THE CITY OF FERRIS

ORDINANCE NO. O-06-631

AN ORDINANCE OF THE CITY OF FERRIS, TEXAS; AMENDING THE CITY OF FERRIS CODE OF ORDINANCES, BY REPEALING THE SUBDIVISION ORDINANCE IN ITS ENTIRETY AND REPLACING IT WITH A NEW SUBDIVISION ORDINANCE SHOWN IN EXHIBIT "A". PROVIDING FOR A REPEALING CLAUSE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A SAVINGS CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The City Council of the City of Ferris from time to time finds it necessary to update the regulations for subdivisions and the development of subdivisions; and,

WHEREAS, The City Council of the City of Ferris has determined that there has been sufficient change in construction practices and materials used to necessitate the adoption of new regulations;

NOW THEREFORE; BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FERRIS, TEXAS:

Section 1. That the subdivision ordinance is hereby repealed in its entirety and replaced with a new subdivision ordinance shown in Exhibit "A".

Section 2. All provisions of the ordinances of the City of Ferris in conflict with the provisions of this ordinance be, and the same or hereby, repealed, and all other provisions of the ordinances of the City of Ferris not in conflict with the provisions of this ordinance shall remain in full force and affect.

Section 3. That should any sentence, paragraph, subdivision, clause, phrase or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole, or any part or provision thereof other than the part so decided to be invalid, illegal or unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

Section 4. That this ordinance shall take effect immediately from and after its passage and publication of the caption of said ordinance as the law in such case provides.

DULY PASSED AND APPROVED by the City Council of the City of Ferris, Texas this 21st day of August, 2006.

APPROVED:

Jim E. Parks, Jr., Mayor

CITY OF FERRIS
ELLIS COUNTY

ATTEST:

Pat Bradley, City Secretary

APPROVED AS TO FORM:

David Dodd, City Attorney

CITY of FERRIS

SUB-DIVISION ORDINANCE

ADOPTED

AUGUST 21, 2006

ARTICLE 10.100 PLATTING PROCEDURES

Division 1. General Provisions

Sec. 10.101 Purpose and Intent

It is the purpose of this article to:

(1) Provide for the orderly, safe, and healthful development of the area within the city in accordance with the City of Ferris Comprehensive Land Use Plan;

(2) Promote and protect the health, safety, morals, and general welfare of the community by requiring that adequate streets, drainage facilities, and other public improvements are provided in all subdivisions;

(3) Provide for adequate light, air, and privacy, to secure from fire, flood, and other danger, and to prevent overcrowding of the land and undue congestion of population;

(4) Protect the character and the social and economic stability of all parts of the city and to encourage the orderly and beneficial development of all parts of the city;

(5) Protect and conserve the value of land throughout the city and the value of buildings and improvements upon the land, and to minimize the conflicts among the uses of land and buildings;

(6) Guide public and private policy and action in order to provide adequate and efficient transportation, water, sewer, drainage, schools, parks, and other public requirements and facilities;

(7) Insure that public facilities are available and will have a sufficient capacity to serve the proposed subdivision;

(8) Prevent the pollution of air, streams, and ponds, to assure the adequacy of drainage facilities, to safeguard the water table, and to encourage the wise use and management of natural resources throughout the city in order to preserve the integrity, stability, and beauty of the community and the value of the land;

(9) Preserve the natural beauty and topography of the city and to insure appropriate development with regard to these natural features;

(10) Provide facilities which can be maintained without imposing a burden to the taxpayers; and

(11) Provide accurate and complete plat records for the property within the city, all in accordance with a comprehensive plan.

Sec. 10.102 Short Title

This article shall be known and may be cited as "The City of Ferris Subdivision Regulations Article."

Sec. 10.103 Authority

This article is adopted under the authority of the constitution and laws of the State of Texas, including, particularly, Chapters 43 and 212 of the Texas Local Government Code.

Sec. 10.104 Jurisdiction

A plat for land within the city is required for approval before a person may:

(1) Divide the land into two or more parts for the purpose of sale of one or more lots or for the development of lots and streets, alleys, squares, parks, or other parts intended to be dedicated to public use or for the use of the purchasers of lots; or

(2) Obtain a permit for construction of a building upon a tract that has not been platted. Single-family residences that are being remodeled, reconstructed, or otherwise improved by a value less than fifty percent of the appraised value of the residence are exempt from this requirement. In the event that the remodel, reconstruction, or other improvement equals or exceeds fifty percent of the appraised value of the residence, a plat shall be required.

Sec. 10.105 Definitions

The following words and phrases, as used in this article, shall have the meanings respectively ascribed to them herein. Definitions not expressly prescribed herein are to be construed in accordance with customary usage in municipal planning and engineering practices:

City. The City of Ferris, Texas, including all its governing and operating bodies.

City Manager. That person appointed as city manager by the city council, or his/her designee.

City Council. The governing and legislative body of the City of Ferris.

City Engineer. That person or group of persons appointed as city engineer.

City Planner. That person or group of persons appointed as city planner.

City Secretary. That person appointed by the city council, including any deputies appointed by the city council.

Commission. The City of Ferris Planning and Zoning Commission.

Comprehensive Plan. The comprehensive land use plan of the city recommended by the planning and zoning commission and adopted by the city council, including all revisions.

Concept Plan. A sketch or rough layout of the proposed development plans for use in the pre-application conference.

Developer. The legal or beneficial owner of a lot or of any land included in a proposed development, including the holder of an option or contract to purchase, or other person having enforceable proprietary interests in such land.

Development. The construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill, or land disturbance; and any use or extension of the use of land.

Dwelling Unit. That area of a structure set aside for single-family living; a single-family residence is one dwelling unit, a duplex is two dwelling units and each apartment of an apartment complex is a separate dwelling unit.

Engineer. A person authorized under the provisions of the Texas Engineering Registration Act to practice the profession of engineering.

Floodway. The channel of a watercourse and the adjacent floodplain that must be reserved for the passage of the 100-year flood without cumulatively increasing the water surface more than one foot.

