirements.** Adequate sanitation, water, traffic control, parking and public health measures shall be provided for all temporary uses.

3.14.16 Nonconforming Uses, Lots and Structures

- a. **Purpose.** The purpose of this Section is to regulate uses lawfully established prior to the effective date of the Zoning regulations that do not conform to the use regulations of this ordinance in the zoning districts in which such uses are located (known as “nonconforming uses”). This Section also regulates uses, lots and structures lawfully constructed prior to the effective date of this Ordinance that do not comply with the applicable development standards of this ordinance in the zoning districts in which such uses, lots or structures are located (known as “nonconforming uses, lots or structures”).
- b. **Nonconforming status.** Any use, platted lot, or structure which does not conform with the regulations of the zoning district or subdivision regulations in which it is located shall be deemed a nonconforming use, lot, or structure when:
 1. The use, platted lot, or structure was in existence and lawfully operating prior to the adoption of this ordinance and which has since been in regular and continuous use.
 2. The use, platted lot, or structure was in existence and lawfully constructed, located, and operating at the time of any amendment to this Ordinance, but by such amendment is placed in a district wherein such use, platted lot, or structure is not otherwise permitted and has since been in regular and continuous use.

3. The use, platted lot, or structure was in existence at the time of annexation into the city and has since been in regular and continuous use.
4. The owner of the property whose land use, lot, and/or structure is deemed to be nonconforming may file an application for a Certificate of Nonconforming Status with the City's Planning Department. The application shall include a current survey and/or site plan describing the improvements and uses to which the property is being put at the time of the application. Upon receipt of a complete application, the City shall issue a Certificate of Nonconformance as acknowledgement that the use, lot, and/or structure was legal at the time the use, structure, or lot was established/constructed and is allowed to remain.
5. A nonconforming lot or structure whose configuration has been altered involuntarily by eminent domain shall be allowed to reconfigure within the remaining space and reconstruct in order to permit the pre-existing use. The pre-existing use shall be consistent with the survey and/or site plan on file with the City, but in no event shall be allowed to enlarge to occupy more of a building or site.

c. *Nonconforming Uses.* A nonconforming use results from failure to conform to the applicable district regulations or use groups or performance standards (such as parking, landscaping signage, buffers).

1. ***Grandfather Status.*** A nonconforming use legally existing at the time of adoption of this Ordinance is grandfathered under these regulations and may be continued but shall not be enlarged to occupy more of a building or site.
2. ***Abandoned Uses and Structures.*** If said nonconforming use or structure is discontinued or abandoned, any future use of the premises shall be in conformity with the provisions of this Ordinance. The following regulations apply to abandoned uses and structures:
 - i. When a nonconforming use or structure does not meet the development standards of this Ordinance, is discontinued or abandoned for a period of six months, such use shall not be resumed.
 - ii. Any nonconforming use which does not involve a permanent structure and said use is discontinued or moved from the premises shall be considered to have been abandoned.
 - iii. No nonconforming use may be abandoned and subsequently reoccupied with another nonconforming use or increased as of the effective date of this Ordinance.
3. ***Change to nonconforming uses.*** The following regulations apply to changing a nonconforming use:
 - i. Any nonconforming use may only be changed to a conforming use, and once such a change is made, the use shall not be changed back to a nonconforming use.

- ii. A conforming use located in a nonconforming structure may be changed to another conforming use, however, the structure remains subject to the nonconforming structure regulations contained in this section
 - iii. A nonconforming use shall not be changed to another nonconforming use.
- d. *Nonconforming Lots.*** Lots are considered nonconforming if the lot size, lot depth, setbacks and/or width are less than the regulations prescribed in the zoning district in which it is located. Exceptions to lot size:
- 1. ***Single Lots.*** A building may be erected on any single nonconforming lot that is located on a properly filed and approved plat. In addition, a building may be erected on a lot, tract, or parcel defined in a recorded deed prior to the adoption of Subdivision Ordinance Number 81 on September 11, 1969, notwithstanding limitations imposed by other provisions of the Zoning regulations. Such lot must be in separate ownership and not of continuous frontage with other lots in the same ownership. This provision shall apply even if such lot fails to meet the applicable lot area or width requirements for the district within which the lots are located, provided that such development complies with all other development standards applicable within the zoning district. Any variance to such requirements shall be obtained only through action of the Zoning Board of Adjustment.
 - 2. ***Multiple Lots.*** If two or more lots or combinations of lots and portions of lots with continuous frontage in single ownership are of record at the time of passage of this Ordinance and if all or part of the lots do not meet the applicable lot area or width requirements for the district within which the lots are located, the lands involved may be considered to be an undivided parcel for the purposes of this Section and shall be subject to all use and development regulations for the district within which said lands are located.
- e. *Nonconforming Structures.*** The zoning regulations prescribe the general placement, height, and density for all buildings and structures. These regulations include minimum setbacks from streets and lot lines, maximum building height, maximum building footprint, and maximum percentage of a lot which can be covered with buildings and structures. When a building or structure does not meet all these regulations, it is considered nonconforming.
- 1. ***Repair, Maintenance, and Alteration.*** Any nonconforming structure may be repaired, maintained, or altered provided that no such repair, maintenance, or alteration either creates any new nonconformity or increases the degree of the existing nonconformity of all or any part of such structure.
 - 2. ***Reconstruction following Damage or Destruction.***
 - i. ***Destruction greater than 50%.*** Any nonconforming structure or portion of a structure destroyed by any means to an extent of more than 50 percent of its replacement cost at the time of destruction may only be rebuilt in conformance to the provisions of this Ordinance. If any nonconforming structure or portion of a

structure for which the City has issued a Certificate of Nonconforming Status is destroyed by fire or natural cause without the intervention of man, or arising wholly above the control of human agencies, and which could not have been prevented by the exercise of prudence, diligence, and care to an extent of more than 50 percent of its replacement cost at the time of destruction, the owner shall be allowed to reconstruct such nonconforming structure or portion of a structure consistent with the survey and/or site plan on file with the City, but in no event shall be allowed to enlarge to occupy more of a building or site.

ii. ***Destruction less than 50%.*** In the case of partial destruction of a nonconforming structure or structure occupied by nonconforming use, which has been damaged to an extent of not greater than fifty percent (50%) of the structure's current replacement cost, reconstruction will be permitted provided that:

- the size or function of the nonconforming use cannot be expanded;
- repair shall be completed within one year (365 calendar days) following the event that caused the partial destruction; and
- if reconstruction is delayed by contested insurance claims, litigation, or some other similar cause, then the one-year reconstruction period may be extended by the City Planner.

3. ***Moving a nonconforming structure.*** Any nonconforming structure that is moved in whole or in part for any reason and for any distance shall thereafter conform to the regulations of this Ordinance.

4. ***Abandonment.*** A nonconforming structure and premises that is discontinued or abandoned for six (6) consecutive months, or for 18 months during any 3-year period, except when government action impedes access to the premises, shall be presumed abandoned and may not be reestablished or resumed and shall hereafter conform to the regulations of this Ordinance.

3.14.17 Mobile Food Vendors

a. ***Compliance and Permit Required.*** It shall be illegal to sell food and/or drink items from a food truck, concession trailer, or similar vehicle parked on private property within the city except in compliance with regulations adopted in this division and a valid permit issued pursuant thereto.

b. ***Application and Permit requirements.*** An application for a mobile food vendor business permit shall be submitted to the Building Department. The application shall include the following documentation:

1. the applicant's Texas driver's license;
2. a site plan depicting the exact location on the nonresidential property where the mobile food vendor proposes to park to conduct business;
3. written permission, signed and dated no more than thirty (30) days before the

application date, from the owner of the nonresidential property allowing mobile food vendor operations at said site and the use of the onsite commercially plumbed public restroom by the mobile food vendor and its customers;

4. a Texas Sales Tax certificate for the business seeking a permit;
 5. a County Health Department permit for the food truck, concession trailer, or similar vehicle; and
 6. proof of current license plates, registration, and automobile liability insurance for the food truck, concession trailer, or similar vehicle;
 7. A passing inspection by the League City Fire Department is required prior to the Business permit being issued.
- c. Business permits for mobile food vendors are valid for one year, not transferable, and may be renewed annually. The City business permit and the County Health Department permit shall be displayed during all times of operation in a location where it can be read by the general public.
- d. **Rules of Operation.** Mobile food vendors shall operate their business in compliance with the following rules of operation:
1. **Items for sale.** Only food and non-alcoholic drink items may be sold by a mobile food vendor.
 2. **Utilities.**
 - i. Water needed for the operation shall be provided from a tank carried on the food truck, concession trailer, or similar vehicle. Connection to a potable water supply system at the property is prohibited.
 - ii. Electricity for the operation shall be from an internal or portable generator. Connection to an electrical outlet at the property is not allowed.
 - iii. Each mobile food vendor is responsible for providing covered solid waste containers in which its customers may dispose of trash and food waste. All such solid waste containers and the solid waste collected therein shall be removed from the site by the mobile food vendor when leaving the site each day.
 3. **Hours of operation.** A mobile food vendor may operate only during the hours that the primary business on the property is open for business and shall not remain parked overnight at said property.
 4. **Noisemakers prohibited.** Mobile food vendors shall not use loudspeakers or noisemakers to play music or make noises for the purpose of attracting attention to a mobile food vendor.

e. *Site regulations.*

1. A mobile food vendor may conduct business only on private property where an existing, permanent business operates in a building and pursuant to a certificate of occupancy. Said property must be zoned commercial, industrial, or Planned Unit Development where the base zoning district is commercial.
2. A mobile food vendor parked to conduct business shall be:
 - i. located no closer to major thoroughfares than the primary business building on the property;
 - ii. set back a minimum of fifty (50) feet from residential single family properties; and
 - iii. not located in or on required parking spaces, driveways, fire lanes, unimproved surfaces, or any location where the mobile food vendor can obstruct traffic movement or impair visibility and safety to the site.
3. Only one mobile food vendor is allowed per property, and no drive through may be marked or otherwise established for the mobile food vendor to conduct business.

3.14.18 *Short Term Rentals (STR)*

a. *Purpose.*

1. The purpose of this division is to establish regulations for the protection of the health and safety of the occupant(s) of short-term rental properties; to protect the integrity of the neighborhoods in which short term rental properties operate, and to ensure the collection and payment of hotel/motel occupancy taxes.
2. This division does not grant the owner of residential property with the right or privilege to violate any private conditions, covenants, and/or restrictions applicable to the owner's property that may prohibit the use of said residential property for short-term rental purposes as defined in this division.

b. *Compliance and Permit Required.* It shall be illegal to offer or enter into an agreement for a short-term rental within the city except in compliance with regulations adopted in this division and a valid permit issued pursuant thereto.

c. *STR Permit.*

1. ***Application requirements.*** An application for a short-term rental permit shall be submitted to the Planning Department.
 - i. The application shall include the following information:
 - a) the name, address, email address, and telephone number of the operator of the subject STR;

- b) the name, address, email address, and telephone number that is answered twenty-four hours a day for the local contact person of the subject STR;
- c) the name and address of the proposed STR;
- d) proof of Hotel Occupancy Tax registration;
- e) the number of sleeping areas and the applicable overnight and daytime occupancy limit(s) of the proposed STR;
- f) a floor plan of the subject STR that identifies sleeping areas, evacuation route(s), and location of fire extinguishers;
- g) a site plan of the property showing structures and the location of parking spaces; and
- h) such other information as the City Planner, or designee, deems reasonably necessary to administer this division.

ii. A passing Fire and Life Safety inspection.

2. **Fee.** The annual STR permit fee of \$25.00 per rental unit is due with the application for a permit. Said fee is applicable to all rented units including rooms and guest houses.
3. STR permits are valid for one year and may be renewed annually by payment of the permit fee on or before the permit expiration date.
4. Failure to complete the renewal process for an STR permit may result in revocation of the STR permit. If an STR permit is revoked for any reason, the operator may not reapply for such for the same property for a period of twelve (12) months from the revocation.
5. An STR permit is not transferable to another owner, operator, or location.

2. Compliance with Law.

1. The owner of the property and the operator of the STR shall be responsible for compliance with all applicable laws, rules, and regulations pertaining to the use and occupancy of the subject STR, including prohibition of public nuisances and unreasonable noise.
2. Short-term rental operators shall be responsible for informing their occupants of all relevant city codes and the occupants' liability for violation of same.
3. Landscaped areas and yards shall not be utilized to provide required parking. If the STR is less than an entire property, a minimum of one off-street parking space is required per rental unit in addition to the required parking for single family residential lots. Parking must meet all other parking requirements in applicable law.

3. Fire and Life Safety.

1. All short-term rentals shall be equipped with fire extinguishers, smoke detectors, and carbon monoxide detectors as required by all applicable law.

2. Every sleeping area shall have at least one operable emergency escape and rescue opening as required by all applicable law.
 3. An evacuation plan shall be posted conspicuously in each permitted sleeping area.
 4. Any room or sleeping area in an STR that does not comply with this section shall not be used as a sleeping area and where equipped with a door, shall remain locked at all times when the dwelling is being used as an STR. Such non-compliant sleeping area shall not be included in the maximum occupancy calculation for the STR. The owner/operator shall notify every occupant, in writing, that the non-compliant sleeping area may not be used for sleeping.
 5. Each sleeping area must include at a minimum the shared use of a full bathroom.
4. **Posting of Information.** The operator of the STR shall post in a conspicuous location in the common area in each STR unit the following:
1. A notice that includes:
 - i. The maximum number of occupants;
 - ii. Location of off-street parking and prohibition of parking on landscaped areas and yards;
 - iii. Notice that failure to conform to the occupancy and parking requirements is a violation of the City Code and occupant or visitor can be cited;
 - iv. Restrictions on use of outdoor facilities, such as pools;
 - v. Local contact person's name and 24-hour phone number;
 - vi. Property cleanliness requirements;
 - vii. Location of trash cans and pick-up requirements; and
 - viii. Flooding hazards and evacuation routes.
 2. Short Term Rental permit.
 3. The STR's Health Department permit.
 4. The STR's Hotel Occupancy Tax registration.
5. **Hotel Occupancy Tax Required.** The operator of a short-term rental shall collect and remit hotel occupancy taxes as provided by all applicable law. Failure to collect and/or remit the tax as required by law shall be grounds for revocation of the STR permit.

Chapter 125: Article 4. Site Development Standards

Sections:

§ 4.1 Accessibility for Persons with Disabilities

§ 4.2 Building Projections into Yards

§ 4.3 Drainage Systems

§ 4.4 Fences, Walls, and Plantings

§ 4.5 Fire Protection

§ 4.6 Flood Damage Prevention Standards

§ 4.7 Interior Streets

§ 4.8 Lighting

§ 4.9 Performance Standards

§ 4.10 Projections Above Height Limits

§ 4.11 Refuse Storage Areas

§ 4.12 Screening of Mechanical Areas

§ 4.13 Sidewalks

§ 4.14 Signs

§ 4.15 Utility Easements

§ 4.16 Water and Sanitary Sewer System

§ 4.17 Exterior Construction Requirements

§ 4.18 Concrete Surface Requirement

§ 4.19 Off-Street Parking and Loading

§ 4.20 Landscaping and Buffer Yards

Sec. 4.1 Accessibility for Persons with Disabilities

All accessibility provisions for the persons with disabilities shall be subject to approval by the Building Official.

Sec. 4.2 Building Projections into Yards

Except where permitted by this Section, required yards in all districts shall remain unobstructed. The following building elements may project into required yards.

- a. In RSF districts, balconies, stairs, chimneys, canopies, decks, covered patios, and awnings may encroach no more than 18 inches into any required setback area. Bay windows may encroach no more than 3 feet into any required setback area. A bay window encroachment shall not exceed 1/3 the length of the wall plane upon which it is located. Covered porches may project up to 6 feet into the required front yard setback. In no case shall the front building setback be less than 10 feet.
- b. In RMF and in non-residential districts, canopies and awnings may encroach no more than 3 feet into any required setback area.
- c. Belt courses, cornices, windowsills, pop-outs, quoins, and similar decorative architectural features may encroach no more than 18 inches into any required setback area.
- d. Roof overhangs may encroach no more than 18 inches into a required setback.
- e. Fences located on a side or rear property line may encroach into any required side and rear yard setback.
- f. Freestanding signs may encroach into required building setback areas.
- g. Outdoor lighting fixtures may encroach into required building setback areas.

Sec. 4.3 Drainage Systems

Refer to Article 5 Subdivision Regulations of this Chapter and the General Design and Construction Standards.

Sec. 4.4 Fences, Walls, and Plantings

4.4.1 Clear Vision Triangle at Intersections. Within the triangular area formed by the right-

of- way lines of intersecting streets and a line connecting points 25 feet on either side of the intersecting rights-of-way, including triangles formed from the centerline of driveways, there shall be clear space and no obstruction to vision. Fences, walls, plantings and other obstructions shall be restricted to a height of 30 inches or less above the grade of the lowest street as measured at the right-of-way line thereof in the above clear space.

4.4.2 Walls or Fences Containing Injurious Materials. Walls, fences or similar structures less than 6 feet in height shall not contain any substances, such as broken glass, barbed wire, spikes, nails or similar materials, designed to inflict pain or injury to any person or animal. Agricultural uses are exempt from this requirement.

4.4.3 Required Fences or Walls. For the open storage of recreational vehicles, boats, rental trucks or equipment, an approved opaque 6-foot high wall, suitably constructed of masonry, or wood fence, or suitable landscaping, shall be required around the perimeter of the site, and shall be maintained by the owner. This subsection shall not be interpreted to preclude the City from requiring an 8-foot fence for needs of public health or safety, or to prevent nuisance impacts to adjacent properties or streets.

4.4.4 Decorative Fences. Decorative fences metal/wrought iron fences are allowed in front and side yards all zoning districts subject to the following regulations:

- a. In all zoning districts except single family residential, the fence height shall not exceed six (6) feet.
- b. On residential single family lots with a minimum size of 20,000 square feet, the fence height shall not exceed six (6) feet.
- c. On residential single family lots less than 20,000 square feet in size, the fence height shall not exceed four (4) feet.
- d. Fences shall be 70% transparent.
- e. Masonry Columns may be used. If masonry columns are used, masonry columns shall also be required at all fence corners and turning points and at all fence termination points.
- f. No barbed wire, chicken wire, razor wire, chain link, lattice, or electrically charged fences shall be allowed.

Sec. 4.5 Fire Protection

4.5.1 Fire Hydrants. Prior to issuance of a building permit for the erection of any building or significant alteration of an existing building, the lot owner shall at his/her own expense cause an approved fire hydrant to be installed within 300 feet of the furthest extremity of the proposed building. If none exists within that distance, or at City Fire

Marshal's discretion, an alternate fire protection system may be provided. The fire hydrant must have an approved blue reflector pavement mark in the street for night-time identification. This marker and its location must be approved by the City Engineer. The fire hydrant must be placed on a 6-inch water line or larger and be placed in the utility easement. Fire protection water lines constructed within a project may be required to be metered with a UL approved meter.

4.5.2 Storage Tanks. Aboveground atmospheric pressure storage tanks with more than 500 gallons capacity must comply with Section 46-10.

4.5.3 Sprinklers Systems. Sprinkler systems shall meet the requirements and specifications of the Fire Marshal's office as adopted in Section 46-7. Applicants for staff review under this Article shall acknowledge willingness to comply with the City fire code and the City Fire Marshal's sprinkler requirements.

Sec. 4.6 Flood Damage Prevention Standards

Refer to Chapter 50, Article II, Flood Damage Prevention and Protection.

Sec. 4.7 Interior Streets

4.7.1 Standards. All interior streets, defined as all public and private streets within a building site, shall be a minimum 28 feet in width and constructed of concrete or flexible base paved section in accordance with City standards and at the owner's expense. Interior streets paved in accordance with the City specifications, and not a part of the required parking area, shall be provided at the owner's expense for the access of fire and police protection and for garbage pickup.

4.7.2 Building Location. Each building shall abut an interior street or parking lot and may additionally be served by a concrete or flexible base alley without curbs, not less than 12.5 feet per traffic lane in width, adequately drained with catch basins and storm sewers constructed in accordance with City standards and at the owner's expense.

Sec. 4.8 Lighting

4.8.1 Applicability. All outdoor lighting installed after the effective date of this amendment shall follow the provisions in this section. Lighting fixtures and luminaires installed and operated prior to the date of this Ordinance are exempt from these requirements and shall be considered legally non-conforming and regulated as such.

4.8.2 Exceptions. These regulations do not apply to the following:

- a. Lighting within the public right-of-way that is principally used to illuminate streets and sidewalks.
- b. Lighting of signs regulated by the sign section.
- c. Navigational lighting systems necessary for safety at airports or marinas.
- d. Lighting of national, state or local government flags.
- e. Temporary lighting of construction sites.
- f. Temporary decorative seasonal lights.
- g. Lighting deviation specified in a Special Use Permit or Planned Unit Development.
- h. Lighting required by federal, state or local laws or regulations.
- i. Lighting that is only used under emergency conditions such as search lights.

4.8.3 *Cutoff Light Fixture required.* Outdoor lights shall be full cutoff light fixtures so that their rays are directed toward the ground and away from adjacent residential property or streets and no light trespass falls on any residential property. A full cut-off light fixture has a solid barrier (cap) at the top of the fixture in which the lamp (bulb) is located. The fixture is angled so the lamp is not visible below the barrier (no light visible below the horizontal angle).

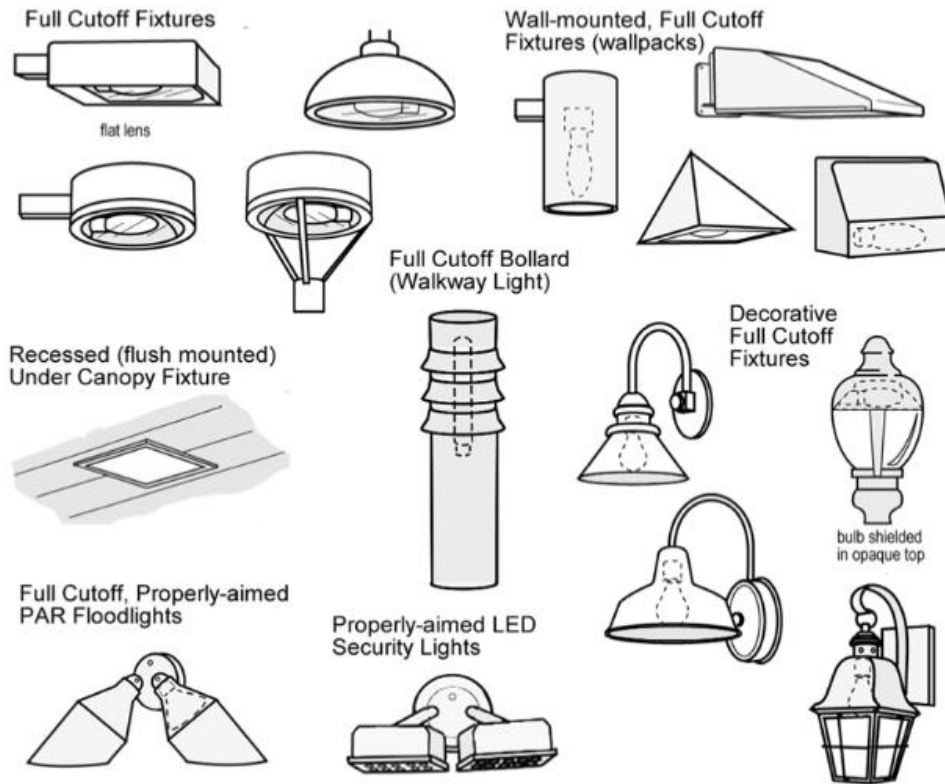
4.8.4 *Canopy Lights.* Light fixtures mounted on canopies or vehicle fueling station islands shall be recessed so that the lens cover is recessed or flush with the bottom surface (ceiling) of the canopy.

4.8.5 *Light Poles.* Parking lot light poles shall be located in a landscape planter or incorporated into a walkway or other pedestrian area. Concrete bases for light poles shall not exceed a height of 30 inches from finished grade.

4.8.6 *Prohibited Lights.* Laser source light, strobe lights, and similar high intensity light sources for advertising or entertainment shall not be projected above the horizontal plane, unless a permit is obtained for specific events and time frames

4.8.7 *Photometric Survey.* A photometric survey of the entire property shall be submitted with a building permit or if changes and /or additions are being made to the existing exterior article

4.8.8 Examples of full cutoff light fixtures.



Sec. 4.9 Performance Standards

4.9.1 Purpose. The following performance standards are intended to control dangerous or objectionable environmental effects—including noise, vibration, smoke, dust or other particulate matter, toxic or noxious materials, odors, fire, explosive hazard or glare and ensure compatible land use relationships

4.9.2 Noise. At no point on a property line shall the sound intensity level of any individual operation or plant exceed the decibel levels as stipulated in Chapter 42, Article H.

4.9.3 Vibration. No use shall be permitted which produces ground vibrations noticeable without instruments at the lot line of the premise on which the use is located.

4.9.4 Smoke Emissions. Smoke emissions shall be in compliance with federal, state, and county regulations.

4.9.5 Odors. No use shall be permitted so as to produce the emission of objectionable or offensive odors in such concentration as to be readily perceptible at any point at or beyond the lot line of the property on which the use is located. Table III, Chapter 5, "Air Pollution Abatement Manual," of the Manufacturing Chemist's Association, Inc., is hereby adopted as the guide in determining the quantities of offensive odors, as are

the guides and standards contained in the prohibitions against air pollution of the state air control board.

- 4.9.6 Discharge of Toxic or Noxious Matter.** No use shall, for any period of time, discharge across boundaries of a lot line on which it is located toxic or noxious matter in such concentrations as to be detrimental to or endanger the public health, safety, comfort or general welfare, or cause injury or damage to persons, property, or the use of property or land, or render unclean the waters of the state to the extent of being harmful or inimical to public health, animal or aquatic life, or the use of such waters for domestic water supply, recreation or other legitimate and necessary uses. Disposal of toxic or hazardous waste within the city is specifically prohibited.
- 4.9.7 Nuclear Radiation.** Any operation involving radiation, i.e., the use of gamma rays, X-rays, alpha and beta particles, high-speed electrons, neutrons, protons, and other atomic or nuclear particles, shall be permitted only in accordance with the codes, rules and regulations of the state board of health and the state air control board.
- 4.9.8 Electromagnetic Radiation and Interference.** No person shall operate or cause to be operated for any purpose a planned or unplanned source of electromagnetic radiation which does not comply with the current regulations of the Federal Communications Commission regarding such sources of electromagnetic radiation. Any operation in compliance with the Federal Communications Commission regulations will be deemed unlawful if such radiation causes an abnormal degradation of performance of any electromagnetic receptor of quality and proper design. The determination of abnormal degradation in performance and of quality and proper design shall be made in accordance with good engineering principles and standards of the American Institute of Electrical Engineers, the Institute of Radio Engineers and the Electrical Industries Association.
- 4.9.9 Interference.** No use, activity or process shall be conducted which produces electromagnetic interference with normal radio, television or non-mobile telephone reception.
- 4.9.10 Heat or Glare.** Any activity producing heat or glare shall be carried on in such a manner that such heat or glare is not perceptible at any lot line. Exposed sources of light, including bare bulbs and tubes and immediately adjacent reflecting surfaces, shall be shielded to avoid creating a nuisance across lotlines.

Sec. 4.10 Projections above Height Limits

- 4.10.1 Permitted projections.** The following projections above base district height limits are permitted:
- a. Belfries, domes, chimneys, cupolas, skylights, clock towers and other similar structural elements not used for human occupancy, may project above the base district height limit, provided that they do not cover more than 20 percent of the

- roof area;
- b. Mechanical equipment and enclosures, elevator penthouses, ventilators, and other similar equipment, may project up to 5 feet above the base district height limit, but may not exceed the height of parapet walls;
 - c. Parapet walls or cornices may project up to 5 feet above the base district height limit;
 - d. Church steeples, religious symbols, or similar elements on religious assembly buildings;
 - e. Signs, pursuant to Article 8. Signs;
 - f. Flagpoles;
 - g. Wireless communications facilities, pursuant to Communications Towers and Structures Ordinance;
 - h. radio and television towers, aerials and parabolic satellite receivers, microwave transmitters and receivers used in connection with radio and television broadcasting, but not including parabolic satellite TV reception antennas, unless otherwise regulated.
 - i. Barns, silos or other farm buildings and/or structures;
 - j. Water towers, fire and hose towers, and windmills;
 - k. Chimneys and smoke stacks; and,
 - l. Monuments, spires, and false mansards.

Sec. 4.11 Refuse Storage Areas

4.11.1 Purpose. The purpose of these regulations is to ensure the provision of adequate, accessible, and convenient locations for the collection and storage of refuse and recyclable materials within containers and enclosures that are compatible with surrounding land uses and structures.

4.11.2 Applicability. Refuse collection and recycling containers are required for all multi-family residential development and all non-residential developments. Any alteration adding 30 percent or more to the existing gross floor area of any non-residential use shall meet the requirements of this Section.

4.11.3 Access. Driveways and aisles shall be unobstructed.

- 4.11.4 Location.** Enclosures for refuse collection and recycling containers shall be located within the principal structure or within a permanently enclosed structure, if one exists, and shall be approved by the Fire Marshal. Enclosures may be functionally combined into a single unit or may be established at separate locations on a lot. Enclosures shall not be located in any required parking, buffer or landscape areas.
- 4.11.5 Drains.** Drains in the refuse storage area must be equipped with a Building Department approved "P" trap when using City sanitary sewers.
- 4.11.6 Enclosures or Screening Required.** All refuse collection and recycling containers shall be within enclosed facilities or screened so as not to be visible from a public street.
- 4.11.7 Enclosure Materials.** The structure shall be enclosed on all sides, one of which includes a gate or door. The enclosure shall be made of screen fencing or wood fencing or finished masonry walls. The enclosure shall be architecturally compatible with the principal structure. Electrical, barbed, and razor wire fences are prohibited.
- 4.11.8 Height.** Minimum height is 6 feet. Maximum height is 8 feet.
- 4.11.9 Landscaping.** The perimeter of the enclosure shall be landscaped with native species landscaping where practical.
- 4.11.10 Security.** All refuse collection enclosures shall have a gate or door that can be secured.
- 4.11.11 Maintenance.** Enclosures shall be maintained in a manner that protects adjacent properties as well as tenants located on the subject property from adverse environmental, health and safety impacts such as noise, odors and attraction of rodents or other pests. The receptacle shall be covered by either a roof on the enclosure or covered receptacles.

Sec. 4.12 Screening of Mechanical Areas

- 4.12.1 Purpose.** The purpose of these regulations is to protect public views from unsightly equipment that is typically required of new development.
- 4.12.2 Applicability.** These regulations shall apply in all zoning districts, with the exception of I Industrial districts unless such mechanical equipment is visible from a R Residential district.
- 4.12.3 General Requirements.** All exterior ground, building, and rooftop mechanical

equipment shall be screened from public view on all sides. Equipment to be screened includes, but is not limited to: heating, air conditioning, and refrigeration equipment; plumbing lines; ductwork; transformers; and meter banks.

4.12.4 Screening Specifications. Screening materials may be solid concrete, wood, landscaping, or other opaque material that is compatible with the building architecture and effectively screens mechanical equipment so that it is not visible from a public street or adjoining lot. Screening material may have evenly distributed openings or perforations not exceeding 50 percent of the surface area. Rooftop equipment may be screened using enclosure, partial screens, or parapet walls.

Sec. 4.13 Sidewalks

Refer to Article 5 Subdivision, Article 4 Development Regulations and the General Design & Construction Standards.

Sec. 4.14 Signs

Refer to Article 8 Signs.

Sec. 4.15 Utility Easements

Refer to Article 5 Subdivisions, Article 4 Development Regulations, and the General Design & Construction Standards.

Sec. 4.16 Water and Sanitary Sewer System

Refer to Article V Subdivisions, Article VI Development Regulations, and the General Design & Construction Standards.

Sec. 4.17 Exterior Construction Requirements

4.17.1 Residential Masonry Construction Standards

a. Single and Two-family.

1. Except as noted below, this paragraph "a." applies to all new single-family, single-family with secondary dwelling, duplex, townhomes, and manufactured homes, and any associated attached or detached garages or residential units in

residential subdivisions for which a master plan, preliminary, or final plat application was submitted to the City on or after the effective date of this amendment. There is no intent via this paragraph "a." to apply said regulations to new residential construction on lots, plats, replats, etc. in neighborhoods existing at the time of this amendment. The provisions of this paragraph "a." shall not apply to land located within the Historic Overlay District.

2. All exterior building walls oriented towards the street on which the property is addressed and those exterior walls facing parks, designated open spaces, detention/amenity ponds, trails, or other public/common spaces shall be no less than one-hundred percent (100%) masonry. All other exterior building walls shall be no less than eighty-five percent (85%) masonry. The above masonry requirements shall be exclusive of doors and windows.

- b. **Multi-family.** This paragraph "b." applies to all new multi-family buildings constructed after the date of this amendment. All principal and accessory exterior building walls oriented towards the street on which the property is addressed and those exterior walls facing parks, designated open spaces, detention/amenity ponds, trails, or other public/common spaces shall be no less than one-hundred percent (100%) masonry. All other exterior building walls shall be no less than seventy-five percent (75%) masonry. The above masonry requirements shall be exclusive of doors and windows.

4.17.2 Non-Residential Masonry Construction Standards. The following standards apply to all new nonresidential building construction, and to an existing non-residential building having a cumulative building expansion of fifty percent (50.0%) or more in floor area as calculated from the date of this amendment.

- a. All non-residential buildings not located within a Limited Industrial (IL) or General Industrial (IG) zoning district shall have not less than eighty percent (80%) masonry construction on each exterior wall, excluding doors and windows.
- b. All non-residential buildings located (1) within a Limited Industrial (IL) or General Industrial (IG) zoning district and (2) adjacent to a public or private street, shall have not less than fifty percent (50%) masonry construction on each exterior wall, excluding doors and windows.

4.17.3 Screening. Screening materials for the following uses shall be of masonry construction compatible with the main building;

- a. Solid waste receptacles including but not limited to dumpsters and compactors;
- b. Above-ground storage tanks;
- c. Loading docks; and
- d. Similar accessory equipment and uses.

4.17.4 Hotels. See Section.3.14.8.

4.17.5 Minor Deviations. The City Planner may allow for minor deviations to the exterior construction requirements described in this Section 4.17 to the extent that such approved minor deviations are not contrary to the intent or spirit of this Section.

Sec. 4.18 Concrete Surface Requirement

All business-related operations must be on concrete surfaces.

Sec. 4.19 Off-Street Parking and Loading

4.19.1 Purposes. The purposes of the off-street parking and loading regulations are to:

- a. Ensure that adequate but not excessive parking is provided for new land uses and major alterations to existing uses to meet the parking needs created by such uses.
- b. Establish regulations for new uses, new or relocated buildings and buildings that have been altered or expanded.
- c. Ensure that off-street parking and loading areas are designed and located to protect the public safety, minimize congestion, reduce solar heat gain, minimize traffic conflicts and congestion on parking aisles and public streets, and buffer surrounding land uses and public areas from visual and noise impacts.
- d. Ensure pedestrian-friendly parking areas by providing for safe pedestrian routes, parking lot lighting, parking spaces sized for contemporary vehicles, and trees for shade.
- e. Provide for the accessibility needs and requirements of disabled and elderly persons

4.19.2 Applicability

These regulations shall apply to new uses and to alterations and additions to nonconforming structures. No building permit shall be issued for a use unless the use complies with this Section.

4.19.3 General Provisions

- a. **Required Parking.** All required parking shall be provided on site, except as provided in Subsection g below. The number of parking spaces required for individual uses is set forth in Section 4.19.4 below.
- b. **Required Parking and Parking Lot Landscaping for Structures that are Altered.**

The parking and parking lot landscaping requirements of this Section shall apply to the new portion of the parking lot when an existing structure is altered.

- c. **Uses Not Mentioned.** Parking requirements for a use not identified in this Section shall be determined by the City Planner or designee based on parking requirements for the most similar use listed in Ordinance. The City Planner or designee may require submission of a parking study prepared by a person licensed to prepare such study.
- d. **Fractional Spaces.** If the number of parking spaces required in this Section results in a fraction, then the required number shall be rounded to the nearest whole number. For example, if the computed requirement equals 9.5 spaces, then 10 spaces are required. If the computed requirement equals 9.4 spaces, then 9 spaces are required.
- e. **Computation of Required Parking for Residential Multi-family Use.** Residential parking for multi-family uses shall be based on the number of bedrooms. Any rooms defined as bedrooms by the City of League City building code shall be counted as a bedroom for the purpose of determining off-street parking requirements.
- f. **Visitor Parking.** On-street parking may be counted toward the visitor-parking requirement for developments in all residential districts, provided that the street has a minimum 8-foot wide legal parking area exclusive of travel lanes. To qualify as one visitor parking space, there shall be an uninterrupted 20-foot long space and a sidewalk adjacent to the parking side of the street. The City may require on-street visitor parking spaces to be striped.
- g. **Shared Parking.** Where a use generates parking demand primarily during hours when an adjacent use or uses are not in operation or generate shared trips, a reduction of up to 50 percent of the required parking may be administratively approved. Shared parking ratios shall be based on the Institute of Transportation Engineer (ITE) Parking Generation. The application requirements shall include:
 - 1. Submission of a parking study prepared by a person licensed to prepare such study;
 - 2. The proposed agreement providing for the shared use of parking areas, executed by the parties involved, must be filed with the Planning Department, in a form satisfactory to the City Attorney.
 - 3. After approval by the City Attorney, the agreement shall be recorded at the Galveston or Harris County Land Records office by the applicant.
 - 4. Shared parking privileges will continue in effect only as long as the agreement, binding on all parties, remains in force. Agreements must guarantee long-term availability of the parking, commensurate with the use served by the parking.
- h. **Temporary Use of Parking Area.** temporary use of parking areas for uses other

than parking is permitted provided that:

1. The non-parking use complies with all temporary use and license requirements;
 2. The use does not interfere with fire or emergency vehicle access;
 3. The use does not create a traffic hazard or interfere with vehicular or pedestrian circulation on the site;
 4. The use provides accessible parking in accordance with applicable laws; and
 5. The non-parking use is conducted with written property owner authorization.
- i. *Parking for Age Restricted Uses or to Comply with the Americans with Disabilities Act.*** A reduction in parking requirements for a multi-family age-restricted use may be approved by a Special Use Permit where the project is restricted by covenant or deed restriction to an age-restricted use. Any such approval shall be based on a parking study or other acceptable evidence that supports the requested parking reduction. In no event shall the required parking be reduced below 0.5 parking spaces per dwelling unit. Parking requirements for the multi-family use shall revert to those specified in this Section if age restrictions are no longer in effect.
- j. *Restrictions on Parking in Commercial and Office Districts.*** Recreational Vehicles, trailers, commercial vehicles, or combinations of vehicles exceeding 21 feet in length shall not be parked within any commercial zoned property, except for the purpose of loading, unloading, service, or patronizing a commercial use on the site. In commercial districts, no vehicle shall be parked overnight and used for permanent or temporary habitation.
- k. *Prohibited Parking.*** Parking shall be prohibited in the following locations:
1. Fire lanes;
 2. Required landscape areas;
 3. Unimproved properties or portions of properties in nonresidential and multi-family districts; and
 4. Outside areas not designated for parking on an approved site plan.
- l. *Separation from Buildings.*** Parking spaces shall be separated from a multi-family residential building or non-residential building by:
1. A raised walkway of at least 4 feet in width exclusive of any overhang permitted in Subsection m below and in compliance with minimum ADA requirements, or;

2. A raised landscape planter of at least 5 feet in width exclusive of any overhang permitted in Subsection m below.
- m. **Parking Overhang.** Vehicles may overhang landscape areas or sidewalks by 24 inches provided that:
1. The overhang does not interfere with the base of any structure, raised planter, seating bench, fence, utility equipment, light pole or base, or trunk of any tree;
 2. The unobstructed width of the sidewalk, exclusive of the 24-inch overhang, is not less than 4 feet;
 3. The allowable overhang does not reduce any landscape planter width below 5 feet; and
 4. No part of any parked vehicle extends into any required landscape area or beyond any property line.
- n. **Opposing Overhangs.** Where parking spaces are on opposite sides of the landscaping or sidewalk or combination thereof, the landscape area or sidewalk shall be at least 9 feet in width.
- o. **Side Clearance.** Each parking space located at the end of a row of spaces shall provide a 3-foot wide area clear of vertical obstructions more than 6 inches in height, exclusive of landscaping, next to the side of the space.
- p. **Tandem Parking.**
1. **Non-residential.** Tandem parking spaces shall only be approved for full-time valet or attended parking. Tandem parking spaces may be used to satisfy a portion of the parking requirement for non-residential uses, subject to the approval of a Special Use Permit. The Special Use Permit may be revoked by the City Council if the use changes.
 2. **Residential.** Single family residential enclosed garages intended to accommodate two vehicles parked end-to-end shall have a minimum unobstructed interior width of 12 feet and a minimum interior unobstructed length of 38 feet.
- q. **Pavement Edge Protection.** All permanent uses other than single family residential lots shall provide a 6-inch, poured-in-place concrete curb or other approved material for all parking areas and drive aisles abutting landscaped areas.
- r. **Parking On Single Family Residential Lots.** In the RSF districts, the side yard may be used for vehicle parking or access to the rear of the lot. Uncovered parking may

be constructed next to the driveway or adjacent to a garage or carport. On corner lots, the parking area shall not be constructed in the street side setback area. Vehicles or trailers shall be parked on a driveway or additional parking area permitted in this subsection. Refer to Chapter 66 for parking of manufactured homes and/or recreational vehicles. The additional parking areas permitted by this subsection shall comply with the following standards:

1. The parking space shall have a concrete surface;
 2. The surface may consist of 2 parallel concrete or cement strips. The area between such parallel strips shall be landscaped with vegetative or non-vegetative ground cover;
 3. No parked vehicle may obstruct or encroach on a sidewalk; and
 4. Access to the parking space shall be via a curb cut, rolled curb, or driveway. (Note: Driveway access to an RSF Residential Single Family lot from a major or minor arterial is prohibited.)
- t. *Prohibited Parking.*** Parking and/or storage of vehicles on grass or other non-paved area in any zoning district is prohibited except for agricultural machinery or equipment in the OS zoning district. Material for the paved area shall be concrete.
- u. *Concrete Surfaces.*** All references to concrete surfaces shall include solid concrete or other approved city-staff approved pervious surfaces. However, all driveways, drive aisles, fire lanes, loading docks and drive approaches must be constructed with solid concrete. Residential driveways in excess of 50 feet in length may be constructed with city-staff approved pervious surfaces.

4.19.4 Off-Street Parking Requirements

Off-street parking requirements for all uses are prescribed in Table 4.19.4 below.

Table 4.19.4: Off-Street Parking Requirements

<i>Use Classification</i>	<i>Parking Requirement</i>
Residential	
Child Care Family Homes	
<i>Listed Family Homes</i>	No additional spaces required
<i>Registered Family Homes</i>	No additional spaces required
Residential Dwellings	
<i>Single Family Dwelling</i>	4 spaces/unit (may be tandem)
<i>Single Family with Secondary Dwelling</i>	1 additional space
<i>Townhouse</i>	4 spaces/unit (may be tandem)
<i>Duplex</i>	4 spaces/unit (may be tandem)
<i>Multi-Family Residential</i>	1 space/1 bedroom or studio unit; 2 spaces/2 or more

	bedroom units; 0.3 guest spaces/unit
Group Residential Facilities	
<i>Assisted Living Facilities</i>	0.75 spaces/unit
<i>Continuing Care Facility</i>	0.75 spaces/unit
<i>Disabled Group Dwelling</i>	1 space/every 3 residents, plus 1 space for each employee (based on maximum number of employees working at one time)
<i>Emergency Shelter</i>	1 space/every 4 residents, plus 1 space for each employee (based on maximum number of employees working at one time)
<i>Halfway House</i>	1 space/sleeping room, plus 1 space for each employee (based on maximum number of employees working at one time)
<i>Homeless Shelter</i>	1 space/40 beds, plus 1 space for each employee (based on maximum number of employees working at one time)
<i>Nursing Home</i>	1 space/every 4 residents, plus 1 space for each employee (based on maximum number of employees working at one time)
Public and Semi-Public	
Cemeteries	None required
Clubs or Lodges	1 space/250 sq. ft.
Colleges, Public or Private	1 space/250 sq. ft. of classroom and office area
Cultural Institutions	1 space/250 sq. ft.
Day Care	1 space/250 sq. ft.
Educational Research and Development	1 space/250 sq. ft.
Government Offices and Facilities	1 space/250 sq. ft.
<i>Large-scale</i>	1 space/250 sq. ft.
<i>Small-scale</i>	1 space/250 sq. ft.
Hospitals	1.5 spaces/bed
Parks and Recreation	2 spaces/court; 40 spaces/soccer field; 30 spaces/ball diamond; 1 space/150 sq. ft. of indoor area;
Public Maintenance Facilities	1 space/250 sq. ft.
Public Safety Facilities	1 space/250 sq. ft.
Religious Assembly	1 space/100 sq. ft. of assembly area; 1 space/200 sq. ft. of other indoor area
Schools, Public or Private	2 spaces/classroom for elementary/junior: 7 spaces/classroom for high school
Commercial	
Alcoholic Beverage Sales	1 space/250 sq. ft.
Ambulance Services	1 space/250 sq. ft.
Animal Sales and Services	1 space/250 sq. ft.
Animal Sales and Services with Outdoor Kennels, Areas and Runs	1 space/300 sq. ft.
Automobile/Vehicle/Equipment Sales and Services	

<i>Automobile/Vehicle/Equipment Sales and Rental</i>	1 space/250 sq. ft. of indoor area
<i>Automobile Rentals</i>	1 space/150 sq. ft. of indoor area
<i>Car Wash</i>	2 spaces for automated/self-service; 10 spaces for full service
<i>Vehicle Fueling</i>	1 space/250 sq. ft. Each gasoline pump may be counted toward the off-street parking requirements. The number of gasoline pumps shall be calculated based upon the number of vehicles capable of refueling at the same time.
<i>Light Vehicle Services</i>	2 spaces/service bay; 1 space/250 sq. ft. of other indoor area
<i>Auto Repair and Other Heavy Vehicle Service</i>	3 spaces/service bay; 1 space/250 sq. ft. of other indoor area
Banks and Other Financial Institutions	1 space/250 sq. ft.
Bed and Breakfast Establishment	1 space/guest room
Building Materials Sales and Services	1 space/500 sq. ft.
Business Services	1 space/250 sq. ft.
Catering Business	1 space/250 sq. ft.
Convention Center	1 space/250 sq. ft.
Eating and Drinking Establishment	
<i>Full Service</i>	1 space/125 sq. ft.
<i>Limited Service</i>	1 space/125 sq. ft.
<i>With Drive-Through Facilities</i>	2 spaces for waiting area
<i>With Live Entertainment</i>	1 space/125 sq. ft.
<i>With Outdoor Seating</i>	1 space/300 sq. ft. of outdoor seating area
Event Venue	1 space/600 sq. ft. of outdoor site area; 1 space/ 300 sq. ft.
Food and Beverage Sales	1 space/250 sq. ft.; 1 space/125 sq. ft. for convenience uses
Home Improvement Sales and Services	1 space/250 sq. ft.
Hotels and Commercial Lodging	1.25 spaces/unit
Laboratory, Commercial	1 space/250 sq. ft.
Maintenance and Repair Services	1 space/250 sq. ft.
Massage Establishments and Massage Services	1 space/250 sq. ft.
Micro-Brewery, Micro-Distillery, and Micro-Winery	1 space/200 sq. ft.
Nurseries and Garden Supply Stores	1 space/500 sq. ft.
Offices	1 space/250 sq. ft.
Parking Facilities	1 space/250 sq. ft. of office area; 2 spaces for waiting area
Pawn Shops	1 space/250 sq. ft.
Personal Instructional Services	1 space/250 sq. ft.
Personal Services	1 space/250 sq. ft.
Recreation and Entertainment	
<i>Large-scale</i>	1 space/3 spectator seats; 2 spaces/court; 1 space/batting cage; 2 spaces/golf hole; 1 space/150 sq. ft. of indoor area
<i>Small-scale</i>	1 space/125 sq. ft.
Retail Sales	1 space/250 sq. ft.
Self-Storage	1 space/1,000 sq. ft.;

	1 space/250 sq. ft. of office area; 4 spaces for waiting area
Sexually Oriented Businesses	1 space/250 sq. ft.
Temporary Sales	Determined by City Planner or designee
Undertaking, Funeral and Interment Services	1 space/100 sq. ft. of assembly area; 1 space/250 sq. ft. of office area
Industrial	
Contractor's Storage	1 space/250 sq. ft. of office area
Production Industry	
<i>Artisan</i>	1 space/500 sq. ft.
<i>General</i>	1 space/750 sq. ft.
<i>Limited</i>	1 space/500 sq. ft.
Recycling Collection	1 space/250 sq. ft. of office area
Research and Development	1 space/250 sq. ft.
Warehousing and Storage	
<i>Indoor Storage</i>	1 space/1,000 sq. ft.; 1 space/250 sq. ft. of office area
<i>Outdoor Storage</i>	1 space/250 sq. ft. of office area
Warehousing and Distribution	
<i>With Store Facilities</i>	1 space/1,000 sq. ft.; 1 space/250 sq. ft. of store area
<i>Non-Store Facilities</i>	1 space/1,000 sq. ft.
Wrecking, Junk or Salvage Yard (auto, steel, building materials) and Towing Services	1 space/2,000 sq. ft.
Transportation, Communication, and Utilities	
Communication Facilities	1 space/250 sq. ft.
Communication Towers and Structures	2 spaces
Transportation Facilities	
<i>Airports and Heliports</i>	Determined by City Planner or designee
<i>Freight/Truck Terminal and Warehouse</i>	1 space/1,000 sq. ft.; 1 space/250 sq. ft. of office area
<i>Marinas, Docks</i>	1 space/marina slip
<i>Marinas, Private</i>	1 space/marina slip; 0.25 guest spaces/marina slip; 1 space/250 sq. ft. of office area; 1 space/250 sq. ft. of other indoor area
<i>Marinas, Public</i>	1 space/marina slip; 0.25 guest spaces/marina slip; 1 space/250 sq. ft. of office area; 1 space/250 sq. ft. of other indoor area
<i>Transportation Passenger Terminals</i>	Determined by City Planner or designee
<i>Truck Weight Stations</i>	1 space/250 sq. ft. of office area
Utility, Major	1 space/250 sq. ft. of office area
Utility, Minor	1 space/250 sq. ft. of office area
Agriculture and Extractive	
Crop and Animal Raising	Determined by City Planner or designee
Mining and Drilling	1 space/250 sq. ft. of office area
Plant Nursery	1 space/500 sq. ft. of indoor area

4.19.5 *Parking Space and Aisle Dimensions.* This Section sets forth dimensional requirements for open parking spaces, covered parking spaces, spaces in parking structures, and residential garage parking.

- a. *Location of Off-Street Parking Spaces.*** Off-street parking spaces shall be located so that any parcel on which such parking spaces are located shall be adjacent to and bordering the property on which the building or use to which such parking spaces are assigned is located. In the event that two or more separate parcels on which off-street parking is located are assigned to a single building or use, at least one such parcel of real property (an "adjoining parking property") must be adjacent to and bordering the property on which the building or use is located and the remaining such parcels must be adjacent to and bordering either an adjoining parking property or the property on which the building or use is located.
- b. *Open Parking Spaces.*** The minimum dimensions of open parking spaces and parking aisles are set forth in Table 4.19.5.h. For high turnover uses and uses utilizing shopping carts, space width shall be increased by 6 inches for 50 percent of the required parking spaces closest to the building entrances.
- c. *Unenclosed Covered Parking Spaces.*** Each unenclosed covered parking space shall measure at least 9 feet in width and 19 feet in depth of unobstructed area. These measurements shall not include the exterior walls or supports of the structure. An unenclosed covered parking space shall have an unobstructed backup area of not less than 25 feet.
- d. *Spaces in Parking Structures.*** Each parking space in a parking structure shall measure at least 9 feet in width and 19 feet in depth and have an unobstructed backup area of not less than 25 feet.
- e. *Vertical Clearance for Unenclosed Covered Spaces and Parking Structures.*** Covered parking and parking structures shall have a minimum vertical clearance of 8 feet.
- f. *Residential Garages.*** Single- and multi-family residential enclosed garage structures intended to accommodate one vehicle shall have a minimum interior unobstructed width of 12 feet and a minimum interior unobstructed length of 20 feet. For two vehicles, the minimum unobstructed interior width shall be 20 feet.
- g. *Parking Space and Aisle Dimensions.*** Table 4.19.5.h below shall apply to all uses other than high turnover uses and those uses utilizing shopping carts.

Table 4.19.5.h: Parking Space and Aisle Dimensions for Parking Angles

<i>Space Angle</i>	<i>Aisle Width (ft.)</i>	<i>Space Width (ft.)</i>	<i>Space Length (ft.)</i>
One Way			

0 degrees	14.0	10.0	22.0
30 degrees	15.0	9.0	19.0
45 degrees	16.0	9.0	19.0
60 degrees	17.0	9.0	19.0
90 degrees	24.0	9.5	19.0
Two Way			
0 degrees	20.0	10.0	22.0
30 degrees	20.0	9.0	19.0
45 degrees	22.0	9.0	19.0
60 degrees	24.0	9.0	19.0
90 degrees	25.0	9.0	19.0

i. Stacking and Queuing Requirements.

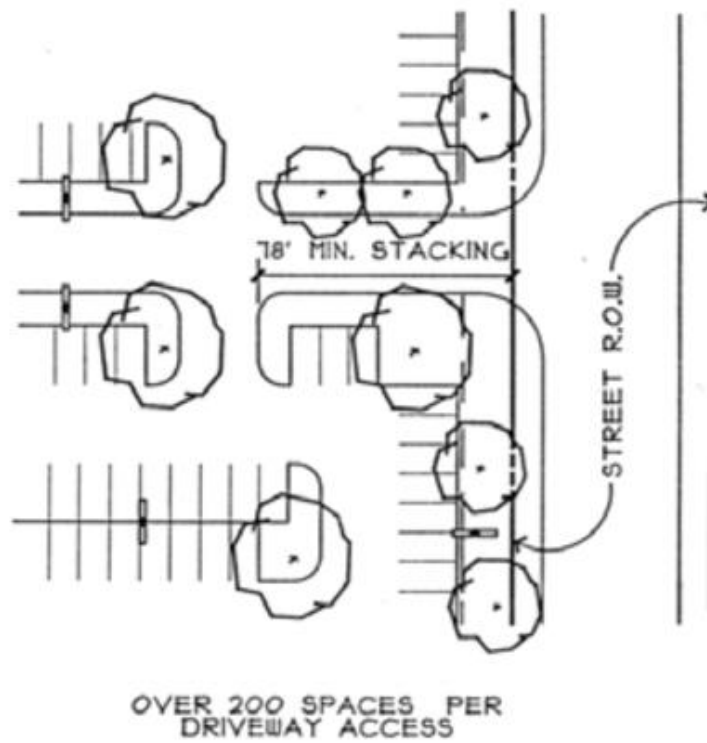
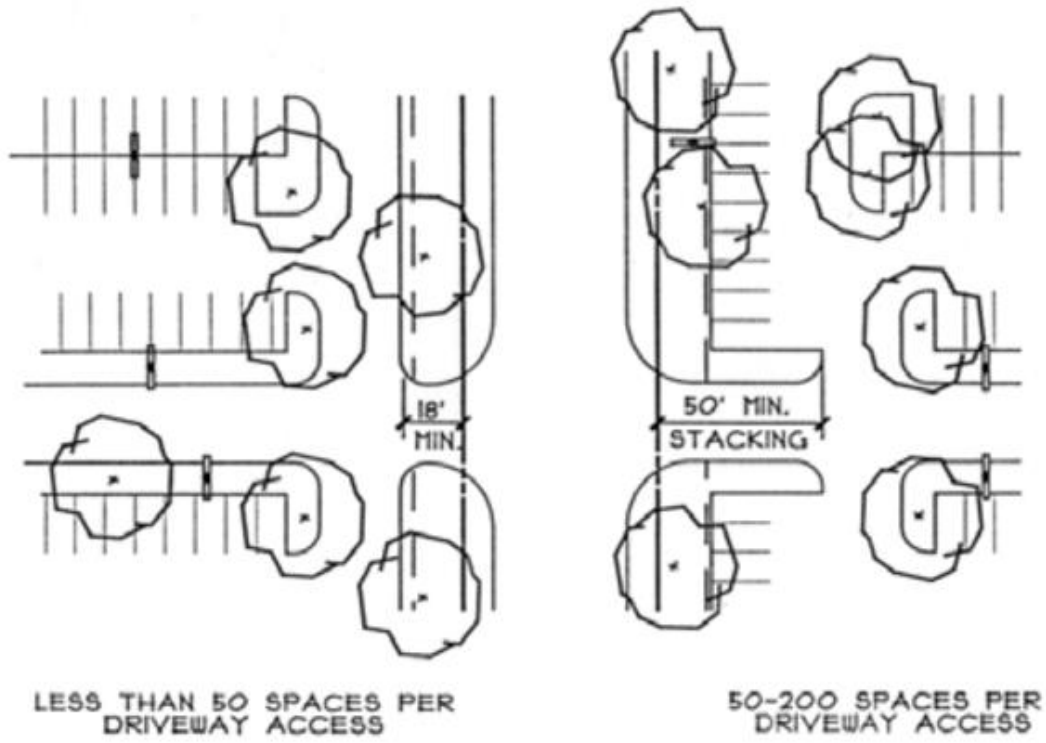
1. Stacking spaces provide the ability for vehicles to queue on-site prior to receiving a service. In all districts, at the time any building or structure is erected or altered, stacking spaces shall be provided for uses that include, but are not limited to, service stations, drive-through restaurants, drive-in or drive-through banks, and similar uses that allow customers or clients to receive services and/or conduct activities on the property without leaving their vehicle. City staff may require a traffic study to determine the stacking and queuing requirements to properly identify the number of stacking spaces required. In no instance shall the queue accommodate fewer than six vehicles.
2. A stacking space shall be a minimum of nine feet in width and 20 feet in length and shall not be located within or interfere with a public street or any other circulation driveway, parking space, fire lane or maneuvering area. Stacking spaces shall be provided behind the vehicle bay door, middle of the service window (e.g. quick service restaurant, dry cleaner), or middle of the service island (e.g. banks), whichever is applicable.
3. A single stacking space shall be provided after the final window, order board, or stopping point to allow vehicles to pull clear of the transaction area prior to entering an intersecting drive aisle. Buildings and other structures shall be set back a minimum of ten feet from the back of the curb of the intersecting drive aisle to provide adequate visibility and to allow vehicles to safely exit drive-thru lanes and escape lanes prior to merging into intersecting drive aisles.
4. Driveway stacking length is the distance between the street right-of-way line

and the near side of the first intersecting interior aisle or parking stall. The minimum length of driveway stacking shall be as follows in Table 4.19.5.i.4 and subsection 5. Illustration of Driveway Stacking below.

Table 4.19.5.i.4: Driveway Stacking

No. of Spaces per Driveway	Minimum Stacking Length
Less than 50	18'
50 to 200	50'
More than 200	78'

5. Illustration of Driveway Stacking.



4.19.6 Striping and Marking

- a. All parking shall be delineated by painted lines, curbs or other means to indicate individual spaces. One or more 4-inch wide lines of white or other contrasting color paint shall delineate all multi-family residential and non-residential parking spaces. Such lines shall be maintained to clearly identify each space.
- b. Traffic control signs and other pavement markings shall be used as necessary to ensure safe and efficient traffic operation on the lots. Such signing and markings shall be subject to the approval of the City Engineer.
- c. Placement, signing, and markings for fire zones shall be approved by the Fire Marshal.
- d. Placement, signing and markings for handicap facilities shall be subject to approval by the Building Official.
- e. All parking lot surfaces and curb striping shall be maintained in good condition at all times.
- f. One or more 4-inch wide lines of white or other contrasting color paint shall delineate all multi-family residential and non-residential parking spaces. Such lines shall be maintained to clearly identify each space.

4.19.7 Parking Access and Driveways

- a. Each parking stall shall have appropriate access to a street or alley, and the maneuvering and access aisle shall be sufficient to permit vehicles to enter and leave the parking area in a forward motion.
- b. All driveways constructed to serve development addressed in this subsection shall be constructed in a manner and with materials similar to the frontage roadway. At a minimum, all driveways shall be concrete or asphalt. Paved driveways shall extend at a minimum to the property line or the end of the curb return, whichever is greater.
- c. All two-way driveways from arterials and collectors shall have ingress and egress lanes delineated by yellow traffic buttons placed in accordance with Texas Department of Transportation (TxDOT) specifications.
- d. New driveways shall conform to the requirements of the General Design and Construction Standards found in Appendix D or to TxDOT approved criteria, unless special circumstances warrant variations approved by the Planning and Zoning Commission.
- e. The maximum number of driveways shall conform to the requirements outlined in Table 4.19.7.e below or to TxDOT approved criteria, unless special circumstances warrant variations approved by the Planning and Zoning Commission.

Table 4.19.7.e : Maximum Driveways	
Street Frontage	Number of Driveways
Up to 58 feet	1
59 to 95 feet	1
96 to 135 feet	2
136 to 320 feet	2
321 to 600 feet	3

4.19.8 Passenger Loading Areas

- a. **General.** For the purposes of this Section, a passenger loading space is the area a vehicle occupies while loading or unloading passengers. A passenger loading space shall be a minimum of 12 feet in width and 20 feet in length. Passenger loading areas shall be provided adjacent to the principal facility entrance or entrances and shall consist of vehicle turnout lanes located outside access aisles. Passenger loading areas shall be identified exclusively for this use.
- b. **Loading Area Requirements.** Passenger loading shall be provided in accordance with Table 4.19.8.b below.

Table 4.19.8.b: Passenger Loading Areas	
<i>Use Classification</i>	<i>Required Spaces</i>
Residential Care Apartment Facilities	1
Clubs or Lodges	1
Convention Center	5
Cultural Institutions	1
Day Care	3
Government Offices and Facilities	2
Hospitals	2
Hotels and Commercial Lodging	3
Parks and Recreation	
<i>Amphitheatre</i>	2
<i>Court or sports field</i>	1 per court/field
<i>Performing Arts</i>	2
<i>Skating Rink</i>	2
<i>Swimming Pool</i>	2
<i>Theatre</i>	1 per 3 screens
Religious assembly	3
Schools, public or private	3
Transportation passenger terminals	4

4.19.9 Parking of Oversize and Commercial Vehicles in Residential Districts

- a. It shall be unlawful for any person to park, or stand a commercial and/or oversize vehicle, or to permit any commercial and/or oversize vehicle to park or stand upon any public street or public right-of way in any residential zoning district in the City.
- b. This shall not apply to the parking or standing of vehicles for the following purposes:
 - 1. Vehicles transporting passengers, freight, or merchandise for compensation to or from the residential area;
 - 2. Publicly owned or franchised emergency or utility vehicles carrying out official duties;
 - 3. Equipment being used for street construction, maintenance, or repair;
 - 4. A vehicle with a mechanical defect, making it unsafe to proceed further shall be lawful to stand or park the vehicle during the time necessary to make emergency repairs or if unable to repair until a tow truck comes;
 - 5. Any motor home, boat, boat trailer, trailer, or house trailer being loaded, unloaded, or otherwise prepared for use or storage; or
 - 6. Owned or operated by a contractor who has parked the vehicle in front of a residence or residential lot for which the person is contracted to do work, provided that the vehicle is parked only between the hours of 7:00 a.m. and 7:00 p.m. and only while the work is being performed. An exception to the time limit is made for emergency situations where immediate repairs need to be performed to lessen property damage or for safety reasons.

4.19.10 Off-Street Loading. This Section applies to any non-residential use having a gross floor area of 10,000 square feet or more requiring the delivery or distribution of material or merchandise by trucks measuring 36 feet or more, including cab and trailer.

- a. **Requirement.** At least 1 off-street loading space shall be provided. One additional loading space shall be provided for each additional 40,000 square feet of gross floor area over 10,000 square feet. Required loading spaces shall be maintained during the existence of the use.
- b. **Standards.**
 - 1. **Location.** Loading spaces shall not be closer than 100 feet to any land designated for residential use, or within 100 feet of land zoned for residential

use, unless such loading spaces are within an enclosed building.

2. **Dimensions.** Each required off-street loading space shall be not less than 12 feet wide and 45 feet long.
 3. **Clear height.** Each required off-street loading space shall have a minimum clear height of 14 feet.
 4. **Screening.** Each off-street loading space visible from a public street, within 200 feet of land designated for residential use on the General Plan, or within 200 feet of land zoned for residential use shall be enclosed on three sides by a solid fence not less than 14 feet in height.
 5. **Maneuvering.** Truck-maneuvering areas shall not encroach into required parking spaces or rights-of-way.
- c. **Customer Loading Zones.** This Section applies to retail uses where customers take delivery of goods in non-commercial vehicles other than in designated parking spaces. Such uses are characterized by the sale of large or bulky items and include home improvement stores, appliance, and electronics stores.
1. **Requirement.** A customer-loading zone shall be provided for any use having a gross floor area of 20,000 square feet.
 2. **Location.** The loading zone shall be located within 50 feet of the primary exit. Customer loading is prohibited in designated firelanes.
 3. **Dimensions.** A loading zone shall be a minimum width of 10 feet and a minimum length of 30 feet.
 4. **Clear Height.** The loading zone shall have a minimum clear height of 14 feet.

4.19.11 Bicycle Parking. Bicycle parking stalls shall measure 2 feet by 6 feet per stall. Stall area shall not encroach into any required landscaping or pedestrian access areas.

4.19.12 Electric Vehicle Charging Stations

- a. **Purpose.** The purpose of this section is to provide design criteria and placement standards to encourage and promote safe and efficient electric vehicle charging opportunities in a full range of zones and settings for convenience of service to those that use electric vehicles.
- b. **Zoning Districts.** Vehicle charging stations are allowed in all zoning districts. Electric vehicle charging station(s) shall be permitted in association with a single-family use designed to serve the occupants of the home. These regulations are applicable only to electric vehicle charging stations that are: 1) publicly owned and publicly available such as a public parking lot or public buildings; and 2)

privately owned and publicly available commercial facilities such as a store or shopping center parking and public accommodation.

c. *Location and Layout.* The location and layout of charging stations for use by the public is expected to vary based on the design of the parking area. It is expected flexibility will be required to provide the most convenient and functional service to users. Standards and criteria should be considered guidelines and flexibility should be allowed when alternatives can achieve objectives for the provision of this service.

d. *Incentive Program.*

1. When the number of required parking spaces is ten (10) or greater, the minimum parking requirement may be reduced by one space for each charging station, but the reduction of parking spaces may not exceed 10 percent of the required number of regular parking spaces. (The EV space will count as a parking space.) No reduction shall be made in the number of required accessible parking spaces. The incentive program does not apply to accessible parking spaces.

2. Electric vehicle charging stations spaces for which any parking incentive was granted shall be operational at all times. When an electrical vehicle parking station is not operational for 14 consecutive days, it shall be considered to have been removed from service. The failure to maintain electric vehicle charging station spaces shall be cause to require the installation of the number of parking spaces required by the zoning district regulations.

e. *Size.* The minimum size of an electric vehicle charging station space is the same as a regular parking space (9'x 19'). Charging devices may be located adjacent to designated parking spaces but shall not be placed within the dimensions of a parking space (length, width, and height clearance).

f. *Design Criteria and Guidelines.*

1. Charging station outlets and connector shall be no less than thirty-six (36) inches or no higher than forty-eight (48) inches from the top of the surface where mounted and shall contain a retraction device or a place to hang cords and connectors above the paved surface. Equipment mounted on pedestals, lighting posts, and other devices shall be designated and located so as not to impede pedestrian travel or create trip hazards. Adequate charging station equipment protection such as concrete-filled steel bollards, shall be used.

2. When the electric vehicle charging station space is perpendicular or at an angle to the curb face and charging equipment, adequate equipment protection, such as wheel stops or concrete-filled bollards, shall be used.

3. Maintenance of the electric vehicle charging station, including functionality of the station, shall be the responsibility of the property owner.

g. Lighting. Where charging station equipment is installed, adequate site lighting shall exist or be installed.

h. Notification. The following information shall be posted at all charging stations:

1. Voltage and amperage levels.
2. Days and Hours of operations if time limits or tow-away provisions are to be enforced by the property owner.
3. Usage fees.
4. Safety information.
5. A phone number or other contact information for reporting when the equipment is not operating or other problems.

h. Signage.

1. Each charging station space shall be posted with signage to identify that it is an electric vehicle charging stations and indicating the space is only for electric vehicle charging purposes.



12" x 12"



12" x 18"

2. Installation of directional signage at the parking lot entrance and at appropriate decisions points be provided to guide motorist to the charging stations space(s). Directional arrow signs shall be no larger than 24" x 9".

3. An EV sign may be displayed without an associated direction arrow but no direction arrow sign may be displayed without an EV sign. No permits are required for EV signs.



24" x24"

- j. **Battery Exchange Stations.** Battery exchange stations are permitted in commercial and industrial zoning districts, provided all other requirements for the building or space the use occupies can be satisfied, such as fire, zoning, and building code requirements. This use is specifically prohibited in residential zoning districts or areas.

4.20 Landscaping and Buffer Yards

4.20.1 Purpose. The purpose of the landscaping and buffer yard regulations is to:

- a. Promote attractive development and preserve the appearance and character of the surrounding area through the use of landscaping.
- b. Eliminate or minimize conflicts between potentially incompatible, but otherwise permitted land uses, on adjoining lots through buffering, which may include a combination of setbacks and visual buffers or barriers.
- c. Prescribe standards for the development and maintenance of planting, fences, and walls.

4.20.2 Landscaping. These provisions are intended to promote attractive development and preserve the appearance and character of area surrounding new development. These provisions apply to all development for which landscaping is required under this **Ordinance** and to Planned Developments.

- a. **Applicability.** These regulations shall apply to:
 - 1. All new residential and non-residential subdivisions;
 - 2. All new construction other than individual single family residences;
 - 3. Additions of 25 percent or more to existing buildings and uses in all multi-family residential and non-residential districts.
 - 4. New construction and expansion by 25 percent or more of all existing permanent non-residential uses in residential districts.
- b. **Landscaping Plan.** When landscaping is required, a landscaping plan shall be submitted in conjunction with other application materials, as provided for in this Ordinance. Landscaping may include trees, shrubs, ground cover, vines, walkways, ponds, fountains, benches, sculpture, shade structures and other materials used for enhancing the exterior appearance of a development or parking area.
- c. **Preparation and Completion of Landscaping Plan.** A landscaping plan must be prepared by a landscape designer, a State-licensed landscape architect, or other qualified person and no significant or substantive changes to approved landscaping

plans may be made without prior written approval by the Building Official. Evidence of completion of required landscaping must be supplied to the City Planner or designee and submitted prior to issuance of an occupancy permit for new construction.

- d. *Components of Landscaping Plan.*** A landscaping plan shall include a site plan, drawn to scale with a north arrow, that is equal to standard architectural or engineering quality and indicates the following:
1. The species and size of all existing trees greater than 1.5-inch caliper, showing those that are proposed for removal and those proposed for retention;
 2. All proposed plant materials clearly labeled and drawn to size at maturity;
 3. Adjacent land uses;
 4. Plant list, indicating common names, scientific names and varieties, quantities, planting sizes, and types, and plant spacing for hedges and screens for all plant materials proposed;
 5. Description of the proposed method of protecting existing trees during construction; and
 6. Irrigation system.
- e. *Required Materials.*** Native and wildlife beneficial species preferred. All plant materials shall be suitable for League City soils and climatic conditions, the plant's slope exposure, shall meet the following requirements:
1. *Uniform Distribution.* Plant material should be distributed so as to provide a relatively uniform planting. Where the planting is along a street and some visibility into the development is desired, the plant material may be arranged to provide view corridors.
 2. *Ground Cover.* Ground cover must be appropriate to the surface conditions of the area. Grass is the default landscaping material, although in parking lots and on steep slopes, other ground covers able to withstand the physical conditions are appropriate.
 3. *Combination of Materials.* The landscaped planting areas should be entirely pervious except for fence or wall structures and walks that provide pedestrian access. No more than 25 percent of a landscaped area should have gravel, stones, wood chips, or paving.
- f. *Parking Area Landscaping.*** Landscaping requirements for parking areas are set forth Section 4.19 this Article.
- g. *Maintenance.*** All required planting must be permanently maintained as approved in good growing condition and replaced with new plant materials when necessary to ensure continued compliance with applicable landscaping requirements.

- h. **Irrigation.** A programmable automatic irrigation system shall be provided to all landscaped areas. Water conservation fixtures shall be used in accordance with applicable City requirements.
- i. **Surety for Delayed Installations.** There may be cases where landscaping cannot be completed prior to building occupancy due to weather or other conditions. In these instances, the City may require surety to be provided in the amount of 120 percent of the estimated cost of the landscaping to be provided. The form of the surety must be approved by the City Attorney.
- j. **Special Landscape Setback Requirements.**
 - 1. **Applicability.** The landscape setback requirements in this subsection shall apply to the following districts: Commercial and Mixed Use, Industrial, Public and Semi-Public, and Open Space Districts and the Commercial Revitalization Overlay District. A minimum 10-foot wide landscaped setback is required along all street frontages. The landscape setback shall consist of the following:
 - i. One shade tree for every 30 feet of linear street frontage, excluding driveways. Trees may be planted in clusters or spaced linearly rather than being on 30-foot centers. The minimum size of the tree should be 1 ½ - inch caliper (15 gallons) upon installation; and
 - ii. A continuous hedge consisting of shrubs that are not less than 3 feet or more than 4 feet in height and planted in 3- or 5-gallon container stocks upon installation. The landscape hedge shall be set back a minimum of 3 feet and a maximum of 6 feet from the perimeter of any parking space, driveway, or any access aisle.
 - iii. In lieu of a landscape hedge noted above, a berm measuring not less than 3 feet or more than 4 feet in height from finish grade of the parking lot may be utilized. The berm shall be set back a minimum of 3 feet and a maximum of 6 feet from the perimeter of any parking space, driveway, or any access aisle. The maximum slope shall not exceed 4:1.
 - 2. In lieu of providing a landscape setback as described in j.1 above, the following may be utilized:
 - 1. 50% of the ground floor of the building shall be built to the property line;
 - 2. Parking shall be located behind or at the side of buildings, except for passenger drop-off areas which may be located at the building entry;
 - 3. Loading areas shall be screened so as not to be visible from public streets; and
 - 4. Where the building abuts a residential district, the preferred location of loading facilities shall be the side away from the residential district boundary.
- a. **Percent of Landscaped Area.** The zoning districts listed in the table below require a percent of the area to be landscaped. The minimum percent of landscaped area is provided in the table.

Zoning District	CN	CG	CO	CM	IL	IG	PS	OS	CRC
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Minimum % Landscaped Area	10	15	15	15	10	10	10	50	15
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b. Screening of Parking Areas. Parking areas and parking access aisles parallel to and within 75 feet of rights-of-way shall be screened from view from those rights-of-way, public parks and public buildings with one of the following:

1. **Landscape Screening.** Where landscaping is used as a substitute screening method, hedges shall be installed as described in j.1. of this section. Additionally, the hedges shall not be located in public rights-of-way. Plant materials shall be an evergreen species. Ground cover and shrubs planted within sight distance triangles shall not exceed a height of 24 inches at maturity.
2. **Berms.** Where a berm is used as a substitute screening method, berms shall meet the requirements described in j.1.ii above. Berms shall not be located in public rights- of-way.
3. **Parking Screen Fences.** Fences shall be not less than three (3) feet nor more than four (4) feet measured from finish grade of the parking lot. Fences shall be set back a minimum of three (3) feet and a maximum of six (6) feet from the perimeter of any parking space, driveway, or any access aisle, as measured from the back of the curb. Fences shall not be placed in public rights-of-way or on top of any retaining walls. Fences shall be constructed of decorative block, brick, stone, or similar materials and finished on both the interior and exterior elevations.
4. **Shade Trees.** Shade trees shall be planted in the parking lot at a ratio of 1 tree for every 8 spaces. Trees shall be dispersed throughout the parking lot to maximize the shading effect on the parking spaces. These trees are exclusive of trees planted around the perimeter of the parking lot. Parking lot trees, when planted, shall have a minimum trunk height of 6 feet and a minimum 2-inch single trunk caliper measurement or 1.5-inch average trunk caliper for multiple trunk trees, measured 4 feet above grade. This size of tree is generally referred to as a 24-inch box. The minimum trunk height of parking lot trees shall be 6 feet. The end spaces in a row of parking spaces shall be separated from drive aisles by landscape islands or peninsulas that are a minimum width of 6 feet. The landscape planter for any parking lot tree shall have a minimum area of 50 square feet and a minimum interior width of 5 feet.

4.20.3 Buffer Yards. Buffer yards are intended to eliminate or minimize conflicts between potentially incompatible, but otherwise permitted land uses on adjoining lots. Buffering may include a combination of setbacks and visual buffers or barriers. Table 4.10.3.d prescribes the minimum buffer yard standards for three buffer yard types. Table 4.20.3.e defines the types of buffer yards required for specific situations.

a. Applicability. The buffer yard standards of this section apply to:

1. All new development on vacant land;

2. Redevelopment or expansion of existing site development by more than 50 percent, not including single family dwellings or the addition of accessory uses or structures
 3. Addition or expansion of an existing building by more than 5,000 square feet;
 4. Any change in use that increases development intensity and results in increased traffic, processes, noise, water or air pollution, etc. For the purposes of this Section, a change in use includes: a change from a residential use to a commercial use; from a commercial use to an industrial use; and in some cases from a manufacturing use to a commercial use.
- b. Location and Measurement.** Required buffer yards must be developed along the perimeter of the lot and are measured from the property line of the development site and extending inward. Buffer yard planting may be located in a required setback area. Buffer yards may not be located within any dedicated public or private street right-of- way.
- c. Buffer Yard Plan.** A buffer yard plan must be submitted in conjunction with the landscaping plan and other application materials. The plan must be prepared by a landscape designer, a State-licensed landscape architect, or other qualified person. Where a landscaping plan is also required pursuant to Section 4.20.2 above, the landscaping plan must incorporate the buffer yard plan. Where a landscaping plan is not required, the buffer yard plan must show the location of all buffer yards on the project site, proposed plant locations, a plant list and key, location of utility easements, roads, emergency access, walkways, and existing and proposed structures on the site.
- d. Buffer Yard Standards.** Table 4.20.3.d describes the minimum requirements for each buffer yard type. Native and wildlife beneficial species are preferred.

Table 4.20.3.d: Buffer Yard Standards

	<i>Buffer Yard Types</i>			<i>Additional Regulations</i>
	<i>A</i>	<i>B</i>	<i>C</i>	
Buffer yard width (ft.)	20	30	50	1.
Canopy trees (per 100 lineal feet)	4	4	4	2.
Ornamental trees (per 100 lineal feet)	4	4	4	3.
Shrubs	continuous	continuous	continuous	4.
Berm height (ft.), if provided	--	--	4	5.
Fence height (ft.), if provided	--	6	8	6.

1. On any portion of the development site where this Section would require two buffer yard types, the greater buffer yard type shall be required.

2. Canopy trees shall mean deciduous and broadleaf evergreens capable of growing at least 25 feet in height or spread at maturity and not less than 10 feet high and 1.5-inch caliper at time of planting. If a fence is provided, the trees shall be placed at least 8 feet from the fence.
 3. Ornamental trees shall mean deciduous or evergreen trees capable of growing between 10 and 15 feet in height at maturity and not less than 8 feet high and 1.5-include caliper at time of planting. If a fence is provided, the trees shall be placed at least 8 feet from the fence.
 4. Shrubs shall not be less than two (2) feet high and 5-gallons in size at time of planting. The Urban Forester may approve a 1-gallon size for fast- growing species. Groundcover shall be consistent with the requirements of Section 14.20.2.e.2 above. If a fence is provided, shrubs shall be placed at least four (4) feet from the fence.
 5. The requirement for a berm may be waived if a fence is provided in a Type C buffer yard.
 6. Fences are not required as part of buffer yards; however, if a fence is provided in a Type B or C buffer yard, then the required width of the buffer yard may be reduced by five (5) feet provided that the fence provides a solid visual barrier. No reduction in buffer yard width is permitted in a Type A buffer yard even if a fence is provided.
- e. **Required Buffer Yards.** Buffer yards are required between certain land uses, with the type of yard depending on the adjoining zoning district. Table 4.20.3.e below prescribes the required buffer yards between proposed development and adjoining development by zoning district. For each zoning district, the required buffer yard type is specified. In some cases, a buffer yard is not required.
- f. **Maximum Achievable Buffer Yards.** In cases where shape, topography, easements, or existing buildings on a lot make it impractical to provide a required buffer yard, the City Planner or designee may recommend and the Planning and Zoning Commission may approve a maximum achievable buffer yard that provides planting and design that is consistent with the use being buffered.
- g. **Surety for Delayed Installations.** There may be cases where buffer yards cannot be completed prior to building occupancy due to weather or other conditions. In these instances, the City may require surety to be provided in the amount of 120 percent of the estimated cost of the landscaping to be provided. The form of the surety must be approved by the City Attorney.

Table 4.20.3.e: Required Buffer Yards

Adjoining Development or District

Proposed Development Providing Buffer	<i>RSF-20</i>	<i>RSF-10</i>	<i>RSF-7</i>	<i>RSF-5</i>	<i>RSF-2</i>	<i>RMF-2</i>	<i>RMF-1.2</i>	<i>CN</i>	<i>CG</i>	<i>CO</i>	<i>CM</i>	<i>IL</i>	<i>IG</i>	<i>PS</i>	<i>OS*</i>
RSF-2	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
RMF-2	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
RMF-1.2	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A
CN	B	B	B	B	A	A	A	—	—	—	—	—	—	—	B
CG	C	C	C	C	A	A	A	—	—	—	—	—	—	B	C
CO	C	C	C	C	A	A	A	—	—	—	—	—	—	B	C
CM	C	C	C	C	A	A	A	—	—	—	—	—	—	B	C
IL	C	C	C	C	A	A	A	B	—	—	—	—	—	B	C
IG	C	C	C	C	A	A	A	C	B	B	B	B	—	C	C
PS	C	C	C	C	A	A	A	—	—	—	—	—	—	—	B
OS	A	A	A	A	A	A	A	—	—	—	—	—	—	—	—
PUD	B	B	B	B	A	A	A	A	B	B	B	B	C	B	B
RNC	—	—	—	—	A	A	A	—	B	B	B	B	C	B	—
CRC	B	B	C	C	A	A	A	—	—	—	—	—	B	B	C
TND	B	B	B	B	A	A	A	A	B	B	B	C	C	B	B
MAC	C	C	C	C	A	A	A	—	—	—	—	—	B	B	C

— No buffer yard required; A,B,C Buffer yard standard

*** Exception:** The proposed development is not required to provide a buffer adjacent to property zoned Open Space that meets the following criteria: 1) Shall be a separately owned parcel; 2) Shall be solely utilized as a drainage easement or other utility; and 3) The width shall equal or exceed the width of the required buffer. The proposed development shall provide an 8-foot tall fence along the property line adjoining the Open Space parcel if the Open Space parcel is adjacent to a zoning district that would require a buffer by the proposed development.

CHAPTER 125: Article 5. Subdivisions

Sections:

§ 5.1 Purpose.

§ 5.2 Statutory authority; jurisdiction.

§ 5.3 Conflicts.

§ 5.4 Plat submittal and filing procedures.

§ 5.5 Development Standards, Public Infrastructure Dedication, Construction Requirements, and City Participation.

§ 5.6 Easements.

§ 5.7 Lot design requirements.

§ 5.8 Fire Prevention and Suppression.

§ 5.9 Fire Prevention and Suppression.

§ 5.10 Improvement Plans and Acceptance of the Subdivision Improvements.

§ 5.11 Engineering and construction standards.

§ 5.12 Unapproved plats and noncomplying developments.

§ 5.13 Variances.

§ 5.14 Fees.

§ 5.15 Enforcement.

Sec. 5.1 Purpose

It is the intent of this section for the City to state the requirements for subdividers, developers, applicants, engineers, surveyors, realtors and other persons interested and involved in the subdivision and the development of land. Further, it is the intent, purpose and scope of this Chapter to promote the vision, goals and policies of the City's *Comprehensive Plan* and all of its components and to protect the health, safety and general welfare of the public. In so implementing this chapter, the City may, as needed, utilize policies in the comprehensive plan. Any prospective subdivision of land is hereby also subject to the policies of the comprehensive plan including but not limited to the Future Land Use Plan and

corresponding provisions, as well as complementary General Design and Construction Standards approved by ordinance by City Council.

Sec. 5.2 Statutory authority; jurisdiction

In pursuance of the authority granted to cities and counties under the constitution and laws of the state, including the provisions of Texas Local Government Code §212.003, as amended, the City Council does hereby adopt the rules and regulations in this Chapter governing the subdivision and development of land within the City limits and extraterritorial jurisdiction of the City. Where there is any conflict in the Subdivision regulations or with other ordinances, the more restrictive shall apply.

Sec. 5.3 Plat Submittal and Filing Procedures

- 5.3.1** The Planning Department is authorized to establish in writing policies and procedures, including submittal and graphic requirements, specifying the information that must be submitted to the City, including the form and manner of submission, for those development documents, including Master Plans, Preliminary Plats, Final Plats, Amending Plats, Minor Plats, Site Plan Packages, and certain other technical information related to infrastructure plans for development. Plat submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook, which is adopted here by reference. Applications submitted with missing or incomplete information will not be accepted by the City for consideration by the approving authority. Incomplete applications will be returned to the applicant with written comments as to why the application was deemed incomplete.
- 5.3.2** *Preapplication meeting.* The subdivider should seek the advice and assistance of the City and consult early and informally with the Planning Department before preparing a Master plan or Preliminary Plat.
- 5.3.3** *Compliance.* Plat applications shall comply with all applicable City ordinances and statutes prior to consideration by the Planning and Zoning Commission. Submittals shall be accompanied by the required fee established by the fee schedule.
- 5.3.4** *Covenant/conditions/restrictions required.* Final approval of any plat to subdivide property, whether residential or nonresidential, filed after September 24, 2019 shall not be granted unless the applicant submits a certified copy of the covenants, conditions, and/or restrictions declared for said property that (i) establish materials, design and/or architectural standards acceptable to the city's planning director; and (ii) are recorded in the appropriate county clerk's office.

- 5.3.5 Association required.** A plat to subdivide property, whether residential or nonresidential, filed after September 24, 2019 that creates common area or common land shall be accompanied by a copy of documents evidencing (i) approval by the Texas Secretary of State's Office of the formation of homeowners' association, community association, or property owners' association; and (ii) such association's assumption of the responsibility for maintenance of the common area or common land.
- 5.3.6 Recordation.** No plat shall be recorded unless all public improvements have been approved in accordance with the subdivision ordinance and the current *General Design and Construction Standards*. Plat recordation will occur once all public improvements *Master plan*.
- 5.3.7 Master Plan.**
- a. **Purpose.** The purpose of the master plan is to guide the design of subdivisions and allow the Planning and Zoning Commission to review the proposed major thoroughfare and collector street patterns, land use, environmental issues, the property's relationship to adjoining subdivisions or properties, and conformance to the Comprehensive Plan. Master Plans shall meet the intent of the City's adopted Comprehensive Plan, guiding documents, and other policy guidance.
 - b. **Exception.** Where a phased or partial development is proposed, the master plan area shall include the entire property from which the phase is being subdivided. A Master Plan shall not be required if the Executive Director of Development Services determines that the Preliminary Plat(s) contains sufficient information to provide for the review and approval of the entire development.
 - c. **Submittal Package.** The master plan submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule.
 - d. **Approvals.** Staff comments shall be addressed by the applicant prior to approval by the Planning and Zoning Commission. Said decision will be based upon a determination that the master plan meets the requirements of this Chapter and all other applicable City Ordinances and regulations. The master plan shall be subject to approval by the Planning and Zoning Commission in concept only and does not constitute approval of the subsequent plats and phasing within the plan boundaries.
 - e. **Other Approvals.** If another Board/Commission is required to make a recommendation to the Planning and Zoning Commission, then the Board/Commission's recommendation shall be included when the Planning and Zoning Commission consider the request.

- f. *Expiration and Exceptions.*** The master plan shall expire after two years from the date of submittal, unless one of the following occur:
1. An application for a permit (including a plat) necessary to begin or continue towards completion of the project is submitted;
 2. Costs have been incurred for developing the project including, without limitation, costs associated with roadway, utility, and other infrastructure facilities designed to serve, in whole or in part, the project (but exclusive of land acquisition) in the aggregate amount of 5 percent of the most recent appraised market value of the real property on which the project is located; or
 3. Fiscal security is posted to ensure performance of an obligation required by the regulatory agency.
- g. *PUD Master Plans.*** All master plans that are associated with Planned Unit Development Overlays ("PUDs") are also subject to the requirements in the Zoning Ordinance.

5.3.8 *Preliminary Plat.*

- a. *Compliance.*** A Preliminary Plat of any proposed subdivision shall be submitted for Commission approval in compliance with the requirements set forth in this chapter.
- b. *Submittal Requirements.*** Preliminary Plat submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule. The Preliminary Plat shall be in accordance with the Master Plan (if applicable), the most recently adopted Comprehensive Plan, and all applicable City ordinances and statutes prior to consideration by the Planning and Zoning Commission.
- c. *Approval Process.*** If all information and other required submittals are contained within the preliminary plat submittal packet is complete in every respect, the staff will make a written recommendation to the Planning and Zoning Commission before its consideration for approval. The subdivider or designated representative shall be provided with a copy of this report prior to the Commission meeting. If another Board/Commission is required to make a recommendation to the Planning and Zoning Commission, then the Board/Commission's recommendation shall be included when the Planning and Zoning Commission considers the request.
- d. *Incomplete Applications.*** If the Preliminary Plat and other materials submitted are not complete, staff will provide written comments to the applicant on changes/additions required and extent of improvements to be made. Once the

changes are made and the application resubmitted with all the required changes, a meeting will be scheduled for the Planning and Zoning Commission to act thereon as submitted or modified.

- e. ***Layout as Guide.*** Layouts submitted on the Preliminary Plat shall be used as a guide for the preparation of the Final Plat and the future installation of streets, water, sewer, and other required improvements and utilities and to the preparation of the infrastructure construction plans. The subdivider is responsible for the resolution of the review conditions and any additional requirements of this chapter and other applicable ordinances.
- f. ***Type of Approvals.*** Beginning with the submittal date of a complete application for a preliminary plat, the Planning and Zoning Commission shall approve, approve with conditions, or disapprove within 30 days in accordance with the Texas Local Government Code (Section 212.009). Said decision will be based upon a determination that the plat meets the requirements of this Ordinance and all other applicable City Ordinances and regulations. An approval with conditions of preliminary plat by the Commission does not constitute approval until the conditions have been satisfied. Failure to comply with the conditions required for Approval of a Preliminary Plat by the Commission shall be deemed an expression of conditional approval shall constitute disapproval of the preliminary plat.
- g. ***Disapproval.*** The applicant may proceed for City Council approval if disapproved by the Planning and Zoning Commission. The applicant shall submit written documentation to the Planning Department requesting City Council consideration within 10 business days after the Commission renders its disapproval. Staff will prepare a list based on the meeting minutes of the Commission's objections to the City Council at the time the item is placed on the City Council agenda. No revisions will be made in the plat presented to the City Council after the Planning and Zoning Commission's disapproval. The City Council has 30 days from the submittal date of the documentation to render a decision. Said decision shall consist of approval or disapproval.
- h. The Planning and Zoning Commission may, for any reason, refer the applicant back to the City staff for review and staff recommendations. However, the Commission must still act within 30 days of submittal of the plat application.
- i. ***Plat expiration.*** The plat shall expire after two years from the date of submittal if it is not filed on record with Galveston or Harris County, as appropriate, unless one of the following occurs towards completion of the project:
 - 1. A good-faith attempt is made to file with a regulatory agency an application for a permit necessary to begin or continue towards completion of the project;

2. Costs have been incurred for developing the project including, without limitation, costs associated with roadway, utility, and other infrastructure facilities designed to serve, in whole or in part, the project (but exclusive of land acquisition) in the aggregate amount of 5 percent of the most recent appraised market value of the real property on which the project is located; or
 3. Fiscal security is posted to ensure performance of an obligation required by the regulatory agency.
- j. *Construction.*** No construction work shall begin on the proposed public improvements in the subdivision prior to the approval of a Preliminary Plat by the Commission and approval of public infrastructure construction plans by the City. The subdivider may at their own risk undertake certain ground excavations for clearing, grading, and drainage purposes. Any required permits shall be issued prior to commencement of work.
- k. *Exception.*** A Preliminary Plat shall not be required if the proposed subdivision meets the criteria as set forth in section 5.4.10 *Preliminary/Final Plat* below.

5.3.9 *Final Plat.*

- a. *Submittal Package.*** Final Plat submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule. The final plat and accompanying data shall substantially conform to the preliminary plat as conditionally approved by the planning and zoning commission, incorporating all changes, modifications, alterations, corrections, and conditions imposed by the planning and zoning commission. If all information and other required submittals are contained within the submittal packet and the final plat is complete in every respect, the plat shall be recommended to the planning and zoning commission for their approval.
- b. *Incomplete application.*** If the application is incomplete, planning staff shall make note of such requirements in a letter to the engineer or surveyor. Upon submittal of the requested additional information, the process of review will continue, and this process of review and resubmission shall continue until the application is complete in every respect.
- c. *Approval.*** At the time the application is complete, the plat will be placed on the Planning and Zoning Commission agenda. The Planning and Zoning Commission shall approve, approve with conditions, or disapprove an application for a final plat.

- d. *Post-approval.*** Upon approval of the final plat, the applicant shall submit to the Planning Department the following items as required by Galveston and Harris Counties:
1. Mylars including the notarized original signatures of the owner(s) of the property included in the plat and the original surveyor and notary seals. (The City will be responsible for the required City signatures and recording the plat with the county.)
 2. An electronic version of the plat, in a format that is compatible with the City's software.
 3. Original tax certificates and receipts from all applicable jurisdictions.
 4. A certified or cashier's check, payable to the county clerk's office for either Galveston or Harris County, in the amount of the cost of the county's recording fees.
 5. If public and/or private improvements have not been completed and accepted by City Council, the applicant shall provide a letter of credit from a federally insured lending institution or depository as security for the completion of the improvements before the plat is recorded at the County.

5.3.10 *Preliminary/Final Plat.*

- a.** The Preliminary/Final Plat process combines the separate Preliminary Plat and Final Plat processes into a single process, eliminating the need to go through the two separate processes. This type of plat is used for subdivisions that typically do not require phasing.
- b.** The same procedures that apply to preliminary and final plats shall apply to a preliminary/final plat. If the developer has complied with the preliminary and final plat requirements and there are no changes required by the staff or Planning and Zoning Commission, then final approval may be granted without the need for separate action on the preliminary plat.

5.3.11 *Replat.*

- a.** The purpose of a replat is to re-subdivide part of all of any property for which a final plat has been previously approved and recorded and does not require the vacation of the entire preceding plat. Replats shall apply only if a property owner desires to change a portion of a final plat that has been previously recorded. Replat submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the

Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule.

- b. The same procedures for final plat approval applies to the replat, except as noted.
- c. The replat shall be submitted to the Planning Department with a copy of the preceding plat of land along with the proposed replat.
- d. **Replat without vacation.** A replat of all or a portion of a recorded plat may be approved in accordance with state law without vacation if the replat:
 - 1. is signed and acknowledged by only by the owners of the property being replatted; and
 - 2. does not attempt to amend or remove any covenants or restrictions previously incorporated in the recorded plat. A note shall be placed on the replat.
- e. In addition to section (d) above, a replat without vacation of the preceding plat must conform to the requirements of this section if:
 - 1. during the preceding five years, if any of the area to be replatted had a single-family and duplex zoning classification or
 - 2. any lot in the preceding plat was limited by deed restrictions to residential use for not more than two residential units per lot.
- f. **Variance.** If a proposed replat, described in subsection (d) above, requires a variance or exception, a public hearing must be held by the commission or city council prior to approval of the replat application.
- g. **Notice of Hearing Requirements.** Notice of a public hearing shall be given before the 15th day of the hearing by publication in a newspaper of general circulation in League City and written notice to the owners of lots that are in the original subdivision and that are within 200 feet of the lots to be replatted, as indicated on the most recently approved municipal tax roll or in the case of a subdivision within the extraterritorial jurisdiction, the most recently approved county tax roll.
- h. **Variance and Legal Protest.** If the replat requires a variance and a legal protest is submitted, then the proposed replat must receive the affirmative vote of at least three-fourths of the Planning and Zoning Commission to be approved. For a legal protest, written instruments signed by the owners of at least 20 percent of the area of the lots or land immediately adjoining the area covered by the proposed replat and extending 200 feet from that area, but within the original subdivision must be submitted to the Planning Department prior to the close of the public hearing. In

computing the percentage of land area, the area of streets and alleys shall be included.

- i. Compliance with this subsection (e and f) is not required for approval of part of a preceding plat if the area to be replatted was designated or reserved for other than single-family or duplex family residential use by notation on the last legally recorded plat or in the legally recorded restrictions applicable to the plat.
- j. If a proposed replat does not require a variance or exception, not later than the 15th day after the date the replat is approved, written notice by mail of the approval of the replat will be provided to each owner of a lot in the original subdivision that is within 200 feet of the lots to be replatted according to the most recent municipal tax roll. The notice of replat approval shall include: the zoning designation of the property after the replat; a telephone number; and, e-mail address that an owner of a lot may use to contact the city about the replat. This subsection does not apply to a proposed replat if the commission or City Council holds a public hearing and gives notice of the hearing in a manner provided in subsection (g).
- k. If the property involves subdivision of property that is from a previous plat recorded *before* September 11, 1969, then the public hearing and notice requirements and legal protest rules listed in this subsection shall *not* apply.