Floodplain Easement. An easement provided along all natural or man-made drainage ways of a width that will contain the 100-year flood.

Floodplain. The land adjacent to a river, stream, or watercourse that would be inundated by a 100-year (one percent chance) flood.

Floodplain Restrictions. Restrictions that apply only to developments within floodplain areas, including, but not limited to, the requirement of a floodplain development permit and a finished floor elevation of at least one foot above the 100-year flood elevation.

Lot. A parcel of land which is designated as a separate lot; identified by a lot number or symbol in an approved subdivision plat which has been properly filed of record at the Ellis County courthouse.

Planning Administrator. That employee or representative of the city in charge of the planning function for the city and charged with the implementation and enforcement of the subdivision, zoning, and other growth-related ordinances.

Plat, Final. The final approved plat of any lot or lots to be recorded in the plat records of Ellis County.

Plat, Preliminary. The plat of any lot or lots that is not to be recorded of record but is only a proposed division of land for review and study by the city.

Plat, Short-Form. A subdivision of not more than three lots, which does not require the dedication or improvement of any street or the provision of easements for drainage or utilities or the extension or installation of new utilities which allows a short form process that eliminates the need for a preliminary plat.

Public Works Director. The person under the supervision of the city manager, who is appointed as the director of public works.

Regulatory (100-Year) Flood. A flood having a one percent chance of occurrence in any given year. It is based on statistical analyses of stream flow records available for the watershed and analyses of rainfall and runoff characteristics in the general region of the watershed.

Replatting. The rearrangement of any part or all of any lot or lots, of a previously platted subdivision.

Shall, May. The word "shall," wherever used in this article, will be interpreted in its mandatory sense; the word "may" shall be interpreted as permissive.

Street. A public way for vehicular traffic, whether designated as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, lane, private place, or however otherwise designated.

Types of Streets:

(1) *Access or Frontage Road*. A street or road that provides access to adjacent properties along a freeway or expressway.

(2) *Approach Street*. A new or existing street not adjacent to a subdivision being developed but which provides access or improved access to such subdivision.

(3) *Collector Street*. A street that may be continuous through several neighborhoods, distributing traffic from the arterial street system. A collector street provides both land access and local traffic movements within neighborhoods.

(4) *Cul-De-Sac*. A short street terminating in a turnaround.

(5) *Freeway or Expressway*. A highway intended to move large volumes of traffic around and across the city without direct access to adjacent land.

(6) *Local or Residential Street*. A street that provides direct access to abutting properties and connects to the collector street system. Residential streets should be short and discontinuous to discourage through traffic.

(7) *Minor Arterial*. A street that interconnects and augments the principal arterial system with more land access at a lower level of traffic mobility.

(8) *Principal Arterial*. A street that serves the major center of metropolitan activity, among the highest traffic volume corridors of trips into and out of the city. Due to the high traffic volume, direct access is controlled.

(9) *Thoroughfare (Major Street)*. Designates principal traffic thoroughfares more or less continuous across the city, which are intended to connect remote parts of the city or areas adjacent thereto and act as principal connecting streets with state and federal highways. Major streets are designated on the comprehensive land use plan of the City of Ferris.

(10) *Industrial or Commercial Street*. A street intended to serve traffic within an area of industrial or commercial development.

(11) *Private Street*. A street providing direct access to abutting properties that connect to the city's street system and which is not owned, improved, or maintained by a governmental entity.

Sub-divider. A person, firm, association, corporation, syndicate, trust, or any other legal entity who subdivides or seeks to subdivide land into two or more lots, or who otherwise seeks to develop land in a manner that requires the submission of a plat. The term sub-divider includes an owner or developer of land.

Subdivision. The development of a lot, tract, or parcel of land, or a division of a lot, tract, or parcel of land into two or more parts, lots, or sites for the purpose, whether immediate or future, of sale, division of ownership, building, or other development. Subdivision includes re-subdivision of land or lots that are part of a previously recorded subdivision.

Surveyor. A registered professional land surveyor (R.P.L.S.) licensed by the State of Texas to practice the profession of surveying.

Tract. An unplatted parcel of land described by metes and bounds and typically recorded in the county deed records (rather than the plat records).

Utility Easement. An interest in land granted to the city, to the public in general, and/or to a private utility corporation for installing or maintaining utilities across, over, or under private land, together with the right to enter thereon with machinery and vehicles necessary for the maintenance of the utilities.

Secs. 10.106—10.110 Reserved.

Division 2. Procedures

Sec. 10.111 Pre-Development Conference

(a) City Staff Personnel. The property owner or sub-divider shall meet with the City of Ferris staff prior to submission of any plat application. The meeting(s) may be with any of the following city staff members: planning administrator, city engineer, city manager, public works director and/or building official.

(b) Purpose. The general purpose of the pre-development conference is to assist developers and applicants through the development process in the most efficient manner possible. The pre-development conference's more specific purposes are to:

(1) Provide technical review;

(2) Ensure compliance with development codes and ordinances; and

(3) Brief the applicant on the platting procedures of the City of Ferris.

Sec. 10.112 Concept Plan Processing

Prior to the submission of a preliminary plat, the sub-divider may submit a concept plan for purposes of general review and comment by the city staff. The general character of the development will be addressed, and items may be examined concerning zoning, utility service, street requirements, and other pertinent factors related to the proposed subdivision.

Sec. 10.113 Preliminary Plat Processing

On making revisions as recommended in Section 10.112, Concept Plan Processing, the sub-divider shall prepare a preliminary plat of the proposed subdivision for submission to the city with the following:

(1) Copies of the preliminary plat (in the amount stipulated by the city) shall be submitted to the city through the planning administrator not less than 30 days prior to the planning and zoning commission meeting at which consideration is desired. Preliminary drainage plans shall be submitted to the city engineer at this time for review. The preliminary plat prints shall be folded in such a manner that the title block is easily read from the outside and

have folded dimensions of 8 1/2" x 14" or 9" x 12," unless otherwise approved by the planning administrator prior to submittal.

(2) A filing fee is required to be paid to the city at the time of the submittal, as stipulated in the City of Ferris Fee Chapter.

(3) The preliminary plat shall be considered actually filed with the city after it is found to be in compliance with the general provisions of these regulations by the planning administrator and it is posted on a planning and zoning commission agenda. The date of posting on an agenda shall be considered the actual filing date with the city (not the date that the application for preliminary plat processing is submitted).

(4) At the time of filing with the city, the following notice shall be stamped on the face of each preliminary plat: "Preliminary Plat-For review purposes only."

(5) The preliminary plats shall be distributed immediately upon receipt in accordance with the checklist provided with the application for a preliminary plat. The planning administrator shall gather review comments and make a specific recommendation with regard to the technical aspects of the submittal. Such comments will be written and made available to the applicant.

(6) A report from the planning administrator shall be presented to the planning and zoning commission at the next regular meeting containing the results of the subdivision review. The report should include documents relative to the proposed subdivision's compliance with these regulations, the comprehensive land use plan, the zoning ordinance, and other plans, such as utility plans. The report may include comments from municipal departments or other agencies concerned with urban development.

(7) Following review of the preliminary plat and other materials submitted in accordance with these regulations, and review with the sub-divider on changes deemed advisable and the kind and extent of improvements to be made, the planning and zoning commission shall, within 30 days of the actual filing date with the city, approve, approve with modifications, or deny approval of the proposed preliminary plat; and if approved with modifications, the commission shall express its approval as approval with modifications and state the conditions of such approval, if any, or if denied, shall express its denial and its reasons therefore.

(8) The commission shall, at the next regularly scheduled city council meeting, submit the preliminary plat, with any conditions as established by the commission, to the city council for their consideration.

(9) The city council shall approve, approve with modifications, or deny approval of the preliminary plat.

(10) Approval of a preliminary plat shall not constitute approval of the final plat. Rather, it shall be deemed an expression of approval to the layout submitted on the preliminary plat as a guide to the preparation of the final plat.

(11) The commission shall, in its action on the preliminary plat, consider the physical arrangement of the subdivision and determine the adequacy of street and thoroughfare rights-of-way and alignment and the compliance of the streets and thoroughfares with the comprehensive land use plan, the existing street pattern in the area, and with any other applicable provisions of the comprehensive land use plan. The commission shall also ascertain that adequate easements for proposed or future utility service and surface drainage are provided, and that the plat complies with the provisions of the zoning ordinance.

(12) A notation of the action taken and requisite reasons therefore shall be entered into the records of the commission.

(13) Approval of the preliminary plat shall be valid for a period of 12 months from the date of approval, and the general terms and conditions under which the approval was granted will not be changed. The preliminary plat shall expire, unless a final plat is submitted within the 12 month period. The validity of the preliminary plat is extended for 12 months from the approval date of a partial final plat of any portion of the preliminary plat, and/or the acceptance of any community facilities installed by the sub-divider in the subdivision. The 12 month period may be extended by the city, based upon the written request of the sub-divider and his explanation of mitigating circumstances, and the city shall not unduly withhold approval of the request.

(14) The sub-divider may choose to final plat portions of the preliminary plat in phases. If the sub-divider chooses to final plat phases of the preliminary plat, the sub-divider must provide a phase schedule at the time of preliminary plat submission indicating the schedule of final platting of each phase. Phases may be revised by submitting a revised preliminary plat to the planning and zoning commission and city council for approval.

Sec. 10.114 Preliminary Plat Requirements

The sub-divider shall submit copies of the preliminary plat as set forth in the checklist (provided with the application for a preliminary plat), and such plat shall be accompanied by or show the following information:

(1) An accurate boundary survey, including a metes and bounds description prepared by a registered public surveyor, of the property with bearings and distances referenced to survey lines and established subdivisions, at a scale of one inch to 100 feet, unless prior approval for a variation in scale is obtained from the planning administrator.

(2) The name and location of a portion of adjoining subdivisions shall be drawn to the same scale and shown in dotted lines adjacent to the tract proposed for subdivision in sufficient detail to show the actual existing streets and alleys and other features that may influence the layout and development of the proposed subdivision. Where adjacent land is not subdivided, the owner's name of the adjacent tract shall be shown.

(3) The angle of intersection of the centerlines of all intersecting streets which are intended to be less than 90 degrees.

(4) The location and widths of all streets, alleys, and easements proposed for the subdivision, and all known rights-of-way and/or easements within or affecting the area to be subdivided.

(5) All proposed streets, alleys, easements, blocks, lots, building lines, parks, etc., with principal dimensions.

(6) Proposed names of subdivisions and streets shall not have the same spelling or be similarly pronounced to that of any other subdivision or street located within the city.

(7) Contours at five-foot intervals and except on terrain with less than a two percent grade, in which event, contours at two-foot intervals are required. The source of contour information will be placed on the plat. Contours are to be based on the National Geodetic Vertical Datum of 1929 (NGVD 1929). All easements or rights-of-way necessary for drainage within or without the boundaries of the subdivision shall be reflected upon the preliminary drainage plan.

(8) The location of the designated 100-year floodplain and the designated floodway per the FEMA floodplain maps. All easements or rights-of-way necessary for drainage within or without the boundaries of the subdivision shall be reflected upon the preliminary drainage plan.

(9) The title under which the proposed subdivision is to be recorded, and the name of the individual who prepared the plat.

(10) A vicinity map, showing the location of the tract by reference to existing streets or highways.

(11) Sites proposed to be reserved or dedicated for parks, schools, playgrounds, or other public uses.

(12) The scale, north arrow, and date of preparation.

(13) Each lot or block should be identified by number or letter.

(14) The property owner's name, address, and telephone number.

(15) A designation of the existing zoning of land within the subdivision and any zoning conflicts with proposed uses noted.

(16) The location of the city limits line and zoning district boundaries if they traverse the subdivision, form part of the boundary of the subdivision, or are contiguous to such boundary.

(17) If the proposed subdivision is a portion of a tract which is later to be subdivided in its entirety, then a preliminary plat of the entire tract shall be submitted.