5.3.12 Minor Plat/Minor Replats.

- a. The purpose of a minor plat or minor replat is to simplify divisions of land under certain circumstances outlined in state law, when all of the following circumstances exist:
 - 1. The proposed division results in four or fewer lots;
 - 2. All lots in the proposed subdivision front onto an existing public street and the construction of a street or alley is not required to meet the requirements of this Code;
 - 3. Except for right-of-way widening and easements, the plat does not require the extension of any municipal facilities to serve and lot within the subdivision.
- b. The same procedure for final plat approval applies to the minor plat, except as noted.
- c. Minor submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule.

- d. Minor plat applications shall comply with all applicable City ordinances and statutes prior to approval by the City Planner or designee. Beginning with the submittal date of a complete plat application, the city planner or designee shall approve or submit a recommendation for disapproval to the Planning and Zoning Commission within 30 days. Said decision will be based upon a determination that the plat meets the requirements of this Ordinance and all other applicable City Ordinances and regulations.
- e. The City Planner, Director of Public Works, or City Engineer may, for any reason, elect to present the plat to the Planning and Zoning Commission for approval.

5.3.13 Amending Plat.

- a. The purpose of an amending plat shall be to provide an expeditious means of making minor revisions to a recorded plat in accordance with the current Chapter 212 of the Texas Local Government Code. The same procedure for final plat approval applies to the amended plat unless otherwise specified.
- b. Amending plat submittal package requirements (including graphic requirements, number of copies, and schedules) are contained in the Development Handbook. Submittals shall be accompanied by the required fee established by the fee schedule.
- c. The Amending Plat, which may be recorded and is controlling over the preceding plat without vacation of that plat, may be approved if the Amending Plat is signed by the applicants only and is solely for one or more of the following purposes:
 - 1. Correct an error in a course or distance shown on the preceding plat;
 - 2. Add a course or distance that was omitted on the preceding plat;
 - 3. Correct an error in a real property description shown on the preceding plat;
 - 4. Indicate monuments set after the death, disability, or retirement from practice of the engineer or surveyor responsible for setting monuments;
 - 5. Show the location or character of a monument that has been changed in location or character or that is shown incorrectly as to location or character on the preceding plat;
 - 6. Correct any other type of scrivener or clerical error or omission previously approved by the municipal authority responsible for approving plats,

- including, but are not limited to, lot numbers, acreage, street names, and identification of adjacent recorded plats;
7. Correct an error in courses and distances of lot lines between two adjacent lots if both lot owners join in the application for amending the plat, neither lot is abolished, the amendment does not attempt to remove recorded covenants or restrictions, the amendment does not have a materially adverse effect on the property rights of the owners in the plat;
 8. Relocate a lot line to eliminate an inadvertent encroachment of a building or other improvement on a lot line or easement;
 9. Relocate one or more lot lines between one or more adjacent lots if:
 - i. The owners of all those lots join in the application for amending the plat;
 - ii. The amendment does not attempt to remove recorded covenants or restrictions; and
 - iii. The amendment does not increase the number of lots.
 10. To make necessary changes to the preceding plat to create six or fewer lots in the subdivision or a part of the subdivision covered by the preceding plat if:
 - i. the changes do not affect applicable zoning and other regulations of the municipality; and
 - ii. the changes do not attempt to amend or remove any covenants or restrictions; and
 11. To replat one (1) or more lots fronting on an existing street if:
 - i. the owners of all those lots join in the application for amending the plat;
 - ii. the amendment does not attempt to remove recorded covenants or restrictions;
 - iii. the amendment does not increase the number of lots; and
 - iv. the amendment does not create or require the creation of a new street or make necessary the extension of municipal facilities.
 12. Notice, a public hearing, and the approval of other lot owners are not required for the approval and issuance of an Amending Plat.

Sec. 5.4 Development Standards, Public Infrastructure Dedication, Construction Requirements, and City Participation

5.4.1 Subdivision Development Standards. Development standards shall meet all

requirements of the City's most Current Comprehensive Plan and its related Master Plans, zoning, platting, subdivision requirements, Development Agreements, and the City's General Design and Construction Standards.

- 5.4.2 *Dedication and Construction of Improvements.*** Whether public infrastructure will be located on, adjacent to or outside the boundaries of the property being developed, the developer shall dedicate all rights-of-way and easements for, and shall construct at developers' expense, improvements within the rights-of-way or easements for the public infrastructure improvements needed to adequately serve a proposed development. This work shall be consistent with the City's most current Comprehensive Plan, and its related City approved Master Plans, as well as the City's General Design and Construction Standards. Furthermore, all proposed public infrastructure shall extend across and to the extent of the property boundary for the development for future use beyond the development in order to facilitate the adjacent property to develop unless waived by the City Engineer due to atypical circumstances. All public infrastructure improvements within the city limits, with the exception of drainage channels or retention/detention facilities, shall become the property of the City upon completion and acceptance.
- 5.4.3 *Adjacent Road Improvements.*** In the case of adjacent or abutting roads, the City may require that the entire right-of-way be dedicated and improved to City design standards, depending on factors such as the impact of the development on the road, the timing of development in relation to need for the road, and the likelihood that adjoining property will develop in a timely manner. In the case of frontage or service roads for state and federally designated highways, the entire abutting right-of-way shall be dedicated and improved to applicable construction design standards.
- 5.4.4 *Reservation of Right-of-Way.*** The City may reserve the right-of-way along a roadway designated in the City's Comprehensive Plan and its related Master Mobility Plan or successor documents to protect a transportation corridor from development. The City Engineer shall determine the alignment of reserved right-of-way based upon the Comprehensive Plan, related Master Mobility Plan, applicable engineering criteria, and the existence of a floodplain. In an area designated for a state roadway project, the Texas Department of Transportation may establish alignment.
- 5.4.5 *Substandard Road Improvements.*** Where an existing road, either within or abutting the proposed development, does not meet the City's Comprehensive Plan and related Mater Plans, minimum right-of-way widths of the General Design and Construction Standards, the City shall require the property owner to dedicate the additional right-of-way and to improve the street according to the dimensions and specifications. In no case shall the developer's share or requirement of improvement of a substandard road for a development be less than that which results in a paved lane width of twenty-four (24.0) feet. Such minimum pavement width is hereby determined to be the minimum roadway section to allow for two-way vehicular travel.
- 5.4.6 *Conformity to major street plan.*** Provisions must be made for the uninterrupted extension of main thoroughfares as shown on the City's Master Mobility Plan. Streets

must provide for free circulation within the subdivision.

5.4.7 Connectivity. A proposed development shall provide multiple direct connections in its local street system to and between local destinations, such as parks, schools, and shopping. Each development shall incorporate and continue all collector or local streets stubbed to the boundary of the development plan by previously approved, but unbuilt development or existing development. The street system for the subdivision, except in unusual cases, must connect with streets already dedicated in adjacent subdivisions. Where no adjacent connections are platted, the streets must be, in general, reasonable projections of streets in the nearest subdivided tract and must be continued to the boundaries of the tract being subdivided so that future subdivisions may connect thereto. The maximum distance between streets which are to align with existing or future planned City streets shall be 1,200 feet in residential areas.

5.4.8 Access Roads and Exceptions. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with separate and approved fire apparatus roads and shall meet the requirements of Section D104.3 of the 2000 International Fire Code. Exceptions:

- a. Where there are 30 or fewer dwelling units on a single public or private access way and all dwelling units are protected by approved residential sprinkler systems, access from two directions shall not be required.
- b. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the Fire Marshal.

5.4.9 Cul-de-sac streets. Streets designed to leave one end permanently closed shall not exceed 880 feet in length and shall be provided at the closed end with a turnaround. The street right-of-way for the turnaround shall have a minimum diameter of 100 feet; the surfaced portion of the road at the turnaround shall have a minimum diameter of 80 feet.

5.4.10 Stub streets.

- a. A dead-end barrier is required with provisional 1-foot reserve along the side or end of streets that abut undeveloped acreage tracts. When used, the following note shall be shown on the face of the plat: "A 1-foot strip is reserved as a buffer separation along and between the side or end of all streets in this subdivision plat where such streets abut adjacent tracts. At the time as adjacent tracts abutting the 1-foot reserve strip have been dedicated to the public for street right-of-way purposes as shown on a recorded plat, such 1-foot strip shall become vested in the public for street right-of-way purposes."
- b. Half streets and partial streets are prohibited.

5.4.11 *Intersections.*

- a. ***Intersections.*** Street intersections shall preferably be at right angles, and never less than 75 degrees. Block comers with acute angles require a 30-foot radius for street right-of-way. All intersections of a “T” nature that intersect major or minor arterial and collector streets must first be approved by the City Engineer. Modern roundabouts may be considered.
- b. ***Corner Clips.*** Corner Clips shall be established at all intersections. Unless larger clips are required at a particular intersection, a minimum 10-foot by 10-foot triangular right-of-way dedication (corner clips), measured at the property line, is required at the intersection of two local streets. A minimum 15-foot by 15-foot triangular right-of-way dedication (corner clips), measured at the property line, is required at any intersection with collector and/or arterial streets, unless otherwise indicated. A minimum 25-foot by 25-foot triangular right-of-way dedication (corner clips), measured at the property line, is required at any intersection with thoroughfares, unless otherwise indicated. Such clips shall not be located on private property.
- c. ***Sight distance.*** Refer to the General Design and Construction Standards, ITEM 805.
- d. ***Driveways.*** Access to freeways, major or minor arterials or collector streets is prohibited from the side or rear of a lot. Residential driveways must provide for two-car side-by-side parking, or the street to which the driveway has access must be a minimum of 34 feet in width.
- e. ***Street names.*** Proposed street names shall be submitted to and approved by the Planning and Zoning Commission. Proposed streets, which are in alignment with others existing and named, shall conform to the names of the existing streets. Street names cannot be duplicated. Prior to plat approval, the applicant shall submit a list in alphabetical order of all streets within each section of the proposed subdivision.
- f. ***Street markers and signage.*** Appropriate street signs shall be installed as required in this Chapter.
- g. ***Escrow account for cost of bridges.*** Where subdivisions border on drainage ditches at which streets will dead end pending development of property on the opposite side, the applicants shall place in escrow an amount equal to 50 percent of the estimated cost of design plus construction of a bridge designed sufficiently to carry the traffic load thereof. Such estimated cost shall be determined by the City Engineer. The escrow account is to be in abeyance, in an interest-bearing account, for a period of 10 years. The account shall be established by the applicant, with the City being a trustee to the account.

- h. ***Escrow account for traffic control devices.*** When a Traffic Impact Analysis or a Texas Department of Transportation approval indicates signalization of an intersection will be required under a future warrant, the Developer shall place in escrow with the City of League City an amount equal to their pro-rata cost of the future installation. Cost shall be established as present value plus three percent (3%) per annum inflation.

5.4.12 Sidewalks.

- a. ***Residential areas.*** In residential areas, sidewalks shall be constructed on both sides of the street. The sidewalks shall be located as far as practical from the traffic lanes and usually close to the right-of-way lines. Clear sidewalk width shall be four-feet (4') minimum. Curb-cut ramps shall be provided at cross walks to accommodate physically handicapped persons. Sidewalks and curb-cut ramps shall be provided in accordance with the General Design and Construction Standards ITEM 806 – Pedestrian Facilities (Sidewalks and Wheelchair Ramps).
- b. ***Other areas.*** On Collector Streets, Minor Arterials, and Major arterials, sidewalks are to be constructed on both sides of the street. The sidewalks shall be located as far as practical from the traffic lanes and usually close to the right-of-way lines. Clear sidewalk width shall be five feet (5') minimum. Curb-cut ramps shall be provided at cross walks to accommodate physically handicapped persons. Sidewalks and curb-cut ramps shall be provided in accordance with the General Design and Construction Standards ITEM 806 – Pedestrian Facilities (Sidewalks and Wheelchair Ramps).
- c. ***General requirements.***
 - 1. Sidewalks shall be constructed in the rights-of-way or, if there is not sufficient area within the right-of-way, then in an adjacent sidewalk easement.
 - 2. Pedestrian ramps shall be stained with a Kemiko Stone Tone Stain product in the color of “Cola” or approved equal.
 - 3. Sidewalks shall provide connectivity to adjacent property.
 - 4. On corner lots, sidewalks shall be extended to both curbs to include a ramp that makes access to the sidewalks available to persons in wheelchairs.
 - 5. Every reasonable effort shall be made for the preservation of trees, consistent with the separate City ordinance governing the preservation of trees, during the construction of the sidewalks required by this section.
- d. ***Waiver of sidewalk improvement requirements.*** In locations where there have been no sidewalks prior to the time of construction of the commercial

development, sidewalk requirements may be waived by the Planning and Zoning Commission. A waiver shall be based upon determination by the planning and zoning commission that the construction of a new sidewalk along all (or a part of) the streets abutting the development is impractical, imprudent or otherwise unreasonable, considering factors such as the amount of pedestrian traffic that would otherwise use the sidewalk, technical or practical impediments to pedestrian use of the sidewalk in that location, or such other factors as the Planning and Zoning Commission may deem appropriate on a case by case basis.

5.4.13 Private streets.

- a. *Defined.*** For the purposes of this Section, the term “private street or non-dedicated right-of-way” is defined to mean a non-dedicated street on private property, including but not limited to the following:
1. any area, parcel or strip of land, whether or not the same is depicted or shown as such on any plan, map or drawing, which is not a duly dedicated and established public street of and in the City and which provides access from any public street in the City to one or more buildings designed or appropriate collectively for occupancy by four (4) or more families, or for occupancy or use by two (2) or more businesses, industrial or commercial establishments or for occupancy and use by one (1) or more industrial, commercial or business establishments and (2) or more families, and to which buildings there is no other access from such public street than over the area, strip or parcel of land in questions; or
 2. any area, strip or parcel of land, whether or not the same is depicted or shown as such on any map, plan or plat, which provides a connection between any two (2) public streets in the City and which the general public is permitted to use for the purpose of traveling from one (1) such public streets to the other. Under this definition, the public shall be considered as being permitted to so use such area, strip or parcel of land if in fact it does so and its use is not obstructed by gates, chains or watchmen. The mere fact that there may be posted signs prohibiting such use by the public shall not suffice to keep the area from being considered a private street under the terms of this Ordinance if in fact the owner thereof does not take and continue to take steps sufficient to prevent such use.
- b.** The term “private street” shall not include the following:
1. any driveway designed principally to provide access to any building or between any principal building and the outbuildings appurtenant thereto, or to provide access to delivery platforms or the entrances of a building appropriate for the delivery thereto of goods or merchandise;
 2. an area appurtenant to a store or a group of stores, a theater, a church or any similar establishment, designed primarily to be used as a parking space by

customers or patrons of the establishment or group of establishments in question; or

3. an entrance way or roadway designed to provide entrance to or communication or passage to or between the several units of a single industrial establishment or of a group of such establishments which are under common control or management; provided such industrial entranceway or roadway shall be considered a private street under the terms hereof if it has entrances upon two (2) or more public streets, unless there are, at each of such entrances, gates, chains or watchmen by which all persons are prevented from using the same except those employed by or having business to conduct or such industrial plants or establishments in question.
- c. **Approval.** Private streets will be permitted to be constructed only with the recommendation of the Planning and Zoning Commission and approval of the City Council.
- d. **Franchises.** All franchisees under franchises granted by the City may use private streets, as defined herein, and no franchise or other authorization shall be granted in a private street by any person or entity without a franchise having been duly authorized or the prior written consent having been given by the City.
- e. **Agreement Between City and Developer.** An agreement between the City and any person or entity seeking to construct a private street in the City (the “Developer”) will be required before a private street will be approved for construction. The agreement will be subject to City Council review every five (5) years and will specify, at a minimum:
1. that the Developer shall convey to the City the necessary easement and right-of-way over a private street so that the city may provide services to protect the health, safety and welfare of the citizens of the City;
 2. that the Developer or assigns shall maintain the surface and condition of such private street or non-dedicated right-of-way so as to permit the City to use its easement and right-of-way over such private street in a reasonably safe and convenient manner. Should the Developer or assigns fail to provide the required standard of maintenance after first being given written notice of the nature of such failure and a reasonable time thereafter (not to exceed 90 days) to cure such failure, the City shall have the right to remedy such failure and receive reimbursement from the Developer for the actual cost thereof;
 3. timetable as to when developer has to deed over to the Homeowners or Property Owners Association;

4. that the Developer shall not hold the City or any of its personnel to be guilty of trespass in regard to the use of its easement and right-of-way as defined herein; that the Developer shall not later, block or vacate such private street so as to interfere with or prevent the City from providing the municipal services referred to herein. However, the Developer may close such private street for short periods of time on an occasional basis so as to prevent the public dedication of such street and may erect signs identifying the private nature of such street;
 5. that the Developer shall be responsible for the installation of all service pipes and hydrants on such private street as are required by the operating procedures of the City; and,
 6. that the installation, operation, and maintenance of street lighting are the responsibility of the developer and their assigns.
- f. *Construction.*** Private streets will be constructed according to City and the American Association of State Highway and Transportation Officials (AASHTO) specifications.
- g. *Gates on private streets.***
1. Entrances to communities with private streets shall be controlled by electrically operated gates which are physically manned or electronically operated on a 24-hour-per-day basis. Where electrically operated, unmanned access gates are in place on private streets, one (1) entrance gate at each entrance must be equipped with a 911 override control switch. For entrances with 2 gated lanes of entry, only one (1) of these gated entries requires an electronically operated gate. The second one may be manually operated. Construction plans and gate specifications must be submitted to the Fire Marshal's office and approved prior to installation.
 2. The Knox Company Model KS-2 or KS2-P (or approved equal) key operated switches are approved by the Fire Marshal's office.
 3. The 911 override control switch must be installed in a weatherproof box or assembly approved by the Fire Marshal's office.
 4. The 911 override switch must be accessible from the driver's side of every emergency response vehicle.
 5. All electrically operated access gates shall have a manual override mechanism for use in the event of a power failure, approved by the Fire Marshal's office.

6. Electric gates must have a reset button near the override control switch to secure the gates when the emergency is terminated.
 7. Streets in existence, finally platted and approved by the City Council on the effective date of the ordinance from which this Section is derived shall remain as they are; however, new construction of private streets shall provide a 10-foot curb-face to curb-face width. The gates in the fully opened position must provide a minimum of 12 feet clear width.
 8. A sensing device that will automatically open the gates for departure or exiting is required. Where manual exit gates exist, at least 1 gate at each exit shall be equipped with a 911 padlock.
 9. A final inspection by the Fire Marshal's office is required before the gates are operational. Each public safety department shall sign off on the acceptance form.
 10. Installation of the 911 override switches on all existing gates shall be accomplished within 6 months of the effective date of this the ordinance from which this Section is derived. Gates and 911 switches must be maintained and kept in good working condition.
 11. The owner or operator or his agent is responsible for the ordering and the installation of the 911 override control switch. An approved order form must be obtained from the Fire Marshal's office.
 12. Distribution of numbered master keys will be controlled by the City Fire Marshal's office. Keys shall be distributed to authorized emergency response personnel only. Recordkeeping will be maintained in the office of the Fire Marshal.
- h. *Conformity to Parks, Trails, and Open Space Master Plan.*** Provisions must be made for the uninterrupted extension(s) of trails as described in the City's adopted Parks, Trails, and Open Space Master Plan or its successor documents.
- i. *Facilities Impact Studies.*** The City may require of the developer or the developer may offer to prepare a comprehensive traffic impact analysis, drainage study, or other public facilities study in order to assist the City in determining whether a proposed development will be supported with adequate levels of public facilities and services concurrent with the demand for the facilities created by the development. The study shall identify at a minimum the adequacy of existing facilities and the nature and extent of any deficiencies, and the improvements needed to meet the adopted level of service assuming development at the intensity proposed in the development application. The study shall be subject to approval by the City Engineer. The City may require, at the time of approval of a

subordinate development application, an update of a public facilities study approved in connection with a priority development application.

- j. *Relief from Obligations.*** When a developer constructs public infrastructure improvements that benefit more than just the developer's development, the City may elect to reimburse a portion of the developer's costs in financing the construction of said improvements and to establish the developer's obligation for construction thru a development agreement and or the offset of impact fees. These agreements must be approved by the City Council prior to the commencement of construction of said improvements.

Sec. 5.5 Easements

5.5.1 The following requirements apply to all easements.

- a. *Utility easements.*** A minimum of ten feet is required for utility easements. A minimum of 14 feet is required for all multiple-use easements located along shared back lot lines (seven feet on either side of the lot line). If required, there shall be a note placed on the plat as follows: "There is hereby dedicated an unobstructed aerial easement five feet wide upward from a plane 20 feet above the ground adjacent to all utility easements, except as otherwise shown hereon. Easements may be fenced by the builder, applicant, or subsequent property owner. Flatwork, landscaping and fencing only are permitted in public utility easements. The city or franchise utility companies shall have the right to remove said flatwork, landscaping or fencing for the purposes of installation, operation, and maintenance into the easements, and shall not bear the responsibility for replacement."
- b. *Easement along major drainage arteries.*** Where a subdivision is divided by a major drainage ditch, a drainage easement or right-of-way conforming with the line of the ditch and of a width as necessary to preserve the unimpeded flow of natural drainage shall be dedicated to the city. If drainage is by an open ditch designated as a major drainage artery, the easement or right-of-way shall be dedicated to the city. The city engineer shall determine the width of the easement or right-of-way.
- c. *Location of water, wastewater, and storm drainage lines.*** All water, wastewater and storm drainage lines shall be located within the street right-of-way or in easements adjacent thereto, unless specifically approved otherwise by the planning and zoning commission.
- d. *Stormwater drainage rights-of-way.*** Where stormwater drainage rights-of-way are posted on the plat, the following shall be noted on the face of the plat: "This

right-of-way shall be kept clear of fences, buildings, plantings and other obstructions to the operation and maintenance of the drainage facility.”

e. *Location of utilities.*

1. A developer or property owner causing or requesting the installation of any utility, including but not limited to electric, telephone/telecommunications, television, and gas, shall bear all costs for such installation and shall cause such utility to be placed and maintained underground, unless the criteria set forth in (2) below are met to allow overhead installation. Where the underground placement of such facilities is not a standard practice of the utility involved, the utility’s customer shall request the applicable utility to place the facilities underground and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility’s state-approved tariff.
2. Overhead installation of electric transmission lines carrying 59 kilovolts or more shall be allowed so long as they are installed on galvanized steel or concrete structures. Where installing transmission lines on galvanized steel or concrete structures is not a standard practice of the utility involved, the utility’s customer shall request the applicable utility to install the transmission lines on galvanized steel or concrete structures and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility’s state-approved tariff. Overhead installation of three-phase electric distribution lines shall be allowed only in the following circumstances:
 - i. Along the perimeter of a development, as shown on a Master Plan approved pursuant to this section, and on poles made of wood or other material approved by the city planner or his designee, except that where they run adjacent to or cross a public roadway, the overhead lines shall be installed on concrete poles. Where installation of distribution lines on concrete poles is not a standard practice of the utility involved, the utility’s customer shall request the applicable utility to install the distribution lines on concrete poles and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility’s state-approved tariff; or
 - ii. Within the perimeter of a development, so long as the overhead lines are installed on concrete poles and are located (i) adjacent to a roadway classified as arterial or higher in the City’s Master Thoroughfare Plan; or (ii) adjacent or within a utility corridor at least fifty (50) feet in width.

Where installation of distribution lines on concrete poles is not a standard practice of the utility involved, the utility's customer shall request the applicable utility to install the distribution lines on concrete poles and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility's state-approved tariff.

- f. *Temporary Service.*** No provision contained herein shall prevent overhead installation to provide temporary service during construction, so long as all such temporary overhead lines are removed within twelve (12) months of installation.
- g. *Equipment Mounting.*** All communication and electrical support equipment (transformers, amplifiers, switching devices, etc.) necessary to support underground installation shall be mounted on a pedestal or pad, or placed underground, and all practical options shall be exhausted to avoid the placement of such facilities in the flood plain. If such support equipment must be located within a floodplain for lack of a viable alternative, the developer shall coordinate with the affected utility to develop a plan for such location that acceptable to the City, including but not limited to mounting and maintaining such support equipment on concrete poles, which plan shall be completed no later than the time approval of a final plat for the property. Where the mounting of such equipment on a pedestal or pad or placing it underground is not a standard practice of the utility involved, the utility's customer shall request the applicable utility to mount the equipment on a pedestal or pad or place it underground and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility's state-approved tariff.
- h. *Service Drops.*** All service drops shall be underground and associated equipment shall be pad-mounted and obscured from view from any roadway by an evergreen vegetative screen taller than the equipment. Where the underground placement of service drops, the pad-mounting of associated equipment, or the obscuring of the equipment from view from any roadway by an evergreen vegetative screen taller than the equipment is not a standard practice of the utility involved, the utility's customer shall request the applicable utility to place the service drops underground, mount associated equipment upon pads, and obscure the equipment from view from any roadway by an evergreen vegetative screen taller than the equipment and shall pay all costs associated with the non-standard installation. Notwithstanding the requirements of this section, nothing in this ordinance shall be interpreted in a manner that conflicts with a utility's state-approved tariff.
- i.** Notwithstanding any other provision of this chapter, nothing in this chapter shall be construed as imposing an obligation on an electric utility that conflicts with the utility's state-approved tariff.

Sec. 5.6 Lot Design Requirements

5.6.1 General design requirements for lots in subdivisions are as follows (See Article III: Zoning, for specific lot requirements by zoning district):

- a. **Setbacks.** Additional setbacks may be required where the existing right-of-way is insufficient or future infrastructure is anticipated.
- b. **Lot coverage.** The applicant shall show the allotted maximum percent of impervious surface for each lot shown on the plan. This percentage shall be derived from the hydrologic and hydraulic report, or the maximum percentage as stipulated in Article 3 Zoning and will distinguish between percentages for building(s) and accessory structure(s). In the absence of a hydrologic and hydraulic study, the default maximum percent of impervious cover shall be that from the Master Drainage Plan wherein the design percentage of impervious cover is 55 percent (Runoff Coefficient, $C=0.30$ where $C=I2$). If the Zoning Ordinance stipulates a lower maximum percentage for the zoning district, then that percentage shall be followed.

For lots in RSF-20, RSF-10, RSF 7, and RSF-5 zoning districts, any plat shall contain a notation of the allotted maximum percent (%) of impervious surface coverage for each lot shown; The maximum percent (%) of impervious surface coverage shall be derived from the hydrologic and hydraulic report for the plat. The notation shall delineate between the percentage for building(s) and accessory structure(s). The maximum lot coverage for lots in Residential Multi-family Zoning districts and non-residential zoning districts includes buildings, parking areas, driveways, and maneuvering areas, but excludes common open space amenities and landscaped areas.

- c. **Lot lines.** In general, side lot lines shall be at right angles to straight street lines or radial to curved street lines, unless specifically approved. Lot lines shall not cross municipal or county boundaries.
- d. **Lot frontage on arterial streets.** No residential lots shall front on freeways, major or minor arterials, or collector streets.
- e. **Build across lot lines.** A waiver to build across lot lines may be approved provided that:
 1. Both lots must be under the same ownership;
 2. Both lots are in the same zoning district;

3. Both lots must be legally platted;
 4. The waiver shall not remove or modify any recorded restrictions or easements;
 5. The waiver shall not require the dedication of additional right-of-way or easements.
 6. The waiver to build across lot lines shall expire if:
 - i. Development does not occur within two years of the date the waiver is approved; or
 - ii. The structure built under the waiver is demolished or destroyed.
- f. *Continuity of setback street frontage.*** In single family residential districts, if the rear property line of a corner parcel abuts the side property line of a neighboring parcel, the street side setback of the corner parcel must be equal to the front yard setback.

Sec. 5.7 Fire Prevention and Suppression

- 5.7.1** These provisions shall be administered in conjunction with the City of League City Fire Marshal.
- 5.7.2** The proposed development shall be served by fire suppression facilities at the time of issuance of the first occupancy permit by an approved public water supply system capable of providing fire flow in accordance with the American Water Works Association and National Fire Protection Association (NFPA) standards for that type of development and all other NFPA codes which may be applicable.
- 5.7.3** Fire protection measures shall be required to progress with construction in planned groups of buildings in accordance with NFPA 1141, Standard for Fire Protection in Planned Building Groups.
- 5.7.4** Private fire service mains and their appurtenances shall be installed in accordance with NFPA 24 Standard for Installation of Private Fire Service Mains and Their Appurtenances.
- 5.7.5** If a water supply does not exist, aboveground water storage tanks may be approved as an alternate water supply. Capacity in gallons per minute and duration shall be determined by the developer with approval of the fire marshal department. Calculations shall be stamped and sealed by a licensed, professional engineer.

Sec. 5.8 Water, Wastewater and Drainage Systems

- 5.8.1 *Water and wastewater connections.*** The water and wastewater connections policy is established in Chapter 114 of the Code of Ordinances, Article IV, Divisions 2 and 3, pertaining to water and sewer connection fees and capital recovery fees. Notwithstanding any provision to the contrary therein, the assessment and collection of capital recovery fees shall be governed by Chapter 395 of the Texas Local Government Code.
- 5.8.2 *Water wells.*** Water well permits must be approved by Galveston County or Harris County, as appropriate, and by the City Council, per Section 114-2 of the Code of Ordinances.
- 5.8.3 *Septic systems.*** Minimum lot size shall be in accordance with state health codes. Galveston County or Harris County approval, as appropriate, and approval by the Public Works Director is required.
- 5.8.4 *Lot drainage.*** Drainage of lots will be Type A, unless otherwise approved by the City Engineer.
- 5.8.5 *Capacity of lines.*** The applicant is responsible for laying such lines as are necessary to adequately serve the subdivision under development.
- 5.8.6 *Construction standards for water systems.*** The following requirements shall apply:
- a. Proposed development shall be adequately served by a community water supply system pursuant to Section 114-191 of the City of League City *Code of Ordinances*.
 - b. Water systems must be in accordance with the City of League City *Water Master Plan*, Texas Commission on Environmental Quality regulations, state department of health approved regulations and state board of insurance regulations. A copy of all construction plans shall be forwarded to the appropriate state agency for comments, as required.
 - c. The owner, developer, or other applicants for subdivision or site plan approval shall present evidence that the proposed method of water supply is consistent with said plans and directives.
- 5.8.7 *Construction standards for wastewater systems.*** The following requirements shall apply:
- a. Wastewater systems must be in accordance with the City of League City *Wastewater Master Plan* and the *General Design and Construction Standards*, Texas Commission on Environmental Quality regulations, state department of

health approved regulations and state board of insurance regulations. A copy of all construction plans shall be forwarded to the appropriate state agency for comments, as required.

- b. A community sewerage system shall serve the proposed development.
- c. The sewerage collection system serving the project shall be complete and ready for connection and either an existing treatment facility is available to accommodate the volume of sewage to be generated by the project and other developments for which plats have been approved, or a new or expanded facility will be available to accommodate the existing sewage flow and the anticipated sewage flow from the project and other developments for which plats and plans have been approved before the sewage is generated providing the applicable City departments have no problem with the change.
- d. The City must have programmed for construction, in a capital improvements program or similar plan, additional treatment and collection capacity necessary in combination with existing treatment and collection facilities to meet projected needs.
- e. If the requirements in (c) or (d) above are not possible, then:
 - 1. The applicant agrees to undertake the construction of the sewer system improvements required to meet projected needs; or
 - 2. The applicant agrees to contribute an amount acceptable to the City to the financing of specific improvements, in accordance with the *Wastewater Master Plan*, that will meet the need.
- f. All future developments shall comply with the provisions and intent of the *Wastewater Master Plan* and the most recent General Design and Construction Standards adopted by the City Council. The owner, developer, or other applicants for subdivision or site plan approval shall present evidence that the proposed method of sewage disposal is consistent with said plans and directives.

5.9.8 Construction standards for storm drainage.

- a. The proposed development shall be served by a storm drainage system.
- b. The developer shall install an on-site drainage system capable of conveying through and from the property the design flow of storm water runoff originating in the development during a special flood hazard area as determined in accordance with criteria specified in the City of League City *Master Drainage Plan*, in addition to flows from undeveloped land upstream in the natural watershed of the proposed development, flows from existing upstream

developments, and designs flows from developments for which plats and plans have been approved, without resulting in erosion, sedimentation or flooding of the receiving channel and downstream properties.

- c. The off-site downstream drainage system shall be capable of conveying to an acceptable outfall the design flow of storm water runoff originating in the development, as determined in accordance with criteria specified in the *Master Drainage Plan* in addition to flows from undeveloped land up-stream in the natural watershed of the proposed development, flows from existing upstream developments, and design flows from developments for which plats have been recorded, without resulting in erosion, sedimentation, or flooding of the receiving channel and down-stream properties.
- d. For any proposed development that drains to or across highly erodible soils, the downstream extent of this review shall be to the point at which a channel is found that is adequate to receive the design flow or the level of the tidal floodplain.
- e. For development that does not drain to or across highly erodible soils, the downstream extent of this review shall be:
 - 1. To the point at which a channel is found that is adequate to receive the design flow, or
 - 2. To the point at which the total drainage area is at least 100 times greater than the area of the proposed development, or
 - 3. To the limit of the nearest FEMA mapped special flood hazard area.
- f. *Off-site Downstream Drainage System Improvements.* The storm drainage system shall be in compliance with Subsection (h)(2) and the City must have awarded a contract for the construction or improvement of off-site downstream drainage systems necessary, in combination with existing systems, to comply with the standard specified in Subsection (h)(3) and if the construction or improvement of the off-site downstream drainage system is expected to be completed before the issuance of the first building permit for the development or the developer agrees to under-take the construction or improvement of the off-site downstream drainage systems.
- g. *Calculating Runoff.* The storm water runoff flows from land for which a plat has not been recorded shall be calculated as if the land was developed according to its existing zoning classification and as if storm water management techniques, as may be required by the *Master Drainage Plan*, have been utilized. Storm water runoff flows from other lands shall be calculated on the basis of whether or not storm water management techniques have been utilized.
- h. *Channel.* A channel shall be defined as a natural or man-made channel or pipe that is capable of conveying the runoff from a storm without overtopping its banks or eroding after development of the site in question, or without causing the flooding of structures from designed storm event.

Sec. 5.9 Improvement Plans and Acceptance of the Subdivision Improvements.

- 5.9.1** No Master Plan or plat described in this section shall be approved by the Planning & Zoning commission and no permit shall be issued for construction of any improvement intended for public use or for the use of purchasers or owners of lots or tracts within the subdivision, and no improvement intended for public use shall be accepted by the City unless such subdivision and public improvements comply with the standards and specifications in this Article.
- 5.9.2** All improvements shall be inspected by the design engineer of record or his designate.
- 5.9.3** Requirements for improvements in subdivisions are as follows:
- a. *Street pavement and drainage.*** Street pavement and drainage will be required adjacent to newly created building lots. The City Engineer may require improvements to extend beyond new lots where such improvements are necessary to eliminate problem areas as gaps in roads, pavement or drainage systems.
 - b. *Canals, marinas and other bodies of water.*** Canals, marinas, and other bodies of water that are created by dredging or removing land from existing land and connecting ultimately to navigable water must be a minimum of 50 feet from property that abuts the property from which the land is being removed. The distance of 50 feet may be lessened with consent of the abutting land owner and subsequent approval of the Planning and Zoning Commission.
 - c. *Payment of costs.*** The applicant shall pay all costs for providing the subdivision with streets and water, wastewater, drainage facilities and traffic control devices in accordance with the plans and specifications.
 - d. *Seal on construction drawings.*** All construction drawings are to bear the seal and signature of a state-licensed professional engineer.
 - e. *Construction Plans.*** Construction plans for infrastructure to be installed for a development shall be prepared by a Licensed Professional Engineer and submitted to the City. No infrastructure shall take place until and unless such plans have been received and approved by the City Engineer, a public improvement permit has been issued, and applicable fees paid.
 - f. *Filing time.*** The minimum time required to review and process public improvement construction plans shall be fourteen (14 days) with a maximum of twenty-one (21) days.

- g. Construction Standards and Specifications Adopted.** There are hereby adopted by reference and made part of this Article the “General Design and Construction Standards”, which shall be controlling in design, construction, and installation of public infrastructure within the City. Said standards and specifications may be amended by the City Engineer. Amendments, if any, shall become effective on the first day of a given month so long as the amended standards and specifications manual is published in its entirety for public inspection no less than sixty (60) days prior to the effective date.
- h. Construction Plan Form and Content.** Construction plans shall be prepared and submitted to the City Engineer to be distributed for review. For review, the developer’s engineer shall submit two (2) full sets of the proposed construction plans along with a digital copy on a CD. Plans shall be drawn to an engineering scale that legible conveys all information on twenty-four (24) inch by thirty-six (36) inch sheets. Plans that are not legible will be returned to the developer’s engineer with a request to revise the scale and improve its legibility. Specific information to be included on the construction plans shall include the following:
1. Proposed subdivision name and location, the name and address of the owner(s), and the name and seal of the civil engineer preparing the plans.
 2. Date, approximate north arrow and graphic scale, actual datum and bench marks.
 3. Vicinity map drawn at a minimum scale of one (1) to five hundred (500) feet;
 4. **Topography.** For developments of fifty (50) acres or less, contours shall be shown at a minimum of one (1) foot intervals and indicate the direction of surface water. For developments greater than fifty (50) acres, contours shall be shown at a minimum of two (2) foot intervals and indicate the direction of surface water.
 5. **Easements.** All easements shall be clearly labeled. No trees shall be permitted to remain or be planted within an easement.
 6. **Street system.** Plan information for curb and gutter, sidewalks, crosswalks, and commercial driveways. Plan and profiles of all streets (public and private) and alleys.
 7. **Street drainage.** All street rights-of-way, widths, grades, and distances shall be indicated. Runoff summary shall be indicated on the outlet and inlet side of all drainage ditches and storm sewers and at all street intersections. All drainage easements shall be indicated.

8. **Water system.** Plans of the sizes and types of all lines, fittings, valve boxes, and the location of fire hydrants. The plan shall show the existing mains to which the system will be connected. The City Engineer may require plan and profile of watermains;
9. **Sanitary sewer system.** Plans and profile drawings of the existing and proposed sanitary infrastructure shall indicate sizes, types, flow line grades and depths, and their locations within the system.
10. **Storm drainage system and detention.** Prior to approval of a subdivision, a topographic map of the existing drainage conditions and a proposed drainage plan shall be submitted and approved by the City Engineer. An adequate drainage system, including necessary open ditches, pipes, culverts, intersections drains, drop inlets, bridges, and other improvements shall be provided for the proper drainage of all surface water. The one hundred (100) year floodplain and five hundred (500) year floodplain shall be delineated based upon conditions of the projected ultimate development of the subdivision. When a drainage channel, retention/detention facility, or storm sewer is proposed, completed plans, profiles, and specifications shall be submitted showing complete construction details.
Where a subdivision is traversed by a watercourse, drainage way, natural channel or stream, an easement or right-of-way which substantially conforms to the limit of such water course, plus and additional twenty (20) foot width to accommodate maintenance need shall be provided. Drainage easements shall be reviewed on a case-by-case basis and shall be approved by the City Engineer both as to location and width.
11. **Construction pollution prevention plan.** The developer's engineer shall submit a Storm Water Pollution Prevention Plan (SWPPP) with the construction plans, which shall be implemented and maintained by the developer as outlined in the approved permit throughout the duration of development construction.
12. **Specifications.** Use the most recent edition of the City of League City General Design and Construction Standards and generally accepted construction practices.
13. **Plan detail.** The plan detail sheet shall be a composite of all details which concern the above or any other details necessary to show the extent of construction of all improvements.
14. **Record drawings.** Upon completion of field construction, the developer shall furnish the City Engineer a digital copy of certified Record Drawings on a CD. Such record drawings shall show the actual field locations based on information provided by the developer's contractor, the City's construction

inspector, and the Engineer of Record. The Engineer of Record shall also submit a certified list of permanent control monuments used for the construction of the development, inclusive of location and USGS elevations.

15. **Approval.** All construction plans shall be subject to approval by the City Engineer, which shall be in writing.

5.9.4 Inspection of Construction.

- a. The City Engineer or his duly authorized representative inspect all phases of the construction of the improvements for subdivision.
- b. No sanitary sewer, water, recycled water, or storm sewer pipes shall be covered without approval of the City Engineer, or his duly authorized representative.
- c. No flexible base material, asphalt base material, sub-grade material, or stabilization shall be applied to the street sub-grade without approval of the City Engineer, or his duly authorized representative.
- d. No concrete or asphalt may be poured or placed to the base without approval of the City Engineer or his duly authorized representative.
- e. The City Engineer may at any time cause any construction, installation, maintenance or location of improvements to cease when, in his judgement, requirements of this Section or the standards or specifications have been violated and may require such reconstruction or other work as may be necessary to correct any such violation.
- f. Should an owner/developer disagree as to the acceptability of required improvements only as it related to the published General Design and Construction Standards, such owner/developer may, at his expense, submit such engineering tests, reports, and/or data necessary to substantiate that the improvements meet or exceed the City standards.
- g. Engineering Services and Construction Inspection fees shall follow requirements noted in Ordinance 2016-23 and its subsequent updates.

5.9.5 General Design and Construction Standards. All infrastructure described in this section shall be constructed in accordance with the most recent General Design and Construction Standards and the current Fire Code adopted by the City Council.

5.9.6 Final City acceptance.

- a. Upon approval by all appropriate City inspectors, the City Engineer will issue a Final Acceptance Letter for the development. All warranties, except warranties

for streets, shall start at the time of final City acceptance. Street warranties shall start upon 90 percent of build-out.

- b.** No final acceptance shall be granted until the following documents have been submitted and approved by the City Engineer:
1. A formal Acceptance Request Letter by the Developer or his designee;
 2. An Engineer's Certificate of Completion. The certificate should include at a minimum the name of the development, the owner of the development, the contractors, engineering company, and a statement certifying that the Engineer of Record provided inspection during construction. The certificate shall be signed by the Engineer of Record;
 3. A Summary of Public Infrastructure Cost. This summary shall provide construction and engineering costs for all public infrastructure installed within the development;
 4. A complete set of reproducible copies of Record Plans accompanied by a letter from the engineer certifying that the work required by the subject contract has been completed in general conformance with the approved plans and technical specifications; and,
 5. Maintenance Bond for public infrastructure with a 2-year term.

Sec. 5.10 Engineering and Construction Standards.

5.10.1 The City Engineer is hereby authorized to promulgate rules, regulations, standards and specifications for the criteria, construction, installation, design, location and arrangement of infrastructure. Upon approval by the City Council, the City Engineer shall file such rules, regulations, standards and specifications with the City Secretary at least 60 days before they become effective. The City Engineer may amend the rules, regulations, standards and specifications from time to time, provided that an amendment is approved by the City Council and filed with the City Secretary at least 60 days before it becomes effective. No such rules, regulations, standards and specifications shall conflict with this Chapter or any other ordinances of the City. All such improvements shall be constructed, installed, designed, located and arranged by the applicant in accordance with such rules, regulations, standards and specifications.

5.10.2 All improvements must be approved by the City Engineer and City Council before building permits will be issued for those areas served by these improvements.

Sec. 5.11 Unapproved Plats and Noncomplying Developments.

In any subdivision for which a plat has not been approved and filed for record in the Galveston County map records or Harris County map records, as appropriate, or in which subdivision the standards stipulated in this article have not been complied with in full, the city shall issue no plumbing, repair, plumbing, or electrical permit, and the city shall not repair or maintain any street, and the city shall not sell or supply water or sanitary sewer service therein.

Sec. 5.12 Variances.

5.12.1 The Planning and Zoning Commission may grant a variance to any of the provisions of this Article 5 except for the requirements in the City's *General Design and Construction Standards* pursuant to the procedures set forth in this section. Each application for a variance shall be decided solely on its own merits; neither the lack of enforcement of any ordinance nor the disposition of any prior or pending application for a variance may be considered or allowed to affect any decision on the application in question. Pecuniary interests standing alone shall not be justification for the granting of a variance.

5.12.2 The application fee and procedures for a public hearing and provision of notice shall be the same as established by the City for a rezoning request, except that the applicant shall include a copy of this section with any notice that the applicant is required to mail.

5.12.3 The Planning and Zoning Commission may, by affirmative vote of at least three-fourths of its members present and voting, grant a variance to the regulations of this Article 5 if it finds, by clear and convincing evidence, that all of the following criteria are met:

- a. There are unique conditions peculiar to the subject parcel or tract that do not exist on adjacent parcels or tracts;
- b. Strict application of this Article 5 deprives the applicant of rights commonly enjoyed by other land in the area or land with similar uses;
- c. The variance, if granted, does not frustrate the intent and purpose of Article 5 and the community, neighborhood, and other applicable land use and development plans, and will not adversely affect property or property values in the vicinity of the subject site;
- d. Conditions supporting the granting of the variance request are not self-created by disregard or ignorance of federal, state, or local codes and /or ordinances; and,

- e. The variance is tailored as narrowly as possible while still granting the relief sought.

5.12.4 Factors that may not be considered to support the granting of a variance include, but are not limited to, the following:

- a. Personal and/or economic hardship;
- b. Misrepresentation of property conditions, uses, or regulations by a seller or agent;
- c. Errors made by a surveyor, contractor, or builder;
- d. Increasing the profit, income, or competitive advantage of the applicant; and/or
- e. Threats to locate or relocate outside of the city, or cancel or scale back a project, if a variance is denied.

5.12.5 The applicant bears the burden of proof to demonstrate that the requirement(s) of this Article 5 from which a variance is requested, if uniformly applied, imposes an undue hardship or disproportionate burden on the applicant. The applicant shall submit statements, studies, and any other relevant information as may be required by the City Planner to substantiate the claim(s) for which a variance is requested. If additional information is so required, the application for a variance shall be deemed complete only upon the submittal of all such required information. The Planning and Zoning commission and/or City Council during review and consideration of the request may require additional studies or information from the applicant, which additional information must be submitted before any action may be taken on the variance application. The offer or submittal, at any stage of the variance application process, by the applicant of information that proves to be false shall cause the variance request to be denied. If a variance request is approved based upon information offered and submitted by the applicant, without regard to the applicant's knowledge of the falsity of said information, and after approval of the variance, the approving authority finds said information to be false by a preponderance of the evidence, the variance shall be considered null and void as of the date of that finding and the approving authority shall reconsider the variance request in light of the corrected information.

5.12.6 The decision of the Planning and Zoning Commission on a variance request may be appealed within 14 days of said decision by filing with the City Secretary:

- a. The applicant's written appeal; or
- b. A written request by two members of the City Council to place a consideration of the variance upon the agenda of a city council meeting.

5.12.7 The City council shall decide the appeal at a meeting not later than 45 calendar days after the date on which the appeal is submitted and may, by majority vote of those present and voting, affirm, modify, or reverse the decision of the Planning and Zoning Commission. Such decision of the City Council shall be final.

Sec. 5.13 Fees

5.13.1 *Processing fees.* Fees have been established by the City and are payable to the City at the time items are submitted. Fees are not refundable.

5.13.2 *Construction plans and specifications review fees.* The City reserves the right to assess fees based upon the actual costs incurred by the City for multiple iterations of reviews of construction plans and specifications. Fees charged shall be based upon rates posted and made available by the engineering/planning office for inspection by the applicant.

5.13.3 *Administrative costs.* All administrative costs, such as costs for printing, etc., as required in this article shall be borne by the applicant alone.

5.13.4 *Variance request fees.* Fees have been established by the City and shall accompany each written request to be placed on the Planning and Zoning Commission agenda for a variance from the regulations provided in this article.

Sec. 5.13 Enforcement

On behalf of the City, the City Attorney shall, when directed by the City Council, institute appropriate Action in a court of competent jurisdiction to enforce the provisions of this article within the City or within the extraterritorial jurisdiction of the City, as determined under the Municipal Annexation Act (Texas Local Government Code §212-001 et seq.).

Chapter 125: Article 6. Provision of Parkland

Sections:

§ 6.1 Purpose

§ 6.2 Donation prerequisite to plat approval.

§ 6.3 Methods of park donation.

§ 6.4 Approval of parkland proposed to be donated.

§ 6.5 Credit for Clear Creek and Clear Lake connections trail

§ 6.6 Private park dedication requirement.

§ 6.7 Increase in number of dwelling units.

Sec. 6.1 Purpose

The purpose of this ordinance is to provide the legal basis for the planning, acquisition, development, operation and maintenance of the parks, trails, and open space system that is necessary to support the health and welfare of the existing and future population of the City of League City. This section is enacted in accordance with the home rule powers of League City under the Texas Constitution, and the statutes of the State of Texas, including without by way of limitation, Texas Local Government Code Chapter 212.

Sec. 6.2 Donation Prerequisite to Plat Approval

No plat that creates or allows the development of any new residential lot within the city or its extra-territorial jurisdiction shall be approved unless the owner of the property being platted shall have made a park donation pursuant to this article.

Sec. 6.3 Methods of Park Donation

6.3.1 The proper method of park donation shall be based upon the number of dwelling units that the plat will authorize once approved, as follows:

- a. 750 Dwelling Units or more. Prior to plat approval the applicant shall complete donation to the city of parkland at the rate of one (1) acre per seventy-five (75) dwelling units established by the plat, provided the parkland proposed to be donated is suitable for park and recreational uses, as determined pursuant to Section 6.4.
- b. Fewer than 750 Dwelling Units. The city council declares that development of a park less than ten (10) acres in size is impractical and creates unreasonable and unnecessary maintenance and operating expenditures. Therefore, prior to approval of a plat establishing fewer than seven hundred fifty (750) dwelling units, the plat applicant shall elect and complete one of the two following methods of park donation:
 - 1. A donation to the city of at least ten (10) acres of parkland suitable for park and recreational uses, as determined pursuant to Section 6.4; or
 - 2. A cash payment into the Park Development Fund in an amount per dwelling unit as set by the City Council.

Sec. 6.4 Approval of Parkland Proposed to be Donated

- 6.4.1** Land that is proposed to be donated to the city to satisfy the parkland requirement must be suitable for development and use as public parks, based upon meeting the following criteria, in the sole judgment of the Parks and Cultural Services Director but subject to appeal to the City Council:
- a. The land's location is consistent with the city's future park needs as identified in the Parks, Trails, and Open Space Master Plan;
 - b. The land has frontage on an existing public roadway;
 - c. The land is of a width, depth, topography, elevation, and other natural features to allow its use for organized recreational activities or passive recreation;
 - d. Potable water, sanitary sewer, and electric power is readily available to the land from an adjacent street right-of-way or utility easement;
 - e. The land has adequate drainage as determined by the City Engineer;
 - f. The land is free of easements, pipelines, overhead utilities, and other conditions that would inhibit its effective use for organized recreational activities or passive recreation;
 - g. The land has had a Phase 1 Environmental Site Assessment within the preceding twelve (12) months, a copy of which is provided to the city for review and verification of no significant environmental hazard; and

- h.** The land has been cleared of all trash, refuse, waste materials, dilapidated structures, abandoned vehicles, and unwanted trees and brush.
- 6.4.2 a.** The Parks and Cultural Services director may accept land that does not meet all of the criteria in Subsection 6.4.1 if in his/her judgement the land has substantial utility for public park or related purposes. Land accepted for donation under this subsection may be credited for up to fifty percent (50%) of the acreage being donated.
- a.** The City Council may consider and accept the donation of any land which the Parks and Cultural Services Director determines to not meet the standards of this section if the Council determines that the acceptance of such donation would be in the best interest of the public.

Sec. 6.5 Credit for Clear Creek and Clear Lake Connections Trail

Upon request by the plat applicant, the Parks and Cultural Services Director in his sole discretion may grant a credit of up to fifty (50) percent of the park donation requirement for the dedication of a trail easement and construction of a trail along Clear Creek and/or Clear Lake. Such trail shall have a minimum width of eight (8) feet, except at locations where the Parks and Cultural Services Director determines that six (6) feet minimum width is preferable, and constructed of reinforced concrete unless other appropriate and durable materials used in areas of special character or needs are acceptable to the Parks and Cultural Services Director and City Engineer

Sec. 6.6 Private Park Dedication Requirement

- 6.6.1** No residential development within the city or its extra-territorial jurisdiction shall receive final acceptance of public infrastructure serving any new residential lot unless the owner of the property being developed shall have made a private park dedication pursuant to this article.
- 6.6.2** The private park dedication requirement may be satisfied by one or more of the three following methods:
- a.** For a development that creates seventy-five (75) or more dwelling units, suitable land shall be dedicated and developed as a private park to be maintained by the owner of the park, in the amount of one (1) acre for every seventy-five (75) proposed dwelling units. The lot configuration shall be such that no dwelling unit is further than one-half (1/2) mile from a private park within the same development. The Parks and Cultural Services Director shall have sole discretion regarding what proposed amenities shall be adequate to develop the private park, provided the amenities meet the following conditions:
 - 1) The improvements are constructed in accordance with a site plan that includes a proposed grading plan, landscaping and beautification utilities, drawn at a scale of one inch (1") to twenty feet (20') or other suitable scale; and

- 2) The improvements are designed in compliance with the EDCM standards applicable to such improvements, and the developer provides the city with details related to materials, equipment, itemized list of direct costs, methods of construction, and warranties.
- b. For a development that creates fewer than seventy-five (75) dwelling units, either a dedication and development of a private park of at least one acre as provided in (a.) above, or a cash payment into the Park Development Fund in the same amount per dwelling unit as set by the city council for park donation.
- c. Upon request by the plat applicant, the Parks and Cultural Services Director in his sole discretion may grant a credit of up to twenty-five (25) percent of the private park dedication requirement for the construction of improvements to existing or new detention facilities, located near the development, that would in the Parks and Cultural Services Director's judgment allow the detention facilities to be utilized for recreation purposes.

Sec. 6.7 Increase in the Number of Dwelling Units

- 6.7.1** If the number of dwelling units calculated to be established by a plat increases by the time building permits are sought or as a result of the filing of any type of plat covering any portion of the property originally platted, the park donation and private park dedication requirements established by this article shall apply to the additional dwelling units, at the donation and dedication rates in effect at the time of building permit application or new plat application.
- 6.7.2** Penalty. Any person who shall violate the provisions of this section shall be deemed guilty of a misdemeanor and shall, upon conviction by a court of competent jurisdiction, be punished by a fine in any sum not exceeding Five Hundred Dollars (\$500. 00).

CHAPTER 125: Article 7. Tree Preservation, Mitigation, and Maintenance

Sections:

§ 7.1 Permit Required

§ 7.2 Permit Application Requirements.

§ 7.3 Tree replacement calculation.

§ 7.4 Tree replacement standards.

§ 7.5 Exceptions.

§ 7.6 Appeals.

§ 7.7 Offense; Restitution.

§ 7.8 Tree preservation standards.

§ 7.9 Tree maintenance standards.

§ 7.10 Street trees.

§ 7.11 City-maintained trees.

Sec. 7.1 Permit Required

7.1.1 *Permit.* Except as otherwise provided in this article, a Tree Disposition Permit shall be obtained by a Responsible Person prior to authorizing or subjecting a Protected Tree to any Tree Impact Activity or Tree Removal.

7.1.2 *Permit valid.* A Tree Disposition Permit is valid for a period of six (6) months from the date of issuance.

7.1.3 *Significant trees.* No Tree Disposition Permit may be issued to allow the removal, cutting down, or other activity intended to kill or destroy a healthy Significant Tree, unless the Planning Director determines that the failure to grant such a permit would result in violation of state or federal law.

Sec. 7.2 Permit Application Requirements

7.2.1 A Tree Disposition Permit may be issued by the City Arborist only upon the submission and approval of the following:

7.2.2 An application that includes the following:

- a.** the applicant’s name, address, and phone number;
- b.** the address of the property at which a Tree Impact Activity or Tree Removal is sought;
- c.** the name, address, and phone number of the person or entity that will actually perform the Tree Impact Activity or Tree Removal, if not the applicant; and
- d;** the name, address, and phone number of the owner of record of the property at which a Tree Impact Activity or Tree Removal is sought, if not the applicant.
- e.** A Tree Disposition Plan certified by a licensed surveyor, a Certified Arborist or registered landscape architect, that:
 - 1.** Identifies:
 - i.** The Protected Trees sought to be subjected to a Tree Impact Activity or Tree Removal at the site, according to location, type and size;
 - ii.** Location and total caliper inches of invasive species to be removed, if seeking credit for elimination of invasive species;
 - iii.** areas of construction or other activities to be performed within the Critical Root Zone of a Protected Tree, including site plans documenting measures to be taken for protection of each impacted Critical Root Zone;
 - 2.** Includes tables summarizing the total caliper inches of Protected Trees to be removed in size categories as follows:
 - i.** for Small Trees:
 - a)** six inch (6”) to nine inch (9”) caliper;
 - b)** greater than nine inch (9”) to twelve inch (12”) caliper; and
 - c)** greater than twelve inch (12”) caliper.
 - ii.** for Large Trees:
 - a)** twelve inch (12”) to fifteen inch (15”) caliper;
 - b)** greater than fifteen (15”) to eighteen inch (18”) caliper; and
 - c)** greater than eighteen inch (18”) caliper; and
 - 3.** States the total number of caliper inches to be replaced, calculated using the Tree Replacement Calculation set forth below, and how replacement will be achieved, whether by on-site replacement or off-site replacement, or Payment in Lieu of replacement; and

- 4. Includes the proposed plan for tree replacement by location, type and size, if applicable;
- f. An application fee in an amount as set by the City Council; and
- g. One of the following:
 - 1. A cashier's check or money order for the full amount of the Payment in Lieu of replacement; or
 - 2. A cash escrow, bond, letter of credit, or other acceptable security instrument securing an amount equal to a full Payment in Lieu of replacement, which by its terms:
 - i. Can be redeemed or called by the City one year from the date the Tree Disposition Permit is issued, if not earlier released; and
 - ii. Can only be released upon the City's approval, which approval the applicant may request only after completion of all replacement planting.

Sec. 7.3 Tree Replacement Calculation

7.3.1 Tree replacement calculations are based upon the following guiding principles:

- a. Greater value is placed on Protected Trees of greater size, therefore caliper inch replacement is increased as the size of each tree increases;
- b. Greater value is placed on maintaining trees on-site, therefore caliper inch replacement is increased if replacement occurs off-site or through Payment in Lieu of replacement;
- c. Greater value is placed on maintaining large or interconnected conservation areas, therefore exceptions and incentives are available to maintain these areas;
- d. Invasive tree species harm the native tree canopy, therefore incentives are available for elimination of species shown in the Invasive Tree List in this article; and,
- e. Protection and maintenance of the community's tree canopy is more critical than equal replacement of individual trees, therefore replacement calculations result in a total number of caliper inches to be replaced as measured following application of the above principles.

7.3.2 The diameter at breast height of each Protected Tree to be removed from the site shall be measured to determine size in caliper inches.

7.3.3 Replacement of removed trees shall be achieved utilizing one of the following three methods, in accordance with the applicant’s written election:

- a. On-site replacement in accordance with all the standards and requirements of the City of League City;
- b. Off-site replacement in parks, dedicated conservation areas or selected rights-of-way at the direction of the City Planner or City Arborist; or
- c. Payment in Lieu of replacement to the City Reforestation and Tree Management Fund to be used for public reforestation and maintenance of Protected Trees on public property or Significant Trees on public or private property.

7.3.4 Caliper inch replacement of each Protected Tree shall be calculated in accordance with the following Table.

Caliper Inch Replacement of a Protected Tree		
	On Site Replacement	Off Site Replacement or Payment in Lieu
Small Trees		
6” to 9”	100 percent	120 percent
9.1” to 12”	100 percent	130 percent
Greater than 12”	130 percent	140 percent
Large Trees		
12” to 15”	100 percent	120 percent
15.1” to 18”	100 percent	130 percent
Greater than 18”	130 percent	140 percent

7.3.5 Payment in Lieu shall be calculated at a rate of \$250.00 per caliper inch of required replacement tree(s).

7.3.6 The City Planner or City Arborist shall have the discretion to reduce tree replacement requirements the removal of Invasive Trees on-site or off-site in accordance with standards established by the City Arborist. Reduction of caliper inch replacement if granted shall be calculated in accordance with the following Table.

Reduction of Caliper Inch Replacement for Removal of Invasive Trees	
Caliper Inches of Invasive Trees Removed	Percent Reduction in Total Caliper Inches
50” to 150”	5 percent
150.1” to 300”	10 percent
300.1” to 500”	15 percent
Greater than 500”	20 percent

Sec. 7.4 Tree Replacement Standards

- 7.4.1** Replacement trees shall be selected from the Protected Tree List according to available planting space and specific environmental requirements of the tree and shall be a minimum of (i) three (3) caliper inches measured one (1) foot above grade, and (ii) seven (7) feet in height.
- 7.4.2** Replacement trees shall be planted according to tree planting standards established by the International Society of Arboriculture, with a minimum of fifteen (15) feet spacing for Small Trees and a minimum of thirty (30) feet spacing for Large Trees, unless otherwise approved by the City Arborist.
- 7.4.3** Replacement trees must be planted within one (1) year from the date the Tree Disposition Permit is issued. The applicant shall notify the City Arborist after the replacement trees have been planted so that they may be inspected. If the replacement trees are not planted within this time, the City Attorney is authorized to take all legal steps to recover Payment in Lieu from the applicant to satisfy the mitigation requirements.

Sec. 7.5 Exceptions

- 7.5.1** The owner of record of a legally conforming single-family residence may remove or subject any tree on that property to a Tree Impact Activity, without a Tree Disposition Permit and without mitigation.
- 7.5.2** A Tree Disposition Permit may be issued, without requiring mitigation, to remove a Protected Tree if the tree is:
- a.** injured, dying, diseased or infested with harmful insects to the extent that it is not likely to survive as determined and documented by the City Arborist; or
 - b.** in danger of falling, interfering with utility service or other creating a hazardous or dangerous condition as determined and documented by the City Arborist.
- 7.5.3** If the owner of a Protected Tree believes that an emergency situation exists that requires the immediate removal of said tree to protect the safety of persons or property, the owner may subject the tree to a Tree Impact Activity or remove the tree without a Tree Disposition Permit, but only to the extent necessary to eliminate the dangerous situation. A person that claims this exception shall:
- a.** apply for a Tree Disposition Permit on the next working day; and

- b. be able to substantiate the claim of an emergency situation to the reasonable satisfaction of the City Arborist by providing evidence of the dangerous condition such as, but not limited to, a letter from a Certified Arborist and/or digital images.

Sec. 7.6 Appeals

7.6.1 An applicant may appeal the Planning Director’s decision to not grant a Tree Disposition Permit for the removal of a Significant Tree to the City Council by filing the following with the City Secretary’s Office:

- a. A written notice of appeal within ten (10) business days from notification of the Planning Director’s decision;
- b. A written legal opinion from an attorney licensed in Texas that details how the failure to grant the permit would violate state or federal law, within thirty (30) days of the filing of the notice of appeal; and
- c. A site plan for the subject property showing the locations of the Significant Tree and the proposed improvement(s) that not removing the Significant Tree would render unfeasible, within thirty (30) days of the filing of the notice of appeal

7.6.2 An applicant may appeal to the City Manager the calculation of the total caliper inches of replacement trees required by filing with the City Secretary’s Office a written notice of appeal within ten (10) business days from notification by the City Arborist of the tree replacement calculation, setting forth the reason(s) and including the documentation for any contention that the calculation of caliper inches of replacement trees is too high

Sec. 7.7 Offense; Restitution

7.7.1 Any person who recklessly removes or subjects a Protected Tree to a Tree Impact Activity without a valid Tree Disposition Permit authorizing such action shall be guilty of a misdemeanor, which shall be punishable by a fine not to exceed \$500.00. Each subsequent day that elapses without the person obtaining a Tree Disposition Permit shall constitute a separate offense.

7.7.2 In any prosecution under this section, the prosecuting attorney shall seek and the judge is authorized to award restitution to be paid into the City Reforestation and Tree Management Fund, in an amount calculated by the City Arborist pursuant to the provisions below:

- a. For removal of Protected Trees not including any Significant Tree, the City Arborist shall:

1. assume that each tree on site is a Large Protected Tree measured at 18 caliper inches with an individual tree canopy of 2,200 square feet;
 2. determine total caliper inches to be replaced by measuring the total tree canopy covering the site prior to removal of trees using aerial imagery acceptable to the City of League City; and
 3. calculate replacement cost in accordance with Payment in Lieu requirements of this article with an additional one hundred (100%) penalty.
- b. Restitution for removal of a Significant Tree shall be equal to the Payment in Lieu value of the tree, as determined by the City Arborist, plus an additional two hundred percent (200%) penalty.
- c. For subjecting a Protected Tree to a Tree Impact Activity, the City Arborist shall:
1. calculate a Payment in Lieu amount as if the Protected Tree had been removed pursuant to a Tree Disposition Permit, if the tree is not a Significant Tree;
 2. calculate a Payment in Lieu amount and add a penalty of one hundred percent (100%) if the tree is a Significant Tree; or
 3. adjust the restitution amount calculated pursuant to this section, if in the sole and reasonable judgment of the City Arborist the restitution so calculated is disproportionate to the level of disturbance or alteration of the tree.

Sec. 7.8 Tree Preservation Standards

7.8.1 Maintenance Practices. Maintenance practices, including but not limited to large limb pruning and canopy thinning, of a Protected Tree shall be in accordance with best practices as approved by a Certified Arborist or the City Arborist.

7.8.2 Critical Root Zone. The Critical Root Zone of a Protected Tree shall be protected as follows:

- a. No materials intended for construction or waste materials from grading, excavation or demolition shall be allowed to accumulate.
- b. No equipment shall be cleaned in such close proximity to allow harmful liquids to be deposited or flow overland and/or runoff into the Critical Root Zone.
- c. No vehicular or construction equipment may be parked in or on a Critical Root Zone.

- d. No grade changes shall be allowed in a Critical Root Zone
 - e. A protective barrier, such as a temporary fence, shall be installed to protect the Critical Root Zone prior to and throughout the duration of any work and/or improvements that occur on a property containing a Protected Tree.
- 7.8.3 *Utilities Below Tree Canopy.*** Any utilities to be installed below the canopy of a Protected Tree, shall be bored, not trenched, and shall be so shown on the Tree Disposition Plan.
- 7.8.4 *Tree Support Systems.*** Trees requiring support systems shall be secured according to type and size. Tree staking, cabling, and other materials shall remain in place only until the tree has been established, which time period shall not to exceed one (1) year.

Sec. 7.9 Tree Maintenance Standards

- 7.9.1 *Maintenance of trees within the rights-of-way.*** The owner(s) of any lot with frontage along a public street, including a property owners association, shall maintain the street trees and other landscaping growing along the frontage or in the street right-of-way adjacent to the lot, including in any park or parking strip between the property line and the street line.
- 7.9.2 *Tree Topping.*** Topping (also referred to as heading, stubbing, rounding or dehorning) of any Street Tree, Park Tree, or other tree on public property is prohibited. Topping involves the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. The City Manager, upon the recommendation of the City Arborist, may specifically authorize in writing topping of a specific tree, based on clear evidence of extraordinary circumstances that justify topping. Extraordinary circumstances may include but not be limited to, trees severely damaged by storms or other causes, or trees under utility wires or other obstructions where other pruning practices are impractical.
- 7.9.3 *Pruning, Corner Clearance.*** The owner(s) of any tree overhanging any street or right-of-way within the City shall prune the branches so that such branches shall not obstruct the light from any street light or obstruct the view of any street sign or intersection, and so that there shall be a clear space of fifteen (15) feet above the surface of the street and/or sidewalk. Pruning includes crown cleaning, thinning, raising, reduction, and restoration. The pruning of trees must comply with tree trimming guidelines in the American National Standard for Tree Care Operations: Tree Shrub and Other Woody Plant Maintenance Standard Practices, or National Arborist Association's "Standards for Pruning of Shade Trees." Said owners shall also remove all dead, diseased or dangerous trees, or broken or decayed limbs which constitute a menace to the safety of the public.

- 7.9.4 Owner Responsibility.** If the property owner fails to prune trees to provide clearances stated, the City Arborist is authorized to notify the owners of such trees in writing of their responsibility. Pruning shall be done by said owners at their own expense within ten days after the date of service of notice. In the event of failure of owners to comply with such provisions, the City shall have the authority to prune such trees and charge the cost of removal to the owners.
- 7.9.5 Removal of Dead or Diseased Trees on Private Property.** A Tree Disposition Permit is required to remove a Protected Tree. The City shall have the right to cause the removal of any dead or diseased trees on private property within the city, when such trees constitute a hazard to life and property, or harbor insects or disease which constitute a potential threat to other trees within the city. The City shall notify in writing the owners of such trees. Removal shall be done by said owners at their own expense within thirty (30) days after the date of service of notice. In the event of failure of owners to comply with such provisions, the City shall have the authority to remove such trees and charge the cost of removal to the owners.
- 7.9.6 Emergency Removal Provision.** If the City Arborist determines that a tree poses an imminent threat, the City may secure the surrounding area and/or remove the hazardous tree.
- 7.9.7 Removal of Stumps.** Street and park trees that are removed shall have their stumps ground to grade level or removed.

Sec. 7.10 Street Trees

- 7.10.1 Minimum Distance from Sidewalks and Curbs.** Trees shall be centered in the planting strip between the sidewalk and the street curb. If centering within the planting strip is not possible or desirable due to design considerations, the tree must be located at least two feet from the sidewalk edge or the curb edge. Trees within the City rights-of-way shall not be planted where the rooting space is less than four feet (4') in width without prior approval of the City Arborist. The minimum width of a planting site for each tree will be governed by the approved street tree list. Trees that commonly produce a large-buttress root system shall be planted in a site greater than ten feet (10') wide (i.e., *Quercus* species). On public streets without sidewalks, trees shall be located to accommodate future sidewalk placement and, current and future utility line corridors.
- 7.10.2 Tree Root Barriers.** Tree root barriers shall be installed when new trees are planted to prevent uncontrollable spread of tree roots that may cause damage to hardscape/infrastructure (sidewalks, driveways, storm sewers, streets). Root barriers may be either linear or surround in form, depending on the hardscape/infrastructure to be protected, and must be installed at a minimum depth of thirty inches (30").

7.10.3 Minimum Street Tree Planting Clearances.

<u>Feature</u>	<u>Small Tree</u> (up to 35' height)	<u>Medium Tree</u> (up to 60' height)	<u>Large Tree</u> (over 60' height)
Sidewalks	2 feet	3 feet	4 feet
Driveways	5 feet	5 feet	10 feet
Fire Hydrants	5 feet	5 feet	5 feet
Intersections	35 feet	35 feet	35 feet
Water Meters	5 feet	5 feet	5 feet
Utility Boxes	5 feet	5 feet	5 feet
Utility Poles	5 feet	10 feet	10 feet
Street Lights	10 feet	20 feet	30 feet
Stop Signs	35 feet	35 feet	35 feet
Regulatory Signs	Cannot block sign		

7.10.4 Minimum Distance from Buried Utility Lines. If buried utility lines traverse the planting strip, the following minimum distances apply:

- 8"-10" water and sewer line 10 feet
- 12"-16" water and sewer line 15 feet
- 18" + water and sewer line 20 feet
- All other services 10 feet

7.10.5 Linear Spacing. Trees shall be placed an average of every thirty feet (30'). Depending on the size, species, and variety, the City Arborist may approve planting distances which may be as close as ten feet (10') and as far as forty feet (40') to fifty feet (50') based on the size and growth habit of the tree.

7.10.6 Medians. No tree shall be planted in any median that is less than ten feet (10') in width.

7.10.7 Overhead Utility Lines. No tree with the potential of reaching a mature height of more than fifteen feet (15') shall be planted in the right-of-way under overhead wires.

7.10.8 Street Tree List. The Street Tree list includes suggested species for street trees. The City Arborist may approve trees that do not appear on this list.

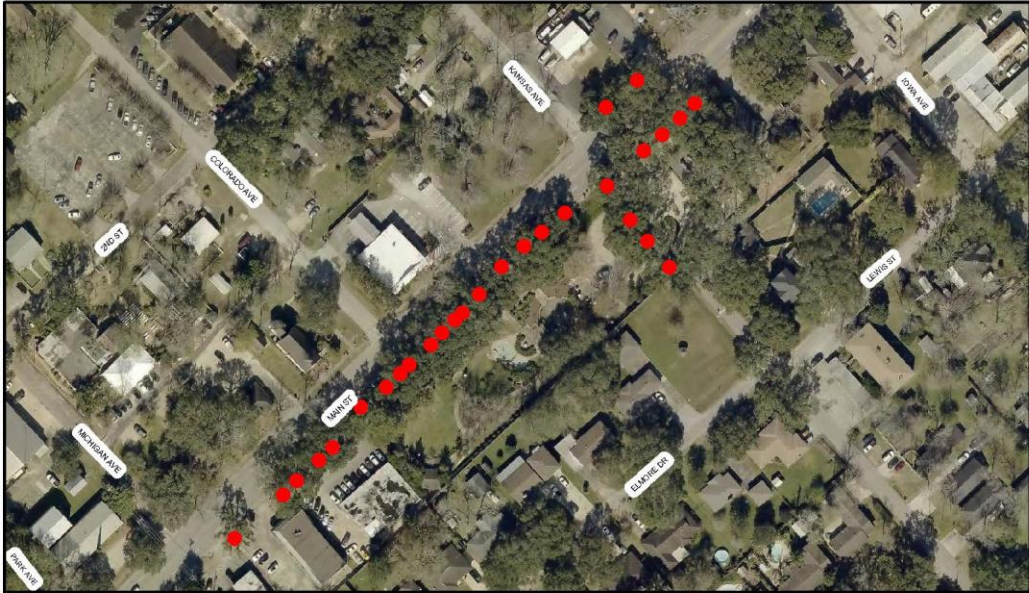
Small Trees	
Common Name	Botanical Name
American Holly	Ilex opaca
Bottlebrush	Callistemon sp.
Eagleston Holly	Ilex x attenuate 'Eagleston'
Possumhaw Holly	Ilex decidua

Texas Redbud	<i>Cercis canadensis</i> ‘Texensis’
Vitex	<i>Vitex agnus-castus</i>
Yaupon Holly	<i>Ilex vomitoria</i>
Medium Trees	
Common Name	Botanical Name
Cathedral Oak	<i>Quercus virginiana</i> ‘Cathedral’
Chinese Elm	<i>Ulmus parvifolia</i>
Chinese Pistache	<i>Pistacia chinenses</i>
Crape Myrtle	<i>Lagerstroemia indica</i>
Eve’s Necklace	<i>Sophora affinis</i>
Highrise Oak	<i>Quercus virginiana</i> ‘Highrise’
Little Gem Magnolia	<i>Magnolia grandiflora</i> ‘Little Gem’
River Birch	<i>Betula nigra</i>
Sweetbay Magnolia	<i>Magnolia virginiana</i>
Teddy Bear Magnolia	<i>Magnolia grandiflora</i> ‘Southern Charm’
Large Trees	
Common Name	Botanical Name
Bald Cypress	<i>Taxodium distichum</i>
Black Walnut	<i>Juglans nigra</i>
Bur Oak	<i>Quercus macrocarpa</i>
Cedar Elm	<i>Ulmus crassifolia</i>
Crabapple	<i>Malus</i> sp.
Live Oak	<i>Quercus virginiana</i>
Loblolly Pine	<i>Pinus taeda</i>
Mexican Plum	<i>Prunus mexicana</i>
Montezuma Bald Cypress	<i>Taxodium mucronatum</i>
Mulberry	<i>Morus</i> sp.
Pecan	<i>Carya illinoensis</i>
Shumard Oak	<i>Quercus shumardii</i>
Slash Pine	<i>Pinus elliotii</i>
Southern Magnolia	<i>Magnolia</i> sp.
Sweetgum	<i>Liquidambar styraciflua</i>
Texas Palmetto	<i>Sabal texana</i>
Texas Persimmon	<i>Diospyros texana</i>
Texas Red Oak	<i>Quercus texana</i>
Water Oak	<i>Quercus nigra</i>

Sec. 7.11 City-maintained Trees

7.11.1 Public Tree Care. The City currently maintains Live Oak trees in the right-of way on Main Street. The locations are as follows; twenty-two Live Oaks on the south side of Main Street between Michigan and Kansas, extending down Kansas to the southern-most boundary/fence line of Helen’s Garden; four Live Oaks on the

southside of Main street between Kansas and Iowa and two Live oaks on the north side of Main street between Kansas and Iowa. See the map below.



7.11.2 City rights. The City shall have the right to plant, prune, maintain and remove trees, plants and shrubs within the lines of all streets, alleys, avenues, lanes, squares, rights-of-way and on property owned by the City, as necessary to insure public safety or to preserve or enhance the symmetry and beauty of such public property. The City reserves the right to allow the City Arborist to authorize the pruning or removal of a street tree or park tree when immediate pruning or removal is necessary to protect against an imminent threat of substantial injury to persons or damage of property.

7.11.3 Non-liability of City. Nothing in this Chapter shall be deemed to impose any liability for damages or a duty of care and maintenance upon the City or upon any of its officers or employees.

7.11.4 Protected Tree List.

Large Trees	
Common Name	Botanical Name
American Sycamore	Plantanus occidentalis
Bald Cypress	Taxodium distichum
Bur Oak	Quercus macrocarpa

Chinquapin Oak	Quercus muehlenbergii
Live Oak	Quercus virginiana
Loblolly Pine	Pinus taeda
Longleaf Pine	Pinus palustris
Mexican Sycamore	Plantanus mexicana
Nutall Oak	Quercus nutallii
Overcup Oak	Quercus lyrata
Pecan	Carya illinoenses
Post Oak	Quercus stellata
Red Bay	Persea borbonia
Red Maple	Acer rubrum
River Birch	Betula nigra
Sawtooth Oak	Quercus acutissima
Shumard Oak	Quercus shumardii
Southern Magnolia	Magnolia grandiflora
Southern Red Oak	Quercus falcate
Swamp Chestnut Oak	Quercus michauxii
Sweet Bay Magnolia	Magnolia virginiana
Trident Red Maple	Acer Rubrum 'tridens'
Water Oak	Quercus nigra
White Oak	Quercus alba

Small Trees	
Common Name	Botanical Name
Chinese Pistache	Pistacia chinensis
Eastern Redbud	Cercis canadensis
Little Gem Magnolia	Magnolia grandiflor 'little gem'
Mexican Buckeye	Ungnadia speciosa

Mexican Redbud	Cercis canadensis ‘mexicana’
Mexican Plum	Prunus mexicana
Texas Mountain Laurel	Sophoria secundiflora
Texas Pistache	Pistacia texana
Texas Persimmon	Diospyros texana
Texas Redbud	Cercis canadensis ‘texensis’

7.11.5 Invasive Tree List.

INVASIVE TREE LIST	
Common Name	Botanical Name
Chinaberry	Melia azedarach
Chinese Parasoltree	Firmiana simplex
Chinese Tallow	Triadica sebifera
Glossy Privet	Ligustrum lucidum
Golden Rain Tree	Koelreuteria paniculata
Lead Tree	Leucaena leucocephala
Mimosa/Silk Tree	Albizia julibrissin
Princess Tree	Paulownia tonentosa
Russian Olive	Elaeagnus angustifolia
Saltcedar	Tamarix spp.
Tree of Heaven	Ailanthus altissima

Chapter 125: Article 8. Signs

Sections:

- § 8.1 General
- § 8.2 Measurements, Materials, and Permit Required
- § 8.3 Prohibited Signs
- § 8.4 Billboards
- § 8.5 Lots with Multiple Frontages
- § 8.6 Multi-tenant Signage
- § 8.7 Special Signage Program
- § 8.8 Light Emitting Diode (On Premise Signs)
- § 8.9 Non-Conforming Signs
- § 8.10 Abandoned Signs
- § 8.11 Temporary Signs (Banners) Over Right-of-Way
- § 8.12 Political Signs
- § 8.13 Special Event Signage
- § 8.14 Variance Procedures
- § 8.15 Enforcement Authority

Sec. 2.1 General

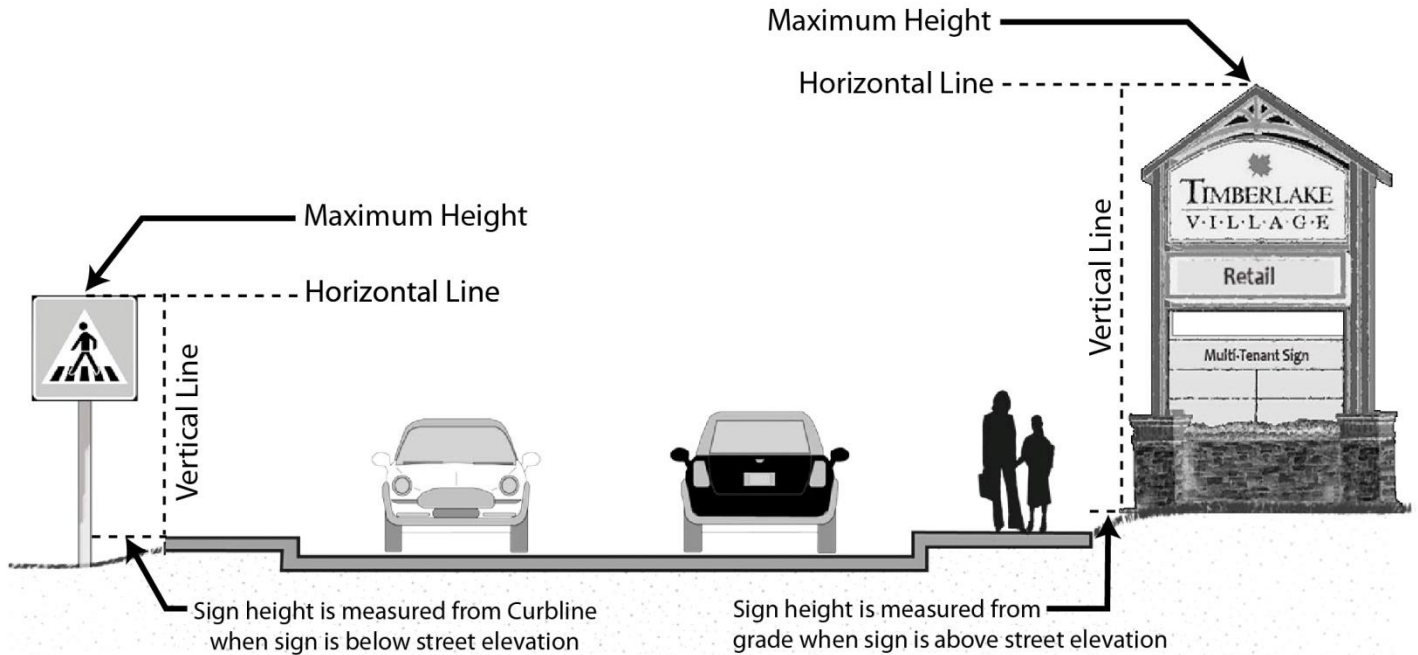
- 8.1.1 Purpose.** The purpose of these sign regulations is to encourage the effective use of signs as a means of communication in the city; to maintain and enhance the aesthetic environment and the City's ability to attract sources of economic development and growth; to improve pedestrian and traffic safety; to minimize the possible adverse effect of signs on nearby public and private property; and to enable the fair and consistent enforcement of these sign restrictions. This article is adopted under zoning and related authority of the City in furtherance of the more general purposes set forth herein and in accordance with Texas Local Government Code Chapter 216.
- 8.1.2 Compliance with Standards.** All signs erected, altered, displayed, or relocated within the City shall be constructed, maintained and removed according to the standards established by this Article in accordance with law. As outlined in Tables 1-5, the type of signs permitted on any property is dependent upon the type of roadway frontage that serves the property. Special consideration has been given to the Historic District, as outlined in Tables 6 and 7, for properties located with its existing boundaries or as amended, and such regulations shall apply and control in case of conflict with any other regulations as provided herein.

Sec. 8.2 Measurements, Materials, and Permit Required

8.2.1 Measurements. Sign area shall be measured as the area of rectangles or triangles or combination thereof necessary to enclose the sign face. Signs composed of individual cut out letters or figures shall be the sum of the area rectangles or triangles necessary to enclose each letter or figure.



Measurement of sign height shall be from either grade or street elevation, whichever is greater.



8.2.2 Materials. All signs shall be constructed from materials designed to withstand the outdoor elements. All signs within the Main Street Historic District shall be constructed in accordance with the Preservation Plan and approved architectural guidelines. In

addition, “A” frame signs shall be constructed of treated wood, painted to protect from weathering, and maintained in good visible and structural condition at all times.

8.2.3 Permit. No sign structure shall be erected, altered, displayed, or relocated without first obtaining a permit from the City of League City. In addition, to the permit required; electrical signs also require electrical permits under the electrical code. No permit or fee is required for the follow types of signs:

- a. Traffic control signs on private property which do not exceed four and one-half square feet in area or no higher than three feet.
- b. Menu Boards that are a maximum of eight feet in height and do not exceed 72 sq. ft. in area. Only two menu boards are permitted per drive-through.

Sec. 8.3 Prohibited Signs

No sign shall be erected, altered or displayed which:

- a. Makes sounds, revolves or uses waving, blinking, flashing, vibrating, flickering, mimics a traffic control device, interferes with the safe operation of a motor vehicle or that causes a traffic safety issue.
- b. Constitutes a traffic hazard by reasons of size, location, projection, content, color, or manner of illumination.
- c. Is affixed to utility poles, trees, or other signs.
- d. Obstructs light, air, ingress or egress from required door, window or other opening.
- e. Is structurally unsafe or not kept in good repair or maintenance.
- f. Is a portable sign except for sandwich board (or “A” frame signs) in approved areas.
- g. Is an off-premises sign unless specifically permitted by this Article.
- h. Is a Vehicular Sign.
- i. Is a wind driven sign.
- j. Is an inflatable.

Sec. 8.4 Billboards

Notwithstanding any other provision of this article, an existing off-premises ground sign structure may be modified to support an electronic face(s) or relocated subject to the provisions of this Section and Table 1. Only a billboard with an electronic face(s) will be considered a conforming sign if all requirements of this Section and Table 1 are met.

An existing traditional face off-premise sign may be modified to support an electronic face(s) or relocated if the owner presents the Building Inspections Department with a pictorial proof and a sworn affidavit evidencing the removal of at least three square feet of traditional face from within the city for every one square foot of electronic face to be erected. (Example: for a 672 sq. ft. electronic face, an owner would have to remove at least 2,016 sq. ft. of existing sign face area.) The removal of the face of which the electronic face will replace does not count toward the removal total. Prior to issuance of a building permit the City Manager or their designee must approve a Digital Billboard Conversion Agreement which outlines which static billboards are being removed and the location and dominions of the digital billboards being constructed.

The owner of an existing off-premises sign may replace any structure components necessary to support an electronic face(s). The sign structure that is modified or replaced:

- a. Shall not increase the number of poles used to support the sign’s superstructure.
- b. Shall not utilize wood poles to support the sign’s superstructure.
- c. Shall not increase the sign support’s height or the number of faces on the structure.
- d. Shall not have an electronic face with an active copy area that exceeds 680 square feet or has an active copy area larger than the original sign face.
- e. Shall obtain all necessary electrical permits from the City.
- f. Must comply with all State Regulations.

The owner of an off-premises electronic sign face(s) shall coordinate with local authorities to display when appropriate, emergency information important to the traveling public such as Amber Alerts, alerts concerning terrorist attacks, natural disasters or as authorized by the Office of Emergency Management. Emergency information messages shall remain in the advertising rotation according to the protocols of the agency that issues the information.

Table 1: Billboards

	Freeway Frontage	Arterial Frontage
Maximum Area	680 sq. ft.	384 sq. ft.
Maximum Height	42.5 ft.	30 ft.
Location	Minimum 1,000 ft separation from other billboards and a minimum of 500 ft from a residential area.	
Dwell Time	Shall remain static for at least eight seconds and change of message shall be accomplished within two seconds.	
Change of Message	Must occur simultaneously on the entire sign.	
Brightness	Limited to 0.3 foot candles over ambient light conditions at a distance of 250 ft from the sign.	
Malfunction	Must contain a default mechanism that will freeze the sign in one position if a malfunction occurs	
Automatic Dimmer	Must be equipped with both a dimmer control and photocell which automatically adjust	

	the face's intensity according to natural ambient light conditions.
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Sec. 8.5 Lots with Multiple Frontages

Commercially zoned lots with multiple frontages may have signs on each roadway upon which they have frontage. Signage must comply with the appropriate frontage requirements.

Sec. 8.6 Multi-tenant Signage

Two or more contiguous lots or multiple lots that are a part of an approved Master Plan may construct a multi-tenant sign structure on one of the lots advertising all of the uses on lots within the Master Plan or within the contiguous lots. Signs shall meet all requirements of Table 1.

Sec. 8.7 Special Signage Program

The City Council may approve, following recommendation by the Planning & Zoning Commission, a special signage program for any area with more than three hundred feet of continuous street frontage comprised of a combination of two or more properties or a single property greater than 20 acres. Purpose of the special signage program shall be to permit flexibility and creative design when establishing a common signage program for a commercial area.

- a) The special sign program should be compatible with surrounding properties. In considering whether a special signage program is compatible, the Council shall consider, but are not limited to considering the following:
 1. Scale. The relationship between compatibility of sign scale, site scale and the scale of nearby buildings.
 2. Material. The materials of the signs and how they relate to their surroundings.
 3. Shape. The shape and design of the signs and how they relate to their surroundings.
 4. Traffic Safety and Traffic Circulation. The impact of the signs on driver's view, the degree to which view obstructions are created or improved, avoidance of confusion with or obstruction of traffic control signs and devices, and the time it takes a motorist to read the sign.
 5. Illumination. The impact and compatibility of sign illumination within the district and in relation to neighboring properties. The avoidance of glare and light pollution.
 6. Integration. How the signs in the district are integrated into a unified development concept with the topography, building design, other signs, landscaping, traffic circulation and other development features on the district and nearby property.
- b) The special sign program should address all aspects of signage associated with this chapter and clearly delineate all exceptions or deviations for which flexibility is

requested. The program should include details sufficient to clearly convey the anticipated appearance of signage.

- c) No signs shall be permitted to exceed height requirements established in this chapter nor shall total square footage of signage in the commercial area exceed the amount to be permitted by this chapter.
- d) In approval, the Planning & Zoning Commission may request and Council may impose conditions upon the special signage program.

Sec. 8.8 Light Emitting Diode (LED) Signs

Light Emitting Diode (LED) signs shall not be placed within 100 feet of a residential zoning district. Refer to Table 2 below regarding regulations. No sign may be of such intensity or brilliance that it interferes with the effectiveness of an official traffic sign, device, or signal. All Electronic Reader Boards or LED sign shall be required to pay an annual fee as adopted by the city-wide fee schedule. Electronic Reader Boards and LED signs are not permitted in the Main Street Historic District.

Table 2: LED and Electronic Reader Board Signs

	All Roadway Frontages
Dwell Time	Shall remain static for at least eight seconds and change of message shall be accomplished within two seconds.
Change of Message	Must occur simultaneously on the entire sign.
Brightness	Limited to 0.3 foot candles over ambient light conditions at a distance of 250 ft from the sign.
Malfunction	Must contain a default mechanism that will freeze the sign in one position if a malfunction occurs
Automatic Dimmer	Must be equipped with both a dimmer control and photocell which automatically adjust the face's intensity according to natural ambient light conditions.

Sec. 8.9 Non-Conforming Signs

Signs which do not conform to this section but which lawfully existed and were maintained on the effective date of this ordinance shall be kept in good repair or visual appearance and no structural alterations shall be made thereto. Signs which have been granted variances prior to the adoption of this article may remain; however, any permits for new signs must comply with this article. If more than 60 percent of the total dollar value for replacement of a nonconforming sign is damaged, the sign shall be replaced with a conforming sign rather than repairing the damage.

Businesses that have one or more nonconforming signs will not be granted new permits for similar signs unless the permit is for a conforming sign that will replace a nonconforming sign.

Sec. 8.10 Abandoned Signs

All such signs shall be removed within 60 calendar days of the date that the business, person, or activity that the sign identifies or advertises ceases to operate on the site on which the sign is located.

Sec. 8.11 Temporary Signs (Banners) Over Right-of-Way

A nonprofit, philanthropic, or special events organization whose primary mission is to coordinate programs or events intended to contribute to or enhance the quality of life for residents of the City of League City may request to install banners over public rights-of-ways only after submitting an application to the City of League City and obtaining approval by the City Manager or his/her designee.

a) A temporary banner:

1. must be mesh or similarly permeable material. Vinyl shall be considered an acceptable material with limitations noted in Table 5.
2. may only advertise public events, such as holidays, nonpolitical elections, and similar occasions, with the exception that the City may provide information regarding local elections including but not limited to dates and locations.
3. shall be placed at a location approved by the Texas Department of Transportation as designated by the State of Texas and the City of League City.
4. may be removed by the City during inclement weather.

b) A permit shall:

1. follow guidelines established by the Texas Department of Transportation for use of State of Texas right-of-way for temporary signs for special events.
2. be issued for a period not to exceed 14 days.

c) City sponsored events may supersede requests by other eligible organizations as approved by the City Manager or his/her designee.

d) The City shall assess a fee for installation, removal, and management of temporary banners.

Sec. 8.12 Political Signs

Political signs that contain primarily a political message are allowed without a permit, fee, or approval of the City, but only on private property and with the consent of the property owner. No political sign may exceed 36 square feet in area or 8 feet in height. Such signs shall not be illuminated, have any moving parts or be placed within any dedicated easement allowing for

municipal uses. Notwithstanding any provisions herein to the contrary, this section shall apply to all signs which satisfy the requirements of Texas Local Government Code Section 216.903.

Sec. 8.13 Special Event Signage

A nonprofit, philanthropic, or special events organization whose primary mission is to coordinate programs or events intended to contribute to or enhance the quality of life for residents of the City of League City may obtain a permit to display signs for an event as follows:

- a. Directional and wayfinding signs may be placed throughout the City under the following conditions:
 1. Signs shall not exceed an area of six (6) square feet area or a height of three (3) feet; and
 2. May be displayed 48 hours immediately prior to the event and during the event.
- b. As an alternative to a temporary banner over the right-of-way, special event signage that advertises an event may be placed throughout the city under the following conditions:
 1. Total square footage of all advertising signage shall not exceed 140 square feet;
 2. No single sign shall exceed an area of 36 square feet or a height of six (6) feet; and,
 3. Signage may be displayed for a maximum of 14 days immediately prior to and/or during the event.
- c. All special event signage must be removed no later than 24 hours after conclusion of the event.
- d. Special event signage shall not be allowed to be displayed within the right-of-way, except as noted in Section 8.11 regarding temporary banners over the right-of-way.
- e. Separate permits for banners may also be allowed for special events; however, they must be on-premises and comply with Tables 3, 5, and 7.

Sec. 8.14 Variance Procedures

Any variance request to this Article shall follow the procedures outlined in Section 2.14 of this Chapter.

Sec. 8.15 Enforcement Authority

The City of League City shall issue a citation and order the repair or removal of any dilapidated, abandoned, illegal, or prohibited signs from property within the corporate city limits of the City of League City. If the property owner fails or refuses to comply with this Article, the city shall give written notice to the property owner. The notice shall be delivered by U.S. Mail or in person to the owner. If delivery in person is not possible or the owner's address is unknown, notice shall be given by publication in the city's official newspaper at least once. The owner has ten (10) working days from the date of this notice to correct the violation. If the owner fails to correct the violation or fails to pay the cost for abatement, a lien shall be filed against the property to secure all costs and fees incurred by the city as provided by law. In the event that a temporary or portable sign is erected without a permit, the City may remove any sign without notice and the sign shall be destroyed.

Sec. 8.16 Tables

Tables 3-8 show the types of signs allowed by roadways as defined in the Master Thoroughfare Plan. If a space is blank, the sign is not permitted. ROW stands for right-of-way.

Table 3: Freeway and Arterial Frontage – Permanent Signs

	Freeway Frontage	Arterial Frontage
Free Standing Signs (Pylon & Monument Signs)		
Pylon Sign Maximum Area	1 sq. ft. of sign area per 1 linear foot of roadway frontage to a maximum of 200 sq. ft.	1 sq. ft. of sign area per 1 linear foot of roadway frontage to a maximum of 100 sq. ft.
Pylon Sign Maximum Height	42.5 ft.	20 ft.
Monument Sign Maximum Area	1 sq. ft. of sign area per 1 linear foot of roadway frontage to a maximum of 200 sq. ft.	1 sq. ft. of sign area per 1 linear foot of roadway frontage to a maximum of 100 sq. ft.
Monument Sign	15 ft.	10 ft.
Maximum Number of Free standing Signs per site	1 pylon or monument sign plus freestanding art defined as signage	
Maximum number of Free standing signs per site, multi-tenant site	1 pylon sign per 1,000 linear feet and 1 monument sign per 150 linear feet plus freestanding art defined as signage	
Maximum Area allowed as Reader Board (Digital portion must comply with applicable Energy Codes)	50% of total area allowed	
Attached Signs (Wall, Projecting & Awning Signs)		
Ground Floor	1.5 sq. ft. sign area per 1 linear foot of business frontage	
Second Floor or higher	1.5 sq. ft. sign area per 2 linear feet of business frontage	
Primary and second building face	100%	
Third and fourth building face	25%	
Amount of free standing sign area that may be relocated to the Attached Sign area	30%	
Wall Sign (does not include mural/art attached to the structure defined as art)		
Maximum Wall Coverage	50% of building face	
Maximum Height	Greater of 20 ft. or top of visible roof line	Greater of 15 ft. or top of visible roof line
Projecting Sign/Awning Signs (Restricted to pedestrian ROW or Private Property)		
Maximum Number	1 sign per 50 ft. per business	
Maximum Area per Face	36 sq. ft.	
Minimum Clearance Below Sign	9 ft	
Window Sign		
Maximum Window Coverage (No permit required if inside structure)	50%	
Residential Subdivision Signage		
Maximum Number	1 sign per 100 linear feet	
Maximum Area (per sign)	16 sq. ft	
Maximum Height	8 ft	
Location	Not within the ROW	

Table 4: Freeway and Arterial Frontage – Temporary Signs

	Freeway Frontage	Arterial Frontage
Traditional Banners		
Maximum Number	4 permits per year	
Location	Attached to building – each is good for 30 days Attached between two stakes – each permit is good for 7 days	
Minimum/Maximum Area	12 sq. ft./ 48 sq. ft.	
“A” Frame Signs		
Maximum Area (per sign)		12 sq. ft.
Maximum Height		4 ft.
Display Timeframes		During business hours only
Location		Located on the same premises as business. Only permitted where minimum 8 ft sidewalk exists. May not intrude more than 4 ft into pedestrian ROW.
Garage Sales		
Maximum Number	2 per lot	
Location	No within the ROW	
Maximum Area	6 sq. ft.	
Maximum Height	3 ft.	
Display Timeframes	5pm Thursday to 12 pm on Monday	
Property Sale and Lease Signs		
Maximum Number	1 per 150 ft of lot frontage	
Location	Not within the ROW	
Maximum Area per Sign	60 sq. ft.	
Maximum Height	10 ft.	
Temporary Construction Signs		
Maximum Number	1 per 75 ft. of lot frontage	
Location	Not within the ROW	
Maximum Area	48 sq. ft.	
Maximum Height	10 ft.	
Political Signs		
Maximum Area	36 sq. ft.	
Maximum Height	8 ft.	
Location	Not within the ROW	
Display Times	No sooner than 90 days before early election and removed within 10 days after general or runoff election.	