(18) Tax certificates indicating that all taxes on the land being subdivided by the applicant have been paid to the current year.

(19) Preliminary drainage study, on a separate sheet, with 100-year floodplain limits and water and sewer layouts for city engineer to review. If there is a FEMA Zone "A" area located on the property beyond the limits of a detailed study, the developer's engineer will need to determine the limits of the 100-year floodplain.

Sec. 10.115 Final Plat Processing

(a) Within 12 months of the date of approval of the preliminary plat by the commission and the city council, unless extended by action of the city, the sub-divider may submit a final plat for approval. Copies of the final plat, as noted in the checklist provided with the application for a final plat, together with two reproducible transparent drawings, shall be submitted to the planning and zoning commission at least 30 days prior to the meeting at which consideration is desired. Plans for streets, water, and sewer service shall accompany the final plat in accordance with engineering requirements of Article 10.200, Design Criteria and Construction Standards.

(b) No final plat shall be accepted for processing until three copies of the corrected revised preliminary plat have been submitted to the city that reflect the city council's approval, modifications, or stipulations.

(c) The final plat shall conform substantially to the preliminary plat as approved, and it may constitute only that portion of the approved preliminary plat which is to be

developed at the time; provided, however, that such portion conforms to all requirements of these regulations.

(d) The official filing date with the city of the final plat shall be the date upon which the plat is found to be in compliance with the provisions of this article by the planning administrator and it is posted on a planning and zoning commission agenda. The date of posting on an agenda shall be considered the actual filing date with the city (not the date that the application for preliminary plat processing is submitted).

(e) The planning and zoning commission shall act on the final plat within 30 days after the official filing date with the city. If it is not disapproved within 30 days after filing with the city, the final plat shall be deemed approved by the planning and zoning commission. A certificate showing the filing date with the city and failure to disapprove the plat within 30 days of that filing date shall be issued by the planning administrator on demand, and this certificate shall be sufficient in lieu of a written endorsement or other evidence of approval.

(f) After review of the final plat and other material submitted therewith, the commission shall determine whether:

(1) the plat is in proper form;

(2) the arrangement of the development proposed for the property being subdivided is in general conformance with the comprehensive land use plan;

(3) the development is consistent with zoning regulations; and

(4) the subdivision complies with all the provisions of this article, and the final plans for streets, drainage, water, and sewer have been approved by the city engineer. The commission shall then approve or deny the plat, subject to final action by the city council, as specified in subsection (g).

(g) The final plat shall then be submitted to the city council for their consideration. The city council shall approve or deny the final plat within 30 days after the plat is approved by the planning and zoning commission or is considered approved by the inaction of the commission. The plat shall be considered approved by the city council unless it is disapproved within that period. A certificate showing the date on which the planning and zoning commission acted on the plat, or the date on which the plat was considered approved by the inaction of the commission, and failure of the Council to disapprove the plat within 30 days of that date shall be issued by the planning administrator on demand, and this certificate shall be sufficient in lieu of a written endorsement or other evidence of approval.

(h) The city council's approval of the final plat shall authorize the mayor and city secretary to execute the certificate of approval on the reproducible transparency of the final plat.

(i) The final plat shall then be held by the city building official until all required public improvements have been constructed and are ready to be accepted, and/or a community facilities agreement has been accepted by the city providing for the subsequent completion of improvements. After all required public improvements have been constructed the final plat will be filed of record by the city in the plat records of Ellis County, but only after the mayor has officially signed the community facility agreements with reference to public improvements, dedications, and utilities. Approval and filing of the final plat does not constitute acceptance of the public improvements of the subdivision.

(j) A sub-divider may obtain approval of a portion of a subdivision, provided that it meets the requirements of Section 10.114, Preliminary Plat Processing Regulations, subsection (14), and all the requirements of this article with reference to such portion in the same manner as is required for a complete subdivision. If a subdivision and the final plat thereof are approved by the city in portions, each final plat of each portion is to carry the name of the entire subdivision and shall also bear a distinguishing letter, number, or subtitle. Block numbers shall run consecutively throughout the entire subdivision.

Sec. 10.116 Final Plat Requirements

The sub-divider of land on which approval has been obtained on a preliminary plat shall prepare and submit a final plat to the city. The final plat submission shall consist of two reproducible transparent drawings and five blueline prints at a scale of one inch to 100 feet, unless prior approval for a variation in scale is obtained from the planning administrator. Copies of the reproducible transparency are not to exceed 24" by 36." The reproducible copies shall be prepared on mylar or equal stable base clear transparency material and be suitable for reproduction and for recording purposes. When necessary, the final plat may be on several sheets accompanied by an index sheet, showing the entire subdivision. For large subdivisions, the final plat may be submitted for approval progressively in sections satisfactory to the city. The final plat shall also be submitted in an appropriate electronic format (ArcView or geo-coordinated AutoCAD being PC compatible, as described in greater detail in # 17). The final plat shall show the following:

(1) A written legal description of the entire property by metes and bounds on the face of the plat, with bearings and distances referenced to survey lines and established subdivisions. The primary control points or monuments with descriptions and "ties" to such controls to which all dimensions, angles, bearings, and similar data on the plat shall be referred.

(2) Tract boundary lines sufficient to locate the exact area proposed for subdivision, right-of-way lines of streets, easements, and other rights-of-way and property lines of all lots and other sites, with accurate dimensions, bearings or deflection angles and radii, arcs and central angles of all curves. The location of the city limits line shall also be indicated, if applicable.

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

(4) The location and dimensions of all easements.

(5) Where building sites are located in the floodplain, the minimum finished floor elevation of one foot above the 100-year flood elevation shall be written on the face of the plat for every lot or building site. Also, this note shall be affixed to the face of the plat:

"The City of Ferris reserves the right to require additional minimum finished floor elevations on any lot contained within this subdivision. The minimum elevations shown are based on the most current information available at the time the plat is filed and may be subject to change."

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

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

(8) Minimum building setback lines.