Table 5: Collector, Local, and Private Street/Driveway Frontage – Permanent Signs

	Collector Frontage	Local Frontage	Non-Residential Private Street/Driveways
Pylon Sign			
Not Allowed			
Monument Sign			
Maximum Area	1 sq. ft. of sign area per linear foot of roadway to a maximum of 50 sq. ft.		
Maximum Height	10 ft.		
Maximum Number of Monument Signs per site	1 monument sign plus freestanding art defined as signage		
Maximum Number of Monument Signs per site, multi-tenant site	1 monument sign per 150 linear feet plus freestanding art defined as signage		
Maximum Area Allowed as Reader Board (Digital portion must comply with applicable Energy Codes)	50% of total area		
Attached Signs (Wall, Projecting & Awning Signs)			
Ground Floor	1.5 sq. ft. of sign face per linear foot of business frontage	1 sq. ft. of sign face per linear foot of business frontage	1.5 sq. ft. of sign face per linear foot of business frontage
Second Floor	1.5 sq. ft. of area per 2 linear feet of business frontage	1 sq. ft. of area per 2 linear feet of business frontage	1.5 sq. ft. of area per 2 linear feet of business frontage
Primary & Secondary Building Face	100%		
Third & Fourth Building Face	25%		
Amount of allowable Monument Sign area that may be relocated to the attached sign area	30%		30%
Wall Sign (does not include murals/arts attached to the structure defined as art)			
Maximum Wall Coverage	50% of building face	10% of building face	30% of building face
Maximum Height	Greater of 15 ft. or top of visible roofline	No more than roofline	Greater of 15 ft. or top of visible roofline
Projecting/Awning Signs (Restricted to pedestrian ROW or Private Property)			
Maximum Number	1 sign per 50 ft. per business	1 sign per business	1 sign per business
Maximum Area per face	36 sq. ft.	24 sq. ft.	36 sq. ft.
Minimum Clearance Below Sign	8 ft.	8 ft.	8 ft.
Window Sign			
Maximum Window Coverage (No permit required if inside structure)	50%		
Residential Subdivision Signs			
Maximum Number	1 sign per 100 linear feet		
Maximum Area (per sign)	16 sq. ft.		
Maximum Height	8 ft.		
Location	Not within the ROW		

Table 6: Collector, Local, and Private Street/Driveway Frontage – Temporary Signs

	Collector Frontage	Local Frontage	Non-Residential Private Street/Driveway
Traditional Banners			
Maximum Number	4 permits per year		
Location	Attached to building – each is good for 30 days Attached between two stakes – each permit is good for 7 days		
Minimum/Maximum Area	12 sq. ft./ 32 sq. ft.	12 sq. ft./ 32 sq. ft.	12 sq. ft./24 sq. ft.
Temporary Banners Over Rights-of-Way			
Maximum Area	140 sq. ft.		
Material and Dimensions	Mesh or similarly permeable material: 4 ft. height and 35 ft length Vinyl with allowance for airflow: 3 ft height and 35 ft length		
“A” Frame Signs			
Maximum Area (per sign)	12 sq. ft.		
Maximum Height	4 ft.		
Display Timeframes	During Business hours only		
Location	Located on same premises as business. Only permitted where minimum 8 ft. sidewalk exists. may Cannot intrude more than 4 ft. into pedestrian ROW.		
Garage Sales			
Maximum Number	2 per lot		
Location	Not within the ROW		
Maximum Area	6 sq. ft.		
Maximum Height	3 ft.		
Display Timeframes	5pm Thursday to 12 pm on Monday		
Property Sale and Lease Signs			
Maximum Number	1 per 100 ft. of lot frontage	1 per 75 ft. of lot frontage	
Location	Not within the ROW	Not within the ROW	
Maximum Area per Sign	24 sq. ft.	16 sq. ft.	
Maximum Height	4 ft.	4 ft.	
Temporary Construction Signs			
Maximum Number	1 per lot	1 per lot	
Location	Not within the ROW	Not within the ROW	
Maximum Area	32 sq. ft.	24 sq. ft.	
Maximum Height	8 ft.	4 ft.	
Political Signs			
Maximum Area	36 sq. ft.		
Maximum Height	8 ft.		
Location	Not within the ROW		
Display Times	No sooner than 90 days before early election and removed within 10 days after general or runoff election.		

Table 7: Historic District – Permanent Signs

	Main Street (FM 518) Frontage	Other Frontage
Monument Signs		
Maximum Area	1 sq. ft. of sign area per 1 linear foot of roadway frontage to a maximum of 50 sq. ft.	
Maximum Height	10 ft.	
Maximum Number of Monument signs per site	1 monument sign plus freestanding art defined as signage	
Maximum number of Monument signs per site, multi-tenant site	1 monument sign per 150 linear feet plus freestanding art defined as signage	
Attached Signs (Wall, Projecting, & Awning Signs)		
Ground Floor	1.5 sq. ft. of sign face per 1 linear foot of business frontage	
Second Floor or higher	1.5 sq. ft. of sign face per 2 linear foot of business frontage	
Amount of Allowable Monument sign area that may be reallocated to the Attached sign area	30%	
Primary and secondary building face	100%	
Third and fourth building face	25%	
Wall Sign (does not include murals/art attached to the structure defined as art)		
Maximum Coverage	30% of building face	10% of building face
Maximum Height	Greater of 15 ft. or top of visible roof line	No more than roofline
Projecting/Awning Signs (Restricted to pedestrian ROW or Private property)		
Maximum Number	1 sign per 50 ft. per business	1 sign per business
Maximum Area per face	36 sq. ft.	
Maximum Clearance Below Sign	8 ft.	
Window Sign		
Maximum Window Coverage (No permit required if inside structure)	50%	

Table 8: Historic District – Temporary Signs

	Main Street (FM 518) Frontage	Other Frontage
Traditional Banners		
Maximum Number	4 per year, each permit is good for 30 days with 30 days between each permit.	
Location	Attached to a building	
Minimum/Maximum Area	16 sq. f./32 sq. ft.	12 sq. ft./24 sq. ft.
Garage Sale Signs		
Maximum Number	2 per lot	
Location	No within the ROW	
Maximum Area (per Sign)	6 sq. ft.	
Maximum Height	3 ft.	
Display Timeframes	5pm Thursday to 12 pm on Monday	
Property Sale and Lease Signs		
Maximum Number	1 per 75 ft. of lot frontage	1 per lot
Location	Not within the ROW	Not within the ROW
Maximum Area (per Sign)	24 sq. ft.	16 sq. ft.
Maximum Height	6 ft.	4 ft.
Temporary Construction Signs		
Maximum Number	1 per lot	
Location	Not within the ROW	
Maximum Area (per sign)	32 sq. ft.	24 sq. ft.
Maximum Height	8 ft	4 ft
“A” Frame Signs		
Maximum Area (per Sign)	12 sq. ft.	
Maximum Height	4 ft.	
Display Timeframes	During business hours only	
Location	Located on same premises as business. and may not intrude more than 4 ft into pedestrian ROW.	
Political Signs		
Maximum Area	36 sq. ft.	
Maximum Height	8 ft.	
Location	Not within the ROW	
Display Times	No sooner than 90 days before early election and removed within 10 days after general or runoff election.	

APPENDIX A – DEFINITIONS

ACCESS means the principal means of ingress and egress to property from a publicly dedicated right-of-way.

ACCESSIBLE ELECTRIC VEHICLE CHARGING STATION means an electric vehicle charging station where the battery charging station equipment is located within accessible reach of a barrier-free access aisle and the electric vehicle.

ACCESSORY BUILDING OR STRUCTURE means a detached, subordinate building, the use of which is clearly associated with and related to that of the principal building, and which is located on the same lot as the principal building.

ACCESSORY USE means a use that is customarily associated with the principal use, and so necessary that it cannot be prevented by this Article. Accessory uses shall be located on the same premises as the principal use.

ADMINISTRATIVE OFFICIAL means any employee or advisory, elected or appointed body which is authorized to administer any provision of this Chapter.

AIRPORTS AND HELIPORTS. Facilities for the takeoff and landing of airplanes and helicopters, including runways, aircraft storage buildings, public terminal buildings and parking, helicopter pads, and support activities such as airport operations and air traffic control.

ALCOHOLIC BEVERAGE SALES. The retail sale, for on- or off-premises consumption, of liquor, beer, wine, or other alcoholic beverages, but excluding full-service restaurants.

ALLEY means a right-of-way which affords only a secondary means of access to property abutting thereon and is not intended or used for general traffic circulation.

ALTERATION means any modification in a structure which will require a building permit.

AMBULANCE SERVICES. Administrative facilities for emergency medical care, including provision of transportation services and incidental storage and maintenance of vehicles.

ANIMAL SALES AND SERVICES. Retail sales, boarding, grooming and/or medical care for small animals on a commercial basis. Grooming and boarding of animals for no more than 30 days. This classification does not include dog walking and similar pet care services that are not carried out at a fixed location.

ANIMAL SALES AND SERVICES WITHOUT OUTDOOR KENNELS, AREAS, AND RUNS. An animal-related use that includes and outdoor component, including a veterinary office or related use

ARCHITECT means an individual duly registered and licensed as an architect in the state.

ASSISTED LIVING FACILITY. A facility licensed and regulated by the Texas Department of Aging and Disability Services that provides room, board, and personal care services to its residents within a structure containing multiple living quarters for four (4) or more elderly or disabled persons who are unrelated to the owner of the establishment by blood, marriage, or adoption. Disabled person has the meaning defined by the Chapter 123 of the Texas Human Resources Code, and the Federal Fair Housing Act of 1988, as amended. This term does not refer to facilities that provide care for persons mostly incapable of self-preservation due to age, physical or mental disability, or because of security measure not under the occupants' control. This classification excludes homeless shelters, halfway houses, assisted living homes, or any other use specifically defined in this Section.

AUTOMOBILE/VEHICLE/EQUIPMENT SALES AND RENTAL. Sale or rental of automobiles, motorcycles, trucks, tractors, construction or agricultural equipment, mobile homes, boats and similar equipment, including storage and incidental maintenance.

AUTOMOBILE RENTALS. Rental of automobiles, including storage and incidental maintenance.

AUTOMOBILE/VEHICLE CAR WASH. Washing, waxing, or cleaning of automobiles or similar light vehicles.

AUTOMOBILE/VEHICLE FUELING STATIONS. Establishments engaged in the retail sale of gas or diesel fuel, including gasoline service stations and gas convenience mart These establishments may also sell lubricants, parts, and accessories and perform related services provided repairs are made in enclosed bays and no vehicles are stored overnight. This classification excludes uses providing engine repair, body and fender work, vehicle painting, towing or repair of heavy trucks or construction vehicles.

AUTOMOBILE/LIGHT VEHICLE SERVICE. Establishments engaged in the convenience sales and service of light vehicle lubricants, parts, and accessories, including quick-service oil, tune-up, brake and muffler shops where repairs are made in enclosed bays and no vehicles are stored overnight. This classification excludes uses providing engine repair, body and fender work, vehicle painting, towing or repair of heavy trucks or construction vehicles.

AUTOMOBILE REPAIR AND OTHER HEAVY VEHICLE SERVICE. Repair of automobiles, trucks, motorcycles, motor homes or recreational vehicles, or boats, including the sale, installation, and servicing of related equipment and parts. This classification includes auto repair shops, body and fender shops, wheel and brake shops, tire sales and installation, and upholstery shops, but excludes vehicle dismantling or salvage and tire re-treading or recapping.

AWNING means a shade structure suspended from a vertical wall, with no structural supports touching the ground.

BALCONY means a platform, located on an upper floor and enclosed by a balustrade.

BANKS AND OTHER FINANCIAL INSTITUTIONS. Establishments that provide retail

banking, credit, and mortgage services to individuals and businesses. This classification includes banks and savings and loan establishments, check cashing, and currency exchange outlets.

BATTERY CHARGING STATION means an electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles.

BATTERY EXCHANGE STATION means a fully automated facility that will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery through a fully automated process.

BED AND BREAKFAST ESTABLISHMENT. A facility that is the owner's personal residence where lodging and meals are provided for transient paying guests.

BLOCK means an area of land within a subdivision entirely bound by streets (other than alleys), highways, natural barriers, or the exterior boundaries of the subdivision.

BRICK shall mean severe weather rated kiln fired clay or slate material, or concrete brick if it is to the same as ASTM C216 or C652 and severe weather rated; such shall be no less than two and one quarter (2 ¼) inches in thickness when applied as a veneer.

BILLBOARD – An off-premises sign for the purpose of display of commercial or noncommercial messages. The term includes any of its support, frame, or other appurtenances.

BILLBOARD, ELECTRONIC – An off-premises sign for the purpose of display of commercial or noncommercial digital messages which include any of its support, frame, or other appurtenances.

BUFFER/BUFFER YARD: An area of land located between different land uses that is intended to mitigate negative impacts between land uses and/or along roadways. A buffer/buffer yard may include only landscaped areas, berms, walls, and/or fences or any combination thereof. The required height and width of the buffer yard may vary according to use.

BUILDABLE AREA means the portion of a lot remaining after the required setbacks have been provided. Buildings may be placed in any part of the buildable area, but limitations on the percent of the lot which may be covered by buildings may require open space within the buildable area.

BUILDING means any structure having a roof supported by columns or walls built for support, enclosure, shelter, or protection of chattels, persons, animals or the like. The word "building" includes the word "structure," and shall include anything constructed or erected which requires permanent location on the ground or is attached to anything having a permanent location on the ground, and shall include but not be limited to such structures as homes, hotels, motels, apartments, stores, service stations, radio towers, cooling towers, tanks and silos.

BUILDING CODE means the most recent version of the building code adopted by the city.

BUILDING HEIGHT means the vertical distance from grade plane to the average height of the highest roof surface.

BUILDING MATERIALS SALES AND SERVICES. Retailing, wholesaling, or rental of building supplies or construction equipment. This classification includes lumber yards, tool and equipment sales or rental establishments, and building contractors' offices with indoor storage, but excludes contractors' yards with outdoor storage and establishments devoted exclusively to retail sales of paint and hardware and activities classified under vehicle/equipment sales and services, including vehicle towing services.

BUILDING OFFICIAL means the city representative charged with the administration and the enforcement of the building code of the city.

BUILDING SITE means a portion or parcel of land considered as a unit devoted to certain use or occupied by a building or group of buildings that are united by a common interest or use, with the customary accessories and open spaces.

BULKHEAD means the portion of a storefront which forms the base for one or more display windows.

BUSINESS means any individual, corporation, partnership, limited partnership, limited liability partnership, limited liability company, joint enterprise, association, sole proprietorship, organization, trust, commercial development, industrial development or other legal entity that sells, leases, rents or otherwise provides any goods or services. Goods and services shall include but not be limited to commercial goods that are sold at retail or wholesale, industrial or manufactured goods, and personal, professional or industrial services.

BUSINESS SERVICES. Establishments providing building maintenance, document delivery, mail receiving and boxes, graphic arts, drafting, blueprinting, typesetting, copying, desktop publishing and photographic services. This classification excludes maintenance and repair and accounting, advertising, architectural design, city planning, environmental analysis, insurance, interior design, investment, landscape design, law, management consulting, title companies, and real estate offices.

CALIPER INCH is a unit of measurement used to state in inches the diameter of a tree's trunk at the tree's correct measurement height.

CANOPY means a shade structure which requires one or more posts for support.

CATERING BUSINESSES. Preparation and delivery of food and beverages for offsite consumption without provision for onsite pickup or consumption. (See also Eating and Drinking Establishments.)

CEMETERIES. Burial grounds for the interment of the dead. This classification includes columbaria and mausoleums, but does not include crematories, or mortuaries which are classified as "Undertaking, Funeral and Interment Services".

CERTIFICATE OF OCCUPANCY means an official written approval by the building official

setting forth that a building or structure legally complies with the city building code and other applicable ordinances, and that the building or structure may be used for the purposes stated therein.

CERTIFIED ARBORIST means a person who currently holds the Certified Arborist credential awarded by the International Society of Arboriculture (ISA).

CHILD CARE LISTED FAMILY HOMES. An establishment licensed by the State of Texas Department of Family and Protective Services located in a single-family residence where an occupant of the residence provides care and supervision for 3 or fewer children.

CHILD CARE REGISTERED FAMILY HOMES. An establishment licensed by the State of Texas Department of Family and Protective Services located in a single-family residence where an occupant of the residence provides care and supervision for 12 or fewer children with the precise number of children being determined by their ages.

CHARGING LEVELS means the standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is recharged. The terms 1, 2, and 3 are the most common EV charging levels and include the following specifications:

1. **Level 1** is considered slow charging and operates on a 15- or 20-amp breaker on a 120-volt alternating current (AC) circuit and standard outlet. Level 1 charging stations can fully charge a BEV between eight and 32 hours and a PHEV between three and 15 hours.
2. **Level 2** is considered medium charging and operates on a 40- to 100-amp breaker on a 208- or 240-volt AC circuit. A Level 2 charging station can fully charge a BEV between four and six hours and a PHEV between one and two hours.
3. **Level 3** is considered fast or rapid charging and operates on a 60-amp or higher dedicated breaker on a 480-volt or higher three-phase circuit with special grounding equipment. Charging times range from 25 to 40 minutes for BEVs and less than 20 minutes for PHEVs.

CITY means the City of League City.

CITY COUNCIL means the City Council of the City of League City.

CITY ENGINEER means the licensed professional engineer designated to represent the City or designee.

CITY LIMITS means the City boundary as fixed by the mayor and council and defined in City ordinance.

CIVIC SPACE means publicly accessible open space in the form of parks, courtyards, forecourts, plazas, greens, pocket parks, playgrounds, etc. They may be privately or publicly owned. For all residential uses, privately accessible open spaces such as courtyards, porches, and balconies may also be considered as Civic Space for the purposes of this ordinance.

CLUBS OR LODGES. Meeting, recreational, or social facilities of a private or nonprofit organization primarily for use by members or guests including residential accommodations that are

available to members or guests on a temporary basis but excluding residential hotels. This classification includes union halls, social clubs, and youth centers.

COLLEGES, PUBLIC OR PRIVATE. Institutions of higher education providing curricula of a general, religious, or professional nature, typically granting recognized degrees, including conference centers and academic retreats associated with such institutions. This classification includes business and computer schools, management training, technical and trade schools, but excludes personal instructional services.

COLONNADE OR ARCADE means a roofed or built structure, extending beyond the ground floor front façade of a building and over the sidewalk or civic space. A colonnade or arcade shall be open to the street except for supporting columns, piers, or arches. Residential or office units may occupy the space over the colonnade or arcade.

COMMERCIAL DEVELOPMENT means businesses primarily engaged in direct retail sales of merchandise or service to the public.

COMMERCIAL MOTOR VEHICLE shall mean a self-propelled or towed vehicle that exceeds 10,000 pounds in gross weight, registered weight, or gross weight rating.

COMMON AREA/Common Land. Common area or common land means any real property in a subdivision reserved for the common use, benefit, or enjoyment of the owners of all property within said subdivision. In residential subdivisions, this includes parkland, detention facilities, restricted reserves, and greenspace. In nonresidential subdivisions, this includes detention facilities, parking and access areas, and sites for multitenant signage.

COMMUNICATION FACILITIES. Broadcasting, recording, and other communication services accomplished through electronic or telephonic mechanisms. This classification includes radio, television, or recording studios, switching centers, and cable television transmitting stations.

COMMUNICATION TOWERS AND STRUCTURES. Any tower or structure designed to support 1 or more reception/transmission systems as defined in Chapter 31, Communication Towers and Structures, of the League City Code of Ordinances. Examples of such facilities include, but shall not be limited to, radio towers, television towers, telephone exchange/microwave relay towers, and cellular telephone transmission/personal communications systems towers.

COMPLETE APPLICATION means any submitted application (i.e. plat, zone change, subdivision, PUD, special use permit, building permit, etc.) and all supporting documents as required by Unified Development Code, Development Handbook and/or other City ordinances which are necessary for review, consideration, and approval by the City in accordance with the Texas Local Government Code or successor statute.

COMPLETE FAIR NOTICE FORM shall mean a submitted Fair Notice Form that is fully and appropriately completed, in accordance with all city requirements, as necessary for review and consideration by City staff.

COMPLETION means the date the work is completed for the drilling, re-drilling or workover and the drilling equipment is released by the Operator.

COMPRESSOR STATIONS. Facilities, also referred to as inline booster stations, which increase the pressure on gas during its extraction, transport and storage.

CONCESSION TRAILER means a vehicle that is not self-propelled, and which is designed to be pulled by a motorized vehicle, and which is designed, equipped, and/or used to sell food and/or drink items for immediate consumption

CONTIGUOUS means lands that abut each other or are separated by street ways, easements, pipelines, power lines, conduits or rights-of-way under ownership of the petitioner, of a governmental agency or subdivision, or of a public or private utility.

CONTINUING CARE FACILITY. A facility defined in the Texas Continuing Care Facility Disclosure and Rehabilitation Action which provides board and lodging, together with personal care services, medical services, or other health-related services. This term does not refer to facilities that provide care for persons mostly incapable of self- preservation due to age, physical or mental disability, or because of security measure not under the occupants' control. This classification excludes homeless shelters, halfway houses, assisted living homes, or any other use specifically defined in this Section.

CONTRACTOR'S STORAGE YARD. On or off-site contractor's yard for storage of materials or equipment.

CONVENTION CENTER. A commercial facility used for assemblies or meetings of the members or representatives of a group. This classification does not include clubs, lodges, or other meeting facilities of private or non-profit groups that are primarily used by group members.

CORNICE means a horizontal decorative element which projects from the vertical wall at the top edge of a building.

COURTYARD/COURT means an uncovered area which is enclosed by a building or surrounded by a building complex.

CRITICAL ROOT ZONE is the area of ground around a tree that extends from the trunk to the dripline.

CROP AND ANIMAL RAISING. The raising of tree, vine, field, forage, and other plant crops, intended to provide food or fibers, as well as keeping, grazing, or feeding of animals for animal products, animal increase, or value increase.

CUL-DE-SAC means a street which is a part of the local street system and is closed on one end in a circular or other approved pattern meeting the minimum radius requirement.

CULTURAL INSTITUTIONS. Nonprofit institutions engaged primarily in the performing arts or in the display or preservation of objects of interest in the arts or sciences that are open to the

public on a regular basis. This classification includes performing arts centers for theater, dance, and events, museums, historical sites, art galleries, libraries, aquariums, observatories, and zoos and botanical gardens.

DAY CARE. Any facility that provides non-medical care to 1 or more persons on a less than 24-hour basis. This classification includes nursery schools, preschools, day care centers for children or adults, and any other day care facility licensed or certified by the State of Texas.

DECORATIVE CONCRETE MASONRY UNIT (CMU) shall include any unpainted upon, highly textured finish CMU including split faced, indented, hammered, fluted, ribbed, or similar architectural finish; such shall be no less than three and five-eighths (3-5/8) inches in thickness when applied as a veneer.

DEVELOPMENT ACTIVITY means any site where construction, demolition, site clearing, grubbing, grading and any other activity which may disturb the surface of land (streets, drives, parking lots, sidewalks, etc.) and all other proposed improvements.

DENSITY means the relationship between numbers of dwelling units and land area.

DEVELOPER means any individual, firm, co-partnership, corporation or other legal entity commencing proceedings under this UDC.

DIAMETER AT BREAST HEIGHT OR DBH is the diameter of a tree's trunk measured at a height of 4.5 feet from base of the tree at grade level.

DISABLED GROUP DWELLING. A residential facility designed and used as a residence by not more than six persons with disabilities and two supervisors who are unrelated to the owner of the establishment by blood, marriage, or adoption and who are living together as a single housekeeping unit. This use includes Community Homes as regulated by Chapter 123 of the Texas Human Resources Code. Disabled person has the meaning as defined by Chapter 123 of the Texas Human Resources Code, and the Federal Fair Housing Act of 1988, as amended.

DRILL SITE means the area required for the drilling, completion or workover of a well or wells located there or any associated operation.

DRILLING AND PRODUCTION ZONE means the area established for all operations associated with the production, storage, drilling and workover of oil and gas wells. This area excludes driveways and buffer yards.

DRILLING EQUIPMENT means the derrick, together with all parts of and appurtenances to such structure, every piece of apparatus, machinery or equipment used or erected or maintained for use in connection with drilling.

DRIPLINE means an imaginary line around a tree that corresponds with the outermost edge of the canopy of said tree if projected directly downward. When depicted on a survey or site plan,

the dripline of a tree will generally appear as an irregularly shaped circle that follows the contour of the branches of the tree.

DWELLING, CARETAKERS UNIT. An accessory dwelling unit intended for occupancy by a caretaker, security guard, or similar position generally requiring residence on the site.

DWELLING, DUPLEX. A single building that contains 2 dwelling units on a single lot, or a single lot with 2 freestanding buildings, each of which is designed for occupancy by 1 household and is owned in fee under a single ownership.

DWELLING, LIVE-WORK UNIT. A dwelling unit that is also used for work purposes, provided that the ‘work’ component is restricted to the uses of professional office, artist’s workshop, studio, or other similar uses and is located on the street level. The ‘live’ component may be located on the street level (behind the work component) or any other level of the building. The “work” portion shall be a minimum of 51% of the ground floor, and a minimum of 25% of the whole building square footage.

DWELLING, MULTI-FAMILY. A building, group of buildings, or portion of a building that contains 3 or more dwelling units on a single parcel under single ownership. Types of multiple family dwellings include triplexes, multiplexes, and high-rise buildings.

DWELLING, SINGLE FAMILY. A freestanding building designed for occupancy by one (1) household.

DWELLING, SINGLE FAMILY WITH SECONDARY DWELLING. A primary dwelling designed for occupancy by one (1) household with one (1) secondary unit, also designed for occupancy by one (1) household.

DWELLING, TOWNHOUSE. A single building that contains 2 or more dwelling units each on a single lot with the property line at the common wall. Each townhouse lot and/or unit is owned in fee under a single ownership.

DWELLING UNIT means any building or portion thereof that contains living facilities, including permanent provisions for living, sleeping, eating, cooking and sanitation, that is designed or used for habitation by one family. The term shall not include hotels, motels, or institutional facilities.

EASEMENT means a right granted for the limited purpose of use over, across or under private land. An easement may be created by a subdivision or granted by the owner for public or private utilities, drainage, sanitation or other specific uses having limitations. The title to the land shall remain in the name of the property owner, subject to the right of use designated in the reservation.

1. **Easement, access** means an easement that provides access to platted lots or reserves. The easement shall meet all of the requirements as set forth for its intended use, including, but not limited to, construction, width, building lines and function, but shall be privately maintained.

2. ***Easement, aerial*** means an easement for the exclusive use of constructing and maintaining above-ground utilities within its confines.
3. ***Easement, drainage or storm water easement*** means an easement for the unobstructed use of constructing and maintaining drainage facilities within its confines.
4. ***Easement, maintenance.*** A perpetual 4-foot-wide wall-maintenance easement shall be provided on the lot adjacent to the zero lot line/property line, which, with the exception of walls or fences, shall be kept clear of structures. This easement shall be noted on the plat and incorporated into each deed transferring title to the property.
5. ***Easement, sidewalk*** means a non-exclusive public easement for sidewalk purposes.
6. ***Easement, wastewater or sanitary sewer*** means an easement for the unobstructed use of constructing and maintaining wastewater lines and appurtenances within its confines.
7. ***Easement, water*** means an easement for the unobstructed use of constructing and maintaining water lines and appurtenances within its confines.
8. ***Easement, utility*** means an easement granted for the purpose of placing and maintaining utilities within its confines.

EATING AND DRINKING ESTABLISHMENT Businesses that are primarily engaged in serving prepared food or beverages for consumption on or off the premises.

EATING AND DRINKING ESTABLISHMENT, FULL SERVICE. Restaurants providing food and beverage services to patrons who order and are served while seated (table service) and pay after eating. Takeout service may be provided.

EATING AND DRINKING ESTABLISHMENT, LIMITED SERVICE. Restaurants providing food and beverage services to patrons who order and pay before eating. Food and beverages may be consumed on the premises, taken out, or delivered. No table service is provided. This classification includes cafeterias, cafes, fast-food outlets, pizza delivery, snack bars, and takeout eating places.

EATING AND DRINKING ESTABLISHMENT, WITH DRIVE-THROUGH FACILITIES. Service from a building to persons in vehicles through an outdoor service window.

EATING AND DRINKING ESTABLISHMENT, WITH LIVE ENTERTAINMENT. Musical, theatrical, song or dance, pantomime, scene, or performance for the purpose of amusing a guest or patron, on a scheduled basis more than 3 times a calendar year, regardless of whether the performers are compensated.

EATING AND DRINKING ESTABLISHMENT, WITH OUTDOOR SEATING. Provision of outdoor dining facilities on the same property or in the adjacent public right-of-way.

EDUCATIONAL RESEARCH AND DEVELOPMENT. Facilities engaged in industrial or scientific research and product development of an educational nature and associated with a recognized public or private educational institution, but not including the controlled production of high technology electronic, industrial or scientific products or commodities for sale.

ELECTRIC VEHICLE means any vehicle that operates, either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board for locomotive purpose. Electric vehicles include Battery electric vehicles (BEV) and Plug-in hybrid electric vehicles (PHEV).

ELECTRIC VEHICLE, BATTERY (BEV) means a type of electric vehicle that uses chemical energy stored in rechargeable vehicle's batteries and produces zero tailpipe emissions or pollution when stationary or operating.

ELECTRIC VEHICLE, PLUG-IN HYBRID (PHEV) means a hybrid vehicle with rechargeable batteries that can be restored to full charge by connecting a plug to an external electric power source. A PHEV shares the characteristics of both a conventional hybrid electric vehicle, having an electric motor and an internal combustion engine; and of an all-electric vehicle, also having a plug to connect to the electrical grid.

ELECTRIC VEHICLE CHARGING STATION means a public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy by conductive or inductive means to a battery or other energy storage device in an electric vehicle.

ELECTRIC VEHICLE SPACE means any marked parking space that identifies the use to be exclusively for the charging of an electric vehicle.

EMERGENCY SHELTER. A facility which provides room and board, protection, and counseling on a temporary basis (180 days or less) during crisis intervention for victims of crime, abuse, or neglect.

EMISSION means the act of passing into the atmosphere an air contaminant or a gas stream which contains, or may contain, an air contaminant.

ENCROACHMENT means a condition in which a feature of a building occupies space above the public right-of-way.

ENGINEER, LICENSED means a professional engineer licensed by the State of Texas.

EXPLORATION means geologic or geophysical activities, including seismic surveys, related to the search for oil, gas or other subsurface hydrocarbons.

EXPRESSION LINE means a horizontal linear element which extends across a façade, as evidenced by a change in the wall plane (either projection or recess), color, or material.

EXTRATERRITORIAL JURISDICTION is as defined in the Texas Local Government Code and verified by the City attorney and City Engineer and the Texas Municipal Annexation Act, Texas Local Government Code, Chapter 42 et seq. and as amended.

EVENT VENUE. A facility, the primary use of which, is for the rental for a fee to the general

public where events such as craft fairs, concerts, weddings, parties, and family reunions are held.

EXCAVATION AND MINING. The extraction of metallic and nonmetallic minerals and soil, which is dug, cut into, quarried, uncovered, removed, displaced, relocated or bulldozed over one foot in depth to the ground.

FAMILY means an individual, any number of persons related by blood or marriage, or not more than four (4) unrelated persons living together as a single housekeeping unit.

FEMA means Federal Emergency Management Agency

FENCE means a man-made physical barrier used to divide or enclose a defined area.

FILING DATE means the date on which a complete application is presented to the City.

FIRE MARSHAL means the city fire marshal or his designee.

FIRM means Flood Insurance Rate Map.

FLOODPLAIN means a land area which is floodplain as defined by the Army Corps of Engineers or the Federal Emergency Management Agency pursuant to enforcement of the latest national flood insurance study.

FLOOR AREA means the area of the floor contained within the surrounding walls of a building or portion thereof, exclusive of non-livable (unheated) space such as unfinished attics, garages, open porches, breezeways, or accessory structures.

FLOOR, FIRST FINISHED means the first level of a structure intended to be inhabited.

FLOOR, GROUND LEVEL means the first level of a building. Unfinished basements and storage areas for automobiles and other vehicles do not constitute a ground floor.

FOOD AND BEVERAGE SALES. Retail sales of food and beverages for offsite preparation and consumption. Typical uses include supermarkets, specialty food stores, delicatessens, or convenience markets. This category also includes large-scale stores that sell food items and beverages in bulk, and also may sell bulk household and office products.

FOOD TRUCK means a self-contained motorized vehicle designed, equipped and/or used to sell food and/or drink items for immediate consumption.

FREIGHT/TRUCK TERMINAL AND WAREHOUSE. Facilities for local or worldwide freight, courier, local messenger, and postal services by truck or rail.

FRONTAGE means all the property on one side of a street between two lot lines.

FULL CUTOFF LIGHT

FIXTURE means a lighting fixture that projects all of its light in a downward direction. Full cutoff lighting fixtures emit upward component of light. A full-cutoff luminaire, by definition, also is “fully shielded.”



GAS means any fluid, either combustible or noncombustible, which is produced in a natural state from the earth and which maintains a gaseous or rarefied state at standard temperature and pressure conditions and/or the gaseous components or vapors occurring in or derived from petroleum or natural gas.

GOVERNMENT FACILITIES, LARGE-SCALE. Major government facilities and installations, including correctional institutions established under Texas State law, excluding a state prison, military installations, and other large-scale facilities.

GOVERNMENT FACILITIES, SMALL-SCALE. Administrative, clerical, or public contact offices of a government agency, together with incidental storage and maintenance of vehicles, including post offices.

GRADE means a reference plane representing the average of finished ground level adjoining the building at all exterior walls.

GROSS FLOOR AREA (GFA) The total floor area (square feet) of the inside areas of a building, including all floors but not including attics..

HALFWAY HOUSE. A facility operated under the authority of the Texas Department of Criminal Justice for the Federal Bureau of Prisons for persons on release from more restrictive custodial confinement or initially placed in lieu of such more restrictive custodial confinement, wherein supervision, rehabilitation, and counseling are provided to mainstream residents back into society, enabling them to live independently.

HOME IMPROVEMENT SALES AND SERVICES. Retail sales, rental and related services of hardware, plumbing, electrical, heating, air conditioning, building supplies, tools and equipment, plants and garden products, patio furniture, swimming pools, spas and hot tubs, lighting fixtures, kitchen and bathroom fixtures and cabinets, paint, carpeting, floor coverings or wallpaper.

HOME OCCUPATION means any occupation or profession engaged in for monetary gain that is conducted within a dwelling unit or on the premises of a site of a residential use.

HOMELESS SHELTER. A facility which provides temporary housing to indigent, needy, homeless, or transient persons. This use may also provide ancillary services such as counseling and limited meal service for residents.

HOMEOWNERS' ASSOCIATION, COMMUNITY ASSOCIATION, OR PROPERTY OWNERS' ASSOCIATION means an association of property owners in a given area formed for the purpose of improving or maintaining the quality and/or character of the area by establishing minimum standards, responsibilities, quality controls, or other requirements relative thereto.

HOTELS. A building or group of buildings designed for and occupied as a temporary dwelling place which may provide additional services such as conference/meeting rooms and restaurants available to guests or the general public. This definition excludes bed and breakfast establishments and adult motels as defined in Chapter 26 of the Code of Ordinances.

HOSPITALS. State-licensed facilities providing medical, surgical, psychiatric, or emergency medical services to sick or injured persons. This classification includes facilities for in-patient or outpatient treatment, including drug and alcohol abuse programs as well as training, research, and administrative services for patients and employees.

INCIDENT means an occurrence of an action or situation that could have a negative or detrimental impact.

INDUSTRIALIZED HOME means a freestanding building designed for occupancy by a single household, constructed in one or more modules or constructed using one or more modular components, that is built at one location, then transported to a permanent site and installed on a permanent foundation.

INFRASTRUCTURE means any roadway or traffic control component, stormwater conveyance component, potable water component, and/or wastewater component as delineated on City of League City approved development documents.

LABORATORY, COMMERCIAL. Medical or dental laboratory services or photographic, analytical, or testing services in an establishment.

LIGHT TRESPASS means light that falls outside the boundaries of the property on which the lighting fixture is located.

LOCAL CONTACT PERSON (for Short-Term Rentals) means the owner/operator or designated agent who shall be available twenty-four (24) hours per day, seven (7) days per week for the purpose of: (1) responding in person within one hour to complaints regarding the condition, operation, or conduct of occupants of the short term rental; and (2) taking remedial action to resolve any such complaints.

LOT means an undivided tract or parcel of land that has been created in accordance with this UDC designated on a subdivision plat and filed on record with the appropriate County office.

LOT, CORNER means either a lot bound entirely by streets, or a lot at the intersection of two or more streets.

LOT DEPTH means the horizontal length of a straight line drawn from the midpoint of the property frontage to the midpoint of the total length of the rear property line. (Total length shall include line segments, arc lengths, etc.).

LOT, DOUBLE-FRONTAGE means an interior lot having frontage on two (2) non-intersecting streets, on opposite sides of the lot.

LOT, FLAG means a lot not meeting minimum lot frontage requirements on a public street and access to a public street is by a narrow strip of land (staff). The staff portion shall be no narrower than 40 feet and no longer than 175 feet.

LOT FRONTAGE means the property line adjacent to a street, which is the property address; it is also the front property line.

LOT LINE means the property lines bounding a lot.

LOT WIDTH means the distance, generally parallel to the front lot line, measured between side lot lines at the front building line.

MAIN STREET HISTORIC DISTRICT – An area within the corporate limits of the City as defined by Ordinance 97-38 adopted on July 8, 1997, or as hereafter amended.

MAINTENANCE AND REPAIR SERVICES. Establishments providing repair services for personal and household goods, such as household appliances, computers, television, audio or video equipment, office machines, furniture, home and garden equipment, footwear and leather goods, or building maintenance services. This classification excludes maintenance and repair of automobiles and other vehicles and equipment.

MANUFACTURED HOME is a structure designed for occupancy by a single household constructed on or after June 15, 1976, according to the rules of the U. S. Department of Housing and Urban Development (HUD), Title 6 constructions standards. Manufactured homes are built on a non-removable chassis, so they can be transported in one or more sections to the property where they will be used for permanent housing.

MARINAS AND DOCK. Private facilities for mooring, berthing, storing or securing 3 or fewer watercraft used primarily for non-commercial recreational use and also including private boat ramps.

MARINAS, PRIVATE. Facilities for launching, mooring, berthing, storing or securing 4 or more watercraft used primarily for non-commercial recreational use. Facility provides services and recreational facilities only for surrounding residents or club members and their guests. This classification includes homeowners' association docks and piers and yacht and boat clubs.

MARINAS, PUBLIC. Facilities for launching, mooring, berthing, storing or securing 4 or more watercraft used primarily for recreational use. Facility provides services to recreational watercraft and occupants thereof, including sanitary and other minor servicing and repair to watercraft while in the water, and sale of fuel and supplies. Provision of food, lodging, goods, beverages, recreation,

and entertainment as accessory uses.

MASONRY shall mean and include brick, stone, decorative concrete masonry unit, or other materials of equal characteristics laid up unit upon unit set and bonded to one another in mortar.

MASSAGE ESTABLISHMENTS AND MASSAGE SERVICES. Establishments providing massage services or on-call massage services by individuals licensed under Chapter 455, Massage Therapy of the Texas Occupational Code, excluding any activity defined by the City as a Sexually Oriented Business.

MASSING means the overall volume and shape of a building.

MASTER PLAN means the initial plan or map for all subdivisions to be developed in phases or sections. The master plan shall be submitted prior to or with the plat of the first section of development of a subdivision and with all sections thereafter. Changes anticipated for the master plan shall be approved in advance of all platting, and the master plan map and attendant overlays or plans corrected as the changes are anticipated.

MICRO-BREWERY, MICRO-DISTILLERY AND MICRO-WINERY. A facility in which beer, wine, or other alcoholic beverages are brewed, fermented, or distilled for distribution and consumption, and which possess the appropriate licenses from the State of Texas.

MOBILE FOOD VENDOR shall mean a business which sells food and/or drink items intended for immediate consumption and which utilizes as its point of sale a food truck, concession trailer, or similar vehicle that is continuously parked for at least four (4) hours on private property to conduct business.

NONCONFORMING LOT, STRUCTURE OR USE OF STRUCTURE means platted lots, structures and uses of lots or structures which were lawful before the ordinance from which this Article is derived was passed or before this Article was amended, but which would be prohibited, regulated or restricted under the terms of this Article or future amendments.

NUISANCE means an interference with the enjoyment and use of property, including, but not limited to, elements such as odors, liquid wastes, solid wastes, radiation, noise, vibration, smoke, glare or heat.

NURSERIES AND GARDEN SUPPLY STORES. Establishments engaged in the retail sale of any article, substance, or commodity related to the planting, maintenance, or harvesting of garden plants, shrubs, trees, packaged fertilizers, soils, chemicals or other nursery goods and related products in small quantities to the consumer and may include the retail of small garden power equipment.

NURSERIES AND LANDSCAPING MATERIALS, WHOLESALE. Establishments engaged in the storage, cultivation transplanting of live trees, shrubs or plants offered on the premises including items directly related to landscaping or gardening care and maintenance.

NURSING HOME. A facility licensed and regulated by the Texas Department of Aging and Disability Services that provided meals, resident care and services for persons who typically are admitted for periods of time exceeding 30 days. Such services include custodial and attendant care, routine and regular medical and nursing services. The term “nursing home” includes care homes, homes for the aged, convalescent homes, rest homes, and other related facilities not otherwise defined in this section, where such persons are mostly incapable of self-preservation due to age, physical or mental disability, or because of security measures not under the occupants’ control. This term excludes facilities that provide surgical or emergency medical service or that provide care for alcoholism, mental disease, drug addiction or communicable disease.

OFFICES. Firms or organizations that primarily provide professional, executive, management, or administrative services, such as accounting, advertising, architectural, city planning, computer software consulting, data management, engineering, environmental analysis, insurance, interior design, investment, graphic design, landscape design, law and real estate offices. This classification includes offices for a physician, dentist or chiropractor, as well as medical/dental laboratories incidental to the medical office use. It excludes banks and savings and loan associations and offices that are incidental to retail, production, storage, or other activities.

OIL OR CONDENSATE means a substance occurring naturally in the earth and composed mainly of mixtures of chemical compounds of carbon and hydrogen, with or without other nonmetallic elements such as sulfur, oxygen, and nitrogen. The compounds that compose it may be in the gaseous, liquid, or solid state, depending on their nature and on the existent conditions of temperature and pressure.

OPERATION SITE means the area used for development and production of oil, gas and all operational activities associated with an oil or gas well after drilling and completion activities are finished.

OPERATOR means the person listed on the appropriate Railroad Commission forms that is, or will be, actually in charge and in control of operations and maintenance related to drilling, production, and pipelines, including, without limitation, a unit Operator or Operator of Record in instances of multiple partners and general partnership. If the Operator, as herein defined, is not the lessee of any premises affected by the provisions of this Ordinance, then such lessee shall also be deemed to be an Operator. The lessees shall include all working interest owners.

OUTDOOR LIGHTS/LIGHTING means any exterior lighting equipment installed within the property line and outside the building envelopes, whether attached to poles, building structures, the earth or any other location and any associated lighting control equipment.

OVERSIZE VEHICLE shall mean any motor vehicle that exceeds twenty (20) linear feet and a height of nine (9) feet or any commercial motor vehicle.

OWNER means the person or entity that holds legal and/or equitable title to the subject property, as shown in real property records.

PARK DEVELOPMENT FUND. A special fund for the deposit of all sums paid for park acquisition and development from park dedication fees and fees in lieu of parkland for the

specific purpose of funding activities related to the acquisition, design, construction, maintenance, and improvements for existing and future parks in accordance with the Parks, Trails, and Open Space Master Plan.

PARKING AREA means the total area devoted to the parking and maneuvering of automobiles.

PARKING FACILITIES. Lots and garages offering parking to the public for a fee when such use is not incidental to another activity.

PARKING LOT OR STRUCTURE means an area or structure devoted to the parking or storage of automobiles, which may include a facility for servicing automobiles, provided such facility is primarily an internal function for the exclusive use of automobiles occupying the structure and creates no special problems of ingress and egress.

PARKING SPACE means a cast-in place asphalt or concrete riding surfaced area, enclosed or unenclosed, sufficient in size to store one automobile, together with a driveway connecting the parking space to a street or alley, permitting ingress and egress of an automobile.

PARKS AND RECREATION. Noncommercial parks, playgrounds, recreation facilities, and open spaces. This classification includes community centers, playing fields, courts, gymnasiums, swimming pools, picnic facilities, public festivals, public marinas, as well as related food concessions, including such facilities required by the City for new residential development that are operated and maintained by a homeowners' association.

PARKS, PRIVATE means a tract of land utilized for playgrounds, recreational facilities, community centers, playing fields, courts, gymnasiums, swimming pools, and picnic facilities operated and maintained by a homeowners' association.

PARKS, PUBLIC means a tract of land, excluding trails, for recreational use owned and operated by a public authority, such as the city or county, for the express use of the general public.

PARKS, TRAILS, AND OPEN SPACE MASTER PLAN. A plan, approved by the city council, identifying League City's parks and open space goals and establishing the most effective plans and policies to achieve these goals by providing the City with a strategy to acquire and develop land for use as parks or open space throughout the city.

PATIO means a covered or uncovered paved area at ground level, immediately adjacent to a building

PAWN SHOPS. Establishments engaged in the buying or selling of new or secondhand merchandise and offering loans in exchange for personal property.

PERMIT means a document issued by the City allowing a person to undertake certain activities at a specified site/location as provided for in this ordinance.

PERSON means any person, partnership, firm, corporation, governmental agency or other legal

agency.

PERSONAL INSTRUCTIONAL SERVICES. Provision of instructional services or facilities, including photography, fine arts, crafts, dance or music studios, driving schools, diet centers, reducing salons, martial arts, yoga and fitness studios, but excludes uses classified as colleges, public or private.

PERSONAL SERVICES. Provision of recurrently needed services of a personal nature. This classification includes barber and beauty shops, tanning salons, seamstresses, tailors, shoe repair, dry cleaners (excluding plants), self-service laundries, psychic services, and the like.

PIPELINES. Any intrastate pipeline or pipe of any size, denomination or characteristic, that is used to transport any and all materials of any and all descriptions and used for any and all purposes, including flowlines and intra-lease piping. This classification excludes pipelines for public utility operations.

PLANNING AND ZONING COMMISSION means the City of League City Planning and Zoning Commission.

PLAT means a map depicting a tract of land prepared in conformance with Local Government Code, Chapter 212 and the provisions of this Code.

PLAT, AMENDED means a map amending the lots in a previously recorded subdivision. All property that was previously part of the lot(s) being amended shall be included in the boundaries of the amended plat, regardless of ownership. (All property does not have to be included if the property was platted prior to September 11, 1969.) Amended plats are approved administratively by the city planner or designee. An amended plat shall only be utilized for one or more of the following purposes:

1. to correct an error in a course or distance or add a course or distance that was omitted;
2. to correct an error in a real property description;
3. to indicate monuments set after the death, disability, or retirement from practice of the engineer or surveyor responsible for setting monuments;
4. to show the location or character of a monument that has been changed in location or character or that is shown incorrectly as to location or character on the preceding plat;
5. to correct any other type of scrivener or clerical error or omission previously approved by the municipal authority responsible for approving plats, including lot numbers, acreage, street names, and identification of adjacent recorded plats;
6. to relocate one or more lot lines, as long as the amendment does not:
 1. attempt to remove recorded covenants or restrictions;
 2. increase the number of lots;
 3. create or require the creation of a new street; or
 4. make necessary the extension of municipal facilities.

PLAT, FINAL means a map illustrating the proposed subdivision or development of land having been certified to by a registered professional land surveyor and submitted to the City for approval by the Planning and Zoning Commission.

PLAT, MINOR means a map that involves four (4) or fewer lots fronting on an existing street and not requiring the creation of any new street or the extension of municipal facilities. Minor plats are approved administratively by the city planner or designee. A copy shall be recorded in the Galveston County Clerk's Office or Harris County Clerk's Office, as appropriate.

PLAT, MINOR (REPLAT) means a revised map that involves four (4) or fewer lots that were part of a previously recorded subdivision or portion thereof, fronting on an existing street and not requiring the creation of any new street or the extension of municipal facilities that may be administratively approved.

PLAT, PRELIMINARY means a map illustrating the proposed subdivision or development of land which will be submitted for approval before preparation of the final plat.

PLAT, PRELIMINARY/FINAL is a combination of the preliminary and final plats for subdivisions that typically do not require phasing.

PLAT, REPLAT means a revised map showing the subdivision of one or more lots that were part of a previously recorded subdivision or portion thereof. All property that was previously part of the lot(s) being subdivided shall be included in the boundaries of the replat, regardless of ownership. (All property does not have to be included if the property was platted prior to September 11, 1969.) When recorded, the replat will supersede the previous plat (or portion) filed there.

PLAT VACATION means an instrument declaring that a plat and its dedications be vacated or cancelled and that the land reverts to the original survey or any underlying subdivision.

PORCH means a covered or uncovered structure, consisting of a deck which is at or near the height of the building foundation and accessed by steps.

PRODUCTION INDUSTRY, ARTISAN. Establishments primarily engaged in onsite production of goods by hand manufacturing, involving the use of hand tools and small-scale equipment.

PRODUCTION INDUSTRY, GENERAL. Manufacturing of products, from extracted or raw materials, or recycled or secondary materials, or bulk storage and handling of such products and materials. This classification includes: food manufacturing; beverage and tobacco product manufacturing; textile mills; textile product mills; apparel manufacturing; leather and allied product manufacturing; wood product manufacturing; paper manufacturing; chemical manufacturing; plastics and rubber products manufacturing; nonmetallic mineral product manufacturing; primary metal manufacturing; and fabricated metal product manufacturing.

PRODUCTION INDUSTRY, LIMITED. The manufacturing of finished parts or products, primarily from previously prepared materials. This classification includes: printing and related support activities; machinery manufacturing; computer and electronic product manufacturing; electrical equipment, appliance, and component manufacturing; transportation equipment manufacturing; furniture and related product manufacturing; and miscellaneous.

PROJECT shall mean an endeavor over which the City exerts its jurisdiction and for which one or more permits are required to initiate, continue, or complete the endeavor.

PROPERTY means the land (whether leasehold or in fee simple) and the building; all improvements and structures thereon; and all easements, rights and appurtenances belonging thereto.

PROTECTED USE means a dwelling unit; religious assembly; hospital building; public or private school boundary; day care boundary; or public, private or Homeowners' Association park.

PUBLIC AND PRIVATE UTILITY SERVICES means city water and wastewater services and private utility company services.

PUBLIC HEARING means a public meeting advertised in advance wherein the public has an opportunity to comment, both in favor and opposition, on matters under consideration.

PUBLIC MAINTENANCE FACILITIES. Facilities providing maintenance and repair services for vehicles and equipment and areas for storage of equipment and supplies. This classification includes corporation yards, equipment service centers, and similar facilities.

PUBLIC NOTICE means publication of a notice in a newspaper for general circulation in the City designated for that purpose by the City Council.

PUBLIC PROPERTY means any and all property located within the confines of the City and owned by the City or held in the name of the City by departments, within the City government.

PUBLIC SAFETY FACILITIES. Facilities for public safety and emergency services, including facilities that provide police and fire protection including training facilities.

PUMP STATIONS. Facilities utilized for the treatment, regulation and extraction of materials conveyed through pipelines, including but not limited to compressor stations, inline booster stations, and pigging stations.

RAILROAD COMMISSION means the Railroad Commission of Texas or its successor(s).

RECREATION AND ENTERTAINMENT, LARGE-SCALE. This classification includes large, generally outdoor facilities, although some facilities may be indoor, including: sports stadiums and arenas; amusement and theme parks; racetracks; golf courses and country clubs; driving ranges; fitness and recreational sports centers, including fitness centers, gymnasiums, handball, racquetball, or tennis club facilities, ice or roller skating rinks, swimming or wave pools, bowling centers; entertainment complexes and theaters; drive-in theaters; miniature golf courses; archery or shooting ranges; riding stables; campgrounds; etc.

RECREATION AND ENTERTAINMENT, SMALL-SCALE. This classification includes small, generally indoor facilities, although some facilities may be outdoor, including: billiard parlors, poolrooms, amusement arcades having more than 5 coin-operated machines, dance halls,

theaters, and gambling facilities, including bingo parlors and off-track betting.

RECREATIONAL VEHICLE (RV) means a transportable temporary dwelling constructed to be towed by a motor vehicle on its own chassis or constructed with an integral drive train to be operated over public streets and highways under regular highway license without a permanent foundation, for temporary living. This trailer or vehicle shall be built on a chassis and designed for travel, recreation and vacation use and shall have been permanently identified by the manufacturer. The definition specifically excludes mobile homes.

RECREATIONAL VEHICLE PARK means a platted tract of land or tract of record prior to 1969 of at least one acre upon which three or more recreational vehicles are occupied for dwelling or sleeping purposes on a temporary basis, regardless of whether or not a charge is made for such accommodations. The term "park," where appropriate in this Article, shall mean recreational vehicular park.

RECYCLING COLLECTION. A facility for the deposit of recyclable materials. Recyclable materials are not processed in the facility, except for sorting and batching.

RE-DRILL means re-completion of an existing well by deepening or sidetrack operations extending more than one hundred fifty (150) feet from the existing well bore.

RELIGIOUS ASSEMBLY. Facilities for religious worship and other religious ceremonies with incidental religious education, offices, social services, and community programs but not including private schools.

REPLACEMENT COST (for existing protected trees) means the cost to replace existing Protected Trees proposed to be removed from a site as measured in caliper inches.

RESEARCH AND DEVELOPMENT. Establishments primarily engaged in the research, development, and controlled production of high technology electronic, industrial or scientific products or commodities for sale. This classification includes biotechnology firms and manufacturers of nontoxic computer components.

RESIDENTIAL includes all forms of single-family and multi-family housing.

RESPONSIBLE PERSON means a record owner of the real property at which a Tree Impact Activity occurs, or the person that actually engages in the Tree Impact Activity.

RESTRICTED RESERVE – HOA PARKS/FACILITIES/SITES. The designation for those individual parcels of land created within a subdivision, which are established to accommodate sites for parks and amenities that are owned, maintained, and used solely by the residents of a particular subdivision and which are therefore not open to the public. Such parks or amenities are subject to Parks Board approval and shall have an area of no less than one quarter (1/4) acre. Reserve tracts that do not abut a public street shall be connected thereto by a narrow strip of land (staff), which staff portion shall be no narrower than 40 feet and no longer than 175 feet. The staff portion shall be restricted to serve that restricted reserve only.

RESTRICTED RESERVE – LANDSCAPE AMENITY means the designation for those individual parcels of land created within a subdivision that are not divided into lots nor required by the Parks Board, but are established to serve as landscape amenities, typically along streets. These parcels are not required to meet lot size requirements. Any easements on this reserve that will result in the removal of landscaping or will interfere with the integrity of the landscape amenity shall require a replat. Reserve tracts that do not abut a public street shall be connected thereto by a narrow strip of land (staff), which staff portion shall be no narrower than 40 feet and no longer than 175 feet. The staff portion shall be restricted to serve that restricted reserve only.

RESTRICTED RESERVE – PARKLAND DEDICATION. The designations for those individual parcels of land created within a subdivision, which are established to accommodate a site for dedication of a specific area of land for the express purpose of being used to provide or purchase land for parks within the City. Such parkland dedication is subject to approval by City Council. Reserve tracts that do not abut a public street shall be connected thereto by a narrow strip of land (staff), which staff portion shall be no narrower than 40 feet and no longer than 175 feet. The staff portion shall be restricted to serve that restricted reserve only.

RESTRICTED RESERVE - UTILITIES. The designations for those individual parcels of land created within a subdivision, which are established to accommodate a site for utility facilities such as water wells and storage areas, wastewater treatment plants, and electrical power stations. These parcels are not required to meet lot size requirements. Reserve tracts that do not abut a public street shall be connected thereto by a narrow strip of land (staff), which staff portion shall be no narrower than 40 feet and no longer than 175 feet. The staff portion shall be restricted to serve that restricted reserve only.

RETAIL SALES. Establishments engaged in sales of goods, including, but not limited to: furniture and home furnishings; electronics and appliances; clothing and shoes; jewelry, luggage and leather goods; sporting goods and hobbies; books, periodicals and music; tobacco sales; department stores; miscellaneous goods, such as florists, office supplies and stationary, gifts and novelties, etc. This classification includes the retail sale or rental of merchandise not specifically listed under another use classification.

RHYTHM means the repetitive use of a group of visual elements to establish a recognizable pattern. It can include architectural elements, such as bays, windows, etc., as well as building setbacks.

RIGHT-OF-WAY means real property interest in a parcel or strip of land that is conveyed or dedicated to the public or other specified entity for purposes of the right of passage across said parcel or strip and/or for the right to install, maintain, and operate public or private infrastructure and appurtenances, including, but not limited to, street paving, sidewalks and trails, drainage facilities, water and wastewater facilities, and other public utilities (electric power, phone, gas; and cable television lines).

SCALE means the height and proportions of a building and its components.

SCHOOLS, PUBLIC OR PRIVATE. Facilities for educational and/or classroom purposes operated by public or private educational institutions offering a general course of study at primary, middle, or high school levels, including study centers, child care and limited child care centers, vocational and trade programs that are incidental to the operation of such schools.

SELF-STORAGE. Establishments offering facilities for personal property storage, including mini- warehouses.

SETBACK means the minimum distance that any building or structure must be separated from a street right-of-way or lot line.

SETBACK LINE means a line delineating the minimum allowable distance between a building or structure and the adjacent lot line and/or street right-of-way except as otherwise provided. Setback lines shall be measured perpendicularly from the front, side, or rear property line and/or right-of way to the building or structure.

SEXUALLY ORIENTED BUSINESS means an establishment whose preponderant business is the offering of materials, products, and/or services that have sexual arousal, sexual gratification and/or sexual stimulation as their dominant theme and which are not customarily open to the general public because they exclude minors by virtue of their age as a prevailing business. This classification does not include any establishment offering professional services conducted, operated, or supervised by medical practitioners, physical therapists, nurses, massage therapists, chiropractors, psychologists, social workers, marriage and family counselors, osteopaths, and persons holding unrevoked licenses or certificates under applicable Texas State law or accreditation from recognized programs when performing functions pursuant to the respective license or certificate.

SHIPPING CONTAINER means a type of container that could be used for the transport, shipping, or hauling of materials or goods by land, sea, or air; capable of being moved or mounted by rail, truck, or boat. This definition includes steel sea or oceangoing containers marked with the American Bureau of Shipping's emblem or meeting the International Standard Organization's standards which can be detached from a trailer, chassis or frame, and which were formerly used for transporting sea or oceangoing cargo. This definition includes the following terms: moving container, storage container, cargo container, and transport container.

SHORT-TERM RENTAL (STR) means a property where all or a portion of a residential dwelling unit, including an apartment or accessory building, may be rented or leased for compensation to members of the public for use as sleeping accommodations on a temporary or transient basis of less than thirty (30) consecutive days. A short-term rental does not include a hospital, sanitarium, or nursing home; or a dormitory or other housing facility owned or leased and operated by an institution of higher education.

SIDEWALK means an improved path between the curb lines or lateral lines of a roadway and the adjacent property lines or in a sidewalk easement that is constructed in accordance with the City's most current General Design and Construction Standards and designed or ordinarily used for pedestrian travel.

SIGN means any form of publicity or advertising which directs attention to an individual, business, commodity, service, activity, or product, by means of words, lettering, parts of letters, figures, numerals, phrases, sentences, emblems, devices, trade names, or trademarks, or other pictorial matters designed to convey such information and displayed by means of print, bills, posters, panels, or other devices on an open framework, or attached or otherwise applied to stakes, posts, poles, buildings, or other structures or supports.

1. **Abandoned Sign** – An on-premise sign, attached or detached, advertising a business that has closed or ceased operation for a period of one year, or as otherwise provided by law, or where the operations permit has been revoked or expired.
2. **Awning Sign** – A permanent sign that is directly applied, attached or painted onto an awning, which is a retractable or non-retractable projection, shelter or structure of rigid canvas, metal, wood, or other similar approved material.
3. **Dilapidated Sign** – Any surface element, background, panels, or support of any sign that has finished materials that are missing, broken, bent, cracked, decayed, dented, harmful, hazardous, illegible, leaning, splintered, ripped, torn, twisted, or unsightly.
4. **Menu Board Sign** – Erected in conjunction with uses that incorporates a drive-through or drive-in and generally used to provide service and/or product options and pricing for patrons who remain in the vehicle.
5. **Monument Sign** – A freestanding sign set on a ground monument base. Monument signs shall include pedestal signs.
6. **Movement Control Sign** – A sign which directs vehicular or pedestrian movement within or on the premises such as, but not limited to, entrance, exit, or overhead clearance, and which does not advertise the name of the establishment.
7. **Portable sign** – Any sign designed or intended to be relocated from time to time, whether or not it is permanently attached to a structure or is located on the ground.
8. **Projecting sign** – A sign attached and projecting out from a building face or wall, generally at a right angle to the building a maximum of 12 inches.
9. **Pylon sign** – A freestanding sign, permanently affixed to the ground by supports, but not having the appearance of a solid base.
10. **Subdivision Entry sign** – A sign mounted to a screening wall or engraved into a masonry block which identifies a development, either residential or non-residential, and generally refers to the platted name of the subdivision.
11. **Temporary sign** – Any sign that is not intended for permanent use and that is typically utilized for advertisement of seasonal specials or special events. Temporary signs include, but are not limited to, banners, inflatable devices, and wind flags, etc.
12. **Vehicular sign** – Any sign on or in a moving vehicle or on any vehicle parked temporarily, incidental to its principle use for transportation. This definition shall not include signs or lettering on company vehicles that advertises only the company name, address, and phone number. This definition exempts magnetic signs on the sides and rears of cars.
13. **Wall sign** – A sign erected against an exterior wall, erected parallel to a wall or painted directly onto a wall.
14. **Window sign** – A sign either attached on a window (by painting or other adhesive) or hanging within the window that generically advertises a commodity, service, activity, or product by means of words, lettering, parts of letter, figures, numeral, phrases,

sentences, emblems, devices, trade names, or trademarks, or other pictorial matters.

SIGN, OFF-PREMISES – A sign that identifies or advertises a business, person, activity, goods, products, entertainment or services at a location other than where the sign is located.

SIGN, ON-PREMISES – Any sign which identifies or advertises a business, person, activity, goods, products, entertainment or services primarily sold, offered, or conducted, for sale on the premises where the sign is located, installed, maintained, or to which it is affixed when such premises is used for business purposes.

SITE DEVELOPMENT PLAN means a graphic and informative representation of a specific design solution for a development, meeting the requirements of this article.

SLEEPING AREA means a room within a dwelling designed or used for sleeping, including a bedroom. Tents, hammocks, recreational vehicles and/or other vehicles and outdoor areas shall not be considered a sleeping area.

SPECIAL EVENT means a group activity including, but not limited to a performance, meeting, assembly, contest, exhibit, ceremony, parade, athletic competition, reading, or picnic that is intended to provide public benefit to the entire community as a whole.

STONE shall include naturally occurring granite, marble, limestone, slate, river rock, and other similar durable all-weather stone that is customarily used in exterior building construction; shall include cast or manufactured stone products so long as such has a highly texturized stone-like appearance, is unpainted upon, and is demonstrated to be durable and maintenance free; such shall be no less than three and five-eighths (3-5/8) inches in thickness when applied as a veneer.

STOOP means a set of steps and small landing, which may be covered or uncovered.

STOREFRONT means the ground-floor façade of a commercial building, which contains the primary entrance to the building as well as one or more display windows.

STORY means that part of a building between the surface of a floor and the floor or roof immediately above (refer to Floor, ground level).

STREET means a strip of land, privately or publicly owned, which affords the principal means of access to abutting property.

1. **Collector** means a street designed to provide both local access and traffic circulation within residential neighborhoods, commercial and industrial areas. They differ from the arterial systems in that collector streets may penetrate identifiable neighborhoods. Collector streets distribute traffic between the arterial and local street systems.
2. **Cul-de-sac** means a street which is part of the local street system and closed on one end in a circular or other approved pattern meeting minimum radius requirements.
3. **Local or residential street** means a street designed to serve the local needs of the neighborhood and to provide access from abutting residential properties to other streets.
4. **Major arterial** means a continuous street system serving moderate to long trip lengths that distributes traffic from the freeway/expressway system to and from the metropolitan area.

The focus of major arterials is to provide mobility rather than land access. Major arterials should not penetrate identifiable neighborhoods.

5. **Minor arterials** accommodate moderate trip lengths at a somewhat lower level of mobility. Minor arterials provide a lower level of mobility and distribute traffic to smaller geographic areas than major arterials. Minor arterials should not penetrate identifiable neighborhoods but can provide more direct access to abutting property.
6. **Private street or non-dedicated right-of-way** means a non-dedicated street on private property.
7. **Stub street** means a street which terminates at the boundary of a subdivision for future access to adjoining unplatted or undeveloped property.

STREETSCAPE means the visual elements of a street, including the road, adjoining buildings, sidewalks, street furniture, trees and open spaces, etc.

STRUCTURE means that which is built or constructed, not including paving for parking.

SQUARE FOOTAGE means the area of a building included within surrounding exterior walls, exclusive of courts, decks, patios, and porches.

SUBDIVISION means the division of a tract or parcel of land, by means of a plat, into 2 or more lots or other divisions of land, for the purpose of transfer of ownership or building development, expressly excluding development for agricultural purposes. The term does not include the division of land into parts greater than 5 acres where each part has access and no public improvements are being dedicated.

SURVEYOR means an individual duly authorized under the current Land Surveying Practices Act of 1979, as amended, Vernon's Ann. Civ. Stat. art. 5282c, to practice the profession thereof, who shall be responsible for all descriptions and plats to be recorded in official records.

TANK means a container, covered or uncovered, used in conjunction with the drilling or production of gas or other hydrocarbons for holding or storing fluids.

TECHNICAL ADVISOR means such person(s) familiar with and educated in the oil or gas industry or the law as it relates to oil or gas matters who may be retained from time to time by the City.

TEMPORARY CONSTRUCTION STRUCTURE means a trailer, building or shelter for temporary office use, authorized by permit, used in connection with a development or building project for temporary on-site administrative and supervisory functions. It shall be removed upon completion of the project.

TEMPORARY SALES. Establishments engaged in temporary or seasonal sales. Typical uses include Christmas tree lots and pumpkin lots.

TERRACE means a raised, open, flat area in a landscape near a building or atop a building.

TRACT means a parcel of land.

TRANSOM WINDOW means a lite placed above a horizontal structural beam or bar, or a horizontal member that separates a door from the lite above it. A single transom window is often located above a door, while a ribbon (series) of transom windows were traditionally located above a storefront, above an awning or canopy, to provide more natural light to the interior space.

TRANSPORTATION PASSENGER TERMINALS. Facilities for passenger transportation operations. This classification includes rail stations, bus terminals, ferry terminals, urban and regional transit stations, and scenic and sightseeing facilities, but does not include airports, heliports, or seaports.

TREE means a woody plant having a well-defined trunk(s), a defined crown and a mature height of at least 15 feet.

1. ***Invasive Tree*** refers to a tree that threatens native trees by competing for resources and habitat as noted in the Invasive Tree List
2. ***Large Tree*** is a tree of a species listed under “Large Trees” the Protected Tree List in this article.
3. ***Park Tree*** includes trees, shrubs, bushes and all other woody vegetation that is planted in public parks and all areas owned by the City, or to which the public has free access as a park.
4. ***Protected Tree*** is any Large Tree that measures at least twelve (12) caliper inches, any Small Tree that measures at least six (6) caliper inches, or any Significant Tree.
5. ***Significant Tree*** is any tree of the Oak or Pecan species that measures at least thirty-eight (38) caliper inches.
6. ***Small Tree*** is a tree of a species listed under “Small Trees” the Protected Tree List in this article.
7. ***Street Tree*** includes trees, shrubs, bushes and all other woody vegetation that is planted between the edge of a paved roadway, whether public or private, and the sidewalk, or in the absence of a sidewalk, planted within ten (10) feet of the edge of the paved roadway.

TREE CANOPY represents the total vertical transect of all trees on a single site or within a designated area beginning at DBH and extending to the crown of all trees within the area.

TREE DISPOSITION PLAN specifies how trees on the protected tree list will be protected from development and pre-development activity proposed at a particular site. Such plan includes the preliminary route of utilities and tree protected zone limits, as defined in this Article III, and a proposed development footprint for all protected trees.

TREE IMPACT ACTIVITY means any action that may result in the decline in health and/or death of a tree, including but not limited to: pruning of large limbs, tree topping, destruction of bark leading to scarring on trunk, or activities (such as construction and/or soil compaction) conducted within the Critical Root Zone.

TRUCK WEIGH STATIONS. Facilities for weighing commercial trucks.

UNDERTAKING, FUNERAL AND INTERMENT SERVICES. Establishments primarily engaged in the provision of services involving the care, preparation or disposition of human dead. Typical uses include funeral parlors, crematories, or mortuaries.

UTILITY mean any facility for use, i.e., facilities for water, wastewater and storm drainage, gas, telephone lines, electricity, cable television, etc.

UTILITY LINE means the facilities provided by a municipality or a franchised or other utility company for the distribution or collection within the city of gas, water, sewage, surface drainage water, electric power, telephone service, cable television, or fluid used for thermal control of buildings.

UTILITY, MAJOR. Generating plants, electrical substations, gas substations, solid waste collection, including transfer stations and materials recovery (recycling processing) facilities with no public drop off, solid waste treatment and disposal, flood control or drainage facilities, water or wastewater treatment plants, and similar facilities of public agencies or public utilities. This classification excludes any activity classified under Hazardous Waste Management.

UTILITY, MINOR. Public or regulated utility facilities that are necessary to support established uses and involve only minor structures such as electrical distribution lines and underground water and sewer lines, and small non-commercial recycling collection facilities.

VALUE OF BUILDING shall mean that assessed value of the structure as determined by the appraisal district, or authorized appraising entity.

VARIANCE means a governmentally issued right to deviate from or vary one or more standards applicable to a development application which because of special conditions or circumstances peculiar to the parcel and not the result of applicant actions, would result in unnecessary and undue hardship.

VESTING shall mean the right to undertake and complete the development and use of property under the adopted rules and regulations that were in place at the time the application for the applicable permit or project was made to the City.

WAREHOUSING AND INDOOR STORAGE. Storage of commercial goods prior to their distribution to wholesale and retail outlets within an enclosed building. This classification excludes personal property storage, including mini-warehouses, and freight/truck terminals.

WAREHOUSING AND OUTDOOR STORAGE. Storage of vehicles or commercial goods in open lots.

WAREHOUSING AND OIL AND GAS STORAGE. Includes tank farms and outdoor facilities for the storage of oil and gas.

WELL DRILLING, OIL AND GAS. Digging or boring a well for the purpose of exploring for,

developing or producing oil, gas, or other hydrocarbons, or for the purpose of injecting gas, water or any other fluid or substance into the earth.

WHOLESALE AND DISTRIBUTION WITH STORE FACILITIES. Facilities for the sale of merchandise and bulk goods at discount prices for individual consumption, including membership warehouse clubs and superstores.

WHOLESALE AND DISTRIBUTION, WITHOUT STORE FACILITIES. Facilities for indoor or outdoor storage and the non-store retail and wholesale distribution of merchandise and bulk goods, such as electronic shopping, mail-order houses, and other direct-selling establishments. This use classification excludes sale of goods at discount prices for individual consumption.

WELL BORE means a hole drilled by the bit for the purposes of oil and gas exploration.

WORKOVER means re-completion or re-entry of existing well within the existing bore hole or by deepening or sidetrack operations in an effort to secure production where there has been none, restore production that has ceased, or increase production.

WRECKING, JUNK, OR SALVAGE YARD (AUTO, STEEL, BUILDING MATERIALS) AND TOWING SERVICES. A yard or building the primary use of which is for motor vehicles, parts of motor vehicles, building materials, or machinery to be stored, dismantled and/or offered for sale in the open as whole units, as salvaged parts or as scrap or processed metal. The facility may also provide towing/transporting of damaged, inoperable or impounded motor vehicles.



Planning and Development Department

DEVELOPMENT HANDBOOK

March 2021

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GENERAL INFORMATION

WELCOME

December 6, 2018

Welcome to the City of League City Zoning and Development Handbook. The goal of this handbook is to consolidate all of the City's submittal requirements into one place for easy access for citizens and developers. The City is striving to simplify our processes and help the development community move seamlessly through the development process. We request that the development community provide input and feedback so that we may continue to improve upon our current processes.

Regards,

David Hoover, AICP
Director of Planning and Development

NOTE: As of March 2020, all submittals are accepted in digital format only. No paper copies of any application should be submitted to the Planning or Building Departments. Building Permit submittals should be submitted to building@leaguecitytx.gov; Planning project submittals should be submitted to planning@leaguecitytx.gov.

MEETING DATES

Meetings

While meeting dates and times are subject to change, the date, time, and place of regularly scheduled meetings are as follows:

City Council Meetings

2nd and 4th Tuesdays of every month

Work Session (if necessary): 5:00pm

Regular Session: 6:00pm

City Council Chambers

200 W. Walker St.

Information about our City Council: <http://leaguecity.com/citycouncil>

Livestream or watch archived meetings: <http://leaguecitytx.swagit.com/live-chambers>

Planning & Zoning Commission Meetings

1st and 3rd Mondays of every month

Regular Session: 6:00pm

City Council Chambers

200 W. Walker St.

Information about our Planning & Zoning Commission: <http://www.leaguecity.com/pandz>

Livestream or watch archived meetings: <http://leaguecitytx.swagit.com/live-chambers>

Zoning Board of Adjustment Meetings

1st Thursday of every month

Regular Session: 6:00pm

City Council Chambers

200 W. Walker St.

Information about our Zoning Board of Adjustment: <http://leaguecity.com/index.aspx?nid=1773>

Livestream or watch archived meetings: <http://leaguecitytx.swagit.com/live-chambers>

Historic Commission Meetings

3rd Thursday of every month

Regular Session: 6:00pm

City Council Chambers

200 W. Walker St.

Information about our Historic Commission: <http://leaguecity.com/index.aspx?nid=1771>

Livestream or watch archived meetings: <http://leaguecitytx.swagit.com/live-chambers>

DEVELOPMENT REVIEW COMMITTEE

Purpose

The Development Review Committee (DRC) is comprised of members of various City departments that work to ensure each submission is compliant with the League City Development Codes. The DRC meets weekly to review applications and will work to meet with applicants to discuss a submission.

Planning (500 West Walker):

Planning Department: Main Line	281.554.1080	
David Hoover, Director of Development Services	281.554.1450	david.hoover@leaguecitytx.gov
Frankie Legaux, Assistant Director P&D	281.554.1084	frankie.legaux@leaguecitytx.gov
Kris Carpenter, Planning Manager	281.554.1098	kris.carpenter@leaguecitytx.gov
Mark Linenschmidt, Senior Planner	281.554.1078	mark.linenschmidt@leaguecitytx.gov
Masood Malik, Senior Planner	281.554.1077	masood.malik@leaguecitytx.gov
Janice Norman, Senior Planner	281.554.1079	janice.norman@leaguecitytx.gov
Sallye Clark, Planning Technician	281.554.1081	sallye.clark@leaguecitytx.gov

Engineering (500 West Walker):

Engineering Department: Main Line	281.554.1444	
Christopher Sims, Director of Engineering	281.554.1440	christopher.sims@leaguecitytx.gov
Matthew Brown, Assistant City Engineer	281.554.1439	matthew.brown@leaguecitytx.gov
Jack Murphy, Senior Civil Engineer for Drainage	281.554.1430	jack.murphy@leaguecitytx.gov
Alan R. Nichols, Engineering Technician	281.554.1435	alan.nichols@leaguecitytx.gov
Donna Ofsanko, Executive Assistant Engineering	281.554.1445	donna.ofsanko@leaguecitytx.gov
Alex Noel, Floodplain/Storm water Mgmt. Coordinator	281.554.1428	alex.noel@leaguecitytx.gov
Charles Marcus, Engineering Technician	281.554.1434	charles.marcus@leaguecitytx.gov
Sonia Philips, Floodplain Administrator/Drainage Eng.	281.554.1498	sonia.phillips@leaguecitytx.gov

Building (500 West Walker):

Building Department: Main Line	281.554.1429	
Building Official, David Reagan	281-554-1415	david.reagan@leaguecitytx.gov
Barbara Roberts, Plans Examiner	281.554.1413	barbara.roberts@leaguecitytx.gov
Elizabeth Rodriguez, Plans Examiner	281.554.1422	elizabeth.rodriguez@leaguecitytx.gov
Kate Hartis, Administrative Assistant	281-554-1425	kate.hartis@leaguecitytx.gov

Utilities (1505 Dickinson, 1535 Dickinson Ave, 601 Wisconsin Ave, 5123 ½ Candlewood):

Jody Hooks, Director of Public Works	281.554.1321	jody.hooks@leaguecitytx.gov
Tommy Arredondo, Water Superintendent	281.554.1040	tommy.arredondo@leaguecitytx.gov
Chris Svahn, Utility Maintenance Supervisor	281.554.1392	chris.svahn@leaguecitytx.gov
Phil Bryan, Maintenance Supervisor	281-554-1322	phil.bryan@leaguecitytx.gov
Susie Blake, Wastewater Superintendent	281.554.1323	susie.blake@leaguecitytx.gov
Jayne Gilker, Administrative Assistant	281.554.1320	jayne.gilker@leaguecitytx.gov
Eric Combs, Pre-Treatment Technician	281.554.1327	eric.combs@leaguecitytx.gov
Alex Trujillo, Water Production Supervisor	281.554.1043	alex.trujillo@leaguecitytx.gov
Ruben Leos, Water Production Supervisor	281.554.1045	ruben.leos@leaguecitytx.gov
Heather McKnight, City Arborist	281.554.1441	heather.mcknight@leaguecitytx.gov
Bryan Eastham, Lab Supervisor/Pre-Treatment Coordinator	281-554-1318	bryan.eastham@leaguecitytx.gov
Stephanie Hendrickson, Pre-Treatment Coordinator	281.554.1318	stephanie.hendrickson@leaguecitytx.gov

Fire (600 West Walker):

Gary Warren, Fire Chief	281.554.1478	gary.warren@leaguecitytx.gov
Tommy Cones, Asst. Fire Chief/Fire Marshal	281.554.1291	tommy.cones@leaguecitytx.gov
Randall Loydrake, Deputy Fire Marshal	281.554.1293	randall.loydrake@leaguecitytx.gov
Bradley Bass, Deputy Fire Marshal	281.554.1297	bradley.bass@leaguecitytx.gov
Valerie Salazar, Administrative Assistant	281.554.1290	valerie.salazar@leaguecitytx.gov

Parks Department (512 2nd Street):

Chien Wei, Director of Parks & Cultural Services	281.554.1187	chien.wei@leaguecitytx.gov
John Orsag, Parks Coordinator	281.554.1156	john.orsag@leaguecitytx.gov

GIS/Addressing (500 West Walker):

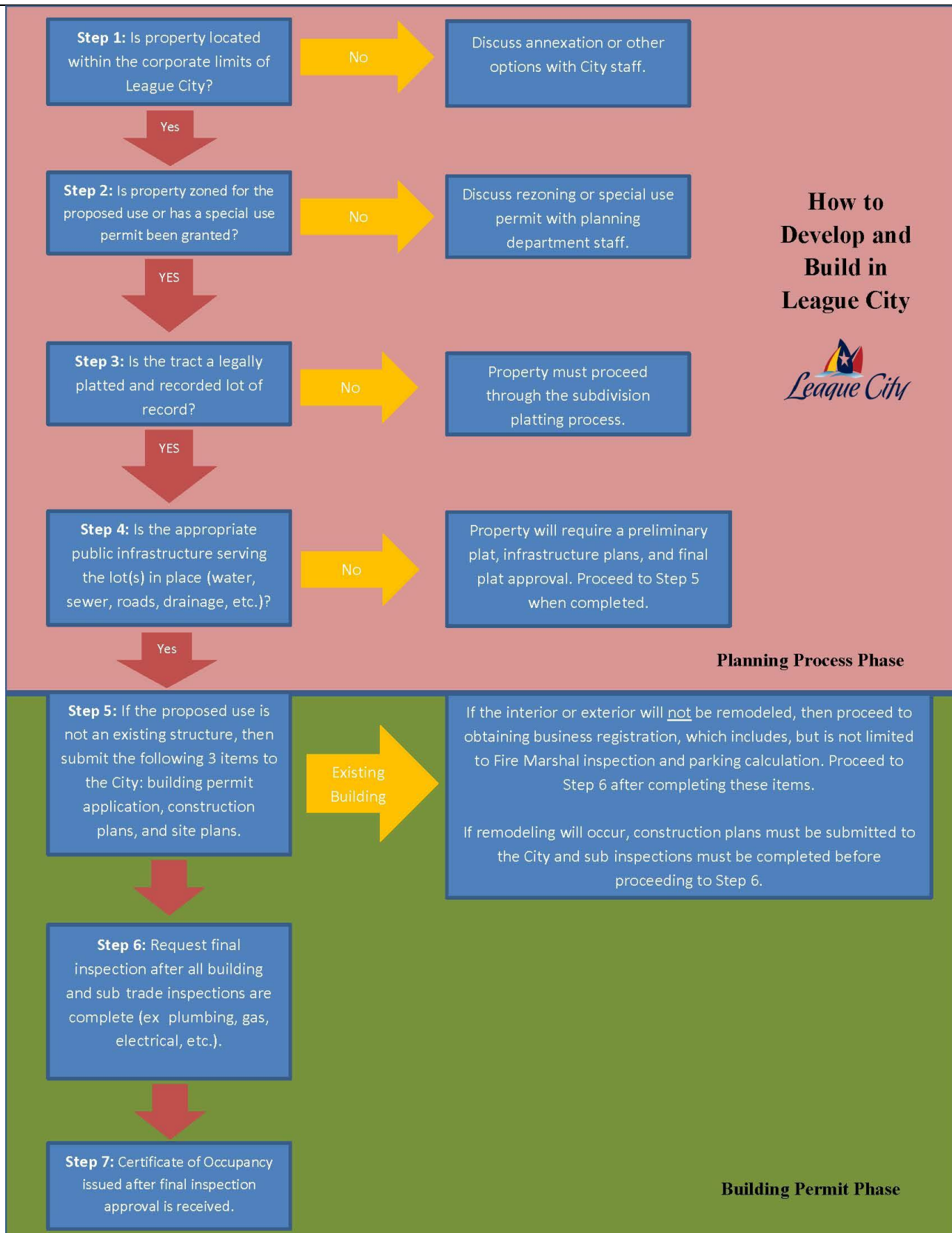
Rick Brezik, GIS Coordinator	281.554.1432	rick.brezik@leaguecitytx.gov
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Economic Development (300 W Walker):

Scott Livingston, Economic Development Director	281.554.1036	scott.livingston@leaguecitytx.gov
Devin DePascal, Economic Development Coordinator	281.554.1179	devin.depascal@leaguecitytx.gov

PROCESS SUMMARIES

DEVELOPMENT PROCESS FLOWCHART



DEVELOPMENT PROCESS SUMMARY

Pre-development Meeting

Pre-development meetings are held with the Development Review Committee (DRC) every Tuesday, from 9AM until they are complete. Each meeting is blocked off for an hour time period and must be scheduled a minimum of 7 days prior to the meeting date. The required documents for a pre-development meeting include a site plan and survey or general map showing the location of the property. The potential applicant has an opportunity to ask questions to each department regarding specific development related regulations associated with the site.

Rezoning/SUPs

Once a pre-development meeting is held, it should be determined if a rezoning or a Special Use Permit is required. If so, the zoning process explained on page 10 should be followed.

Master Plans

If the property is part of a phased development, a master plan should be submitted to the City. This should show how all parts of the future development will have interconnection with utilities, access, drainage, etc. A Master Plan for a phased subdivision may be submitted at this time.

Platting

No permit for the construction upon any tract or plot shall be issued until the lot(s) have been platted. There are several different types of plats that can be submitted and approved depending on factors associated with the site. If a final plat, preliminary plat, or replat is required, action by the Planning and Zoning Commission must occur prior to recordation. For further description on the types of plats, please see page 12.

Park Fees

Park fees are assessed in accordance with the City's schedule of fees and must be paid prior to consideration by Planning and Zoning Commission (replat/final plat) or recordation of the Plat (minor/amending).

Infrastructure

For a property to have a plat recorded, it must have infrastructure in place to serve the development. If infrastructure is not adequate to serve a development, public infrastructure may need to be extended to the property. The Engineering Department can make a determination if adequate facilities exist for the proposed development. If not, infrastructure plans must be approved and accepted by the City prior to plat recordation. In lieu of infrastructure acceptance, a letter of credit or bond can be provided to the City.

Building Permit/Site Plan

A building permit with required checklists are submitted to the Building Department. The building permit application should include all civil, architectural, landscaping, and structural plans for a site. The building permit and required materials will be distributed to City staff and reviewed for compliance. Comments relating to the application will be sent to the applicant, and the applicant will address comments and return corrected plans to the City. Should any comments not be addressed by the applicant, the applicant will be notified of these outstanding comments.

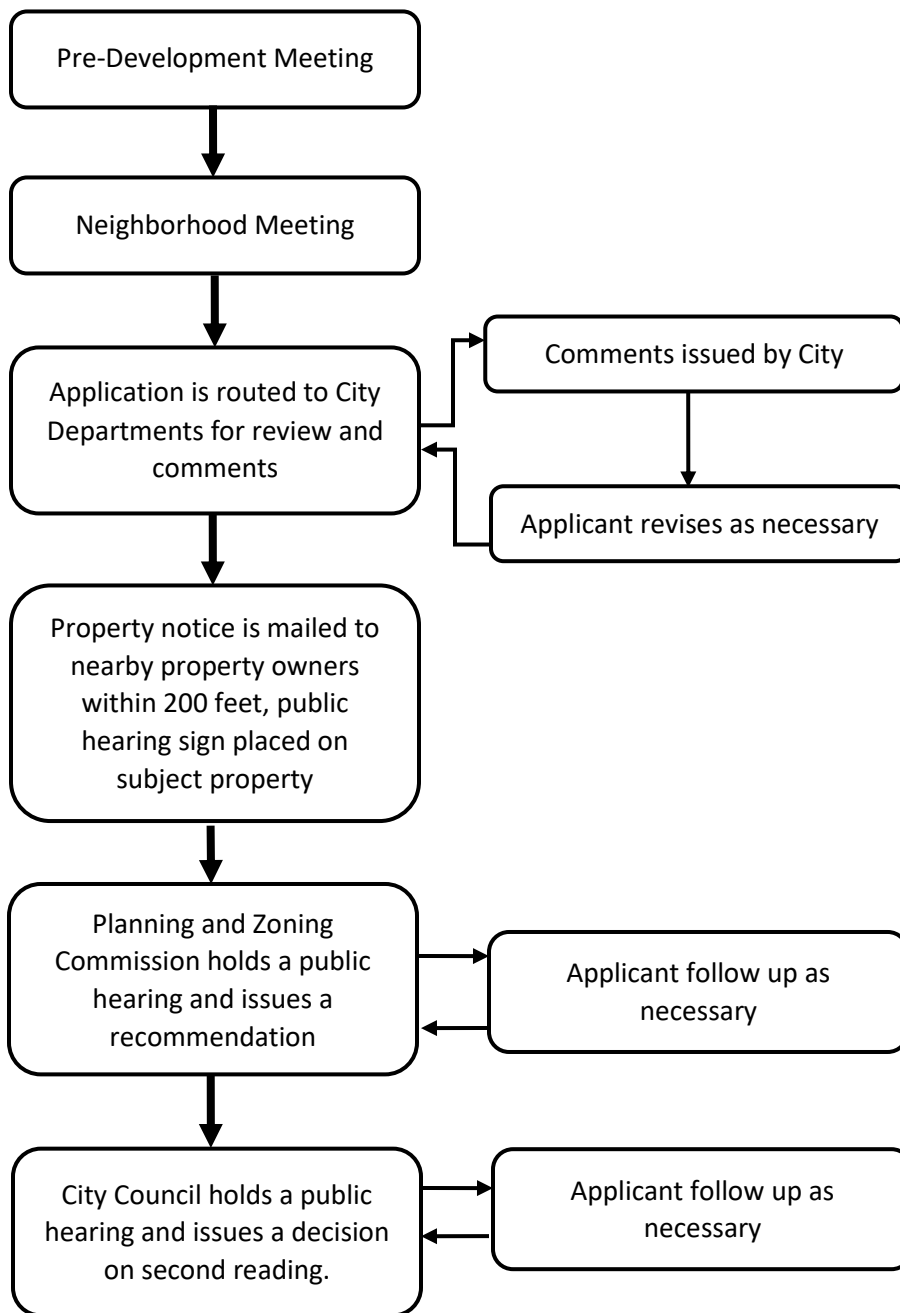
Assessment of Capital Recovery Fees

Water and sewer impact fees are assessed at the time a final plat is recorded and are due at the time a building permit is issued.

ZONING PROCESS SUMMARY

- ❑ The applicant contacts staff to discuss their proposed plan. A pre-development meeting is scheduled with staff to review a preliminary plan.
- ❑ A list of property owners within 200 feet is provided to the applicant by Planning staff and the applicant mails out notices for a neighborhood meeting. At least two weeks lead time should be given between the postmark date and the meeting.
- ❑ Zoning Application and associated materials (see Planned Unit Development/Planned Unit Development Amendment Checklist or the Zoning Checklist) are submitted to the Planning Department by the applicant. All submittals received during the week are considered received at noon on Tuesday.
- ❑ The zoning request is reviewed by City staff, comments regarding the zoning request are made available to the applicant, and the applicant addresses the comments and returns the associated materials through the Development Review Committee process. This process is repeated until all comments provided by the Committee have been resolved.
- ❑ Written Notice of the Public Hearing before the Planning & Zoning Commission is mailed by the City to each property owner within 200 feet of the property on which the zoning is being requested, as indicated by the most recently approved municipal tax roll. Notices are to be postmarked a minimum of 15 days before the hearing.
- ❑ City staff will place Public Hearing Signs on the subject site in accordance with the requirements in the *League City Zoning Ordinance*.
- ❑ The Planning & Zoning Commission holds a Public Hearing to consider and act upon the zoning request. The Planning & Zoning Commission may recommend approval, denial, or table the request.
- ❑ City Council holds a Public Hearing to consider and act upon the zoning request. The City Council may approve, deny, or table the request. If the zoning request is approved on first reading, the item will be scheduled to a second City Council meeting for final approval.
- ❑ The average time frame for a rezoning case is approximately 90 to 120 days.

ZONING PROCESS FLOWCHART



MASTER PLAN PROCESS SUMMARY

- The applicant contacts staff to discuss their proposed phased development. If necessary, a pre-development meeting is scheduled with Planning staff to review a preliminary plan. Staff can help the applicant determine if a Master Plan needs to be submitted.
- A Master Plan should include future phases of a proposed development to show how water, wastewater, stormwater, and access are provided to future phases of the development.
- The applicant may submit an application to the DRC for review. The DRC will review the project and provide comments per the review timelines within this development handbook.
- The process continues until all comments have been satisfied.
- After all comments have been satisfied, the applicant will deliver 15 paper copies of the master plan for Planning and Zoning Commission consideration.
- The Master Plan process should precede platting.

PLATTING PROCESS SUMMARY

- The applicant contacts staff to discuss their proposed plat. If necessary, a pre-development meeting is scheduled with Planning staff to review a preliminary plan. Staff can help the applicant determine the type of plat that needs to be submitted.
- The applicant may submit an application to the DRC for review. The DRC will review the project and provide comments per the review timelines within this development handbook.
- The process continues until all comments have been satisfied.
- After all comments have been satisfied, the applicant will deliver signed mylars.
- If the plat is a replat that has been zoned a residential zoning district in the past five years, a public notice will be required to notify surrounding property owners of the proposed Planning and Zoning Commission meeting.
- For final plats, replats, and preliminary plats, the Planning & Zoning Commission will consider and act upon the proposed plat. The Planning & Zoning Commission may recommend approval, denial, or postpone the request.
- All lots must have frontage on a public or private right-of-way.

APPLICATIONS

DEVELOPMENT APPLICATION

City of League City Universal Development Application

Incomplete applications will not be accepted.

Indicate "NA" when an item does not pertain to your application.

PROJECT INFORMATION

Project Address: _____

Legal Description: _____

Parcel #(s): _____

Property Platted: YES NO

Current Zoning: _____

Total Acreage: _____

Total Lots: _____

Project Description: _____

APPLICANT & OWNER INFORMATION

Applicant Name: _____

Phone: _____

Company Name: _____

Fax #: _____

Mailing Address: _____

Email: _____

Owner Name: _____

Phone: _____

Company Name: _____

Fax #: _____

Mailing Address: _____

Email: _____

DISCLAIMER & SIGNATURE

I CERTIFY THAT I AM THE OWNER OR OWNER'S REPRESENTATIVE OF THE PROPERTY (WITH SIGNED LETTER OF AUTHORIZATION) AND THAT THE FOREGOING STATEMENTS AND ANSWERS HEREIN MADE AND ALL DATA, INFORMATION AND EVIDENCE HERewith SUBMITTED ARE IN ALL RESPECTS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE AND CORRECT. FURTHERMORE, I HEREBY IRREVOCABLY AUTHORIZE THE CITY OF LEAGUE CITY, ACTING THROUGH ITS EMPLOYEES, AGENTS, AND REPRESENTATIVES, TO ENTER UPON THE SUBJECT PREMISES AND INTO ANY STRUCTURES THEREON, FOR THE PURPOSES OF INSPECTING AND EVALUATING COMPLIANCE WITH ANY PERMIT ISSUED AS A RESULT OF THIS APPLICATION.

Date: _____

Applicant Signature: _____



City of League City
Universal Development Application

Planning Department
City of League City
500 W. Walker St.
League City, TX 77573
Phone: 281.554.1080
Fax: 281.554.1020
planning@leaguecity.com

LETTER OF AUTHORIZATION

Have property owner complete and sign, if applicant differs from property owner.

Owner Name

Owner Address

City, ST Zip

Date

Planning Department
City of League City
500 W Walker Street
League City, TX 77573

Dear City of League City Planning Department:

I, _____, certify that I am the owner of the project property located at _____ and that the forgoing statements and answers herein made and all data, information and evidence herewith submitted are in all respects to the best of my knowledge and belief, true and correct. I appoint _____ with the company _____ to act as my representative for this project. I agree to be responsible for payment of all bills due to the City of League City related to this application. Furthermore, I authorize employees, agents and representatives of the City of League City to enter and inspect the subject premises, including land and structures, to evaluate existing and proposed conditions as they relate to the submitted application. I understand that any material misrepresentation of this application, failure to comply with ordinances, and/or failure to remit payment for services can lead to delays in this project – up to and including rejecting the project and forfeiting any fees paid.

Please contact me directly at _____ if you have any questions.

Sincerely,

Owner Name _____

Owner Signature _____

SUBMITTAL & REVIEW CALENDARS

Submittal	DRC	Comments Issued
5-Jan-2021	11-Jan-2021	19-Jan-2021
12-Jan-2021	19-Jan-2021	25-Jan-2021
19-Jan-2021	25-Jan-2021	1-Feb-2021
26-Jan-2021	1-Feb-2021	8-Feb-2021
2-Feb-2021	8-Feb-2021	15-Feb-2021
9-Feb-2021	15-Feb-2021	22-Feb-2021
16-Feb-2021	22-Feb-2021	1-Mar-2021
23-Feb-2021	1-Mar-2021	8-Mar-2021
2-Mar-2021	8-Mar-2021	15-Mar-2021
9-Mar-2021	15-Mar-2021	22-Mar-2021
16-Mar-2021	22-Mar-2021	29-Mar-2021
23-Mar-2021	29-Mar-2021	5-Apr-2021
30-Mar-2021	5-Apr-2021	12-Apr-2021
6-Apr-2021	12-Apr-2021	19-Apr-2021
13-Apr-2021	19-Apr-2021	26-Apr-2021
20-Apr-2021	26-Apr-2021	3-May-2021
27-Apr-2021	3-May-2021	10-May-2021
4-May-2021	10-May-2021	17-May-2021
11-May-2021	17-May-2021	24-May-2021
18-May-2021	24-May-2021	1-Jun-2021
25-May-2021	1-Jun-2021	7-Jun-2021
1-Jun-2021	7-Jun-2021	14-Jun-2021
8-Jun-2021	14-Jun-2021	21-Jun-2021
15-Jun-2021	21-Jun-2021	28-Jun-2021
22-Jun-2021	28-Jun-2021	6-Jul-2021
29-Jun-2021	6-Jul-2021	12-Jul-2021
6-Jul-2021	12-Jul-2021	19-Jul-2021
13-Jul-2021	19-Jul-2021	26-Jul-2021
20-Jul-2021	26-Jul-2021	2-Aug-2021
27-Jul-2021	2-Aug-2021	9-Aug-2021
3-Aug-2021	9-Aug-2021	16-Aug-2021
10-Aug-2021	16-Aug-2021	23-Aug-2021
17-Aug-2021	23-Aug-2021	30-Aug-2021
24-Aug-2021	30-Aug-2021	7-Sep-2021
31-Aug-2021	7-Sep-2021	13-Sep-2021
7-Sep-2021	13-Sep-2021	20-Sep-2021
14-Sep-2021	20-Sep-2021	27-Sep-2021
21-Sep-2021	27-Sep-2021	4-Oct-2021
28-Sep-2021	4-Oct-2021	11-Oct-2021
5-Oct-2021	11-Oct-2021	18-Oct-2021
12-Oct-2021	18-Oct-2021	25-Oct-2021
19-Oct-2021	25-Oct-2021	1-Nov-2021
26-Oct-2021	1-Nov-2021	8-Nov-2021
2-Nov-2021	8-Nov-2021	15-Nov-2021
9-Nov-2021	15-Nov-2021	22-Nov-2021
16-Nov-2021	22-Nov-2021	29-Nov-2021
23-Nov-2021		
30-Nov-2021	6-Dec-2021	13-Dec-2021
7-Dec-2021	13-Dec-2021	20-Dec-2021
14-Dec-2021	20-Dec-2021	27-Dec-2021
21-Dec-2021		
28-Dec-2021	3-Jan-2022	10-Jan-2022
4-Jan-2022	10-Jan-2022	17-Jan-2022
11-Jan-2022	17-Jan-2022	24-Jan-2022
18-Jan-2022	24-Jan-2022	31-Jan-2022
25-Jan-2022	31-Jan-2022	7-Feb-2022
1-Feb-2022	7-Feb-2022	14-Feb-2022

REZONING CHECKLIST

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Rezoning submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** Return this form at the time of application submittal.

Prior to submitting an application, the following must happen:

- The applicant must schedule an appointment to meet with staff and discuss the proposed zoning amendment
- After the intimal meeting, staff will provide the applicant with a list of property owners within 500 feet of the subject property, and the applicant will mail a notice to said property owners scheduling a neighborhood meeting. The applicant should give a minimum of two week notice for the neighborhood meeting.

All initial Zoning applications (Planned Development Zoning, Planned Development Amendment, or Zoning) shall be accompanied by the following materials:

- A fully completed Universal Development Application
- A title report
- Payment of all applicable fees (see Schedule of Fees)
- An electronic copy of the required exhibits in "PDF" format
- Letter of Authorization by each property owner
- Letter of Authorization signed by each lienholder OR letter of no objection from each lienholder.

Resubmittals of Zoning applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in "PDF" format
- A written response to staffs' comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response

When staff has determined the application is complete and scheduled for Planning and Zoning Commission, the following materials will be required:

- Fifteen copies of any 24" x 36" exhibits previously submitted.
- A usb drive or compact disc (CD) with electronic copies of the required exhibits in "PDF" format.

Current Zoning: _____

Proposed Zoning: _____

ATTACHMENT A – LEGAL DESCRIPTION	
<input type="checkbox"/>	8½ x 11 copy of the legal description (metes and bounds) of the area encompassing the zoning request signed and sealed by a surveyor with labeling at top of the document indicating "Legal Description". If the property is platted, a copy of the plat should be provided.
ATTACHMENT B – ADDITIONAL INFORMATION	
<input type="checkbox"/>	Documentation of the required pre-application meeting in the form of a copy of the meeting notice, list of notified property owners, and a sign-in sheet from the meeting.
<input type="checkbox"/>	Exhibit detailing the nature of the zoning request with any proposed exhibits showing how the site will be developed (Site Plan).
<input type="checkbox"/>	North arrow, scale ratio, and scale bar.

ATTACHMENT B – ADDITIONAL INFORMATION (continued)	
<input type="checkbox"/>	Legend, if abbreviations or symbol are used.
<input type="checkbox"/>	Location/vicinity map showing the location of the proposed zoning. Indicate scale or not to scale (NTS) and provide north arrow.
<input type="checkbox"/>	Abstract lines, survey lines, and corporate boundaries are correctly shown and clearly labeled.
<input type="checkbox"/>	<p>Indication of how the proposed rezoning meets the following Criteria:</p> <ol style="list-style-type: none"> 1. Conformance of the proposed zoning and use with the City’s Comprehensive Plan and other City policies 2. The character of the surrounding area 3. The zoning and use of nearby properties, and the extent to which the proposed zoning and use would be compatible 4. The suitability of the property for the uses permitted by right in the proposed zoning district 5. The extent to which approval of the application would detrimentally affect nearby properties 6. The extent to which the proposed use would adversely affect the capacity or safety of that portion of the street network or present parking problems in the vicinity of the property 7. The extent to which approval of the application would harm the value of nearby properties 8. The gain to public health, safety, and welfare due to denial of the application as compared to the hardship imposed upon the owner as a result of denial of the application 9. That there are exceptional circumstances or conditions applicable to the property involved or to the intended uses or development of the property that do not apply generally to other property in the same zone or neighborhood 10. Supporting details including a letter describing the nature of the request, and existing and proposed uses

Fees	
Zoning Amendment: \$1,250	<input type="checkbox"/>
Zoning Amendment with SUP: \$1,750	<input type="checkbox"/>
Public Hearing Notice: \$65	<input type="checkbox"/>
Written Notice Mailings: \$1 per mailed written notice	<input type="checkbox"/>

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant’s Signature: _____

Date: _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____
(Engineer Stamp)

Date: _____

PLANNED UNIT DEVELOPMENT / AMENDMENT / MASTER PLAN REQUEST CHECKLIST

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Planned Unit Development or Planned Unit Development Amendment Request submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an “N/A” next to the box. Return this form at the time of application submittal.

All initial applications (Planned Development Zoning, Planned Development Amendment, or Zoning) shall be accompanied by the following materials:

- A fully completed Universal Development Application.
- A title report.
- Documentation of the required pre-application meeting in the form of a copy of the meeting notice, list of notified property owners, and a sign-in sheet from the meeting.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in “PDF” format.
- Letter of Authorization by each property owner
- Letter of Authorization signed by each lienholder OR letter of no objection from each lienholder.

Resubmittals of applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in “PDF” format.
- A written response to staffs’ comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

When staff has determined the application is complete and scheduled for Planning and Zoning Commission, the following materials may be required:

An electronic copy of the required exhibits in “PDF” format.

Select the type of plan that applies to your submittal:

- Concept Plan/Concept Plan Revision**
A zoning overlay submitted for developments designed to encourage high quality and provide flexibility in planning – resulting in more efficient, environmentally sensitive, visually pleasing, safe, and socially integrated development than traditional zoning. *Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; Parks Board for inclusion of residential; and City Council.*
- Master Plan / Master Plan Revision**
In association with previously approved Concept Plan, an overall development plan illustrating location of proposed uses and phasing. *Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and Parks Board for inclusion of residential if not previous approved.*

Administrative Master Plan Revision for Vested PUDs

A development plan submitted for changes that do not alter the basic relationship of the proposed development to adjacent property; do not alter the uses permitted or increase the density, building height or coverage of the site; do not decrease the off-street parking ratio or reduce the yards provided at the boundary of the site; and do not significantly alter the landscape plans or signage. *Approval authority – City Planner.*

ATTACHMENT A – LEGAL DESCRIPTION	
Included	Item Description
<input type="checkbox"/>	8½ x 11 copy of the legal description (metes and bounds) of the area encompassing the zoning request signed and sealed by a surveyor with labeling at top of the document indicating “Legal Description”. If the property is platted, a copy of the plat should be provided.
ATTACHMENT B – CONCEPT PLAN/PUD DOCUMENT	
<input type="checkbox"/>	Identification of major access points into the development
<input type="checkbox"/>	Development Phasing Schedule
<input type="checkbox"/>	Off-Street Parking
<input type="checkbox"/>	Surrounding Land Uses
<input type="checkbox"/>	Compliance with the Comprehensive Plan
<input type="checkbox"/>	Land Use Descriptions/ Development Standards
<input type="checkbox"/>	Site Data Summary Table, including: <ul style="list-style-type: none"> • Proposed Use(s) • Existing Zoning District • Proposed Zoning District Regulation of each use • Gross Site Area (ac. & sq. ft.) • Lot Coverage • Maximum Height (in ft. & stories/commercial and residential)
<input type="checkbox"/>	For residential development, the Site Data Summary Table should also include the following: <ul style="list-style-type: none"> • Provided Open Space (ac. & %) • Total Density (du/ac.) • Total Number of Dwelling Units by Type • Lot Count by Typical Lot Size • Minimum Lot Widths • Minimum Lot Areas
<input type="checkbox"/>	For commercial development, the Site Data Summary Table should also include the following: <ul style="list-style-type: none"> • Required Landscape Area (ac. & %) • Provided Landscape Area (ac. & %) • Parking Ratio by Use • Parking Required • Parking Provided
EXHIBITS	
<input type="checkbox"/>	Area Location Map
<input type="checkbox"/>	Project Aerial Map
<input type="checkbox"/>	Project Survey Map

<input type="checkbox"/>	Conceptual Land Use Plan
<input type="checkbox"/>	Illustrative Renderings
<input type="checkbox"/>	Water Overlay
<input type="checkbox"/>	Wastewater Overlay
<input type="checkbox"/>	Stormwater Overlay
<input type="checkbox"/>	Proposed Power Supply Plan
<input type="checkbox"/>	EDU Assignment Plan
<input type="checkbox"/>	Amenity/Park Plan
<input type="checkbox"/>	Landscape/Hardscape Plan
<input type="checkbox"/>	Submit Tree Disposition Plan or letter from Certified Arborist, Licensed Surveyor, or Landscape Architect certifying that there are no Protected Trees on the site.
<input type="checkbox"/>	If the Tree Disposition Plan is being revised from a previously submitted plan, note the revision number (i.e. Revision Number 1 or Revision Number 2, etc.).
ATTACHMENT C – TREE SURVEY (if applicable)	
<input type="checkbox"/>	Tree Disposition Plan shall include: <ol style="list-style-type: none"> 1. One 24" by 36" exhibit showing location of all Protected Trees (19 inches and larger AND on the list in Section 102-12) for field verification. 2. One 24" by 36" exhibit showing all Protected Trees (19 inches and larger AND on the list in Section 102-12) with proposed lot lines, easements, streets and any other activities that may impact a protected tree and/or its roots.
<input type="checkbox"/>	Overlay shall include all structures and footprints of driveways, parking, sidewalks, utilities, and easements or any other activities that may impact a Protected Tree and/or its roots.
<input type="checkbox"/>	Include a table indicating the species of trees, the size (in caliper inches) of each tree to be removed or planted and to remain.
<input type="checkbox"/>	Each tree shall have a unique number (example—trees preserved P-1 through 99, trees to be removed R-1 through 99) to identify each individual tree.
<input type="checkbox"/>	The table should also show the following totals: total number of protected inches on site, total number of protected inches to removed (and also as a percentage), and total protected inches to remain.
<input type="checkbox"/>	Drawings shall have a north arrow, engineering scale, location map, and the stamp of the registered surveyor who performed the inventory.
<input type="checkbox"/>	The drawing shall illustrate the protective fencing planned for construction.
<input type="checkbox"/>	Dead, dying, or damaged trees should be labeled as such for a follow-up inspection prior to removal.
<input type="checkbox"/>	Maximum percentage to be removed must not exceed 40%; removal in excess of 40% will require mitigation.
<input type="checkbox"/>	Neither replacement trees nor additional trees shall be located in utility easements.
<input type="checkbox"/>	Plan shall state applicant's name, the name of development, which trees are being preserved and which trees are proposed for removal, and calculations indicating what percentage is being preserved and what percentage is being proposed for removal
ATTACHMENT D – ELEVATIONS	
<input type="checkbox"/>	Elevations, from each direction, of the existing or proposed building(s).
<input type="checkbox"/>	Label the maximum building height per elevation.

<input type="checkbox"/>	Include the cardinal direction (north, south, east, or west) in the label for each elevation.
<input type="checkbox"/>	Label each building material.
ATTACHMENT E – MASTER PLAN	
<input type="checkbox"/>	Drawn to a scale of one-inch equals one hundred feet or larger.
<input type="checkbox"/>	Stormwater drainage overlay of plan view with existing topographic contours, areas to be filled, and drainage areas outlined if not previously submitted with a master plan.
<input type="checkbox"/>	Location/vicinity map indicating scale or not to scale (NTS) and provide north arrow.
<input type="checkbox"/>	The outline of the tract that is proposed to be subdivided, with boundary dimensions.
<input type="checkbox"/>	Water and Wastewater Overlays
<input type="checkbox"/>	Tree disposition plan
<input type="checkbox"/>	Site Data Summary Table, including: <ul style="list-style-type: none"> • Proposed Use(s) • Existing Zoning District • Gross Site Area (ac. & sq. ft.) • Lot Coverage
<input type="checkbox"/>	A chart detailing the proposed uses of all restricted reserves with the acreage of each.
<input type="checkbox"/>	The location of any existing or proposed streets shown on the plan.
<input type="checkbox"/>	Identification of pertinent school district and boundary lines.
<input type="checkbox"/>	Identification of the floodplain and boundary lines.
<input type="checkbox"/>	Traffic layout showing internal connecting drives and curb cuts.

Fees	
PUD Concept Plan/PUD Concept Plan Revision: \$1,000	<input type="checkbox"/>
Zoning & Concept Plan: \$3,000	<input type="checkbox"/>
Zoning & Master Plan: \$3,000 AND \$1,000	<input type="checkbox"/>
Master Plan/Master Plan Revision: \$1,000	<input type="checkbox"/>

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____ *Date:* _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____ *Date:* _____
(Engineer Stamp)

SPECIAL USE PERMIT (SUP) CHECKLIST

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Special Use Permit submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an "N/A" next to the box. Return this form at the time of application submittal.

All initial applications (Special Use Permit) shall be accompanied by the following materials:

- A fully completed Universal Development Application.
- An SUP Application with all required documentation checked off.
- A title report.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in "PDF" format
- Letter of Authorization by each property owner
- Letter of Authorization signed by each lienholder OR letter of no objection from each lienholder.

Resubmittals of applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in "PDF" format
- A written response to staffs' comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

When staff has determined the application is complete and scheduled for Planning and Zoning Commission, the following materials may be required:

Fifteen copies of any 24" x 36" exhibits previously submitted.

A usb drive or compact disc (CD) with electronic copies of the required exhibits in "PDF" format.

Select the type of plan that applies to your submittal:

- Other Requested Special Use:** _____
- Zoning District:** _____
Request to allow certain use of land, building or structure where adequate measures can be taken to assure compatibility in a zoning district as permitted by the Zoning Ordinance. Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and City Council.
- Oil/Gas**
Request for activities related to the extraction of oil, gas, and other resources. Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and City Council

Communication Towers

Request for erection or modification in height of communication tower or structure. *Approval authority- Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and City Council.*

Excavations for Quarries, Mines, Etc.

Request for construction of quarry, mine, sand or gravel pit; or, excavation for the purpose of removing, screening, crushing, washing or storing of dirt, sand, ore, clay, stone, gravel or similar materials. *Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and City Council.*

Pipelines

Request to lay, re-lay, repair, reroute, construct, install or build a line or pipe to transport materials. *Approval authority – Planning and Zoning Commission (P&Z); Historic District Commission (HDC) if in Historic District; and City Council.*

ATTACHMENT A – LEGAL DESCRIPTION	
Included	Item Description
<input type="checkbox"/>	8½ x 11 copy of the legal description (metes and bounds) of the area encompassing the zoning request signed and sealed by a surveyor with labeling at top of the document indicating “Legal Description”. If the property is platted, a copy of the plat should be included.
ATTACHMENT B – SUP ZONING INFORMATION	
<input type="checkbox"/>	The name or names, address, and phone number of the owner, developer, engineer, and/or surveyor.
<input type="checkbox"/>	Documentation of the required pre-application meeting in the form of a copy of the meeting notice, list of notified property owners, and a sign-in sheet from the meeting.
<input type="checkbox"/>	Location/vicinity map showing the location of the proposed SUP. Indicate scale and provide north arrow.
<input type="checkbox"/>	Abstract lines, survey lines, and corporate boundaries are correctly shown and clearly labeled.
<input type="checkbox"/>	Adjacent property within 200 feet - subdivision name or owner’s name and recording information, land use, and zoning.
<input type="checkbox"/>	Statement from the applicant showing what requirements they will be exceeding with the SUP.
ATTACHMENT C – SUP SITE PLAN/LANDSCAPE PLAN	
<input type="checkbox"/>	A title block, in the bottom right hand corner of the sheet, with: <ul style="list-style-type: none"> • “SUP Site Plan” • Project name • Acreage • Subdivision name, lot, block or survey name and abstract; • City of League City • Submission date
<input type="checkbox"/>	All improvements on the site labeled with dimensions (parking, landscape islands, etc.)
<input type="checkbox"/>	North arrow, scale ratio, and scale bar.
<input type="checkbox"/>	Legend, if abbreviations or symbol are used.
<input type="checkbox"/>	Concrete sidewalks; label as existing or proposed and dimension the width(s).
<input type="checkbox"/>	On-site and off-site circulation (including truck loading and pickup areas). Public streets, private drives and fire lanes with pavement widths, right-of-way, median openings, turn

	lanes (including storage and transition space), and driveways (including those on adjacent property) with dimensions, radii, surface type, and distances between driveways.
<input type="checkbox"/>	Location of off-site improvements including adjacent drives, existing and proposed median cuts, parking, buildings or other structures within 200 feet of subject property.
<input type="checkbox"/>	Parking areas and structures, including the number of parking spaces provided and required, and layout of standard spaces, handicap spaces, the location of ramps, crosswalks and loading areas with typical dimensions and surface type.
ATTACHMENT C – SUP SITE PLAN/LANDSCAPE PLAN (continued)	
<input type="checkbox"/>	Site Data Summary Table, including: <ul style="list-style-type: none"> • Proposed Use(s) • Existing Zoning District • Gross Site Area (ac. & sq. ft.) • Required Landscape Area (ac. & %) • Provided Landscape Area (ac. & %) • Type of plantings used • Lot Coverage • Parking Ratio per Use • Parking Required • Parking Provided • Maximum Height (in ft. and stories) • Setbacks (front, side interior, side street, and rear)
<input type="checkbox"/>	Dumpster and trash compactor locations and screening.
<input type="checkbox"/>	Existing/proposed overhead utility lines.
<input type="checkbox"/>	Proposed location of pad-mounted transformer
<input type="checkbox"/>	Landscape Buffers
ATTACHMENT D – BUILDING ELEVATIONS	
<input type="checkbox"/>	Elevations, from each direction, of the existing and/or proposed building(s).
<input type="checkbox"/>	Label the maximum building height per elevation.
<input type="checkbox"/>	Include the cardinal direction (north, south, east, or west) in the label for each elevation.
<input type="checkbox"/>	Label each building material.
<input type="checkbox"/>	A building material table, per elevation, that includes the square foot and percent of each building material. Please do not include glazing, doors, roofs, or awnings.

Fees	
Other: \$1,000	<input type="checkbox"/>
Communication Towers: \$1,000	<input type="checkbox"/>
Excavations: \$1,000 plus \$10 per acre	<input type="checkbox"/>
Pipelines/Production \$2,000	<input type="checkbox"/>
Public Hearing Notice Fee: \$65.00	<input type="checkbox"/>
Written Notice Mailing Fee: \$1.00 per mailed notice	<input type="checkbox"/>

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____

Date: _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____

Date: _____

COMMERCIAL BUILDING PERMIT CHECKLIST

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Commercial Building Permit or Revised Commercial Building Permit submission. An application is incomplete unless all applicable information noted below is submitted to the Building Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an “N/A” next to the box. Return this completed form at the time of application submittal.

All initial Site Plan or Revised Site Plan applications shall be accompanied by the following materials:

- A fully completed Commercial Building Permit Application.
- A title report.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in “PDF” format consolidated into one document in the same order as the hard copy.
- Design must comply with City of League City Building Codes. ICC and NEC Codes as adopted.

Resubmittals of Site Plan applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in “PDF” format consolidated into one document in the same order as the hard copy.
- A written response to staff’s comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

When staff has determined the application is complete and ready for final approval, the following materials will be required:

- An electronic copy of the required exhibits in “PDF” format

ATTACHMENT A – LEGAL DESCRIPTION	
Included	Cover Page
<input type="checkbox"/>	Project title
<input type="checkbox"/>	Project address
<input type="checkbox"/>	Sheet index listing all sheets within the commercial building permit
<input type="checkbox"/>	Signature block
<input type="checkbox"/>	Design firm’s logo and name, phone number, fax number, email address, physical address and mailing address and an Engineers Seal pending review status.
<input type="checkbox"/>	Clearly state the proposed use on the title page.
ATTACHMENT B – CIVIL PLANS	
Included	Item Description
<input type="checkbox"/>	See Civil Submittal Package checklist for full details on all items needed on each page listed below (pg. 53)
<input type="checkbox"/>	General Construction Notes
<input type="checkbox"/>	Survey and Plat
<input type="checkbox"/>	Overall Site Plan
ATTACHMENT B – CIVIL PLANS (continued)	
<input type="checkbox"/>	Drainage Plan
<input type="checkbox"/>	Utility Plan

<input type="checkbox"/>	Photometric Plan
<input type="checkbox"/>	SWPPP
<input type="checkbox"/>	Landscape Plan
<input type="checkbox"/>	Building Elevations
<input type="checkbox"/>	Fire Management Plan
ATTACHMENT C – ARCHITECTURAL PLANS	
Included	Item Description
<input type="checkbox"/>	Building Floorplans
<input type="checkbox"/>	Cross Sectional Drawings and Details
<input type="checkbox"/>	Interior Elevations
<input type="checkbox"/>	Roof Plans
<input type="checkbox"/>	Wall Details
<input type="checkbox"/>	Reflected Ceiling Plan
<input type="checkbox"/>	Fire Rated Construction Details
<input type="checkbox"/>	Smoke Detector Locations and Carbon Monoxide Detectors
ATTACHMENT D – MECHANICAL PLANS	
Included	Item Description
<input type="checkbox"/>	Layout for HVAC and Ducts
<input type="checkbox"/>	Equipment Schedule
<input type="checkbox"/>	Structural Support and Attachment Details
<input type="checkbox"/>	Roof Plan
<input type="checkbox"/>	Roof Access Detail
<input type="checkbox"/>	Fire/Smoke Damper Locations
<input type="checkbox"/>	Mechanical Room Details
<input type="checkbox"/>	Fuel Gas Piping Plan
<input type="checkbox"/>	Refrigeration Equipment and Piping Plan
<input type="checkbox"/>	Fume/Vapor Hood Plan
<input type="checkbox"/>	Kitchen Equipment Plan
<input type="checkbox"/>	Kitchen Equipment and Hood Elevations
<input type="checkbox"/>	Shaft and Wall Construction
<input type="checkbox"/>	Cross Sections through Hoods, Ducts, and Shafts
<input type="checkbox"/>	Hood/Grease Extractor Listing Documentation
ATTACHMENT E – STRUCTURAL PLANS	
Included	Item Description
<input type="checkbox"/>	Foundation Plan
<input type="checkbox"/>	Floor/Roof Framing Plan
<input type="checkbox"/>	Wall Plan
<input type="checkbox"/>	Structural Details and Cross Sections
ATTACHMENT F – PLUMBING PLANS	
Included	Item Description
<input type="checkbox"/>	Piping and Material Schedule
<input type="checkbox"/>	Riser Diagram
<input type="checkbox"/>	Fixture Schedule
<input type="checkbox"/>	Equipment Layout Plan
ATTACHMENT F – PLUMBING PLANS (continued)	
<input type="checkbox"/>	Roof Plan
<input type="checkbox"/>	Condensation Details

ATTACHMENT G – ELECTRICAL PLANS	
Included	Item Description
<input type="checkbox"/>	Electrical Load Calculations
<input type="checkbox"/>	One Line Diagram
<input type="checkbox"/>	Panel Schedules
<input type="checkbox"/>	Electrical Layout
ATTACHMENT H – OTHER DOCUMENTS (if applicable)	
Included	Item Description
<input type="checkbox"/>	Traffic Impact Analysis (TIA)
<input type="checkbox"/>	Availability of Service Request
<input type="checkbox"/>	Small Construction Site Notice OR Notice of Intent
<input type="checkbox"/>	SWQMP
<input type="checkbox"/>	TxDOT permits for drainage, driveways, and utility work.
<input type="checkbox"/>	Army Corp of Engineers permit
<input type="checkbox"/>	Historic District approval
<input type="checkbox"/>	Parks Board approval
<input type="checkbox"/>	Stamp Comcheck Report
<input type="checkbox"/>	Copy of TDLR
<input type="checkbox"/>	Asbestos Report for any Remodel

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____ *Date:* _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____ *Date:* _____
 (Engineer Stamp)

MASTER PLAN CHECKLIST (PLATTING)

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Master Plan submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an “N/A” next to the box. Return this form at the time of application submittal.

All initial Master Plan applications shall be accompanied by the following materials:

- A fully completed Universal Development Application.
- A title report.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in “PDF” format
- Letter of Authorization by each property owner

Resubmittals of applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in “PDF” format
- A written response to staffs’ comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

When staff has determined the application is complete and scheduled for Planning and Zoning Commission, the following materials may be required:

- Fifteen copies of any 24” x 36” exhibits previously submitted
- A mylar and two copies signed by all parties.
- A usb drive or compact disc (CD) with electronic copies of the required exhibits in “PDF” format.

Select the type of plan that applies to your submittal.

- Master Plan/ Revision to Master Plan**
A development plan submitted for all business and commercial projects that is to be developed in phases or sections. Approval authority – *Planning and Zoning Commission (P&Z); and Historic District Commission (HDC) if in Historic District.*

ATTACHMENT A – MASTER PLAN	
Included	Item Description
<input type="checkbox"/>	A title block with <ul style="list-style-type: none"> • “Master Plan” • Proposed subdivision name, lot, block • Acreage • Number of lots (if residential project, residential and reserves) • Survey name and abstract • City of League City, Galveston OR Harris County • Submission date
<input type="checkbox"/>	North arrow, scale ratio, and scale bar, drawn to a scale of one-inch equals one hundred feet or larger.

ATTACHMENT A – MASTER PLAN (continued)	
<input type="checkbox"/>	Drawn to a scale of one-inch equals one hundred feet or larger.
<input type="checkbox"/>	Stormwater drainage overlay of plan view with existing topographic contours, areas to be filled, and drainage areas outlined if not previously submitted with a master plan.
<input type="checkbox"/>	Location/vicinity map indicating scale or not to scale (NTS) and provide north arrow.
<input type="checkbox"/>	The outline of the tract that is proposed to be subdivided, with boundary dimensions.
<input type="checkbox"/>	Water and Wastewater Overlays
<input type="checkbox"/>	Tree disposition plan
<input type="checkbox"/>	Site Data Summary Table, including: <ul style="list-style-type: none"> • Proposed Use(s) • Existing Zoning District • Gross Site Area (ac. & sq. ft.) • Lot Coverage
<input type="checkbox"/>	A chart detailing the proposed uses of all restricted reserves with the acreage of each.
<input type="checkbox"/>	The location and width of any existing or proposed streets shown on the plan.
<input type="checkbox"/>	Identification of pertinent school district and boundary lines.
<input type="checkbox"/>	Identification of the floodplain and boundary lines.
<input type="checkbox"/>	Traffic layout showing internal connecting drives and curb cuts.

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____ *Date:* _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____ *Date:* _____
(Surveyor/Engineer Stamp)

PRELIMINARY PLAT, FINAL PLAT, REPLAT

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for Preliminary Plat/Final Plat/Replat submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an "N/A" next to the box. Return this completed form at the time of application submittal.

Final Plats and Replats are reviewed and approved according to the standards set forth in the Subdivision and Development Ordinance Chapter 102.

All initial Preliminary Plat applications shall be accompanied by the following materials:

- A fully completed Universal Development Application.
- A title report.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in "PDF" format
- Letter of Authorization by each property owner
- Letter of Authorization signed by each lienholder OR letter of no objection from each lienholder.

Resubmittals of applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in "PDF" format
- A written response to staffs' comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

When staff has determined the application is complete and scheduled for Planning and Zoning Commission, the following materials may be required:

Fifteen copies of any 24" x 36" exhibits previously submitted.

A mylar and two copies signed by all parties.

A usb drive or compact disc (CD) with electronic copies of the required exhibits in "PDF" format.

Select the type of plat that applies to your submittal:

Preliminary/ Final Plat

A combination of preliminary and final plats where municipal facilities have to be extended on land that is not being developed in phases (usually involves fewer than 10 lots). *Approval authority – Planning and Zoning Commission (P&Z); and Historic District Commission (HDC) if in Historic District.*

Final Plat

Subsequent to the approval of a preliminary plat, a plat illustrating the proposed subdivision or development of land having been certified to by a registered professional land surveyor. *Approval authority – Planning and Zoning Commission (P&Z); and Historic District Commission (HDC) if in Historic District.*

Replat

A plat in which an existing subdivision of lots or portion thereof is being further subdivided to create more lots. *Approval authority – Planning and Zoning Commission (P&Z), and Historic District Commission (HDC) if in Historic District.*

Preliminary Plat

An initial plan or map illustrating the proposed subdivision or development of land which will be submitted for approval before preparation of the final plat. – *Planning and Zoning Commission (P&Z), and Historic District Commission (HDC) if in Historic District.*

ATTACHMENT A – FINAL PLAT & PRELIMINARY/FINAL PLAT	
Included	Item Description
<input type="checkbox"/>	A title block with <ul style="list-style-type: none"> • “Final Plat or Replat” • Proposed subdivision name, lot, block • Acreage • Number of lots (if residential project, residential and reserves) • Survey name and abstract or previously recorded plat • City of League City, Galveston OR Harris County • Submission date
<input type="checkbox"/>	North arrow, scale ratio, and scale bar, drawn to a scale of one-inch equals one hundred feet or larger.
<input type="checkbox"/>	Drawn to a scale of one-inch equals one hundred feet or larger
<input type="checkbox"/>	Stormwater drainage overlay of plan view with existing topographic contours, areas to be filled, and drainage areas outlined if not previously submitted with master plan
<input type="checkbox"/>	Location/ vicinity map indicating scale or not to scale (NTS) and provide north arrow
<input type="checkbox"/>	A statement by an engineer of the impact of developed surface water runoff onto adjacent properties based upon design criteria as outlined in the engineering and construction ordinance
<input type="checkbox"/>	The systematic assignment of numbers to lots and blocks.
<input type="checkbox"/>	The location of floodplain boundaries and state or federally protected areas, such as wetlands are indicated.
<input type="checkbox"/>	The length and bearing of all straight lines, radii, arc lengths, tangent length and central angles of all curves are indicated along the lines of each lot. The curve data pertaining to block or lot boundary may be placed in a curve table at the base of the plat and prepared in a tabular form with the following information: <ul style="list-style-type: none"> • Curve number • Delta • Radius • Tangent length • Tangent offset • Arc length • Chord • Chord direction
<input type="checkbox"/>	A metes and bounds description. (Final Plat)
<input type="checkbox"/>	All survey monuments.
<input type="checkbox"/>	Standard Plat Language and Plat Notes.
<input type="checkbox"/>	Location of property lines, owner or subdivision name(s) and recording information of abutting properties within 200-feet.
<input type="checkbox"/>	Galveston County recordation information for any easements or delineations recorded by separate instrument.
<input type="checkbox"/>	Survey of property showing all existing improvements.
<input type="checkbox"/>	The outline of the tract that is proposed to be subdivided, with boundary dimensions.
<input type="checkbox"/>	Water and Wastewater Overlays
<input type="checkbox"/>	The names of subdivisions; lot patterns; location, widths, and names of existing or planned streets and intersections, and any blocks, lots, alleys, easements, building lines, water courses, floodplain, or other natural features, with principal dimensions; and any other significant information on all sides for a distance of not less than two hundred feet.

<input type="checkbox"/>	Tree disposition plan
<input type="checkbox"/>	A chart detailing the lot #, address, area, and finished floor elevation of all lots within the subdivision. (Final Plat)
ATTACHMENT A – FINAL PLAT & PRELIMINARY/FINAL PLAT (continued)	
<input type="checkbox"/>	A chart detailing the proposed uses of all restricted reserves with the acreage of each.
<input type="checkbox"/>	The location and width of any existing or proposed streets shown on the plat.
<input type="checkbox"/>	For subdivisions consisting of three or more lots: a copy of receipt confirmation of the notification sent to the school district of the enrollment projected to be generated from the proposed development and the student yield per dwelling unit.
<input type="checkbox"/>	Vertical Control Monuments are to have 1,000-foot maximum spacing. All elevations should be based on the current National Geodetic Survey.
<input type="checkbox"/>	Traffic Impact Analysis (TIA)
<input type="checkbox"/>	Overlay showing location of street lights.
<input type="checkbox"/>	Statement from a surveyor stating there are no pipelines within the boundaries of the subdivision. If pipelines do exist, a statement from the pipeline company that all existing or proposed pipelines crossing the property have been satisfactorily provided for the requirements of the pipeline operator, and that the pipeline operator agrees to all pipeline crossings.
<input type="checkbox"/>	Utility Company Statements that easements are acceptable to provide service and no other easements are necessary or required (Final Plat)
<input type="checkbox"/>	Recordation information identified as either Deed Records (DRCCT), Plat Records (PRCCT), or Official Property Records (OPRCCT)
<input type="checkbox"/>	A chart detailing the square-footage of all lots within the subdivision.
<input type="checkbox"/>	Identification of pertinent school district and boundary lines.
<input type="checkbox"/>	HOA/BOA formation documents if an common area or property will be within the boundaries of the plat.
<input type="checkbox"/>	Deed Restrictions, Covenants and Restrictions
<input type="checkbox"/>	Private Streets Agreement (if applicable)
<input type="checkbox"/>	Park Fees (if applicable)
ATTACHMENT B – REPLAT	
<input type="checkbox"/>	All requirements for the Final Plat, above.
<input type="checkbox"/>	A copy of the preceding plat. All land from the preceding plat must be included in a replat.
<input type="checkbox"/>	A purpose statement, on the plat, that summarizes the proposed revisions.
<input type="checkbox"/>	Proposed revisions shall be shown on the replat with the previous plat configuration ghosted in.

Fees	
Application Fee: \$500 plus \$8 per lot (Final Plat)	<input type="checkbox"/>
Application Fee: \$500 plus \$4 per lot (Replat)	<input type="checkbox"/>
Application Fee: \$500 plus \$10 per lot (Preliminary Plat)	<input type="checkbox"/>
Application Fee: \$1,000 + \$18 per lot (Preliminary/ Final Plat)	<input type="checkbox"/>
Application Fee: \$325 Subdivision Variance (if needed)	<input type="checkbox"/>
Application Fee: \$100 Plat Extension (if needed)	<input type="checkbox"/>
Public Hearing Notice Fee: \$65.00 (Residential Replat)	<input type="checkbox"/>
Written Notice Mailing Fee: \$1.00 per mailed notice (residential replat)	<input type="checkbox"/>

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____ *Date:* _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____ *Date:* _____
(Surveyor Stamp)

MINOR PLAT & AMENDING PLAT CHECKLIST

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Minor Plat or Amending Plat submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an “N/A” next to the box. Return this completed form at the time of application submittal.

Please check the box that is applicable to the plat being filed:

- Amending plat described by V.T.C.A., Local Government Code § 212.016.
- Minor Plats involving four or fewer lots fronting an existing street and not requiring the creation of any new street or extension of municipal facilities (never been platted).

All initial Amending Plat or Minor Plat applications shall be accompanied by the following materials:

- A fully completed Universal Development Application.
- A title report.
- Payment of all applicable fees (see Schedule of Fees).
- An electronic copy of the required exhibits in “PDF” format
- Letter of Authorization by each property owner
- Letter of Authorization signed by each lienholder OR letter of no objection from each lienholder.

Resubmittals of applications shall be accompanied by the following materials:

- An electronic copy of the required exhibits in “PDF” format
- A written response to staffs’ comments, with each comment followed by a response. Please note that revised plans will not be accepted without a written response.

Select the type of plat that applies to your submittal:

- Minor Plat**
A plat involving four or fewer lots that have not been previously platted, fronting on an existing street and not requiring the extension of municipal facilities. *Approval authority – City Planner.*
- Amending Plat**
A plat involving the correction of errors in the previous plat or for the reconfiguration or deletion of existing lot lines. *Approval authority – City Planner.*

ATTACHMENT A – MINOR PLAT/ AMENDING PLAT	
Included	Item Description
<input type="checkbox"/>	A title block with: <ul style="list-style-type: none"> • “Minor Plat OR Amending Plat” • Subdivision name, lot, block • Acreage • Number of lots (if residential project, residential and HOA lots) • Survey name and abstract • City of League City, Galveston County

ATTACHMENT A – MINOR PLAT/ AMENDING PLAT (continued)	
<input type="checkbox"/>	North arrow, scale ratio, and scale bar, drawn to a scale of one-inch equals one hundred feet or larger.
<input type="checkbox"/>	The systematic assignment of numbers to lots and blocks.
<input type="checkbox"/>	The location of floodplain boundaries and state or federally protected areas, such as wetlands are indicated.
<input type="checkbox"/>	The length and bearing of all straight lines, radii, arc lengths, tangent length and central angles of all curves are indicated along the lines of each lot. The curve data pertaining to block or lot boundary may be placed in a curve table at the base of the plat and prepared in a tabular form with the following information: <ul style="list-style-type: none"> • Curve number • Delta • Radius • Tangent length • Tangent offset • Arc length • Chord • Chord direction
<input type="checkbox"/>	A metes and bounds description.
<input type="checkbox"/>	All survey monuments.
<input type="checkbox"/>	Standard Plat Language and Plat Notes.
<input type="checkbox"/>	Location of property lines, owner or subdivision name(s) and recording information of abutting properties within 200-feet.
<input type="checkbox"/>	Galveston County recordation information for any easements or delineations recorded by separate instrument.
<input type="checkbox"/>	Survey of property showing all existing improvements.
<input type="checkbox"/>	Location/vicinity map indicating scale
<input type="checkbox"/>	The outline of the tract that is proposed to be subdivided, with boundary dimensions.
<input type="checkbox"/>	The names of subdivisions; lot patterns; location, widths, and names of existing or planned streets and intersections, and any blocks, lots, alleys, easements, building lines, water courses, floodplain, or other natural features, with principal dimensions; and any other significant information on all sides for a distance of not less than two hundred feet.
<input type="checkbox"/>	Tree disposition plan
<input type="checkbox"/>	A chart detailing the lot #, address, area, and finished floor elevation of all lots within the subdivision.
<input type="checkbox"/>	A chart detailing the proposed uses of all restricted reserves with the acreage of each.
<input type="checkbox"/>	The location and width of any existing or proposed streets shown on the plat.
<input type="checkbox"/>	The location of floodplain boundaries and state or federally protected areas, such as wetlands are indicated.
<input type="checkbox"/>	Statement from a surveyor stating there are no pipelines within the boundaries of the subdivision. If pipelines do exist, a statement from the pipeline company that all existing or proposed pipelines crossing the property have been satisfactorily provided for the requirements of the pipeline operator, and that the pipeline operator agrees to all pipeline crossings.
<input type="checkbox"/>	Utility Company Statements that easements are acceptable to provide service and no other easements are necessary or required
<input type="checkbox"/>	If an Amending Plat, a statement on the plat should indicate the purpose of the plat.
<input type="checkbox"/>	HOA/BOA formation documents if any common area or property will be within the boundaries of the plat
<input type="checkbox"/>	Deed Restrictions, Covenants and Restrictions
<input type="checkbox"/>	Park Fees (if applicable)

Fees	
Application Fee: \$300 (minor plat)	<input type="checkbox"/>
Application Fee: \$500 plus \$4 per lot (amending plat)	<input type="checkbox"/>
Application Fee: \$325 Subdivision Variance (if needed)	<input type="checkbox"/>

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Applicant's Signature: _____

Date: _____

By signing below I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected if it is deemed incomplete.

Professional License Certification: _____
(Surveyor Stamp)

Date: _____

TREE DISPOSITION PERMIT APPLICATION

Project Name: _____

This checklist is provided to assist you in addressing the minimum requirements for a Tree Disposition Permit submission. An application is incomplete unless all applicable information noted below is submitted to the Planning Department. Indicate that all information is included on the submitted plans by checking the box next to the required information. **Checking the box certifies to the City that you have completely and accurately addressed the issue.** If not applicable, indicate an “N/A” next to the box. Return this completed form at the time of application submittal.

Types and Description, Select all that apply:

- Single-Family residence – New Construction**
A removal of a tree from an undeveloped property to construct a single-family residence

- Unhealthy / Structurally Unstable Tree**
A removal of a tree from a developed property due to the deteriorating health of the tree and/or the tree is causing structural damage to a nearby building/structure
(Unhealthy/Unstable tree(s) do not require replacement.)

- Commercial Project – New Construction**
A removal of a tree from an undeveloped property to construct a commercial building

- Commercial Project – Addition**
A removal of a tree from a developed commercial property due to an expansion of the existing commercial project

- Other (Describe below):**

ATTACHMENT A – TREE DISPOSITION PERMIT	
Included	Item Description
<input type="checkbox"/>	A copy of the deed and a title report
<input type="checkbox"/>	An electronic copy of the required exhibits in “PDF” format
<input type="checkbox"/>	Supporting details describing the reason the tree(s) is/are being removed.
<input type="checkbox"/>	For removal of unhealthy or damaged tree(s) – Submit survey of property showing general location of tree(s) to be removed. Tree mitigation may still be required for commercial and multi-family property.
<input type="checkbox"/>	For removal of tree(s) for reasons other than damage – Submit Tree Deposition Plan for mitigation

Fees	
Application Fee for Administrative Approval: \$50	<input type="checkbox"/>

Protected Tree List

List the Protected Trees below. If there are more than 15 trees, provide a separate sheet attached to the application.

Tree No.	Protected Tree Size (In Caliper Inches)	Protected Tree Species	“R” Removed “P” Preserved
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total Caliper Inches: _____
Total Caliper Inches Preserved: _____
Total Caliper Inches Removed: _____

I hereby certify that this application, as well as the Tree Disposition Survey, and all related documents are a true representation of all facts concerning the proposed tree removal activity. This application is made with the approval of the Owner and/or a Representative, as evidenced by the signatures below.

Applicant’s Signature: _____ Date: _____
Owner(s)’ Signature(s): _____ Date: _____
City Arborist Signature: _____ Date: _____

OTHER FORMS, MATERIALS & TEMPLATES

SCHEDULE OF FEES

EXHIBIT “A”

DEVELOPMENT FEE SCHEDULE

Item	Proposed Fee
City Council	
Appeals	\$300*
Variances	\$500
Plats	
Master Plan	\$1,000
Preliminary Plat	\$500 plus \$10 per lot
Final Plat	\$500 plus \$8 per lot
Amended Plat	\$500 plus \$4 per lot
Minor Plat	\$300
Replat	\$500 plus \$4 per lot
Plat Extension	\$100
Master Development Plan & Site Plans	
Less than 1 acre	\$500
1-2.5 acres	\$1,000
2.5 – 5 acres	\$1,500
5 – 10 acres	\$2,000
10 acres and above	\$2,500 plus 100 per acre over 15 acres
Revisions not requiring DRC review and approval	\$250
Planned Unit Development	
Zoning & Concept Plan	\$3,000
Master Plan	\$1,000
Concept/Master Plan Revision	\$1,000
Vested PUD	-
Planning & Zoning Variance	
	\$325
Zoning Board of Adjustments (ZBA)	
Variances	\$300
Appeal	\$300*
Zoning Amendment	
	\$1,250
	Add \$500 if submitted with an SUP
Zoning Verification Letter	
	\$75

SCHEDULE OF FEES (CONT.)

Special Use Permits	
Communication Towers	\$1,000
Excavations	\$1,000 plus \$10 per acre
Oil & Gas	\$2,000
All Others	\$1,000
	Add \$500 if submitted with a rezoning request
Temporary Use Permit	
Planning & Zoning	\$300
Administrative	\$50
Historic Commission	
Certificate of Appropriateness	\$25
Tree Disposition Permit	
	\$50
Multiple Review Fee (after three DRC reviews)	\$200 (for each review after the second review)
Public Hearing Notice	\$65
Written Notice Mailings	\$1 per mailed written notice
The City reserves the right to engage an outside consultant to assist with the review of any submitted development plans and documents, which all incurred costs shall be borne by the applicant.	

* fee to be refunded if appeal is acted upon favorably

STANDARD PLAT LANGUAGE

THE FOLLOWING LANGUAGE SHALL BE PLACED ON ALL PLATS.

Certifications

Planning Certification (Amending and Minor Plats)

This is to certify that the City Planner for the City of League City, Galveston County, Texas, has approved this plat _____, in conformity with the laws of the State of Texas and the Ordinances of the City of League City and has authorized the recording of said Plat this _____ day of _____, 20____.

Kris Carpenter
Planning Manager
City of League City

Planning and Zoning Commission Certification (Final, Preliminary/Final, and Replats)

This is to certify that the Planning and Zoning Commission of the City of League City, Galveston County, Texas, has approved this plat _____, in conformity with the laws of the State of Texas and the Ordinances of the City of League City and has authorized the recording of said Plat this _____ day of _____, 20____.

Kris Carpenter
Planning Manager
City of League City

Doug Turner - Chairman
Planning and Zoning Commission
City of League City

Notary

THE STATE OF TEXAS *
*
COUNTY OF GALVESTON *

BEFORE ME, the undersigned authority, on this day personally appeared _____ known to me to be the person whose name is subscribed to the above and foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein and herein set out.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 20____.
Notary Public in and for the
State of Texas
My Commission Expires: _____

Surveyor Certification

This is to certify that I, _____, a Registered Professional Land Surveyor for the State of Texas, Registration # _____, have platted the above and foregoing subdivision from an actual survey made on the ground and under my direction; that this plat accurately represents the facts as found by that survey made by me, and; that all corners have been, or will be, properly monumented.

_____(Surveyor Name)_____
Registered Professional
Land Surveyor ____ (#)_____

Dedicatory Certification (language in this certification varies by Plat type.).

THE STATE OF TEXAS *
* KNOW ALL MEN BY THESE PRESENTS
COUNTY OF GALVESTON *

THAT _____(owner’s name) owner of the property subdivided in the above and foregoing plat of _____(subdivision name), a Subdivision in the City of League City, Galveston County, Texas, do hereby make and establish said Subdivision according to the lines, lots, building lines, streets, reserves, notations and easements thereon shown and designate said Subdivision as _____(subdivision name), do hereby dedicate to the City of League City the use of all streets, drives, lanes, water mains, wastewater mains, storm sewer distribution systems, courts, easements, and rights-of-way; do hereby reserve, save, except and hold privately all parks, all water courses, all drainage facilities (including detention ponds), and all common areas as shown here on forever; do hereby waive any claims for damages occasioned by the grades approved for the streets, or occasioned by the alteration of the surface of

any portion of the streets to conform to such grades, and; do hereby bind ourselves, our successors, and assigns to warrant and forever defend the title to the land so dedicated.

FURTHER, _____ (owner's name), owner of the property Subdivided in the above and foregoing plat of _____ (subdivision name), do hereby acknowledge that the dedications and/or exactions made herein are proportional to the impact of the subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City of League City.

FURTHER, _____ (owner's name), owner of the property Subdivided in the above and foregoing plat of _____ (subdivision name), do hereby bind ourselves, our heirs, successors and assigns to warrant and forever defend the title to the land so dedicated and to waive any claim, damage or cause of action that we may have as a result of the dedications or exactions made herein.

FURTHER, _____ (owner's name), owner of the property Subdivided in the above and foregoing plat of _____ (subdivision name), have complied with, or will comply with, the existing regulations heretofore on file and adopted by the City of League City, Galveston County, Texas.

FURTHER, _____ (owner's name), owner of the property Subdivided in the above and foregoing plat of _____ (subdivision name), does hereby grant drainage rights to the City of League City through all the detention Ponds of _____ Subdivision for the purpose for the conveyance of storm water runoff.

WITNESS my hand in the County of _____, Texas, this ____ day of _____, 2018.

TITLE OF OWNER OF PROPERTY

a Texas limited liability partnership

BY: _____

Signature

Print Name and Title

STANDARD PLAT LANGUAGE (CONTINUED)

The following notes should be placed on every plat:

- This property lies in Zone "__", defined by FEMA as areas determined to be _____-year flood plain, as scaled from Flood Insurance Rate Map Community-Panel Number _____, map revised _____.
- The herein subdivided tract or parcel of land lies entirely within the incorporated limits of the City of League City, Texas.
- The herein subdivided tract or parcel of land lies within the _____ Independent School District.
- In the absence of a drainage study approved by the City of League City, Texas, no Lots within the limits of this subdivision shall have more than 55% of its entire area covered by impervious materials.
- All building lines shall be as per City of League City Zoning Ordinance.
- In accordance with the City of League City Subdivision and Development Ordinance, all future utilities shall be located underground, except as may be approved by the City of League City.
- All sidewalks shall be installed such that a minimum of one-foot (1') clearance is maintained from any utility structure accessible from ground level such as manhole lids, water valves, cleanouts, power poles, meters, etc.
- No pre or post developed Storm Water Flows shall be diverted onto adjacent properties and any historical flow shall be accommodated.
- All Landscaping and Structures, including fences, at intersections shall conform to the City of League City and ASSHTO Site Distance Requirements for Motorists.
- Driveway requirements for the locations, widths, and offset from on intersection and any existing driveways or proposed driveways, shall conform to the most current General Design and Construction Standards of the City of League City.
- There are no existing nor proposed pipelines located within the bounds of this plat.
- (if applicable) There is hereby dedicated an unobstructed aerial easement 5 feet wide upward from a plane 20 feet above the ground adjacent to all utility easements, except as otherwise shown hereon. Easements may be fenced by the builder, applicant or subsequent property owner. Flatwork, landscaping and fencing are only permitted in public utility easements. The City or franchise utility companies shall have the right to remove said flatwork, landscaping or fencing for the purposes of installation, operation, and maintenance into the easements, and shall not bear the responsibility for replacement.

EXAMPLE OF DEVELOPMENT REGULATIONS (PUDS)

Each Planned Unit Development or Planned Unit Development Amendment application will include Development Regulations. The Development Regulations should include any deviation from the League City Development Codes and the base zoning district (existing or proposed) for the property. The chart below is provided as the basis for an application, and it is encouraged to add any unlisted deviations from the League City Development Code.

Proposed Development Regulations		
	Existing	Proposed
Base Zoning		
Uses		
Setbacks (Minimum)		
Front Yard		
Side Yard		
Side Yard (Corner Lots)		
Rear Yard		
Lot Width (Minimum)		
Lot Depth (Minimum)		
Lot Area (Minimum)		
Height (Maximum)		
Building Materials		
Screening		
Open Space		
Other Deviations		

EXAMPLE OF LAND USE TABLE (PUDS)

Each Planned Unit Development or Planned Unit Development Amendment application will include Land Use Table. The Land Use Table should include the acreage, zoning district regulations, and density for each land use proposed within the PUD. An example is provided below.

Land Use	Zoning District	Acreage	% Gross Acreage
Grand Parkway	RSF-7	70.0	
Landing Boulevard	RSF-7	18.8	
Ervin Street	RSF-7	22.4	
Major Arterial Streets	RSF-7	16.4	
Collector Streets	RSF-7	11.0	
Pipeline Easements	RSF-7	30.5	
Drill Sites	RSF-7	6.8	
Lakes/Detention Areas	RSF-7	131.5	
American Canal	RSF-7	9.4	
Subtotal		316.8	26.2%
Recreation Centers	RSF-5	8.5	
Parks	RSF-5	31.0	
School	PS	15.8	
Public Emergency Services	PS	4.5	
Landscape Areas	RSF-5	43.3	
Subtotal		103.1	8.5%
Commercial	CG	70.1	
Urban Village Commercial	CM	52.6	
Subtotal		122.7	10.1%
Urban Village Apartments	RMF-1.2	22.6	
Townhomes	RMF-2	58.8	
Subtotal		81.4	6.7%
Patio Homes	RSF-5	28.6	
50' X 120'	RSF-5	327.2	
55' X 120'	RSF-5	55.1	
60' X 120'	RSF-7	132.0	
65' X120'	RSF-7	42.5	
120'X130'	RSF-7	0.0	
Subtotal		585.4	48.4%
Totals		1209.4	100.0%

CIVIL PLAN REQUIREMENTS

SITE DEVELOPMENT SUBMITTAL PACKAGE – MINIMUM COMPONENTS

(Iteration # 8 – May 2018)

This document is intended as a minimum check list for site development plan submittals for commercial, industrial, and multifamily projects. It may be revised by City staff to improve the site plan submittal review and approval process. This document is available at www.leaguecity.com/planning. If this form is not completed, the site development plan will be rejected and deemed incomplete. Code references can be found in parenthesis after each bulleted item.

Site development plan submittal format notes/instructions:

- All site development plan submittals, including revisions, shall be submitted to the Building Department as part of the commercial building permit.
- To reduce the number of times site development plans go through the review process, plans that are clearly incomplete or illegible will be returned to the design professional of record with general review comments.
- For Review Sets: Hard copy plans (Two sets bound paper) and PDF Files (scales must match pdf and hard copy) are required. Site Drawing to standard engineer's scale (maximum scale: 1" = 100'), Building Drawings to standard architectural scale. Commercial building plans shall be one complete PDF file, including all requested pages.
- Record Sets: All sets sealed and signed by the professional (engineer, surveyor, and/or architect) of record as appropriate.
- The applicable fee shall be paid at the time of submittal. Failure to pay the fee with the submittal will result in rejection of the application.
- The below sheets shall be provided in each submittal packet. Failure to provide the minimum sheets listed below will result in rejection of the application.

TYPICAL SHEETS PROVIDED IN A SITE DEVELOPMENT PLAN:

Cover sheet shall include, at a minimum:

- Project title.
- Vicinity map (with North arrow) and project location depicted.
- Sheet index listing **ALL** sheets within the commercial building permit.
- Project address.
- Signature and date block from ftp site under League City Utility & Traffic Details for City's approval.
- Design firm's logo and name, phone number, fax number, email address, physical address and mailing address and an Engineers Seal pending review status.
- Clearly state the use of the property on the title page.

General and Construction Notes sheet:

- These notes are location and job specific. If adding City infrastructure, use the notes from the City's ftp site under League City Utility & Traffic Details. Any other use of these notes is at the user's liability.
- As necessary, add sheet specific notes within the plan set where applicable, i.e. high danger area, water and sewer crossing, etc.

Surveys (Sealed by Registered Professional Land Surveyor):

- A survey should be provided if there are any improvements located on the site.
- Current (within past 18 months) boundary and topographic survey, with legal or metes and bounds description.
- Tree survey and inventory and disposition plan, or letter from Certified Arborist, Licensed Surveyor, or Landscape Architect certifying that there are no Protected Trees on the site (102-12).
- Show all existing improvements.

Plat:

- A plat of record shall be provided with the commercial building plans.

Demo Plan:

- Show all existing structures and trees to be removed.

Site Plan:

- Provide final copies certified and dated by a Registered Professional Land Surveyor and/or Licensed Professional Engineer, registered to practice in the State of Texas.
- Provide a parking table that shows what is required, (based on applicable use per zoning code), and what is being provided (125-170).
- Provide a housing unit table for multi-family developments (125-71).
- Depict, label, and dimension all: property lines; existing and proposed easements; existing and proposed rights-of-way; existing and proposed structures; existing and proposed driveways, driving lanes, and curb returns; existing and proposed parking areas (with spaces numbered).
- Depict, label, and dimension all existing sidewalks or proposed sidewalks. Refer to Master Trails Plan for additional requirements when adjacent to a proposed trail. Where sidewalks do not exist, sidewalks shall be installed along all opened road rights-of-ways, unless otherwise directed by the Development Review Committee (125-140.M).
- Depict and label the location of the FEMA Hazard zones with a note specifying the effective firm panel utilized, if applicable.
- Provide Finish floor elevation and FEMA Hazard's BFEs (Base flood elevations) with source.
- Provide a note stating, "All proposed utilities shall conform to the League City Subdivision and Development Regulations, including electrical service that is required to be installed underground" (102-6(5)).
- Depict the location and required screening of the trash receptacles and all mechanical equipment (125-140.K).
- Provide a calculation of the impervious coverage on the site (Article III, Zoning Regulations).
- Label a typical parking space as 9'x19' with a 25' drive aisle (125-170).
- Alignments of all public proposed infrastructure (as applicable).

Drainage plan:

- Provide regional and sub-regional drainage area maps showing capacity and conveyance paths for existing and proposed development for NFIP 1% and 0.2% events.
- Graphically depict (with dimensions, sizes, and material types) and label all existing or proposed public or private storm sewer lines and appurtenances.
- Provide drainage calculations and mapping showing no adverse development impacts to the NFIP 1% and 0.2% WSEs.
- Depict and label the NFIP hazard zone boundaries with a note specifying the effective firm panel utilized.
- Provide inundation maps for the FEMA 1% and 0.2% events.
- Provide Finish floor elevation and FEMA Hazard's BFEs (Base flood elevations) with source.

Utilities plan Graphically depict (dimension, size) and label all existing or proposed public and private infrastructure components (i.e. all water, sanitary sewer, and storm; water meters and service tap, backflow prevention devices, etc.)

- Meters must be located within the right-of-way or dedicated easement, with the customer's edge of the meter at the right-of-way line or easement line. Meters must be on separate taps (two meters cannot wye off of a single tap.). A reduced pressure backflow device (a.k.a. RPZ) is required on all domestic commercial services and shall be located after the meter (on private property).
- Provide location of the fire backflow preventer.
- All proposed and existing easements (with Volume/Page).
- A sanitary sewer clean-out will be installed within the right-of-way or easement (As applicable any use of an existing sewer service connection may be required to be reconstructed to current standards if not found to be in usable condition).
- Public utilities located under pavement on private property shall be centered within a minimum 10-foot wide easement with construction break-out joints at the easement lines. When constructing new public water and sewer force mains on private property, all joints and fittings on public water lines and public sanitary sewer force mains shall be mechanically restrained.
- Sanitary sewer taps into manholes shall be core-cut, with a call-out on the plans as same; taps onto existing mains shall be with gasketed saddles, unless existing pipe material precludes it.
- On site water lines for fire protection shall be private and labeled as such with a double detector backflow prevention device on the customer's side of the right-of-way or easement line.
- A fire protection plan sheet shall be prepared by a certified fire protection specialist/engineer and submitted as a part of the plans.

Sanitary Pretreatment, businesses with food preparation and/or service, automotive interior and exterior cleaning, and pet grooming shall provide the appropriate pretreatment devices along with a sample well. The location of these devices should be shown on the utility/plumbing site plans. Details of these pretreatment devices shall be provided either on the same sheet or on the detailed pages. Some commercial establishments (such as photo shops, dentists, drug stores) may only require a sample well to be installed and shall be addressed on a case by case basis. It should also be noted that these systems should be plumbed separately from the sanitary facilities within the same building.

Fire Management Plan:

- Depict closest roadways to the proposed and existing building on the site plan.
- Locations of all existing and new proposed fire hydrants for the site.
- Depict the travel distance (in feet) from the closest fire hydrant, which is measured from the fire hydrant to the furthest corner of the proposed main structure. This distance must be measured as fire hose would be laid on a hard surface to the furthest corner of the building.
- Indicate the size of all water mains.
- If the building has an existing fire sprinkler system or a proposed new system show the location of the Remote FDC location(s)
- Provide the size and location of the fire sprinkler service main into the building.
- Provide Back Flow Preventer vault and location to the site plan.
- Provide the riser room location within the proposed building with the sprinkler risers and FDC locations.

A RME-G or Registered Engineer must stamp and sign the submitted sheet(s). Fire service sprinkler mains and features must have an original RME-G or Registered Engineer signature to validate the Fire Management Plan. Stamped or copy signatures are not acceptable.

Photometric survey:

- Show proposed light levels over the entire property and extended beyond the property line a minimum of three feet to verify that proposed light levels do not exceed 0.02 foot candles at property lines abutting rights-of-way and residential properties (125-140.H).

Storm Water Pollution Prevention Plan

- Provide a north arrow on the plan set.
- Provide a note stating, "The Owner and General contractor including subcontractors involved with this project will need proper site notices from TCEQ. Post the site notices from TCEQ on site where it is safely and readily available for viewing by the general public, local, state, and federal authorities, prior to commencing construction, and maintain the notice in that location until completion of the construction activity."
- Provide a note stating the primary and secondary operator's information.
- If Owner and contractors are sharing the SWPPP, a note stating such must be added to the plan.
- Provide a note stating who the MS4 operator will be.
- A Storm Water Quality Permit from League City will be required for construction projects that are 5 acres or more, this will be required before Building permits are issued. You can get this form from the City Stormwater Coordinator.
- Provide legend that includes all construction BMP's (silt fencing, inlet protection, construction entrance, concrete washout, post-BPM's and any other protection). Only reinforced silt fencing can be used on projects and SAND/GRAVEL BAGS ARE NOT ALLOWED for inlet protection.
- The owner/operator of all post-construction BMP's must have structural control devices inspected annually by a Texas Registered Professional Engineer and file a Permittee Certification of Proper Maintenance with the City annually.
- A note specifying existing and post construction BMPs as to where they are located, the type, and maintenance responsibility.
- Provide a note on seeding/sod/hydro mulch: how it will be maintained, 80% coverage must be established, etc.
- Must show location of protected inlets & ditches outside of property/project.

[Informational: Reference the General Permit TXR 150000 for additional information](#)

Landscaping/Screening:

- Final copies shall be prepared by a landscape designer, licensed landscape architect, or other qualified individual (125-190).
- Provide a landscape table that shows what is required and what is being provided. (Note: the bottom area of storm drainage detention facilities shall not be included as area counted towards the project's required landscaping) (125-190)
- Provide a proposed planting schematic, with a plant/tree list or legend (including common and scientific names, quantities, sizes, and spacing) (125-190).
- Depict and label the species and size of all existing trees greater than 1.5-inch caliper, showing which trees are proposed for removal or retention (102-12).
- Plant materials shall be labeled and drawn to scale for size at maturity (125-190).
- Show all underground utilities and/or easements that are within 5 feet of proposed tree plantings.
- Large landscaping features (trees) shall not be placed over public utilities or within their easements and rights-of-way.
- Details sheets, as applicable.

Building elevations: Plans should be drawn to a standard architect's scale. Include all facades labeled with directions and properly dimensioned.

- Provide the following note on the page, "All exterior ground, building, and rooftop mechanical equipment shall be screened from public view on all sides. Equipment to be screened includes, but is not limited to: heating, air conditioning, refrigeration equipment, plumbing line, ductwork, transformers and meter banks. Screening materials may be solid, concrete, wood, landscaping, or other opaque material that is compatible with the building architecture and effectively screens mechanical equipment so that it is not visible from a public street or adjoining lot. Screening material may have distributed openings or perforations not exceeding 50% of the surface area. Rooftop equipment may be screened using enclosure, partial screens, or parapet walls." (125-140.L)
- Provide the following note on the page, ""If brick is to be used as a veneer, it shall be weather rated kiln fired clay or slate material, or concrete brick if it is to the same as ASTM C216 or C652 and severe weather rated; such shall be no less than two and one-quarter inches in thickness when applied as a veneer. If stone is to be used, it shall be unpainted upon and shall be no less than three and five-eighths inches in thickness when applied as veneer."
- Provide a transparency calculation for each elevation fronting a roadway or access easement (Article III – Zoning Regulations).
- Provide a masonry calculation for each elevation (125-140.Q).
- Clearly label the materials being used on each elevation (125-140.Q).
- Provide Finish floor elevation and FEMA Hazard's BFEs (Base flood elevations) with source.

Building Floorplans:

- Plans should be drawn to a standard architect's scale, including all floors and labeling of all uses by area (125-170).

Site Specific Details: Each set of design plans could have the same rudimentary utility details. The list below is a minimal list. The design professional is responsible for the determination of any and all details necessary for construction of his plans. The City may require that City pre-approved details, which may be found on the ftp site under League City Utility & Traffic Details, be used. It is understood that not every detail fits every situation therefore altered or totally new designed details may be submitted for review. The City may require additional details to provide better understanding of plans.

- Water Tap and Meter Detail, (sized by Design Engineer)
- FDC vault details.
- Thrust blocks, pipe details, connections of all water mains, and FDC connections.
- Sanitary Sewer Service Tap and Lead Detail with Clean-out for Waste Water (min. size to be 6")
- Storm Water Pollution Prevention Plan Details (SWPPP)
- Sidewalk and ADA Ramp Details
- Storm Water and Post Construction TPDES Phase II details
- Curb and Street Cut details for driveway connection to City or State Roads. Details for connections to City roads can be found on the City's ftp site under League City Utility & Traffic Details. Connections to State roads shall be covered by TxDOT's detail sheet(s) of current revision.
- Traffic Control Details.

OTHER PLANS OR DOCUMENTS REQUIRED:

- Completed Availability of Service Request.
- Plan/profile drawings for public infrastructure extensions, if any, submitted to the Engineering Department. The site plans and public infrastructure plans should reference each other.
- Traffic Impact Assessment (TIA). At a minimum the TIA forms shown on our website should be submitted with the initial package submittal.
- Flood Impact Assessment (FIA) and/or master drainage plan, depending upon the development's size and phasing.
- For sites 1 to 5 acres a TCEQ "Small Construction Site Notice" form must be completed and submitted to City prior to the site pre-con meeting.
- For sites larger than 5 acres a "NOI" must be submitted to TCEQ with a copy provided to the City prior to the site pre-con meeting.
- A copy of the SWPPP must be kept at the construction site and provided to the city's Stormwater Management Coordinator.
- Phase 1 Environment Assessment.
- A Storm Water Quality Management Plan (SWQMP) is required with a permit. An example SWQMP, forms, and permit can be found on the City ftp site under Drainage & Storm Water Quality folder.
- Texas Department of Transportation permits for drainage, driveways and utility work if applicable. Driveway and road connecting to TxDOT highways will first need the approval of the City's Traffic Engineer. The approved permits are required to be submitted prior to the site pre-con meeting.
- US Army Corps of Engineers permits or documentation showing the permits have been applied for, if applicable.
- If pipelines cross the site, copies of letters from pipeline companies approving plans, prior to site pre-con meeting.
- Documentation of Historic District Commission approval, if applicable (125-51).
- Documentation of Parks Board approval, if applicable (102).

APPLICANT CERTIFICATION

By signing below, I acknowledge that I have reviewed the Submittal Checklist and have included the required submittal items and reviewed them for completeness and accuracy. I also acknowledge that my application will be rejected and deemed incomplete if all items were not submitted with accurate information.

Applicant Signature: _____

Date: _____

EXAMPLE OF REQUEST TO POSTPONE ITEM

This request will still be at the discretion of the appropriate body (e.g., Planning and Zoning Commission or City Council).

[Date]

City of League City
Planning and Development Department
300 W. Walker St.
League City, TX 77573

RE: Request to Postpone Zoning or Specific Use Permit Request

{Case Manager}:

As the applicant and/or representative of ***(insert case name)***, I hereby request that this case be postponed by the Planning and Zoning Commission/City Council ***(include appropriate body)*** to their ***(insert date)*** meeting. I request that the item be postponed until the [date] Planning and Zoning Commission Regular Meeting/City Council Regular Meeting ***(include appropriate body)***.

Sincerely,

Insert Printed Name and Signature of Applicant and/or Representative

EXAMPLE OF REQUEST TO EXTEND A PLAT

The following example letter can be used when a final (re)plat that is under review will not meet zoning and subdivision requirements within the 30-day decision period mandated by state law.

[Date]

City of League City
Planning and Development Department
300 W. Walker St.
League City, TX 77573

RE: Project name

Please allow this letter to serve as a formal request to withdraw my plat application for the above referenced plat project. I further wish this letter to serve as my notice to resubmit this application to be considered on the next submittal date within 60 days of the date the plat was filed. This is necessary because the review process is anticipated to exceed the 30-day period mandated by state law.

Please feel free to contact me if you have any questions.

Sincerely,

Insert Printed Name and Signature of Applicant and/or Representative

EXAMPLE OF REQUEST TO WITHDRAW AN APPLICATION

[Date]

City of League City
Planning and Development Department
300 W. Walker St.
League City, TX 77573

RE: Project name; Withdrawal of Application

{Case Manager}:

Through working with your staff and based on internal discussions with our team, we have decided to withdraw the above-referenced application.

Please feel free to contact me if you have any questions.

Sincerely,

Insert Printed Name and Signature of Applicant and/or Representative

LEAGUE CITY HISTORIC COMMISSION DESIGN GUIDELINES

PURPOSE AND INTENT

The design standards and recommendations are intended to preserve and maintain the integrity and character of the historic buildings. The standards also reinforce and protect the defining features of the historic district and define the elements which contribute to the particular style of the individual property.

It is the intent of the Design and Materials Guidelines to encourage the District to resemble a historic setting between 1890 and 1961 — not to replicate this time period exactly as it was. The Vision of the Guidelines is to foster a walkable neighborhood with redevelopment of residential and commercial areas on small lots to include building design, site and parking elements which reflect that era, but reflect today's needs and materials. The interior of buildings in the District is not included and is not regulated.

GENERAL CONSIDERATIONS

The historic district contains residential buildings and non-residential buildings. These standards do not address interior portions of a building or the use of a building. Many of the commercially used buildings in the Historic District were originally built for residential use. These standards should be applied to a building based on its original use and construction. For example, a residence may currently be used as an office, therefore the use is considered non-residential, but if exterior changes are proposed, the guidelines and treatment for a residential building should be used to determine if the alteration is appropriate. Guidelines and treatments should not be confused with zoning regulations.

The guidelines and treatments for commercial and institutional buildings are generally the same as those for residential buildings. Where specific information in this document is provided for commercial buildings, that is clearly identified. For additional information *A Field Guide to American Houses* by Virginia Savage McAlester is a reliable source.

Renovate, Rehabilitate, Restore, or Reconstruct

The purpose of renovating of a historic house is to create a comfortable environment compatible with the present lifestyle of the occupants while retaining its architectural character. The National Park Service defines rehabilitation as the “process of making possible a compatible use for a property through alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural

values.” Rehabilitation encourages sensitivity to the historic integrity of the property. Alternatively, the terms restoration and reconstruction suggest a more rigid depiction of a specific period as with a historic house museum. For most people a restoration is neither financially possible nor practical. In most cases, a careful rehabilitation makes the most sense. (See Secretary of Interior Standards for more information on four types of treatment of historic properties p.29)

Architectural Character. When considering alterations, changes, additions to a historic property, one should determine the architectural character of the structure. Character also includes the relationship of the house to the street, its yard, and the surrounding neighborhood. Architectural Character is determined by the basic form of the structure and functional and decorative finish materials. Both form and finish materials of each structure are identified in the Survey of Historic Properties.

Basic Forms: Building form indicates the overall shape of the building and is mainly based on the use of the building and stylistic influences at the time of construction. To determine architectural character first look at the what constitutes the basic form of the building: the walls, openings for doors and windows, and configuration of the roof and chimneys. Because use follows function, properties that share a use-type often have similarities in floor plan, roof form, size, and scale. Frequently, similar building forms are clustered together.

The basic form of the building should be preserved. If alterations have been made, returning the structure to the original form may be considered. Occasionally, a property may not fall under a single standard form due to its uniqueness or modifications over time.

The following building forms are found within the League City Historic District:

- Modified L-Plan
- Pyramidal cottage
- 1-part Commercial Block
- L-Plan
- Center Passage
- Bungalow

- Gable-ell
- Irregular
- Rectangular
- T-plan
- Massed plan, side-gabled

Finish Materials: Next consider the functional and decorative finish materials. Finish materials are of secondary importance because they are applied to the basic form finish materials include exterior masonry, siding, roof material, doors and window sashes, and the decorative trim. The entrance, defined either by a porch or decorative surround, is also important to the character of the house. Original finish treatments, if lost or altered, can usually be returned to the original configuration with less trouble and expense than the basic form. The importance of finishing materials should not be undervalued.

Most older houses have lost something over the years, bits and pieces of decorative trim, a light fixture, or a front porch. It is always appropriate to replace what is missing if you know the feature being restored was there originally and what the feature looked like. Ideally, an old photograph or original plans to use as a guide in replacing missing parts. Replace a feature if: it originally existed within the structure or it is known what the feature looked like.

Thought should be given to removing anything. Removing features of a structure that are not original is usually appropriate and often desirable. The following guidelines should be considered in approving any request:

- If it is in good condition, keep it.
- Retain and repair if deteriorated.
- Replace only when beyond repair.
- Reconstruct only when you can do so accurately using periodical photos, ghost photos, or outlines of what was there.
- New construction should be done in such a way that it has minimal effect on the original building, and, if removed, would not irreparably change the original.
- Demolition of any contributing building within a district should be carefully considered.

ARCHITECTURAL STYLES

Architectural styles may be applied to different building forms. Unlike building form classifications, architectural styles are seldom related to the use of the building. They are related to the era of construction and popular regional styles.

Not all buildings in the historic district exemplify a particular architectural style. Some are simply utilitarian and exhibit no style at all. Others may be a combination of several styles. Architectural styles may be related to the building form or may be evident by the decorative elements applied to a building. A contributing building does not need to display all of the character defining elements listed to be considered a good example of a particular style. When these character defining elements are intact, they should be preserved to preserve the overall character of the architectural style. Contributing

buildings may have decorative stylistic elements from different time periods. These changes should be considered and possibly retained during rehabilitation or restoration. Architectural styles may be varied within a neighborhood depending on the date of construction or use.

The table below lists the styles and Survey ID of contributing resources in the League City Historic District:

STYLE	No.	Survey ID
Ranch	16	244; 245; 367; 379; 386; 404; 435; 436; 440D; 448; 450; 451; 474; 475; 477; 478
No Dominate Style	16	242; 249; 298B; 300; 310; 377A; 377B; 405; 410; 411; 423; 428; 433; 440B; 440C; 444B
Craftsman	8	288; 337; 392A; 392B; 396; 425; 428A; 488
Queen Anne	8	235; 258; 307; 370; 375; 385; 394; 444A
Vernacular Hipped	7	303; 319; 384; 420; 427; 468; 469;
Minimal Traditional	5	376A; 376B; 418A; 418B; 447
Folk Victorian	5	243; 304; 390A; 390B; 413
Commercial	4	225; 248; 290; 380
Post-War Modern	4	252; 255; 302A; 302B
Bungalow	2	258; 316
Art Deco	1	414
Carpenter Gothic	1	290
National Folk	1	486
Neoclassical	1	392
Tudor Revival	1	449

National Folk (after ca. 1850-ca. 1930)

The spread of railroads spawned the national folk house as building materials were no longer restricted to materials available locally. In the South, the form was generally a one story, gable-front with an additional side-gabled wing added at right-angles to the gable-front. A shed-roofed porch was usually placed within the corner made by the two wings. There were different variations of this style such as chimney placement, porch size, porch roof shape and different patterns of extensions to enlarge the house.

Characteristics Include:

- Low to Medium-pitched hipped or gable roof
- Façade typically flat with simple and minimal detailing
- Covered Porch with columns or railings
- Minimal to medium eave overhang
- Single or double hung windows

- House forms: Gable-front, Gable-front-and-wing, Hall-and-parlor, I-house, Side-gabled or Pyramidal



Medsger Home

1015 3rd Street. This is the only building in the Historic District whose primary style is the National Folk style. Alterations to the original structure include replacement of exterior wall siding, enlargement of the porch to wrap around to the side, porch supports replaced, some windows have been replaced, window openings altered, and storm windows added.

Folk Victorian (1870-1920)

Folk Victorian houses can be found throughout the country. This style is a combination of ornate Queen Anne trim and detailing on simple vernacular house forms. Folk Victorian houses are distinguished from true Queen Anne house by the symmetrical façade and lack of textured and varied wall surfaces seen on Queen Anne houses. There are five main house forms that are closely related to the National Folk (post-railroad) houses.

Characteristics include:

- Basic house with front porch and simple roof form (pyramidal, gable or hip)
- Symmetrical facade (except for gable-front and-wing types)
- Spindles or turned columns as porch supports
- May have ornate porch railings (lace-like spandrels and turned balusters for porch railings and suspended friezes or flat jig-saw cut trim)
- Simple windows, vertical orientation, single or double hung
- Wood siding and trim
- House forms: Gable-front, Gable-front-and-wing, Side-gabled (1 or 2 story) or Pyramidal



T.J and Mary Dick House
720 2nd Street exemplifies the Folk Victorian Style with a basic house with a symmetrical façade, front porch, and ornate porch railings.

Carpenter Gothic (ca. 1840-1880)

In the United States, an abundance of fine lumber led to the interpretation of Gothic Revival architectural details applied to wooden structures built by carpenters, and the style became known as Carpenter Gothic. By the late 1800s, the popularity of Carpenter Gothic declined but did not entirely disappear. Most frequently after 1880, Carpenter Gothic was used for houses and small churches. While Gothic Revival structures, especially churches and commercial buildings, are found in cities, builders of the day favored pastoral settings with lush lawns for their Carpenter Gothic structures.

Characteristics include:

- Steeply pitched roofs and gables,
- Carved porch railings
- Strong vertical design elements, such as board and batten siding.
- Pointed arch windows with leaded stain glass
- Some fancy scroll work (jigsaw details) on eaves and gable end
- Window trim typically replicated the masonry trim of English Gothic cathedrals



St. Mary Mission Church
620 E. Main Street

Dedicated in 1920, this church is an intact example of the Carpenter Gothic style. Characteristics include frame construction, wood cladding, steeply pitched roof and pointed arch windows.

Queen Anne (1880-1910)

Queen Anne is the style most often associated with Victorian era, replacing the Carpenter Gothic as the dominant style of residential architecture from 1880 to 1900. The expansion of the railroad and industrialization enabled new building methods, supplies, and pre-cut architectural details to be shipped and used across the United States during this period.

Characteristics include:

- Steeply pitched roof of irregular shape, usually with front facing gable
- Patterned shingles and/or brickwork, clapboard, variably colored and highly decorative
- Bay windows, towers, turrets, overhangs, wall projections, and wall materials of different textures are used to avoid a smooth wall appearance
- Asymmetrical façade with one story high porch extending along one or both side walls. Second floor porches may be present
- Decorative wood details such as turned porch supports, a frieze suspended for the porch ceiling, jigsaw trim, spindles, finials, and knob-like beads
- Gables are commonly decorated with patterned shingles or other elaborate treatment
- A tower, when present, is commonly placed on one corner of the front façade. Towers are usually round or polygonal. Square towers are less common.

Dow House.

320 Kansas Avenue is an intact example of a Queen Anne style residence.



Colonial Revival (1880-1955)

Colonial Revival was a popular style for residential buildings across the country during the first half of the 20th century. The backbone of Colonial Revival is found in the Georgian and Adam styles.

Characteristics include:

- Front door accentuated with a pediment supported by pilasters or extended to form entry porch
- Symmetrical front facade with the entry door in the middle
sidelights and a fan light on entry door may be present
most frequently two-story but one story is not uncommon
- Constructed of brick with boxed roof/wall intersection with minimal overhang
- Double-hung windows commonly with multi-pane glazing in one or both sashes



310 Waco Street

Was formally called League Colony, now known as 3rd Street Village. This two-story multi-family dwelling is an example of the Colonial Revival style evidenced to the entry door surround, brick construction and eaves with a minimal overhang.

Neoclassical (1895-1955)

The Neoclassical style dominated residential architecture throughout the country during the later decade of the 19th century and the first half of the 20th century. The World's Columbian Exposition (also known as the Chicago World's Fair) held in Chicago in 1893, mandated a classical theme for buildings. The Exposition, attended by approximately 25.8 million people and widely photographed, led to a resurgent interest in Greek and Roman architecture. As a result, Neoclassical does not describe a single architectural style, rather it is a revival or adaptation of classical forms.

Characteristics include:

- Simple building form: Side gabled, front gabled, or one-story hipped roof
- Facade dominated by a full height porch supported with Ionic or Corinthian columns
- Main body of house is symmetrical established by the entry door and windows
- Elaborate horizontal cornices and roof line balustrade

- Pediment capping the large windows



**Farrow House
(Lewis-Farrow House)**

812 E. Main Street.

This house is an example of a vernacular cottage with minimal neoclassical details.

ARTS & CRAFTS ERA (1880-1910)

Arts & Crafts movement encouraged more functional aesthetics, use of natural materials, and a greater degree of craftsmanship that was missing for the more ornate or traditional styles of the period. Arts and crafts architects and designers thought that a return to a simpler, less pretentious style would lead to a healthier, more comfortable and productive home. This movement greatly influenced the Craftsman and Bungalow styles.

Craftsman (1905-1930)

Craftsman style architecture began in southern California in 1905 as the dominant style for smaller homes until the early 1920s. The Craftsman style bungalow utilized the large porch and practical floor plan from earlier style homes became incredibly popular, and quickly spread across the country by pattern books and popular magazines. Consequently, most Craftsman houses are bungalows but not all bungalows are Craftsman style. The true Craftsman style is characterized by its many fine details and excellent workmanship.

Characteristics include:

- Low-pitched gable roofs with deep eaves
- Exposed roof rafters and decorative beams
- Dormers
- Full or partial width porches with tapered or square columns that rest on massive masonry bases continuous to the ground with no break at the porch floor

- Windows were typically double hung with multiple lights in the upper window and single pane in the lower
- Horizontal wood siding and natural wood trim
- Most often 1½ stories high but two-story examples are seen



Snell/Kilgore House.

403 Kansas Avenue is an intact example of the Craftsman style. It exhibits a low-pitched side gable roof with deep eaves; exposed roof rafters; dormer, partial width porch with square columns on masonry piers; most of the windows are double hung with multiple lights in the upper window and single pane in the lower; and wood siding. The porch has been extended and stairs added to the side.

Bungalow (1905-1930)

There is much disagreement as to what a bungalow means. Some sources cite scale as opposed to style, others describe the bungalow as one facet of the Craftsman movement. The bungalow style has its roots in 19th century Bengal, India. English officers had small houses built in the “Bengla” style (one story structures with tile or thatched roofs and wide, covered verandas). The American Bungalow was initially used as the style for summer homes in the 1880s as their simplicity fused with the philosophy of the Arts and Crafts Movement. By the 1900s, the bungalow was the predominant form for smaller houses built throughout the country between 1905 and 1920 because it was affordable and practical. The essential distinction between the Craftsman style and the Bungalow style is the level of fine detail and workmanship seen in Craftsman style houses.

Characteristics include:

- 1-1½ story, occasionally two
- Low-pitched gable or hip roof
- Deep eaves with exposed rafters
- Open floor plan
- Dormers, shed, hipped, or gabled.
- Covered front porch with massive columns under extension of roof
- Square porch columns commonly used
- Windows typically double hung with multiple lights in upper window and single pane in lower. Simple wide casings.



113 Illinois Street

This is a simplified bungalow form with a covered front porch with square porch columns, double hung windows and a low-pitched gabled roof.

Tudor (1890-1940)

Tudor is the dominant style of residential architecture for a large portion of the early 20th century suburban houses throughout the country. At first, this style was used for large, architect-designed residences, which copied English examples. The style began to be used on more modest homes in the 1920's and 1930s.

Characteristics include:

- Asymmetrical façade dominated by one or more prominent front-facing gables
- 1½-2 stories
- Steep roof, cross-gabled with decorative, non-structural half timbering
- Tall, narrow windows(double hung or casement) with multi-pane glazing or stained glass
- Small front porch, minimal in some instances
- Front door with round or Tudor arch
- Various materials used including brick, stone, timbers, and stucco infill
- Massive, brickwork chimneys sometimes crowned with decorative chimney pots



408 N Iowa Avenue.

This house exhibits both the Craftsman and Tudor styles. It is a relatively intact and interesting example of transition between the two styles. The asymmetrical façade with prominent front-facing gables and steeply pitched roof are Tudor characteristics. The porch, porch columns resting on masonry bases continuous to the ground, and horizontal wood siding are representative of the Craftsman style.

Art Deco (1920-1940)

The Art Deco style was the earlier form of the Modernistic style. The Art Deco style was introduced at the Paris Exposition in 1925. The term “Art Deco” comes from the French phrase “Arts Decoratifs”. The style reflects the modernity of science and industry from this time period.

Art Deco is characterized by an overall streamlined appearance. The style incorporates angular shapes with vertical projections above the roof line and ornamental use of zigzags, stylized animals, water, sunbursts, and other period designs. Art Deco was commonly used in public and commercial buildings, particularly office buildings and movie palaces when sound films were introduced but it is extremely rare in residential construction.

Characteristics include:

- Symmetrical façade is most common
- Smooth wall surface, usually stucco but may be masonry or concrete block
- Zig zags, chevrons, and other stylized geometric patterns used as decorative elements on façade
- Windows may be wood, metal, casement or sash
- Roof is typically flat with prominent central parapet at the entry or other vertical projection above the roof line to give a strong vertical emphasis.



2017 Survey photograph

League City School

400 S. Kansas exhibits the typical symmetrical façade with a prominent central entry rising above the roof line, smooth brick wall surface, and horizontal designs above the main entry.

Undated Photo courtesy of The Portal to Texas History



POST-WAR MODERN ERA (1946-1960)

Residential

The conclusion of World War II signaled a new period of domestic building in the United States and new modern styles gained popularity. During World War II (1941-1945), residential construction halted as labor and materials aided the war effort overseas. When construction resumed in 1946, traditional residential styles of home based on historic precedent were largely abandoned. Two unrelated situations to this change in residential design. The first was the long residential building hiatus. The second was the need for housing for soldiers returning home at the end of the war coupled with their ability to take advantage of President Roosevelt's Servicemen's Readjustment Act (GI Bill) and purchase low-mortgaged homes. This resulted in a post-war building boom swept across the nation as Americans moved to suburbia to purchase houses in sprawling tract developments. From roughly 1945 to 1975, the United States experienced an unprecedented housing growth with more than forty million postwar residences constructed during this period.

Post-war era houses were designed to accommodate modern conveniences. Utility rooms and attached garages houses automatic washing machines and other appliances. Three residential styles emerged during this period: Minimal Traditional, Split Levels, and Ranch homes. Ranch homes became the most popular style as they were relatively inexpensive and used simple material with none of the traditional details of earlier styles.

Minimal Traditional (1935-1950)

The Minimal Traditional Style first appeared in the 1930s evolving out of the Great Depression's need for a low-cost home. The style offered a flexible, compact design that accommodate family needs. Simplicity is the defining feature of this style. Generally, the house was 1,000 square feet or less and lacked exterior ornamentation.

Characteristics include:

- Low or intermediate -pitched roof, most often with a gable
- Small house, generally 1 story or 1½ story
- Roof eaves have little or no overhang
- Double hung windows, multiple paned or 1 over 1
- Minimal amounts of architectural detail
- Rarely has dormer.
- Rectangular or L-shaped plan with small inset entrance or exterior stoop



Pearl's Cottage

805 3rd Street is a small one-story house in the Minimal Traditional style evidenced by It has the commonly seen low-pitched roof with little overhang, double hung windows, little architectural detail and no dormer.

Ranch (1935-1975)

The Ranch style began in the mid-1930s in California. It gained popularity in the 1940s and became the dominant style for residential architecture during the 1950s and '60s. The dependence on the automobile allowed for the development of suburban neighborhoods with larger lots, which permitted taking advantage of the longer width of the front facade. The Ranch style also included additional interior space with the family room. Design elements included patios with sliding glass doors, picture windows, and built-in planter boxes.

Characteristics include:

- Asymmetrical one-story, rectangular, L- or U-shaped structure
- Garage or carport usually attached
- Low pitched roof (4:12, hipped or gable) with asphalt shingles
- Moderate to wide eaves with 2-4 foot overhangs
- Brick veneer or frame construction with horizontal orientation
- Minimal ornamentation other than decorative iron or wooden porch supports
- Large fixed picture windows in principal rooms, flanked by operable double hung or casement windows
- Decorative shutters commonly seen
- Large chimney often with accent bands of stone.
- In warm climates, many homes featured large sliding glass doors to patios and pool areas



320 S. Kansas Avenue. This house is a typical one-story brick ranch house with an attached garage, low pitched roof with asphalt shingles, and wide eaves. There is minimal ornamentation other than the wooden porch supports and decorative shutters.

Post-War Modern Era (1946-1960)

Non-residential

The innovation in non-residential building technology was largely due to World War II (1939-1945) and its aftermath. Wartime industrial demands resulted in shortages of steel and other building materials. This led to the use of new materials such as aluminum and new technologies in construction, particularly the use of glass, steel, and reinforced concrete. The defining features of this style is that form should follow function and the rejection of ornamentation in favor of minimalism or simplicity of design. Post-war modern architecture became the major architectural style for institutional and corporate buildings during this time period.



114 Park Avenue is an example of the Post-War Modern Style. Built in 1955, the building was previously used as the League City Masonic Lodge and is now used as a church.

700 2nd Street is another example of Post-War Modern style.



Mansard (ca. 1940-1985)

The Mansard style was the more formal style of houses built during the era of the more informal ranch style houses. Many subdivisions developed during this time period had deed restrictions requiring one-story houses or low roof heights. The Mansard style met many of the one-story, low height regulations while providing a two-story living space. Because the Mansard style required only one story of masonry veneer (with the remainder of the wall surface covered in roofing material), it was relatively inexpensive to build. This style also became very popular for apartment complexes and other small-scale commercial buildings.

Characteristics include:

- Mansard roof (dual pitched hipped roof) generally with dormer windows on steep lower slope.
- Entrances generally with arch sometimes recessed into main body of house
- Windows and dormers may have arches
- One story with second story often under mansard roof
- Wall surface normally brick
- Symmetrical and asymmetrical main building forms
- Paired front doors are most commonly seen



310 Waco Avenue

This residential structure is an example of the Mansard Style. Formally known as League Colony, currently called 3rd Street Village. Characteristics are mansard roof with dormer windows with arches on lower slope, one-story with 2nd story under the mansard roof, and brick wall surface.

Vernacular – Hipped Cottage and Hipped House

Vernacular cottages and houses are buildings that have no particular or generally recognized style, but are adaptations to the local environment, climate, and available materials, devised to meet the needs of common people in their time and place. Many vernacular homes were built by their owners or by people not schooled in any kind of formal architectural design. The criteria for design choice of vernacular is thought to be the cost of construction and/or local architectural traditions. Some vernacular buildings may contain elements that are associated with a standard style.

Hipped Roof

A hip (or hipped) roof slopes down to the eaves on all four sides. Although a hip roof has no gable ends, it may have dormers or connecting wings with gables. When the building is square, the hip roof is pointed at the top like a pyramid. When the building is rectangular, the hipped roof forms a ridge at the top.

Vernacular Hipped Cottage

Characteristics include:

- One-over-one, or two over-two windows, arranged in pairs or singularly
- Hipped roof that may have dormer
- Wood siding
- Full width front porches

714 2nd Street is an example of a Vernacular Hipped Cottage with a pyramid-shaped, hipped roof indicates the original building was square and the rear portion a later addition. The building has a full width front porch, and wood siding. The roof dormer, porch supports, brackets, and rails are also more recent additions.



King House (King-Atkinson House) 803 2nd Street

This house is a relatively intact example of an early Vernacular Hipped Cottage with a gable on hip roof.



2017 Survey photograph



Undated photograph (City of League City)

Vernacular Hipped House



Dibrell/Coons House

720 3rd Street is an intact example of a Vernacular Hipped House built after the arrival of the railroad. Houses were built with prefabricated materials and some had stylistic detailing. This house originally had classical columns as shown in an early undated photograph. Some windows have been replaced or modified; gable detail on roof has been removed; porch columns and balustrade replaced, and porch brackets added.

Vernacular Gabled Cottage

The gabled cottage is a simple 1 or 1½ story house with a front-gabled roof. They generally have an attached porch. These cottages are orientated perpendicular to the street. Their narrow form made front-gabled houses well suited for urban lots. They generally have a center or side hallway to access individual rooms with the entrance location indicating the location of the interior hallway. There are very few decorative elements such as brackets or fretwork.

Characteristics include:

- Steeply pitched, front-gabled roof
- Usually 1 to 1½ story
- Narrow façade
- Full-width porch with roof supported by wood columns
- Few decorative elements
- Drop siding or narrow lap siding, sometimes shingles



423 E. Saunders is an example of a Vernacular Gabled Cottage.

Commercial Buildings

Commercial architecture from the late 19th to the mid-20th century is often discussed in terms of the materials used (masonry, cast iron, terracotta, wood) and the specific features used to divide the structure into horizontal or vertical units. Specific architectural styles are often apparent through the detailing – the use of color, the pattern of brick laying, the shapes of doors and windows, and the types of façade ornamentation (or lack thereof).

Other than houses that have been converted to commercial uses, the one-part block commercial building form is seen in commercial areas of the historic district and used mainly for retail space. These buildings generally are not associated with any specific architectural style and were constructed between 1909 -1925. Ornamentation was generally limited to the front façade on historic storefronts. Cheaper materials were used on party walls and the rear elevations which were often hidden from view.

Characteristics include:

- Simple, one story box with a decorative facade facing the street
- Typically store front consisted of large windows and recessed entryways
- Flat roof surface with raised parapets
- Predominant exterior finishes were exposed brick or stucco



201 Michigan Avenue is an example of one-part block commercial. The building was constructed in the late 1920s and was used as the League City Pharmacy with the rear was the office of Dr. O. Patten

DESIGN STANDARDS

Site Standards

Site Standards	Residential	Commercial
Minimum Lot Size	6,000 sq. ft.	See Olde Towne District regulations
Minimum Lot Width	50 ft.	
Maximum Height	42 ft.	
Minimum Front Setback	20 ft.	
Minimum Side Setback (Interior Lot)	5 ft.	
Minimum Side Setback (Corner Lot)	10 ft.	
Minimum Rear Setback *	10 ft.	
Front Porch Depth	8 ft. minimum	
Front Porch encroachment into front yard setback	8 ft. maximum	

*Minimum rear setback where rear alley is provided may be reduced to 6 feet for attached or detached garages.

Front Façade

1. The front façade and main entrance of all primary buildings shall face the public street.
2. All windows along the front façade of the primary building shall be consistent in size, scale, and height. Dormer windows, transoms, gable windows and glass block windows are exceptions to this requirement provided they add to the architectural character of the building.

Accessory Structures and Garages

Accessory Uses and Structures shall follow Article IV, Division 2, except as follows:

1. Accessory structures and garages that are separate from the primary building shall complement the architectural character of the primary building and shall be comprised of materials, roof material and pitch, and architectural design similar to the primary building.
2. No accessory structure or garage that is detached from the primary building shall exceed the height of the primary building and shall not exceed 50 percent of the total mass of the primary building.

Garages

The following regulations apply to new garages based on garage type:

1. *Flush or semi-flush recessed.* Garage doors shall not exceed 19.5 feet in width.
2. *Side-loaded.* Windows shall cover a minimum of 12 percent of any garage wall facing the street and be consistent in size, scale, and horizontal plane to windows located on the front façade of the primary building.
3. *Alley/rear loaded.* Garage shall be setback a minimum of 5 feet from the street or alley right-of-way. If available, parking shall access a site through an alley.
4. *Detached.* Garage shall be separated from the primary building by a minimum of 5 feet.

5. *Protruding Garages.* No existing garages shall be expanded toward the front façade that will allow the garage to be within 7 feet of the front façade of the house.

Off-Street Parking and Loading

Off-street parking and Loading shall follow regulations found in Article IV, Division 5 and Olde Town District regulations.

Landscaping and Buffer Yards

Landscaping and buffer yards shall follow regulations found in Article IV, Division 6 and Olde Towne District regulations.

Fences

Low wooden picket or iron fencing are appropriate in front yards and in side yards of corner lots. High solid walls obscuring the view of the house and/or yard are not appropriate at the front of the house. Privacy is often desired in the backyard today; high, solid flat top fencing is generally acceptable in the back yard if it is not obvious or obtrusive from the street.

<i>Fence Regulations</i>	<i>Residential</i>	<i>Commercial</i>
Height-Front Yard	4' maximum	Not allowed
Height-Front and Side Yard-Corner Lot	4'	
Height-Side and Rear Yard	7' maximum	7' maximum
Transparency-Front Yard	35% minimum	N/A

Permitted Fence Types:

- Picket
- Post
- Hedge
- Wrought Iron & Aluminum
- Stone
- Brick
- Wood and wire
- PVC



PVC



Stone and stucco







Treated Pine Pickets



Wrought Iron w/
wood structural
frame

Residential and Commercial Site Development

New construction, Addition, and Renovation

<p>Parking Parking regulations in addition to those found in the Development Code</p>	<ul style="list-style-type: none"> • Flexible car counts • Shared and off-site parking permitted and encouraged • On street parking permitted for 70' ROW streets except on FM 518
<p>Street & Parking Area Materials</p>	<ul style="list-style-type: none"> • Streets: Concrete-FM 518; Asphalt-all other streets • Alleys: Crushed stone, crushed granite, brick pavers • Parking Areas: Crushed stone, crushed granite, concrete, brick pavers, stamped & stained concrete, water pervious asphalt. • Accents: Concrete, brick pavers, stamped concrete
<p>Walks, Trails, Paths, Driveways</p>	<ul style="list-style-type: none"> • Brick Pavers • Regular & Stained Concrete • Crushed Gravel • Crushed Granite • Pavers <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>Standard brick over 4" concrete</p> </div> <div style="text-align: center;">  <p>Acid stain concrete w/ brick inserts</p> </div> <div style="text-align: center;">  <p>Pavestone brick on a sand bed</p> </div> <div style="text-align: center;">  <p>Acid stain concrete w/ Leaf Patterns</p> </div> </div>
<p>Signs Also see Sign Regulations</p>	<ul style="list-style-type: none"> • Wood • Metal • Acrylic & Vinyl • Brick & Stone • Café "Menu" A-frame (easel type) signs as approved by the Historic Commission • Combinations of above • No internally lit signs
<p>Exterior Lighting</p>	<ul style="list-style-type: none"> • Standards to be Wood, Metal, or Concrete • Comply with ESI Code and non-polluting Dark Sky Guidelines • Building Mounted Lights • Ground Mounted Pedestrian Lighting • Comply with current Energy Code • New Home construction to meet or exceed "Energy Star" requirements

• Street Lighting

Standard Historic District-Street Lights

Exterior Materials

Exterior materials used for new construction, additions, or renovations should match, as closely as possible, existing or similar to those commonly used in the area before 1940. There are no Historic District requirements for interiors.