(9) Reference to recorded subdivision plats or adjoining land by record name, i.e., tract number, volume, and page.

(10) The original survey title and abstract number.

(11) The subdivision title, graphic scale, and north arrow.

(12) The location of the point of intersection and points of tangency of street intersections, other than right-angle intersections.

(13) A positive reference and identification of the plat, and general location sketch map and date of plat.

(14) Owner's Certificate or Deed of Dedication. The owner's certificate or deed of dedication shall be executed by all persons, firms, or corporations owning an interest in the property subdivided or platted and shall be acknowledged in the manner prescribed by the laws for the State of Texas for conveyances or real property. The owner's certificate or deed of dedication shall, in addition to the above requirements, contain the following:

(A) An accurate description of the tract of land subdivided;

(B) A statement and express representation that the parties joining in such dedication are the sole owners of such tract of land; and

(C) An express dedication without reservation to the public for easements public use; the streets, alleys, rights-of-way, parks, school sites, and any other public areas shown on the plat.

(15) An owner's drainage acknowledgement block signed by the property owner, similar to the one shown below:

I,_____ , do hereby acknowledge and accept all storm drainage runoff coming on and across the property being platted.

_____ _____

Signature Date

(16) Tax certificates, indicating that all taxes on the land being subdivided have been paid to the current year.

(17) Electronic file made up of layers for each feature and must be compatible to ESRI ArcGIS Products or Autocad. One layer must contain 1 ft. contour information. In addition to the contours, detail to be shown on the mapping will include the following: coordinate grid ticks and values, spot elevations, road edges and centerlines, bridges, airfields, alleys, trails, driveways, parking areas, concrete barriers, railroads, parcels, buildings, tanks and silos, dams, trailer parks, culverts, drop inlets, catch basins, fence lines, athletic fields/courts, golf courses, cemeteries, storage areas, ripraps, transmission towers, utility poles, substations, drains, ditches, canals, rivers, streams, lakes, ponds, and tree lines. Fire hydrants and manholes will also be shown where visible. All Utility and Fire control systems must be shown. Special care will be taken to ensure that all data is GIS compatible. This will include closing polygons, establishing road centerlines, snapping contours to realigning walls, ensuring contours are not broken when annotation is placed, etc.

(A) Acquisition of Data. Acquisition of the survey data will be accomplished using GPS receivers. Quality assurance will be provided by conforming to guidelines outlined in the FGCC "Geometric Geodetic Accuracy standards specifications for Using GPS Relative Positioning Techniques." All network design, computations, and final values will be performed by a Registered Professional Land Surveyor (RPLS) or Registered Professional Engineer (PE) trained specifically in geodetic control disciplines with several years experience in GPS survey techniques.

(B) Control Points and Monumentation. To perform any accurate photogrammetric measurement, horizontal and vertical survey data will be required at approximately 4 control point locations in and around the

project area. These control points must be identifiable on the aerial photography and must be in strategic locations with respect to the flight lines and stereo-models. This is a critical element to the accuracy of the mapping and will serve as the foundation for the horizontal and vertical map datum's. The horizontal control will be established to at least second-order accuracy standards and will be referenced to the Texas State Plan Coordinate System, North Central Zone, NAD 1983. The vertical control will be established to at least third-order standards and referenced to mean sea level based on NGVD 1929. Two permanent control points or monuments which are located in the city must be used. They are defined by a permanent concrete monument with an aluminum cap identifying the city, year, monument number, and center locating mark. A concrete azimuth marker will also be established for each. Information on the monuments may be acquired from the MIS/GIS Department.

(18) Final plans for required improvements specified in Article 10.200, Design Criteria and Construction Standards.

(19) Final plats circulated for review purposes shall bear the surveyor's name, registration number, and the registered surveyor designation.

(20) The surveyor's certificate and seal with signature shall be placed on the mylar copies of the final plat, similar to the one shown below:

I,_____ , do hereby certify that I prepared this plat from an actual and accurate survey of the land, and that the corner monuments shown thereon were properly placed under my supervision.

_____ _____

Signature Date

(21) A certificate of approval by the city council including the date of approval, similar to the one shown below:

APPROVED BY THE CITY COUNCIL OF FERRIS, TEXAS,

on this _____ day of _____, _____.

ATTEST:

_____ _____

Mayor City Secretary

Sec. 10.117 Short Form Plat Processing

(a) In instances where the highly formalized final plat approval procedure is obviously not necessary, the short form platting procedure may be used. The short-form platting procedure waives the requirement for preliminary plat approval. The short form platting process may be used when the planning administrator determines that an understanding of the development process and its effect on surrounding development may be gauged without the formal platting procedure, and that the protection and guidance of community development as a whole may be maintained without the use of the formal platting procedure.

(b) All short-form plat submittals shall show the existing property being subdivided or re-subdivided in relation to the original tract or subdivision. In order to use the short form plat approval procedure in lieu of the final plat approval procedure, the following conditions must be met:

(1) Any parcel of land which may be determined to meet the following criteria may be submitted as a short-form plat and may be approved following the abbreviated procedures described below:

(A) The subdivision does not exceed five acres in size nor include more than three lots.

(B) The subdivision or use of the land subdivided does not require any alteration of utility installations, streets, alleys, or building setback lines.

(C) The area to be subdivided conforms in size and shape to lots in the vicinity.

(2) The short-form plat and supporting instruments are respectively drawn and compiled in compliance with the final plat specifications.

(3) Each lot fronts upon dedicated public right-of-way or public access easements of appropriate width, or an additional width of right-of-way is indicated on the plat in order to meet city standards.

(4) All easements to each lot have been previously granted or are shown on the plat.

(5) The proposed development neither contains nor creates a significant drainage problem, nor is topography a salient development consideration.

(6) All utilities required to serve each lot are in place, or arrangements to provide them have been made with the appropriate agency.

(7) The short form plat shall be distributed immediately upon receipt in accordance with the checklist provided with the application for a short form plat. The planning administrator shall gather review comments and make a specific recommendation with regard to the technical aspects of the submittal. Such comments will be written and made available to the applicant.