Residential Exterior Materials

New Construction, Addition, and Renovation

Vertical Surfaces	<ul style="list-style-type: none"> • Siding and Trim: Wood or fiber cement boards, in lap, flush, drop or butt configurations. • Brick: Period or Antique, other as approved by Historic Commission • Stone. Austin, River, other as approved by Historic Commission
Roof	<ul style="list-style-type: none"> • Metal • Cement fiber • Composition (dimensional) /Architectural shingles • Awnings fabric or metal
Roof Shape	<ul style="list-style-type: none"> • Gable • Hip • Combination of Hip/Gable • Flat roofs as approved by the Historic Commission • No overly complex roof except as approved by the Historic Commission
Window Type	<ul style="list-style-type: none"> • Single or Double Hung • Awning/Casement Type

	<ul style="list-style-type: none"> • Divided lite
Window Material	<ul style="list-style-type: none"> • Wood • Wood clad • Vinyl, Vinyl Clad wood • Metal
Doors	<ul style="list-style-type: none"> • Wood, Metal, Fiberglass Panel with or without glazing
Porches	<ul style="list-style-type: none"> • 6'-8' depth • 50% minimum of primary front elevation must be porch

Commercial Exterior Materials

New Construction, Addition, and Renovation

Vertical Surfaces	<ul style="list-style-type: none"> • Siding and Trim: Wood or fiber cement boards, in lap, flush, drop or butt configurations. • Brick: Period or Antique, other as approved by Historic Commission • Stone: Austin, River, other as approved by Historic Commission
Roof	<ul style="list-style-type: none"> • Metal • Composition (dimensional) /Architectural shingles • Awnings fabric or metal
Roof Shape	<ul style="list-style-type: none"> • Gable • Hip • Combination of Hip/Gable • Flat roof w/ screen for mechanical equipment
Window Type	<ul style="list-style-type: none"> • Single or Double Hung • Awning/Casement Type • Divided lite • Storefront systems which mimic historical patterns
Window Material	<ul style="list-style-type: none"> • Wood • Wood clad • Vinyl, Vinyl Clad wood • Metal
Doors	<ul style="list-style-type: none"> • Wood, Wood clad, Metal, Fiberglass Panel with or without glazing, Vinyl, Vinyl Clad wood • Commercial store front systems which mimic historical look

HISTORIC DISTRICT PLANT PALETTE

This plant palette is provided for the convenience of those who wish to use native plantings. It is not mandatory that you use plants from this list. There is no requirement for the Historic Commission to approve any type of plantings.

HISTORIC DISTRICT PLANT PALETTE

Native: n Drought Tolerant: x Song birds: s Hummingbirds: h Butterflies: bf Evergreen: e

<p>LOW PERENNIALS 9" - 24" Dianthus — e Gallardia -- n, x Rain Lilies Rudbeckia -- n, x Gulf Coast Penstemon -- n, hb, e Bulbine — e, bf Verbena — bf Porter Weed — e Wild Ageratum -- x Walking Iris — e Skull Cap — e Society Garlic -- x, e Rain Lily — e</p>	<p>LAWN GRASSES St Augustine Palmetto</p>
<p>MID-SIZE PERENNIALS 2' - 5' Crinum — e Daylilies — e Spider Lily — x Amaryllis — e Spiderwort -- n Dwarf Penta — bf, e David Verity Cuphea — e, x Bat Face Cuphea -- x, e Pine Cone Shrimp Plant — hb, e Tall and Blue Spiderwort — n Mexican Mint Marigold — bf, x Favonia -- n, e Tecoma Stans -- x, n, x Gay Feather — n Salvia Indigo Spires -- x, e Butterfly Weed — x, bf Fireman's Cap -- x, e Liatris Spicata — x Cat's Whiskers Gaura -- n Drummond Turk's Cap -- n, bf, e Chile Pequin -- n, x, bf</p>	<p>GRASSES Bamboo Muhly — (semi) e Gulf Muhly — bf, x, n Fountain Grass Lindheimer Muhly — x, n Gold Bar Maiden Grass Prairie Sky Switch Grass — n</p>
<p>TALLER PERENNIALS 5' - 10' Angel's Trumpet — e Turk's Cap -- n, x, hb, bf, e Fire Spike — e Pride of Barbados — e Texas Star Hibiscus -- n, x Coral Bean — hb, bf, n, x Firebush -- x</p>	<p>GROUND COVERS Thyme – Creeping — e Sedum — n, e Australian Violet — e Strawberry Begonia (shade) — bf</p> <p>DWARF SHRUBS 3' - 5' Creeping Rosemary — e Upright Rosemary — e Pink Skull Cap Dwarf Barbados Cherry — bf, e, n Virginia Sweetspire — x, e Dwarf Wax Myrtle -- n, bf, e Roses: Antique roses — e Holly Fern — e Dwarf Yaupon Holly — e Lindheimer Muhly -- n Giant Liriope — e Palmetta Palm -- n, x, e</p>
	<p>LARGE SHRUBS 5' - 15' Yaupon Holly -- n, e Duranta — bf, e Bottle Brush — e Sasanqua Camellia — e Rusty Blackhaw Viburnum — sb, e, n Walter's Viburnum — sb, e Strawberry Euonymus — n Loropetalum — e Pineapple Guava — e Hummingbird Bush — hb, x Brunfelsia — e Sophora Tomentosa — e, n American Beauty — x, bf, n</p>

<p>WETLANDS & BOG GARDEN PLANTS Lady Fern Buttonbush, honey balls, globe flowers Southern Swamp lily, string lily Swamp sunflower Waterleaf, water olive Southern Blue Flag Iris White water lily Sensitive fern, bead fern, sympathy fern Cinnamon fern Royal fern Tuckahoe, arrow arum Pickerel weed Arrowhead, duck-potato, wapatu Lizardtail, water-dragon Houston meadow rue Virginia chain fern Swamp Sunflower</p>	<p>SMALL TREES 4'- 30' Two Wing Silver Bell -- n, x Texas Persimmon -- n, bf, x, e Chinese Fringe Tree Native Fringe Tree -- n, s, x Button Bush -- n Parsley Hawthorne -- n, s Yaupon -- n Common Wax Myrtle -- n Texas Mountain Laurel Bay Laurel Common Vitex, Chaste Tree Possum Haw -- n Crepe Myrtle Duhoon Holly -- n Mexican Plum -- n, bf, x Anacacho Orchid Tree -- n Fireman's Cap Red Bud -- hb, x, n</p>
<p>INVASIVE LIST PROHIBITED SPECIES * Alligatorweed Giant reed, Giant cane Balloonvine, Love in a puff Japanese dodder Deep-rooted sedge Common Water Hyacinth Hydrilla Purple Loosestrife Melaleuca Eurasian Watermilfoil Water lettuce Kudzu Common Salvinia Giant Salvinia Brazilian Peppertree Tropical Soda Apple Chinese Tallow Tree</p> <p>SPECIES OF CONCERN * Elephant ear Privet, Japanese Privet, Chinese Vaseygrass</p> <p>Source: Galveston Bay Estuary Program www.gbep.state.tx.us</p>	<p>SHADE TREES 30'+ Pecan Tree -- n, x Willow Oak -- n, bf, x Bur Oak -- n, bf, x White Oak -- n, bf, x Live Oak -- bf, e Nuttall Oak Monterrey Oak -- bf Swamp Chestnut Oak -- n, bf River Birch -- n, x Drummond Red Maple -- n, x Bald Cypress -- x Montezuma Cypress (no knees) Southern Magnolia -- s, e Black Gum -- n, s, x Loblolly Pine -- s, e</p> <p>VINES Cross Vine -- e Carolina Jasmine -- bf, e Star Jasmine -- e Dutchman's Pipe Orchid Vine -- e Coral Honeysuckle -- s, e Rangoon Creeper -- e Sky Flower Vine Coral Vine -- x Muscadine -- n, x Passion Vine (Purple) -- x</p>

PLANT MATERIAL SUGGESTED READING & REFERENCES

Habit Gardening for Houston and Southeast Texas

Mark Bowen

Naturalistic Landscaping for the Gulf Coast

Mark Bowen

Native Texas Plants, Landscaping Region by Region

Sally Wasowski and Andy Wasowski

A Garden Book for Houston and the Gulf Coast

River Oaks Garden Club

Perennial Garden Color, Cottage Gardens, Old Roses and Companion Plants

William C. Welch

Southern Herb Growing

Madeline Hill and Gwen Barclay

Plant Dictionary, Feb. 9, 2004 (Draft Booklet)

Mark Fox Landscaping (Bacliff, Texas)

From A to Z: Perennial Plants for Galveston County (Booklet)

Texas Agricultural Extension Service (Dickinson, Texas)

A Guide to Invasive Plants of the Bay Area

Galveston Bay Estuary Program

Houston Garden Book

A Complete Guide to Gardening in Houston and the Gulf Coast

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code required work to make properties functional is appropriate within a preservation project.

Standards for Preservation

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. A property will be used as it was historically or be given a new use that maximizes the retention of distinctive materials, features, spaces and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Standards for Restoration

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. A property will be used as it was historically or be given a new use that interprets the property and its restoration period.
2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces and spatial relationships that characterize the period will not be undertaken.
3. Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.
4. Materials, features, spaces and finishes that characterize other historical periods will be documented prior to their alteration or removal.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.
6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials.
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
10. Designs that were never executed historically will not be constructed.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location

Standards for Reconstruction

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to the public understanding of the property.
2. Reconstruction of a landscape, building, structure or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts that are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.
3. Reconstruction will include measures to preserve any remaining historic materials, features and spatial relationships.
4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color and texture.
5. A reconstruction will be clearly identified as a contemporary re-creation.
6. Designs that were never executed historically will not be constructed.

Historic District Map



GENERAL PROVISIONS

ITEM 101 GENERAL INFORMATION

101.1 Purpose.

It is the intent of these General Design and Construction Standards (“Standards”) of the City of League City, Texas, to state the requirements for sub-dividers, developers, engineers, surveyors, realtors, and other persons interested and involved in the development of land. Where adopted, the applicable City master plan shall be adhered to. Further, it is the intent, purpose, and scope of these Standards to promote and protect the health, safety, and general welfare of the public.

Presented herewith are the general requirements of the Engineering Department for designing public storm sewers, drainage facilities, water lines, paving, and sanitary sewers within the City of League City and its extraterritorial jurisdiction (“ETJ”). These requirements are the general guideline to inform the design engineers and contractors performing work in League City of the Department’s policies and procedures. In no way does the following information provide all answers to design and construction questions or situations; however, it does provide a means to initiate the design and construction of facilities in the manner utilized by the Utilities and Street Departments.

The design of any public utility or paving must be approved by the Engineering Department prior to any issuance of a permit for its construction.

Upon approval of construction by all appropriate City Inspectors, the City Engineer will issue a Final Acceptance Letter for the Development. All warranties, except warranties for streets, shall start at the time of final City acceptance. Street warranties shall start upon ninety (90) percent completion of build-out.

No final acceptance shall be granted until the following documents have been submitted and approved by the City Engineer:

- a. A formal Acceptance Request Letter by the Developer or his designee.
- b. An Engineer’s Certificate of Completion. This certificate should include, at a minimum, the name of the development, the owner of the development, the contractors, engineering company, and a statement certifying that the EOR provided inspection during construction. The certificate should be signed by the EOR.
- c. A Summary of Public Infrastructure Cost. This summary should provide construction and engineering costs for all public infrastructure installed within the development.
- d. A complete set of reproducible copies of As-Builts accompanied by a letter from the EOR certifying that the work required by the subject contract has been completed in general conformance with the approved plans and technical specifications.

101.2 Authority.

In pursuance of the authority granted to cities and counties under the Constitution and Laws of the State of Texas, including the provisions of Section 4 of the Municipal Annexation Act, as heretofore or hereafter amended, the City Council of League City has adopted the following rules and regulations governing the engineering design and construction of public works within the city limits and extraterritorial jurisdiction of League City, Texas.

ITEM 102 DEFINITIONS OF TERMS AND ABBREVIATIONS

AASHTO

- American Association of State Highways and Transportation Officials.

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ACI

- American Concrete Institute

ADMINISTRATIVE OFFICIAL

- Any employee or advisory, elected, or appointed body, which is authorized to administer any provisions of this ordinance.

AI

- The Asphalt Institute

ANSI

- American National Standards Institute

API

- American Petroleum Institute

ASTM

- American Society for Testing Materials

AWWA

- American Water Works Association

BASE FLOOD

- The flooding having a one-percent chance of being equaled or exceeded in any given year

CITY

- The City of League City, Texas

CITY COUNCIL

- The City Council of the City of League City, being the elected legislative body has final jurisdiction in the approval of matters pertaining to plats of subdivisions, the establishment of standards of design, and the acceptance of lands and improvements that may be proposed for subdivision improvements.

CITY ENGINEER

- A licensed professional engineering designated to represent the City of League City.

CITY INSPECTOR

- The authorized representative of the Engineering Department assigned to inspect any and all parts of the work and the materials to be used therein.

CITY LIMITS

- City boundary as fixed by Mayor and City Council and defined in City Ordinance.

CITY STAFF

- Personnel working for the City.

PLANNING & ZONING COMMISSION

- A commission that acts as an advisory agency to the City Council.

CONTRACT

- The agreement between the developer and the Contractor covering the furnishings of materials and performance of the work. The directions, provisions, and requirements contained herein or in special specifications supplemented by such special provisions as may be issued or made pertaining to the method and manner of performing the work or to quantities and quality of materials.

CONTRACTOR

- The individual, firm, or corporation or any combination thereof, with which the contract is made by a developer or the City. The work shall include the furnishings of all labor, materials, equipment, and other incidentals necessary or convenient to the duties and obligations imposed by the contract.

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<u>CRSI</u>	- Concrete Reinforcing Steel Institute.
<u>DEDICATORIAL</u>	- An acknowledgement by the owner and lien holders of property being subdivided under applicable City codes and ordinances and appearing on the plat dedicating said property.
<u>DEVELOPMENT</u>	- The construction of a facility that is built, installed, or established to serve a particular purpose.
<u>DEVELOPER</u>	- Any individual, firm, co-partnership, corporation, or any legal entity commencing proceedings under this Ordinance.
<u>EASEMENT</u>	- A right granted for the limited purpose of use over, across, or under private land.
<u>EASEMENT, AERIAL</u>	- An easement for the exclusive use of constructing and maintaining above ground utilities within its confines.
<u>EASEMENT, DRAINAGE</u>	- An easement for the exclusive use of constructing and maintaining drainage facilities within its confines.
<u>EASEMENT, MAINTENANCE</u>	- A perpetual 4-foot wall-maintenance easement shall be provided on the lot adjacent to the zero-lot line/property line, which, with the exception of walls and/or fences, shall be kept clear of structures. This easement shall be noted on the plat and title to the property.
<u>EASEMENT, STORM SEWER</u>	- An easement for the exclusive use of constructing and maintaining storm sewer lines and appurtenances within its confines.
<u>EASEMENT, UTILITY</u>	- An easement for the purpose of placing and maintaining utilities within its confines.
<u>EASEMENT, WASTEWATER</u>	- An easement for the exclusive use of constructing and maintaining wastewater lines and appurtenances within its confines.
<u>EASEMENT, WATER</u>	- An easement for the exclusive use of constructing and maintaining water lines and appurtenances within its confines.
<u>ENCROACHMENT</u>	- An intrusion into or onto a public right-of-way or easement with a privately-owned structure or amenity.
<u>ENGINEER</u>	- An individual duly authorized under the provisions of the Texas Engineering Practice Act. Article 3271a, Vernon's Texas Civil Statutes, as amended to practice the profession thereof.
<u>ENGINEER OF RECORD ("EOR")</u>	- The Engineer-of-Record shall be a professional engineer licensed in the State of Texas retained by the developer. The EOR shall be of unquestionable professional integrity, because

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ENGINEER OF RECORD (“EOR”) (continued)

he is expected to act as a representative of the City of League City, as well as the developer, in enforcing the specifications and construction standards.

ENGINEERING DEPARTMENT

- Designated representatives within the City of League City Engineering Department that are empowered to make decisions concerning items within this specification book.

EXTRATERRITORIAL JURISDICTION

- The area defined by the City Attorney and the Public Works Department and the Texas Municipal Annexation Act, Article 970a, Vernon’s Texas Civil Statutes, as amended.

FLOOD PLAIN

- A land area which is flood prone as defined by the Federal Emergency Management Agency (**FEMA**), pursuant to enforcement of the latest National Flood Insurance Study.

FLOODWAY

- As defined by **FEMA** on the most recent flood boundary and floodway maps.

GCHD

- Galveston County Health Department

HCFD

- Harris County Flood Control District

NLA

- National Lime Association

NSF

- National Sanitation Foundation

PLAT

- The map on which the developer presents his plan for a subdivision for approval.
- a. **PRELIMINARY PLAT** – An initial plan or map illustrating the proposed subdivision or development of land which will be submitted for approval before preparation of the final plat.
- b. **FINAL PLAT** – A finished plan or map illustrating the proposed subdivision or development of land having been certified to by a Registered Public Surveyor and submitted for approval by the Planning Commission and the City Council. A copy shall be recorded in Galveston County Clerk’s office or Harris County Clerk’s office, as appropriate.
- c. **REPLAT** – A map on which an existing subdivision or portion thereof is being officially changed. A copy of such plat shall be recorded in the Galveston County Clerk’s office or the Harris County Clerk’s office, as appropriate.
- d. **VACATION of SUBDIVISION PLAT INSTRUMENT** - An instrument declaring that a plat and its dedications be vacated or cancelled and that the land be converted to acreage. A copy shall be recorded in the Galveston County Clerk’s office or the Harris County Clerk’s office, as appropriate.

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PROPERTY

- The land (whether leasehold or in fee simple) and the building, all improvements and structures thereon, and all easements, rights, and appurtenance belonging thereto.

PUBLIC WORKS DEPT.

- Designated representatives within the City of League City Public Works Department that are empowered to make decisions concerning items within this specification book.

RIGHT-OF-WAY

- A tract of land dedicated or deeded in fee simple to the perpetual use of the public or other specified entity.

SPECIFICATIONS

- The directions, provisions, and requirements contained herein or as may be issued or made pertaining to the methods and manner of performing the work or quantities and qualities of materials to be furnished. Where reference is made to specifications of ASTM, AASHTO, AWWA, ANSI, or bulletins and manuals, it shall be construed to mean the latest standard or tentative standard in effect.

STREET

- A permanently reserved thoroughfare which affords principal means of access to abutting property.
- a. **MAJOR ARTERIAL STREET** – A highway which permits rapid and relative unimpeded traffic movement throughout the city.
- b. **MINOR ARTERIAL STREET** - A thoroughfare having function similar to major arterials, with the exception those minors can be oriented into residential areas.
- c. **COLLECTOR STREET** - A Street designed to serve the local needs of the neighborhood and to provide direct access to an arterial street.
- d. **LOCAL or RESIDENTIAL STREET** - A street designed to serve the local needs of the neighborhood and to provide access from abutting residential properties to other streets.
- e. **CUL-de-SAC** - A street which is part of the locate street system and closed on one end in an circular or other approved pattern meeting minimum radius requirement.
- f. **ALLEY** – A narrow public or private right-of-way which provides a secondary means of vehicular access to abutting property and not intended for general travel.
- g. **STUB STREET** - Streets which terminate at the boundary of a subdivision for future access to adjoining unplatted property.
- h. **PRIVATE STREET** - A street within a gated or private subdivision conforming to the City’s current Private Streets Ordinance.

SUBDIVISION

- By means of a plat, the division of a tract or parcel of land, for the purpose of transfer of ownership or building development, expressly excluding development for agricultural purposes.

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SURVEYOR

- An individual duly authorized in Texas under the current Land Surveying Practices Act of 1979, as amended, Article 5282c, Vernon's Texas Civil Statutes, as amended, to practice the profession thereof. A surveyor shall be responsible for all descriptions and plats to be recorded in official records.

SURVEY

- A boundary or topographic map

TMUTCD

- Texas Manual on Uniform Traffic Control Devices for Streets and Highways.

TxDOT

- The Texas Department of Transportation

UL

- Underwriters Laboratories, Inc.

UNI-B-

- UNI-BELL PVC Pipe Association

UTILITIES

- Facilities for public use, i.e., water, wastewater, and drainage, gas, telephone lines, electricity, cable television, etc.

ITEM 103 SCOPE OF WORK

103.1 Intent of Plans and Specifications.

It is the intent of plans and specifications submitted to the City for review to describe a complete work to be performed.

103.2 Changes and Alterations.

All changes and alterations in the plans and specifications must be prepared by the EOR and approved by the Engineering Department.

ITEM 104 CONTROL OF WORK

Many new street, drainage and utility construction projects within League City are performed by commercial and residential property developers. These constructed roadway, drainage and utility networks are conveyed to the City at the time of acceptance and turned over to the City for operation and maintenance. However, such projects must not be viewed as a "gift". These facilities frequently represent significant additions to League City's maintenance and operational responsibilities. The establishment of adequate quality control procedures for these types of projects is extremely important because the City is not able to exercise day-to-day control of the work.

Development projects shall be controlled with a binding contract between the Developer and the Contractor. Specifications establishing contractual requirements shall be prepared and administered by the Developer's EOR.

104.1 Authority and Duties of Engineer-of-Record.

The EOR shall provide for inspection, sampling and testing necessary for day-to-day job control. The EOR or his

representative shall inspect all work performed and all materials furnished to the project and bring any deficiencies in work or materials to the attention of both the Contractor and the City.

He shall see that all sampling and testing required by specifications or job site conditions, are performed by an independent Material Testing Laboratory. He shall also issue a certificate, at the completion of the work, acknowledging that the project was constructed in accordance with City approved plans, specifications, and special provisions.

104.2 Authority of Engineering Department.

The Engineering Department's representative will decide all questions which may arise as to the quality or acceptability of materials furnished and work performed, the manner of performance, the interpretation of the City's construction requirements, and the acceptable fulfillment of the Developer/Contractor's obligations.

104.3 Authority and Duties of City Inspector.

City inspectors will be authorized to inspect the work done and all materials furnished. A City Inspector will be assigned to the work by the Engineering Department and will report to the Engineering Department as to the progress of the work and the manner in which it is being performed, also to report whenever it appears that the material furnished and the work performed by the Developer/Contractor fail to fulfill the requirements of the specifications and to call attention of the Contractor to any such failure or other infringement. Such inspection will not relieve the Developer/Contractor from any obligations to perform the work in accordance with the requirements of the specifications. In case of any dispute arising between the Developer/Contractor and the Inspector as to materials furnished or the manner of performing the work, the Inspector will have the authority to reject materials or suspend work until the question at issue can be referred to and decided by the Engineering Department. The Inspector will not be authorized to approve or accept any portion of work. He will in no case act as foreman or perform other duties for the Developer/Contractor. The place, frequency and thoroughness of inspection will vary depending of the construction activity and the quality of work exhibited by the construction organization. The presence of a City Inspector does not relieve the EOR of his inspection responsibilities.

104.4 Cooperation of Contractor.

The Contractor shall give the work his constant attention to facilitate the progress thereof and shall cooperate with the City and the EOR in every way possible. He shall have at all times a satisfactory and competent English-speaking Superintendent on the work site.

104.5 OMITTED.

104.6 Bond or Cash Deposit for Unsatisfactory Repairs or Damages.

If required, it will be the responsibility of the Contractor to put up a bond or cash deposit in the amount affixed by the City Engineer to cover any damages incurred to City Facilities or authorized franchise utilities during construction.

**ITEM 105
CONTROL OF MATERIALS**

105.1 Quality of Materials.

All Materials shall be new and of a quality conforming to the requirements of these specifications. Whenever the quality or kind of materials or articles is not particularly specified, the materials or articles shall be of the best grade in quality and workmanship obtainable in the market from firms of established good reputation.

105.2 Samples and Test.

All properly installed materials, before being incorporated in the work, shall be inspected, tested, and approved. Subject to the approval of the Engineering Department, pre-tested sampling and testing will be provided at the developer's expense, by a materials-testing firm approved by the Engineering Department. All tests of materials shall be made in accordance with these specifications and recognized practices.

105.3 Storage of Materials.

Materials shall be stored and protected in accordance with manufactures recommendations to insure the preservation of their quality and fitness for the work.

105.4 Defective Materials.

All materials which do not conform to the requirements of these specifications shall be considered as defective, and all such materials, whether in place or not, shall be rejected and immediately removed from the site of work, unless otherwise permitted by the Public Works Department. Rejected materials, the defects of which have been subsequently corrected, shall have the status of new materials, as approved by the Engineering Department.

105.5 Hauling of Materials.

Any vehicle, truck, truck-tractor, trailer, semi-trailer or combination of such vehicles, when used to deliver materials to a project shall comply with the State and City laws concerning gross weight and load limits. Special haul routes for construction traffic will be designated by the Public Works Department within the City limits. The Developer/Contractor is responsible for the protection of all existing roads and small structures traveled by his material haulers.

Any damage by the use of construction equipment shall be restored to its original condition or replaced at the Contractors/Developers sole expense. (See ITEM 104.6)

**ITEM 106
LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

106.1 Laws to be Observed.

The Developer/Contractor shall make himself familiar with and at all times shall observe and comply with all Federal, State, and Local laws, ordinances, and regulations which in any manner affect the conduct of the work and shall indemnify and save harmless the City and its representatives against any claim arising from the violation of any such law, ordinance, or regulations, whether by himself or by his employees.

106.2 Permits, Licenses, and Taxes.

The Developer/Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

106.3 Sanitary Provisions.

The Developer/Contractor shall, at his entire expense, provide and maintain in neat, sanitary conditions such accommodations for the use of his employees as be necessary to comply with the requirements and regulations of the State Department of Health or of other authorities having jurisdiction.

106.4 Public Safety and Convenience.

The safety of the public and the convenience of traffic shall be regarded as of prime importance. Unless approval has been given by the Public Works Department, all portions of a roadway shall be kept open to traffic. It shall be the entire responsibility of the Developer/Contractor to provide for traffic along and across a roadway as well as ingress and egress to private property. The Contractor shall plan and execute his operations in a manner that will cause the minimum interference with traffic. The Contractor shall secure the Public Works Department's approval of his proposed plan of operation, sequence of work, and methods of providing for the safe passage of traffic before it is placed into operation. If at any time during construction, the approved plan does not accomplish the intended purpose due to weather or other conditions affecting the safe handling of traffic, the Contractor shall immediately make necessary changes therein to correct the unsatisfactory conditions. All equipment and materials shall be stored in such a manner and at such locations so as not to interfere with the safe passage of traffic. If in the opinion of the Public Works Department the above requirements are not complied with, the Public Works Department may direct such work as he may consider necessary, however, this shall not change the legal responsibilities. The expense for such work performed by the City will be borne by the Developer/Contractor.

106.5 Barricades and Danger, Warning, Detour Signs, and Traffic Handling.

The Contractor shall have the sole responsibility for providing, installing, moving, replacing, maintaining, cleaning, removing upon completion of the work all barricades, warning signs, barriers, cones, lights, signals, and other such type devices, and the handling of traffic. All barricades, warning signs, barriers, cones, lights, signals, and other such type devices shall conform to the Texas Manual of Uniform Traffic Control Devices for Streets and Highways, as amended.

106.6 Protection of Property.

The Developer/Contractor shall take proper measures to protect private and public property which might be injured or damaged by any process of construction; and in case of any injury or damage resulting from any act or omission on the part of or on behalf of the Developer/Contractor, he shall restore, at his own expense, the damaged property to a condition equal to or better to that existing before such injury or damage was done, or he shall make good such injury or damage in an acceptable manner.

106.7 Responsibility for Damage Claims.

The Developer/Contractor agrees to indemnify and be responsible for all damages or injury to property of any character occurring during the prosecution of the work resulting from any act, omission, neglect, or misconduct on his or his agents' part in the manner or method of executing the work; or from failure to properly execute the work; or from defective work or materials. The Developer/Contractor's attention is directed to the fact that the location of pipelines and other underground installations are not always exact. The Developer/Contractor shall save and hold harmless the City from any and all claims resulting from these responsibilities.

GENERAL DESIGN PROCEDURES

ITEM 201 PRELIMINARY RESEARCH REQUIREMENTS

Step one in the Preliminary Research Process is to contact all applicable City offices and discuss concepts outlining what is to be proposed and its usage. Depending on the location and size of development, the initial contact may be handled by phone or a meeting at the city offices. The Developer/Engineer should verify that no restriction is existing that will deny the approval of the concept and research all existing utilities and right-of-way and easement information with the City, State, County and other authorities whose approval will be necessary for the proper use of the development. The Developer/Engineer shall research all laws, ordinances, rules, and regulations that may pertain to the development. The development standards should also meet all requirements of the City's most current Comprehensive Plan and its related Master Plans, City zoning requirements, Development Agreements, and the standards outlined in this manual.

ITEM 202 PRELIMINARY DESIGN REQUIREMENTS

The Developer/Engineer shall provide the Engineer Department(s) with all maps, plans, and calculations to support the proposed design. These exhibits will not be considered unless they have been prepared under the direction of a Texas Licensed Professional Engineer. Final plans showing the seal of the Engineer responsible placed on each sheet is required. All developments shall follow proper filing procedures through the City and comply with the current Ordinances.

A preliminary report proposing processes, methods, or procedures not covered by these specifications or a request for an exception to any portion of the regulations, shall be submitted during preliminary design. Concurrence, at this point, between the Developer/Engineer and the Department regarding the essential design data is desired to eliminate delay or inconvenience and to avoid the likelihood of having to re-do the detailed final plans.

ITEM 203 FINAL DESIGN REQUIREMENTS

Final design requirements involve the review of detailed construction drawings to ensure that all proposed facilities are designed in accordance with League City Standards and Criteria. All plans and specifications submitted for final review must be sealed and dated by a Texas Licensed Professional Engineer.

Developer/Engineer shall submit adequate, complete prints of plans for feasibility, preliminary and final review to the City's Engineering/Planning Development Review Committee. Planning material submitted shall in all instances be in such detail as to permit a comprehensive review.

ITEM 204 PLAN SUBMITAL REQUIREMENTS

This ITEM is for the intent of supplying the submitting Engineer/Developer with a guideline of what is required as a set of plans; For review, the Engineer/Developer shall submit two (2) full sets of the proposed construction plans along with a digital copy on a CD. The plans shall be submitted in 24"x36" media and will consist of but not be limited to:

1. Cover sheet should include the following information:
 - a. proposed subdivision name and location
 - b. the name and address of the owner(s)
 - c. the name and seal of the EOR
 - d. a vicinity map drawn at a minimum scale of one (1) inch to five hundred (500) feet.

- e. sheet index
- f. City signature block
- g. City preconstruction note if infrastructure is to be public.
2. Construction and or general notes.
3. Overall site plan layout sheet.
4. Topographic survey sheet(s). For developments sized fifty (50) acres or less, contours will need to be shown at a minimum of one (1) foot intervals and indicating the direction of surface water. For developments sized greater than fifty (50) acres, contours will need to be shown at a minimum of two (2) foot intervals and indicating the direction of surface water.
5. Paving and grading sheet(s).
6. Utility sheet(s) (water, sanitary, storm)
7. Plan and Profile sheets if necessary.
8. Photometric survey (for business plans)
9. Detail sheets
10. Storm water pollution prevention plan sheet.
11. Provide State Plain Coordinates (x, y and flowlines) NAD 83 for water valves, sanitary sewer manholes, storm manholes, storm outfalls, and, storm inlets.

Accompanying documents:

- a. EOR's Construction Cost Estimate
- b. Flood Impact Assessment document for business (CoLC ftp site: ftp.leaguecity.com).
- c. TxDOT approvals for driveway and drainage into their jurisdiction (if applicable).
- d. Pipeline company approvals on pipeline letterhead (if applicable).
- e. Storm Water Quality Management Plan and Permit (for business plans: CoLC ftp site: ftp.leaguecity.com)
- f. Traffic Impact Assessment (if applicable).

ITEM 205 FINAL PLAN APPROVAL

Approval from all governmental agencies, all utility companies, and applicable City Commissions and Departments and Zoning must be obtained prior to final plan approval.

All developments shall conform to the City of League City's current ordinances.

All easements and rights-of-way required for the construction of a proposed project must be accepted, approved, and filed for record with Galveston County or Harris County, as appropriate, prior to City acceptance.

Inside the City limits, easements and rights-of-way shall be either a part of the dedication on the plat or dedicated to League City by separate instruments. It shall be required and the duty of the person seeking to dedicate such easement and/or right-of-way to furnish the Engineering Department with a reproducible map showing the easement and/or right-of-way location and a copy of the recorded instrument along with a letter from the District Board or property owner stating the intent to obtain or dedicate the necessary easements or rights-of-way.

ITEM 206 "AS BUILT" REQUIREMENTS

When the work provided for in the approved plans and specifications has been satisfactorily completed, "As Built" plans (Record Drawings) will be required to replace the approved plans that are on file at the Engineering Department's office. These plans shall be labeled "As Built" and certified and dated by the EOR.

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A reproducible Myler film print of the final as-built plans will be required, as well as, a CD (electronic set) and shall remain on file at the Engineering Department's office for the use of any person who may be interested in same.

"As Built" drawings shall contain information within tolerances pertinent to the intended function of the design.

Waterlines and appurtenances shall be field located with a horizontal and vertical location within a tolerance of 1.0', more or less.

Gravity wastewater lines and manholes shall be field located with a vertical location within a tolerance of 0.05' and a horizontal location within a tolerance of 1.0', more or less.

Pressure wastewater lines and appurtenances shall be field located with a horizontal and vertical location within a tolerance of 1.0', more or less.

Drainage facilities shall be field located with a vertical location within a tolerance of 0.05', more or less, and a horizontal location within a tolerance of 1.0' more or less.

Roadway paving shall be field located with a vertical location within a tolerance of 0.05', more or less, and horizontal location within a tolerance of 1.0', more or less.

All public facilities shall be shown to be located within public rights-of-ways or appropriate easement.

The EOR shall also submit a certified list of permanent control monuments used for the construction of the development – inclusive of location and USGS elevations.

**GENERAL DESIGN
AND
PLAN REQUIREMENTS**

ITEM 301 SURVEY REQUIREMENTS

The following guidelines are suggested for use by Engineers in the development of plans. The intention of these requirements is to provide all the evidence available for the proper location of improvements within functional and legal boundaries. All survey activity shall be performed under the direction of a qualified professional.

301.1 Field Work Required for Plans.

Field Work Required for Plans. The transit or base line must be monumented at its beginning, end, and at all angle points with markers of a permanent nature. Monuments shall be set on long lines at intervals not to exceed 1,000 feet.

The existing right-of-way monuments or property corners that are found must be plainly shown on the plans and located by station and distance, "Right" or "Left" from the transit line or construction center line. Those monuments that were used to determine the construction center line, must be identified as "control points", and their relationship to the construction center line and to proposed or existing right-of-way lines must also be shown.

NGS datum must be used for elevations, and the complete numerical designation of the monuments must be identified on the plans, as well as the year of the datum of the monuments must also be identified on the plans.

Plans must show centerline angles of intersections of side streets with the main roadway and the centerline station on the main roadway. Where bearings are used, care should be taken so that bearings are shown on both base line and constructions center line. The source of the bearings shall be clearly stated.

All topographic features within the right-of-way must be shown. The topography on intersecting streets shall be shown twenty feet beyond the intersection of the right-of-way lines.

Where plans identify proposed utility lines, the location of manholes, service connections, angel points, valves, fire hydrants, bends, etc. must be identified by station and distance from transit or base-line with relationship to the right-of-way lines.

All existing pipelines, utilities, and other features that may conflict with design shall be field verified for actual location.

All cross sections taken will be made at intervals not to exceed 50 feet. Elevation shots shall be taken on the centerline of all driveways at approximately the existing or proposed right-of-way line.

301.2 Right-of-Way Maps.

All maps shall be sealed, dated and signed by a Texas Registered Public Surveyor.

ITEM 302 GRAPHIC REQUIREMENTS

All plans shall be prepared using ink on Mylar. Plans shall be standard sheet size 24" X 36" over all dimensions.

The seal, date, and original signature of a Texas Licensed Professional Engineer are required on each sheet.

A cover sheet shall be required for all projects involving three or more sheets. All plan sheet numbers should be included on the cover sheet or area key map. A signature block shall be placed on the cover. A vicinity map

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should always be included to show the project location. Service area shall be delineated on the cover sheet or area map. For Public projects, add the note "A PRE-CONSTRUCTION MEETING WITH CITY OF LEAGUE CITY ENGINEERING DEPARTMENT IS REQUIRED AT LEAST 10 WORKING DAYS PRIOR TO ON SITE CONSTRUCTION ACTIVITIES. CALL (281) 554-1445 FOR A MEETING DATE AND TIME. A PRE-CONSTRUCTION MEETING FOR THIS PROJECT MAY NOT BE SCHEDULED AND CONSTRUCTION OF THE PROJECT MAY NOT COMMENCE PRIOR TO APPROVAL OF THESE PLANS BY THE ENGINEERING DEPARTMENT AS EVIDENCED BY THESE SIGNATURES".

A copy of the final plat should be included with the final plans when the design drawings are submitted for final approval.

Key overall layouts may be drawn at a scale of 1" = 100' or 1" = 200'. Major thoroughfares or special intersections/situations plan, and profile should be drawn at a scale of 1" = 2' vertical; 1" = 20' horizontal and plan. Minor streets and easements plan and profile should be drawn at a scale of 1" = 5' vertical; 1" = 50' horizontal and plan, or 1" = 4' vertical; 1" = 40' horizontal and plan.

Details of special structures and standard details, such as stream and gully crossings, special manholes, etc., should be drawn with the vertical and horizontal scales equal to each other.

Temporary benchmarks and NGS datum shall be described on each sheet.

Label each plan sheet as to street widths, right-of-way widths, pavement width and thickness, type of roadway materials, curbs, intersection radii, curve data, stationing, existing utilities type, location, etc.

Stationing must run from left to right, except for short streets or lines originating from a major intersection where the full length can be shown on one single plan and profile sheet.

A north arrow is required on all sheets and should be oriented either upward or to the right. It is the intent of this requirement that all stationing should start from cardinal points of the compass and proceed in the direction of construction.

Show all lot lines, property lines, right-of-way lines, and easement lines.

If a roadway exists where plans are being proposed to improve or construct new pavement or to construct a utility, this roadway should be labeled as to its existing width, type of surface, and base thickness.

All utility lines four inches in diameter or larger within the right-of-way or construction area should be shown in the profile view. All utility lines, regardless of size, should be shown in the plan view.

Show flow line elevations and direction of flow of all existing ditches.

Show natural ground profiles at each right-of-way or easement lines. Centerline profiles will be satisfactory for right-of-way or easements, except where there is a difference of 0.50' or more from one right-of-way or easement line to the other.

Resolve all construction conflicts of proposed utilities and facilities with existing or future utilities or facilities.

All street and/or road alignments shall be shown on plans. Plans shall be drawn to accurate scale, showing proposed pavement typical cross section and details, lines and grades, and all existing topography within the street right-of-way; and at intersections, the cross street shall be shown at sufficient distance in each direction along the cross street for designing adequate street crossings.

Grades should be labeled for the top of the curb except at railroad crossings. Centerline grades are acceptable only for paving without curbs and gutters. Curb return elevation for turnouts shall show in the profile. Gutter elevations are required for vertical curves where a railroad track is being crossed.

The surface elevation at the property line of all existing driveways should be shown in the profile.

The design of both roadways is required on all pavement sections with an esplanade. Station all esplanade noses, both existing and proposed.

Station all P.C.'s, P.T.'s, radius returns, and grade change P.I.'s in the profile with their respective elevations.

ITEM 303 GENERAL UTILITY LOCATIONS

Water mains, sanitary sewer lines, and storm sewer lines shall be located within a public right-of-way or within an abutting dedicated easement specified for the exclusive use of the particular utility. These municipal utilities shall not be located in combination easements without the specific approval of the Engineering Department.

All other utilities; electric, gas, communications, and cable TV should be located in perimeter lot easements and back-to-back lot easements wherever possible. These utilities shall not be located in a public right-of-way or a specified easement, prohibiting its use, without the approval of the Engineering Department. The locations of these utilities within general utility easements shall be in accordance with the "Standard Details." The location of these utilities within a public right-of-way or specified easement shall be considered for approval, on an individual basis, by the Engineering Department. It is expected that all utilities will be placed underground unless specifically approved otherwise.

ITEM 304 EASEMENT REQUIREMENTS

For Municipal Utilities a minimum of ten feet (10') is required for front and side utility easements. A minimum of fourteen feet (14') is required for multiple-use easements located along back lot lines. A minimum of seven feet (7') may be accepted along back lot lines in certain circumstances as deemed appropriate by the Engineering Department.

Utility easements shall be located adjacent to and contiguous with public or semi-public street right-of-way wherever possible and be dedicated for the purpose of constructing, reconstructing, and maintaining the specified utility or general utilities. Utility easements may be fenced by the builder, developer, or subsequent property owner. The City or utility company shall have the right to remove said fence for the purpose of entry into the easement and shall not bear the responsibility for replacement of landscaping features, irrigation systems, buildings, fences, nor for the care and preservation of same.

Drainage easements shall be dedicated for the purpose of constructing, reconstructing, and maintaining open ditch or channel facilities. Drainage easements shall be maintained unobstructed of all improvements, except as approved by the Engineering Department. Landscaping of these easements may be permitted by the Engineering Department if a responsible developer agrees to properly maintain the drainage facility.

304.1 Water System Easements.

Dedicated waterline easements shall be restricted to water-mains only. Location of easements shall be determined on a case by case need. The minimum easement width for waterlines shall be ten feet (10').

Fire hydrants located outside of public rights-of-way, waterline or utility easements shall be encompassed by a ten-foot (10') easement. Fire hydrants shall not be located in water meter easements.

Water meter easements shall be provided in accordance with ITEM 406, "Location of Water Meter Service."

304.2 Sanitary Sewer Easements.

Dedicated sanitary sewer easements shall be restricted to sanitary sewer lines only. Location of easements shall be determined on a case by case need. The total width of the easement shall be at least twice the sewer diameter plus the depth of the proposed sewer, but not less than ten feet (10').

304.3 Storm Sewer Easements.

Dedicated storm sewer easements shall be restricted to storm sewer lines and appurtenances only. Storm sewer easements may be located along side lots for outfall pipes and structures only. The basic minimum width shall be fifteen feet (15') with storm sewers centered in the easement. For storm sewers greater than forty-two inches (42") in diameter, the minimum width of easement shall be twice the diameter plus ten feet (10').

304.4 Drainage Easements.

Channels

One of the most important considerations in the design of flood control and drainage facilities is the right-of-way or easement necessary for long-term operation and maintenance. The easement width shall be determined by the width necessary for the channel combined with the adjacent berm areas required for channel maintenance. Minimum widths required for earthen channels and concrete-lined channels are presented in the Master Drainage Plan. All major drainage channels shall be dedicated as right-of-way in fee simple. This will avoid disputes with the property owners on fencing of the right-of-way, which inhibits efficient maintenance. Dedication in fee simple essentially removes the potential for this problem.

Generally, right-of-way or easement dedication requirements are in accordance with the ultimate drainage requirements for the area as defined by the Master Drainage Plan for a watershed developed by the City of League City.

Commercial and Residential Detention

All commercial and residential detention/retention facilities shall be considered private and maintained by the property owner, the Home Owners Association or their designate. The City shall retain drainage and access rights through privately owned detention/retention facilities for the purpose of controlling storm water from right-of-way, public lands and facilities, designed per City of League City master drainage plan. All detention facilities shall at a minimum have a floatables collection device installed at the outfall structure.

Storm Water Pollution Prevention Plan

All construction sites shall conform to TCEQ's Storm Water Pollution Prevention Plan during pre and post construction.

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A. GENERAL

1. Who Should Perform a Traffic Impact Analysis?
 - a. Traffic Impact Analyses shall be prepared by an individual, group, firm, or corporation having demonstrated professional emphasis and experience in traffic engineering, and the preparation of similar analysis, hereinafter referred to as the "Analysis Engineer". The TIA document shall bear the seal and signature of a Texas Licensed Professional Engineer specializing in the branch of civil engineering. The individual, group, firm, or corporation seeking approval of a proposed development/redevelopment, hereinafter known as the "Applicant," is required to submit a completed TIA to the City of League City Traffic and Transportation Department, hereinafter referred to as the "City." The responsibility for assessing the traffic impacts associated with a proposed development/redevelopment, hereinafter referred to as the "Development," rests with the Applicant and the Analysis Engineer, while the City shall serve in a review/approval capacity.
2. Purpose and Intent of Traffic Impact Analysis Guidelines
 - a. The overall purpose of requiring the submission of a traffic impact analysis is to establish a public/private partnership to coordinate land use and mitigate adverse impact by implementing transportation improvements. Both the City and Applicant share in the responsibility to consider all solutions to identify current and future transportation problems. Implementing the TIA guidelines found in this section (802) aim to assure that an Analysis Engineer will apply consistent and proper traffic planning and engineering practices when an Applicant considers land use actions.
 - b. Goals of a TIA Completed within the City of League City
 - To identify any and all potential adverse traffic impacts to the existing area street system, the surrounding community and to additional proposed developments.
 - To identify transportation improvements with an aim to mitigate identified adverse traffic impacts and, when appropriate and reasonable, meet public concerns through the use of context sensitive solutions.
 - To assist public and private sector entities in identifying and resolving issues related to the location of driveways, median openings, turn lanes, traffic signals, and other transportation facilities.
 - c. The intention of TIA guidelines is to provide information necessary for an understanding of the development process, technical expectations, and required deliverables of a TIA submitted to the City.
3. Document Limitations
 - a. While this section (802) contains guidelines and requirements necessary to complete a TIA for the City, the City does not intend this section (802) to be a sole reference

SPECIFICATIONS FOR WATER PROJECTS

ITEM 401 GENERAL

This section covers the design and construction of potable water distribution facilities including water mains, flushing valves, and service connections. In addition to these standards, all public drinking water systems will be provided in accordance with the current guidelines promulgated by The Texas Department of Water Resources and Texas Commission on Environmental Quality.

All potable water distribution systems, including pump stations, mains, ground and elevated storage, shall be designed, installed and constructed in accordance with current AWWA Standards, with reference to materials used and construction procedures to be followed.

All water distribution systems shall be designed and constructed so as to provide at all times a minimum residual pressure of 20 psi under any and all conditions of demands that can be placed on the system. Under normal operation conditions, minimum pressures should be not less than 35 psi.

The system shall be provided with sufficient valves and fire hydrants so that necessary repairs can be made without undue interruption of service over any considerable area and for the purpose of flushing the system.

The system shall be designed so as to afford effective circulation of water, where dead ends are necessary as a stage in growth of the system; they shall be located and arranged with a view to connecting them ultimately so as to provide circulation. Approved dead-end mains shall be provided with a blue dead-end fire hydrant.

ITEM 402 WATER MAIN SIZING

Waterline sizing of mains shall be six-inches and greater in diameter. Listed below is a minimum recommendation and should be exceeded when the design engineer deems it necessary. The use of 4" water line shall be addressed on case-by-case bases.

Six-inch lines may be a maximum of one-thousand feet in length when supported at both ends by larger lines. Six-inch lines shall support no more than one fire hydrant.

Eight-inch lines are used for normal distribution and lengths over one-thousand feet. Eight-inch lines must be circulated and must provide at least two sources of supply from different supply lines where possible. Eight-inch lines may support more than one intermediate fire hydrant. Temporary dead-end eight-inch lines, when necessary as extension of subdivision sections occur, shall be no more than five hundred feet in length with a temporary fire hydrant at the end per detail "End of Line Fire Hydrant and Valve for Future Line Extension".

Twelve-inch and larger lines shall be used where the Design Engineer or the Engineering Department determine it necessary or for future extension.

ITEM 403 LOCATION OF WATER MAINS

All water mains shall be located within a public right-of-way, dedicated waterline or utility easement. Water mains within State Right-of-Ways shall only be used for crossing.

Water mains should not be installed closer than nine feet, horizontally, to any wastewater facility. See section 503.1, Separation Distance and City of League City detail "Sanitary Sewer Installation Crossing or Parallel to Water Line" for further information. In cases where the nine-foot separation cannot be met; the water-main location shall comply with TCEQ requirements.

403.1 Easements.

Water mains within easements shall be centered in dedicated waterline easements or as shown on the COLC Easement Detail.

403.2 Rights-of-Way.

Within a one-hundred-foot right-of-way: Eight-inch and smaller mains shall be installed a maximum of eight feet from a right-of-way line, twelve-inch and larger mains shall be installed a maximum of seven feet from the right-of-way line.

Within an eighty-foot right-of-way: Eight-inch and smaller mains shall be installed a maximum of seven feet from the right-of-way line, twelve-inch and larger mains shall be installed a maximum of six feet from the right-of-way line.

Within a seventy-foot or sixty-foot right-of-way: All mains shall be installed a maximum of five feet from the right-of-way line.

When necessary, water mains may be located within the esplanade section of boulevard type streets. Mains should be located as near the centerline as possible to avoid conflict with future pavement widening.

Along rights-of-way with open ditch drainage, all twelve-inch and smaller water-mains may be located five feet from the right-of-way line, and sixteen-inch and larger mains shall be located subject to the Engineering Department's approval. When directed by the Public Works Department or city engineering staff, all joints under pressure where cover is minimal shall have a restraining device as described in the City's details.

403.3 Depth-of-Cover.

Twelve-inch and smaller mains, normally, shall have a standard depth of four foot of cover over the top of pipe. In an open ditch section, mains shall have a depth of five foot of cover over the top of pipe. A variance of this depth of cover may be granted by the Public Works Department in special cases. Sixteen-inch and larger mains shall have a minimum depth of five feet of cover over top of pipe.

Changes in grade to clear obstructions or underground features which result in a less than standard depth of cover over the top of pipe, a restrained joint section with a 4" thick by 2' wide protective slab over the pipe will be used with the standard depth of cover maintained at each connection. This practice may be used until the top of the pipe is two feet below the sub-grade in roadway sections. When directed by the City, all joints under pressure where cover is minimal shall have a restraining device as described in the City's details.

403.4 Alignment.

When a water-main is placed parallel to another utility line other than wastewater and at near the same grade, it shall have a minimum of seven feet horizontal separation. When the other utility is a wastewater facility, nine feet of wall to wall horizontal separation must be provided. When a water main crosses another utility, a minimum of six-inch clearance must be obtained.

ITEM 404 LOCATION OF VALVES

The water system shall be provided with sufficient block (gate) valves so that necessary repairs can be made without undue interruption of service over any considerable area.

Valve box caps shall be painted blue and a “V” saw cut made on the adjacent curb.

404.1 Spacing.

Six-inch through twelve-inch mains, valves shall be installed along the line with a maximum spacing of fifteen hundred feet.

Sixteen-inch through twenty-four-inch mains, valves shall be installed along the line with a maximum spacing of twenty-two hundred feet.

Thirty-inch and larger mains, valves shall be installed with a spacing determined by the Public Works Department.

At the intersection of all mains, a tee shall require two valves and a cross three valves.

404.2 Location.

All lateral lines of less than thirty-inches shall be valved within the street right-of-way or easement. Valve locations are normally along the street right-of-way line as projected across the main. Intermediate valves not located on the projection of the right-of-way line may be located on lot lines or five feet from fire hydrants. Tees shall have two valves and crosses shall have three valves unless approved otherwise.

All fire hydrants shall have an isolation valve as shown per City of League City Details.

ITEM 405 LOCATION OF FIRE HYDRANTS

All fire hydrant locations must be approved by the League City Fire Marshal's office. All dead-end mains, where approved, shall terminate with a blue dead-end fire hydrant. Bends and offsets are not permitted in fire hydrant leads.

All fire hydrants shall have a 4”x4” 2 way blue reflective street marker placed per the following locations: on un-striped roadways, blue markers shall be set in the center of the roadway; on undivided striped roadways, blue markers shall be set 6” to the hydrant side of the center stripe; on divided roadways, the blue marker shall be set 6” to the side of the lane striping which is closest to the hydrant; in locations where hydrants are situated on corners, blue markers shall be installed on both approaches which front the hydrant.

For fire hydrant material requirements see ITEM 407.9.

For the setting of fire hydrants see ITEM 409.5.

405.1 Spacing.

Residential or low risk areas; fire hydrants shall be installed within a maximum five hundred street feet of each other.

Higher risk developments (Mercantile Districts); fire hydrants shall be installed within a maximum three hundred feet of each other.

Fire hydrants should be located at street intersections where possible.

405.2 Location.

Fire hydrants should be located a minimum of three feet behind the back of curb or proposed future curb and set at the point of curve of the intersection curb radius.

On all state highways and open ditch roadways, fire hydrants shall be installed within three feet of the right-of-way line.

Fire hydrants located between right-of-way intersections shall be set on the lot lines as extended to the pavement; however, this location may be adjusted five feet to avoid driveways or other obstructions, in which case the fire hydrant shall be no closer than three feet from a curbed driveway or five feet from a non-curbed driveway.

Fire hydrants may be located in the esplanade section of City streets if it is not feasible to locate them back of curb; in such case it is preferable to locate the fire hydrant seven feet behind the esplanade back of curb to provide access for parkway mowers; but no instance shall they be closer than three feet.

Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line regardless of construction.

Adjustments in the location of fire hydrants after acceptance of the distribution system shall be provided in accordance with current city policy. Plans shall be submitted to Engineering Department for approval.

405.3 Depth of Bury.

The depth of bury for all hydrants shall be per the City details. If at any time the finish grade is lowered or raised, it shall be the responsibility of the individual who caused the grade to be adjusted to adjust the hydrant.

ITEM 406 LOCATION OF WATER METER SERVICES

Meters may be located in water-main easements or at the right-of-way line provided the location is such that the accessibility and protection of the meter is as specified above. Service meters within private property that are 2" and smaller should be set in a separate easement with minimum dimensions of 5'x5' and shall be located in easily accessible areas but protected from traffic behind curbed sections.

Service meters within private property that are 3" and larger shall be set in a separate easement with minimum dimension of 10'x20' and shall be located in easily accessible areas but protected from traffic behind curbed sections.

The location of the service lines shall be designated on the construction plans for informational purposes only in the appropriate location to serve the future meters.

All apartments or town-homes proposed in a private street development shall install meters as directed and in compliance with League City Standard Detail Drawings or as approved by the Engineering Department.

ITEM 407 MATERIALS

Materials shall be stored, handled and used as described under ITEM 105, "Control of Materials." All pipe installed within dedicated public rights-of-way or easements shall be PVC water pipe AWWA C 900 (DR 18) for sizes 6" through 12" or C-905 (DR 18) PVC for sizes 14" through 24"; ductile iron pipe Class 52 for sizes 6" thru

36"; All service connections 3/4" thru 2" shall be polyethylene tubing in conformance with material specifications set out herein. HDPE will be considered on a case-by-case bases.

The use of manufactures names and catalog numbers as may be used to describe various products is not intended to be proprietary, but merely to indicate clearly the respective type of material that can be accepted. Submittals for

product acceptance must be directed to the Engineering Department by the Engineer representing the Developer. Contractor submittals will not be accepted.

The City of League City reserves the right to engage, at any time during the progress of the work, a Material Testing Laboratory to test and inspect all pipe and accessories.

407.1 Iron Pipe and Fittings.

All pipe, fittings and accessories shall be shipped, stored, handled and installed in accordance with the manufacturer's recommendations and as specified herein.

Iron pipe shall be bell and spigot jointed where possible. Other jointing may be necessary for special applications when approved by the Public Works Department. All fittings shall be mechanical joint with "Mega-Lug" type restraints as per League City details.

All pipe and fittings shall be wrapped with 8-mil (min) polyethylene film meeting ANSI 21.5 (AWWA C105) with all edges and laps taped securely (with product approved tape) to provide a continuous and watertight wrap.

407.1.1 Ductile Iron Pipe.

Ductile iron pipe shall have 60,000 psi tensile strength, 42,000 psi yield strength, 10% minimum elongation and meet the requirements of the latest revision of ANSI A 21.51 (AWWA C151). Pipe shall be thickness Class 52. Pipe shall be cement mortar lined and seal coated with an asphaltic material inside and outside in accordance with ANSI A21.4 (AWWA 104) the exterior of the pipe shall have a bituminous coating approximately one mil minimum thickness.

407.1.2 Ductile Iron Fittings.

All fittings shall be mechanical joint; flange joints may be necessary for special applications when approved by the Public Works Department. All fittings shall be cement lined and seal coated with an asphaltic material inside and outside in accordance with ANSI A21.4 (AWWA C 104).

Pipe joints shall be in accordance with ANSI A21.11 (AWWA C 111-80) with bell sockets designed to receive pressure pipe O.D.'s. As specified in ANSI A21.6(AWWA C 106) ANSI A21.51(AWWA C 151) and AWWA C 900. Rubber rings shall be furnished in accordance with ITEM 407.1.4, "Joints."

Ductile iron mechanical joint fittings shall be cast in accordance with ANSI A21.53(AWWA C 153) the working pressure rating shall be 350 psi. and shall follow all applicable ANSI and AWWA requirements. All mechanical joint fittings to use "Mega-Lug" type restraints as per League City details.

407.1.3 Tapping Sleeves.

Full -body Mechanical joint cast iron tapping sleeves shall be used for three-inch and larger connections to an existing water-main. Tapping sleeve shall be suitable for use at hydrostatic working pressures of 200 psi. Outlet flange shall conform to class 125 ANSI B 16.1. Minimum lengths of tapping sleeves are recommended by the

Unit-Bell PVC Pipe Association. Assembly and installation shall be in accordance to manufactures recommendation.

407.1.4 Joints.

All gaskets shall be of natural or synthetic rubber conforming to ANSI A 21-11 (AWWA C 111-current). Gaskets shall be provided by the manufacturer of that particular pipe being used. A joint lubricant shall be used, and applicable recommendations of the manufacturer shall be followed.

Bolts for flanges or mechanical joints shall be corrosion-resistant, low alloy, high strength steel bolts equal to "cor-ten." In sizes for which "cor-ten" bolts may be used coated as follows: Bolts and nuts shall be immersed in Koppers super tank solution or approved equal, inserted and tightened in the joint while still wet, and all exposed parts touched up with a brush coat immediately after tightening. After an interval of at least one hour, the entire joint shall be coated with Bitumastic #50, as specified under protective coatings.

407.2 HDPE.

Polyethylene pipe shall be made from HDPE material having a material designation code of PE4710 or higher. The material shall meet the requirements of ASTM D 3350 and shall have a minimum cell classification of PE445474C. In addition, the material shall be listed as meeting NSF-61.

The pipe and fittings shall meet the requirements of AWWA C906.

The HDPE pipe shall be rated for use at a pressure class of 200 psi. The outside diameter of the pipe shall be based upon ductile iron pipe size sizing system.

The pipe shall be marked in accordance with the standards to which it is manufactured. Color identification using stripes on the pipe to identify pipe service shall be required and colored blue for potable water.

407.2.1 Fittings.

Butt Fusion fittings shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification of PE445474C. Butt Fusion fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe. All fittings shall meet the requirements of AWWA C906. Markings for molded fittings shall comply with the requirements of ASTM D 3261. Fabricated fittings shall be marked in accordance with ASTM F 2206.

Electrofusion fittings shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification of PE445474C. Electrofusion fittings shall have a manufacturing standard of ASTM F1055. Fittings shall have a pressure rating equal to the pipe. All electrofusion fittings shall be suitable for use as pressure conduits and have nominal burst values of four times the Working Pressure Rating of the fitting. Markings shall be according to ASTM F 1055.

Flange and Mechanical Joint Adapters shall have a material designation code of PE4710 or higher and a minimum Cell Classification of PE445474C. Flange and Mechanical Joint Adapters can be made to ASTM D 3261 or if machined, must meet the requirements of ASTM F 2206. Flange and Mechanical Joint Adapters shall have a pressure rating equal to the pipe. Marking for molded or machined flange adapters or MJ Adapters shall be per ASTM D 3261. Fabricated flange adapters shall be per ASTM F 2206. Bolts and nuts shall be SAE Type 316 stainless steel. Van-Stone style, ductile iron, convoluted or flat-plate, backup rings and bolt materials shall follow the guidelines of Plastic Pipe Institute Technical Note # 38, and shall have the bolt holes and bolt circles conforming to one of these standards: ASME B-16.5 Class 150, ASME B-16.47 Series A Class 150, ASME B-16.1 Class 125, or AWWA C207 Class 150 Series B, D, or E. The backup ring shall provide a long-term pressure rating equal to or greater than the pressure class of the pipe with which the flange adapter assembly will be used, and such pressure rating shall be marked on the backup ring. Backup rings, bolts, and nuts shall be SAE Type 316 stainless steel. An internal stainless-steel stiffener sleeve that is expanded hydraulically to create an interference fit with the pipe must also be used.

407.2.2 Joining Methods.

Butt Fusion: The pipe shall be joined by the, but fusion procedure outlined in ASTM F 2620. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42.

Electrofusion joining shall be done in accordance with the manufacturers recommended procedure. Other sources of electrofusion joining information are ASTM F 1290 and PPI TN 34. The process of electrofusion requires an electric source, a transformer, commonly called an electrofusion box that has wire leads, a method to read electronically (by laser) or otherwise input the barcode of the fitting, and a fitting that is compatible with the type of electrofusion box used. The electrofusion box must be capable of reading and storing the input parameters and the fusion results for later download to a record file. Qualification of the fusion technician shall be demonstrated by evidence of electrofusion training within the past year on the equipment to be utilized.

Mechanical connection of HDPE to auxiliary equipment such as valves, pumps, and ductile iron fittings shall use flange or mechanical joint adapters and other devices in conformance with AWWA Manual of Practice M55, Chapter 6.

The critical parameters of each fusion joint, as required by the manufacturer shall be recorded either manually or by an electronic data logging device. All fusion joint data shall be included in the Fusion Technician's joint report.

407.3 Polyvinyl Chloride (PVC) Pipe.

All polyvinyl chloride (PVC) pipe shall be of the rigid (plasticized) type pressure rated at 150 or 200 psi, conforming to AWWA C 900 or C 905 (DR18), and must bear the National Sanitation Foundation seal of approval for potable water pipe and shall be blue in color. Each joint of pipe shall consist of a single continuous extrusion; bells or other components attached by solvent welding are not acceptable. Pipe laying lengths shall be twenty (20) feet normally. Pipe shall have push-on, rubber gasket joints of the bell and spigot type with thickened integral bells, or of the double spigot type with thickened coupling sleeves with rubber gasket joints. The wall thickness of each pipe bell and joint coupling must be greater than the standard pipe barrel thickness. Clearance must be provided in every gasket joint for both lateral pipe deflection and for linear expansion and contraction. Rubber gaskets shall be of such a cross section that compression of the gasket within the pipe joint and water pressure within the pipe will cause a reaction by the gasket which tends to seal the joint. Gaskets shall conform to retaining grooves in the bell or coupling, shaped to position the gasket and aid in sealing the joint.

407.3.1 Applicable Specifications.

Except as modified or supplemented herein, PVC pipe shall meet all applicable current requirements of the following standards:

Product Standard PS 22 "Polyvinyl Chloride Plastic Pipe" (SDR)

- ASTM Specification D 2241
- AWWA Specification C 900
- ASTM Specification D 1784
- ASTM Specification D 1598
- ASTM Specification D 1599
- ASTM Specification D 2152
- ASTM Specification D 2412
- ASTM Specification D 2444
- ASTM Specification D 1869

407.4 Polyethylene Tubing.

All polyethylene (PE) plastic tubing shall be high density, high molecular weight plastic tubing pressure rated at 200 psi working pressure and must bear the NSF seal of approval for potable water service. PE tubing shall be standard copper tube size outside diameter, with standard dimension ratio (SDR) of nine (9). The PE tubing shall be homogenous throughout and free of cracks, holes, foreign inclusions or other injurious defects.

407.4.1 Applicable Specifications.

All polyethylene plastic tubing shall conform to all applicable requirements in the latest revision of the following standards unless otherwise specified herein:

ASTM Specification D 2737
ASTM Specification D 1599
ASTM Specification D 1598
AWWA Specification C 901

407.5 Copper Service Tubing.

Copper tubing is no longer being used as a City Service connection material.

407.6 Service Connecting Fitting.

All fittings used in Customer Service connections (tap saddles, tapping sleeves, meters, meter connections, etc.); shall be provided and shown in the details of submitted plans, see COLC Engineering web site for approved details, any details altered shall be approved by the City of League City Engineering Department.

407.6.1 Corporation Stops.

Corporation stops shall be new and made of brass conforming to ITEM. 407.7, inlet ends shall be standard corporation stop thread as per Table 1. AWWA C 800, iron pipe thread, or locking insert type. Valve body shall be taper plug type "O" ring seat ball type, or rubber seat ball type. Outlet end shall be compression type fitting.

407.6.2 Curb Stops.

Curb stops shall be new and conform to ITEM 407.7 inlet end shall be compression type fitting. Valve body shall be straight through or angled meter stop design equipped with padlock wings and shall be of either of the "O" ring seal straight plug type or rubber seat ball type.

Outlet shall be female iron pipe thread or swivel nut meter spud thread on 3/4" and 1" stops and two-hole flange on 1-1 1/2" and 2" sizes.

407.6.3 Service Saddles.

Service saddles for two-inch and smaller services shall be single strap stainless steel epoxy coated.

407.7 Brass Goods.

All brass stops, couplings, bends, connections, nipples, and miscellaneous brass pipe fittings and accessories used in meter connections, copper service lines, air release piping assemblies and wherever needed in the water distribution system, shall conform to the standards set within AWWA C 800-current, and ASTM B 62, except as herein modified or supplemented.

Unless otherwise noted, the goods described herein shall be fabricated of standard red brass (waterworks brass: 85-5-5) exposed threads shall be covered with plastic caps or sheathing to protect the threads.

407.7.1 Functional Requirements.

Corporation stop thread (where used) shall conform to Table 1, Figure 1, AWWA C 800 (corporation stops with iron

pipe threads are also permitted). Iron pipe threads shall conform to ANSI B2.1 - 1960 and Table 9, Figure 9, of AWWA C 800.

Cooper fittings threads shall conform to Table 2 and 3, Figure 2 and 3 of AWWA C 800 and ANSI B1.1960 with tolerance of Class 2 flanges shall conform to ANSI 6.1 Class 125 (or Class 250 where noted), as dimensions, drillings, etc.

All fittings shall be suitable for use at hydrostatic working pressures up to 150 psi.

407.8 Valves.

Unless otherwise approved, all valves six inches (6") and larger shall be resilient seated gate valves, manufactured to meet or exceed the requirements of AWWA C 509-current. All valves shall be wrapped with 8-mil Polyethylene film with all edges and laps securely taped to provide continuous wrap. Operator shall be equipped with hand-wheel or two-inch square nut operating counterclockwise to open valve. Where not otherwise noted, all valves shall be mechanical joint with gasket and mega-lug type restraint to match the pipe material. Unless otherwise noted, all valve stems shall be adjusted, or extensions provided to situate the operating nut no more than sixty inches (60") below the proposed grade of finished project.

407.8.1 Resilient Seat Gate Valves.

Gate valves shall be resilient seat, manufactured to meet or exceed the requirements of AWWA C 509-current. Valves shall have an unobstructed waterway equal to or greater than the full normal diameter of the valve.

The valves are to be non-rising stem with the stem made of cast, forged or rolled bronze shown in AWWA C 509. Two stem seals shall be provided and shall be of the "O" ring Type, one above and one below the thrust collar. The upper "O" ring must be protected from contact with ground water by an external stem seal. The stem nut, also made of bronze, must be independent of the gate to protect against stem binding.

The sealing mechanism shall consist of a cast iron gate, having a vulcanized synthetic rubber coating. The resilient-sealing mechanism shall provide zero leakage at the water working pressure when installed with the line flow in either direction.

Seating mechanism shall have no metal to metal stops. Valve gate shall have no metal seams or edges on the water way when in the fully closed position. Further, it shall be designed that no sliding or rubber on the seating surfaces is required to compress the rubber. It shall also be designed such that compression-set of the rubber shall not affect the ability of the valve to seal when pressure is applied to either side of the gate. The valve shall be further designed that no metal fasteners or screws other than the stem and stem nut are exposed to water.

The valve body, bonnet and bonnet cover shall be cast iron ASTM A 126, Class B. All ferrous surfaces inside and outside shall have a fusion-bonded epoxy coating not less than 8 mils in thickness for a holiday free surface. All parts to be epoxy coated must be shot blasted just prior to application of epoxy. All bonnet bolts shall be stainless steel.

A hand-wheel or wrench nut shall be provided for operating the valve. The shut-off torque must not vary when the valve is installed and the line flows in either direction.

407.8.2 Butterfly Valves.

Where approved by the Engineering Department, butterfly valves shall conform to current AWWA Standards for rubber-seated butterfly valves, AWWA C 504 Class 150B for buried service.

Valves shall have flange connections on both ends unless otherwise called for. Valves shall have vertical operating stems underground operator and end covers shall be permanently sealed against ground water infiltration. Operator shall be properly adjusted to assure 100% seal.

Valve seating shall be a true bubble tight sealing desired in a resilient seated valve. A 360-degree offset continuous seating surface shall be provided by a disc edge of synthetic rubber. The mating surface in the valve body, to this resilient seat, is a 304 stainless steel body ring.

The disc shall be ductile iron with thru shaft connections, stainless steel drive.

The rubber seat shall be so mounted that it can be replaced and/or adjusted without disassembling the valve or removing the valve from the pipeline. Valve body material shall be ASTM A126 Grade B cast iron.

407.9 Fire Hydrants.

Fire hydrants shall conform to requirements and tests of AWWA Standard for dry barrel fire hydrants C 502-80, or latest revision thereof, pertaining to the design, component materials, construction and manufacture except as modified or supplemented hereinafter.

The operating nut shall be non-rising, pentagonal shape measuring 1-1/2" from point of opposite flat. Pentagon shall have a depth of at least 1-1/4."

A weather cap shall be affixed which conceals the hold down nut and on which is embossed an arrow indicating the opening direction. The direction of opening shall be counterclockwise.

A lubrication reservoir shall be provided, sealed top and bottom by "O" rings and filled with a viscous, non-toxic lubricant. The design shall be such that the bearing surfaces and threaded parts are automatically lubricated when the hydrant is operated. There shall be not less than two "O" rings separating the waterway from the oil reservoir and that portion of the stem making this seal shall be sleeved with bronze. An anti-friction washer shall be in place above the thrust collar to minimize operation torque.

The bonnet shall be attached to the upper barrel by not less than eight bolts utilizing a cloth impregnated rubber gasket as a pressure seal.

Hydrants shall be three-way, having two 2-1/2" hose nozzles being right hand National Standard Thread and one integral 5" Storz quick connection pumper nozzle installed at the time of final walk-through. Nozzles shall thread counter-clockwise into barrel with "O" ring pressure seals. Storz connection shall have matching cap with cable tether. All Storz shall be free of louvers.

Hydrants shall be traffic model having upper and lower barrels joined approximately 2" above the final grade line by a separate and breakable swivel flange providing 360-degree rotation of the upper barrel. This flange shall include a minimum of eight bolts. The pressure seal between the barrels shall be cloth impregnated rubber gasket, an "O" ring is not acceptable. The ground line shall not be less than eighteen inches below the centerline of the lowest nozzle and shall be clearly embossed on the lower barrel. A breakable stem coupling shall join the two-piece stem adjacent to the ground-line flange and shall be of similar metal. Screws, pins, fasteners or bolts used in the coupling shall be stainless steel. The weakened portion of the stem coupling shall be below the coupling pins.

Upper and lower barrels shall be fabricated of cast iron so as to minimize the possibility of shoe damage upon traffic impact.

Main valves shall be compression type, closing with the pressure, and shall be not less than 5 1/4" in diameter.

Composition of the main valve shall be rubber or neoprene having a durometer hardness of 90 + 5 and shall be not less than 1" thick.

Hydrant shall be equipped with drain valves which drain the barrel when the hydrant is closed, and seal shut when the hydrant is in the open position. These drain valves shall be an integral part of the upper valve plate and shall operate without employing springs, tubes, levers, toggles or other intricate mechanism. A gravel bed around the weep holes is required; see COLC "Fire Hydrant and Valve Detail" for additional information.

The upper valve plate, seat ring and drain ring (shoe bushing) must be bronze and work in conjunction to form an all-bronze drain-way. Drain holes drilled in the shoe must be bronze lined.

Two drain openings are required; the bronze seat ring must thread into a bronze drain ring or shoe bushing providing a bronze to bronze connection. Seat ring seals shall be "O" ring type. Zinc content of bronze parts shall not exceed 16%.

The 6" shoe connection shall be an approved mechanically restrained joint and have ample blocking pads for sturdy setting and concrete blocking. A minimum of six bolts is required to fasten the shoe to the lower barrel.

The interior of the shoe, including the lower valve plate and cap nut shall have a protective epoxy coating of a least 4 mils. If cap nut is utilized, it must be locked in place with a stainless-steel lock washer or similar non-corrosive device.

Fire hydrant shall be those types and models meeting the above criteria and installation shall be in accordance with manufacturer's recommendation and as shown in the "Standard Details."

All above ground parts of the fire hydrant shall be field coated after installation with an approved rust inhibiting paint. The body parts, bonnet, and caps shall be Carmine Red in color. Dead end flushing hydrants shall be blue in color.

For location of fire hydrants see ITEM 405.

For the setting of fire hydrants see ITEM 409.5.

407.10 Air-Vacuum Release Valves.

Unless otherwise designated, all air-vacuum release valves shall be automatic combination air-vacuum release valves and shall be those types and models specified on the design plans or approved by the City of League City Engineering Department.

407.11 Meter Boxes and Vaults.

Unless otherwise designated, all meter boxes and vaults shall be those types and models listed and shown on the "Standard Details."

407.12 Valve Boxes.

Valve boxes shall be adjustable thread type cast iron and shall be those types and models approved by the City of League City Public Works Department and shown in the "Standard Details." Valve box lids shall be labeled as water.

407.13 Steel Pipe and Fittings.

Steel carrier pipe and fittings shall be used for special installations only. Steel casing pipe shall be used for all waterlines bored and jacked. Metal liner plate shall be used for all tunneling.

407.13.1 Steel Carrier Pipe.

All steel pipe intended for use as carrier pipe in the distribution system sizes 6" through 24" shall conform to AWWA Standard C 200. Pipe shall be supplied in double random lengths unless otherwise specified. The ends of pipe shall be beveled for field butt welding.

Pipe shall be new and manufactured in compliance with UL current specifications for "Steel Pipelines for Underground Water Service" and shall be acceptable, without penalty, to the "Texas Fire Insurance Commission" for use in water works distribution systems.

Minimum wall thickness shall be in accordance with the following:

Nom. Pipe Size	Wall Thickness
6"	0.280"
8"	0.322"
10"	0.365"
12"	0.375"
16"	0.375"
20"	0.375"
24"	0.375"

407.13.2 Steel Casing Pipe.

All pipe intended for use as casing pipe shall be manufactured in accordance with the specifications for steel carrier pipe except that the wall thickness may be reduced, the Kraft paper wrap is not required, and the compliance with UL and TFIC is not required. The casing shall be solid welded with a min. wall thickness of 0.219 inches for casing pipe 8 inches through 18 inches and a min. wall thickness of 0.250 inches for casing pipe 20 inches through 36 inches, any casing larger than 36 inches shall be specified by the designing engineer.

Spacers and End Seals shall be "Advance Products and Systems, INC." or approved equal; see City of League City "Pipe Casing Detail" for other info.

407.13.3 Metal Liner Plate.

The plates shall be fabricated from steel sheets conforming to ASTM A-569. The plates shall be new and unused prior to fabrication. All plates shall be punched for bolting on both longitudinal and circumferential seams or joints and shall be so fabricated as to permit complete erection from inside tunnel.

One-half of the total number of plates shall be equipped with 2" diameter grout holes to facilitate grouting above and around the tunnel liner conduit. All grout holes shall be equipped with screw type galvanized plugs.

Galvanized steel liner plates shall be given a bituminous coating prior to installation. Tunnel liner plates may be the two-flange or four-flange type, 16" or 18" in width.

The minimum thickness gauge, joint strength and wall buckling strength shall meet or exceed the values calculated by the design methods of the AASHTO Design specifications for tunnel liner plates.

407.13.4 Steel Pipe Fittings.

All steel pipe fittings 6" through 24" shall be factory forged fittings. All bends shall be long radius fittings unless otherwise specified. Ends shall be beveled for field butt welding. Wall thickness shall be equal to or greater than the pipe to which fitting is to be welded. Field welding of steel water pipe shall be provided in accordance with AWWA C 206.

407.13.5 Steel Pipe Flanges.

Steel pipe flanges shall conform to AWWA Standard C 207 for Class D flanges (same diameter and drilling as Class 125 cast iron flanges ASA B 16.1). All flanged joints made up between steel and cast-iron flanges shall maintain an electrically isolated joint by means of the use of epoxy coated bolts, nuts and washers and an insulating type gasket unless otherwise stipulated.

407.13.6 Corrosion Protection.

When required or specified, underground installations of carrier pipe shall provide for a coal-tar enamel lining, coating, and wrapping in conformance with AWWA C-203. Underground installations of casing pipe shall provide for a coal-tar enamel exterior coating in conformance with AWWA C-203. Interior lining and Kraft paper wrapping may be omitted for casing pipe.

Above-ground installations of all steel pipe and fittings (not stainless) shall be in conformance with AWWA C-218 Coating System No. 2 or better and shall be suited for the environment intended.

407.14 Pipe Bedding Material.

Where not otherwise specified or noted, all pipe bedding material shall conform to one of the classifications described below.

407.14.1 Sand.

Sand for use as pipe bedding shall be clean, granular material composed mainly of mineral matter free of mud, silt, clay lumps, clods, vegetation or debris. The material removed by decantation (Tex 406A) plus the weight of any clay lumps, shall not exceed 4.5% by weight.

407.14.2 Cement-Stabilized Sand.

Sand shall be unwashed sand free of all foreign matter and meeting the following graduation requirements:

Sieve Size	% Retained
1-1/4"	0-10
1/2"	10-20
3/8"	15-30
No. 4	30-65
No. 40	50-75

Do not use material passing the No. 40 sieve with a plasticity index greater than 10 or a liquid limit greater than 35.

The cement shall be standard Type I Portland cement conforming to ASTM C 150.

Water used in the mix shall be clean, clear, and free from oils, acids, alkali, or vegetable matter. Water of doubtful quality shall be tested by briquette test to determine if it is equal to water of known satisfactory quality.

Unless otherwise specified, use no less than 1.5 sacks of cement per ton of mixture. Use amount of water necessary to obtain optimum moisture content for mechanical tamping. Mix cement, sand and water in a mill type mixer.

Cement-stabilized sand shall not be used after it loses its moisture content or it has obtained an initial set. Material not in place within 4 hours shall be rejected.

407.14.3 Washed Rock.

The material shall consist of washed ¾"-1" durable particles of crushed limestone rock together with approved binding material, and when properly slaked and tested by laboratory methods, it shall meet the following requirements:

Retained on 2-1/2" Sieve	0 to 5%
Retained on 1" Sieve	10 to 35%
Retained on 1/4" Sieve	50 to 75%
Retained on No.200 Sieve	92 to 100%

407.15 Concrete.

Concrete shall be composed of cement, fine and coarse aggregates, mineral filler if necessary, and water, proportioned and mixed as provided in these specifications or as required by the EOR.

407.15.1 Cement.

All cement shall be standard white or gray Portland cement conforming to ASTM C 150, all cement shall be Type I.

407.15.2 Water.

Water for use in concrete or for curing shall be potable water from municipal supplies approved by the State.

407.15.3 Mineral Filler.

Used as concrete aggregate shall consist of stone dust, clean crushed sand, or other approved inert material.

407.15.4 Fine Aggregate.

Fine aggregate shall consist of clean, hard, durable and uncoated particles of natural or manufactured sand or a combination thereof, with or without mineral filler conforming to ASTM C 33.

407.15.5 Coarse Aggregate.

Coarse aggregate shall consist of durable particles of gravel, crushed stone conforming to ASTM C 33. When tested by ASTM C 131 procedures coarse aggregate shall have a percentage of wear of not more than forty.

407.15.6 Proportions and Mixing.

Concrete shall be mixed in quantities required for immediate use. Re-tempering of concrete will not be allowed.

Continuously agitated concrete shall be placed within one hour of initial mixing; non-agitated concrete must be placed within twenty minutes of initial mixing.

It shall be the responsibility of the Contractor to determine the batch quantity of each ingredient to produce a concrete mix conforming to the following requirements:

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

Last Updated: March 4, 2021

Design Guidelines

<u>Cement (sacks/cy)</u>	<u>28-Day Min Com Strength</u>	<u>Max Water Cement Ratio (gallon/sac)</u>
4.5	2,500 psi	7.0 Thrust Blocking
5.0	3,000 psi	7.0 Normal
6.0	4,000 psi	6.25 Structural

407.15.7 Reinforcing Steel.

Where required, steel reinforcing shall conform to TxDOT current "Standard Specifications" for reinforcing steel.

407.15.8 Consistency.

The consistency of the concrete as placed should allow the completion of all finishing operations without the addition of water to the surface. The concrete shall be workable, cohesive, possess satisfactory finishing qualities and be of the stiffest consistency that can be placed and vibrated into a homogenous mass.

407.15.9 Quality Control.

If the strength required or consistency requirement cannot be maintained, the contractor may use an approved water reducing or retarding agent, or additional cement or aggregates, which will produce the required results.

407.15.10 Weather Conditions.

The contractor is responsible for the protection of concrete placed under any and all-weather conditions. In threatening weather, which may result in conditions that will adversely affect quality of the concrete to be placed, the contractor shall postpone the work.

Where work has been started and changes in weather conditions require protective measures, the contractor shall furnish adequate shelter to protect the concrete against damage from rainfall or from freezing temperatures. No concrete may be placed unless the atmosphere temperature is at least 40 degrees F and rising; concreting shall be discontinued if the temperature drops to 45 degrees F and is falling. Concrete shall be protected, and its surface temperature maintained at 40 degrees F or above for at least seventy-two hours after placement.

407.15.11 Placing Concrete.

The contractor shall give the Engineering Department's office sufficient advance notice before placing concrete to permit the inspection of forms, reinforcing steel and other preparations. Concrete shall not be placed prior to the approval of preparation.

Concrete mixing, placing and finishing shall be done in daylight hours. The placing shall be regulated so the pressures caused by the plastic concrete shall not exceed the loads used in the form design. The method of handling, placing and consolidation of concrete shall minimize segregation and displacement of the reinforcement, and produce a uniformly dense and compact mass. Concrete shall not have free-fall of more than four feet. The method and equipment used to transport concrete to the forms shall be capable of maintaining the rate required for a continuous placement. Concrete shall be placed with a termite, closed bottom-dump bucket, or other approved method.

Each part of the forms shall be filled by depositing concrete as near its final position as possible. The coarse aggregate shall be worked back from the face and the concrete forced under and around the reinforcement bars without displacing them. Depositing large quantities at one point and running or working it along the forms will not be allowed. Concrete shall be deposited in layers of suitable depth but not more than 36" in thickness.

The sequence of successive layers or adjacent portions of concrete shall be such that they can be vibrated into a homogeneous mass with the previously placed concrete without a cold joint. Unauthorized construction joints shall be avoided by placing all concrete between the authorized joints in one continuous operation.

All concrete shall be well consolidated by mechanical means and the mortar flushed to the form surfaces by continuous working with immersion type vibrators. The vibration shall continue until thorough consolidation and complete embedment of reinforcement and fixtures is produced but not long enough to cause segregation.

Footings, forms, trenches, etc., shall be free of standing or flowing water before any concrete is placed therein. Any necessary pumping or bailing during concreting operations shall be done from a suitable sump located outside the forms or excavations receiving concrete.

407.15.12 Curing Concrete.

Concrete shall be allowed to cure at 40 degrees or above for at least seventy-two hours after placement before any backfill, load, or strain is placed on the concrete or any projecting reinforcing. While curing, the concrete shall be protected from drying by leaving the forms in place, or by covering with damp mats, blankets, or by complete coverage of the moist concrete with a sealing "membrane" curing compound.

The contractor shall inform the City of League City Engineering Department fully of the methods and procedures proposed for curing and shall provide the proper equipment and material in adequate amounts, and shall have the proposed method, equipment and materials approved by the City of League City Engineering Department prior to the placing concrete.

ITEM 408 EXCAVATION

All excavation and backfilling shall be accomplished in accordance with all current standards and recommendations of the State Health Division of Occupational Safety. Wherever existing utility branch connections, sewers, drains, conduits, ducts, pipes, or structures present obstructions to the excavation, they shall be permanently supported, removed, relocated or reconstructed by the contractor through cooperation with the owner of the utility, structure, or obstruction involved.

Adequate temporary support, protection and maintenance of all underground and surface utility structures, drains, sewers, and other obstructions encountered in the progress of the work shall be furnished by the contractor.

Adequate provisions shall be made for the flow of sewers, drains, and water courses encountered during construction, and all the structures which may have been disturbed shall be satisfactorily restored as soon as possible.

When rainfall or runoff is occurring or is forecast, the contractor shall not perform or attempt any excavation or other earth moving work within the immediate flood plain of any stream or water course, or on slopes subject to erosion or runoff. Adjacent property shall be protected from rainfall runoff resulting from earth moving operations within the work. Gutter and drainage channels shall be kept clear, or other means of securing proper drainage shall be provided by the contractor.

All excavated material shall be piled in such a manner that it will not endanger the work in progress and will not block sidewalks, driveways or obstruct traffic. During construction operations, barricades and lights to safeguard traffic and pedestrians shall be furnished and maintained, until such time as the backfill has been completed and then shall be removed from the site. All surplus material shall be removed from the rights-of-way or easements and properly disposed of by the contractor. The excavation shall be finished flush with surrounding natural ground.

Work performed on Railroad right-of-way is subject to the concurrence of the Railroad Company. Work performed on State Highway right-of-way is subject to the concurrence of the Texas Highway Department. Work performed within waterways, such as rivers, creeks, bayous, and drainage ditches, is subject to the concurrence of the appropriate governmental agency.

408.1 Trench Excavation.

Prior to commencing any trench excavation, the contractor shall provide ample labor, equipment, shoring materials, and such other safety equipment as required to ensure that the work will be carried out without interruption or damage to existing installations. The contractor shall abide by all applicable federal, state or local laws governing excavation work.

408.1.1 Lines and Grade.

Trench excavation shall be to the line and grade shown on the approved plans or called for in these specifications. The contractor shall provide adequate vertical and horizontal control for accurate work.

408.1.2 Trench Width.

The trench width at the pipe zone (six-inches below and twelve-inches above the outer projections of the pipe or accessories) should be kept to a minimum. The minimum permissible clearance between the outside body of the pipe and the trench wall at the pipe zone will be such that the bedding material can be consolidated on all sides of the pipe. The minimum clearance will be 12" on each side. Excavation along curves shall be so oriented that the trench and pipe are centered on the centerline of the curve, or where necessary to conform to the recommendations, horizontal bend fittings shall be utilized.

Where bracing or sheathing and bracing, are used, the trench width shall be increased accordingly. After the pipe has been laid and the trench backfilled 12" above the top of the pipe, the bracing shall be removed, but with special care that the pipe is undisturbed. As each brace is removed, the space left by its removal must be thoroughly filled and compacted.

Pipe laid in trench exceeding the specified width, the entire width between the undisturbed walls of the excavation must be backfilled and compacted as pipe trench in accordance with ITEM 409.2, "Pipe Bedding."

408.1.3 Trench Depth and Depth of Cover.

Trenches shall be excavated to a depth which provides proper clearance beneath all parts of the pipe and fittings for placement of the bedding, cradle, jacket, etc., called for in these specifications. Before placing any bedding, any part of the trench which may be excavated to deep shall be filled to the proper trench bottom sub-grade with cement stabilized sand and thoroughly tamped over the full width of the excavation. All pipe and in-line appurtenances shall be laid to the depths called for in the plans or these specifications.

408.1.4 Foundation Mat for Unsuitable Soils.

No pipe or bedding shall be placed where the trench bottom is found to be a soft material, fill, or otherwise unstable material not suitable as a foundation. In case of unsuitable material, the entire trench width shall be excavated twenty-four inches below the ordinary trench sub-grade depth and refilled to the normal sub-grade with gravel tamped solidly into the trench bottom. The specified bedding material shall then be placed over the supporting mat, and the pipe laid in the usual manner. In severe cases of unstable trench bottom, a concrete seal slab shall be placed prior to pipe bedding. See bedding and backfill details.

408.2 Jacking, Boring, And Tunneling.

Roadway crossings under existing pavement shall be placed by jacking and boring, unless special permission is granted by the City of League City Public Works Department. The installation of lines under private driveways in rights-of-way shall be placed by jacking or boring unless special permission is granted by the property owner. All lines placed by jacking or boring shall consist of smooth-wall pipe with welded joints and seams and shall be continuous. Casing shall extend from crown line to crown line or five feet behind curb on each side thereof. See Item 407.13.2 for Steel Casing specifications. Service connections may omit casing if service material is continuous, without joints, and is a smooth wall pipe or tubing. Bore hole or tunnel shall not exceed the diameter of the casing by more than one inch. Over cutting or excavation will be remedied by filling the annular space between the outside of the pipe and the tunnel face with concrete grout.

Suitable pits, shaft or trenches shall be excavated and, if necessary, shall be properly stored on all sides in a safe manner. Shoring shall be material of ample strength to safely withstand all structural loadings of whatever nature due to site or soft conditions. Preparations shall be kept dry during all operations. Pumping and bailing operations shall be performed as necessary. In the event the excavations bottom is not stable, the bottom shall be excavated to such additional depth as required and place gravel, shell, or concrete seal slab for a working mat.

Construction shall be made in such a manner that it will not interfere with the operations of the railroad, street, highway, or other facility, and shall not weaken or damage any embankment or structure.

408.2.1 Jacking.

Heavy duty jacks suitable for forcing the pipe through the embankment shall be provided. A suitable jacking head, usually of timber and suitable bracing between jacks and jacking head shall be provided so that pressure will be applied to the pipe uniformly around the ring of the pipe. A suitable jacking frame or back stop shall be provided. The pipe to be jacked shall be set on guides, properly braced together, to support the section of the pipe and to direct it in the proper line and grade. The whole jacking assembly shall be placed so as to line up with the direction and grade of the pipe. In general, embankment material shall be excavated just ahead of the pipe and material removed through the pipe, and the pipe forced through the embankment with jacks, into space thus provided.

When jacking of pipe commences, the operation shall be carried on without interruption, insofar as practicable, to prevent the pipe from becoming firmly set in the embankment. Any pipe damaged in jacking operations shall be removed and replaced. The pits, shafts or trenches excavated to facilitate jacking operations shall be backfilled immediately after the jacking of the pipe has been completed.

408.2.2 Boring.

The holes are to be bored mechanically. The boring shall be done using a pilot hole. By this method an approximate 2-inch pilot hole shall be bored the entire length of the crossing and shall be checked for proper line and grade at each end. This pilot hole shall serve as the centerline of the larger diameter hole to be bored. Excavated material will be placed near the top of the working pit and disposed of as required. The use of water or other fluids in connection with the boring operation will be permitted only to the extent to lubricate cutting; jetting will not be permitted.

In unconsolidated soil formations, a gel-forming colloidal drilling fluid consisting of at least 10% of high grade carefully processed bentonites may be used to consolidate cuttings of the bit, seal the walls of the hole, and furnish lubrication for subsequent removal of cuttings and installation of the pipe immediately thereafter. When the cutting operation begins, the operation shall be carried on without interruption, insofar as practicable, until the casing is in place.

408.2.3 Tunneling.

The tunnel excavation shall be performed by methods consistent with good practice and with due regard for the safety of personnel, protection of property and progress of the work. The methods of excavating in tunnels, whether by hand digging, mechanical means, or use of hydraulic or compressed air tools, shall be accomplished by procedures which are acceptable to the City of League City Public Works Department.

The City of League City Engineering and Public Works Departments will not attempt to dictate specific working methods, but it shall be the contractor's responsibility to ascertain beforehand that the methods which he desires to use will be acceptable to the City of League City Public Works Department, taking into account the actual job conditions expected. The tunnel shall be permanently lined with galvanized steel deformed plates as describes under ITEM 407.13.3 "Metal Liner Plate." As tunneling proceeds and following as closely behind erection of the liner plate as working space will permit, the annular space between the outside of the steel liner plates and the tunnel wall shall be filled with grout in such a manner and by such methods as to completely fill the space and leave it free of voids.

Grout for voids shall consist of one-part standard Portland cement and four parts of fine clean sand mixed with potable water to produce a homogeneous, workable mix. Suitable equipment for the expeditious placement of the grout shall be furnished.

Pipe shall be handled and placed in tunnels by the use of proper cradle bedding, skids, wedges, guide rails or other approved means. The contractor's methods for setting pipe and making joints must be approved by the City of League City Public Works Department prior to their use. Every reasonable and proper precaution shall be taken by the contractor to insure the safety of the public, the work and personnel, and all adjacent property.

ITEM 409 PIPE LAYING

All pipe shall be laid and maintained in the required lines and grades; with fittings, valves, and hydrants at the required locations; and with joints centered and spigots home; and with all valve and hydrant stems plumb.

All recommendations of the manufacturer shall be carefully observed during handling and installation of each material. The interior of all pipe, fittings, and other accessories shall be kept free from dirt and foreign matter at all times and stored in a manner that will protect them from damage.

During handling and placement, materials shall be carefully observed and inspected, and any damaged, defective; or unsound materials shall be rejected and removed from the job site. Damaged coating or lining shall be inspected by manufacturer and repaired in a manner satisfactory to the manufacturer's requirements.

409.1 Trench Condition.

Before pipe installation, all water, slush, debris, etc., encountered in the trench must be removed and the trench must be kept clean and dry while the pipe is laid and backfilled.

Where ground water is encountered, the water table shall be lowered so that all necessary work may be carried on in a dry condition.

All open ends, outlets or other openings in the pipe shall be protected from damage and properly plugged and blocked watertight, to prevent the entrance of trench water, dirt, etc. The interior of the pipeline shall at all times be kept clean, dry, and unobstructed.

409.2 Pipe Bedding and Embedment.

Except where otherwise approved by the City of League City Public Works Department, all pipe and appurtenances shall be installed in a continuous envelope of specified bedding material. Specified bedding material for waterlines and appurtenances shall be sand (see ITEM 407.14, "Materials") extending from minimum 6" below to minimum 12" above the outer part of the pipe, fittings, and accessories extending for the full width between the undisturbed trench walls. The bedding material required beneath the pipe shall be placed, graded and tamped to the pipe sub-grade profile over the entire width between undisturbed trench walls and cut-outs made for the projects of the pipe bells, couplings, etc.

The pipe shall be placed and adjusted to proper grade on this prepared bedding, then jointed, braced and blocked as required. After pipe is graded into place, bedding material shall be placed simultaneously on both sides of the pipe and worked carefully into place without disturbing the pipe alignment, to an elevation of minimum 12" over the pipe. Minimum clearances between lines that cross each other shall be determined by the amount of bedding and backfill required as shown on the details in the given set of plans.

409.2.1 Wet Sand Construction.

This ITEM shall include the following:

- A. If deemed necessary, timber sheeting and floorboards
- B. Washed crushed rock bedding (ASTM D2321 Class 1B bedding) or equal with filter fabric wrap.

All ITEMS (A&B) must be approved by the EOR, City of League City Engineering Department and the Owner and constructed per the City of League City Details.

The use of wet sand construction shall be strictly controlled by the EOR and shall be performed only when authorized in writing by the EOR. Payment will be based on the measured linear footage at the unit price bid.

If wet sand is found in the field use wet sand bedding per League City Details.

409.3 Assembling Pipe.

Assembly shall meet the manufacturer's recommendations for the pipe and accessories being used. Side outlets shall be rotated so that operating stems and valves will be vertical when valves are installed. Unless otherwise directed, pipe shall be laid with bell ends facing the direction of laying lines of an appreciable slope, the bell shall face up-grade.

Before joining any pipe, any foreign matter shall be removed from the ends of each pipe, the pipe shall be wiped clean and dry, and primed in accordance with manufactures recommendations.

409.4 Setting Valves, Drains, and Air Releases.

Unless otherwise directed, mainline valves, drain valves and piping, air and vacuum release assemblies and other miscellaneous accessories shall be set and jointed in the manner described for assembling pipe.

Valves shall be installed, and the stems adjusted so that the tops of operating stems will be at the proper depth required. Valve boxes and valve stem casings shall be firmly supported and maintained centered and plumb over the operating stem, with the bury line of the box flush with the finished ground. Valve boxes shall have a minimum 8" adjustment available above the final setting.

409.5 Setting Fire Hydrants.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb or future curb. They shall be installed with the hydrant bury mark approximately 6" above level with the finish grade. The contoured shoe of each hydrant shall be well braced against unexcavated earth at the end of the trench with concrete thrust blocking (taking care not to obstruct the hydrant drain holes) and each hydrant cradled with a minimum of 6" of concrete placed under the shoe. A drainage pit 2 feet in diameter and 2 feet in depth, located about the drain ring housing, shall be filled with coarse gravel.

For spacing, location, and depth of bury for fire hydrants see ITEM 405.

For fire hydrant material requirements see ITEM 407.9.

409.6 Pipe Anchorage, Support and Protection.

On all pipelines 6" in diameter or larger, all tees, plugs, caps and bends exceeding 11 1/4 degree and other bends as directed, shall be securely anchored by mechanical joint restraints and suitable concrete thrust blocking.

Unless otherwise provided, concrete for use as reaction or thrust blocking shall be as specified under "Concrete," concrete blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on pipe and on ground in each instance shall be that stipulated by sound engineering practices. The blocking shall be so placed that the pipe and fitting joints will be accessible for repair.

A poly wrapped material shall be used to avoid bonding of the concrete to the pipe or fitting.

ITEM 410 BACKFILL AND SETTLEMENT

The backfill and settling of trenches and excavation shall include whatever methods and procedures may be necessary to restore the entire work area to a safe geologically stable condition satisfactory to the Department of Public Works and generally equal or superior to the conditions prior to construction. Special backfill conditions will be required within existing and proposed paved surfaces and special rights-of-way.

410.1 Cement-Stabilized Backfill.

Excavation within the paving sub-grade zone (area under pavement to 3' outside pavement each way thereof) of proposed or existing pavement shall be a backfill with cement-stabilized material. Material shall be as specified under ITEM 407.14.2, "Cement-Stabilized Sand."

Cement-Stabilized backfill shall be placed at optimum moisture content in layers not to exceed 12" measured loose. Compact with mechanical hand tamps to at least 95% Standard Proctor Density as determined by ASTM D 698. Mechanical tamps shall be rammer-type capable of 50 ft. lbs./blow or approved equal.

Cement-Stabilized Sand shall not be used after it loses its moisture content or it has obtained an initial set. Material not in place within 4 hours shall be rejected.

410.2 Backfill, Compaction, and Density.

Compaction of all backfill material shall be performed in a manner that will not crack, crush, and/or cause the installed pipe to be moved from the established grade and alignment.

In existing or proposed City street rights-of-way and easements and outside of the paving sub-grade zone, the backfill above the pipe zone may ordinarily include the select excavated soil material. All material above the pipe zone shall be compacted to obtain a minimum of 95% of Max Density as determined by ASTM D 698. Where sidewalks, driveways, and/or pavement have been cut; backfill material shall be in accordance with ITEM 410.1, "Cement Stabilized Backfill." Backfill within Railroad right-of-way boundaries must satisfy the specifications and conditions in the railroad permit, issued for work. Backfill within the State Highway right-of-way must satisfy the specifications and conditions in the State Highway Permit issued for work.

410.2.1 Tamping.

Backfill Material shall be near optimum workability and moisture content when tamped, with no discernible free water, ponding or drainage. The backfill shall be placed in uniform layers of not more than 8" loose measurement, extending completely across the excavation between the undisturbed trench walls, and tamped evenly and uniformly to the proper density by hand tamping or by mechanical tampers. Extreme care must be exercised to prevent movement or injury of the pipe while tamping; the pipe position, grade or alignment shall not be disturbed. Flooding or water jetting will not be allowed in soils whose plasticity index (PI) is greater than 15.

ITEM 411 HYDROSTATIC TESTING

After the pipe has been installed, backfilled, and all service connections (if required), fire hydrants and other appurtenances installed, connected and adjusted; and all surface pavement, lot grading and other related construction activities are complete within the area of line to be accepted; a pressure and leakage test will be conducted by the

contractor and monitored by the city inspector. The contractor shall furnish the pump, meter and gauges for the tests. The specified test pressures will be based on the elevation of the lowest point on the line under test. Before applying the specified test pressure, all air shall be expelled from the pipe. If permanent air vents are not located at all dead ends and high points, the contractor shall install corporation cocks at such points. Location of test pump may require additional corporation cocks. At the conclusion of the pressure test, the corporation cocks shall be properly plugged and secured to prevent leakage.

All valve connections between a system that is presently serviced, and an unaccepted system shall be operated only by League City personnel. Pressurization and flush of the line will be coordinated by the City, with ample notification. Charges for water usage will be consistent with current City policy.

The leakage test will be conducted on the entire project, or each valve section, concurrently with the pressure test. The leakage test shall be at 150 psi for four (4) hours or 125 psi for eight (8) hours. Leakage shall be defined as the quantity of water that must be supplied into any test section of pipe, to maintain the specified leakage test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. All potable water provided for water test shall be through a City provided contractors meter assembly and backflow preventer; no direct connection will be allowed for filling of lines.

No pipe installation will be considered acceptable if the leakage is greater than that determined by the current AWWA Standards "Allowable Leakage"; for applicable pipe material. All visible leaks are to be repaired regardless of the amount of leakage.

ITEM 412 SANITARY PRECAUTIONS AND DISINFECTION

Sanitary precautions, flushing, and disinfections procedures and bacteriological sampling, as prescribed in AWWA Standard C 601 for disinfecting water-mains, shall be followed in laying waterlines.

Pipe shall not be laid in water or placed where it can be flooded with water or sewage during storage or installation. The effectiveness of disinfections depends in large measure on maintaining clean pipes and avoiding major contamination during construction.

All newly installed mains shall be disinfected in accordance with ANSI/AWWA C 601 and flushed and sampled before being placed in service. After satisfactory completion of the hydrostatic testing, League City personnel will flush and collect samples for bacteriological analysis to check the efficiency of the disinfection's procedure, which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed main will be required. Charges for water usage will be consistent with current City policy.

Following the chlorination period, all treated water flushed from the lines shall be disposed of by discharging to the nearest sanitary sewer or other approved means. No discharge to any storm sewer or natural water course will be allowed.

ITEM 413 CONNECTIONS TO EXISTING SYSTEM

Connections to an existing system shall be accomplished without interrupting normal service, where ever possible.

In-line installations and extensions that require the operation of valves within the serviced system shall be scheduled in advance and must be approved by the Public Work Department. City personnel will make all shut-outs on existing mains. The contractor shall be responsible for the advance notification to individuals affected by the interruption of service. Notifications must be written and include the date, time and the proposed duration of interrupted service.

Unless otherwise approved, connections to an existing system shall be pressure tapped. A pressure tap shall consist of connecting new piping to the existing water system by drilling into the existing pipe while it is carrying water under normal pressure, without taking the existing piping out of service. The contractor shall perform all excavation, furnish and install tapping sleeve, valves and accessories in conformance with these specifications and provide the tapping machine and drill the tap and shall block, cradle and backfill the piping, valve and all accessories.

All service connections shall be constructed in accordance with "Standards Details," and all service connections shall be inspected prior to any cover up by a representative from the City's Line Repair Department.

ITEM 414 CLEAN-UP AND RESTORATION

It shall be the contractor's responsibility to keep the construction site neat, clean and orderly at all times. Clean-up shall be vigorous and continuous to minimize traffic hazards or obstructions along streets and to driveways. Materials at the site shall be stored in a neat and orderly manner so as not to obstruct pedestrian or vehicular traffic. All damaged or surplus material shall be removed from the construction site immediately and disposed of in a proper manner.

Immediately following the pipe laying work as it progresses, the contractor shall backfill, grade and settle all excavations as provided elsewhere and shall immediately clean up and remove all unused spoil, waste and debris, and restore all surfaces and improvements to a condition equal or superior to that before construction began and to an appearance which complements the surroundings. The contractor shall grade and dress the top 6" of earth surfaces with material similar to the surroundings, fill and smooth any tracks or ruts, replace and re-establish all damaged or disturbed turf or other vegetation, and otherwise make every effort to encourage return of the entire surface and all improvements to a pleasant appearance and useful condition.

ITEM 415 APPROVAL AND ACCEPTANCE

When all of the work provided for in the plans and specifications has been satisfactorily completed and all clean-up work has been performed, as provided elsewhere in these specifications; the inspector assigned to the work will notify the Engineering Department to make the "Final Inspection." Such inspection will be scheduled within 10 days after such notification. "Final Inspection" by League City representatives shall be concurrent with the final inspection by representatives of the Developer, engineer, contractor, and other authorities whose approval is necessary for the proper use of the facilities. All deficiencies that are noted shall be corrected to the approval of all the authorities involved.

Formal acceptance of public infrastructure will follow the process noted in Item 101.1 of this manual. No action by a representative of the City shall relieve the Developer/Contractor of the obligation for fulfillment of the warranty of the work.

ITEM 416 WARRANTY OF WORK

The Developer, the contractor and/or his surety will be required by the City to repair, replace restore and/or make to comply strictly in all things with these specifications and the plans and any and all work and/or materials, which within a period of one year from and after the date of the passing approval and/or acceptance of any such work or material, are found to be defective or to fail in any way to comply with these specifications. Effective date for beginning one-year guarantee shall be the date of the City Council acceptance or the permit of occupancy for the facility. Should the Developer/Contractor fail to remedy the defects as outlined herein within a reasonable length of time, the City may have such work done and charge the cost to the Developer/Contractor or the surety company.

SPECIFICATIONS FOR WASTEWATER PROJECTS

ITEM 501 GENERAL

These standards for wastewater collection systems have been adopted to establish a criteria compatible with existing State statutes pertaining to effluent quality, and to provide facilities which will be designed in accordance with good public health and water quality engineering practices. In addition to these standards, all wastewater systems will be provided in accordance with current guidelines promulgated by The Texas Department of Water Resources of the Texas Commission on Environmental Quality.

It will be the responsibility of the EOR to show capacity calculations. Wastewater facilities will be designed considering the estimated contributing population to be served in the future. The peak flow of domestic sewage, peak flow of waste from industrial plants, peak flow for institutional and commercial flows shall be considered in determining capacities. Strict attention shall be given to minimizing infiltration/inflow into the system.

The use of pressure sewers may be considered when justified by unusual terrain, low population density, or other circumstances where a pressure system would offer an advantage. A pressure system will not be considered a substitute for a conventional gravity system.

Onsite Sanitary Sewer Facilities (OSSF) installation and approvals shall be in accordance with Galveston County Health Department and other regulatory authorities.

ITEM 502 SANITARY SEWER LINE SIZING

All sewer lines installed shall be at a size to conform to designs permitting an orderly expansion of the City's wastewater system. The design shall avoid a duplication of lines in the future.

No sewers other than individual service connections and force mains shall be less than eight (8) inches in diameter.

Six (6) inch service connections shall not serve more than two single family lots or more than six (6) dwelling units.

All four (4) inch sewers shall be confined within the limits of the property they serve. No four (4) inch sewers shall be installed in any right-of-way or easement. Four (4) inch sewers will be considered the property of the individual served and will not be maintained by the City.

ITEM 503 LOCATION OF SANITARY SEWER LINES

All public sewers shall be located in public rights-of-way or sanitary sewer easements. Non-sanitary sewer easements or fee strips, such as pipelines, power utility easements, drainage easements, railroad, etc., are in and of themselves insufficient and not acceptable to permit the installation of sanitary sewers or force mains. Sanitary sewer lines installed in sanitary sewer easements shall be centered in the easement.

Sewers should be installed in straight alignment with uniform grade between manholes.

503.1 Separation Distance.

When sanitary sewers are installed parallel with existing or proposed water lines and their appurtenances, they shall be installed no closer than nine (9) feet horizontally, pipe wall to pipe wall, and must be installed in

separate trenches. All sewer and water line crossings shall comply with the TCEQ Chapter 290, Subchapter D, Rule 290.44 (e) (B), Public Drinking Water, New Waterline Installation-Crossing Lines, paragraphs (i) through (vi) and all sub paragraphs therein.

Sanitary sewer lines shall not be installed within nine (9) feet horizontally of a fire hydrant, regardless of construction.

When a sanitary sewer is placed parallel to another utility other than water, it shall have a minimum of seven (7) feet horizontal separation.

Minimum clearances between lines that cross each other shall be determined by the amount of bedding and backfill required as shown on the details in the given set of plans.

503.2 Depth-of-Cover.

The sanitary sewer should be laid with the top of the pipe a minimum of three and one-half (3 1/2) feet below the surface of the ground. Where this minimum cover is not possible, the sewer may be constructed of special material, if approved by the Public Works Department.

503.3 Slopes and Velocities.

All sewers shall be designed and installed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second. The design and installed grades shall be based on Manning's Formula and an "n" factor of 0.009 – 0.011 and shall be the minimum acceptable slopes.

When velocities greater than 10 feet per second are attained, special provisions shall be made to protect against displacement by erosion and shock. Service connections shall be installed with a minimum slope of 0.70% and a maximum slope of 4.00%.

ITEM 504 LOCATION OF MANHOLES

Manholes shall be placed at points of changes in alignment, grade or size of sewer, and at the intersection of sewers and the end of all sewer lines. Clean-outs with plugs may not be installed in lieu of manholes at the end of sewer lines unless approved by the Public Works Department.

The maximum manhole spacing for sewers with straight alignment and uniform grades shall be four hundred and fifty (450) feet.

Manholes shall be installed where a sewer main crosses a street.

Manholes used as cleanouts at the end of service lines shall be considered as an extension to the system and will require plan and profile engineered drawing. Any service lead past said manhole will be considered private. See ITEM 505.

ITEM 505 LOCATION OF SERVICE LEADS

Sewer service leads shall be installed integrally with the construction of the sewer main whenever possible. Service leads not exceeding one hundred (100) feet in length may extend off the sewer main without the use

of manholes. Service leads exceeding one hundred (100) feet in length shall have manholes at both ends. Manholes constructed on city mains for the purpose of providing private service shall be built to COLC standards and inspected by Engineering Department. A 24-hr. notification is required before construction and/or inspection.

Service leads shall be installed as nearly perpendicular as possible to the sewer main and the lot line. Sewers constructed close to or parallel to the right-of-way or easement shall not be considered as a service lead.

Service leads shall be kept as free from bends as conditions will permit.

Stacks shall be installed for service leads on all sewer mains having a depth of eight (8) feet or greater.

Single service leads shall have a clean-out and plug adjacent to a lot line or double service at each second lot line of both lots. Clean-out and plug will be located at the right-of-way line or easement line. An "X" saw cut shall be made on the adjacent curb where clean-outs are located.

Service leads from developments with more than 17,500 gal/day discharge shall discharge directly into a proposed or existing manhole.

ITEM 506 GREASE, MUD, AND LINT INTERCEPTORS

Establishments classified as serving food individually, in bulk, or carry out and served in boxes or on plates and washeterias shall have a Park Equipment Grease Interceptor Series GT (DWG NO. GT-1 or 2) or approved equal, installed. Size of interceptor shall be determined by the developers' engineer and shown on plans. If requested, engineer shall supply all calculations and paper work on interceptor sizing.

Car washing establishments shall have a Park Equipment Sand /Oil Interceptor (DWG NO. SOCMP-1) or approved equal, installed. Developers' engineer shall determine that the size is adequate for proposed car wash and shall present any calculations and paper work stating so.

Establishments that require an interceptor or separator shall have a Park Equipment Sample Well Basin (DWG NO. SWB 15) or approved equal, installed.

ITEM 507 MATERIALS

Materials shall be stored, handled and used as described under ITEM 105, "Control of Materials." All pipes for gravity sanitary sewer lines installed within dedicated public rights-of-way or easements shall be in accordance to the material specifications set out herein.

The use of manufacturers' names and catalog numbers, as may be used to describe various products, is not intended to be proprietary, but merely to indicate clearly the respective type of materials that can be accepted. The use of other materials and products will require an approval from the Public Works Department prior to installation. Submittals for product acceptance must be directed to the Engineering Department by the EOR representing the Developer. Contractor submittals will not be accepted.

The City of League City reserves the right to engage, at any time during the progress of the work, a Materials Testing Laboratory to test and inspect all pipe or accessories.

507.1 Iron Pipe and Fittings.

All pipe, fittings and accessories shall be shipped, stored, handled and installed in accordance with manufacturer's recommendations and as specified herein.

Iron pipe shall be bell and spigot joints where possible. Other jointing may be necessary for special applications when approved by the Public Works Department.

All pipe and fittings shall be wrapped with 8 mil (min) polyethylene film meeting ANSI/AWWA C 105 with all edges and laps taped securely to provide a continuous and water-tight wrap.

507.1.1 Ductile Iron Pipe.

Ductile iron pipe for pressure and gravity sewer applications shall be provided in accordance with ITEM 407.1.1, "Ductile Iron Pipe" with the following exception:

Ductile iron sewer pipe shall be thickness class 50.

507.1.2 Ductile Iron Fittings.

All fittings shall be provided in accordance with ITEM 407.1.2, "Ductile Iron Fittings."

507.1.3 Joints.

All joints shall be provided in accordance with ITEM 407.1.4, "Joints."

507.2 Polyvinyl Chloride (PVC) Gravity Pipe and Fittings.

PVC pipe shall meet the requirements of ASTM D 3034 (SDR 26) for sizes 6" through 15", and ASTM F 679 (wall thickness T-1) for sizes 18" through 27". The pipe shall be made of PVC plastic having a cell classification of 12454-B, 12454-C or 13364-B, as defined in ASTM D 1784 and shall be green in color. Each joint shall consist of a single continuous extrusion with push-on, rubber gasket joints of the integral bell and spigot type. Elastomeric Gaskets shall comply in all respects with the physical requirements specified in ASTM F 477.

PVC fittings shall meet the requirements of ASTM D 3034 (SDR 26) for sizes 6" through 15" and ASTM F 679 (wall thickness T-1) for sizes 18" through 27". Fittings shall be made of PVC plastic having a cell classification of 12454-B, 12454-C or 13343-C as defined in ASTM D 1784. Fittings shall be suitable for use with PVC gravity sewer pipe and shall not deflect more than the pipe when loaded similar. Elastomeric gaskets shall comply in all respects with the physical requirements specified in ASTM F 477. All PVC fitting shall be solid molded (no glue and heat fabrication) for sizes up to 15", for sizes over 15" product specifications shall be submitted for approval.

PVC gravity pipe and fittings shall be installed in accordance with UNI-B-5-86 and as specified herein.

507.3 Polyvinyl Chloride (PVC) Pressure Pipe.

PVC pressure pipe shall meet the requirements of ASTM D 2241 (SDR 26) for sizes 4" through 36". The pipe shall be made of PVC plastic having a cell classification of 12454 B as defined in ASTM D 1784. Pipe and fittings shall be accordance with 407.1.2 and shall be green in color.

Each joint shall consist of a single continuous extrusion with push-on rubber gasket joints of the integral bell and spigot type with a recommended hydrostatic design stress for PVC 1120. Elastomeric seals shall comply with

ASTM D 3139. Rubber gaskets shall comply in all respects with the physical requirements specified in ASTM F 477.

507.4 Triple Wall and Dual Wall Polypropylene Gravity Pipe and Fittings.

Polypropylene Dual and Triple Wall Pipe for use in gravity flow sanitary sewer shall be in strict accordance with the requirements and test methods of ASTM F2736 – “Standard Specification for (6 inch to 30 inch) Polypropylene Corrugated Single Wall pipe and Double Wall Pipe” and ASTM F2764 – “Standard Specification for (30 inch to 60 inch) Polypropylene Triple Wall pipe and Fittings for Non-Pressure Sanitary Sewer Applications”. Pipe shall have a green stripe impregnated within the pipe.

Triple Wall Pipe shall consist of a smooth inner wall and outer wall separated by annular corrugations manufactured in accordance with ASTM F2764.

Dual Wall Pipe shall consist of a smooth inner wall and outer wall annular corrugations manufactured in accordance with ASTM F2736.

Joints shall be watertight according to the requirements of ASTM D3212. Spigot shall have two gaskets meeting the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable protective wrap to ensure the gaskets are free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly. 12 inches to 60-inch diameters shall have a reinforced bell with a polymer composite band installed by the manufacturer.

Pipe shall have a minimum stiffness of 46 psi when tested in accordance with ASTM D2412 “Test Method for External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading”.

507.5 Fiberglass Reinforced Plastic Pipe.

Where the application of fiberglass reinforced plastic pipe is approved by the Public Works Department, pipe shall be equal to that manufactured by HOBAS Pipes with a minimum stiffness class 72. Pipe shall be green or have a green stripe or placement of sanitary marker tape above the pipe.

Applications of fiberglass reinforced plastic pipe will only be considered for gravity sewers sizes 18" and larger. Smaller pipe sizes shall not be accepted.

507.6 High-Density Polyethylene Pipe.

Polyethylene pipe shall be made from HDPE material having a material designation code of PE4710 or higher. The material shall meet the requirements of ASTM D 3350 and shall have a minimum cell classification of PE445474C. In addition, the material shall be listed as meeting NSF-61.

The pipe and fittings shall meet the requirements of AWWA C906.

The HDPE pipe shall be rated for use at a pressure class of 200 psi. The outside diameter of the pipe shall be based upon ductile iron pipe size sizing system.

The pipe shall be marked in accordance with the standards to which it is manufactured. Color identification by the use of stripes on the pipe to identify pipe service shall be required and colored blue for potable water.

507.6.1 Fittings.

Butt Fusion fittings shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification of PE445474C. Butt Fusion fittings shall meet the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe. All fittings shall meet the requirements of AWWA C906. Markings for molded fittings shall comply with the requirements of ASTM D 3261. Fabricated fittings shall be marked in accordance with ASTM F 2206.

Electrofusion fittings shall be made of HDPE material with a minimum material designation code of PE4710 and with a minimum Cell Classification of PE445474C. Electrofusion fittings shall have a manufacturing standard of ASTM F1055. Fittings shall have a pressure rating equal to the pipe. All electrofusion fittings shall be suitable for use as pressure conduits and have nominal burst values of four times the Working Pressure Rating of the fitting. Markings shall be according to ASTM F 1055.

Flange and Mechanical Joint Adapters shall have a material designation code of PE4710 or higher and a minimum Cell Classification of PE445474C. Flange and Mechanical Joint Adapters can be made to ASTM D 3261 or if machined, must meet the requirements of ASTM F 2206. Flange and Mechanical Joint Adapters shall have a pressure rating equal to the pipe. Marking for molded or machined flange adapters or MJ Adapters shall be per ASTM D 3261. Fabricated flange adapters shall be per ASTM F 2206. Bolts and nuts shall be SAE Type 316 stainless steel. Van-Stone style, ductile iron, convoluted or flat-plate, backup rings and bolt materials shall follow the guidelines of Plastic Pipe Institute Technical Note # 38, and shall have the bolt holes and bolt circles conforming to one of these standards: ASME B-16.5 Class 150, ASME B-16.47 Series A Class 150, ASME B-16.1 Class 125, or AWWA C207 Class 150 Series B, D, or E. The backup ring shall provide a long-term pressure rating equal to or greater than the pressure class of the pipe with which the flange adapter assembly will be used, and such pressure rating shall be marked on the backup ring. Backup rings, bolts, and nuts shall be SAE Type 316 stainless steel. An internal stainless-steel stiffener sleeve that is expanded hydraulically to create an interference fit with the pipe must also be used.

507.6.2 Joining Methods.

Butt Fusion: The pipe shall be joined by the, but fusion procedure outlined in ASTM F 2620. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per PPI TN-42.

Electrofusion joining shall be done in accordance with the manufacturers recommended procedure. Other sources of electrofusion joining information are ASTM F 1290 and PPI TN 34. The process of electrofusion requires an electric source, a transformer, commonly called an electrofusion box that has wire leads, a method to read electronically (by laser) or otherwise input the barcode of the fitting, and a fitting that is compatible with the type of electrofusion box used. The electrofusion box must be capable of reading and storing the input parameters and the fusion results for later download to a record file. Qualification of the fusion technician shall be demonstrated by evidence of electrofusion training within the past year on the equipment to be utilized.

Mechanical connection of HDPE to auxiliary equipment such as valves, pumps, and ductile iron fittings shall use flange or mechanical joint adapters and other devices in conformance with AWWA Manual of Practice M55, Chapter 6.

The critical parameters of each fusion joint, as required by the manufacturer shall be recorded either manually or by an electronic data logging device. All fusion joint data shall be included in the Fusion Technician's joint report.

507.7 Manholes.

Manholes shall be constructed of pre-cast concrete sections or when and where approved concrete cast-in-place.

Detailed drawings of various types and sizes of manholes are included in the "Standard Details" and each manhole shall be constructed in strict accordance with these drawings. Manholes shall be installed vertical and symmetrically above sewer main.

Manholes shall have inverts in them in which flow channels to the spring line of the pipes are constructed, inverts equal in depth to one-half the diameter of the pipes connected to that manhole. Where sewer lines enter the manhole higher than 6 inches but less than 24 inches above the manhole invert, the invert shall be filled and formed to prevent solids deposition. A drop pipe shall be provided in accordance to the "Standard Details" for a sewer main entering a manhole more than 24 inches above the manhole invert.

The top of a manhole shall be adjusted by the installation of pre-cast concrete rings. The maximum adjustment of the confined man-way shall be 18 inches.

Access steps shall not be installed in manholes.

All concrete manholes shall have an antimicrobial additive added into the concrete mix design per manufactures specifications. The liquid antibacterial additive shall be an EPA registered material. The amount used shall be as recommended by the manufacture and included in the total water content of the concrete mix design. The additive shall be added into the concrete mix water to ensure even distribution of the additive throughout the concrete mixture. Acceptance shall be a letter of certification from the pre-caster or concrete provider stating that the correct amount and correct mixing procedures were followed.

All interior concrete above the manhole invert shall be coated complete with Bitumastic, per manufactures recommendation, a minimum thickness of 25 mil.

Application shall be certified by coating manufacturer.

Manhole rings, covers, and inflow protection devices shall be furnished and installed with all manholes in accordance with ITEM 507.7.4, "Rings, Covers, and Inflow Protection Devices."

507.7.1 Pre-Cast Concrete Manholes and Bases.

Pre-cast reinforced concrete manholes and bases shall be manufactured in accordance with ASTM C 478 and shall be equal to Hansen Manholes. Steel reinforcement shall be in accordance with ASTM C 478 latest revision. Design loads shall be for H-20 live load and 16 kips wheel load. The section joint shall be a confined "O" ring rubber gasket, conforming with ASTM C 443. Manholes shall be furnished with formed holes for all planned connections with compression seals of pre-molded polyurethane pipe adapters.

Installation shall be in accordance with manufacturer's recommendation and as shown in the "Standard Details."

507.7.2 Fiberglass Manholes.

Fiberglass manholes are to be used in special situations only and must be approved by the office of the Public Works Department.

507.7.3 Deleted - Cast-in-Place Monolithic Concrete Manholes.

507.7.4 Rings, Covers, and Inflow Protection Devices.

Ferrous castings shall be of uniform quality, free from blow holes, shrinkage, distortions, and other strength defects. They shall be smooth and cleaned by shot blasting. Gray Iron used in the manufacture of castings shall conform to ASTM A 48 Class 35B; Ductile Iron casting shall conform to ASTM A 536.

All castings shall be manufactured true to pattern, component parts shall fit together in a satisfactory manner. Round frames and covers shall have machine bearing surfaces to prevent rocking and rattling. Frame and cover castings must meet the proof-load testing requirement of AASHTO M 306. Castings shall be customized for the City of League City and shall be manufactured and installed in accordance with the City of League City "Standard Details."

The mill test reports or manufacturer's certification to the EOR for each lot or shipment of steel and iron materials shall be provided to the office of the Engineering Department. For castings, also furnish a manufacturer's certification stating that the casting meets the proof-load testing requirements of AASHTO M 306.

Inflow Disks shall be installed in ditch locations or as directed by Engineering Department. Inflow protection devices and its associated valve body and components shall be manufactured from Stainless Steel suitable for atmospheres containing hydrogen sulphide and dilute sulfuric acid as well as other gasses associated with wastewater collection systems. The thickness shall not be less than 3/32" nor greater than 3/16. The gasket shall be made of closed cell neoprene and shall form a long lasting seal. The gas relief valve shall be designed at a pressure of one (1) pound. The valve shall be positioned so that it is protected and will not be broken by any movement of the cover. The inflow protection insert shall be manufactured to fit the manhole frame rim upon which the manhole cover rests.

507.8 Service Leads.

All service leads shall be constructed per the City Detail. Sewer service leads shall be installed integrally with the construction of the sewer main, where possible, using "All Bell" gasket fittings. The minimum service connection shall be six (6) inches in diameter.

Direct taps on an existing PVC sewer main shall be made with a gasket PVC Saddle with stainless steel clamps, all bell Wye or Tee. Saddles shall be installed in accordance with manufacturer's recommendation. Holes for saddle connections shall be made by a mechanical hole cutter to conform to the fitting.

Risers or vertical stacks shall be required for service leads to sewer mains eight (8) feet and deeper. Connection fittings and pipe material shall be same as specified above.

Service taps into existing manholes shall be a minimum of 6-inches in diameter and be made by means of core cutting into the manhole with approved equipment. (Chipping into manhole will not be allowed.) The core cut shall be of sufficient size as to allow for 6-inch service line and approved gasket type (Link-Seal) sealing material. Upon passing inspection the core cut shall be grouted over with Quikrete or approved equal non-shrink grout inside and out per ASTM C1107. On inside of manhole, all exposed cured grout and any concrete exposed from tap shall be coated with Bitumastic feathered out onto manhole wall a minimum of 6 inches from edge of core cut.

Service leads and all fittings shall be installed in strict conformance with the "Standard Details."

507.9 Lift Stations.

Design and construction of lift stations, pumps, and motor control units shall be in accordance with current TCEQ Criteria and City Policy. Application and materials shall be approved by the Engineering Department.

507.10 Steel Pipe and Fittings.

Steel carrier pipe and fittings shall be used for special installations only when approved by the Public Works Department.

Steel Casing shall be used for gravity and pressure sewer lines bored or jacked. Sewer service connections may omit casing when pipe material used is continuous, smooth wall, and without joints for the entire length of bore or jack. Metal liner plate shall be used for all tunneling.

507.10.1 Steel Carrier Pipe.

Pipe shall be provided in accordance with ITEM 407.13.1, "Steel Carrier Pipe."

507.10.2 Steel Casing Pipe.

Casing Pipe shall be provided in accordance with ITEM 407.13.2, "Steel Casing Pipe."

507.10.3 Metal Liner Plate.

Liner plate shall be provided in accordance with ITEM 407.13.3, "Metal Liner Plate."

507.10.4 Steel Pipe Fittings.

Fittings shall be provided in accordance with ITEM 407.13.4, "Steel Pipe Fittings."

507.10.5 Steel Pipe Flanges.

Flanges shall be provided in accordance with ITEM 407.13.5, "Steel Flanges."

507.10.6 Corrosion Protection.

Corrosion protection shall be provided in accordance with ITEM 407.13.6, "Corrosion Protection."

507.11 Pipe Bedding Material.

Where not otherwise specified or noted, all pipe bedding material shall be provided in accordance with ITEM 407.14.2 "Cement-Stabilized Sand."

507.12 Concrete.

Concrete shall be provided in accordance with ITEM 407.15, "Concrete."

ITEM 508 EXCAVATION

Excavation shall be provided in accordance with ITEM 408, "Excavation."

ITEM 509 PIPE LAYING

All pipe shall be laid and maintained in the required lines and grades; with all appurtenances at the required locations.

All recommendations of the manufacturer shall be carefully observed during handling and installation of each material. The interior of all pipe and accessories shall be kept free from dirt and foreign matter at all times and stored in a manner that will protect them from damage.

During handling and placement, materials shall be carefully observed and inspected, and any damaged, defective, or unsound materials shall be rejected and removed from the job site. Damaged coating or lining shall be repaired in a manner satisfactory to manufacturer's requirements.

509.1 Trench Condition.

Trench condition shall be provided in accordance with ITEM 409.1, "Trench Condition."

509.2 Pipe Bedding and Embedment.

Except where otherwise approved by the Public Works Department, all pipe and appurtenances shall be installed in a continuous envelope of specified bedding material. Specified bedding material for sanitary sewer lines and appurtenances shall be cement stabilized sand (see ITEM 407.14.2, "Materials") per League City Detail. The bedding material required beneath the pipe shall be placed, graded and tamped to the pipe sub-grade profile over the entire width between undisturbed trench walls and cut-outs made for the projection of the pipe bells.

The pipe shall be placed and adjusted to proper grade on this prepared bedding, then jointed, braced and blocked, as required. After pipe is graded into place, bedding material shall be placed simultaneously on both sides of the pipe and worked carefully into place without disturbing the pipe alignment, to an elevation per League City Detail.

509.2.1 Wet Sand Construction.

This ITEM shall include the following:

- A. If deemed necessary, timber sheeting and floorboards
- B. Washed crushed rock bedding (ASTM D2321 Class 1B bedding) or equal with filter fabric wrap.

All ITEMS (A&B) must be approved by the EOR and the Owner and constructed per the City of League City Details.

The use of wet sand construction shall be strictly controlled by the EOR and shall be performed only when authorized in writing by the EOR. Payment will be based on the measured linear footage at the unit price bid.

If wet sand is found in the field use wet sand bedding per League City Details. Wet Sand Manholes shall have support as per League City Details.

509.3 Assembling Pipe.

Assembling pipe shall be provided in accordance to ITEM 409.3, "Assembling Pipe."

ITEM 510 BACKFILL AND SETTLEMENT

Backfill and settlement shall be provided in accordance with ITEM 410, "Backfill and Settlement."

ITEM 511 LOW PRESSURE AIR TEST

After the gravity sanitary sewer line has been installed, backfilled, and all service connections (if required) and other appurtenances installed, connected and adjusted, and all surface pavement, lot grading and other related construction activities are complete within the areas of line to be accepted, a low-pressure air test will be conducted by the contractor and monitored by the City. The low-pressure air test shall be provided in accordance with UNI-

B-6-85. Included in these standards are requirements for equipment accuracy, safety precautions, line preparations, test method, and minimum holding times.

The specified minimum time required for a 1.0 psi pressure drop will be in accordance to UNI-B-6-85 (Table I). All manholes must pass a leakage test. All manholes must be tested (after assembly and backfilling) for leakage, separate and independent of the collection system pipes, by vacuum testing, or other method approved by the Public Works Department.

Vacuum testing of manholes shall be provided in accordance with TCEQ Rule 217.58.

ITEM 512 VISUAL TEST

All sanitary sewer lines shall be inspected visually to verify accuracy of alignment and freedom from debris and obstruction.

The total footage of lines 36 inches and smaller diameter shall be inspected with television equipment. All lines shall be cleaned, and low-pressure air tested before any camera work begins.

Any pipe settlement which causes excess ponding of water in pipeline, any miss-aligned joints, or other defects; shall be cause for rejection.

The developer is responsible for the TV inspection of newly constructed sanitary sewer lines. The TV inspection shall take place after the low-pressure testing has been completed, but before the final walk-through inspection is performed

Personnel from the City's Line Repair Department or the City's Engineering Department shall witness the TV inspection, which shall be performed during the City's normal working hours.

The method for the inspection shall include:

1. Cleaning the lines, (if not already cleaned);
2. Removing downstream plugs, if any;
3. Introduction of several hundred gallons of clean water into the extreme upstream manhole(s) of the system;
4. Allowing adequate time for the water to flow completely through the system; and
5. Videotaping the system.

The developer shall provide the City with one copy of the TV videotape and one copy of the TV inspection report. For each segment the video tape and corresponding written report shall clearly identify.

1. Each line segment being inspected;
2. The size and type of pipe being inspected;
3. Accurate footage of the line segment inspected;
4. Deficiencies in materials, alignment, pipe shape, grade, or any other apparent deficiencies; and
5. Locations of all service connections.

Deflection testing of the gravity sewer line shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5.0%. The deflection test shall be conducted using a rigid mandrel having an outside diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices.

**ITEM 513
HYDROSTATIC TESTING**

All pressure sanitary sewer lines shall be tested in accordance with ITEM 411, "Hydrostatic Testing," with the following exceptions:

The leakage test shall be at a pressure of 1.5 times greater than the maximum head pressure of the pumps operating the system, but in no instance less than 50 psi.

The contractor will be responsible for filling and flushing the line by a means approved by the Public Works Department.

**ITEM 514
MAIN CONNECTIONS TO THE EXISTING SYSTEM**

Unless otherwise approved by the Public Works Department, all connections of a sewer main made to existing sewer mains shall be made at manholes, either existing or constructed by developers, with the crown of the inlet pipe being installed at the same elevation as the crown of the existing pipe. Extreme care shall be exercised to prevent material from depositing in the existing pipe as the taps are being made.

When connections to existing mains are made, a temporary plug, that is a type approved by the Public Works Department, must be installed in the manhole to prevent water and debris from the construction activity from entering the existing system before final acceptance. These plugs shall not be removed prior to final acceptance. After final acceptance of the work, the contractor shall remove these plugs immediately.

When required by Public Works Department all multiple taps and tie-ins to an existing sewer system shall be tested in accordance with the League City Specifications.

**ITEM 515
CLEAN UP AND RESTORATION**

Clean up and restoration shall be provided in accordance with ITEM 414, "Clean Up and Restoration."

**ITEM 516
APPROVAL AND ACCEPTANCE**

Approval and acceptance shall be provided in accordance with ITEM 415, "Approval and Acceptance."

**ITEM 517
WARRANTY OF WORK**

Warranty of work shall be provided in accordance with ITEM 416, "Warranty of Work."

SPECIFICATIONS FOR STREET PROJECTS

ITEM 601 GENERAL

Standards established by the City of League City for the design and construction of its streets shall provide for pavements with long service life and low maintenance. Excess maintenance of inadequate pavements is an unnecessary drain on tax dollars. An investment in adequately designed and constructed streets needing little maintenance over a long service life frees more dollars for capital improvements necessary to serve the community.

Pavements are designed for both economy and long service. The EOR shall take into consideration the street classification and traffic which will include the axle weights and volumes, thickness design, surface material quality, base material quality, sub-grade material quality, geometric design, and jointing.

Standards of this publication shall be considered minimum for any specific location and the EOR should base his design upon the actual conditions which exist within the development under consideration for design.

Provisions must be made for the un-interrupted extension of main thoroughfares as shown on the major street plan for the City. Streets must provide for free circulation within developments and interconnectivity to adjacent developments.

ITEM 602 GEOMETRIC DESIGN

A street is a public way for purposes of vehicular travel including public transit and refers to and includes the entire area within the right-of-way. The street also serves pedestrian and bicycle traffic and usually accommodates public utility facilities within the right-of-way. The improvement or development of streets shall be based on the street classification that is part of a comprehensive community development plan for League City. The design values shall be those for the ultimate planned development.

All streets shall be designed with a thorough understanding of the capabilities of the vehicle-driver system and a sound knowledge of traffic engineering principles.

For balance in street design, all geometric elements shall, as far as economically feasible, be determined to provide safe, continuous operation at a speed likely under the general conditions for that street's classification.

602.1 Residential Street. (SEE STREET AND ROAD MATRIX)

Residential streets primarily are land service streets in residential subdivisions. Traffic generally consists of vehicles serving the homes plus an occasional heavy truck. Traffic volumes range from less than 200 to 700 vehicles per day with 1% to 2% heavy commercial traffic. Trucks using these streets have a maximum tandem-axle load of 36 kips and 20 kips maximum single axle load.

602.1.1 Pavement Type.

Urban residential streets shall be provided with a standard curb, gutter and storm sewer design. These streets shall consist of a pavement composed of Portland Cement concrete constructed on a prepared sub-grade. The concrete pavement shall have a minimum thickness of six inches (6") and constructed in accordance with ITEM 606 "Concrete Pavement". The prepared sub-grade shall have a minimum thickness of six inches (6") and constructed in accordance with ITEM 604, Sub-grade, Sub-base and Base courses".

602.1.2 Pavement Width.

On residential streets in areas where the primary function is to provide land service and foster a safe and pleasant

environment, at least one unobstructed moving lane must be ensured even where parking occurs on both sides. The level of user inconvenience occasioned by the lack of two moving lanes is remarkably low in areas where single-family units prevail. Residential streets shall have a minimum pavement width of twenty-eight feet (28'). This back-of-curb to back-of-curb width provides for 8 feet parking lanes. Opposing conflicting traffic will yield until there is sufficient width to pass.

602.1.3 Right-of-Way Width.

The Right-of-way width shall be sufficient to accommodate the ultimate planned roadway including median (if used), sidewalks, utility strips in the border areas, and necessary drainage facilities. The minimum right-of-way width for residential streets shall be sixty feet (60'). Additional easements adjacent to the right-of-way may be required for multiple utility installations.

602.1.4 Cul-de-Sacs and Turnarounds.

A residential street that is designed to leave one end permanently closed shall not exceed 880 feet in length and shall be provided at the closed end with a turnaround. Length shall be measured from the centerline of the adjoining street to the center of the cul-de-sac bulb. The surface portion of the turnaround shall have a minimum diameter of eighty feet (80'). The minimum right-of-way shall exceed the turnaround diameter by twenty feet (20') to provide at least a ten-foot (10') border area adjacent to the street. **602.1.5 Design Speed.**

Design speed is not a major factor for residential streets. For consistency in design elements, a design speed of 25 MPH shall be used.

602.1.6 Sight Distance.

Minimum stopping distance should be 155 feet. Passing sight distance is not applicable. Corner intersection sight distance should comply with ITEM 805 – Intersection Sight Distance of this manual.

602.1.7 Intersection Design.

Intersections, including median openings, shall be designed with adequate corner sight distance, and the intersection area shall be kept free of obstacles. Any landscaping in the sight distance triangle shall be low-growing and shall not be higher than three feet (3') above the level of the intersecting street pavements.

The intersecting streets should meet at approximately a 90-degree angle, but in no case less than a 75-degree angle. The maximum lengths between intersections shall be 1200 feet, except cul-de-sac street shall be 880 feet. At street intersections, the minimum radius of curb returns shall be twenty-five feet (25').

602.1.8 Horizontal Alignment.

In residential areas, the alignment should be arranged to discourage through traffic. The alignment design shall be such that the safety of the facility is not reduced. Street curves should be designed with as large a radius curve as feasible; the minimum center line radius on simple or compound curves being 160 feet, the minimum centerline radius on reverse curves being 300 feet with a minimum tangent length of 100 feet. Streets designed with less than the minimum curve radius shall include a bubble type intersection with a minimum surface radius of forty feet (40').

602.1.9 Grades.

Grades for residential streets should be as flat as is consistent with the surrounding terrain. The gradient should be less than 15 percent. Where grades of 4 percent or steeper are necessary, the drainage and erosion control

designs shall become critical. Vertical curves shall be installed when algebraic differences in grade exceeds 1 percent.

To provide for proper drainage, the minimum grade that shall be used for streets with outer curbs is 0.25 percent, with a minimum 1 percent fall around curb return radius at intersections with a twenty-five-foot (25') radius. Grades for larger radius shall be determined on an individual basis. The minimum grade for a cul-de-sac street with a forty-foot (40') curb radius shall be 0.60 percent along the gutter. A minimum gradient of 0.40 percent around the longest radius is required on an L-type street intersection. Drainage across street intersections by means of "valley" Gutters shall be prohibited.

602.1.10 Pavement Crown.

Pavement cross slope shall provide proper drainage. The amount of cross slope over the pavement section shall be a minimum of one-half inch (1/2") per foot from the curb line to quarter point, and three-eighth inch (3/8") from quarter point to centerline.

602.1.11 Drainage.

Surface sheet flows are usually intercepted by the street section of curb and gutter and conveyed to appropriate outlets. For urban streets, the flow is transferred at frequent intervals from the street cross section by curb-opening inlets to basins and from there by storm sewer conduit to major outfalls. To avoid undesirable flow line conditions, the minimum gutter grade shall be as specified in ITEM 602.1.8 "Grades."

Inlets shall be located in such a manner that the more restrictive of the following criteria will govern:

- a) Maximum storm water ponding depth as measured at the gutter low point shall be no more than nine (9) inches, and
- b) Storm water is not carried more than 300 feet along the curb line from the high point of a gutter to an inlet opening.

Inlets should be placed away from collector streets or arterial streets and on the side streets at street intersections. An attempt should be made to place the proposed inlets away from the esplanade openings and out of major intersections. No inlets or grates shall be placed within residential driveways. Storm sewers and inlets shall be provided in accordance to ITEM 703.1.11 "Closed Conduit Systems".

602.1.12 Border Area.

The border between the roadway and the right-of-way line shall be wide enough to serve several purposes; including provisions of a buffer space between pedestrians and vehicular traffic, sidewalk space, and an area for placement of utilities. The roadway shall be centered within the designated right-of-way and the border area sloped from the property line to the top of the curb at a minimum grade of three-eighth's inch (3/8") per foot.

602.1.13 Sidewalks.

In residential areas, sidewalks shall be constructed on both sides of the street. The sidewalks shall be located as far as practical from the traffic lanes and usually close to the right-of-way lines. Clear sidewalk width shall be four-foot (4') minimum. Curb-cut ramps shall be provided at cross walks to accommodate physically handicapped persons. Sidewalks and curb-cut ramps shall be provided in accordance with ITEM 806 – Pedestrian Facilities (Sidewalks and Wheel Chair Ramps).

602.1.14 Driveways.

A driveway is an access constructed within the public way, connecting the public roadway with adjacent property and intended to be used in such a way that access into the adjacent property will be complete and will not cause the blocking of any sidewalk border area or street roadway. Driveways shall be constructed in accordance with ITEM 801 – Access Management Standards and League City "Standard Details".

602.1.15 Street and Roadway Lighting.

Properly designed street lighting shall produce comfortable and accurate visibility at night, which will facilitate and encourage both vehicular and pedestrian traffic. Street lights shall be provided at a maximum spacing of five-hundred feet along residential streets. Street lights shall be located at street intersections. Installation shall be per AASHTO's "Roadway Lighting Design Guidelines" (latest edition).

602.1.16 Traffic Control Devices.

Details of the standard devices and warrants for many conditions are found in the Texas Manual on Uniform Traffic Control Devices. Geometric design of streets shall include full consideration of the types of traffic control to be used. Multi-way stops will require a multi-way stop warrant study. Design per AASHTO's "Guidelines for Geometric Design of Very Low Volume Local Roads".

602.2 Local Streets. (SEE STREET AND ROAD MATRIX)

Local streets primarily serve as access to farms, residences or other abutting property not planned as urban style development. Because of the relatively low traffic volumes, design standards are of a comparatively low order as a matter of practicality. However, to provide the requisite traffic mobility and safety, together with the essential economy in construction, maintenance, and operation, they must be planned, located and designed to be suitable for predictable traffic operations and must be consistent with the development abutting the right-of-way.

602.2.1 Pavement Type.

Local streets shall be provided with a curb, gutter and storm sewer design, or an open drainage ditch design with appropriate right-of-way dedication. These streets shall consist of a pavement composed of Portland cement concrete constructed on a prepared sub-grade, or a hot mix asphaltic concrete constructed on a prepared sub-base and sub-grade.

The concrete pavement shall have a minimum thickness of six-inches (6") and constructed in accordance with ITEM 605 "Concrete Pavement".

The hot mix asphaltic concrete pavement shall have a minimum thickness of two-inches (2") and constructed in accordance with ITEM 606 "Hot Mix Asphaltic Concrete Pavement". The prepared sub-base shall have a minimum thickness of eight-inches (8") and constructed in accordance with ITEM 604 "Sub-grade, Sub-base and Base Courses". The prepared sub-grade shall have a minimum thickness of six-inches (6") and constructed in accordance with ITEM 604 "Sub-grade, Sub-base and Base courses".

602.2.2 Pavement Width.

Two travel lanes usually can accommodate the normal traffic volumes on local roads. Streets that are planned with a curb, gutter and storm sewer design shall be provided in accordance with ITEM 602.1 "Residential Streets". Streets that are planned with an open ditch design shall be provided with a minimum pavement width of twenty-four feet (24'). Two-foot (2') roadway shoulders shall be constructed adjacent to all pavement edges that are not curbed.

602.2.3 Right-of-Way Width.

The right-of-way width shall be sufficient to accommodate the ultimate planned roadway including median (if used), sidewalks (if required), utility strips in the border areas, roadway shoulders, necessary drainage facilities and outer slopes.

The minimum right-of-way width for rural local streets with a curb, gutter and storm sewer design shall be sixty feet (60'). The minimum right-of-way width for streets with an open ditch drainage design shall be determined by the open ditch drainage requirement, but in no case, less than seventy feet (70'). Additional easements adjacent to the right-of-way may be required for multiple utility installations.

602.2.4 Cul-de-Sacs and Turnarounds.

Cul-de-sacs and turnarounds for rural local streets shall be provided in accordance with ITEM 602.1.4 "Cul-de-sacs and Turnarounds".

602.2.5 Design Speed.

Geometric design features should be consistent with a design speed selected as appropriate for environmental and terrain conditions. A design speed of 25 mph is generally applicable to roads in level terrain and where expected traffic volumes warrant rural local road classification.

602.2.6 Sight Distance.

Sight distance for rural local roads shall be provided in accordance with ITEM 805 – Intersection Sight Distance of this manual.

602.2.7 Intersection Design.

Intersection design for rural local roads shall be provided in accordance with ITEM 602.1.7 "Intersection Design".

602.2.8 Horizontal Alignment.

Horizontal alignment shall be provided in accordance with ITEM 602.1.8 "Horizontal Alignment".

602.2.9 Roadside Shoulders.

A shoulder is the portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base and surface pavement. Roadway shoulders shall be constructed adjacent to all pavement edges that are not curbed.

Shoulders shall be surfaced to provide a better all-weather load support than that afforded by the native soil. Materials used to surface shoulders include gravel, shell, crushed rock, mineral or chemical additives, bituminous surface treatments, and various forms of asphaltic or concrete pavements.

Shoulders are important links in the lateral drainage systems. Shoulders shall be flush with the roadway surface and abut the edge of the travel lane. Shoulders shall provide an adequate cross slope for drainage of the roadway.

602.2.10 Pavement Crown.

Surface cross slope must be provided to ensure drainage. Roads of this type shall be out slope graded toward the

curb or open ditch. The amount of cross slope shall be one-half inch (1/2") per foot from edge of pavement to centerline. The cross slope on roadside shoulders shall be three-quarter inch (3/4") per foot.

602.2.11 Roadside Slopes.

Back-slopes, fore-slopes and roadside ditches shall have gentle well-rounded transition. Roadside ditches shall provide for a fore-slope of 3:1 or flatter. Flat Fore-slopes increase safety by providing maneuvering area in emergencies, are more stable than steep slopes, aid in establishment of plant growth, and simplify maintenance work. Back-slopes of roadside ditches shall be 3:1 or flatter to make it easier for motorized equipment to be used in maintenance.

602.2.12 Grades.

Grades for rural local roads should be as flat as is consistent with the surrounding terrain. The maximum gradient for roadways without curbs shall be less than 7 percent. Where grades of 4 percent or steeper are necessary, the drainage and erosion control design shall become critical. Vertical curves

shall be installed when algebraic differences in grade exceeds 1 percent. Grades for curb, gutter, and storm sewer designs shall be provided in accordance with ITEM 602.1.9 "Grades".

602.2.13 Drainage.

Roadside drainage channels perform the vital function of collecting and conveying surface sheet flows from the roadway and adjacent property. Roadside drainage channels, therefore, shall have capacity for the base flood, developed for pavement and pre-developed for adjacent property, shall provide for unusual storm water without saturation of the pavement subgrade, and shall be located and shaped to avoid hazard to traffic. The channel grade does not have to follow that of the road bed. The minimum grade shall be 0.10 percent.

Drainage for roadways with outer curbs shall be provided in accordance with ITEM 602.1.11 "Drainage".

602.2.14 Border Area.

The border between the roadway and the right-of-way line shall be wide enough to serve several purposes; including drainage maintenance and an area for placement of underground utilities and possible overhead utilities.

The roadway shall be centered within the designated right-of-way and the border area constructed in a stable and easily maintained state.

602.2.15 Driveways.

Driveways shall be provided in accordance with ITEM 602.1.14 "Driveways".

602.2.16 Traffic Control Devices.

Traffic control devices shall be provided in accordance with ITEM 602.1.16 "Traffic Control Devices".

602.3 Collector Streets. (SEE STREET AND ROAD MATRIX)

The collector street is intended to serve the collection function for a group of access roads and ideally not the immediate access needs of individual residences. However, the collector street does serve the access function for higher density residential development and for some neighborhood facilities.

602.3.1 Pavement Type.

Collector streets shall be provided with a standard curb, gutter and storm sewer design. These streets shall consist of a pavement composed of portland cement concrete constructed on a prepared sub-grade. The concrete pavement shall have a minimum thickness of seven - inches (7") and constructed in accordance with ITEM 605 "Concrete Pavements". The prepared sub-grade shall have a minimum thickness of six-inches (6") and constructed in accordance with ITEM 604 "Sub-grades, Sub-based, and Base courses".

602.3.2 Pavement Width.

Collector streets shall be designed with two divided one-way roadways or a single two-way roadway.

Divided one-way roadways shall be designed to provide for two 25-foot width roadways. This back-of-curb to back-of-curb width shall provide for two 12-foot wide traffic lanes and two 12 foot parking lanes, allowing parking on the outer two lanes until development necessitates use of all four lanes for moving traffic. Collector streets with two divided one-way roadway designs may be constructed in stages with development when approved by the Engineering Department.

A single two-way roadway shall include two 12-foot width traffic lanes. Parallel parking lanes from 9 to 10-foot width shall be provided on both sides of traffic lanes. This back-of-curb to back-of-curb width will vary from 42 to 44 feet as the conditions and intensity of development may require.

602.3.3 Median.

A median is defined as the portion of a divided street separating the traveled way for traffic in opposing directions. The median width is expressed as the dimension between the through-lane edges. For maximum efficiency, a median shall be highly visible both night and day and in definite contrast to the through-traffic lanes. Medians should be as wide as feasible but of a dimension in balance with other components of the cross section. Medians with grass shall be of raised curb and gutter design while turning lane medians shall be flush with the pavement surface. For collector streets median treatment shall comply with ITEM 807 – Median Design of this manual. A continuous left-turn lane, flush with the adjoining traffic lanes with appropriate traffic markings, may be an acceptable approach, with approval from the Engineering Department.

On collector streets with raised median, openings shall be designed in accordance with ITEM 807 of this manual. Median openings shall be designed to include left turn lanes as needed and designed per ITEM 801 of this manual.

Openings must have adequate sight distance and the design shall comply with ITEM 807 of this manual.

602.3.4 Right-of-Way Width.

The right-of-way width shall be sufficient to accommodate the ultimate planned roadway, including median (if used) sidewalks, utility strips in the border areas, and necessary drainage facilities. The minimum right-of-way width for collector streets with two divided one-way roadway designs shall be ninety feet (90'). The minimum right-of-way width for collector streets with one single two-way roadway designs shall be eighty feet (80'). Any collector street designed with open ditches shall require at a minimum an additional ten feet (10') of right-of-way dedication. Additional easements adjacent to the right-of-way may be required for multiple utility installations.

602.3.5 Cul-de-Sacs and Turnarounds.

A collector street shall terminate at a residential street and/or a minor/major arterial.

602.3.6 Design Speed.

For consistency in design elements a minimum design speed of 35 MPH shall be used for collector streets. In the typical street grid, the closely spaced intersections usually limit vehicular speeds and thus make the effect of design speed of lesser significance. The longer sight distance and curve radius commensurate with design speeds higher than the value indicated result in safer streets and shall be used.

602.3.7 Sight Distance.

Stopping sight distance for collector streets shall be 250 feet. Design for passing sight distance seldom is applicable on collector streets. Intersection corner sight distance shall comply with ITEM 805 of this manual.

602.3.8 Intersection Design.

Intersections, including median opening, shall be designed with proper corner sight distance, and the intersection area shall be kept free of obstacles. Where predicted turning volumes may be significant, speed-change lanes and channelization shall be incorporated into the intersection design. The intersection streets should meet at approximately a 90-degree angle, but in no case less than a 75-degree angle. The maximum lengths between street intersections shall be 1200 feet with a minimum spacing of 300 feet. Intersections should be designed with a corner radius for pavement adequate for larger vehicles anticipated; a minimum radius of curb returns shall be thirty feet (30').

602.3.9 Horizontal Alignment.

The designer shall strive for as high a standard as practical for collector alignments. Horizontal and vertical alignments must complement each other and be considered in combination. Caution that the safety of the facility is not reduced should be taken in the design. Street curves should be designed with as large a radius curve as feasible; the minimum centerline radius being 500 feet and a minimum tangent length in reverse curves of 100 feet.

602.3.10 Grades.

Grades for collector streets should be as level as consistent with the surrounding terrain. A 0.30 percent grade is acceptable to facilitate drainage, however, it is recommended to use 0.50 percent grade or more, when possible, for drainage purposes. Street grades are depressed below the surrounding terrain to accommodate adjacent property sheet drainage to the curb area and accumulation in the storm drainage system. Vertical curves shall be installed when algebraic differences in grades exceed 1 percent. Vertical curves shall meet the sight distance criteria for the design speed.

602.3.11 Pavement Crown.

Pavement cross slope shall provide proper drainage. Each pavement of a divided street shall be sloped to drain to the outer curb. Normally, parabolic sections are used for single two-way streets, and plane sections are used for divided streets. The amount of cross slope over a single two-way street shall be three percent (3%) from the curb line to quarter point, and two percent (2%) from quarter point to center line. Pavements on divided collectors shall have a normal cross slope of two percent (2%). On an auxiliary lane, normally the cross slope should not exceed 2 percent on outer lanes and 1 percent on inner left turn lanes.

602.3.12 Drainage.

Drainage for collector streets shall be provided in accordance with ITEM 602.1.11 "Drainage" with the following exception: The gutter grade shall be as specified in ITEM 602.3.10 "Grades".

602.3.13 Border Area.

The border areas between the roadway and the right-of-way line shall be wide enough to serve several purposes including provisions of a buffer space between pedestrians and vehicular traffic, sidewalk space, and an area for both underground and above ground utilities, such as traffic signals and fire hydrants. The roadway shall

be centered within the designated right-of-way and the border areas sloped from the property line to the top of the curb at a minimum grade of three-eighth inch (3/8") per foot. Traffic signals, utility poles, fire hydrants, and other utilities shall be placed as far back of the curb as practical for safety reasons. Breakaway features should be built into structures when feasible and as an aid for safety considerations.

602.3.14 Sidewalks.

On Collector Streets, sidewalks are to be constructed on both sides of the street. The sidewalks shall be located as far as practical from the traffic lanes and usually close to the right-of-way lines. Clear sidewalk width shall be five-foot (5') minimum. Curb-cut ramps shall be provided at cross walks to accommodate physically handicapped persons. Sidewalks and curb-cut ramps shall be provided in accordance with ITEM 806 – Pedestrian Facilities (Sidewalks and Wheel Chair Ramps).

602.3.15 Driveways.

Driveways for collector streets shall be provided in accordance with ITEM 602.1.14, "Driveways".

602.3.16 Street and Roadway Lighting.

Street lights shall be provided at all intersections with other roadways and at appropriate spaced intervals as determined by the Public Works Department. Design shall be per AASHTO's "Roadway Lighting Design Guide" (latest edition).

602.3.17 Traffic Control Devices.

Traffic control devices shall be applied consistently and uniformly. Details of the standard devices and warrants for many conditions are found in the TMUTCD. Geometric design of streets shall include full consideration of the types of traffic control to be used, especially at intersections where multiple phases of actuated traffic signals are likely to be needed. Traffic signals are a major element in the design of major collector street intersections. Successful operations of a collector street depend largely on proper pavement markings. Pavement markings shall be provided in accordance to the TMUTCD.

602.4 Omitted.

602.5 Minor Arterial Streets. (SEE STREET AND ROAD MATRIX)

The design of minor arterials covers from two-lane to multi-lane roads. Minor arterial streets bring traffic to and from major arterial streets and expressways and serve major movements of traffic within and through and urban area. Traffic volumes vary from 3000 to 7000 vehicles per day with 5% to 7% heavy commercial traffic. Trucks using these streets have a maximum tandem axle load of 46 kips and a 35-dip maximum single-axle load. The principle characteristic of the arterial should be mobility with limited or restricted service to local development.

602.5.1 Pavement Type.

Urban arterial streets shall be provided with a standard curb, gutter and storm sewer design. These streets shall consist of a pavement composed of Portland Cement concrete constructed on a prepared sub-grade. The concrete

pavement shall have a minimum thickness of eight-inches (8") and constructed in accordance with ITEM 605, "Concrete Pavements". The prepared sub-grade shall have a minimum thickness of six-inches (6") and constructed in accordance with ITEM 604, "Sub-grades".

602.5.2 Pavement Width.

A minimum of four moving traffic lanes is required to handle the capacity of urban minor arterials. Pavements shall be widened through intersections by the addition of one or two lanes to accommodate turning vehicles. Parking on an arterial street should only be considered when provision is required because of existing conditions. Medians shall be provided for all minor arterial streets. The divided one-way roadways design shall provide for two twenty-five feet (25') width roadways. This back-of-curb to back-of-curb width shall provide for two twelve-foot (12') travel lanes in each direction.

602.5.3 Medians.

Medians for urban minor arterial streets shall be provided in accordance with ITEM 602.3.3 "Medians".

602.5.4 Right-of-Way Width.

The width of right-of-way for the complete development of an arterial street is influenced by traffic requirements, intersection design, and extent of ultimate expansion. The required width of right-of-way is the summation of the various cross-sectional elements - through pavements, median, auxiliary lanes, and borders. Every opportunity shall be taken to provide the required width along all of the facility. The minimum right-of-way width for minor arterials shall be one-hundred feet (100'). Additional easements adjacent to the right-of-way shall be required for utility installations.

602.5.5 Design Speed.

A design speed for minor urban arterial streets generally range from 40 to 50 mph. The lower (40 mph and below) speeds apply in built-up areas or under particularly restricted conditions in suburban areas. A high speed (50 mph or above) is appropriate in outlying sections approaching rural conditions.

602.5.6 Sight Distance.

The provision of adequate sight distance is important in urban minor arterial design. Stopping sight distance shall be in the range from 305 to 425 feet. Stopping sight distance is based upon posted speed and AASHTO guidelines. Design for passing sight distance seldom is applicable on urban minor arterials with two divided one-way roadways. Intersection corner sight distance shall comply with ITEM 805 of this manual.

602.5.7 Intersection Design.

Each individual intersection shall be carefully evaluated by a traffic engineer to determine the best design to handle the expected traffic volumes and adjacent developments. Intersections shall be designed with a minimum edge corner radius of 50 feet. Where expected turning volumes are significant, speed change lanes and channelization shall be considered. Turn lane design shall comply with ITEM 801 of this manual. Intersection legs that will operate under stop sign or signal control shall be at right angles. Where necessary, cut slopes should be flattened, and horizontal or vertical curves shall be lengthened to provide additional sight distance.

602.5.8 Horizontal Alignment.

Alignment of the minor arterial is ideally developed strictly with the design speed selected. It is desirable to use

the highest alignment design possible with a minimum centerline radius being 800 feet and a minimum tangent length in reverse curves of 100 feet.

602.5.9 Grades.

Grades for minor arterial streets shall be provided in accordance with ITEM 602.3.10, "Grades".

602.5.10 Pavement Crown.

Each pavement of a divided arterial shall be sloped to drain to the outer edge. Pavement should have a normal cross slope of 2 percent. On auxiliary lanes, the cross slope should not exceed 2 percent on outer lanes and 1 percent on inner left turn lanes.

602.5.11 Drainage.

A drainage system to accommodate design run-off shall be included in the design of every arterial street. Street flows from adjacent property that is intercepted by the street section of curb and gutter shall be limited to a property depth of 150' along and adjacent to the right-of-way. For urban streets, the flow is transferred at frequent intervals from the street cross section by curb-opening inlets to basins and from there by storm sewer conduit to major outfalls. To avoid undesirable flow-line conditions, the minimum gutter grade shall be 0.30 percent, it is recommended to use 0.50 percent grade or more, when possible, for better drainage purposes.

Inlets shall be located in such a manner that the more restrictive of the following criteria will govern:

- a) Maximum storm water ponding depth as measured at the gutter low point shall be no more than nine (9) inches, and
- b) Storm water is not carried more than 300 feet along the curb line from the high point of a gutter to an inlet opening.

Inlets shall be recessed (horizontally displaced) away from the curb gutter line so that any depression at the mouth of the inlet occurs wholly within the limits of the gutter, with no irregularity of elevation extending into the travel lane. Inlets should be placed away from arterial streets, on side streets, at intersections. Storm sewers and inlets shall be provided in accordance to ITEM 703, "Closed Conduit System".

602.5.12 Border Area.

Border areas for minor arterials shall be provided in accordance with ITEM 602.3.13, "Border Area".

602.5.13 Sidewalks.

Sidewalks for urban minor arterials shall be provided in accordance with ITEM 602.3.14, "Sidewalks".

602.5.14 Access Control.

Control of access is highly desirable on an arterial facility. This provision will not only enhance its initial service capability but will also preserve the original level of service. While service may be required to abutting property, it shall be carefully regulated to limit the number of points and their locations. Access control is especially needed in areas approaching intersections where auxiliary and storage lanes may be required. Access to arterial streets shall be permitted only where minimum spacing standards are met. The spacing standards are the minimum distance between access points on the same side of the road. To ensure a safe balance between access and traffic mobility, these standards vary depending on the nature of the access point. Residential driveways shall not be

designed for access to arterial streets. Commercial driveways shall be allowed access to arterial and shall comply with ITEM 801 of this manual.

602.5.15 Lighting.

Lighting is very important to safe operation of an urban arterial. The higher volumes and speeds require the driver to make correct decisions with adequate time to make the proper maneuvers without creating undue conflict in the traffic lanes. A safely designed lighting system is more important to optimum operation of an

urban arterial than any other city street. The lighting shall be continuous and an energy-saving type. Design shall be per AASHTO's "Roadway Lighting Design Guide".

602.5.16 Traffic Control Devices.

Traffic control devices such as signs, markings, signals, and islands are placed on or adjacent to a street to regulate, warn, or guide traffic. Each device is designed to fulfill a specific need with regard to traffic operation, control, or safety. The need for traffic control devices shall be determined by an engineering study made in conjunction with the geometric design of the street. The TMUTCD shall be used to ensure standard design and uniform application of the various traffic control devices.

Traffic signal design shall comply with ITEM 803 of this manual.

Successful operation of an arterial street depends largely on proper pavement marking. Recent development in products for pavement markings shows considerable promise in providing adequate long-life marking. Pavement markings shall be provided in accordance to the TMUTCD and the "Standard Details".

602.6 Omitted.

602.7 Major Arterials.

The major arterial system serves the major centers of activity, the highest traffic volume corridors, and longest trip desires and carries a high proportion of the total city area travel on a minimum of mileage. The system should be integrated both internally and between major rural connections. The major arterial system carries most of the trips entering and leaving the city, as well as most of the through movements by passing the central city. In addition, significant intra-area travels, such as between central business districts and outlying residential areas, between major inner-city communities and between major suburban centers, is served by this class of facility.

The design of major arterials covers a broad range of roadways, from four-lane to six-lane, and is the most difficult class of roadway design because of the need to provide a high standard of operation. The designer must be thoroughly familiar with the standards established by the American Association of State Highway and Transportation Officials in order to skillfully blend the various geometric aspects into a functional network. All major arterials shall be provided in accordance with the requirements of the Texas State Department of Highways and Public Transportation.

602.7.1 Pavement Type.

Urban arterial streets shall be provided with a standard curb, gutter and storm sewer design. These streets shall consist of a pavement composed of Portland Cement concrete constructed on a prepared sub-grade. The concrete pavement shall have a minimum thickness of eight-inches (8") and constructed in accordance with ITEM 605, "Concrete Pavements". The prepared sub-grade shall have a minimum thickness of six-inches (6") and constructed in accordance with ITEM 604, "Sub-grades".

602.7.2 Pavement Width.

A minimum of four moving traffic lanes is required to handle the capacity of urban major arterials. Pavements shall be widened through intersections by the addition of one or two lanes to accommodate turning vehicles. Medians shall be provided for all major arterial streets. The divided one-way roadways design shall provide for two twenty-five-foot (25') width roadways. This back-of-curb to back-of-curb width shall provide for two twelve-foot (12') travel lanes in each direction.

602.7.3 Medians.

Medians for major arterial streets shall be provided in accordance with ITEM 602.3.3 "Medians".

602.7.4 Right-of-Way Width.

The width of right-of-way for the complete development of an arterial street is influenced by traffic requirements, intersection design, and extent of ultimate expansion. The required width of right-of-way is the summation of the various cross-sectional elements - through pavements, median, auxiliary lanes, and borders. Every opportunity shall be taken to provide the required width along all of the facility. The minimum right-of-way width for major arterials shall be one-hundred feet and twenty (120'). Additional easements adjacent to the right-of-way shall be required for utility installations.

602.7.5 Design Speed.

A design speed for major arterial streets generally range from 40 to 50 mph. The lower (40 mph and below) speeds apply in built-up areas or under particularly restricted conditions in suburban areas. A high speed (50 mph or above) is appropriate in outlying sections approaching rural conditions.

602.7.6 Sight Distance.

The provision of adequate sight distance is important in urban minor arterial design. Stopping sight distance shall be in the range from 305 to 425 feet. Stopping sight distance is based upon posted speed and AASHTO guidelines. Design for passing sight distance seldom is applicable on urban minor arterials with two divided one-way roadways. Intersection corner sight distance shall comply with ITEM 805 of this manual.

602.7.7 Intersection Design.

Each individual intersection shall be carefully evaluated by a traffic engineer to determine the best design to handle the expected traffic volumes and adjacent developments. Intersections shall be designed with a minimum edge corner radius of 50 feet. Where expected turning volumes are significant, speed change lanes and channelization shall be considered. Turn lane design shall comply with ITEM 801 of this manual. Intersection legs that will operate under stop sign or signal control shall be at right angles. Where necessary, cut slopes should be flattened, and horizontal or vertical curves shall be lengthened to provide additional sight distance.

602.7.8 Horizontal Alignment.

Alignment of the major arterial is ideally developed strictly with the design speed selected. It is desirable to use the highest alignment design possible with a minimum centerline radius being 800 feet and a minimum tangent length in reverse curves of 100 feet.

602.7.9 Grades.

Grades for minor arterial streets shall be provided in accordance with ITEM 602.3.10, "Grades".

602.7.10 Pavement Crown.

Each pavement of a divided arterial shall be sloped to drain to the outer edge. Pavement should have a normal cross slope of 2 percent. On auxiliary lanes, the cross slope should not exceed 2 percent on outer lanes and 1 percent on inner left turn lanes.

602.7.11 Drainage.

A drainage system to accommodate design run-off shall be included in the design of every arterial street. Street flows from adjacent property that is intercepted by the street section of curb and gutter shall be limited to a property depth of 150' along and adjacent to the right-of-way. For urban streets, the flow is transferred at frequent intervals from the street cross section by curb-opening inlets to basins and from there by storm sewer conduit to major outfalls. To avoid undesirable flow-line conditions, the minimum gutter grade shall be 0.30 percent, it is recommended to use 0.50 percent grade or more, when possible, for better drainage purposes.

Inlets shall be located in such a manner that the more restrictive of the following criteria will govern:

- a) Maximum storm water ponding depth as measured at the gutter low point shall be no more than nine (9) inches, and
- b) Storm water is not carried more than 300 feet along the curb line from the high point of a gutter to an inlet opening.

Inlets shall be recessed (horizontally displaced) away from the curb gutter line so that any depression at the mouth of the inlet occurs wholly within the limits of the gutter, with no irregularity of elevation extending into the travel lane. Inlets should be placed away from arterial streets, on side streets, at intersections. Storm sewers and inlets shall be provided in accordance to ITEM 703, "Closed Conduit System".

602.7.12 Border Area.

Border areas for minor arterials shall be provided in accordance with ITEM 602.3.13, "Border Area".

602.7.13 Sidewalks.

Sidewalks for urban minor arterials shall be provided in accordance with ITEM 602.3.14, "Sidewalks".

602.7.14 Access Control.

Control of access is highly desirable on an arterial facility. This provision will not only enhance its initial service capability but will also preserve the original level of service. While service may be required to abutting property, it shall be carefully regulated to limit the number of points and their locations. Access control is especially needed in areas approaching intersections where auxiliary and storage lanes may be required. Access to arterial streets shall be permitted only where minimum spacing standards are met. The spacing standards are the minimum distance between access points on the same side of the road. To ensure a safe balance between access and traffic mobility, these standards vary depending on the nature of the access point. Residential driveways shall not be designed for access to arterial streets. Commercial driveways shall be allowed access to arterial and shall comply with ITEM 801 of this manual.

602.7.15 Lighting.

Lighting is very important to safe operation of an urban arterial. The higher volumes and speeds require the driver to make correct decisions with adequate time to make the proper maneuvers without creating undue conflict in

the traffic lanes. A safely designed lighting system is more important to optimum operation of an urban arterial than any other city street. The lighting shall be continuous and an energy-saving type. Design shall be per AASHTO's "Roadway Lighting Design Guide".

602.7.16 Traffic Control Devices.

Traffic control devices such as signs, markings, signals, and islands are placed on or adjacent to a street to regulate, warn, or guide traffic. Each device is designed to fulfill a specific need with regard to traffic operation, control, or safety. The need for traffic control devices shall be determined by an engineering study made in conjunction with the geometric design of the street. The TMUTCD shall be used to ensure standard design and uniform application of the various traffic control devices.

Traffic signal design shall comply with ITEM 803 of this manual.

Successful operation of an arterial street depends largely on proper pavement marking. Recent development in products for pavement markings shows considerable promise in providing adequate long-life marking. Pavement markings shall be provided in accordance to the TMUTCD and the "Standard Details".

ITEM 603 PREPARATION OF RIGHT-OF-WAY

This ITEM shall consist of preparing the right-of-way for construction operations by the removal and disposal of all obstructions from the right-of-way and from designated easements, except such trees, shrubs and structures and certain areas designated by the Public Works Department for preservation.

603.1 Clearing and Grubbing.

The right-of-way shall be cleared of stumps, brush, logs, rubbish, trees and shrubs, and all obstructions and objectionable materials whether above or below ground except live utility facilities or other facilities designated for preservation by the Public Works Department or EOR.

Areas required for embankment construction; for roadway, channel and structural excavation; and for borrow sites and material sources shall be cleared and grubbed. On areas required for roadway, channel, or structural excavation, all stumps, roots, etc., shall be removed to a depth of at least two (2) feet below the lower elevation of the excavation.

Holes remaining after removal of all obstructions, objectionable material, trees, stumps, etc., shall be backfilled with suitable material and tamped as directed by the Public Works Department or EOR. The operation of preparing the right-of-way shall be completed by balding, bull dozing, or by other approved methods, so that the prepared right-of-way shall be free of holes, ditches and other abrupt changes in elevations and irregularities of contour to prevent pounding of water and to provide proper drainage. All cleared and grubbed material shall be disposed of in a proper manner.

603.2 Roadway Excavation.

Substances encountered within the limits of the roadway shall be excavated to the lines, grades and typical cross sections and in accordance with specifications and as indicated in the plans. All excavation shall be accomplished in such a manner as to allow proper drainage. All suitable material removed from the excavation should be used for embankments and other such purposes as directed by the Public Works Department or EOR. If material encountered within the limits of the work is considered unsuitable, it shall be excavated and replaced with suitable material.

All utility trenches and structure excavation shall be backfilled in accordance with ITEM 410, "Backfill and Settlement".

603.3 Embankment.

Embankments shall be constructed by placing and compacting materials of acceptable quality following the lines, grades, and cross sections as indicated on the approved construction plans. Before any embankment is placed, all clearing and grubbing operations shall have been completed. Each layer of embankment material shall not exceed six inches (6") in compacted depth. It shall be disked sufficiently to break down oversize clods and thoroughly mixed so that a uniform material is secured. Each layer shall be uniformly compacted to

at least 95% maximum density at optimum moisture by roller or vibratory equipment suitable for the type of material encountered. Testing for density will be in accordance with ASTM D2922 and ASTM D698.

ITEM 604 SUBGRADE, SUBBASE AND BASE COURSES

All sub-grade, sub-base and base course construction shall provide for a stabilized material with uniform support and with no abrupt changes in degree of support. Stabilization, as applied to roadway construction, can be defined as a means of permanently consolidating soils and base materials by markedly increasing their strength and bearing capacity and decreasing their water sensitivity and volume change during wet/dry cycles. Soils with a PI (plasticity index) value greater than ten (10) shall be stabilized with hydrated lime, Portland cement, or lime-fly ash as long as the material has been found chemically reactive with stated material. Soils with a PI (plasticity index) value less than ten (10) or soils that are not suitable for chemically treating with lime shall be stabilized with Portland Cement or fly ash or lime-fly ash. A geo-technical investigation shall be performed on all projects to assist in the design phases in determining the type and amount of additive that will be required to produce the optimum results. Sub-grade, sub-base and base courses shall be constructed with a width of two feet (2'), on each side thereof, greater than the width of the subsequent course. All sub-grade, sub-base and base courses shall be constructed as herein specified and in conformity with the typical cross sections of the approved plans.

604.1 Stabilization. (Lime, Lime-Fly Ash, Portland Cement)

This ITEM shall consist of treating the sub-grade, sub-base or base course by pulverizing, addition of stabilization material, mixing and compacting the mixed material to the required density. This ITEM applies to natural ground, borrow fill, existing pavement structure or base material and shall be constructed as specified herein and in conformity with the typical sections, lines and grades as shown on the plans or as established by the Public Works Department.

604.1.1 Lime.

Only sub-grade, sub-base, or base material, in-place or borrow, that has been found to be effectively treated

with lime, containing no weeds, roots, or other vegetation; pulverized so 100% passes two-inch (2") sieve shall be considered acceptable material. Hydrated lime shall be Type "B", commercial lime slurry in conformance with TxDOT, ITEM 264. The amount of lime required shall be determined by a qualified material testing laboratory to be the optimum content of the soil in no case less than 5% by weight.

604.1.2 Construction Method.

It is the primary requirement of this specification to secure a complete course of stabilized treated material containing a uniform mixture, free from loose or segregated areas, of uniform density and moisture content, well bound for its full depth and with a smooth surface suitable for placing subsequent courses.

604.1.2.a Scarification and Pulverization.

After the soil has been shaped to conform to the typical sections, lines and grades as shown on the plans and all soft areas (revealed by proof rolling) have been removed and corrected, the material should be scarified to the specified depth and width of stabilization and then partially pulverized. All delirious materials like roots, turf, etc., and aggregates larger than three inches (3") shall be removed.

604.1.2.b Application.

Hydrated lime shall be uniformly spread by successive passes over a measured section of roadway until the proper moisture and lime content has been secured. Provisions shall be made for agitation in the distributor truck to prevent settling of lime solids.

604.1.2.c Preliminary Mixing.

The material and lime shall be thoroughly mixed by approved rotary speed road mixers and the mixing continued until a homogeneous, friable mixture of material and lime is obtained, free from clods or lumps. Materials containing plastic clays or other material which will not readily mix with lime shall be mixed as thoroughly a possible at the time of lime application. During this step, water should be added to raise the moisture of the soil-lime mixture to at least 5% above optimum moisture content. After the initial mixing, the lime-treated layer shall be shaped to the approximate section and compacted lightly with a pneumatic roller prior to curing in order to minimize evaporation loss, lime carbonation, and to prevent excessive wetting from possible heavy rains.

604.1.2.d Preliminary Curing.

The lime material mixture shall cure a minimum of 48 hours to permit the lime and water to break down (or mellow) the soil material. Duration of this curing period should be based on engineering judgment; for extremely heavy clays, the curing period may be extended to 7 days or more, if necessary.

604.1.2.e Final Mixing.

After the required curing time, the lime material mixture shall be uniformly mixed. Mixing and pulverization shall continue until all clods are broken down and a homogeneous friable mixture or material and lime is obtained, such that when all non-slaking aggregates retained on the no.4 sieve are removed, the remainder of the material shall meet the following requirements when tested from the roadway in the roadway conditions by laboratory sieves:

Minimum Passing	1-inch sieve	100%
Minimum Passing	No.4 Sieve	60%

Additional water may be required after final mixing to raise the mixture to optimum moisture content prior to compaction. Rotary mixing is mandatory for this operation.

604.1.2.f Compaction.

Compaction of the mixture shall begin immediately after final mixing. The lime material mixture shall be compacted to at least 95% of the maximum density within 3% of optimum moisture as determined by ASTM D 698 (Standard Proctor Density). The density value shall be based on a representative field sample of the lime material mixture.

604.1.2.g Finishing, Curing and Preparation for Surfacing.

After the final layer of lime-soil material has been compacted, it shall be shaped to the required lines and grades in accordance with typical sections. The completed section shall then be finished by rolling with a pneumatic tire roller sufficiently light to prevent hair cracking. The completed section shall be moist-cured, which consists of maintaining the surface in a moist condition by light sprinkling and rolling, as necessary, moist rolling. Curing shall continue until covering with a subsequent course. Such course shall be applied within 14 days after final mixing is completed.

604.1.3 Quality Control.

The design and construction of all lime stabilized sub-grade and sub-bases shall be monitored and tested in accordance to specified ASTM and TxDOT Standards by a recognized Independent Testing Laboratory, experienced and well qualified for providing geo-technical engineering and material testing / inspection services within the local area. All specified field tests shall be performed in the presence of a city inspector at locations and frequencies determined by city inspector. The laboratory shall furnish reports to the Public Works Department, the Developer and the Contractor on all of its design determinations, all of its services and all of its quality control testing.

604.1.3.a Design.

A representative sample of the raw-soil or soil / aggregate for use in sub-grade, sub-base or base course shall be obtained to determine the optimum lime content of the material. A minimum of four (4) Atterberg limits (ASTM D 4318) will be required; starting with 5% lime and increasing lime content. A PI-Value vs. lime curve will show the percentage of hydrated lime required to produce optimum results the lime content required shall not be less than 5% of the dry weight of lime material mixture.

604.1.3.b Sieve Analysis.

Field tests at a frequency of one test for every 2000 square yards with a minimum of one test for each street, shall be required during the final mixing. The material shall be properly cured, uniformly mixed and pulverized to meet the specifications.

604.1.3.c Plasticity Indexes of Lime Material Mixture.

A representative field sample of the final mixed lime-material shall be obtained to determine the Atterberg limits (ASTM D 4318). The PI value of the lime soil material shall conform to the previous lime determination and in all cases less than 20. If the lime material mixture is not uniform in composition, additional samples will be required.

604.1.3.d Standard Proctor.

A representative field sample of the final mixed lime material mixture shall be obtained to prepare the moisture / density relationship (ASTM D 698). If the lime material mixture is not uniform in composition, additional samples will be required.

604.1.3.e Lime Material Depth Check.

Representative areas of the lime material mixture, at a frequency of one test for every 2000 sq. yds., a minimum of one test for each street, shall be checked after final grade has been achieved to determine if the specified depth of sub-grade or sub-base material has been obtained.

604.1.3.f Compaction Tests.

Representative areas of the lime material mixture, at a frequency of one test for every 500 sq. yds., a minimum of one test for each street, shall be tested at each six-inch (6") layer of required lime material mixture depth.

Compaction tests (ASTM D 2922) shall be performed on areas that will receive subsequent courses within five (5) days or if lime material mixture loses stability due to drying, wetting or construction damage; retests will be required. The lime material mixture shall be compacted to at least 95% maximum density within 3% of optimum moisture as determined by ASTM D 698 (Standard Proctor Density).

604.1.4 Lime-Fly Ash.

Only sub-grade, sub-base, or base material, in-place or borrow, that has been found to be effectively treated with lime-fly ash, containing no weeds, roots, or other vegetation; pulverized so 100% passes two-inch (2") sieve shall be considered acceptable material. Hydrated lime shall be Type "B", commercial lime slurry in conformance with TxDOT, ITEM 264. Fly ash shall be residue or ash remaining after burning finely pulverized coal at high temperatures conforming to requirements of ASTM C 618, Type C" or "F" with a minimum CaO content of 20 %, loss on ignition not to exceed 3% and contain no lignite ash. The amounts of lime-fly ash required shall be determined by a qualified material testing laboratory to be the optimum lime content of the soil in no case less than 5% by weight.

604.1.5 Construction Method.

It is the primary requirement of this specification to secure a complete course of stabilized treated material containing a uniform mixture, free from loose or segregated areas, of uniform density and moisture content, well bound for its full depth and with a smooth surface suitable for placing subsequent courses.

604.1.5.a Scarification and Pulverization.

After the soil has been shaped to conform to the typical sections, lines and grades as shown on the plans and all soft areas (revealed by proof rolling) have been removed and corrected, the material should be scarified to the specified depth and width of stabilization and then partially pulverized. All delirious materials like roots, turf, etc., and aggregates larger than three inches (3") shall be removed.

604.1.5.b Application.

Hydrated lime-fly ash shall be uniformly spread as a single mix, single pass over a measured section of roadway. Provisions shall be made for agitation in the distributor truck to prevent settling of lime-fly ash solids. Include fly ash in percentage amounts in lime or lime slurry as established from geotechnical evaluation for application, mixing, and compaction.

604.1.5.c Preliminary Mixing.

The material and lime-fly ash shall be thoroughly mixed by approved rotary speed road mixers and the mixing continued until a homogeneous, friable mixture of material and lime-fly ash is obtained, free from clods or lumps. Materials containing plastic clays or other material which will not readily mix with lime-fly ash shall be mixed as thoroughly a possible at the time of application. During this step, water should be added to raise the moisture of the soil-lime mixture to at least 5% above optimum moisture content. After the initial mixing, the lime-fly ash treated layer shall be shaped to the approximate section and compacted lightly with a pneumatic roller prior to curing in order to minimize evaporation loss, lime carbonation, and to prevent excessive wetting from possible heavy rains. Operations shall be conducted to minimize elapsed time between mixing and compacting lime-fly

ash subgrade in order to take advantage of rapid initial set characteristics. Complete compaction within 2 hours of commencing compaction and not more than 6 hours after adding and mixing last stabilizing agent.

604.1.5.d Preliminary Curing.

The lime-fly ash material mixture shall cure a minimum of 48 hours to permit the lime and water to break down (or mellow) the soil material. Duration of this curing period should be based on engineering judgment; for extremely heavy clays, the curing period may be extended to 7 days or more, if necessary.

604.1.5.e Final Mixing.

After the required curing time, the lime-fly ash material mixture shall be uniformly mixed. Mixing and pulverization shall continue until all clods are broken down and a homogeneous friable mixture or material and lime-fly ash is obtained, such that when all non-slaking aggregates retained on the no.4 sieve are removed, the remainder of the material shall meet the following requirements when tested from the roadway in the roadway conditions by laboratory sieves:

Minimum Passing	1-inch sieve	100%
Minimum Passing	No.4 Sieve	60%

Additional water may be required after final mixing to raise the mixture to optimum moisture content prior to compaction. Rotary mixing is mandatory for this operation.

604.1.5.f Compaction.

Compaction of the mixture shall begin immediately after final mixing. The lime-fly ash material mixture shall be compacted to at least 95% of the maximum density within 3% of optimum moisture as determined by ASTM D 698 (Standard Proctor Density). The density value shall be based on a representative field sample of the lime material mixture.

604.1.5.g Finishing, Curing and Preparation for Surfacing.

After the final layer of lime-fly ash-soil material has been compacted, it shall be shaped to the required lines and grades in accordance with typical sections. The completed section shall then be finished by rolling with a pneumatic tire roller sufficiently light to prevent hair cracking. The completed section shall be moist-cured, which consists of maintaining the surface in a moist condition by light sprinkling and rolling, as necessary, moist rolling. Curing shall continue until covering with a subsequent course. Such course shall be applied within 14 days after final mixing is completed.

604.1.6 Quality Control.

The design and construction of all lime-fly ash stabilized sub-grade and sub-bases shall be monitored and tested in accordance to specified ASTM and TxDOT Standards by a recognized Independent Testing Laboratory, experienced and well qualified for providing geo-technical engineering and material testing / inspection services within the local area. All specified field tests shall be performed in the presence of a city inspector at locations and frequencies determined by city inspector. The laboratory shall furnish reports to the Public Works Department, the Developer and the Contractor on all of its design determinations, all of its services and all of its quality control testing.

604.1.6.a Design.

A representative sample of the raw-soil or soil / aggregate for use in sub-grade, sub-base or base course shall be obtained to determine the optimum lime-fly ash content of the material. A minimum of four (4) Atterberg limits (ASTM D 4318) will be required; starting with 5% lime-fly ash and increasing lime-fly ash content. A

PI-Value vs. lime-fly ash curve will show the percentage of hydrated lime-fly ash required to produce optimum results the lime content required shall not be less than 5% of the dry weight of lime-fly ash material mixture.

604.1.6.b Sieve Analysis.

Field tests at a frequency of one test for every 2000 square yards with a minimum of one test for each street, shall be required during the final mixing. The material shall be properly cured, uniformly mixed and pulverized to meet the specifications.

604.1.6.c Plasticity Indexes of Lime-Fly Ash Material Mixture.

A representative field sample of the final mixed lime-fly ash material shall be obtained to determine the Atterberg limits (ASTM D 4318). The PI value of the lime-fly ash soil material shall conform to the previous lime determination and in all cases less than 20. If the lime-fly ash material mixture is not uniform in composition, additional samples will be required.

604.1.6.d Standard Proctor.

A representative field sample of the final mixed lime-fly ash material mixture shall be obtained to prepare the moisture / density relationship (ASTM D 698). If the lime-fly ash material mixture is not uniform in composition, additional samples will be required.

604.1.6.e Lime Material Depth Check.

Representative areas of the lime-fly ash material mixture, at a frequency of one test for every 2000 sq. yds., a minimum of one test for each street, shall be checked after final grade has been achieved to determine if the specified depth of sub-grade or sub-base material has been obtained.

604.1.6.f Compaction Tests.

Representative areas of the lime-fly ash material mixture, at a frequency of one test for every 500 sq. yds., a minimum of one test for each street, shall be tested at each six-inch (6") layer of required lime material mixture depth. Compaction tests (ASTM D 2922) shall be performed on areas that will receive subsequent courses within five (5) days or if lime-fly ash material mixture loses stability due to drying, wetting or construction damage; retests will be required. The lime-fly ash material mixture shall be compacted to at least 95% maximum density within 3% of optimum moisture as determined by ASTM D 698 (Standard Proctor Density).

604.1.7 Portland Cement.

This Item shall consist of treating the sub-grade, sub-base or base by pulverizing, addition of Portland cement, mixing, wetting and compacting the mixed material to the required density. This Item applies to natural ground, embankment, existing pavement structure, or flexible base material, and shall be constructed as specified herein and in conformity with the typical sections, lines and grades as shown on the plans or established by the Engineer.

Only sub-grade soil, sub-base or base material (TxDOT ITEM 275 or 276), that has been found to be effectively treated with Portland Cement; containing no weeds, roots or other vegetation; pulverized so that 100% passes

two-inch (2") sieve, 20% maximum passes No. 200 sieve; and PI value maximum of 10 shall be considered acceptable.

Portland cement shall conform to ASTM C150 Type I. The amount of Portland cement required for treatment of sub-grade shall produce a cement-soil material with a minimum 200 PSI compressive strength at seven (7) days (TEX-120-E). The amount of Portland cement required for treatment of sub-base or base courses shall produce a cement-soil aggregate material with a minimum 650 PSI compressive strength at 7 days (TEX-120-E).

Portland cement treatment of material in place shall be constructed in accordance with TxDOT ITEM 275.

Portland cement treatment of base material shall be constructed in accordance with TxDOT ITEM 276.

604.1.8 Construction Method.

It is the primary requirement of this specification to secure a complete course of stabilized treated material containing a uniform mixture, free from loose or segregated areas, of uniform density and moisture content, well bound for its full depth and with a smooth surface suitable for placing subsequent courses.

604.1.8.a Scarification and Pulverization.

After the soil has been shaped to conform to the typical sections, lines and grades as shown on the plans and all soft areas (revealed by proof rolling) have been removed and corrected, the material should be scarified to the specified depth and width of stabilization and then partially pulverized. All delirious materials like roots, turf, etc., and aggregates larger than two inches (2") shall be removed.

604.1.8.b Application.

Portland cement shall be uniformly spread by successive passes over a measured section of roadway until the proper moisture and Portland cement content has been secured. Provisions shall be made for agitation in the distributor truck to prevent settling of solids.

604.1.8.c Mixing.

Do not place and mix cement when temperature is below 40 degrees F and falling. Place base when temperature taken in shade and away from artificial heat is above 35 degrees F and rising. Spread cement uniformly on soil at rate specified by laboratory. When bulk cement spreader is used, position it by string lines or other approved method to ensure uniform distribution of cement. Apply cement only to area where operations can be continuous and completed in daylight, within one hour of application. Amount of moisture in soil at time of cement placement shall not exceed quantity that will permit uniform mixture of soil and cement during dry mixing operations. Do not exceed specified optimum moisture content for solid cement mixture. Do not allow equipment other than that used in spreading and mixing to pass over freshly spread cement until it is mixed with soil. Dry mix cement with soil after cement application. Continue mixing until cement has been sufficiently blended with soil to prevent formation of cement balls when water is applied. Mixture of soil and cement that has not been compacted and finished shall not remain undisturbed for more than 30 minutes. Immediately after dry mixing is complete, uniformly apply water as necessary and incorporate it into mixture. Pressurized equipment must provide adequate supply to ensure continuous application of required amount of water to sections being processed within 3 hours of cement application. Ensure proper moisture distribution at all times. After last increment of water has been added, continue mixing until thorough and uniform mix has been obtained. Ensure percentage of moisture in mixture, based on dry weights, is within 2 percentage points of specified optimum moisture content prior to compaction. When uncompacted soil cement mixture is wetted by rain indicating that average moisture content

exceeds tolerance given at time of final compaction, reconstruct entire section in accordance with this Section at no additional cost to City.

604.1.8.d Compaction.

Prior to beginning compaction, ensure mixture is in loose condition for its full depth. Uniformly compact the loose mixture to specified density, lines and grades. After soil and cement mixture is compacted, apply water uniformly as needed and mix thoroughly. Then reshape surface to required lines, grades, and cross section and lightly scarify to loosen imprints left by compacting or shaping equipment. Roll resulting surface with pneumatic-tire roller and "skin" surface with power grader. Thoroughly compact mixture with pneumatic roller, adding small increments of moisture, as needed. When aggregate larger than No. 4 sieve is present in mixture, make one complete coverage of section with flat-wheel roller immediately after skinning operation. When approved by Public Works Department, surface finishing methods may be varied from this procedure, provided dense uniform surface, free of surface compaction planes is produced. Maintain moisture content of surface material at its specified optimum during finishing operations. Compact and finish surface within period not to exceed 2 hours to produce smooth, closely knit surface, free of cracks, ridges or loose material, conforming to crown, grade, and line shown on Drawing within period not to exceed 2 hours.

604.1.8.e Construction Joints.

At the end of each day's construction, form straight transverse construction joint by cutting back into total width of completed work to form true 2-inch depth vertical face free of loose and shattered material. Construct cement treatment for large wide areas in series of parallel lanes of convenient length and width approved in advance by the Public Works Department.

604.1.8.f Finishing, Curing and Preparation for Surfacing.

Moist cure for a minimum of 3 days before placing base or surface course or opening to traffic. When open, restrict traffic to light pneumatic rollers or vehicles weighing less than 10 tons. Keep subgrade surface damp by sprinkling. Roll with light pneumatic roller to keep surface knit together. Place base and surface within 14 days after final mixing and compaction, unless prior approval is obtained from the Public Works Department.

604.1.9 Quality Control.

The design and construction of all Portland Cement stabilized sub-grade, sub-bases and base courses shall be monitored and tested in accordance with specified ASTM and THD standards by a recognized independent testing laboratory, experienced and well qualified for providing geo-technical engineering and material testing / inspection services within the local area. All specified field tests shall be performed in the presence of a City Inspector at locations and frequencies determined by the City Inspector. The laboratory shall furnish reports to the Public Works Department, the Developer and the Contractor on all of its design determinations, all of its services and all of its quality control testing.

604.1.9.a Design.

The mix will be designed with the intention of producing a minimum average compressive strength as specified. Cement stabilized material specimens shall be prepared, cured and tested as outlined in test method TEX-120-E. The cement content shall not be less than 4.5% of the dry weight of the cement material mixture.

The base material, when tested in accordance to test method TEX-110-E, shall meet the requirements of TxDOT ITEM 275.4. The soil binder material, when tested in accordance to test method TEX-106-E, shall meet the requirements of TxDOT ITEM 275.4.

604.1.9.b Sieve Analysis.

Field test at a frequency of one test for every 2000 sq. yds., with a minimum of one test for each street shall be required during mixing and pulverization of Portland Cement treatment for material in place. The material shall be so pulverized that, at the completion of moist-mixing, when all non-slaking aggregate retained on the No.4 sieve are removed, the remaining material shall meet the following requirements when tested from the roadway in the roadway condition by laboratory sieves:

Minimum Passing 1-inch Sieve 100%

Minimum Passing No. 4 Sieve 60%

604.1.9.c Standard Proctor.

A representative field sample of the mixed cement material mixture shall be obtained to prepare the moisture/density relationship (ASTM 698).

604.1.9.d Compaction Tests.

Representative areas of the cement material mixture, at a frequency of one test for every 500 sq. yds., a minimum of one test for each street, shall be tested at each six-inch (6") layer of required cement material mixture depth. Compaction tests (ASTM 2922) shall be performed within 4 hours after Portland cement is added to the sub-grade, sub-base or base course material. If the cement material mixture loses stability due to drying, wetting or construction damage; additional cement shall be added, and retests will be required, the cement material mixture shall be compacted to at least 95% maximum density within 3% of optimum moisture as determined by ASTM 698 (Standard Proctor Density).

ITEM 605 CONCRETE PAVEMENT

This ITEM shall consist of a pavement composed on Portland Cement concrete, with reinforcement, with or without curbs, constructed as herein specified on a prepared stabilized sub-grade in conformity with thickness, lines and grades, and typical cross sections as indicated in the specifications and plans.

605.1 Materials.

The source of supply of each material shall be approved by the Public Works Department or EOR, before being incorporated in the work, and shall be sampled and tested for determining compliance, before and during the work. Only materials conforming to these specifications and approved by the Public Works Department or EOR shall be used in the work.

605.1.1 Portland Cement.

Portland cement shall conform to ASTM C-150, Type I or Type IA. The cement shall conform to applicable ASTM specifications for weight variations and length of storage. Cement which has become caked or lumped shall not be used.

605.1.1.a Mineral Filler for Portland Cement.

Type "F" fly ash of acceptable quality and meeting requirements of ASTM C 618 may be used as mineral admixture in concrete mixture. When fly ash mineral filler is used, store and inspect in accordance with ASTM C

618. Do not use fly ash in amounts to exceed 25 percent by weight of cementitious material in mix design. Cement content may be reduced when strength requirements can be met. Note: When fly ash is used, term “cement” is defined as cement plus fly ash.