(8) Short Form Plats shall be submitted electronically as required by this Section 10.116.

Sec. 10.118 Replat Processing

(a) A replat of a subdivision, or part of a subdivision, may be filed of record at the county courthouse and is controlling over the preceding plat without vacation of that plat if the replat:

(1) Is signed and acknowledged by only the owners of the property being replatted;

(2) Is approved by the city council after a public hearing on the matter at which parties in interest and citizens have an opportunity to be heard;

(3) Does not attempt to amend or remove any covenants or restrictions; and

(4) Is in compliance, when applicable, with subsections (b), (c), and (d) below.

(b) In addition to compliance with the above, a replat without vacating the preceding plat must conform to the requirements of this section. If any of the area being replatted was, within the immediate preceding five years, limited by zoning or deed restrictions to single-family residential use:

(1) Notice of the public hearing shall be given no less than 15 days prior to the day of the hearing in the following manner:

(A) Publication of the hearing notice in the official newspaper or a newspaper of general circulation; and

(B) Written notice, with a copy of subsection (2) attached thereto, of the public hearing forwarded to the owners (as the ownerships appear on the last approved municipal tax roll) of all lots in the original subdivision and that are within 200 feet of the lots to be replatted. The notice may be served by depositing it properly addressed and postage paid in a post office or postal depository within the city.

(2) If the proposed replat requires a variance and is protested in accordance with this subsection, the proposed replat must receive the affirmative vote of

at least three-fourths of the members present of the planning and zoning commission and city council in order 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 filed with the planning and zoning commission and city council prior to the closing of the public hearing. In computing the percentage of land area under this section, the area of streets and alleys shall be included.

(c) Compliance with subsection (b)(2) is not required for approval of a replatting of a portion of a prior plat if the area to be replatted was designated or reserved for other than single or duplex-family residential use by notation on the last legally recorded plat or in the legally recorded restrictions applicable to the plat.

(d) Replats shall be subject to a filing fee as approved on the City of Ferris Fee Chapter and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions and covenants.

(e) A preliminary plat shall be required in cases where a replat involves the reconfiguration of more than three lots.

(f) Replats shall be submitted electronically as required by Section 10.116.

Sec. 10.119 Amending/Correction Plat Processing

(a) Notwithstanding any other provision of the above Section 10.118, the city is authorized to approve and issue an amending plat which is signed by the applicants only, and which is for one or more of the purposes set forth in the following subsections (1) through (11), and such approval and issuance shall not require notice, hearing or approval of other lot owners. Amending/correction plats in accordance with the provisions of this section may be approved by the planning administrator if the sole purpose of the amending plat is to:

(1) Correct an error in any course or distance shown on the prior plat;

(2) Add any course or distance that was omitted on the prior plat;

(3) Correct an error in the description of the real property shown on the prior plat;

(4) Indicate monuments set after death, disability, or retirement from practice of the surveyor charged with the responsibilities for setting monuments;

(5) Show proper location or character of any monument which has been changed in location or character or which originally was shown at the wrong location or incorrectly as to its character on the prior plat;

(6) Correct any other type of drafting or clerical error or omission as previously approved by the city; such errors and omissions may include, 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 where both lot owners join in the application for plat amendment, and neither lot is abolished; provided that such amendment does not attempt to remove recorded covenants or restrictions and does not have a material adverse effect on the property rights of the other owners in the plat;

(8) Relocate a lot line in order to cure an inadvertent encroachment of a building or improvement on a lot line or on an easement;

(9) Relocate one or more lot lines between one or more adjacent lots where the owner or owners of all such lots join in the application for the plat amendment, provided that such amendment does not:

(A) Attempt to remove recorded covenants or restrictions; or

(B) Increase the number of lots; or

(C) Remove or otherwise abandon any easement or right-of-way.

(10) To make necessary changes to the preceding plat to create six or fewer lots in the subdivision or part of the subdivision covered by the preceding plat if:

(A) The changes do not affect applicable zoning and other regulations of the municipality;

(B) The changes do not attempt to amend or remove any covenants or restrictions; and

(C) The area covered in any of the changes is located in an area that the planning and zoning commission or other appropriate governing body of the municipality has approved, after a public hearing, as a residential improvement area; or

(11) To replat one or more lots fronting on an existing street if:

(A) The owners of those lots join in the application for amending the plat;

(B) The amendment does not remove recorded covenants or restrictions;

(C) The amendment does not increase the number of lots; and

(D) The amendment does not create or require creation of a new street or make necessary the extension of municipal facilities.

(b) Plats submitted under this section shall be subject to a filing fee as approved in the City of Ferris Fee Chapter and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions and covenants.

(c) Plats shall be submitted electronically as required by Section 10.116.

Sec. 10.120 Vacation of Plat Processing

(a) A plat may be vacated by the owners of the land covered by the plat at any time before a lot in the plat is sold. If lots have been sold, the plat, or any part of the plat, may be vacated upon the application of all the owners of lots in the plat and obtained in the manner prescribed for the original plat.

(b) Plats submitted under this section shall be subject to a filing fee as approved in the City of Ferris Fee Chapter and shall be accompanied by certified copies of the entire subdivision plat and the deed restrictions and covenants.

Sec. 10.121 Plat Filing Fees

(a) Preliminary Plat. A filing fee, as approved in the City of Ferris Fee Chapter, shall be paid at the time of submission of the preliminary plat for review by the planning and zoning commission and the city council.

(b) Final Plat. A filing fee, as approved in the City of Ferris Fee Chapter, shall be paid at the time of submission of the final plat for checking and approval by the planning and zoning commission and city council.

(c) Short-Form, Amending/Correction Plat. A filing fee, as approved in the City of Ferris Fee Chapter, shall be paid at the time of submission of the short-form or amending/correction plat for review and approval by the planning and zoning commission, city council, or the development review committee, as applicable.

Secs. 10.122—10.125 Reserved.