605.1.2 Coarse Aggregate.

Coarse aggregate shall consist of durable particles of gravel, crushed gravel, or crushed stone of reasonably uniform quality throughout, free from injurious amounts of salt, alkali, vegetable matter or objectionable material and shall conform to ASTM C-33. Grading of Course Aggregate for roadway paving shall conform to the requirements prescribed in ASTM C-33 for size Number 467. Grading of course aggregate for curb installation shall conform to the requirements prescribed in ASTM C-33 for size Number 7.

605.1.3 Fine Aggregates.

Fine aggregates shall consist of sand or a combination of sand, and shall be composed of clean, hard, durable, uncoated grains and shall conform to ASTM C-33.

605.1.4 Water.

Water used in mixing or curing shall be reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable matter, or other substance injurious to the finished product. Water shall be tested in accordance with AASHTO T26. Water known to be potable may be used without test.

605.1.5 Admixtures.

Admixtures shall have proven compatibility with all local concrete materials, including cement and other proposed admixtures, and shall can provide the concrete with the desired properties without subsequent loss of strength of durability. Admixtures shall not be used to replace cement. Admixtures shall comply with all the requirements of TxDOT ITEM 437. When using admixtures in concrete, the compatibility of intermixing admixtures and the amounts required to produce the desired result shall be assured by the admixture manufacturer. The water contained in admixtures shall be considered part of the mixing water.

605.1.6 Reinforcing Steel.

All bar reinforcement for concrete streets shall be deformed, conforming to ASTM A615, Grade 40, open hearth, basic oxygen, or electric furnace new billet steel, minimum bar size No. 4. Steel for reinforcement may be shop or field bent or cut. All bending and cutting shall be performed in accordance with TxDOT ITEM 440.3.

All steel for reinforcement shall be secured in place by use of approved metal or plastic supports and spacers and ties. Supports shall be of sufficient strength to maintain the reinforcement in place throughout the concreting operation. All splices in reinforcement shall have a minimum lay of 30 bar diameters. Lapped ends of bars shall be placed in contract and securely wired. All tie-wire shall be 16 gauge or heavier, black annealed wire.

605.1.7 Load Transmission Device for Expansion Joints.

Expansion joints shall be of the dowel type, load transmission device consisting of smooth, steel dowel bars of size and type indicated in the standard details, secured in position by a transverse joint filler board. Steel dowel bars shall be open-hearth, basic oxygen, or electric-furnace steel conforming to the properties specified for grade 60 in ASTM A 615. One end of dowel bar shall be encased in an approved cap having an inside diameter of 1/16 inch greater than the diameter of the dowel bar. The cap shall be such strength, durability and design as to provide free movement of the dowel bar. Dowel bars shall be installed through approve fittings at 22-inch centers.

Joint filler materials shall be timber boards, rebounded neoprene filler, or rebounded recycled tire rubber. In all cases the joint filler material shall be $\frac{3}{4}$ inch and furnished in a single piece for the full depth and width required for the joint unless otherwise authorized by the Public Works Department or EOR. Joint filler timber boards shall be obtained from Redwood or Cypress. They shall be sound heartwood and shall be free from sapwood, knots, clustered bird's eye, checks and splits.

Rebonded neoprene filler consists of ground closed-cell neoprene particles, rebounded and molded into sheets of the required dimensions. These sheets must meet the requirements of ASTM D 1752, Type I. Rebonded recycled tire rubber consists of granular particles of rubber, made by grinding automobile and truck tires, securely bound together by a synthetic resin or plastic binder. The filler must be molded into sheets of the required dimensions and which meet the testing requirements of both ASTM D 1751 and ASTM D 1752, except that the requirements for asphalt content and expansion are waived. The density of the material must be at least 30 lb./ft.

605.1.8 Joint Sealing Material.

Poured sealer for joints shall conform to the requirements of ASTM D 1190, alternatively, low-modules Silicone Rubber Highway Joint Sealant conforming to TxDOT ITEM 433.2 (f) may be used.

605.1.9 Curing Material.

Membrane curing compounds for concrete shall be the white pigmented type conforming to the requirements of ASTM C-309.

605.2 Equipment.

All equipment necessary for the proper handling, mixing, hauling, placing, finishing and curing of the concrete shall be maintained in good working condition, throughout the construction of the project, to assure the proper prosecution of the work.

605.2.1 Aggregate Weighing Equipment.

Aggregate bins and scales shall conform to ASTM C 94.

605.2.2 Cement Weighing Equipment.

Where bulk cement is used, it shall be batched by weight and the scales shall conform to the requirements ASTM C94.

605.2.3 Mixers.

Mixers shall be of an approved stationary or truck-type capable of combining the ingredients into a thoroughly mixed and uniform mass and shall conform to the requirements of ASTM C-94.

605.2.4 Hauling Equipment.

Hauling equipment shall be provided in accordance with ASTM C-94.

605.2.5 Forms.

Forms shall be of such cross section and strength and so secured as to resist the pressure of the concrete when placed and the impact and vibration of any equipment they support, without springing or settlement. the method of connection between sections shall be such that the joints shall not move in any direction. The maximum

deviation of the top surface shall not exceed 1/8 inch in 10 feet or the inside face not more than 1/4 inch in 10 feet from a straight line.

605.2.6 Mechanical Vibratory Equipment.

All concrete placed for pavement shall be consolidated by approved mechanical vibrators. A vibratory form-type paving screed shall be so designed and operated as to strike off, consolidate, and finish the pavement to

the required cross section. Paving screeds shall be maintained in a tight and good operating condition, accurately adjusted to the required crown or profile, and free from deflection, wobble, or vibration tending to affect the precision of finish.

605.2.7 Joint Sealing Equipment.

Sealing equipment shall be capable of installing the sealant in joints in accordance with manufacture's recommendation.

605.2.8 Membrane Sprayer.

A pressure sprayer capable of applying a continuous uniform film will be required.

605.2.9 Other Equipment.

The contractor shall also furnish all other equipment, small tools, and supplies which are necessary to the proper prosecuting of the work.

605.3 Proportioning and Design of Concrete.

Concrete shall be composed of Portland cement, fine aggregate, coarse aggregate, water, and admixtures. The actual proportions of materials to be used for various mixes shall be determined by an approved independent testing laboratory in accordance with ACI Standard 211 so as to produce a quality concrete that will meet or exceed the requirements as herein specified.

605.3.1 Concrete Strength.

The concrete mix will be designed to produce a minimum flexural strength of 550 PSI at the age of 7 days and a minimum compressive strength of 3500 PSI at the age of 28 days. Unless otherwise specified, the concrete shall contain not less than 5.5 sacks of Portland cement per cubic yard of concrete. The water-cement ratio (net gallons of water per sack of cement) shall not exceed 6.25 gallons/sack. Concrete specimens shall be prepared, cured and tested in accordance with ASTM C-39 and ASTM C-239.

605.3.2 Workability of Concrete.

Concrete shall be uniformly plastic, cohesive and workable. Workable concrete is defined as concrete which can be placed without honeycomb and without voids in the surface of the pavement after the specified finishing operation has been completed. Workability shall be obtained without producing a condition such that free water appears on the surface of the slab when being finished.

The mix will be designed to produce concrete which will have a slump of 4(+1) inches when tested in accordance with ASTM C-143. The maximum allowed slump for field placement shall be 5 inches (5").

605.3.3 Entrained Air.

Entrained air shall be used in all concrete. Air entrainment shall be provided with air-entrained Portland Cement or by adding an air-entraining agent. The amount of admixture shall be adjusted to meet variations in concrete ingredients and job conditions to provide a total air content (percent by volume) of 5 (+- 1) inches when tested in accordance with ASTM C-173.

605.3.4 Water Reducing Retarding Admixtures.

A water reducing retarding admixture shall be used in the concrete batch when the air temperature is expected to exceed 78 degrees during the concrete placement.

605.3.5 Mix Design.

It shall be the responsibility of the Contractor to furnish the mix design. The mix shall be designed to conform with the requirements contained herein and in accordance with ACI 214. An Independent Material Testing Laboratory employed by the Developer shall perform the work required to substantiate the design. Complete concrete design data shall be submitted to the Public Works Department for approval.

605.4 Subgrade and Forms.

The sub-grade for pavement sections shall be properly constructed in accordance to ITEM 604 "Sub-grade, Sub-base and Base Courses" before forms, steel or concrete can be placed. All forms shall be accurately set to the required grade and alignment and, during the entire operation of placing, compacting and finishing of the concrete, shall not deviate from this grade and alignment more than 1/8 inch in 10 feet of length. The forms shall not be removed for at least 12 hours after the completion of finishing operations. They shall be carefully removed in such a manner that no damage will be done to the edge of the pavement. Any damage resulting from this operation shall be immediately repaired by saw cut and full-depth replacement. Adjacent slabs may be used instead of forms provided that the concrete is well protected from possible damage by finishing or placing equipment.

605.5 Reinforcing Steel Placing.

All reinforcing steel, including tie bars, dowel bars, and load transmission devices used in accordance with plan provisions shall be accurately placed and secured in position in accordance with details shown on the "Standard Details". The reinforcement shall be accurately located in the forms, and firmly held in place, before and during concrete placement, by means of bar supports, adequate in strength and number to prevent displacement, to keep the steel at the proper distance from the forms and to carry the reinforcing bars they support. Bars shall be supported by standard galvanized bar supports, bar supports with plastic tips, stainless steel bar supports, or approved plastic bar supports. Reinforcing bars shall be securely wired together at alternate intersections, following a pattern approved by the Engineer, and at all splices, and shall be securely wired to each dowel intersection. Before any concrete is placed, all mortar, mud, dirt, etc., shall be cleaned from the reinforcement.

No concrete shall be deposited until the Engineer has inspected the placement of the reinforcing steel and given permission to proceed.

605.6 Joint Assemblies.

All transverse and longitudinal joints when required in the pavement shall be of the type or alternate type shown on the approved plans and shall be constructed at the required location, on required alignment, in required relationship to tie bars and joint assemblies. Such stakes, braces, brackets or other devices shall be used as necessary to keep the entire joint assembly in true vertical and horizontal position. Careful workmanship shall be

exercised in the construction of all joints to ensure that the concrete sections are separated by an open joint or by the joint materials and to ensure that the joints will be true to the outline indicated.

605.6.1 Construction Joints.

Intentional stoppage of the placing of concrete shall be at either an expansion joint or at a weakened plane joint. When the placing of concrete is stopped at an expansion joint, the complete load transmission device shall be installed and rigidly secured in required position and cross section. When placing of concrete is stopped at a weakened plane joint, the complete joint assembly, including 24" tie bars, shall be installed and rigidly supported in required position. Weakened plane joints shall be either keyed, tongue and grooved, or butt-type with tie bars to hold adjacent slabs in vertical alignment. Construction joints shall be tooled to a sufficient width and depth in order to receive joint sealant material.

605.6.2 Expansion Joints.

Transverse expansion joints shall be formed perpendicular to the centerline and surface of the pavement and shall be constructed at radius points of curb returns for cross street intersections and at regular intervals, a maximum spacing of 80 feet. Expansion joints shall be of the dowel type, load transmission in accordance with ITEM 605.1.7 "Load Transmission Devices for Expansion Joints". On completion of curing of the pavement, the joint seal space form shall be removed and the joint seal space above the joint filler board shall be thoroughly cleaned to remove all projecting concrete, laitance, dirt or foreign matter. The concrete faces of the joint seal space shall be left true to line and section throughout the entire length of the joint. The faces of the joint seal space shall be clean and surface dry at the time joint sealing filler is placed.

605.6.3 Weakened-Plane-Joint.

Weakened plane joints shall consist of longitudinal joints and block-out-type construction joints and shall be formed or sawed. When the joints are sawed, the saw shall be power driven, shall be manufactured especially for the purpose of sawing concrete, and shall be capable of performing the work. Longitudinal joints shall be constructed accurately to required lines, shall be perpendicular to the pavement surface at the joint, and the pavement surface over and adjacent to the joint shall be finished as specified. If the deformed metal strip is used, it shall be secured in position with metal stakes, adequate to prevent any lateral movement while the concrete is being placed. Longitudinal joint spacing shall not exceed 15 feet.

605.7 Mixing and Delivery of Concrete.

The Concrete shall be mixed and delivered to the work site in accordance with ASTM C-94.

605.8 Placing Concrete.

The method of concrete placement shall avoid segregation of the aggregate or displacement of the reinforcing steel and joint assemblies. Concrete shall be deposited on a moist grade as near as possible in its final position in the forms. Workers will not be permitted to walk in concrete with any earth or foreign material on their boots or shoes. The placing of concrete shall be rapid and continuous between planned transverse joints. Concrete shall be thoroughly consolidated against and along the faces of all forms and along the full length and width of the slab by an approved mechanical vibratory unit. Concrete shall be distributed to such a depth that when consolidated and finished, the slab thickness required will be obtained at all points and the surface shall not at any point, be below the established grade. Special care shall be exercised in placing and spading concrete against forms and at all joints to prevent the forming of honey combs and voids. The consistency of the concrete as placed should allow the completion of all finishing operations without the addition of water to the surface. When conditions are such that additional moisture is needed for finish, the water shall be applied to the surface by fog spray only and shall be held to a minimum amount.

The maximum time interval between the addition of cement to the batch and placing of concrete in the forms shall not exceed 60 minutes for agitated concrete and 15 minutes for non-agitated concrete. The use of an approved water reducer retarding agent will permit the extension of time maximum by 30 minutes. The use of a water reducer retarding agent will be required when the air temperature is expected to exceed 78 degrees during the concrete placement.

605.8.1 Placing Concrete in Hot Weather.

When concrete is to be placed during hot weather, air temperatures above 78 degrees F, it shall be placed without the addition of more water to the concrete than required by the design - slump and consistency. Control of the initial set of the concrete and lengthening the time for finishing operations, under adverse wind, humidity and hot weather conditions shall be accomplished with the use of an approved water reducer retarding agent.

Because of the detrimental effects of high concrete temperatures, operations in hot weather shall be directed towards keeping the concrete as cool as is practicable and protecting the surface of the concrete from rapid evaporation of moisture. Slab sections with numerous plastic shrinkage cracks shall be considered unacceptable and shall be removed and replaced.

605.8.2 Placing Concrete in Cold Weather.

Concrete shall not be placed when the air temperature is 40 degrees F. and falling but may be placed when the air temperature is above 40 degrees F. and rising. When concrete is placed in cold weather conditions, the contractor shall have available a sufficient supply of approved covering material to maintain the temperature of the air surrounding the concrete at not less than 50 degrees F. for not less than 5 days.

605.8.3 Placing Concrete in Inclement Weather.

Concrete placement will not be permitted when impending weather conditions will impair the quality of the finish work. If rainfall should occur after placing operations are started, the contractor shall provide ample covering to protect the work. Areas of the pavement surface where the texture has been damaged by the protective cover shall be textured and cured unless the concrete has hardened. Areas that have suffered surface erosion and have coarse aggregate exposed shall be considered unacceptable and shall be removed and replaced.

605.9 Finishing Concrete.

All concrete pavements shall be struck off and consolidated with an approved vibrating screed, except as herein provided. Hand-finishing will be permitted on that portion of pavement outside the normal pavement width or configuration. As soon as the concrete has been spread between the forms, the approved vibrating screens shall be operated to consolidate the concrete and remove all voids. Hand-manipulated vibrators shall be used for areas not covered by the mechanical vibratory unit. The vibrating screed shall first be operated to compact and finish the pavement to the required section and grade, without surface voids.

After the pavement has been struck off and consolidated, it shall be scraped with a metal straightedge 10 ft. long equipped with a handle to permit operation from the edge of the pavement. Any excess water and laitance shall be removed from the surface of the pavement. The straightedge shall be operated parallel to the centerline of the pavement and shall be moved forward one-half its length after each pass. Irregularities shall be corrected by adding or removing concrete. A burlap drag, or canvas-rubber belt shall be used for final finish texture. Burlap bag or belt shall be long enough to cover the entire pavement width. They shall be kept clean and saturated while in use. The burlap drag shall be laid on the pavement surface and dragged in the direction which the pavement is being placed. The canvas-rubber belt shall be laid on the pavement surface and moved forward with a combined transverse and longitudinal motion in the direction which the pavement is being placed. These textures shall provide a gritty, skid resistant surface.

After completion of texturing, and before the concrete has taken its initial set, the edges of the slab, and expansion joints shall be tooled. A stiff bristled broom shall be drawn along these edges.

605.10 Curbs.

Curbs shall be installed along the edges of all streets where shown in the plans and shall be constructed to the cross section in accordance with the approved plans. Curbs, and curbs and gutters may be constructed using forms or Slip form or extrusion equipment. The edge of each gutter of the curb and gutter section built first may be used as a slab form in lieu of setting forms. The curb, or curb and gutter, shall be given a textured finish to match the pavement.

605.11 Curing.

All concrete pavement shall be cured by protecting it against loss of moisture for a period of not less than 3 days from the beginning of curing operations. Unless otherwise specified on the plans, white liquid membrane curing shall be used for concrete pavement and curbs. The membrane method of curing shall be applied behind the final finishing operation after all free water has disappeared from the surface. Complete and uniform coverage at the required rate of 150 sq. ft. per gallon shall be required. The compound shall be kept agitated to prevent the pigment from settling, and it shall be applied to the pavement edges immediately after the forms have been removed. Should the film of compound be damaged from any cause before the expiration or 3 days after original application, the damaged portions shall be repaired immediately with additional compound.

605.12 Opening Pavement to Traffic.

The pavement shall be closed to all traffic, including vehicles of the Contractor, until the concrete is at least 3 days old. At the end of the 3-day period, if so desired by the Contractor, the pavement may be opened for use by light vehicles of the Contractor. The pavement shall remain closed to all other traffic, including public access, construction equipment and heavy trucks until the concrete has reached a minimum compressive strength of 3000 psi. Sections of pavement not required to be open for public traffic should remain barricaded and closed to public traffic until the approval of the City.

605.13 Sealing Joints.

Joints to be sealed shall be filled with joint-sealing material before the pavement is opened to traffic and as soon after completion of the curing period as is feasible. Just before sealing, each joint shall be thoroughly cleaned of all foreign material, including membrane curing compound, and joint faces shall be clean and surface-dry when seal is applied. The sealing material shall be applied to each joint opening in accordance with the approved plans. The joint filling shall be done without spilling material on the exposed surfaces of the concrete.

605.14 Laboratory Services.

The design and construction of all concrete pavement shall be monitored and tested in accordance to specified ASTM, ACI and/or TxDOT Standards by a recognized independent testing laboratory, experienced and well qualified for providing concrete engineering and material testing / inspection services within the local area. The testing laboratory shall be responsible for the prompt notification to the Public Works Department or EOR and the Contractor of any observed irregularities or deficiencies of work or materials.

605.14.1 Mix Design Verification.

A representative sample of the proposed materials shall be obtained from the supplier's plant to determine if the materials and the design are within the specifications: Analysis of Strength Data - ACI 214, Standard Specification

for Concrete Aggregates - ASTM C33, Concrete Admixtures - THD 437. Mix design verifications will be required for pavement projects over 2000 square yards.

605.14.2 Batch Plant Inspections.

Laboratory technicians shall inspect batch plant prior to each placement to verify compliance with mix design, weights, procedures, and handling.

605.14.3 Monitor Placement.

Laboratory technicians shall monitor field placement of concrete to verify compliance with mix design, slump range, time and temperature control, procedures and handling. Continuous monitoring will be required for the placement of all roadway pavement and curb and gutter pavement. Continuous monitoring will not be required for curb installation. No roadway pavement may be placed without the presence of the laboratory technician.

605.14.4 Strength.

Strength tests as well as slump, air content, and temperature tests shall be made with a frequency of not less than one set of samples for each 150 cubic yards of concrete. Each test shall be made from a separate batch on each day concrete is placed, at least one set of samples shall be made for each class of concrete and at least one set of samples shall be made for each street. A set of samples shall include 4-cylinder specimens 2 at 7-day and 2 at 28-day strengths. Cylinder specimens shall be tested in accordance with ASTM C39. Slump tests shall be made in accordance with ASTM C143, Air content test shall be made in accordance with ASTM C 173, and temperature tests shall be made in accordance with ASTM C 1064. Strength tests shall be required for all concrete placements.

605.14.5 Core Samples.

The testing laboratory shall core drill the pavement to determine pavement thickness. Length of drilled cores shall be determined in accordance with ASTM C174. Core samples shall be required for all roadway pavements prior to approval at a frequency of not less than one test for each 1000 sq. yds. with a minimum of one core for each street.

605.15 Deficient Pavement Thickness.

The thickness of the pavement will be determined in accordance with ITEM 605.14.5 Core samples. Locations of core tests may be selected by the engineer. When the measurement of the initial core from any unit is not deficient more than 0.20 inches from the plan thickness, the pavement thickness will be considered satisfactory.

When the measurement of the initial core from any unit is deficient more than 0.20 inches but not less than 0.25 inches from the plan thickness one additional core will be taken from the unit and the average of the two cores will be determined. If the average measurement of these two cores is not deficient more than 0.25 inches from the plan thickness, the pavement thickness will be considered satisfactory. If the average measurement of these two cores is deficient more than 0.25 from plan thickness, the pavement thickness will be considered unsatisfactory. This pavement unit with unsatisfactory thickness may be isolated by existing control joints and additional core samples shall be required in the pavement units along the width and length in each direction from the identified unit of deficient thickness. These pavement units shall be tested in the same method as described above. All pavement units of unsatisfactory thickness will be considered unacceptable by the city and shall be removed and replaced with pavement of required thickness.

**ITEM 606
HOT MIX ASPHALTIC CONCRETE PAVEMENT**

This Item shall consist of a base course, a leveling up course, a surface course or any combination of these courses as shown on the plans. Each to be composed of a compacted mixture of mineral aggregate and asphaltic material. The pavement shall be constructed on the previously completed and approved sub-grade, and base course.

Materials and construction requirements for asphaltic, concrete, pavement shall be provided in accordance with TxDOT 340, Type "D".

**ITEM 607
TRAFFIC SIGNS**

All traffic signs shall conform to the requirements of "Part II-Signs" of the TMUTCD. All blank signs shall be Reflectorized sheet aluminum, in accordance with TxDOT 636, mounted on 2" galvanized steel posts with vandal-proof bolt-thru brackets. Street name signs shall be 6" extruded aluminum blades with a green reflective background and white reflective letters mounted on 2" galvanized steel posts with approved caps and vandal-proof fasteners. Roadside traffic sign supports for collector streets and arterial streets shall be provided in accordance with TxDOT ITEM 646.

**ITEM 608
PAVEMENT AND CURB MARKINGS
(Reflectorized Paint)**

Reflectorized paint markings shall be provided for all rural streets. Reflectorized paint markings may be used on urban streets for special applications when approved by the Public Works Department. Pavement and curb markings shall conform to the requirements of "Part III-Markings" of the TMUTCD and League City standards unless on a TxDOT facility where TxDOT standards shall apply. All materials used for Reflectorized paint shall conform to the requirements of the State Department of Highways and Public Transportation, Material and Test division. The contractor shall obtain a certification from the paint manufacturer attesting that the paint provided conforms to the state requirement.

Construction method for Reflectorized pavement marking shall be provided in accordance with TxDOT ITEM 666.

ITEM 609 TRAFFIC BUTTONS

Traffic buttons shall be provided for all Urban Collector Streets and Urban Arterial Streets and shall conform to the requirements of "Part III-Markings" of the TMUTCD.

All materials and construction methods shall be provided in accordance with TxDOT ITEM 672.

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

Last Updated: March 4, 2021

Design Guidelines

DESIGN FEATURE	MAJOR ARTERIAL	MINOR ARTERIAL	COLLECTOR	RESIDENTIAL	RURAL/LOCAL
Number of Lanes	4 to 6	2 to 4	2	2	2
Right-of-Way (ft)	120'	100'	80' (60' if ditch) 90' (100' if ditch)	60'	60'
Lane Width a) Divided one-way, lane b) Single two-way c) Shoulders	TXDOT	a) 2-2.25' roadways, 12' lanes b) N/A c) N/A	a) 2-2.25' roadways, 2-12' traffic & 2-12' parking lanes b) 12' lanes - 10' parking lanes c) N/A	a) N/A b) 24' travel path c) 4' for ditch drainage	a) N/A b) 24' travel path c) 4' for ditch drainage
Median Width	TXDOT	14' to 40'	14' to 40'	N/A	N/A
Design Speed (mph)	50 mph	50 mph	Min 35 mph	25 mph	30 mph
Sight Distance a) Stopping sight dist. b) Passing sight dist. c) Intersection corner sight dist.	TXDOT	a) 475' to 550' b) 1,800 to 1,950' c) N/A	a) 275' to 325' b) 1,300' c) N/A	a) 120' to 200' b) N/A c) 210' to 310'	a) 120' to 200' b) N/A c) 210' to 310'
Intersection Design a) Length between intersection b) Intersection street angle c) Radius of curb return	Traffic engineer to determine the best design to handle the expected traffic volumes	Traffic engineer to determine the best design to handle the expected traffic volumes	a) 300' min 1200' max b) no less than 75" c) 30'	a) 1200' max b) no less than 75" c) 25'	a) 1200' max b) no less than 75" c) 25'
Horizontal Curve a) centerline radius, simple/compound curve b) centerline radius reverse curve c) tangent length reverse curve	a) 2,000 b) c)	a) 800' b) N/A c) 100'	a) 500' b) N/A c) 100'	1) 160' b) 300' c) 100'	a) 160' b) 300' c) 100'
Grades a) Slope b) Vertical curves	TXDOT	a) 0.5% or more b) diff. in grades exceed 1%	a) 0.5% or more b) diff. in grades exceed 1%	a) less than 1.5% b) diff. in grades exceed 1%	a) less than 7% b) diff. in grades exceed 1%
Pavement Crown a) Driving lanes b) Left turn lanes c) Shoulders	TXDOT	a) 2% b) 1% c) N/A	a) 2% b) 1% c) N/A	a) 2% b) 1% c) N/A	a) 2% b) 1% c) 4%
Pavement Type	TXDOT	8" thick concrete Curb and gutter or open ditch	7" thick concrete Curb and gutter or open ditch	6" thick concrete or 2" thick hot mix asphalt, curb and gutter or open ditch	6" thick concrete or 2" thick hot mix asphalt, curb and gutter or open ditch
Storm Inlets Spacing	TXDOT	300' max or 8-inch above gutter	300' max or 8-inch above gutter	300' max or 8-inch above gutter	300' max or 8-inch above gutter
Driveway Access a) Residential b) Commercial	TXDOT	a) No Access b) 500-1,000' desirable	a) See standard details b) See standard details	a) See standard details b) See standard details	a) See standard details b) See standard details
Street Lighting	Continuous and energy saving type	Continuous and energy saving type	Continuous and energy saving type	Continuous and energy saving type	Continuous and energy saving type
Traffic Control Devices	MUTCD shall be used	MUTCD shall be used	MUTCD shall be used	MUTCD shall be used	MUTCD shall be used
Sidewalks	2 - 4' sidewalks or 1 - 8' sidewalk	2 - 4' sidewalks or 1 - 8' sidewalk	2 - 4' sidewalks or 1 - 8' sidewalk	2 - 4' sidewalks or 1 - 8' sidewalk	2 - 4' sidewalks or 1 - 8' sidewalk
Cut-de-Sacs & Turnarounds a) Length (max.) b) Diameter (min.) c) Right-of-way width	N/A	N/A	a) 880' b) 100'	a) 880' b) 80'	a) 880' b) 80' c) exceed diameter by 20'

SPECIFICATIONS FOR DRAINAGE PROJECTS

ITEM 701 GENERAL

The intent of this section is to present minimum standards for storm water quality and the design and construction of hydraulic structures for the secondary system of storm sewers and roadside ditches. Hydraulic structures for these secondary systems should convey storm water safely, control erosion, be cost effective, require minimal maintenance, and add safety and esthetics to the drainage system.

Specific design criteria; including the appropriate rainfall frequency and discharge methodology selected for use in the area, as well as specific hydrologic and hydraulic criteria used for the planning of storm sewers, channel improvements and detention facilities, is defined in The Master Drainage Plan. Structural designs for primary channels, lateral outfall channels and detention facilities, as well as drop structures, culverts, bridges, storm sewer outfalls, and detention reservoir control structures; the City has as of Resolution No. 2011-07 adopted The Harris County Flood Control Districts (HCFCD) Criteria Manual for the design of flood control and drainage facilities, except where superseded by The Master Drainage Plan and with the following modifications and additions:

- a) Maximum storm water ponding depth as measured at the gutter low point shall be no more than nine (9) inches,
- b) Detention facilities shall have
 - i. two (2) feet of freeboard above the 1% annual exceedance probability (100-year) storm water surface elevation, or at the 0.2% annual exceedance probability (500-year) storm water surface elevation, whichever is higher,
 - ii. a maximum basin side slope ration of 4:1
 - iii. a minimum slope of 0.5% slope for flume/pilot channel directing flow to the outflow structure,
 - iv. Overflow path and pipes shall be sized to convey the 0.2% annual exceedance probability (500-year) peak inflow,
- c) Discharge must be limited and directed in a manner that will not damage adjacent properties or public infrastructure, and does not cause hazardous conditions, and
- d) Dry Detention facilities may be utilized as an amenity park if approved by the Director of Engineering. All proposed improvements in the detention facility that is being utilized as an amenity park will need to meet Chapter 50 (Floods) of the City's Local Code of Ordinances while also providing sufficient emergency egress and warning signage.

Storm water management for construction activities shall follow the "Storm Water Management Handbook for Construction Activities".

ITEM 702 CULVERTS

Culverts allow for roadway, railroad, driveway and other utility crossings of open ditches. Materials used for culvert construction shall include pre-cast reinforced concrete pipe, monolithic reinforced concrete boxes and pre-cast reinforced concrete boxes.

The size and flow line of a culvert will depend on the hydraulic requirements, with the minimum pipe diameter of 24 inches (or equivalent to a 24-inch circular pipe) and the minimum box size of 24 inches x 24 inches.

All culverts for public roadway crossings of drainage channels with a depth greater than 4 feet shall include headwalls to protect the embankment from erosion. Protective traffic rated guardrails shall also be included along culvert headwalls for the protection of the general public.

ITEM 703 CLOSED CONDUIT SYSTEMS

Closed conduit systems for storm sewers shall be constructed of HDPE, reinforced concrete pipe, monolithic reinforced concrete boxes or pre-cast reinforced concrete box structures.

The size and flow-line of a pipe or box structure will depend on the hydraulic requirements. Inlet leads servicing curb opening inlets shall have a minimum pipe diameter of 24 inches.

703.1 Alignment.

All closed conduit systems shall be typically designed in a straight line with inlet lead perpendicular to the storm sewer system.

Storm sewers shall be located with a five-foot (5') offset from the centerline of the roadway or within a divided median, or in a storm sewer easement adjoining and parallel to a street right-of-way. For storm sewers located under pavement, reinforced concrete pipe is to be used. The location of a storm sewer shall not be within side lot easements that prohibit future maintenance access, unless approved by the Engineering Department. Closed conduit systems may be installed within adequately sized drainage right-of-way, easements or drainage fee strips.

703.2 Manholes.

A manhole is used for access to closed conduit systems for maintenance and inspection. Manholes shall be placed at changes in conduit size, material, grade, alignment, junction of two or more conduits, and at intervals no greater than 600 feet on continuous runs.

703.3 Inlets.

Inlets to closed conduit drainage systems shall be designed to convey the design storm discharge. Inlets shall be designed so debris will not reduce the entry capacity below the design storm discharge.

Curb Inlets shall be located in such a manner that the more restrictive of the following criteria will govern:

- e) Maximum storm water ponding depth as measured at the gutter low point shall be no more than nine (9) inches, and
- f) Storm water is not carried more than 300 feet along the curb line from the high point of a gutter to an inlet opening.

Inlets should be placed away from collector streets or arterial streets and on the side streets at street intersections. An attempt should be made to place inlets away from esplanade openings and out of major intersections. Inlets should be located along the street at the extension of a lot line in order to avoid conflicts with future or existing driveways. Curb inlets should be located at the point of curve of the intersection curb radius along urban residential streets. Curb inlets should be located out from under the pavement surface. Curb Inlets along Collector and Arterial classified streets shall be recessed (horizontally displaced) away from the curb gutter line so that any depression at the mouth of the inlet occurs wholly within the limits of the gutter, with no irregularity of elevation extending into the travel lane. Curb inlets shall have a minimum capacity of 5 c.f.s. Grate top inlets will not be permitted in unlined open ditch areas.

703.4 Storm Sewer Outfalls.

All storm sewer outfall pipe sewers for unlined channels shall be constructed of RCP or HDPE. A standard manhole must be placed just outside of the ultimate channel right-of-way or drainage easement. The grade of the

pipe shall be that required to produce at a minimum a three feet per second velocity when flowing full. Erosion protection will be required for all storm sewer outfalls.

ITEM 704 MATERIALS

Materials shall be stored, handled and used as described under ITEM 105 "Control of Materials".

The use of manufactures names and catalog numbers as may be used to describe various products is not intended to be proprietary, but merely to indicate clearly the respective type of material that can be accepted. Submittals for product acceptance, other than those named, must be directed to the Public Works Department by the EOR representing the developer. Contractor submittals will not be accepted.

The City of League City reserves the right to engage, at any time during the progress of the work, a material testing laboratory to test and inspect all pipe, boxes, or accessory structures.

704.1 Reinforced Concrete Pipe.

Unless specifically called for, Reinforced Concrete Pipe (RCP) shall include both Fiber Reinforced Concrete Pipe (FRCP) meeting ASTM C-1450 and Steel Reinforced Concrete Pipe (SRCP) meeting ASTM C-76, both types having a bell and spigot ends. The spigot end shall have a groove made into it to accept the manufactures rubber gasket. RCP& FRCP shall be installed in accordance to ASTM C1479.

704.1.1 Joints.

Joint material shall be tubular rubber gasket conforming to ASTM C 443 manufactured from extruded closed cellular rubber, the base polymer being a blend of nitrile and vinyl meeting the physical requirements of ASTM D 1056, Class 2 CL and meeting the chemical resistance requirements of AASHTO M 198. Joint lubricants shall consist of flax soap or equal, mineral lubricants are not permitted. Install per pipe manufacturers recommendations or as specified by the notes on plans or as directed by COLC.

Special care shall be taken in joining the bell and spigot ends as not to cause damage to the gasket. Damaged gaskets shall be cause for rejection of acceptance to the City's system.

704.2 Precast Reinforced Concrete Boxes.

Pre-cast reinforced concrete box sections for storm sewers or culverts shall conform to the requirements of ASTM C-850 for H20 loading.

704.2.1 Joints.

Joint material shall be rubber gasket meeting the requirements of ASTM C1677. Filter fabric to be used at all joints per City of League City Box Culvert Bedding and Backfill Details.

704.3 Monolithic Reinforced Concrete Boxes.

Monolithic reinforced concrete boxes for storm sewers and culverts shall be provided in accordance with The Standard Structural Designs of The Texas State Department of Highways and Public Transportation and in accordance with TxDOT ITEM 462.

704.4 High Density Polyethylene (HDPE).

HDPE pipe to meet AASHTO M 294 and shall be installed in accordance to ASTM D 2321.

704.4.1 Joints.

Coupling devices shall provide a positive union of adjacent pipe sections while effectively preventing displacement of the pipe along its axis and lateral displacement at the joint and shall provide leak resistant connections. Couplings shall be provided and supplied by the same manufacturer of the pipe.

704.5 Manholes.

Manholes shall be constructed of pre-cast concrete sections or concrete cast-in-place. Detailed drawings of various types and sizes of manholes are included in the engineered plans and each manhole shall be constructed in strict accordance with these drawings. Manholes shall be installed vertical and symmetrically above storm sewer main.

Manholes shall have inverts in them in which flow channels to the spring line of the pipes are constructed, inverts equal in depth to one-half the diameter of the pipes connected to the manholes.

Inlet and outlet pipes shall extend through the walls of the manhole for a sufficient distance beyond the outside surface to allow for connections but shall be cut off flush with the wall on the inside surface. Non-shrink grout shall be placed around these pipes so as to form a tight, neat and smooth connection.

Manhole bases shall be cast or installed on a firm 6 inch minimum of cement stabilized sand. Backfilling of manholes shall be provided in accordance with ITEM 410 "Backfill and Settlement" and Manhole Backfill Detail.

704.5.1 Precast Concrete Manholes.

Pre-cast concrete manholes shall be provided in accordance with TxDOT ITEM 465, (excluding ITEM 465.2 C, D and E), Park Equipment Storm Manhole Detail PCMHST-1 or approved equal.

704.5.2 Cast-in-Place Monolithic Concrete Manholes.

Cast-in-Place Manholes shall be constructed in accordance with the details on monolithic poured professionally engineered sealed design plans.

The minimum wall thickness shall be 6 inches. Maximum wall thickness shall be determined by the design engineer as dictated design by supporting design load and geotechnical reports. Concrete shall be placed complete in one casting. No joints will be allowed. Concrete shall be handled as described under concrete ITEM 407.15, "Concrete." Engineer of record shall supply engineered detail drawings for cast-in-place manholes.

704.5.3 Rings and Covers.

Ferrous castings shall be of uniform quality, free from blow holes, shrinkage, distortions, and other strength defects. They shall be smooth and cleaned by shot blasting. Gray Iron used in the manufacture of castings shall conform to ASTM A 48 Class 35B; Ductile Iron casting shall conform to ASTM A 536.

All castings shall be manufactured true to pattern, component parts shall fit together in a satisfactory manner. Round frames and covers shall have machine bearing surfaces to prevent rocking and rattling. Frame and cover castings must meet all the requirements of AASHTO M 306. Castings shall be customized for the City of

League City and shall be manufactured and installed in accordance with the City of League City "Standard Details."

The mill test reports or manufacturer's certification to the Engineer for each lot or shipment of steel and iron materials shall be provided to the office of the Engineering Department. For castings, also furnish a manufacturer's certification stating that the casting meets the proof-load testing requirements of AASHTO M 306.

704.6 Inlets.

Inlet structures for open ditch interceptor structures shall be constructed of pre-cast concrete or cast-in-place concrete. Curb inlets for roadways shall be constructed of pre-cast concrete sections. Curb Inlets along Collector and Arterial classified streets shall be recessed (horizontally displaced) away from the curb gutter line so that any depression at the mouth of the inlet occurs wholly within the limits of the gutter, with no irregularity of elevation extending into the travel lane. Detail drawings of various types and sizes of inlets shall be included in the approved plans.

Inlet and outlet pipes shall extend through the walls of the structure for a sufficient distance beyond the outside surface to allow for connections but shall be cut off flush with the wall on the inside surface. Mortar shall be placed around these pipes so as to form a tight, neat, smooth connection.

Inlet inverts shall be constructed and shaped accurately with concrete so as to be smooth, uniform and cause minimum resistance to flowing water. The inlet bottom shall be sufficiently sloped downward toward the outlet to prevent pounding.

Inlet bases shall be cast or installed on a firm bedding of 6 inches of cement stabilized sand. Backfill around curb inlets shall be cement stabilized sand.

704.6.1 Precast Concrete Inlets.

Pre-cast inlets shall be provided in accordance with TxDOT ITEM 465, (excluding ITEM 465.2 C, D and E), Park Equipment Storm Inlet Details or approved equal.

704.6.2 Cast-in-Place Concrete Inlets.

Cast-in-Place Inlets shall be constructed in accordance with the details on monolithic poured professionally engineered sealed design plans.

The minimum wall thickness shall be 6 inches. Maximum wall thickness shall be determined by the design engineer as dictated by supporting design loads and geotechnical reports. Concrete shall be placed complete in one casting. No joints will be allowed. Concrete shall be handled as described under concrete ITEM 407.15, "Concrete." Engineer of record shall supply engineered detail drawings for cast-in-place inlets.

704.6.3 Frame, Grates, Rings and Covers.

Ferrous castings shall be of uniform quality, free from blow holes, shrinkage, distortions, and other strength defects. They shall be smooth and cleaned by shot blasting. Gray Iron used in the manufacture of castings shall conform to ASTM A 48 Class 35B; Ductile Iron casting shall conform to ASTM A 536.

All castings shall be manufactured true to pattern, component parts shall fit together in a satisfactory manner. Round frames and covers shall have machine bearing surfaces to prevent rocking and rattling. Frame and cover castings must meet the proof-load testing requirement of AASHTO M 306. Castings shall be customized for the City of League City and shall be manufactured and installed in accordance with the City of League City "Standard Details."

The mill test reports or manufacturer's certification to the Engineer for each lot or shipment of steel and iron materials shall be provided to the office of the Engineering Department. For castings, also furnish a manufacturer's certification stating that the casting meets the proof-load testing requirements of AASHTO M 306.

704.7 Headwalls and Wingwalls.

Headwalls and wing-walls shall be provided in accordance with the standard structural designs of the Texas State Department of Highways and Public Transportation and in accordance with TxDOT ITEM 466. Concrete shall be provided in accordance with ITEM 407.15 "Concrete".

704.8 Pipe Bedding Material.

Where not otherwise specified or noted, all bedding material shall be provided in accordance with ITEM 407.14.2 "Cement-Stabilized Sand".

704.9 Concrete.

Concrete shall be provided in accordance with ITEM 407.15 "Concrete".

ITEM 705 EXCAVATION

Excavation shall be provided in accordance with ITEM 408 "Excavation".

ITEM 706 CONDUIT LAYING

All conduits shall be laid and maintained in the required lines and grades; with all appurtenances at the required locations.

All recommendations of the manufacturer shall be carefully observed during handling and installation of each material. During handling and placement, materials shall be carefully observed and inspected, and any damage, defective, or unsound materials shall be rejected and removed from the job site.

706.1 Trench Condition.

Trench condition shall be provided in accordance with ITEM 409.1 "Trench Condition".

706.2 Conduit Bedding and Embedment.

Except where otherwise approved by the Engineering Department, all pipe, boxes and appurtenances shall be installed in a continuous envelope of specified bedding material. Specified bedding material for drainage structures shall be cement stabilized sand (see ITEM 407.14., "Materials"), extending from 6" below to 6" above the outer part of the conduit, extending for the full width between the undisturbed trench walls. The bedding material required beneath the conduit shall be placed, graded and tamped to the conduit sub-grade profile over the entire width between undisturbed trench walls and cut-outs made for the projection of the pipe bells.

The conduit shall be placed and adjusted to proper grade on this prepared bedding, then jointed, braced and blocked, as required. After conduit is graded into place, bedding material shall be placed simultaneously on both sides of the conduit and worked carefully into place without disturbing the conduit alignment, to an elevation of 6" over the conduit.

706.3 Assembling Conduit.

Assembly shall meet the manufactures recommendations for conduit and accessories being used. Unless otherwise directed, conduits shall be laid with bell ends facing up-grade.

All connections shall be watertight and made so that a smooth uniform flow-line will be obtained throughout the drainage system.

ITEM 707 BACKFILL AND SETTLEMENT

Backfill and settlement shall be provided in accordance with ITEM 410 "Backfill and Settlement".

ITEM 708 VISUAL TEST

All drainage facilities shall be inspected visually to verify accuracy of alignment and freedom from debris and obstruction. Storm Sewers 48 inches and smaller will be inspected with television equipment.

The developer is responsible for the TV inspection of newly constructed storm sewer lines. The TV inspection shall take place before the final walk-through inspection is performed.

Personnel from the City's Storm Water Department or the City's Engineering Department shall witness the TV inspection, which shall be performed during the City's normal working hours.

The method for the inspection shall include:

1. Cleaning the lines, (if not already cleaned);
2. Removing downstream plugs, if any;
3. Videotaping the system.

The developer shall provide the City with one copy of the TV videotape and one copy of the TV inspection report. For each segment the video tape and corresponding written report shall clearly identify.

1. Each line segment being inspected;
2. The size and type of pipe being inspected;
3. Accurate footage of the line segment inspected;
4. Deficiencies in materials, alignment, pipe shape, grade, or any other apparent deficiencies; and drainage structure which causes excess pounding of water, any miss aligned joints, settled conduits or other defects; shall be cause for rejection.

Any system designed as a submerged system shall be inspected in the dry, prior to flooding. All other drainage systems shall be dry and clean prior to visual test.

**ITEM 709
STORM SEWER CONNECTIONS TO THE EXISTING SYSTEM**

Unless otherwise approved by the Engineering Department, all connections of a storm sewer system to existing storm sewer systems shall be made at manholes with the crown of the inlet pipe installed at the same elevation as the crown of the existing pipe as the taps are being made.

**ITEM 710
CLEAN UP AND RESTORATION**

Clean up and restoration shall be provided in accordance with ITEM 414 "Clean-up and Restoration".

**ITEM 711
APPROVAL AND ACCEPTANCE**

Approval and acceptance shall be provided in accordance with ITEM 415 "Approval and Acceptance".

**ITEM 712
WARRANTY OF WORK**

Warranty of work shall be provided in accordance with ITEM 416, "Warranty of Work".

TRAFFIC AND TRANSPORTATION STANDARDS AND GUIDELINES

A. REFERENCES

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7. Koepke, F.J., H.S. Levinson. *Access Management Guidelines for Activity Centers*. NCHRP 348, Transportation Research Board, Washington D.C., 1992.
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12. *City of League City Major Thoroughfare and Freeway Plan*. City of League City, League City, Texas, 2007.
13. *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*. Institute of Transportation Engineers, Washington D.C., 2006.
14. *City of League City Infrastructure Design Manual*. City of League City, League City, TX, 2007.
15. *Trip Generation Handbook*. Institute of Transportation Engineers, Washington D.C.
16. *Transportation Impact Analyses for Site Development*. Institute of Transportation Engineers, Washington D.C.
17. Bonneson, J. and M. Fontaine, *Engineering Study Guide for Evaluating Intersection Improvements*. NCHRP Report No. 457, Transportation Research Board, Washington, D.C., 2001.
18. *Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation*, Federal Highway Administration, Washington D.C., September 2005.

B. DEFINITIONS

1. **AADT** is the total volume of traffic passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year.
2. **Access Connection** is any facility for entry and/or exit such as a driveway, street, road, or highway.
3. **Access Management** is the systemic control of the location, spacing, design and operation of driveways, median openings, interchanges and street connections to a roadway.
4. **ADT** is the average daily traffic volume. It represents the total two-way traffic on a roadway for some period less than a year, divided by the total number of days it represents, and includes both weekday and weekend traffic. Usually, ADT is adjusted for day of the week, seasonal variations, and/or vehicle classifications.
5. **All-Way Stop Controlled** is an intersection with stop signs at all approaches.
6. **Analysis Engineer (TIA)** an individual, group, firm, or corporation having demonstrated professional emphasis and experience in traffic engineering, the preparation of similar analyses, and a Texas Licensed Professional Engineer specializing in the branch of civil engineering.
7. **Anticipated Opening Year** means the opening year of each phase of a development.
8. **Applicant** shall mean the owner of property or the owner's authorized agent who applies for a subdivision plat, development plat, general plan or street dedication plat pursuant to Chapter 102 of the League City Code of Ordinances.
9. **Auxiliary Lane** is a lane striped for use as an acceleration lane, deceleration lane, right-turn lane, or left-turn lane, but not for through traffic use.
10. **Background Traffic Conditions** are the operating characteristics of transportation infrastructure within the corresponding TIA category analysis areas prior to the opening of a proposed development. Establishing project traffic conditions shall be accomplished by growing existing traffic volumes and adding any approved or identified future development traffic volumes.
11. **Building** means the principal structure or structures erected or to be erected upon the land described in a declaration which determines the use to be made of the improved land, whether or not such improvement is composed of one or more separate buildings, containing on or more floors or stories.
12. **Building Permit** shall mean a certificate issued by the building official authorizing performance of a specified activity under the Construction Code.
13. **Bus** is a design vehicle class that includes intercity (motor coaches), city transit, school and articulated buses.
14. **Capacity** is the number of vehicles that can traverse a point or section of a lane or roadway during a set time period under prevailing roadway, traffic and control conditions.
15. **City** means the City of League City.
16. **City Limits** means the city boundary as fixed by the mayor and council and defined in the League City Code of Ordinances.
17. **Collector Streets** means a street designed to provide both local access and traffic circulation within residential neighborhoods, commercial and industrial areas. They differ from arterial systems in that collector streets may penetrate identifiable neighborhoods. Collector streets distribute traffic between the arterial and local street system.

18. **Connection Spacing** is the distance between connections, which is measured along the edge of the traveled way from the closest edge of pavement of the first access connection to the closest edge of pavement of the second access connection.
19. **Context Sensitive Solutions** is a collaborative, interdisciplinary process that involves all stakeholders to design a transportation facility that fits its applicable setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS respect design objectives for safety, efficiency, capacity and maintenance, while integrating community objectives and values relating to compatibility, livability, sense of place, urban design, cost and environmental impacts.
20. **Corner Clearance** is the distance along the edge of the traveled way from the closest edge of pavement of the intersecting public or private street to the closest edge of pavement of the nearest driveway.
21. **Corner Lot** is a lot located at the intersection of two streets that has frontage on each street.
22. **Delay** means control delay as outlined in the Highway Capacity Manual or as simulated in approved analysis software.
23. **Design Exception** shall mean any City Traffic Engineer approved variation from the requirements of section 1.03 of this chapter.
24. **Design Manual** shall mean the League City General Design & Construction Standards (2010) for wastewater collection systems, water lines, storm drainage, and street paving, as it may be amended from time to time.
25. **Design Speed** is a selected speed used to determine the various geometric design features of the roadway.
26. **Design Vehicle** is a chosen vehicle, with representative weight, dimensions, and operating characteristics used to establish design controls for accommodating vehicles of designated classes. There are four general classes of design vehicles: passenger cars, buses, trucks, and recreational vehicles.
27. **Develop/Development** means any site where construction, demolition, site clearing, grubbing, grading and any other activity which may disturb the surface of land (streets, drives, parking lots, sidewalks, etc.) and all other proposed improvements.
28. **Divided Street** is a street with a median designed to separate traffic moving in opposite directions.
29. **Driveway** is an access connection constructed within the public right-of-way, used to connect a public or private street with adjacent property.
30. **Driveway, Commercial** shall be any driveway that provides access to offices, retail buildings, institutional buildings (schools), gas stations, industrial facilities needing a driveway that operates with little or no heavy vehicle traffic, or multi-family buildings. Commercial driveways serve passenger cars and a small number of trucks usually for deliveries.
31. **Driveway, Industrial** shall be any driveway that provides access for heavy vehicles into loading areas (docks) for industrial facilities, warehouses, and truck terminals. Developments may have designated driveways designed and marked as industrial driveways to provide access for heavy vehicles.
32. **Driveway, Multi-Family** shall be any driveway that provides access to multi-family buildings. Multi-Family driveways serve passenger cars and a small number of trucks usually for deliveries.
33. **Driveway, One-way** shall be any driveway with operation limiting vehicles to either enter or exit but not both.

34. **Driveway, Residential** shall be any driveway that provides access to single-family residences. Residential driveways typically serve passenger cars.
35. **Driveway, Two-way** shall be any driveway that allows vehicles to both enter and exit simultaneously.
36. **Engineering Study** represents supporting documentation or evidence based on state of the practice transportation engineering methods relevant to the situation under review.
37. **Existing Traffic Conditions** are the current operating characteristics of transportation infrastructure within corresponding TIA category analysis areas. Existing traffic conditions shall be acquired through traffic counts.
38. **Extraterritorial Jurisdiction** is the unincorporated territory extending beyond the corporate boundaries of the city established pursuant to Chapter 42 of the Texas Local Government Code, as may be amended from time to time.
39. **Final Plat** shall have the meaning ascribed to it in Chapter 102 of the League City Code of Ordinances: A map or drawing of a proposed subdivision prepared in a manner suitable for recording in the appropriate county map, plat or real property records and prepared in conformity with the requirements of Section 102-4 of Chapter 102 of the League City Code of Ordinances.
40. **Five Year Capital Improvement Plan (CIP)** is street improvement projects included in a Capital Improvement Plan by the City of League City, Galveston County, TxDOT, or other organizations for construction.
41. **Frontage Road** is a local street or road along an arterial highway allowing control of access and service to adjacent areas and property. May also be referred to as a service road.
42. **Full Build-Out Year** means the year when all phases of a development are expected to be completed.
43. **Functional Area (Intersection)** is the area of an intersection necessary to provide all required storage lengths for separate turn lanes and for through traffic plus any maneuvering distance for separate turn lanes. The functional boundary of an intersection includes more than just the physical area of the intersection.
44. **Functional Classification** group streets and highway according to the character of service they are intended to provide.
45. **Internal Capture** means the application of a percent reduction in generated trips (driveway trips) and is typically applicable to projects such as shopping centers with out-lots.
46. **Intersection** means the area embraced within the prolongation or connection of the lateral curb lines, or if none, then the lateral boundary line of the roadways of two streets which join one another at, or approximately at, right angles, or in the area within vehicles traveling upon different highways joining at any other angle may come in conflict. Where a street included two roadways, 30 feet or more apart, then every crossing of each roadway of such divided street by an intersecting street shall be regarded as a separate intersection. In the event such intersecting street also includes two roadways 30 feet or more apart, then every crossing of two roadways of such street shall be regarded as a separate intersection. The junction of an alley with a street or highway shall not constitute an intersection.
47. **Joint Access** See "Shared Access"
48. **Level of Service (LOS)** represents the measure of traffic flow and congestion. As defined in the Highway Capacity Manual, it is a qualitative measure describing operational conditions within a traffic stream, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

49. **Local Streets** means a street designated to serve the local needs of the neighborhood and to provide access from abutting residential properties to other streets.
50. **Major Arterial** means a continuous street system serving moderate to long trip lengths that distributes traffic from the freeway/expressway system to and from the metropolitan area. The focus of major arterials is to provide mobility rather than land access. Major arterials should not penetrate identifiable neighborhoods.
51. **Major Intersection** is any intersection carrying significant traffic volume or one that is controlled by a traffic signal or stop sign.
52. **Measure of Effectiveness (MOE)** are performance measures that quantify traffic operations objectives. Some examples of a MOE are travel time, speed, delay, queue length, stops, density, and travel time variance.
53. **Median** is the portion of a divided street separating opposing traffic flows. A median may be traversable or nontraversable.
54. **Median Opening Spacing** is the allowable spacing between openings in a nontraversable median to allow for crossing the opposing traffic in order to access property or for crossing the median to travel in the opposite direction (U-turn). The distance is measured from centerline to centerline of the openings along the traveled way.
55. **Median, Directional Opening** is an opening in a nontraversable median that accommodates specific movements, such as U-turn movements and/or left-turn movements from the highway, and physically restricts other movements.
56. **Median, Full Opening** is an opening in a nontraversable median that allows all turning movements from the street and the adjacent connection, as well as crossing movements.
57. **Median, Nontraversable** is a physical barrier in a street or driveway that separates vehicular traffic traveling in opposite directions. Nontraversable medians include physical barriers (Such as a concrete barrier, a raised concrete curb and/or island, and a grass or a swale median) that prohibit movement of traffic across the median.
58. **Median, Traversable** is a median that, by its design, does not physically discourage vehicles from entering or crossing over it. This may include painted medians.
59. **Minor Arterials** accommodate moderate trip lengths at a somewhat lower level of mobility. Minor arterials provide a lower level of mobility and distribute traffic to smaller geographic areas than major arterials. Minor arterials should not penetrate identifiable neighborhoods, but can provide direct access to abutting property.
60. **Mitigation Measure** means a transportation improvement that will reduce or eliminate adverse traffic impact on the area street system, as typically identified in findings associated with a traffic impact analysis of a proposed development.
61. **Multi-Family Residential** shall mean the use of property with one or more buildings on a parcel designed for and containing an aggregate of three or more dwelling units. Multi-family residential includes apartments, condominiums, boarding houses, triplexes and quadriplexes.
62. **Off-Street Parking** is vehicular parking that is provided in a location other than the public right-of-way.
63. **Operating Speed** is the speed at which drivers are observed operating their vehicles during free-flow conditions. The 85th percentile of the distribution of observed speeds is the most frequently used measure of the operating speed associated with a particular location or geometric feature.
64. **Pass-By Trips** means the application of a percent reduction in background traffic conditions due to the expectations of overlapping travel patterns between some existing and generated trips. This rate

does not affect the proposed project's driveway volumes but rather reassigns existing trip to movements entering and exiting the proposed development.

65. **Passenger Vehicle** is a design vehicle class that includes passenger cars of all sizes, sport/utility vehicles, minivans, vans, and pick-up trucks.
66. **Peak Hour** means the peak one hour of traffic volume which occurs during the AM (6:00 – 9:00) and PM (4:00 – 7:00) period. In some cases, however, there may be need for additional hours, for example, Friday night, and Sunday morning.
67. **Private Drive** is a privately owned way used for vehicular travel that is not a street or private street and provides an unobstructed connection between one or more streets or private streets or to any portion of a parking lot, shopping center, institution, commercial area or industrial development. A private drive may provide for access by the general public, but the owner of the private drive shall maintain the right to restrict public access to the private drive.
68. **Private Street** means a non-dedicated street on private property. Private streets must conform to Section 102-5 of Chapter 102 of the League City Code of Ordinances.
69. **Project Traffic Conditions** are the future operating characteristics of transportation infrastructure within corresponding TIA category analysis areas. Establishing project traffic conditions is accomplished by adding the trips generated by the proposed development to background traffic conditions.
70. **Proposal of Scope** is a document prepared by the analysis engineer that is submitted to the City to ensure that the submittal of the TIA will allow the City to evaluate the overall impact of the development on an adjacent transportation infrastructure.
71. **Public Street** is a public right-of-way however designated, dedicated or acquired, that provides access to adjacent property.
72. **Recreational Vehicle** is a design vehicle class that includes motor homes, cars with camper trailers, cars with boat trailers, motor homes with boat trailers, and motor homes pulling cars.
73. **Reserve Tract** means a parcel of land that is not a lot, but is created within a subdivision plat for other than single-family residential use and is established to accommodate some purpose for which a division into lots is not suitable or appropriate.
74. **Right-of-Way** means real property interest in a parcel or strip of land that is conveyed or dedicated to the public or other specified entity for purposes of right of passage across said parcel or strip and/or for the right to install, maintain, and operate public or private infrastructure and appurtenances, including but not limited to, street paving, sidewalks and trails, drainage facilities, water and waste water facilities, and other public utilities (electric power, phone, gas, and cable television).
75. **Shared Access** is a single connection serving two or more adjoining lots or parcels.
76. **Sight Distance** is the distance visible to the driver of a passenger vehicle measured along the normal travel path of a roadway from a designated location and to a specified height above the roadway when the view is unobstructed by traffic.
77. **Signal** is a traffic control signal.
78. **Signalized Intersection** is an intersection under the operational control of a traffic control signal and meets the design requirements for public or private streets as specified in this set of guidelines.
79. **Single Family Residential** means the use of a lot with one building designed for and containing not more than two separate units with facilities for living, sleeping, cooking and eating therein.
80. **Site Access Connection** See "Driveway"
81. **Site Access Private Street** See "Street"

82. **Site Plan** is a drawing that shows the existing and proposed conditions of a development as specified by Chapter 102 of the League City Code of Ordinances.
83. **Speed Change Lane** is an auxiliary lane, including tapered areas, primarily for the acceleration or deceleration of vehicles entering or exiting the through-traffic lanes.
84. **Stopping Sight Distance (SSD)** is the distance required by a driver of a vehicle, traveling at a given speed, to bring the vehicle to a stop after an object on the roadway becomes visible. It includes the distance traveled during driver perception-reaction time and the vehicle braking distance.
85. **Storage Lane Length** is the portion of an auxiliary lane required to store the number of vehicles expected to accumulate in the lane during an average peak period.
86. **Subdivision Plat** shall mean a map or plan prepared and approved pursuant to the applicable provisions of Chapter 102 of the League City Code of Ordinances, Section 102-4 showing the proposed subdivision of land of an instrument recorded in the map, plat or real property records of the appropriate county showing the previous subdivision of property. A subdivision plat includes a replat, an amending plat, and a vacating plat. For the purposes of this document a subdivision plat also represents the term manufactured home subdivision as defined in Chapter 102 of the League City Code of Ordinances.
87. **Suburban Area** is an area of the city or its extraterritorial jurisdiction that is not an Urban Area.
88. **Traffic Impact Category** is a division that is based on findings of an initial trip generation estimate of peak hour trips and specifies analysis horizons and limits.
89. **TIA Guidelines** are the rules and regulations for a traffic impact analysis promulgated pursuant to League City Code of Ordinances, and contained in this manual.
90. **Traffic** means pedestrians, ridden or herded animals, vehicles, and other conveyances, either singly or together, while using any street or highway for purposes of travel.
91. **Traffic Impact Analysis (TIA)** is a study that analyzes the traffic impact of a development and determines measures necessary to mitigate any identified potential adverse traffic impacts with aim to maintain satisfactory/quality area street system traffic operations based on the qualitative measure Level of Service.
92. **Transportation Facility** is any facility which is intended for the movement of goods or persons and includes, but is not limited to, roadways, pedestrian walkways, bicycle lanes, and area transit.
93. **Trip Assignment** is the application of distribution factors to the estimated number of trips generated by the proposed development and other nearby approved projects and assigned to the existing traffic on the street network within the analysis area.
94. **Trip Distribution** is the directional distribution of the generated trips entering and exiting the proposed development via all access points. These distributions must be justified by the relative locations of other traffic generators (e.g., employment centers, transportation terminals, etc.).
95. **Trip Generation** is the application of average trip generation rates or regression equations for the peak hour of the adjacent street obtained from the current edition of the Institute of Transportation Engineer's *Trip Generation Handbook* or other local data provided it was collected using recommended methodology and can be properly documented.
96. **Trip Generation Estimate** is an estimated number of new peak hour trips generated by a proposed development.
97. **Truck** is a design vehicle class that includes single-unit trucks, truck tractor-semitrailer combinations, and truck tractors with semitrailers in combination with full trailers.

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

Last Updated: March 4, 2021

Design Guidelines

98. **Unsignalized Intersection** is an intersection that is not signalized and meets the design requirements for public or private streets as specified in the City of League City Design Guidelines.

99. **Urban Area** is characterized by higher population density and vast human features in comparison to areas surrounding it.

100. **Variance** is a commission-approved deviation from the requirements of League City Design Standards.

ITEM 801 ACCESS MANAGEMENT STANDARDS

A. APPLICABILITY

2. The access management standards contained in this section are applicable to each development, all or a portion, which is located within the defined corporate city limits of the City of League City, Texas.
3. The requirements contained within this document are design standards and will serve as a reference for development plat approvals and building permits. These standards should be used in conjunction with the League City Code of Ordinances and other requirements set forth in this manual as currently amended.

B. GENERAL

1. Purpose and Intent of Access Management Standards

- a. The overall purpose of implementing the City of League City Access Management Standards is to enhance the value of City streets. This enhancement will be accomplished through preservation and improvement of operational efficiency and safety. Improving efficiency delays the need for more costly street improvements, while improving safety creates more favorable driving conditions which in turn promote economic activity involving adjoining properties. All access management standards and specific implementation measures have been identified and developed for supporting the goal of enhancing the value of City streets. This goal should be the purpose for all application and implementation of these standards and requirements. The intent of all criteria and requirements of the access management standards is to preserve and improve street efficiency, street safety, and opportunities for economic activity.
- b. Each specific application and implementation of these standards and requirements must be consistent with such intent. Furthermore, it is not the intent of the Access Management Standards to affect the diminution in value of private properties by either creating an unintended limitation on use of private property or by the complete prevention of
- c. reasonable access to the property (land locking). It is also not the intent of the Access Management Standards to revoke or unreasonably restrict access existing prior to the implementation date of the Standards where no intervening change in land use has occurred. Any application or implementation of the Standards, which would have the aforementioned impacts, must be carefully considered and altered to avoid or mitigate such adverse impacts to property values.
- d. The intent of the criteria and requirements of the Access Management Standards should not be construed to eliminate the need for specific engineering study and analysis for each instance where they are to be applied and implemented.

2. Document Limitations

- a. While this document contains standards applicable to site development within the City, the City does not intend this document to be a “catch all” device. This document does not adequately address location specific characteristics that vary from normal traffic operations including areas with relatively high pedestrian and bicyclist volumes.

C. BACKGROUND

1. Before detailing the specific technical aspects of access management, it is important to gain a clear understanding of what are access management standards, how they are implemented, and how implementing standards may affect potential stakeholders.
2. What are Access Management Standards?
 - a. "Access management is the systematic control of the location, spacing, design, and operation of driveways, medians, auxiliary lanes, and intersections in order to improve the balance between access and mobility while preserving street efficiency and safety. Access management can have significant positive impacts on the community by improving street safety and operation, potentially delaying costly street improvements by efficiently removing slower, turning vehicles from the street. In addition, access management can have a positive impact on local businesses by creating more favorable driving conditions through increased capacity and circulation, thus exposing more motorists to those businesses."
 - b. Access management standards will control the location, spacing, design, and operation of access. Application of Access Management Standards should be consistent and firm, but with enough flexibility to consider limitations under special circumstances.
3. Implementing Access Management Standards
 - a. Traditionally, agencies exercise access management techniques using a street classification system. This classification system defines streets by level of mobility, and with access characteristics. For example, the Texas Department of Transportation (TxDOT) defines four functional classifications in their Access Management Manual; freeways, arterials, collectors, and local streets. The City of League City Master Mobility Plan designates four functional street classifications; major arterial, minor arterial, collector, and local. One can see in **Figure 801.01** an inverse relationship between mobility and access as well as an orderly relationship between mobility, access, and functional class.

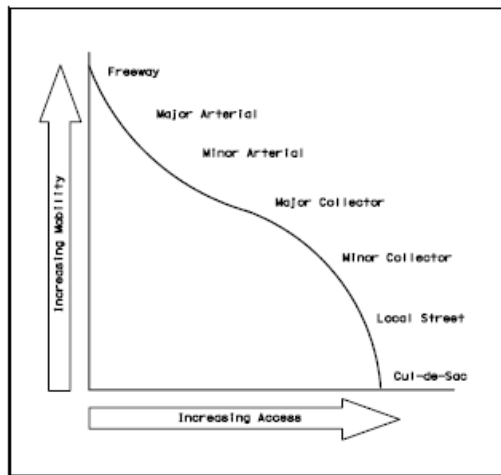


Figure 801.01 Mobility, Access, and Functional Class Relationships (TxDOT)¹

- b. For the purposes of this manual the City of League City Master Mobility Plan functional classifications and Average Annual Daily Traffic (AADT) should be utilized.
4. Benefits of Access Management

- a. Available research suggests that the implementation of access management techniques will improve safety, travel speed, and street capacity without negatively influencing local businesses. Implementing access management techniques, in many cases, has improved business, and motorist/customer opinion of driving conditions within studied corridors.

D. APPLICATION OF ACCESS MANAGEMENT CRITERIA

1. The access management standards in the following sections are intended for application to city streets (within the corporate city limits) where the city has permitting authority (see **Figure 801.02**). Access management standards contained within this document have been assembled utilizing local, state, and national guidance.

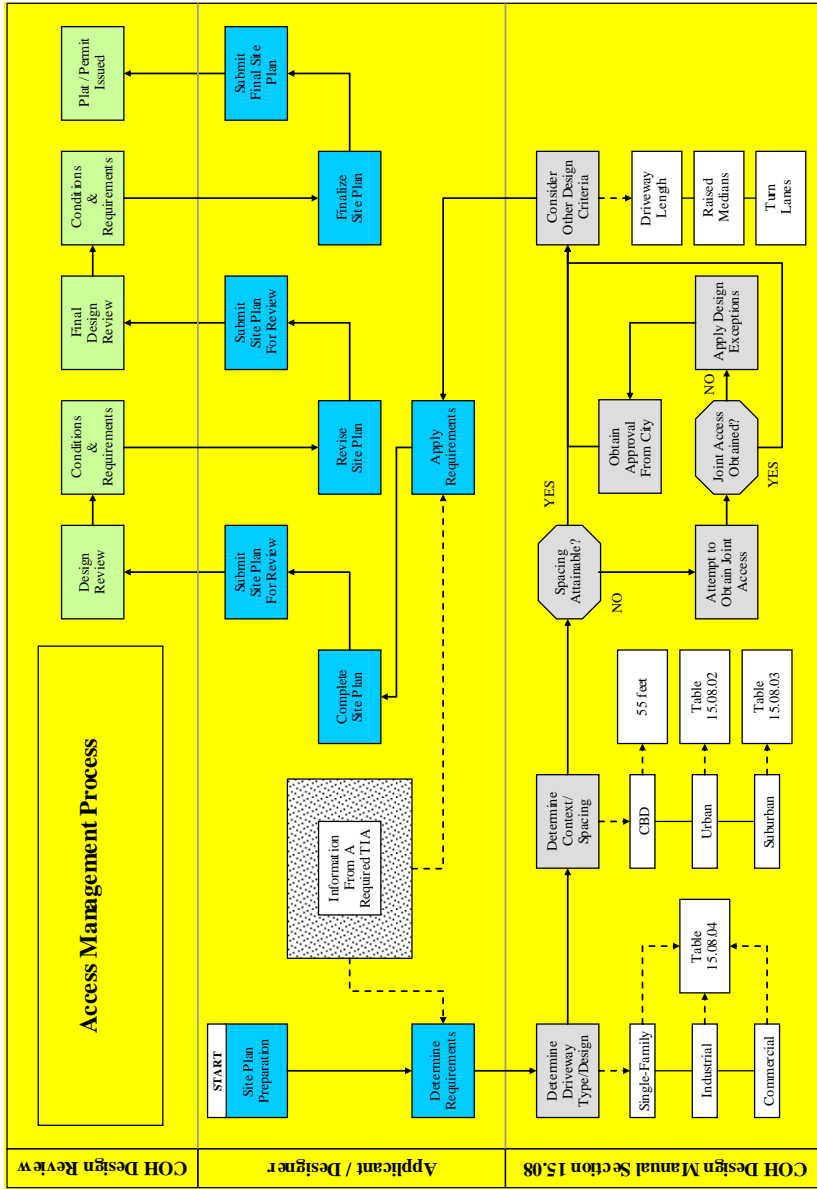


Figure 801.02 Access Management Overview

2. Access Management Connection Spacing

- a. The section titled Access Management Connection Spacing is intended for passenger cars on level grade. These distances may be increased for downgrades, truck traffic, or where otherwise indicated for the specific circumstances of the site and roadway. Design exceptions (shorter distances) may be appropriate to provide reasonable access, and such decisions should be based on safety and operational factors supported by engineering study.
- b. Design exceptions may also be appropriate where topography or other existing conditions make it inappropriate or not feasible to conform to the connection spacing intervals. The location of reasonable access will be determined with consideration given to the topography, established property ownerships, unique physical limitations, and/or physical design constraints. The selected location should serve as many properties and interests as possible to reduce the need for additional direct access to City streets. In selecting locations for full movement intersections, preference will be given to public roadways that are in the City's Master Mobility Plan.

3. Access Management Design

- a. The section titled Access Management Design is intended to provide standards that allow for the quick and efficient movement of vehicles from the City street system. Design exceptions may be appropriate to accommodate all system users, and such decisions should be based on safety and operational factors supported by engineering study.
- b. Design exceptions may also be appropriate where existing conditions make it inappropriate or not feasible to conform to the design standards. Acceptable design element exceptions will be determined with consideration given to unique physical limitations, physical design constraints, system user characteristics, safety, and operations.

4. Reserved Future Programs

- a. Access management techniques may be tailored to particular future planning concepts. Decision to vary from these standards should be based on safety and operational factors supported by engineering study
 - Urban Corridor Planning
 - Pedestrian Oriented Development Districts

5. Existing Access and Exemptions

- a. Existing access shall be maintained unless the existing land use is being changed. Any site modifications that drastically change building orientation and/or location will trigger an evaluation of existing access. An increase in trips that is greater than 100 trips per hour will also trigger an evaluation of existing access. See Item 802 for TIA details and requirements.
- b. As of the effective date of this section all previously permitted access will be considered acceptable to the City of League City based on the above amendment. However, property owners must coordinate with the City prior to making any property modifications that will result in changes to the traffic patterns associated with the access. This paragraph will not operate to convey property rights or eliminate the need to purchase access in location where the City controls the access.

E. DESIGN EXCEPTION PROCESS (The City of League City as Permitting Authority)³

1. Access Management Connection Spacing

- a. An approved spacing that is shorter than the minimum allowable, as set forth in this document, is considered a design exception from the standards, and requires a design exception request.

- b. Design exception requests shall be submitted to the Traffic and Transportation Department and must be approved by the City Traffic Engineer.
- c. It should be noted that a design exception (smaller connection spacing than set forth in this document) must be allowed in the following situations:
 - To prevent land-locking a property where such land-locking is solely the result of action by the City (for example, design and construction modifications which physically prevent a driveway installation due to grade changes, retaining walls, or barrier installations) where the City does not control the access; or
 - Replacement or re-establishment of reasonable access to the City street system under street reconstruction/rehabilitation projects.
- d. The above references to land-locking do not apply to circumstances where an existing larger tract of land is subsequently (after the effective date of this section) further subdivided (and the subdivided lots sold to separate owners) and the original tract of land either already has an existing permitted access connection point, or would qualify for such an access connection point based upon the spacing requirements of this section. Potential land-locking caused by subdivision and resale is the result of such subdivision process and will not alone justify design exceptions in the spacing requirements contained in this section (801). Therefore, as part of the subdividing process, the party proposing the subdivision should provide some type of internal access easements to the existing access connection points (or to such access connection point locations that qualify for the future permits based on the section's spacing requirements).
- e. When a design exception request is approved for an access connection spacing that is less than the given connection spacing criteria, the permit may include conditions such as, driveway type (if applicable) or other conditions with respect to granting the exception. Violation of the conditions under which the exception was granted may require reevaluation of the access permit, particularly if safety or crash records indicate deteriorated traffic safety on the abutting City street.

2. Access Management Design

- a. City approved design criteria that does not adhere to the standards set forth in this section (801) is considered an exception from the standards and requires a design exception request. Design exception requests shall be submitted to the Traffic and Transportation Department and must be approved by the City Traffic Engineer.
- b. It should be noted that variance from design criteria set forth in this document may be allowed without a design exception in the following future planning concepts:
 - Urban Corridors as determined by City Planner
 - Pedestrian Oriented Development Districts as determined by the City
- c. When a design exception is approved, the approval may include conditions such as driveway type and design vehicle, or other conditions with respect to granting the exception. Violation of the conditions under which the exception was granted may require reevaluation of access design, particularly if safety or crash records indicate deteriorated traffic safety on the abutting City street.

F. ACCESS MANAGEMENT CONNECTION SPACING

- 1. Connection spacing requirements are broken into five categories; signalized intersection, unsignalized intersection, frontage roads, driveway spacing and corner clearance, and median opening spacing.
- 2. Signalized Street Spacing
 - a. Signalized intersection spacing is a minimum of 1,320 feet.

- 3. Unsignalized Street Spacing
 - a. Unsignalized intersection spacing criteria can be found in ITEM 602 – Section 602.1.7 – Intersection Design.
- 4. Frontage Roads
 - a. **Table 801.01** provides the minimum intersection and driveway spacing criteria for frontage roads. Additionally, for areas with conventional diamond ramp patterns the most critical areas for operations are between the exit ramp and the arterial street and between the arterial street and the entrance ramp. In X-ramp configurations, the most critical areas are between the exit ramp and the subsequent entrance ramp. Although **Table 801.01** gives minimum spacing criteria, these aforementioned critical areas may need greater spacing requirements for operational, safety, and weaving efficiencies.
 - b. The distance between access connections shall be measured along the edge of traveled way from the closest edge of pavement of the first access connection to the closest edge of pavement of the second access connection. Additionally, the access connection spacing in the proximity of frontage road U-turn lanes will be measured from the inside edge of the U-turn lane to the closest edge of the first access connection (see **Figure 801.03**).

Table 801.01 Frontage Road Connection Spacing Criteria

Posted Speed (mph)	Minimum Spacing (ft)	
	Suburban	Urban
30	175	150
35	225	200
40	305	250
45	360	360
>50	425	425

- Other notes regarding frontage road spacing requirements:
- (1) Distances are for passenger cars on level grade.
 - (2) Distances are for both one-way and two-way frontage roads
 - (3) These distances may be adjusted for downgrades and locations with heavy truck traffic.
 - (4) Where present or projected traffic operations indicate specific needs, consideration may be given to intersection sight distance and operational gap acceptance measurement adjustments.

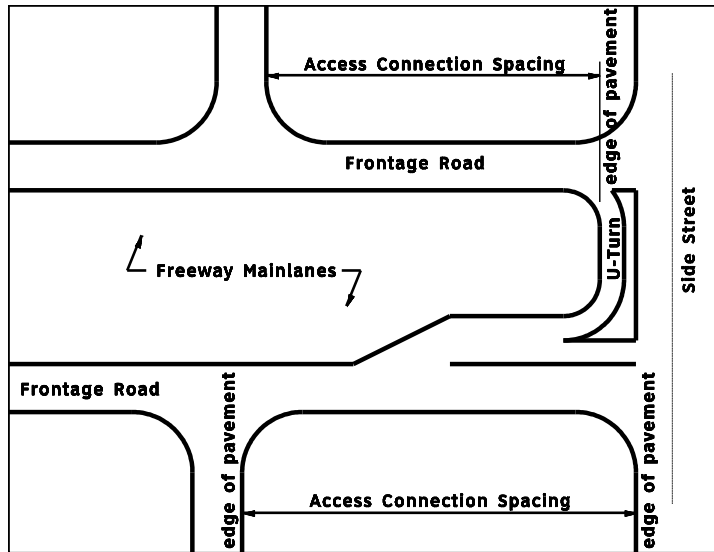


Figure 801.03 Frontage Road Spacing

5. Driveway and Corner Clearance Spacing (City and State Facilities)
 - a. The distance between connections (driveway-driveway and driveway-street) is measured along the edge of traveled way from the closest edge of pavement of the first connection to the closest edge of pavement of the second connection (see Figure 801.04). Access connection spacing for Urban and Suburban Areas can be found in Tables 801.02 to 801.03.

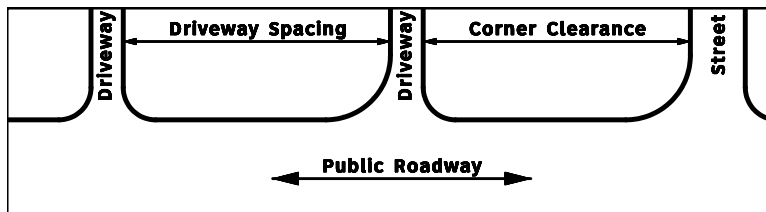


Figure 801.04 Driveway Spacing

Table 801.02 Urban Access Spacing Criteria

Functional Classification				
	Major Arterial	Minor Arterial	Collector	Local**
Speed* (mph)	Access Spacing (ft)			
30 or Less	150	125	100	50
35	200	175	150	50
40	250	225	200	50
45	350	325	300	50

*Greater of design speed, posted speed, or operating speed.

**Existing Standard

Table 801.03 Suburban Access Spacing Criteria

Functional Classification				
	Major Arterial	Minor Arterial	Collector	Local**
Speed* (mph)	Access Spacing (ft)			
30 or Less	200	175	150	50
35	250	225	200	50
40	305	305	250	50
45	360	360	360	50
50 or Greater	425	425	425	50

*Greater of design speed, posted speed, or operating speed.

**Existing Standard

b. Notes regarding connection spacing:

- Spacing criteria is for passenger cars on level grades. Distances may need to be increased for driveways carrying a high volume of heavy vehicle traffic.
- Spacing criteria is applicable only for multi-family residential, commercial, and industrial driveways.
- Properties may have multiple frontages and criteria should be applied to each frontage individually.
- Where present or projected traffic operations indicate specific needs, consideration may be given to sight distance and operational gap acceptance measurement adjustments.
- A pair of one-way driveways (entry and exit) should be considered as a two-way driveway for spacing purposes.
- Spacing between one-way driveways may be at any distance so long as the entry precedes the exit in the direction off the adjacent travel lane and the one-way pair meets spacing requirements from adjacent driveways or streets.

- For the special situation of multiple entry driveways placed on one street and exit driveways placed on a different street, two same street driveways should be considered as a one-way pair.
- Driveways on a street without a median should align with driveways on the opposite side of the street.
- Non-residential developments are allowed multiple driveways, as long as, spacing requirements are met.
- Driveways shall not be placed in the functional area of any intersection of streets.
- Special consideration shall be given to loading docks and service driveways for an optimum balance between traffic operation and specific needs of the development.

c. Design Exception Guidance

- The spacing of access should be managed in a way that would still provide right of entry to the property, in the manner that is the least detrimental to the integrity of traffic operations and cost-efficient design. If the above spacing criteria cannot be met for the placement of a single driveway on a single frontage the following should be used to support a request for a design exception to be approved by the City Traffic Engineer.
 - ⇒ Provide evidence of an attempt to meet spacing criteria in the above tables.
 - ⇒ The City recommends that joint access be obtained if possible. It is recommended that if joint access is not possible, a letter of non-agreement or supporting documentation be provided to the City.
 - ⇒ Suggested minimum spacing if property is not on the corner of intersecting streets; place driveway equal distance from adjacent driveways no less than 55 feet apart.
 - ⇒ Suggested minimum spacing if property is on the corner of two intersecting streets; place driveway a distance no closer than the driveway radius from the property line farthest from the intersection of streets.

6. Median Opening Spacing

- a. Guidance for Median Opening Spacing also known as Minimum Median Lengths can be found in **Section 807** of this manual.

G. ACCESS MANAGEMENT – DESIGN

1. An important underlying aspect of managing access is managing the design of access related treatments such as driveways, medians, auxiliary lanes, and intersections. This process not only includes the actual design of a treatment, but in some cases when and where public agencies should implement a treatment.
2. Driveways
 - a. Driveways should be located and designed to minimize impacts on traffic while providing safe access to a development. The proper location and design of a driveway must take into account characteristics of the street, the development, and potential users. Therefore, driveway design is based on three different classifications; residential, multi-family/commercial and industrial. One-way driveways must intersect city streets between 45 and 90 degrees. Two-way driveways must intersect city streets at approximately 90 degrees. Driveway Width is measured at the beginning

of the driveway radii tangents within the driveway (see **Figure 801.05**). Driveway Radius is the rounded edge of a driveway that permits easier entry and exit by turning vehicles. Design standards for minimum driveway width and radius can be found in **Table 801.04**.

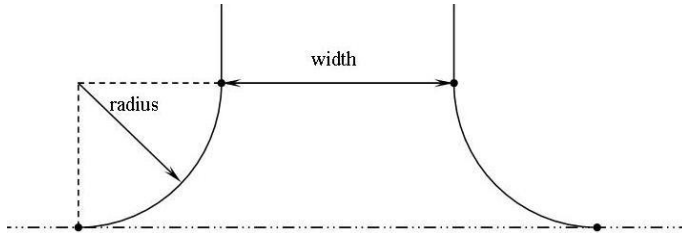


Figure 801.05 Driveway Radius and Width

Table 801.04 Driveway Design Criteria

	Single Family Residential				Multi-Family and Commercial				Industrial			
	Radius (ft)		Width (ft)		Radius (ft)		Width (ft)		Radius (ft)		Width (ft)	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
Two-Way	10	4	24	12	30	15	35	24	35	25	CBC*	
Joint-Access	10	4	24	12	30	15	35	24	35	25	CBC*	
One-Way	Entry	Exit	Max	Min	Entry	Exit	Max	Min	Entry	Exit	Max	Min
	10	4	20	12	25	15	20	15	35	20	20	15

*CBC – Case-by-Case

b. Notes on Driveway Design Criteria

- Where situations permit AASHTO Green Book Design Vehicles may be used to justify driveway radii (see **Table 801.05**).

Table 801.05 AASHTO Design Vehicle Radius Needs

Design Vehicle	Code	Minimum Design Turning Radius (ft)
Passenger Car	P	24.0
Single Unit Truck	SU	42.0
Intercity Bus	BUS-40	45.0
Intercity Bus	BUS-45	45.0
City Transit Bus	CITY BUS	42.0
Conventional School Bus	S-BUS36	38.9
Large School Bus	S-BUS40	39.4
Articulated Bus	A-BUS	39.8
Intermediate Semi-Trailer	WB-40	40.0
Intermediate Semi-Trailer	WB-50	45.0
Interstate Semi-Trailer	WB-62	45.0
Interstate Semi-Trailer	WB-65 OR WB-67	45.0
Double Bottom Comb	WB-67D	45.0
Triple Semi-Trailer	WB-100T	45.0
Turnpike Double	WB-109D	60.0
Motor Home	MH	40.0
Car and Camper Trailer	P/T	33.0
Car and Boat Trailer	P/B	24.0
Motor Home and Boat	MH/B	50.0
Farm Tractor with 1 Wagon	TR/W	18.0

- A driveway at a signalized intersection must match the width and geometrics of the terminating street it is in alignment with.
- Where present or projected traffic operations indicate specific needs, consideration may be given to pedestrians, heavy vehicles, and development characteristics; or as approved by the City.
- For one-way driveways, the entry driveway shall precede exit driveways (in direction of adjacent travel lane).
- Where off-street "back-in" type truck loading docks/wells are constructed on local streets, the width of the driveway opening may be increased to a maximum of 50 ft.

- Entry and exit criteria refer to the entry and exit radii. Opposite radii on one-way driveways must be a minimum of 4 feet.
 - In no case shall the driveway radius encroach on abutting property or street corner radius.
 - Driveway must remain tangential for a minimum of 20 feet past the property line.
- c. Driveway Length helps guide entering vehicles without disturbing traffic within the development or on the abutting street. A minimum of 20 feet must be provided between the property line and the first parking stall.
- d. Driveway Grade is the slope a vehicle must traverse to enter a driveway. City design standards provides guidance on driveway grade.
3. Medians
- a. Median design involves mainly median type, opening, and length. Installing medians provide the potential for safer street operation, increased capacity, and improved aesthetics. Medians come in all shapes and sizes but in general there are two categories that can describe most medians; non-traversable and traversable. Both median types are highly successful in improving safety and reducing congestion if implemented under proper conditions. However, with the aim of this document to improve mobility and safety through the use of access management techniques the city recommends that raised medians be implemented when feasible. Literature suggests that non-traversable medians be implemented when traffic volumes are anticipated to reach 20,000 vehicles per day and/or when the demand for mid-block left turns is high.
4. Median Openings
- a. Median openings allow vehicles to cross opposing traffic lanes at designated locations. In general, median openings should be considered at all access points to accommodate all turning paths. In addition, median openings may be provided between intersections at mid-block locations. Requirements for median openings can be found in **Section 807** of this manual.
5. Treatments for Turning Movements
- a. Turn lanes provide a refuge area for left and right turning vehicles. Turn lanes may be placed at intersection approaches, driveway approaches, and median openings to remove turning vehicles from the through lanes, thus reducing congestion and improving traffic operations, capacity, and safety.
- b. Dedicated Left-Turn Lanes
- Left-turn lanes shall be considered in the following situations:
 - ⇒ All signalized intersection approaches along planned or existing roadways having a classification of collector or higher;
 - ⇒ All unsignalized intersections and driveways along divided roadways having a classification of collector or higher;
 - ⇒ All unsignalized intersections and driveways along undivided roadways having a classification of thoroughfare or higher;
 - ⇒ All development with an overall footprint in excess of five acres located within 500 feet of the intersection of two or more thoroughfare facilities;
 - ⇒ New public or private school construction;
 - ⇒ Shopping centers and other traffic generators with a lease space in excess of one hundred thousand square feet;

⇒ Places of worship.

- Dual left-turns at signalized intersection should be considered when turning volume exceeds 300 veh/hr.
- The use of dedicated left-turn lanes should also always be guided by a traffic study. When considering the above situations left-turn lanes shall be considered required until proven unnecessary by using the following warranting criteria shown in the **Figures 801.06 to 801.09**. **Table 801.06** may also be used if appropriate. As it is the responsibility of the City to implement transportation infrastructure that is within the best interest of the motoring public, the decision to implement a left-turn lane, ultimately, remains with the City of League City.
- For streets with non-traversable medians, median openings should conform to design criteria found in **Section 807** of this manual.
- To use these figures, peak hour traffic volumes, including directional splits, will be required. In addition, the ITE Trip Generation Handbook may be used as a source to estimate peak hour traffic volumes. For design year analyses, appropriate growth rates are required.
- Traffic Volumes - Two-Lane Streets⁴

⇒ The following data are required:

1. Opposing Volume (veh/h), V_O - The opposing volume should include only the right-turn and through movements in the opposite direction of the left turning vehicle.
2. Advancing Volume (veh/h), V_A - The advancing volume should include the right-turn, left-turn and through movements in the same direction as the left turning vehicle.
3. Left-Turn Volume (veh/h), V_L - The number of left-turns captured in V_A .
4. Speed (mph), S - The greater of design or posted speed.

⇒ AASHTO guidance (**Table 801.06**); or

⇒ **Figures 801.05 through 801.08** and speed, the appropriate trend line can be identified by the percentage of left-turns in the advancing volume (rounded up to the nearest percentage trend line). If the coordinate of the advancing (x-axis) and opposing volume (y-axis) lies to the right of this trend line, a left-turn lane is warranted. Left-turn lanes are not warranted for left-turn volumes less than 10 veh/h.

Table 801.06 AASHTO Guide for Left-Turn Lanes on Two-Lane Highways

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40 mph Operating Speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
50 mph Operating Speed				
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
60 mph Operating Speed				
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

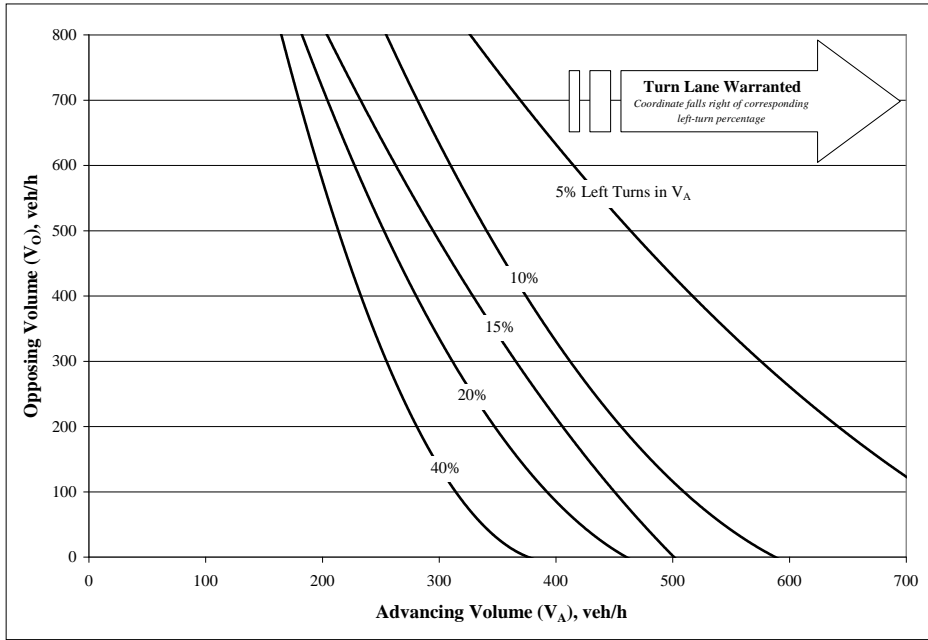


Figure 801.06 Left-Turn Lane Warrant for Two-Lane Street 40 mph

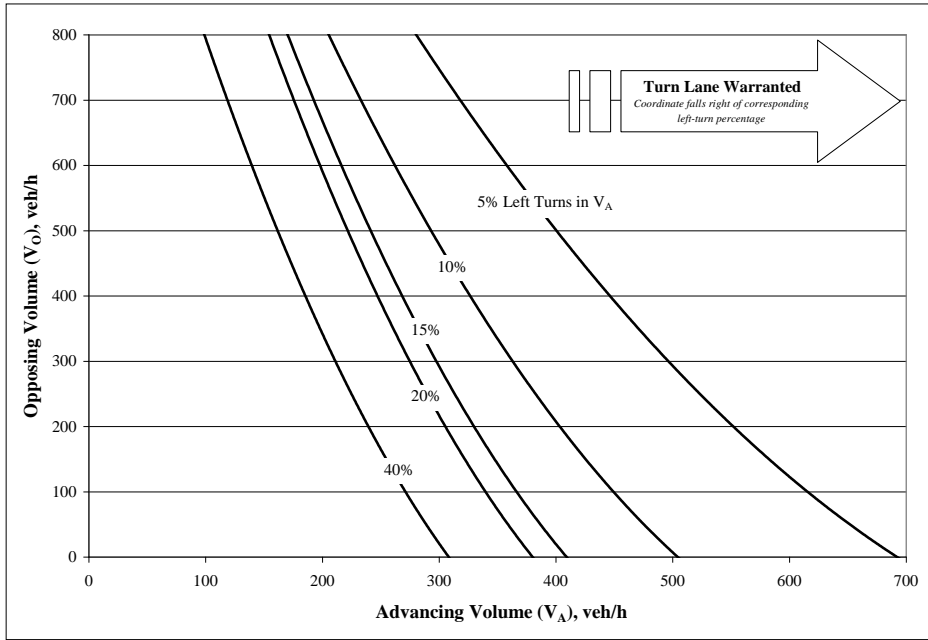


Figure 801.07 Left-Turn Lane Warrant for Two-Lane Street 50 mph

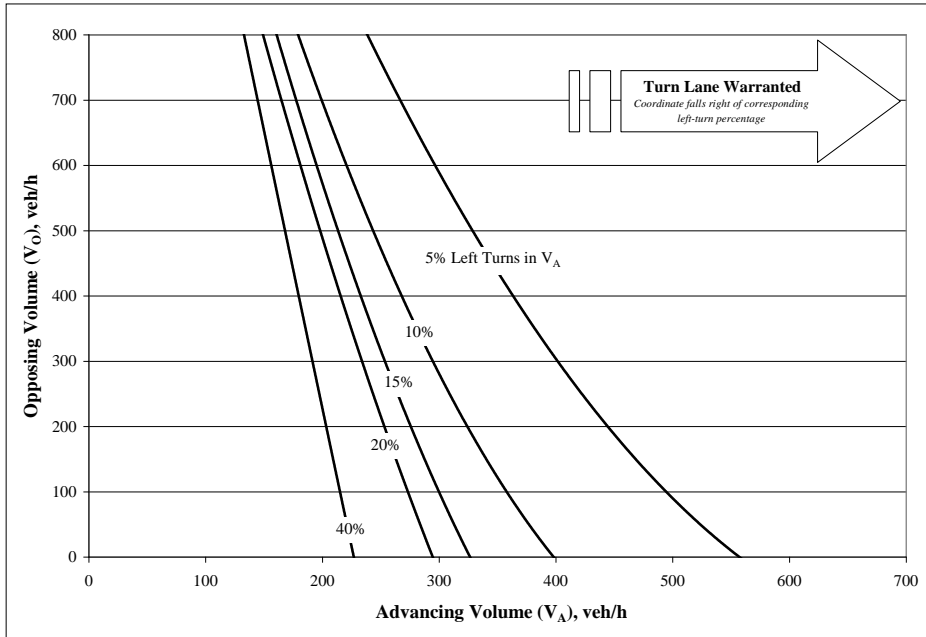


Figure 801.08 Left-Turn Lane Warrant for Two-Lane Street \geq 60 mph

- Traffic Volume - Four-Lane Undivided Streets⁴

⇒ The following data are required:

1. Opposing Volume (veh/h), V_O - The opposing volume should include only the right-turn and through movements in the opposite direction of the left turning vehicle.
2. Left-Turn Volume (veh/h), V_L - The number of left-turns.

⇒ If the coordinate of left-turn volume (x-axis) and opposing volumes (y-axis) lies to the right of the trend line, a left-turn lane is warranted.

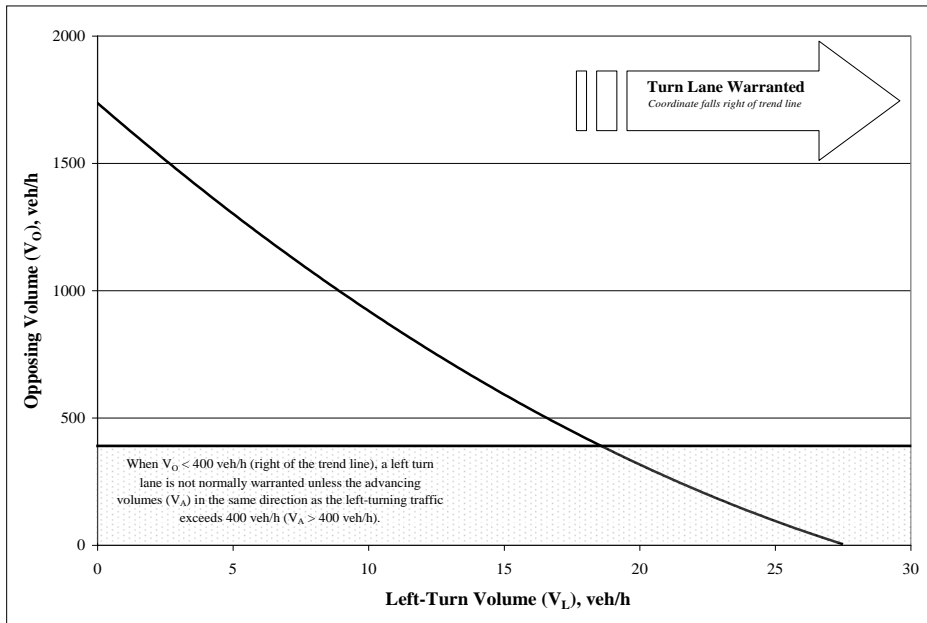


Figure 801.09 Left-Turn Lane Warrant for Four-Lane Undivided Street

6. Dedicated Right-Turn Lanes

a. Suburban Area

- Right-Turn Lanes are required if they meet the following conditions:

⇒ The use of dedicated right-turn lanes should always be guided by a traffic study. In general, dedicated right-turn lanes should be provided in both rural and urban areas on two lane routes as shown in the figures below. Right-turn lane warrants are shown in the **Figures 801.10 and 801.11**. To use these figures, peak hour traffic counts, including directional splits, will be required. In addition, the ITE Trip Generation Manual may be used as an estimate for peak hour traffic counts. For design year analyses, appropriate growth rates will be required.

⇒ Two-Lane Roadways⁴

The following data are required

1. Major Street Volume (veh/hr) - The major street volume should include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.
2. Right Turning Volume (veh/hr) - The right turning volume is the number of advancing vehicles turning right.
3. Speed (mph) - The greater of design or posted speed.
4. If the combination of major-road approach volume and right-turn volume intersects above or to the right of the speed trend line corresponding the major road operating speed, then a right-turn lane is warranted. Right turn lanes are not warranted for right turn volume less than 10 veh/hr.

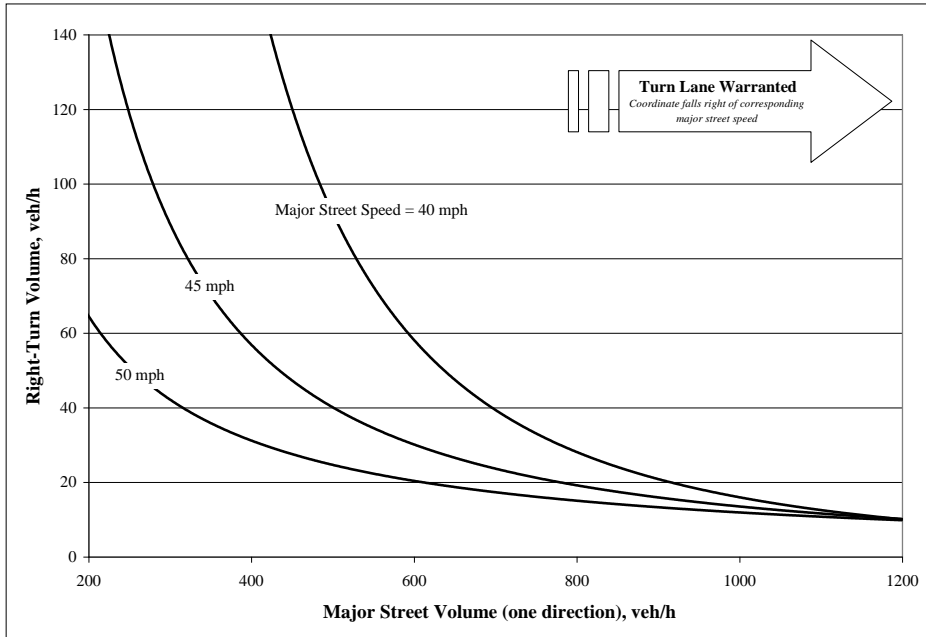


Figure 801.10 Right-Turn Lane Warrant for Two-Lane Roadways

⇒ Four-Lane Roadways⁹

The following data are required

1. Major Street Volume (veh/hr) - The major street volume should include the right-turn, left-turn and through movements in the same direction as the right turning vehicle.
2. Right Turning Volume (veh/hr) - The right turning volume is the number of advancing vehicles turning right.
3. Speed (mph) - The greater of design or posted speed.
4. If the combination of major-road approach volume and right-turn volume intersects above or to the right of the speed trend line corresponding the speed of the major roadway, then a right-turn lane is warranted. Right turn lane not warranted for right turn volume less than 10 veh/hr.

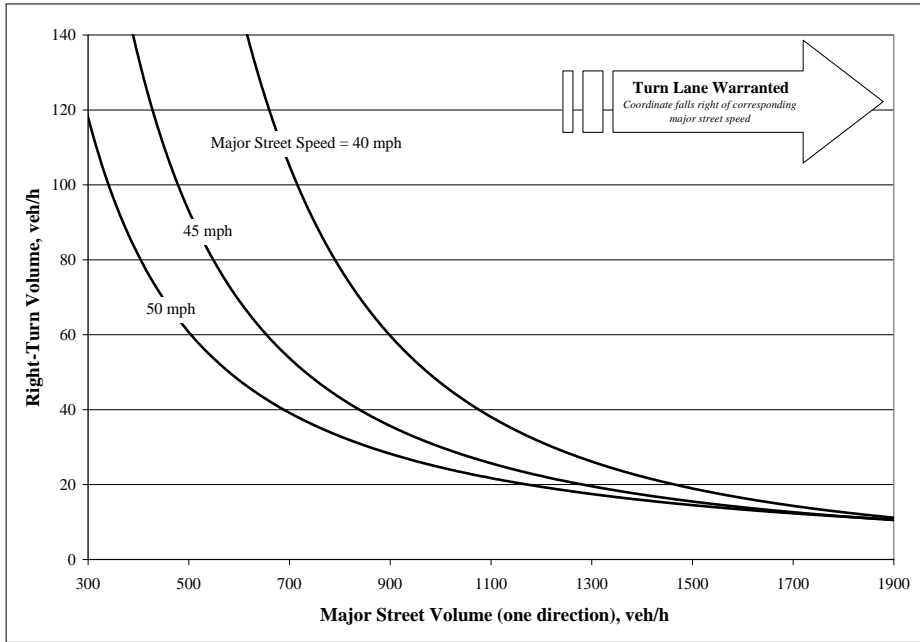


Figure 801.11 Right-Turn Lane Warrant for Four-Lane Roadways

- b. For Urban areas right-turn lane installation is recommended based on the above criteria (Figures 801.10 – 801.11)
- 7. Minimum Turning Treatment Storage Length
 - a. Storage length, as shown in Figure 801.12, is an important design element that ensures the provision of sufficient turn lane storage capacity to reduce instances of spillback. Left- and right-turn lane storage lengths must not be less than the minimum requirements outlined in Section 1.07 of this manual.

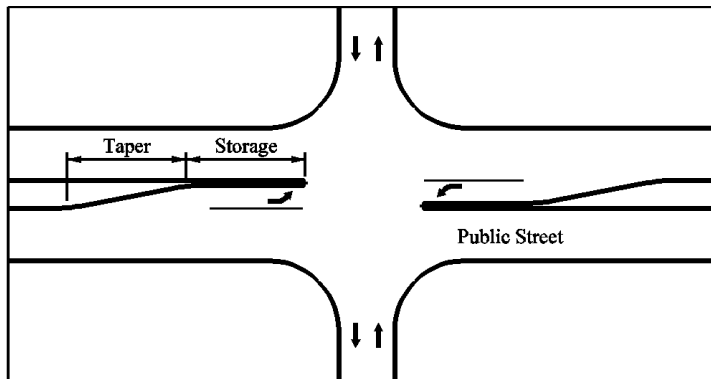


Figure 801.12 Turn Lane Details

b. Calculating Required Storage Length (Single Lane)

- The required storage length for both left- and right-turn lanes can be obtained using traffic modeling software such as the latest version of the HCM Software (HCS), Synchro/SimTraffic, or VISSIM. The 95th percentile queue length is a widely accepted value for storage length. If a model is not utilized the following equations may be used.

Signalized Storage Length

$$L = \left(\frac{V}{N}\right)(2)(S) \tag{Equation 1}$$

Where:

- L = storage length in feet
- V = turning volume per hour
- N = number of cycles
- 2 = a factor that provides for storage of all left-turning vehicles on most cycles
- S = queue storage length, in feet per vehicle

Unsignalized Storage Length

$$L = \left(\frac{V}{30}\right)(2)(S) \tag{Equation 2}$$

Where:

- L = storage length in feet
- $V/30$ = turning volume in a two-minute interval
- 2 = a factor that provides for storage of all left-turning vehicles on most cycles
- S = queue storage length, in feet per vehicle

**ITEM 802
TRAFFIC IMPACT ANALYSIS GUIDELINES (TIA)**

A. APPLICABILITY

Prior to each occurrence of the submission of a development , development plat application or building permit application (see **Figure 802.01**) for new development or redevelopment within the defined corporate city limits of League City, Texas, the applicant is required to submit pertinent project information from the city’s traffic impact determination website (<http://www.leaguecity.com/index.aspx?nid=1685>) and submit to DRC. It is the intention of the traffic impact determination web application to provide feedback regarding traffic impact category and whether or not a TIA is required.

- All potential development/redevelopment prior to the time of application for reserve subdivision platting or development permitting, expected to generate one-hundred or more new peak hour trips (traffic impact Categories II, III, and IV) is required to complete and submit a TIA according to the guidelines found in the remainder of this section (802).
- All proposed development or redevelopment platted as an unrestricted reserve is exempt from the submission of a TIA as the ability to predict the expected number of new trips intermittently places this development into traffic impact Category I. However, applicants should understand that prior to the time of development platting or application for building permit (for all or part of an unrestricted reserve property) a TIA may be required if the proposed development is expected to generate one-hundred or more new peak hour trips (traffic impact Categories II, III, and IV).

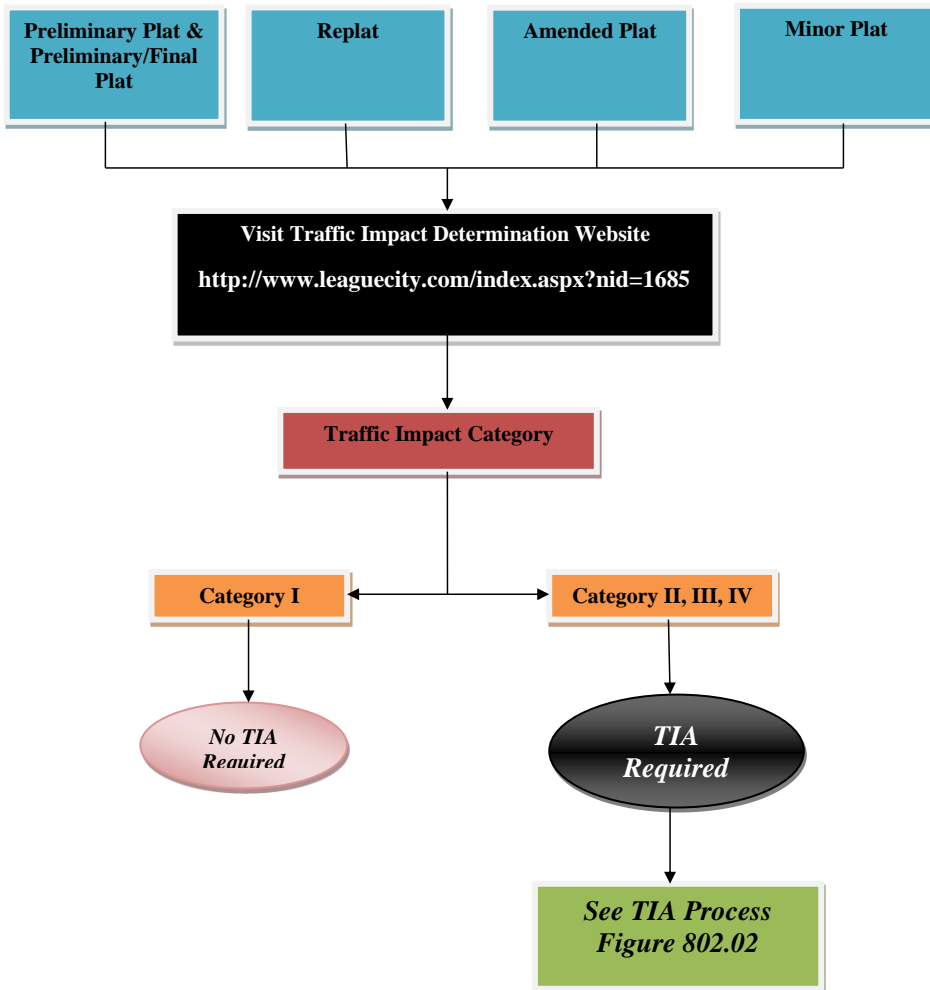


Figure 802.01 Traffic Impact Analysis Triggering Requirements

2. The remainder of this section (802) contains guidelines and requirements for conducting a required TIA for new development or redevelopment within the defined corporate city limits of League City, Texas. The City of League City intends for the user to follow these guidelines in conjunction with this manual and the League City Code. If the City's traffic impact determination website has found the development impact to be within the trip generation criteria of Category I, no further traffic study is required.

B. GENERAL

1. Who Should Perform a Traffic Impact Analysis?
 - a. Traffic Impact Analyses shall be prepared by an individual, group, firm, or corporation having demonstrated professional emphasis and experience in traffic engineering, and the preparation of similar analysis, hereinafter referred to as the "Analysis Engineer". The TIA document shall bear the seal and signature of a Texas Licensed Professional Engineer specializing in the branch of civil engineering. The individual, group, firm, or corporation seeking approval of a proposed development/redevelopment, hereinafter known as the "Applicant," is required to submit a completed TIA to the City of League City Traffic and Transportation Department, hereinafter referred to as the "City." The responsibility for assessing the traffic impacts associated with a proposed development/redevelopment, hereinafter referred to as the "Development," rests with the Applicant and the Analysis Engineer, while the City shall serve in a review/approval capacity.
2. Purpose and Intent of Traffic Impact Analysis Guidelines
 - a. The overall purpose of requiring the submission of a traffic impact analysis is to establish a public/private partnership to coordinate land use and mitigate adverse impact by implementing transportation improvements. Both the City and Applicant share in the responsibility to consider all solutions to identify current and future transportation problems. Implementing the TIA guidelines found in this section (802) aim to assure that an Analysis Engineer will apply consistent and proper traffic planning and engineering practices when an Applicant considers land use actions.
 - b. Goals of a TIA Completed within the City of League City
 - To identify any and all potential adverse traffic impacts to the existing area street system, the surrounding community and to additional proposed developments.
 - To identify transportation improvements with an aim to mitigate identified adverse traffic impacts and, when appropriate and reasonable, meet public concerns through the use of context sensitive solutions.
 - To assist public and private sector entities in identifying and resolving issues related to the location of driveways, median openings, turn lanes, traffic signals, and other transportation facilities.
 - c. To identify any and all potential adverse traffic impacts to the existing area The intention of TIA guidelines is to provide information necessary for an understanding of the development process, technical expectations, and required deliverables of a TIA submitted to the City.
3. Document Limitations
 - a. While this section (802) contains guidelines and requirements necessary to complete a TIA for the City, the City does not intend this section (802) to be a sole reference

for the preparation of a TIA. For more specific information regarding the various aspects of TIA preparation, the City suggests that the reader obtain and refer to the Institute of Transportation Engineer's (ITE) current edition of *Transportation Impact Analyses for Site Development*.

C. THE TRAFFIC IMPACT ANALYSIS PROCESS

1. Public agencies, and the City, have historically utilized a TIA as a tool to evaluate future interactions between existing transportation infrastructure and proposed land development/redevelopment projects. In general, a TIA determines traffic impacts of a development/redevelopment on the surrounding street system. The City will use this information to assist in establishing immediate transportation infrastructure needs and potential transportation improvements.
 - a. It is a goal of the City that these guidelines will allow for the maximization of efficiency and safety associated with area development/redevelopment. The City emphasizes that the TIA process should begin when the Applicant initiates development planning (i.e. prior to plat preparation).
 - b. The Applicant shall submit a completed TIA prior to or in conjunction with the preliminary reserve subdivision plat application and must obtain a Certificate of Approval from the City Traffic Engineer prior to submitting the final plat for approval (see **Figure 802.02**).
 - Prior to submitting an application for development platting or a building permit the Applicant may be required to submit a revised TIA and obtain approval by the City (see **Figure 802.02**) if any changes have been made to the development (site plan) or original TIA assumptions related to:
 - Land-use (revisions required only for an increase in trips),
 - Increase in the trip generation variable(s) (revisions required only for an increase in trips),
 - Intersection and roadway design, and
 - Access connections placement and design assumptions.
 - c. For properties platted as unrestricted reserve, the Applicant shall submit a completed TIA prior to or in conjunction with the application for development platting or a building permit if found to be within the trip generation criteria of traffic impact Categories II, III, and IV (to be determined by city's web application).

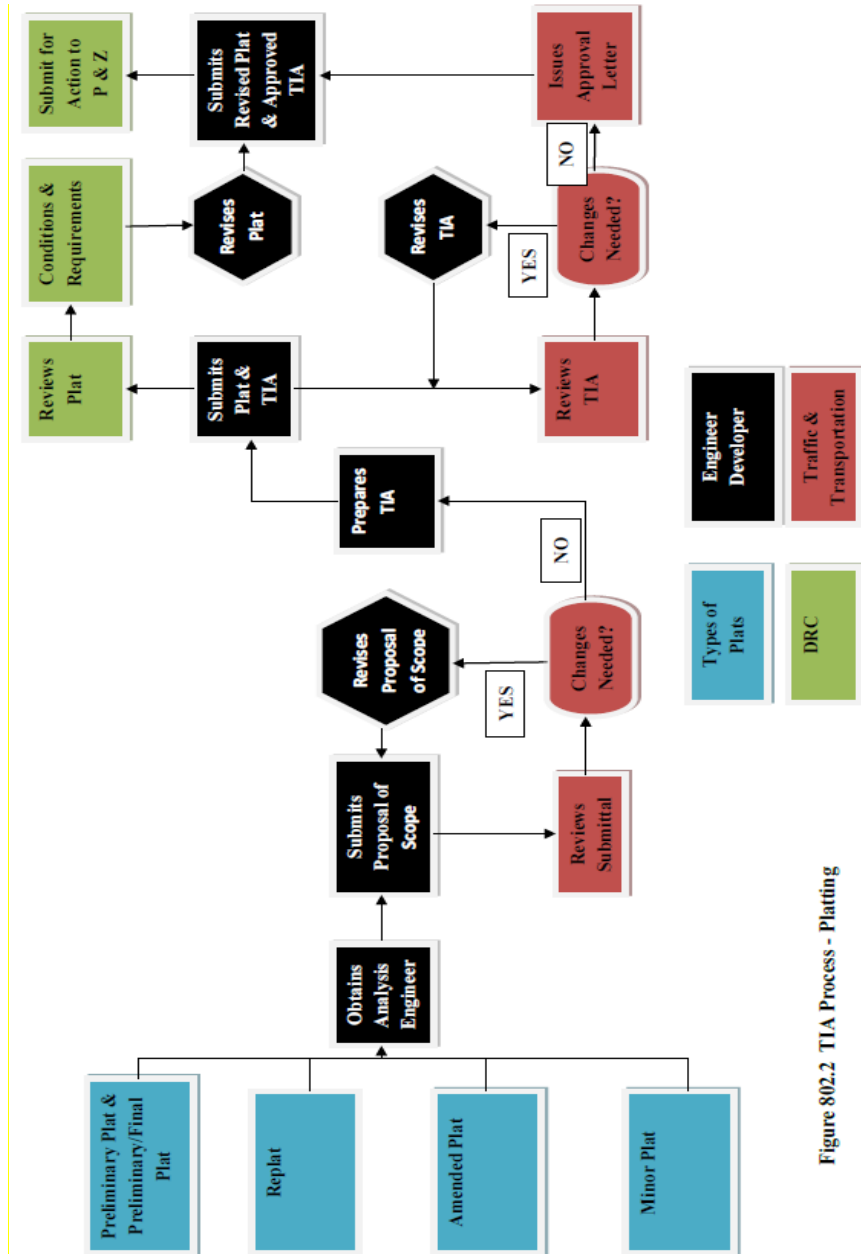


Figure 802.2 TIA Process - Platting


2. The Proposal of Scope and Initial Trip Generation Estimate

The city's web application (<http://www.leaguecity.com/index.aspx?nid=1685>), using proposed development attributes (type, size, etc.), determines a corresponding traffic impact category for the Development by calculating the highest number of estimated new peak hour trips generated for an adjacent street (See **Table 802.01**). Using the resulting traffic impact category and the Boundaries and Horizons Guidelines in **Table 802.02**, the Analysis Engineer shall prepare and submit to the Traffic and Transportation Department a proposal of scope for the TIA.

- a. It is also a goal of the proposal of scope to minimize deliverables. In situations where initial trip generation estimates place the development in traffic impact Category IV, the Analysis Engineer shall be required to schedule a preliminary scoping meeting with the City Traffic Engineer. The City also encourages that, regardless of traffic impact category, the Analysis Engineer seek a preliminary scoping meeting with the City Traffic Engineer.
- b. An approved proposal of scope ensures that the submittal of a TIA will allow the City to evaluate the overall impact of the development on area transportation infrastructure.

Table 802.01 Traffic Impact Categories

Traffic Impact Category	Site Traffic Thresholds New Peak Hour Trips (PHT) on Adjacent Street
Category I	PHT < 100
Category II	100 to 499
Category III	500 to 999
Category IV	PHT ≥ 1000



CITY OF LEAGUE CITY
TRAFFIC IMPACT ANALYSIS/ACCESS MANAGEMENT
DATA SUMMARY
FORM A

Check for whom all responses/questions should be directed (one or both):

Property Owner Agent/Owner Representative

Submittal/Approvals

A scalable site plan layout with driveway locations indicating the extent of the access which the private property has or (is planned) to public streets must be submitted with the Form A. On-site traffic related features (loading docks, emergency lanes, driveway entrance/exits should be depicted on site plan. Types and locations of improvements should be placed as well.

Forms may be submitted at any time prior to or during Preliminary Plat and Final Site Plan submittal to the Development Review Committee.

Results of review/analysis will result in "Interpose no objection to Permitting" or "Requires submittal and approval of additional information prior to Permitting".

PROPERTY OWNER INFORMATION

Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Email Address: _____

AGENT/OWNER'S REPRESENTATIVE INFORMATION

Name: _____

Firm Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Email Address: _____

October 2011 (A-1)



CITY OF LEAGUE CITY
TRAFFIC IMPACT ANALYSIS/ACCESS MANAGEMENT
DATA SUMMARY
FORM A (CONTINUED)

SITE INFORMATION

Street Address (Primary Access): _____

Zip Code: _____

Legal Description (if no street address): _____

Tract Size (Sq. Ft. or Acres): _____

Current Land Use (include # of units, square footage of improvements, etc.) _____

CURRENT TRIP GENERATION RATES

(Based on ITE Trip Generation Handbook or City of League City approved local rate)

ITE Land Use Classification: _____ AM Trip Rate: _____ PM Trip Rate: _____
(Code & Description)

AM Peak Hour Trips: _____ PM Peak Hour Trips: _____ Average Daily Traffic: _____
(Provide Trip Generation supporting documentation as applicable).

Proposed use to be made of the private property: (include proposed # of units, square footage of improvements, etc.) _____

PROPOSED TRIP GENERATION RATES

(Based on ITE Trip Generation Handbook or City of League City approved local rate)

ITE Land Use Classification: _____ AM Trip Rate: _____ PM Trip Rate: _____
(Code & Description)


AM Peak Hour Trips: _____ PM Peak Hour Trips: _____ Average Daily Traffic: _____
(Provide Trip Generation supporting documentation as applicable)

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

Last Updated: March 4, 2021

Design Guidelines

 **CITY OF LEAGUE CITY**
TRAFFIC IMPACT ANALYSIS/ACCESS MANAGEMENT
DATA SUMMARY
FORM B

Dimensions and type of construction of the street and the nature and volumes of traffic on the street on which the private property abuts:

PRIMARY ADJACENT STREET

Name: _____

Right of Way Width: _____ No. of Lanes: _____ Speed Limit: _____

Street Type/Material: _____ Pavement Width: _____

Weekday Traffic Count

AM Peak Hour: _____ PM Peak Hour: _____ Average Daily Traffic: _____

SECONDARY ADJACENT STREET

Name: _____

Right of Way Width: _____ No. of Lanes: _____ Speed Limit: _____

Street Type/Material: _____ Pavement Width: _____

Weekday Traffic Count

AM Peak Hour: _____ PM Peak Hour: _____ Average Daily Traffic: _____

OTHER ADJACENT STREET(S)

Name: _____

Right of Way Width: _____ No. of Lanes: _____ Speed Limit: _____

Street Type Material: _____ Pavement Width: _____

Weekday Traffic Count

AM Peak Hour: _____ PM Peak Hour: _____ Average Daily Traffic: _____

This space reserved for use by the City of League City

October 2011 (B-1)

Table 802.02 Boundaries and Horizon Guidelines

	Requirements	Category I	Category II	Category III	Category IV
General	Traffic Impact Determination Web Form	X	X	X	X
	Meeting with the City		Recommended	Recommended	X
	Proposal of Scope		X	X	X
Horizon	Opening Year		X	X	X
	Full Build-Out Year			X	X
Limits	Analysis Area (From boundaries of development)		¼ Mile or Critical Intersections	½ Mile or Critical Intersections	1 Mile or Critical Intersections
	All Site Access Driveways		X	X	X
	All Site Access Private Street Intersections		X	X	X
	All Adjacent Signalized Intersections		X	X	X
	All Adjacent Major Unsignalized Intersections		X	X	X
	All Analysis Area Signalized Intersections			X	X
	All Analysis Area Major Unsignalized Intersections			X	X

3. Preparing the TIA
 - a. The TIA shall be prepared according to the requirements detailed in the sections titled TIA Submission Requirements and Technical Notes (see **Figure 802.03**).

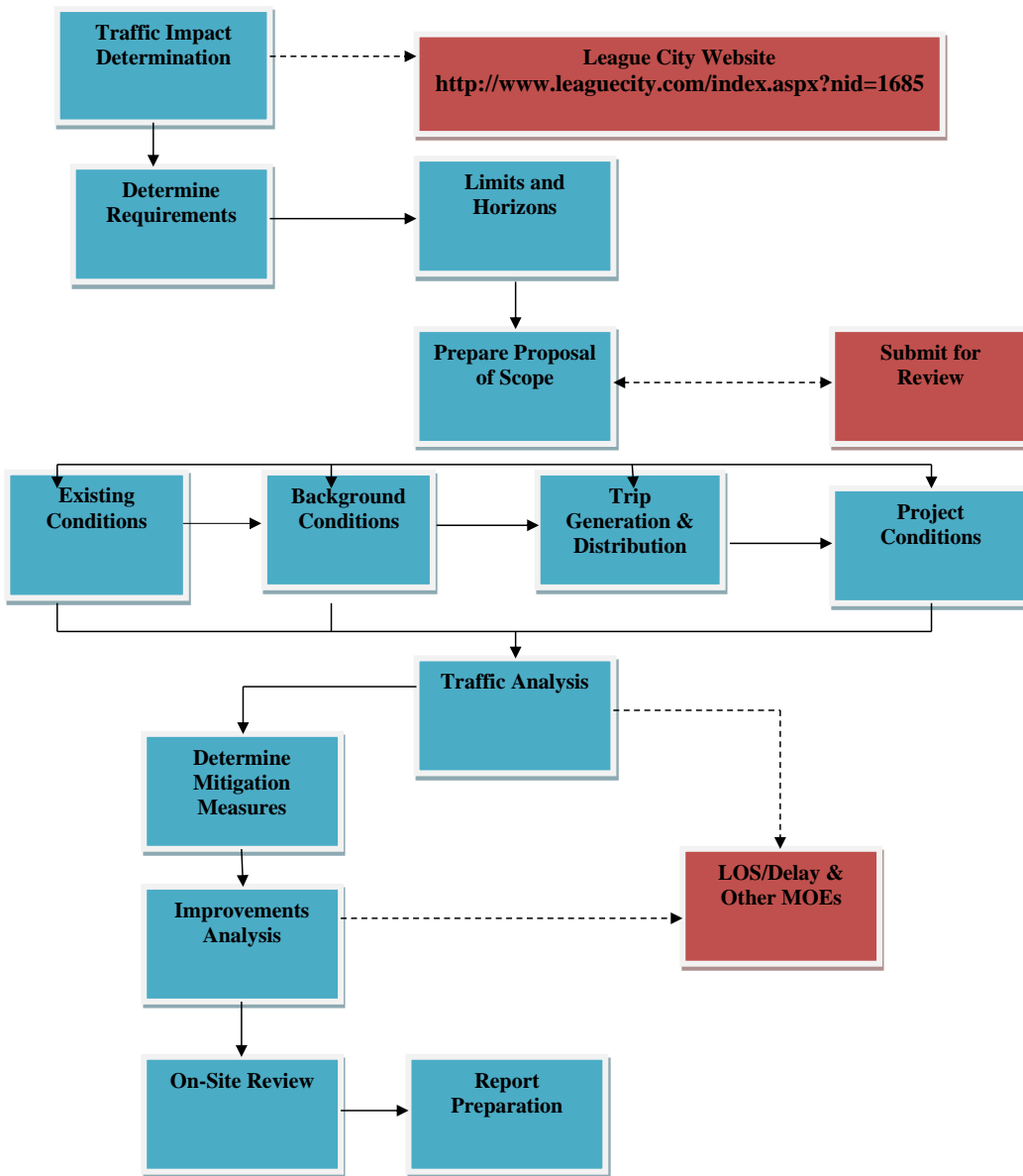


Figure 802.03 TIA Preparation Overview

4. TIA Submission and Review

- a. Upon completion of the TIA, the Applicant shall submit to the City three (3) copies. The City will make an initial review of the TIA to determine if the Analysis Engineer completed the TIA in accordance with the technical requirements and within the submission requirements of the study as outlined in this manual or as established at the preliminary scoping meeting or proposal of scope. If the City finds deviations from the technical requirements and/or the submission requirements of the study, the City will terminate the initial review until the Analysis Engineer has addressed said deficiencies. At such a time when the City identifies deficiencies, the City will develop a notice of deficiencies and submit the notice to the Analysis Engineer and Applicant.
- b. Upon the Applicant submitting a TIA that meets the technical and submission requirements established in this document or at the preliminary scoping meeting or proposal of scope, the City will conduct a final review of the TIA. If during the course of the final review, the City needs additional information, the City will provide the Analysis Engineer and Applicant a written request for addendum. TIA review time estimates can be found in **Table 802.03**

Table 802.03 Traffic Impact Analysis Estimated Review Time

Traffic Impact Analysis Category	Estimated Review Time
Category I	Not Applicable
Category II	3 weeks
Category III	4 weeks
Category IV	6 weeks

5. TIA Certificate of Approval and Mitigation Measures Requirements

- a. Following the City’s completion of the final review, the City will provide to the Analysis Engineer and Applicant written recommendations regarding any requested variances, observations, objections to and/or concurrence with the findings of the study. In addition, the City will present the Analysis Engineer and Applicant with a Certificate of Approval and details of required mitigation measures.
- b. Determining Mitigation Measures
 - The TIA shall have identified significant adverse traffic impacts. The need for mitigation is determined by using the qualitative measure Level-of-Service (LOS). The threshold of significance for transportation facilities on the area street system is LOS D. **Figure 802.04** provides a visual decision tree regarding mitigation and LOS thresholds.
 - Threshold of significance occurs when an adverse traffic impact exceeds a certain standard. The level of service (LOS) standards for City street facilities are based upon measures of effectiveness (MOEs). These MOEs describe the measures best suited for analyzing capacity of City street facilities.
 - Type of Street Facility and Measure of Effectiveness (MOE)
 - Basic Freeway Segments - Density (passenger car per mile per lane)

- Ramps - Density (passenger car per mile per lane)
 - Ramp Terminals - Delay (seconds per vehicle)
 - Multi-Lane Highways - Density (passenger car per mile per lane)
 - Two-Lane Highways - Percent Time Spent Following and Average Travel Speed (miles per hour)
 - Signalized Intersections - Control Delay per Vehicle (seconds per vehicles)
 - Unsignalized Intersections - Average Control Delay per Vehicle (seconds per vehicle)
 - Urban Streets - Average Travel Speed (miles per hour)
 - Left Turn Lanes - Queue Storage (feet)
 - Right Turn Lanes - Queue Storage (feet)
 - Streets - Average Daily Traffic Volume (vehicles per day)
- Methodology for determining each measure of effectiveness and corresponding LOS can be found in the Highway Capacity Manual.

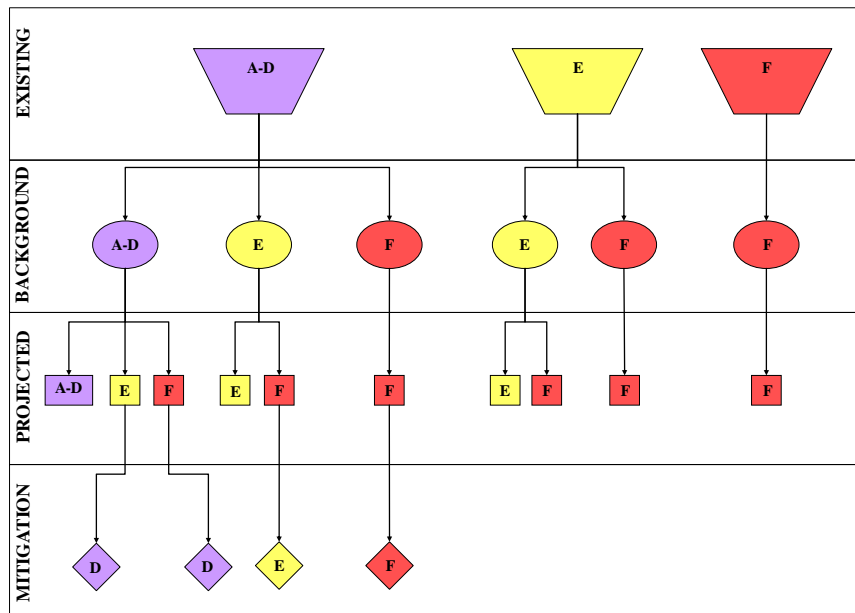


Figure 802.04 Mitigation Decision Tree

- c. Mitigation Measures Feasibility
- Mitigation strategies can be found in **Tables 802.04 through 802.06**.

Table 802.04 Congestion Mitigation Strategies - Demand Management

Demand Management					
<i>Travel Alternatives</i>	<i>Land Use</i>	<i>Pricing</i>	<i>HOV</i>	<i>Transit</i>	<i>Freight</i>
Alternative Hours of Travel	Smart Growth Policies	High Occupancy Toll Lanes	Rideshare Matching	Subsidized Fares	Truck Only Toll Lanes
Alternative Work Schedules	Pedestrian/Bicycle Connections	Time-of-Day Pricing	Vanpools	Transit Oriented Design	Lane Restrictions
Telecommuting	Transit Stop/Station Design	Activity Center Pricing	Priority Parking for HOV	Enhanced Transit Stops/Stations	Delivery Restrictions
Pedestrian/Bicycle Facilities	Transit Oriented Design	Parking Pricing	Parking Cash out	Trip Itinerary Planning	
Alternative Fare Strategies	Parking Strategies		Instant Ridesharing	Transit Security Systems	
Public Education Campaign on Driving					

Table 802.05 Congestion Mitigation Strategies - Additional Capacity

Additional Capacity		
<i>Highway</i>	<i>Transit</i>	<i>Freight</i>
New Freeway/Arterials	New Rail Lines	Truck Only Lanes
Widen Freeways/Arterials	New Bus Routes	Rail Improvements
Street Connectivity	New Busways/BRT	
New Toll Roads/Toll Lanes	Additional Service on Existing Lines/Routes	
Grade Separations	Neighborhood Activity Center Circulation Routes	
HOV/Managed Lanes	Park/Ride Lots	
Multimodal Corridors		

Table 802.06 Congestion Mitigation Strategies - Operational Improvements

Operational Improvements			
<i>Arterial</i>	<i>Freeway</i>	<i>Transit</i>	<i>Freight</i>
Road Weather Information Systems	Transportation Management Center Operations	Vehicle Tracking	Vehicle Tracking
Geometric Improvements	Incident Management	Advanced Scheduling/Run Cutting	Real-Time Freight Information
Intersection Improvements	Event Management	Signal Priority for Buses	Roadside Electronic Screening/Clearance Programs
One-Way Streets	Ramp Metering	Bus Ramp Bypass	
Access Management	Lane Controls	Real-Time Transit Information	
Advanced Signal Systems	Managed Lanes	Express Bus Service	
Signal Retiming/Optimization	Real-Time Traveler Information	Demand Responsive Bus Service	
Changeable Lane Assignments	Electronic Toll Collection	Fare Strategies	
HOV Ramp Bypass	Work Zone Management		
Incident Management	Road Weather Information Systems		
Event Management	Variable Speed Limits		
Real Time Traveler Information	Ramp Closures		
Parking Restrictions	Bottleneck Removal		

D. TRAFFIC IMPACT ANALYSIS SUBMISSION REQUIREMENTS

Analysis Engineer shall meet the following requirements for all TIA reports submitted to the City.

1. General
 - a. The Analysis Engineer must identify all the required data and information in the appropriate sections of the report.
 - b. Text contained in the document shall be comprehensive and complete.
 - c. The report shall be typed and bound.
 - d. The report shall contain a table of contents, lists of figures and list of tables.
2. Executive Summary
 - a. Site Location & Analysis Area
 - b. Development Description
 - c. Principal Findings
 - d. Recommendations

3. Introduction
 - a. A statement about the purpose and objectives of the study.
 - b. A description of the existing and expected land use and intensity.
 - If residential, number and type of dwelling units.
 - If commercial or industrial, square footage and type.
 - If redevelopment, what is the expected trip generation differential
 - c. A vicinity map identifying major and site access intersections and other approved projects near the Development.
 - d. A site plan for the Development.
 - e. A description of Development phasing and estimate year each phase will begin and end.
4. Area Conditions
 - a. A description of the analysis area.
 - b. A description of existing and future land uses within the analysis area. The description should include current land use, densities and occupancy, anticipated development, undeveloped properties, and current master plans.
 - If residential, number and type of dwelling units.
 - If commercial or industrial, square footage and type.
 - c. A combination of narratives, tables and figures detailing area street system characteristics within the analysis area including:
 - Planned street improvements in the area (City of League City 5-year Capital Improvement Plan)
 - Additional streets that may be impacted
 - Functional Classifications
 - Posted Speed Limits
 - Distance, and alignments from existing streets, driveways, and/or median openings to development access (needed to assess Access Management Requirements)
 - Traffic Control Devices (traffic signals and Stop signs)
 - Signal Locations and Timings (offsets need to be shown if in coordination)
 - Intersection layout, lane usage, and street configuration
 - Right-of-Way widths
 - Lane widths
 - Current traffic volumes within the past 1 year to have been captured on a typical Tuesday, Wednesday, or Thursday for all streets in the analysis. Depending on the type of development, it may also be necessary to capture volumes on a typical weekend.
 - 24 hour counts at major and site access intersections according to the methods described in section 15.05 of this chapter.
 - Turning movement counts (Peak Hours).
 - Pedestrians and Bikes (If Applicable)
 - Facilities
 - Volumes

- Transit Service (If Applicable)
 - Major Transit Stops
 - Ridership
 - Routes and Service Intervals
 - Public Concerns/Transportation Management (If Applicable)
 - Transportation Infrastructure Vision (CSS)
 - Trade-Offs
 - d. Required Table(s)
 - Twenty-Four-hour approach volumes at major and site access intersections.
 - Peak Hour approach volumes at major and site access intersections
 - e. Required Figure(s)
 - Major and site access intersection lane configuration diagrams with existing Twenty-Four-hour approach volumes. Preferably overlaid onto aerial photography.
 - Major and site access intersection lane configuration diagrams with existing AM and PM peak hour turning movement volumes. Preferably overlaid onto aerial photography.
 - The Analysis Engineer may also use photographs to document existing conditions.
5. Project Traffic
- a. Sufficient details of calculations so that all calculations can be verified.
 - b. Site generated traffic volumes (24-hour and peak periods) by corresponding development phase or year.
 - Trip Generation - List of trip generation rates and/or sources of rates used for the study.
 - Trip Distribution and Assignment - The gravity model or other acceptable trip distribution model used to estimate trip distribution. The Analysis Engineer can complete this task either manually or with applicable computer models.
 - c. Background traffic volumes (24-hour and peak periods) by corresponding development phase or year.
 - Volumes should account for all approved developments in the analysis area as well as area growth beyond the analysis area. Contact the City for information about surrounding developments.
 - d. Pass-by and diverted traffic volume reduction rates, if applicable.
 - e. Pedestrian, bicycle and transit reduction rates, and supporting evidence, if applicable.
 - f. Internal capture reduction rates, if applicable.
 - g. Total project traffic volumes (24-hour and peak periods) by corresponding development phase or year. Future traffic as may be required for a Development with multiple phases should also be included.
 - h. Required Table(s)
 - Pass-by trip, internal capture, pedestrian, bicycles, and transit reduction rates used, if applicable.

- Twenty-Four-hour approach volumes for background, pass-by, site generated, and total project traffic conditions at major and site access intersections and any additional transportation facilities specified by the City.
 - Peak Hour approach volumes for background, pass-by, site generated, and total project traffic conditions at major and site access intersections and any additional transportation facilities specified by the City.
- i. Required Figure(s)
- Twenty-Four hour, and peak hour approach volumes for background, pass-by, site generated, and total project traffic conditions overlaid onto major and site access intersections lane configuration diagrams. Preferably overlaid onto aerial photography.
 - Peak hour turning movement volumes for background, pass-by, site generated, and total project traffic conditions overlaid onto major and site access intersections lane configuration diagrams. Preferably overlaid onto aerial photography.
 - Distribution and assignment rates for pass-by and site generated traffic volumes overlaid onto major and site access intersections lane configuration diagrams. Preferably overlaid onto aerial photography.
6. Traffic Analysis
- a. Existing Traffic Conditions LOS and Delay of major and site access intersections and measures of effectiveness (MOE) for any additional transportation facilities necessary or specified by the City within the analysis area.
- Analysis must utilize existing traffic volumes.
 - Analysis may be prepared manually or by using various software programs such as Highway Capacity Software, Synchro or as approved by the City.
 - Analysis must utilize the capacity analysis methodology found in the current edition of the Highway Capacity Manual, or control delay calculations from Synchro or other software as approved by the City, and/or delay calculations from micro-simulation of the complete street network (no individual intersections) to determine LOS.
 - Determination of necessary or specified MOEs should be completed using state-of-the-practice engineering methods.
- b. Background Traffic Conditions LOS and Delay of major and site access intersections and measures of effectiveness (MOE) for any additional transportation facilities necessary or specified by the City within the analysis area.
- Analysis must utilize existing traffic volumes.
 - Analysis may be prepared manually or by using various software programs such as Highway Capacity Software, Synchro or as approved by the City.
 - Analysis must utilize the capacity analysis methodology found in the current edition of the Highway Capacity Manual, or control delay calculations from Synchro or other software as approved by the City, and/or delay calculations from micro-simulation of the complete street network (no individual intersections) to determine LOS.

- Determination of necessary or specified MOEs should be completed using state-of-the-practice engineering methods.
- c. Project Traffic Conditions LOS and Delay of major and site access intersections and MOEs for any additional transportation facilities necessary or specified by the City within the analysis area.
 - Analysis must utilize total project traffic volumes which include site generated traffic and the background traffic to complete analyses for the required study limits and horizons as they correspond to the predetermined TIA category.
 - Analysis may be prepared manually or by using various software programs such as Highway Capacity Software, Synchro or as approved by the City.
 - Analysis must utilize the capacity analysis methodology found in the current edition of the Highway Capacity Manual, or control delay calculations from Synchro or other software as approved by the City, and/or delay calculations from micro-simulation of the complete street network (no individual intersections) to determine LOS.
 - Determination of necessary or specified MOEs should be completed using state-of-the-practice engineering methods.
 - In addition to LOS and Delay, the Analysis Engineer should identify critical movements regarding capacity and potential locations of queue spillback.
 - The Analysis Engineer should perform a signal warrant analysis for unsignalized intersections (engineering judgment) using the signal warrant guidance found in the Traffic Signal Installation Policy and Procedures prescribed by the City. Additionally, as part of the improvements analysis the Analysis Engineer should analyze any unsignalized intersections warranting a signal as a signalized intersection and discuss within the TIA report.
- d. Additional Information (If Applicable)
 - Site circulation and off-site parking requirements.
 - Potential impact to nearby neighborhoods and neighborhood parking.
 - Evaluation of potential need for traffic calming including bulb out, chicanes, roundabouts, or those elements that may be considered.
 - If appropriate and reasonable, the evaluation of a potential need for application of context sensitive design methodologies to address public concern or area vision.
 - Others (If Applicable)
 - Safety
 - Traffic control needs
 - Transit
 - Pedestrian and bicycle access
 - Delivery and service vehicles
 - Transportation demand management.

- e. Table(s)
 - Existing Traffic Conditions LOS and Delay for each major and site access intersection and MOEs for any additional transportation facilities specified by the City.
 - Include critical movements and queue spillback
 - Background Traffic Conditions LOS and Delay for each major and site access intersection and MOEs for any additional transportation facilities specified by the City.
 - Include critical movements and queue spillback
 - Project Traffic Conditions LOS and Delay with Development generated traffic for each major and site access intersection and MOEs for any additional transportation facilities specified by the City.
 - Include critical movements and queue spillback
- 7. Transportation Improvements Analysis (Mitigation Measures)
 - a. A description and justification of needed transportation improvements to accommodate background traffic conditions
 - LOS and Delay evaluation and comparison including review of critical movements and queue spillback
 - MOE comparison for any additional transportation facilities specified by the City
 - If applicable, effectiveness of meeting community vision and public concerns with respect to the application of context sensitive solutions/design.
 - b. A description and justification of additional transportation improvements to accommodate project traffic conditions
 - LOS and Delay evaluation and comparison including review of critical movements and queue spillback
 - MOE comparison for any additional transportation facilities specified by the City
 - If applicable, effectiveness of meeting community vision and public concerns with respect to the application of context sensitive solutions/design.
 - c. A description and justification of alternative transportation improvements or mitigation measures
 - LOS and Delay evaluation and comparison including review of critical movements and queue spillback
 - MOE comparison for any additional transportation facilities specified by the City
 - If applicable, effectiveness of meeting community vision and public concerns with respect to the application of context sensitive solutions/design.
 - d. The current status of transportation improvements already funded, programmed, or planned
 - e. Table(s)
 - LOS and Delay comparisons for improvements
 - Include critical movements and queue spillback
 - MOE comparisons for any additional transportation facilities improvements

- f. Figure(s)
 - Concept schematics of improvements including corresponding LOS and Delay values.
8. Site Improvement Analysis
 - a. A description of site circulation and recommendations for improvement.
 - b. A description of on-site parking and recommendations for improvement.
 - Include shared parking, if applicable
 - c. A description of expected delivery and service vehicle operation and facility use and recommendations for improvement.
 - d. A description of expected site passenger loading characteristics and recommendations for improvement.
 - e. A description of adherence to related access management concepts as can be found in the City's set of Access Management Standards including driveway design, access spacing, and turning movement treatments.
9. Conclusions and Recommendations
 - a. Traffic Impacts
 - b. Adjacent transportation improvements for each horizon year addressing, at a minimum, the following
 - Traffic Control Device(s) (modification or installation)
 - Additional Capacity (left, right, or through lanes)
 - Need for acceleration or deceleration lanes
 - Critical Movements
 - Length of storage bays
 - Implementation schedule
 - c. Offsite transportation improvements
 - Modification to existing traffic control device(s)
 - Additional traffic control device(s)
 - Additional capacity at major intersections
 - Additional street capacity
 - Other
 - d. Site transportation improvements
 - Access Management
 - Site Circulation and Parking
 - e. Appendices may be included as an attached CD having individual electronic file folders for each appendix and appropriately titled Adobe PDF files.
 - Basic Trip Generation Worksheet
 - Capacity Analysis Worksheets or Modeling Software Output
 - Traffic Volumes (24-hour and peak hour turning movement counts)
 - To be provided electronically or in a designated form by the City
 - Selected Photographs

E. TECHNICAL NOTES

1. Background Trip Determination

a. Background or non-site traffic forecasts are necessary to determine the impact of the development in horizon years such as the projected year of opening, year of full build-out and five years after full build-out. Background traffic consists of all trips that do not begin or end in the analysis area and all attraction and production trips from existing development within the analysis area. Trips generated from existing development within the analysis area are important as the proposed development may influence existing traffic patterns and potentially generate new trips for existing developments. Background traffic volumes should also include trips generated from other proposed developments within the analysis area. The Analysis Engineer should check with the City to ensure that all approved developments have been included in background traffic determination.

b. Methodologies for Background Traffic Determination

- There are three basic methodologies used to determine background traffic volumes: build-up, area transportation planning, and trending. Each of these methodologies have strengths and weaknesses. Some methods may be more appropriate depending on the category of the Development. The Analysis Engineer may use any of the three aforementioned methods to determine background traffic volumes. The City anticipates that the majority of background traffic calculations will be completed using trending methods. For this reason, the City provides the following information on trending.

- Trending or the use of growth rates is a common method used to generate background traffic. This method is particularly useful for smaller developments and studies having shorter horizon periods (5 to 10 years). City of League City traffic volumes have typically grown between one and two percent per year. Although these growth rates are typical for the whole of the City, there are some areas that may have higher and lower rates of growth. The Analysis Engineer may find higher growth rates in outlying areas of the City having lower development density, and lower growth rates in older more mature areas of the City that have little or no year-to-year changes in traffic. In general, the City of League City experiences a growth rate of one percent for all trending analyses. It is a requirement and the responsibility of the Analysis Engineer to apply appropriate growth rates as they correspond to different areas of the city. The Analysis Engineer should provide and justify an expected area growth rate in the proposal of scope for approval by the City.

c. Finalizing Background Traffic Volumes

- Regardless of the methodology used, the Analysis Engineer preparing the TIA shall review background traffic volumes to ensure their practicality. It is a requirement, and the responsibility of the Analysis Engineer, to justify any adjustments to traffic volumes in the TIA report.

2. Site Trip Generation

a. The City requires that the Analysis Engineer generate site traffic using the methodologies found in the current edition of the ITE publication, *Trip Generation Handbook*. This publication suggests using rates from local studies as a preferred method for generating site

traffic. If the Analysis Engineer utilizes local studies to determine appropriate rates, it is a requirement and the responsibility of the Analysis Engineer to reference these studies in the TIA report. In addition, the Analysis Engineer must make available copies of the referenced studies if requested by the City. If local rates are not available, the Analysis Engineer shall use equations and rates from the current edition of Trip Generation. The Analysis Engineer can find additional guidance on the subject of trip generation and traffic impact analysis in the ITE publication, *Transportation Impact Analyses for Site Development*.

b. Pass-by Trips

- Pass-by trips are those trips generated by the proposed development as they exist in the previously determined background traffic. These trips will occur along the adjacent street system regardless of completion of the proposed development. An illustration of the concept of a pass-by trip would start with a commuter who, prior to the completion of the proposed development, routinely traveled the adjacent corridor to and from work. After the completion of the development, this same commuter now frequents the new development on the same trip to and from work. The commuter literally passed by the development prior to completion and is included in calculated background traffic volumes.
- This added pass-by trip will have little impact on through movement traffic operations or be part of a potential change in travel demand requiring
- adjacent transportation infrastructure improvements. However, the City recognizes that pass-by trips can affect left- and right- turning movement frequency and may require installation of turn lanes or lengthening of turn lane storage bays. Typically, the Analysis Engineer can subtract these trips from those generated by the development, since they already exist as a part of the background traffic. However, the Analysis Engineer should be careful to account for any turning movement redistribution in the background traffic. The Analysis Engineer should redistribute pass-by trips from the through movement to the appropriate left- or right- turning movement for analysis purposes. The City requires that the Analysis Engineer use the methodology from the latest edition of the ITE publication *Trip Generation Handbook* to determine the appropriate number of pass-by trips. The Analysis Engineer should provide and justify an expected reduction rate for pass-by trips in the proposal of scope for approval by the City.
- Development access points should still carry pass-by trips and the Analysis Engineer should consider those trips in calculating the total number of trips generated by the proposed development and for necessary adjacent street improvements due to these trips. The City also recommends that the Analysis Engineer account for pass-by trips in the trip assignment step to ensure appropriate left and right turning movement volumes as these added turning vehicles may require the need for the installation of new or additional storage at existing left- and right-turn lanes.

c. Internal Capture

- Internal capture is the application of a percent reduction in generated trips (driveway trips) and is typically applicable to projects such as shopping centers with out-lots.

d. Generating Trips for Redevelopment

- For proposed redevelopment, the City allows the Analysis Engineer to subtract trips generated by the existing development from those the new development will generate. The City allows this because the existing Development's generated trips are already, ideally, included in background traffic volumes.
- If an Applicant proposes changes to only a portion of an existing development, the City allows the Analysis Engineer to subtract any trips associated with that portion of the existing development from the trip that the proposed redevelopment will generate.

3. Site Trip Distribution and Assignment

a. Once the Analysis Engineer has finalized the number of trips a development will generate, he/she shall distribute and assign them through the proposed access connections to adjacent public and private streets. Site traffic distribution and assignment are very subjective tasks and requires the Analysis Engineer to exercise engineering judgment and to call on past experiences in transportation planning.

b. Trip Distribution

- Trip distribution efforts, in general, take into consideration the Development as a whole. An example of this would be the determination of a percentage of generated trips accessing one particular portion of the proposed development (23% enter from the west). Determining how generated traffic will access the proposed development can vary greatly and depends on several factors:
 - Type of development
 - Size of the development
 - Where the development will draw or attract traffic from
 - Competing developments in the area
 - Surrounding land uses
 - Condition and capacity of the surrounding street system
- The City recommends the Analysis Engineer refer to or utilize similar studies on developments in the immediate vicinity, previously determined trip distribution models, planning software, or other recognized and substantiated methods to distribute traffic.
- It is a requirement and the responsibility of the Analysis Engineer to document the methodologies or references utilized in completing the task of trip distribution in the TIA report. The Analysis Engineer will also be responsible to provide copies of referenced studies or models if requested by the City.

c. Trip Assignment

- Assigning trips determines the amount of traffic on routes within the street network and analysis area. Developments will usually have multiple access points potentially leading to multiple streets. The Analysis Engineer should assign trips after considering several area and street network characteristics such as logical routings, left-turn movements at

- unsignalized intersections and access points, available capacity and existing travel times. The Analysis Engineer should consider traffic conditions for each horizon year and adjust times prepared analyses. In addition, the Analysis Engineer should develop alternatives to address these needs and should address both on- and off-site improvements, if applicable.
- d. Mitigation measures can include, but are not limited to, median openings, turn lanes, traffic calming and traffic signals. The Analysis Engineer shall analyze proposed mitigation measures for capacity and other factors. The Analysis Engineer shall base capacity improvements on the LOS.
 - e. Assessing the Need for Mitigation - Level of Service Thresholds
 - f. Previously Proposed Transportation Improvements
 - The Analysis Engineer can factor proposed network improvements into the analysis and can use them as mitigation measures. For example, if the Applicant schedules a Development to open in three years, and the City has a capital project that will widen the street before that time, the Analysis Engineer can consider the proposed capital improvement in the analysis.
 - g. Phased Developments
 - Phased Developments often present a challenge for the Applicant. In many cases, Phase I of the development is well defined while additional phases are vague and may change with market conditions.
 - It is acceptable to the City for an Applicant to submit a TIA for all phases of the Development including proposed improvements at the start of a project. However, if future phases of the Development change, generating more traffic than what the Applicant had previously submitted to the City, it will be necessary for an Analysis Engineer to update the existing TIA or prepare a new one. If the Applicant only submits to the City the first phase of the Development, the Applicant should be aware that conditions may change potentially requiring additional on- and off-site improvements. If a Development is to be completed in phases, the TIA can also propose phasing of mitigation. However, the Analysis Engineer must analyze any mitigation measures proposed for the appropriate horizon year.
 - h. Application of context sensitive solutions to address public concern and vision may be done so only if arterial and intersection LOS expectations for mitigation are maintained. However, the city does recommend, where appropriate and reasonable, that the principles of CSS be utilized to improve mobility for all users.
4. On-Site Planning
- a. An integral component of any TIA should include basic site planning. This includes the identification of access points, internal circulation, service and delivery access points and service bays including the use of turning templates as appropriate, and the identification of optimal building locations.
 - b. Access points operate as intersections and the City treats them as such. They should have an appropriate number of lanes, adequate storage, pedestrian facilities and appropriate signing and pavement markings. Adequate storage for a larger development's access points is often a concern, and if not designed properly, will operate inefficiently creating the

potential for traffic to back up onto the street system. Joint access between adjoining properties is desirable; particularly where street frontages are short or internal volumes will be low. Driveways should be located near the property line if possible or the Applicant should make cross access agreements with adjoining property owners.

- c. On-site circulation and street design should be consistent with off-site streets. The area street system has shaped driver behavior and expectations; violating these expectations provides potential for safety problems.
- d. This should extend to the use of Texas Manual on Uniform Traffic Control Devices (TxMUTCD) approved signs and pavement markings as well. Site access points shall conform to City of League City Access Management Standards and the Applicant and the Analysis Engineer should consider the following principles:
 - Locating proposed traffic signals to provide for progression along the intersecting street.
 - Providing access points to intercept traffic traveling to the site and shall be limited in number.
 - Providing adequate capacity/storage at access points to ensure that traffic from the site does not spill back onto adjacent streets.
 - Intersecting two-way driveways with streets as close to perpendicular as possible.
 - Providing adequate capacity/storage at internal intersections to ensure that traffic from the site does not spill back onto adjacent streets.
 - Providing adequate sight distance and appropriate safety measures at all access points and internal intersections.
- e. The Analysis Engineer should base storage lengths at access points on the City of League City Design Manual and Access Management Standards. For smaller developments, the Analysis Engineer should design parking and access points to allow vehicles to align themselves perpendicularly to the adjacent street system. For larger developments, the Analysis Engineer should provide adequate storage to ensure that exiting traffic does not hinder internal circulation.

F. TRAFFIC IMPACT REPORT FORMAT

The following is an outline of an appropriate TIA report as it corresponds to the above submission requirements.

1. Executive Summary
 - a. Site Location & Analysis area
 - b. Development Description
 - c. Principal Findings
 - d. Recommendations
2. Table of Contents
3. List of Figures and Tables
4. Introduction
 - a. Purpose & Study Objective

- b. Off-site Development
 - c. Description of Proposed Development
 - Land Use and Intensity
 - Location
 - Site Plan
 - Phasing & Timing of Development
5. Area Conditions
- a. Analysis Area
 - b. Analysis Area Land Use
 - Existing Land Uses
 - Anticipated Future Growth
 - c. Site Accessibility
 - Area Street System
 - Traffic Volumes & Conditions
 - Transit Service
 - Existing Transportation Demand Management Programs
6. Project Traffic
- a. Site Traffic
 - Pass-By/Internal Circulation
 - Pedestrian, Bicycle, Transit and CSS Considerations
 - b. Background/Through Traffic
 - c. Total Traffic
7. Traffic Analysis
- a. Site Access
 - b. Capacity & Level of Service
 - c. Traffic Safety
 - d. Traffic Signal Warrant Analysis
 - e. Site Circulation & Parking
8. Transportation Improvement Analysis
- a. Transportation Improvements to Accommodate Background Traffic
 - b. Additional Transportation Improvements to Accommodate Total Project Traffic
 - c. Alternative Transportation Improvements
 - d. Status of Transportation Improvements Already Funded, Programmed, or Planned

9. Site Improvement Analysis
 - a. Site Circulation
 - b. Site Parking
 - c. Delivery and Service Vehicles
 - d. Passenger Loading
 - e. Access Management
10. Conclusions & Recommendations
 - a. Adverse Traffic Impacts
 - b. Transportation Improvements or Mitigation Measures (Background)
 - c. Transportation Improvements or Mitigation Measures (Total Project)
 - d. Site Improvements (Circulation and Parking) and Access Management
11. Appendix
 - a. Basic Trip Generation Worksheet
 - b. Capacity Analysis Worksheets
 - c. Traffic Volumes
 - d. Pictures

ITEM 803 Traffic Signal System Design Guidelines

All traffic signal systems shall be designed in accordance with the Texas Manual on Uniform Traffic Control Devices and acceptable engineering practices to ensure a safe and efficient operation.

All traffic signal systems shall be designed to meet the latest and/or state-of-the-art operational and functional features for traffic signal system required by League City.

All traffic signal systems shall be designed in accordance with League City's latest specifications and standard drawings.

The basic set of signal system construction drawings shall include, but is not limited to the following categories:

1. Title Sheet
2. Existing Conditions Sheet
3. Proposed Signal Layout Sheet
4. General Details
5. Signal Elevation Sheet
6. Signal Interconnect Sheet (when applicable)
7. Standard Detail Sheets

Unless otherwise specified, all drawings are to be 11" x 17" in size.

Typical project milestone design reviews are for 50%, 75% and 100% of the signal system design. The following is a list of review requirements that should be included at each milestone stage. The red-lined drawings and a written response of review comments from the latest review should always be included with the next submittal. League City reserves the right to alter the list in a manner that will best benefit the project.

The in-progress (50%) Design stage review shall consist of a field meeting at the project site(s) with the consultant and the City's Traffic Engineer. The review requirements are a working drawing showing, as a minimum, the following:

1. Right-of-way
2. Base line/Center line
3. All above ground and underground utilities. Underground utilities shall be located as accurately as possible, including profile and depth of cover information.
4. Existing roadway geometric layout
5. If making geometric improvements, show proposed geometric improvements and signal design based on those improvements
6. Existing sidewalks and/or driveways
7. Proposed wheelchair ramps, pads, and sidewalks, if required
8. Proposed crosswalks, if required
9. Proposed service outlet location
10. Proposed controller location
11. Proposed signal pole locations
12. Proposed pedestrian signal pole locations, if required
13. Proposed loop placement/detection zone

14. Proposed pull box locations
15. Proposed signal head locations
16. All proposed overhead signing
17. Proposed advance warning signs and flashers, if required
18. Proposed conduit, including bore locations
19. Proposed stop line locations
20. For projects with road widening, construction phasing for traffic control should be included for a discussion in the field meeting
21. Any construction easements or right-of-entry that may be needed
22. Will need to provide documentation to City of posted speed and 85th percentile speed, if known
23. For signal interconnect, prepare pole attachment drawings in accordance with pole owner's requirements
24. At this stage, Texas New Mexico should be contacted to request a Service Outlet and Data Statement for each intersection

For the 75% Design stage review, it shall consist of two (2) full sets of construction drawings, one (1) set of construction drawings without League City Standard Sheets, and (2) sets of bid sheets including detailed bid ITEMS with quantities, and the respective specification designations. Approximately ten (10) additional sets of construction drawings without League City Standard Sheets shall be required to submit for utility coordination. The construction drawings shall consist of, but are not limited to, the following:

TRAFFIC SIGNAL INSTALLATION

1. Title Sheet (Harris County Standard Cover Sheet)
 - Project title including road names
 - Funding for construction
 - Names and titles for Mayor, each City Council Member, City Manager and Public Works Director
 - Site map with North arrow
 - Index of drawings (complete)
 - Name and seal of engineer
 - Signature block for League City Permit Division
2. Existing condition sheet
 - Make sure title block is filled in, sheet is numbered
 - Utility notes and Utility company signature block
 - Legend: The legend should be in compliance with the League City design criteria
 - Existing signing
 - Existing pavement markings
 - Existing geometrics
 - Existing utility locations
 - Any existing signal equipment
 - Name and seal of engineer

- North arrow
- Scale

3. Proposed Signal Layout sheet

- Legend: The legend should be in compliance with the League City design criteria
- Special notes
- Right-of-way
- Roadway geometrics
- Utilities
- Electrical schedule (complete)
- Pole and controller locations (complete)
- Centerline or baseline description
- Controller description
- Construction signage
- Advance signal signing and/or flashers, if required
- Loop placement (call out distance from stop bar)
- Poles (signal and pedestrian signal w/station & offset)
- Signal head locations
- Luminares
- Conduit runs and bores
- Pull boxes
- Meter pole
- Controller
- Stop bars
- Crosswalks, if required
- Wheelchair ramps, if required
- Call out of all conduit and wire runs
- North arrow
- Scale
- Complete title block
- Sheet numbers
- Any reference to a different sheet should have sheet numbers filled in
- Show any easements or right-of-way that may be needed
- Name and seal of engineer

4. Proposed Traffic Signal Elevation

- Special Notes
- All sheet numbers referenced in special notes filled in
- Elevation views for all approaches
- All required details
- Show all conduits in foundations and call out what conduit runs to

- Fill in the title block
- Sheet numbered
- Name and seal of engineer

5. Signal Interconnect Sheet

- 1" = 100' scale unless otherwise specified
- Prefer aerial interconnect, if possible
- Show all poles, to be attached, conduits, pull boxes, utilities, roadway features, driveways, cross streets etc.
- Special notes
- All required details and elevation details
- Fill in title block
- Sheet numbers
- Name and seal of engineer

6. League City Standard Traffic Details

- Fill in title block
- Add any revisions necessary
- Number each sheet

7. Bid Items

- A complete list of bid items, quantities, specification listings, etc.

TRAFFIC SIGNAL INSTALLATION WITH ROAD WORK

1. Title Sheet

- As noted for traffic signal installation project

2. Plan and Profile Sheets

- Single bank only
- Storm sewer size, alignment and profile grade, including horizontal and vertical ties
- Utility lines indicating size, horizontal and vertical alignments and description. Any utility conflicts should be notified
- Utility company signature block
- Plan and profile of proposed and existing roadside ditches and outfalls
- Proposed pavement alignment and profile
- Location of pavement widening areas

3. Traffic Control Plan should include the following sheets: Phasing overview, advance signing sheet (optional), detour sheet (if needed), individual traffic control sheets, League City Traffic Control Standards (if needed)

A. Phasing Overview

- Should show each phase of construction for project limits
- Step description for each step in each phase
- A typical cross section for each phase
- Detour or temporary pavement should be shown constructed as a phase
- Fill in title block
- Sheet number
- Drawn not to scale
- See attachment for example
- North Arrow
- Engineer's name and seal

B. Advance Signing Sheet

- This is an optional sheet used to show all advance construction signing for the project. This includes all side sheet signing and supersedes the need for showing advance signing on each individual traffic control sheet
- Show Advance signing for major street and side streets
- Call out distance for placement of signs (as per TMUTCD)
- Show sign legend (all sign numbers must be called out)
- Show all necessary construction notes
- Show existing posted speed
- See attachment for example
- North Arrow
- Fill in the title block
- Sheet numbered
- Engineer's name and seal

C. Individual Traffic Control Sheet

- One construction phase per sheet
- 1" = 100' scale unless otherwise specified
- North arrow
- Steps to be done in individual phase should be shown on a separate sheet if room is not available on that individual phase sheet
- Show center line or base line
- Show storm sewers to be constructed
- Show cross section and cross section cut
- Show all striping (in cross section as well)

- Ten-foot minimum travel lanes to be maintained at all times when possible
- Proposed and existing roadway should be distinguishable
- Show detour pavement (distinguishable from proposed and existing pavement)
- All construction signing and channeling devices
- Maintain existing left-turn lanes at intersections
- Filled in title block
- Sheet numbered
- All notes referencing standards should have sheet numbers filled in
- See Harris County Traffic Control Guidelines for specific details required for traffic control drawings
- Engineer's name and seal

D. Detour Sheet

If detour sheet is required due to road closures, the following should be included on the detour drawing:

- Should show a map of area
- Trailblazer signs
- North arrow
- Does not have to be to scale
- All required signing, barricades and warning lights as per TMUTCD
- Fill in title block
- Sheet numbered
- Engineer's name and seal

E. League City Traffic Control Standards

These standards should be inserted with the Traffic Signal Standards

- Fill in title block
- Number each sheet
- Add any revisions, if necessary

4. Existing Condition Sheet

- As noted for traffic signal installation

5. Proposed Condition Sheet

- As noted for traffic signal installation

6. General Details & Notes

- As noted for traffic signal installation

7. Proposed Traffic Signal Elevation

- As noted for traffic signal installation

8. Permanent signing and striping sheet

- All proposed striping
- All proposed signing
- Fill in title block

- Number sheet
- Make sure all referenced sheets have sheet numbers filled out in referenced note
- Engineer's name and seal

9. League City Traffic Signal Standards

- As noted for traffic signal installation project

10. Bid Items

- As noted in traffic signal installation project

For the 100% Design Stage Review, it shall consist of three (3) full sets of construction drawings, three (3) sets of complete project manual, three (3) copies of the final construction cost estimates. The project manual and construction drawings shall as a minimum; include the following:

1. Completed title sheet
2. Completed estimate and quantity sheets
3. Completed existing condition sheets
4. Completed proposed condition sheets
5. Completed General Details & Notes
6. Completed elevation sheets
7. Completed plan and profile sheets when applicable
8. Completed traffic control drawings when applicable
9. Completed street name sign detail sheets
10. All required League City standard detail sheets

The project manual and final construction cost estimate shall as a minimum, include the following:

1. Cover sheet: Signed and sealed
2. Bid ITEMS
3. Special specifications
4. Utility locations
5. Traffic specifications

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

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Design Guidelines

6. See attachment for requirements
7. Complete project construction cost estimate
8. All sheets should be signed and sealed
9. All League City 75% review comments should be addressed on the plans and in writing. The written response should be submitted with the plans
10. Submit redline comments from 75% review
11. All easements (State, etc.) should be obtained by this point
12. The Texas New Mexico Service Outlet and Data Statement should be included in the project manual

Upon approval of the 100% submittal by League City, mylar copies of the drawings are to be furnished by the consultant complete with all required agency and utility signatures.

See League City Traffic Signal Standards for League City facility and when traffic signal design is on a TxDOT facility, TxDOT Standards will be used.

ITEM 804 Traffic Control Guidelines

The City of League City Engineering Department (City) has developed “Traffic control Guidelines” for use by Engineers in designing a Traffic Control Plan (TCP) for all construction activities within the City right-of-way. As part of the “Traffic Control Guidelines”, a set of guideline drawings will be provided to the Engineer for their use in designing a “Traffic Control Plan” for each project that the City undertakes. The Engineer who is to use these guideline drawings shall familiarize himself with them, their proper usage and what is expected in the Traffic Control Plan.

Construction Sequencing and Traffic Control Plan shall be in accordance with general traffic engineering principles and practices governing traffic control during construction as prescribed by the guidelines of the “Texas Manual on Uniform Traffic Control Devices” (Texas MUTCD), and City requirements.

Upon completion of the detailed Traffic Control Plan described herein, technical specifications and a detailed TCP cost estimate shall be completed. Quantities and cost estimates for each traffic control bid shall be provided by the Engineer and approved by the City.

CONSTRUCTION SEQUENCING

Construction Sequencing is a critical part of the Traffic Control Plan. The conceptual sequencing of any project will be addressed in the preliminary engineering report. To accomplish this, information must be obtained that delineates the existing topographic features, potential conflicts such as underground utilities and access to adjacent properties. This information combined with the proposed design elements of the project may then be prioritized to establish a construction sequencing plan.

The construction of the project should be scheduled or sequenced **to minimize the down time for the contractor and to maximize the utilization of space for the travel ways**. This Sequencing is accomplished by partitioning the project into construction phases. The construction phases may be further fractionated into steps. The description of the phase and step components of a construction sequencing plan is as follows:

A “**phase**” is a major portion of the construction, scheduled in a logical progression toward project completion. For example, a typical construction phasing sequence might include the following: Phase I, construct temporary widening to the east of the existing pavement and transfer traffic to it. Phase II construct the west half of the proposed roadway. Phase III relocate traffic to new pavement and construct the east half of the proposed roadway.

A “**step**” is a minor portion of the construction, subordinate to a particular phase. For example, Phase II, Step I – Construct west roadway with driveway leave-outs for local access: Phase II- Step II complete driveway leave-outs using high early strength concrete.

A sample phasing overview drawing (TCP-2) is provided in the TCP Guideline Drawings.

The construction sequencing should be developed to confine the construction activities to a single lane at a time, whenever possible. Disruption of more than one lane of traffic, especially in the same direction, should be avoided. If, for any reason, construction has to take place in more than one lane at a time, consideration should be given to scheduling the work during periods of low traffic volumes, such as during weekends or off-peak nighttime hours. Detouring traffic (routing the traffic off the normal existing travel surface) if utilized as part of the TCP, must be investigated, documented and approved by the City’s Traffic Engineer.

The drawings of the construction sequence should have a *plan view* of the project. The plan view should clearly distinguish areas of construction with areas of traffic for each phase. This may be accomplished by

some form of shading, hatching or coloring. The work zone is to be distinguished from the actual construction limits (i.e. actual paving being constructed). Likewise, when phasing consists of multiple steps, the different steps should be clearly defined by contrasting patterns or coloring.

In conjunction with plan view sequencing of the project, **typical sections** should be developed at representative locations along the project. These sections should show: the existing and proposed construction elements, traffic lanes, work zone, construction pavement markings, barriers and buffer zones, anticipated drop-off's and/or key elevational differences in the construction of the project. The typical sections should be drawn to an appropriate scale and be clearly dimensioned and annotated. These sections should be included with the plan view construction sequencing in the preliminary engineering report for approval by the City's Traffic Engineer.

In developing the representative sections, **a minimum travel lane width of ten (10) feet** shall be maintained. If space is not available within the existing facility, temporary widening of the pavement section may be necessary to provide a minimum ten (10) foot travel lane. The sections should coincide with the plan view in terms of clearly defining areas of traffic, the work zone and the construction limits by matching the shading or hatching of the plan view.

The Engineer shall **meet** with the City's Traffic Engineer during the following three (3) stages of the design process, as a minimum:

1. Prior to submittal of the preliminary engineering report to determine the critical objectives of the plan: whether sequencing can be accomplished with minimal lane closings, what level-of-service is adequate, etc.
2. Upon completion of preliminary engineering report and prior to start of detailed design, the Construction Sequencing Plan comments should be discussed and refined prior to proceeding with detailed design of the Traffic Control Plan.
3. Upon completion of a detailed Traffic Control Plan to review the drawings, specifications and quantity estimates for completeness.

TRAFFIC CONTROL PLAN – GENERAL REQUIREMENTS

Once the Construction Sequencing is established and approved by the City, the Traffic Control Plan (TCP) can be designed. The primary purpose of the TCP is to **protect the traveling public and provide a safe area for construction**. The TCP should follow expeditious steps toward completion of the project within the federal, state and City standards and guidelines. To accomplish this, TCP drawings should provide sufficient details, complete with all necessary placement of barricades, signing, pavement markings, delineation, detours, temporary traffic signals and their adjustments and any other devices necessary to safely control traffic through the construction zones.

Wherever possible, the Traffic Control Plan should utilize the current phase placement of control devices to implement the next phase. By proper coordination of the construction sequencing, the traffic control plans can be simplified by utilizing portions of the current arrangement and devices already in place, for the next phase.

The Traffic Control Plan should contain the following four (4) basic elements:

1. Project approach signing
2. Phasing overview
3. Detailed plans for each phase of construction (including steps if any).
4. Necessary TCP details (this includes all applicable City TCP Details).

1. *Project approach signing.*

The project approach signing drawings may be completed in linear fashion (stick drawing) or to an appropriate scale and will indicate the overall project limits and all necessary approach signing to be set up prior to the beginning of construction. All signing will be properly annotated and dimensioned. Engineering notes, which apply to the overall Traffic Control Plan, may also be placed on this sheet.

2. *Phasing overview.*

The phasing overview drawing, depending upon the complexity of the TCP, is intended to convey the overall phasing of the project on a single drawing. If the project is complex and/or the phasing cannot be shown clearly on a single drawing, multiple drawings (one (1) phase per drawing) should be utilized. This drawing should also contain a brief description, on a step by step basis, as to the construction activities anticipated, and in what order, for the shown phase and where typical sections are cut. If sufficient space is available, typical sections may be included on this drawing for completeness.

3. *Detailed plans for each phase of construction (including steps if any).*

Following each phasing overview drawing is the set of detailed traffic control plans needed for each phase. The detailed plan has itself a set of requirements indicating completeness, which must be met by the Engineer.

- Travel lane widths shall not be less than 10 feet.
- The TCP's should be designed to maintain the existing posted speed during the construction. If speed reductions are necessary, every attempt should be made to limit the reduction to no greater than 10 mph below the existing posted speed. If reductions beyond this are unavoidable, these speed reductions should be done in incremental steps with the City Engineering Department approval.
- The TCP's must emphasize maintaining the existing number of travel lanes during implementation, except for construction phase changes and then only during prescribed hours of low traffic as determined from a current traffic analysis.
- TCP's should be prepared at a scale not smaller than 1" = 50' for full size drawings (24" x 36") or 1" = 100' for half size (11" x 17") drawings.
- Typical cross sections showing the existing and proposed construction complete with traffic lanes, construction pavement markings, delineators, barriers, buffer zones by barrels or CTB's, pavement drop-offs and construction details as applicable, shall be shown for all representative situations adjacent to their location in the plan view. The typical sections should be drawn to an appropriate scale and be clearly dimensioned and annotated.
- All construction signing shall be represented pictorially and designated with the appropriate identification numbers as shown in the Texas MUTCD.

- All other traffic control devices shall be shown pictorially and properly labeled on both the plan and cross section views.
- TCP's shall be complete, noting all barricades, signing, pavement markings, delineation, detours, etc., necessary to control traffic during the construction process.

4. Necessary TCP details (this includes all City of League City Barricade & Construction details).

Following the detail TCP drawings, sufficient details at an appropriate scale should be provided for the implementation of these plans for unique situations. These details may consist of but not be limited to: specific traffic handling at major intersections, traffic signal movements, handling of public and private driveways, special utility construction, detour layouts and pavement sections, etc. Inclusion of the City's barricades and construction devices as appropriate.

Speed limits on Construction Projects:

The Engineer should determine and recommend a construction zone design speed for the project. **Advisory** speed signs (orange and black) are mainly suggested for use on projects with spot or short speed reduction needs and projects where the advisory speed is no more than 10 mph below the posted speed or the observed 85th percentile speed. Speed limits for the entire length of a longer project where the advisory speed is more than 10 mph below the posted speed limit or the observed 85th percentile speed can be established below the posted speed utilizing **regulatory** (black and white) speed zone signs. The recommended speed should be **reasonable and safe** for the traveling public under the conditions found. Any such recommendation should be documented in the traffic engineering study and approved by the City's Traffic Engineer.

Advisory Speed Plate:

If the construction zone design speed is lower than the existing posted speed, the maximum recommended speed through the construction area may be indicated by orange and black **advisory speed limit plate** (for use with orange construction and maintenance signs, as per the T.M.U.T.C.D.). Please note that advisory speeds are "recommended" speeds for the benefit and assistance of the vehicle operator, not mandated and enforced by law.

Regulatory Speed Zones:

Reduction of the existing posted regulatory speed limit (or alteration of the prima facie speed limits) using black and white **regulatory** signs, must be made based on a comprehensive engineering or traffic investigation, and authorized by the City Council of the City of League City. If it is found to be necessary to alter the existing speed limit, and it has been studied and authorized, the new speed limit is **enforceable**. All existing regulatory speed limit signs must then be covered or removed and replaced with the temporary construction zone regulatory speed signs.

APPLICATIONS OF GUIDELINE DRAWINGS

A set of guideline drawings has been prepared to assist the Engineer in designing a Traffic Control Plan for a given project. The guideline drawings represent an arrangement of traffic control devices for a given situation. These guideline drawings show a deployment of a number of devices that represent a minimum requirement. Therefore, if in the judgment of the Engineer, additional signing is needed for a particular situation, it is advisable to add whatever is in the best interest of the safety of the public and the project.

In general, these guideline drawings should be used as a template or an example of how, where and how many devices to deploy in any particular situation.

After review of the typical construction and maintenance projects undertaken by League City, a set of guideline drawings have been developed (see **Table 804.01**) to address the typically encountered construction activities. These activities are broad enough to cover several kinds of construction operations. Therefore, in order to apply any one of the guideline drawings, *the Engineer must have defined his particular construction operations in terms of the ITEMS of construction, space requirements and time of completion.* These considerations apply to whether the entire project is being considered or only one construction phase at a time.

The guideline drawings show deployment of traffic control devices in a schematically straight section of roadway. This deployment does not show actual dimensions for device spacing. They do show, however, “X” s and dimensioning arrows for the places where dimension are to be calculated by the Engineer. The required distances are dependent on *work zone speed* within the construction area and are determined from **Table 804.02**, taken from MUTCD. *The Engineer must show, as a minimum, all the devices shown on the guideline drawing, placed at actual location on the TCP drawings, with exact distances, and also taking into account the proposed roadway alignment.*

USE OF GUIDELINE DRAWINGS

The guideline drawings are meant to be schematic. The key information they contain is the type and location of the traffic control devices required for a given situation. Traffic control devices are standardized by the Texas Department of Transportation, in the Texas MUTCD. The guideline drawings present the selection of the appropriate devices for each particular condition. These *guideline drawings depict minimum requirements* for a particular condition and should be modified for actual conditions.

A key point in selecting the appropriate guideline drawings for preparing of the Traffic Control Plan is to choose only the drawings that apply to the project. The selection is based upon the development of the construction sequencing with each phase and step clearly defined. Selection of the guideline drawings may be accomplished to the extent that the description of the activity fits the general description of work in the guideline drawing selection tables (see **Tables 804.03 & 804.04**).

Once the applicable guideline drawings are selected, the next step is to apply them to the project. To do this, engineer must survey the construction area to determine the posted speed limit or determine safe construction zone speed limit. Refer to the section “Traffic Control Plan – General Requirements”, ITEM 3 for proper selection of the construction zone speed.

With the speed selected, the distances of placement of the various devices can be obtained from the Speed/Distance Table (see **Table 804.02**). On the actual TCP drawing for each phase of the project, the Engineer must superimpose all the devices from the guideline drawing, at the required distances taken from the **Table 804.02**. These distances can be modified if necessary by project space constrictions, such as when a sign placement occurs at a driveway or intersection. In the case

when the distance available between intersections is not sufficient to allow proper advanced warning, a lower construction zone speed, which is *safe and reasonable*, may be considered in order to obtain a comprehensive sign spacing. In cases of obstructions, the distance can be changed to clear the obstruction with the understanding that distances shown on **Table 804.02** are minimum requirements.

In summary, to use the guideline set of traffic control drawings, the Engineer should complete the following drawing selection process steps:

1. Develop a comprehensive construction sequence plan for the project and obtain City of League City Engineering Department approval.
2. Create a phasing overview drawing showing each phase of construction and steps of the major construction activities (Ref: Phasing Overview Dwg. TCP-2)
3. Create the project approach sign layout drawing for the current construction project (Ref: Project Approach Signing TCP-1).
4. Locate in **Table 804.04 (City- Traffic Control Operations)** under the “Construction Operations” column, the construction operation that best describes the project. Locate, in **Table 804.04**, under the “Construction Area Required” column, the lane closure conditions required by the project’s construction operation.
5. With the information developed on the steps above, find the applicable guideline drawings. This is done by referring to **Table 804.05 (League City Traffic Control Guideline Drawing Chart)** and looking at the operation area required, i.e.: one lane closure, in relation to the roadway section, i.e.: 4 lane road, to find the applicable guideline drawings. The list of guideline drawings can be found in **Table 804.01 (League City Traffic Control Guideline Drawing List)**.
6. Conduct appropriate traffic study and determine the construction zone speed, preferably the existing posted speed, and calculate the appropriate device spacing. This step is accomplished by following the directions in **Tables 804.02 and 804.03 (Speed/Device Spacing)**.
7. If the appropriate work zone design speed is determined to be 15 mph less than the posted speed limit, it may be necessary to temporarily change the posted speed limit and/or post additional signs to inform the public that traffic fines may be doubled in the work zone. Any changes to the posted speed limit must be approved by the City’s Engineering Department and League City’s City Council.
8. Complete the TCP drawings and necessary details.

9. Prepare the required specifications and cost estimate.

**TABLE 804.01
LEAGUE CITY TRAFFIC CONTROL
GUIDELINE DRAWING LIST**

<u>DWG NO.</u>	<u>DESCRIPTION</u>
TCP- 1	PROJECT APPROACH SIGNING
TCP- 2	PHASING OVERVIEW
TCP- 3	ONE LANE CLOSURE -3 & 4 LANE ROAD
TCP- 4	ONE LANE CLOSURE -4 & 5 LANE ROAD
TCP- 5	ONE LANE CLOSURE – 6 LANE ROAD
TCP- 6	TWO LANE CLOSURE – 4 LANE ROAD
TCP- 7	TWO LANE CLOSURE – 5 & 6 LANE ROAD
TCP- 8	TWO LANE CLOSURE – 6 LANE BLVD.
TCP- 9	SHOULDER WORK
TCP- 10	MEDIAN WORK
TCP- 11	INSIDE LANE CLOSURE- 4 LANE ROAD
TCP- 12	INSIDE LANE CLOSURE – 6 LANE ROAD
TCP- 13	BOULEVARD CLOSURES
TCP- 14	DETOURS- 1 AND 2 LANE
TCP- 15	TASK FORCE OPERATIONS
TCP- 16	1 LANE CLOSURE- FLAGGING OPERATION
TCP- 17	FLAGGING/MOVING OPERATION
TCP- 18	INTERSECTION SEQUENCING
TCP-19	CONSTRUCTION CROSSING EXISTING FACILITIES

**TABLE 804.02
TYPICAL TRANSITION LENGTHS AND
SUGGESTED MAXIMUM SPACING OF DEVICES**

Minimum Desirable Taper Lengths **						
Posted Speed *	Formula	10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	$L = \frac{WS}{60}$	150'	165'	180'	30'	60' – 75'
35	$L = \frac{WS}{60}$	205'	225'	245'	35'	70' – 90'
40	$L = \frac{WS}{60}$	265'	295'	320'	40'	80' – 100'
45	$L = WS$	450'	495'	540'	45'	90' – 110'
50	$L = WS$	500'	550'	600'	50'	100' – 125'
55	$L = WS$	550'	605'	660'	55'	110' – 140'
60	$L = WS$	600'	660'	720'	60'	120' – 150'
65	$L = WS$	650'	715'	780'	65'	130' – 175'

*85th Percentile Speed may be used on roads where traffic speeds normally exceed the posted speed limit.

**Taper lengths have been rounded off.

L= Length of Taper (FT.)

W= Width of Offset (FT.)

S= Posted Speed (MPH)

TABLE 804.03
CONSTRUCTION WARNING
SIGN SPACING

Posted Speed or 85% Speed (MPH)	X Min. Distance (FT.)
30 or less	120
35	160
40	240
45	320
50	400
55	500
65	750

TABLE 804.04

LEAGUE CITY – TRAFFIC CONTROL OPERATIONS					
CONSTRUCTION OPERATIONS	CONSTRUCTION AREA REQUIRED				
GENERAL DESCRIPTION	LANE CLOSURE				
	ONE	TWO	THREE	NONE	ALL
# 1 Bridge Construction	STD-OP	STD-OP	STD-OP	N/A	DETOUR
# 2 Bridge Repair	STD-OP	STD-OP	STD-OP	N/A	DETOUR
# 3 Bridge Replacement	STD-OP	STD-OP	STD-OP	N/A	N/A
# 4 Bridge Widening	STD-OP	STD-OP	STD-OP	N/A	DETOUR
# 5 Culvert Installation	STD-OP	STD-OP	N/A	N/A	DETOUR
# 6 Culvert Replacement	STD-OP	N/A	N/A	N/A	N/A
# 7 Ditch Maintenance	STD-OP	N/A	N/A	MISC-OP	N/A
# 8 Driveways Work	STD-OP	N/A	N/A	MISC-OP	N/A
# 9 Elect. Power Work	STD-OP	N/A	N/A	MISC-OP	N/A
# 10 Gas Lines Work	STD-OP	N/A	N/A	MISC-OP	N/A
# 11 Guard Rail Installation	STD-OP	N/A	N/A	N/A	N/A
# 12 Guard Rail Repair	STD-OP	N/A	N/A	N/A	N/A
# 13 Landscaping Inside	STD-OP	STD-OP	N/A	N/A	N/A
# 14 Landscaping Outside	STD-OP	N/A	N/A	MISC-OP	N/A
# 15 Lighting Installation	STD-OP	N/A	N/A	MISC-OP	N/A
# 16 Lighting Repair	STD-OP	N/A	N/A	MISC-OP	N/A
# 17 Loop Detectors	STD-OP	STD-OP	N/A	N/A	N/A
# 18 Pavement Replacement	STD-OP	STD-OP	STD-OP	N/A	DETOUR
# 19 Road Repair	STD-OP	N/A	N/A	N/A	DETOUR
# 20 Road Resurfacing	MISC-OP	N/A	N/A	N/A	N/A
# 21 Road Striping	MISC-OP	N/A	N/A	N/A	DETOUR
# 22 Road Widening	STD-OP	N/A	N/A	N/A	N/A
# 23 R.O.W. Mowing	MISC-OP	N/A	N/A	MISC-OP	N/A
# 24 Sanitary Sewers Work	STD-OP	STD-OP	N/A	MISC-OP	DETOUR
# 25 Shoulder Construction	STD-OP	N/A	N/A	MISC-OP	N/A
# 26 Signs: Install/Repair	STD-OP	N/A	N/A	MISC-OP	N/A
# 27 Storm Drainage Work	STD-OP	STD-OP	N/A	MISC-OP	DETOUR
# 28 Street Repair	STD-OP	N/A	N/A	N/A	DETOUR
# 29 Street Resurfacing	MISC-OP	N/A	N/A	N/A	N/A
# 30 Street Striping	MISC-OP	N/A	N/A	N/A	DETOUR
# 31 Street Widening	STD-OP	N/A	N/A	N/A	N/A
# 32 Telephone Work	STD-OP	N/A	N/A		N/A
# 33 Traffic Signals	STD-OP	N/A	N/A		N/A
# 34 Water Lines Work	STD-OP	STD-OP	N/A		DETOUR

CITY OF LEAGUE CITY

Department of Public Works, Engineering, and Traffic & Transportation

Last Updated: March 4, 2021

Design Guidelines

TABLE 804.05

LEAGUE CITY TRAFFIC CONTROL GUIDELINE DRAWING CHART							
GENERAL DESCRIPTION	ROADWAY SECTION						
STANDARD OPERATIONS	2 LANE RD.	3 LANE RD.	4 LANE RD.	5 LANE RD.	6 LANE RD.	4 LANE RD. W/MEDIAN	6 LANE RD. W/MEDIAN
ONE LANE CLOSURE	TCP-16 TCP-14	TCP-3	TCP-3	TCP-4	TCP-5	TCP-4	TCP-5
TWO LANE CLOSURE	TCP-14	N/A	TCP-6	TCP-7	TCP-7	TCP-13	TCP-8
THREE LANE CLOSURE	N/A	N/A	N/A	N/A	N/A	N/A	TCP-13 TCP-14
INSIDE LANE CLOSURE	N/A	N/A	TCP-11	N/A	TCP-12	TCP-11	TCP-12
TWO INSIDE LANE CLOSURE	N/A	N/A	N/A	N/A	TCP-11 TCP-12	N/A	TCP-10 TCP-11
NON-STANDARD OPERATIONS							
NEW CONSTRUCTION-CROSSING EXISTING FACILITIES	TCP-19	TCP-19	TCP-19	TCP-19	TCP-19	TCP-19	TCP-19
INTERSECTIONS	TCP-18	TCP-18	TCP-18	TCP-18	TCP-18	TCP-18	TCP-18
BOULEVARD CLOSURES	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 804.05 Continued

LEAGUE CITY TRAFFIC CONTROL GUIDELINE DRAWING CHART							
GENERAL DESCRIPTION	ROADWAY SECTION						
STANDARD OPERATIONS	2 LANE RD.	3 LANE RD.	4 LANE RD.	5 LANE RD.	6 LANE RD.	4 LANE RD. W/MEDIAN	6 LANE RD. W/MEDIAN
MISCELLANEOUS OPERATIONS							
OVERLAY OPERATIONS (MOVING OPERATIONS)	TCP-15	TCP-15	TCP-15	TCP-15	TCP-15	TCP-15	TCP-15
FLAGGING OPERATIONS (POTHOLE PATCHING)	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17
MAINTENANCE WORK (GENERAL)	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9
UTILITY OPERATIONS (GENERAL)	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9
MOWING OPERATIONS (BY SECTOR)	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17	TCP-17
CONSTRUCTION OF DRIVEWAYS (LOCALIZED)	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9	TCP-9

**ITEM 805
Intersection Sight Distance**

- A. Dedicated right-of-way or easements are required to meet the intersection sight distance triangle requirements.
- B. Design basis.
 - 1. Design Vehicle – Passenger Car
 - 2. Design Standard – AASHTO “A Policy on Geometric Design of Highway and Streets”
 - 3. Lane Widths – 12-foot-wide travel lanes (typ. but can be 11 foot or 10 foot)
 - 4. Level Road Surfaces
 - 5. Driver’s Eye – 25-foot distance from curb line of the main roadway
 - 6. Sight Distance – Is measured to the center of the outside lane on the main roadway approaching from the left and to the center of the inside lane of traffic on the main roadway approaching from the right.
- C. Design procedures:
 - 1. Determine design speed of the main roadway. Design speeds for new roads should be based upon the proposed roadway classification.
 - 2. For the appropriate design speed, determine the minimum sight distance from **Table 8.05.01**.

TABLE 8.05.01 – Required Intersection Sight Distance

Design Speed (mph)	Sight Distance (feet)*
30	200
35	250
40	305
45	360
50	425
55	495

* Based upon AASHTO intersection sight distance criteria

- 3. Develop a scaled drawing depicting the sight triangle base on the design criteria. Refer to **Intersection Sight Distance** sample drawing.

ITEM 806 Pedestrian Facilities (Sidewalks and Wheel Chair Ramps)

- A. Accessibility ramps shall be constructed at all intersections.
- B. Ramps, approaches, and sidewalks shall comply with ADA and TAS requirements.
- C. Approved sidewalk/ramp details are shown in **Pedestrian Facilities Sheets 1 to 4**. Use of these details are specific to certain field conditions such as ramp direction, driveway crossings, crosswalk locations and the location of the sidewalk with respect to the curb.
- D. Where use of standard sidewalk/ramp details is not possible due to field conditions, engineer shall submit proposed design drawings to the City for approval. Design drawings shall include site field survey conditions.
- E. Accessibility ramps should cross street at 90 degrees to centerline of street whenever possible.
- F. All ramps constructed on an intersection corner should be interconnected for pedestrian access continuity.
- G. Mid-block crosswalks are not permitted without the approval of the City. The specific conditions which warrant a mid-block crosswalk must be provided to support the request for a design variance.
- H. Sidewalks at intersections are to be provided with unobstructed areas as shown in **Pedestrian Facilities Intersection Geometry Curb Radius and Corner Cutback** and are to be free of obstructions and surface encroachments such as sign posts, power poles, and down guy wires within that area.
- I. Concrete sidewalk in esplanades:
 - 6-inch-thick reinforced concrete sidewalk shall be constructed in esplanades when curbs are 10 feet face to face of curb or less in width with a minimum length of 6 feet measured from the face of curb of the esplanade nose.
 - Reinforced concrete sidewalk in esplanades shall be colored black for concrete roadways.
 - Reinforced concrete sidewalk in esplanades shall be uncolored for asphaltic concrete roadways.

ITEM 807 **Median Design**

A median separating the two opposing traffic lanes is a highly desirable element in planned high-density areas. A flush median is required for 2-lane streets when the Average Daily Traffic (ADT) is expected to reach or exceed 3,000 vehicles per day. A flush median is required for 4-lane streets when the ADT is expected to reach or exceed 6,000 vehicles per day. A raised median is required for streets when the ADT is expected to reach or exceed 20,000 vehicles per day.

Minimum Median Width:

- (1) For local streets, refer to **Divided Street Typical Cross Section**.
- (2) For street classifications depicted on the Master Mobility Plan, refer to **Divided Street Typical Cross Section**.

Minimum Median Length:

- (1) Median lengths are based on functional street classification of the main roadway and intersecting street.
- (2) Refer to Section 801 of this manual.

Commented [SC1]: Formatting issue - Should be page 232 – be sure correct prior to submitting to posting manual

DEVELOPMENT RELATED ORDINANCES, CODES, AND AGENCIES

City of League City (COLC) Ordinances

https://library.municode.com/tx/league_city/codes/code_of_ordinances

“Communication Towers and Structures”	Chapter 31
“Noise.”	Chapter 42, Article II - COLC
“Oil and Gas Well Drilling.”	Chapter 42, Article III - COLC
“Drilling Production, Plugging and Abandonment”	Chapter 42, Article IV - COLC
“Pipelines and Pump Stations.”	Chapter 42, Article V - COLC
“Seismic Testing.”	Chapter 42, Article VI - COLC
“Floods”	Chapter 50, Article X
“Manufactured Homes and Recreational Vehicles”	Chapter 66
“Streets, Sidewalks, and Other Public Places”	Chapter 98
Also covers Excavations, Quarries, Mines, Easements, Management and Abandonment of Rights-of-Ways ROW), Network providers in /row and Installation of storm sewer pipes	

COLC Adopted Building Codes

International Building Code (IBC) 2015 (For Commercial Buildings)

International Plumbing Code (IPC) 2015 (For Commercial Buildings)

International Mechanical Code (IMC) 2015 (For Commercial Buildings)

National Electric Code (NEC) 2017

International Fuel and Gas Code (IFGC) 2015

International Energy Conservation Code (IECC) 2015

International Residential Code (IRC) 2015. (For one and two-family dwellings, 3 stories or less.)

International Fire Code (IFC) 2015

COLC GIS. 281-554-1452 Addressing

COLC Plans

Comprehensive Plan

<http://www.leaguecity.com/DocumentCenter/View/132/2035-Comp-Plan?bidId=>

Mobility Master Plan; Wastewater Master Plan; Water Master Plan

<https://www.leaguecity.com/1737/Master-Plans>

Parks, Trails, and Open Space Master Plan

<http://www.leaguecity.com/DocumentCenter/View/15744/Parks-Trails-and-Open-Space-Master-Plan---November-2017?bidId=>

County and State

Galveston County Health District Regulations

(Food Service Establishments Public/Semi-public Swimming Pools, On-site Sewage Facilities)

<https://www.gchd.org/public-health-services/environmental-health-services>

Galveston County Clerk's Office

600 59th Street Suite 2001
Second Floor
Galveston, Texas 77551-4180
(409) 766-2200

174 Calder Road, Room 149
League City, Texas 77573
(281) 316-8732

Texas Department of Transportation – Galveston. Access management on state roads.

Jamal Elahi, P.E. - Area Engineer
5407 Gulf Freeway (I-45)
La Marque, TX 77568
(409) 978-2500
Southeast Harris County 281-464-5500

Texas Commission Environmental Quality. Regional Office 713-767-3500

Permits for Storm Water discharges from construction activities that disturb 5 acres or more and 1 to less than 5 acres. A permit is not needed if the construction project disturbs less than 1 acre which is NOT part of a larger common plan of development.

<https://www.tceq.texas.gov>