Division 3. Subdivision Design Standards

Sec. 10.126 Minimum Subdivision Design Standards

The physical design of the proposed subdivision shall conform to the planning policies of the city and the following minimum standards:

(1) Street Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.202 Paving and Section 10.202(b) Streets.

(2) Sidewalk Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.202(h) Sidewalks.

(3) Alley Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.202(k) Alleys.

(4) Block Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.203 Blocks.

(5) Lot Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.204 Lots.

(6) Easement Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.205 Easements.

(7) Drainage Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.206 Drainage.

(8) Water Line Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.207 Water Lines.

(9) Fire Protection Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.208 Fire Protection.

(10) Sanitary Sewer Standards. All lots shall be required to connect to the City of Ferris sanitary sewer system, according to the Article 10.200, Design Criteria and Construction Standards, Section 10.209 Sanitary Sewer Lines.

(11) Erosion Control Standards. See Article 10.200, Design Criteria and Construction Standards, Section 10.210 Erosion Control.

(12) Commercial and Industrial Subdivision Standards. The minimum right-of-way width for a minor street in an industrial or commercial subdivision shall be 60 feet or as required by the city, and all other streets shall conform to the standards for major and minor streets prescribed by the thoroughfare plan as indicated in the comprehensive land use plan.

Sec. 10.127 Building Setback Lines

Building setback lines shall meet or exceed the minimum requirements of the zoning ordinance. All building setback lines shall be dimensioned. In particular, platted building setbacks which exceed the minimum requirements of the zoning ordinance will take precedent over the lesser standard.

Sec. 10.128 Community Facilities Agreement

(a) Before construction starts on any private or public improvements in a subdivision, the sub-divider shall execute a contract with the city providing for the installation of public improvements required by the development regulations of the city. This agreement, entitled "community facilities agreement" (CFA), shall constitute a covenant which will run with the land and will be binding upon any assignee or owner in the chain of title. The community facilities agreement shall be in the form on file with the city secretary. This community facilities agreement must be approved by the city council.

(b) After execution of the community facilities agreement by the sub-divider and the city, any changes in the contract or the plans or specifications that alter the scope of the project must be recommended by the city engineer and approved by the city attorney and the city council. Upon approval, an addendum to the community facilities agreement shall be executed by the sub-divider and the city.

Secs. 10.129—10.130 Reserved.

Division 4. Administration and Amendments

Sec. 10.131 Building Permits

(a) The city shall withhold all city improvements and services, including the furnishing of sewerage facilities and water service, and all franchise service under control of the city, from subdivisions which have not been approved in accordance with these regulations and Article 10.200, Design Criteria and Construction Standards.

(b) Up to three building permits may be issued after completion of water and sewer improvements, and installation of curb and gutter, when the developer elects to provide cash or an irrevocable letter of credit to cover the remaining cost of the community facilities not completed at the time building permits are issued. Should a developer not provide this security, he will be issued building permits only upon final completion and acceptance of all community facilities by the city.

(c) A building permit may be issued after the engineering plans have been approved by the city engineer, and the community facilities agreement has been executed and upon the posting of security, as specified in the documents on file in the office of the city secretary. This provision applies only when there is to be no street construction or street

improvements. (Street construction or street improvements fall under the provisions of paragraph 2 above).

(d) No occupancy permits shall be issued for any structure or building on any lot, tract or parcel, and no structure or building shall be occupied, unless and until the required public improvements are installed, connected (including connection to the City of Ferris sanitary sewer system), and are functioning properly and have been accepted by the city.

Sec. 10.132 Waivers From Subdivision Regulations and Design Standards

Waivers from the City of Ferris Subdivision Ordinance, Article 10.100, Platting Procedures and Article 10.200, Design Criteria and Construction Standards may be approved as follows:

(1) The city council of the City of Ferris, after recommendation by the planning and zoning commission, shall have the ultimate power to grant or reject waivers to the Subdivision Ordinance, Article 10.100, Platting Procedures and Article 10.200, Design Criteria and Construction Standards. The city council may authorize a waiver from these regulations when, in its opinion, undue hardship will result from requiring strict compliance. In granting a waiver, the city council shall prescribe only conditions that it deems necessary or desirable to protect the public interest. In making the findings herein below required, the city council shall take into account the nature of the proposed use of the land involved, existing uses of land in the vicinity, the number of persons who will reside or work in the proposed subdivision, and the probable effect of such waiver upon traffic conditions and upon the public health, safety, convenience, and welfare in the vicinity. No waiver shall be granted unless the city council finds:

(A) That there are special circumstances or conditions affecting the land involved such that the strict application of the provisions of these regulations would deprive the applicant of the reasonable use of the land; and

(B) That the waiver is necessary for the preservation and enjoyment of a substantial property right of the applicant; and

(C) That the granting of the waiver will not be detrimental to the public health, safety, or welfare, or injurious to other property in the area; and

(D) That the granting of the waiver will not have the effect of preventing the orderly subdivision of other land in the area in accordance with the adopted comprehensive land use plan and the provisions of these regulations.

(2) Such findings, together with the specific facts upon which such findings are based, shall be incorporated into the official minutes of the city council meeting at which such waiver is granted. Waivers may be granted only when in harmony with the general purpose and intent of the adopted comprehensive land use plan and these regulations so that the public health, safety and welfare may be secured and substantial justice done. Waivers of regulations contained in Article 10.200, Design Criteria and Construction Standards may only be granted based on the showing by the developer's engineer that the alternative standards provide the same degree of protection that the original standards would provide. Pecuniary hardship standing alone shall not be deemed to constitute undue hardship.

Sec. 10.133 Amendments

(a) Amendments to the Subdivision Ordinance, Article 10.100. Platting Procedures shall be adopted by official action of the city council after recommendation from the planning and zoning commission.

(b) Amendments to the Subdivision Ordinance, Article 10.200. Design Criteria and Construction Standards shall be adopted by official action of the city council after recommendation from the planning and zoning commission.

ARTICLE 10.200 DESIGN CRITERIA AND CONSTRUCTION STANDARDS

Sec. 10.201 Construction Standards

(a) General Provisions. All improvements shall be in accordance with the city's construction standards and specifications except as may be otherwise provided. The city's specifications includes standard as well as special specifications. The city's construction standards consists of those various drawings as identified as the City of Ferris Construction Standards and issued by the city. Public improvements, semi-public improvements, and private improvements constructed in public right-of-way and easements shall be constructed in conformity with this article. The requirements of this article are considered minimum requirements and are not intended to replace good engineering judgment or practices.

(b) Standard Specifications. Standard specifications for the City of Ferris are the standard specifications for public works construction as published under authority of the North Central Texas Council of Governments. The latest edition of this publication, along with the amendments and special provisions to the document approved or issued by the city, shall comprise the standard specifications.

(c) Construction Specifications. Construction specifications are those specifications that are not covered by the standard specifications. Special specifications shall be required for all projects having items of construction not adequately covered by the standard Specification. All special specifications shall be subject to review and being released for construction by the city.

(d) Standard Details. Standard details are those drawings identified as the City of Ferris Standard Details and issued by the city. Detailed construction plans shall be required for all items of construction not covered by the city's standard details. In the event of conflict, the provisions and requirements of this document shall supersede the standard specifications. Only the item or items of conflict shall be affected. All other provisions and requirements shall stand.

(e) Pre-Construction Meeting. The contractor for each project, or for any phase, shall notify the city of the intent to commence work. Sufficient notice shall be given such that a pre-construction conference may be held. No work shall commence except as specifically authorized at the pre-construction meeting.

(f) Construction Permit. The city will issue a permit for all public works construction to be constructed within rights-of-way and easements. The permit will be issued based on engineering plans that have been released for construction. No work requiring a permit shall be started until a permit is duly issued.

(g) Construction Inspection Fee. Prior to issuance of any public works construction permit, the city will collect a fee (as set forth in the approved Fee Chapter) for the cost of

construction. The cost of construction shall represent the total cost, excluding land and engineering fees.

(h) Exception for Utility Companies. Utility companies are not required to secure a permit for repairs and day-to-day maintenance operations, but shall notify the city. Utility companies will be required, by ordinance, to get a permit without fee for new developments and for all relocations.

(i) Traffic Control Plan. Each set of construction plans submitted to the city for review and approval may be required to include a traffic control plan. The plan shall provide for the safe handling of traffic through and in the area of construction. Construction, signing, barricades, etc., shall be in conformance with the Manual of Uniform Traffic Control Devices where applicable.

(j) Construction Methods. All utility lines installed under existing paving shall be installed by a method other than open cut, except as specifically approved by the city. City staff may approve, on case-by-case basis, open cuts under any one of the following conditions:

(1) The connection to the existing main is under paving. In this case, the open cut shall be limited to the area of the main, the remaining installation to be by other than open cut.

(2) A boring machine cannot be used because of space limitations.

(3) The size of the utility line is too large to be economically feasible to be installed by methods other than open cut.

(4) Conditions are such that it would be impossible or impractical to install the utility line by means other than open cut.

In the event the open cut method is approved, the pavement shall be removed and replaced in accordance with approved plans. The traffic control plan shall adequately address the safe handling of traffic through the area of the open cut.

(k) Material Testing. Pavement testing, sub grade testing and other testing necessary to insure compliance with plans that have been released for construction are required to be performed by a geotechnical testing laboratory company. The procedures and criteria for testing are generally outlined in the North Central Texas Council of Government (NCTCOG) specifications. The developer shall pay the fee charged by the testing company. All test reports prepared by the testing company shall be furnished in duplicate directly to the city.

(l) Final Acceptance. Final acceptance is the formal approval by the city council. It will be made in writing based on the finding that the improvements have been satisfactorily installed and that all administrative requirements have been satisfied.

(m) Conditional Acceptance. The city may issue a letter of conditional acceptance upon the determination by the city that unusual conditions warrant such acceptance and that the city will not be adversely affected.

(n) As-Built Plans. Prior to final acceptance, the developer's engineer shall furnish the city the original drawings with revisions based on information recorded by the contractor and inspectors, to depict as-built conditions. The plans shall be marked "As-Built" on each plan sheet and shall be signed and dated by the engineer. The as-built plans shall include a certificate that all lots, right-of-way, and easement lines have been marked as evidenced by the setting of iron rods; except that easement lines parallel to staked lot and right-of-way lines are not required to be marked by iron rods.

(o) Maintenance Bonds. Prior to final acceptance, the contractor shall furnish the city an acceptable 100%, two (2) year maintenance bond. The maintenance bond shall cover all items of construction dedicated to the city. Multiple bonds, each covering a portion of the work or a particular item of work (such as sanitary sewers) will not be acceptable.

Sec. 10.202 Paving

(a) General Provisions. The paving of streets, alleys, turning lanes, driveways, and sidewalks shall be in accordance with this section, the construction standards of the City of Ferris, and The Fort Worth Traffic Engineering Design Standards and Policy Guidelines. Temporary asphalt streets, connections, and driveways will be considered on an individual basis and shall be constructed in accordance with plans that have been released for construction. All street construction shall be in accordance with the criteria and design standards shown on Table 1.

(b) Streets. The arrangement, character, extent, width, grade, and location of all proposed streets shall conform to the Master Plan of the City of Ferris. Design of such streets shall take into consideration existing and planned streets, topographic conditions, public convenience, safety, and the relationship of uses that will be served by the streets. The developer is responsible for the dedication of the right-of-way and construction of all street(s) within the development and one-half of the street(s) that abuts the development. In addition, the developer is responsible for the cost of any traffic markings, street signage, and traffic control signage associated with the development. Any off-site street required, by the platting process, to provide adequate access to the development shall be the entire responsibility of the developer. These provisions shall apply in all cases including where there is an existing substandard street. When not shown in the city's master thoroughfare plan, all proposed streets shall:

(1) Provide for the continuation of appropriate projection of existing streets.

(2) Conform to a plan for the neighborhood approved or adopted by the city to meet a particular situation where topographical or other conditions make continuation of, or conformance to existing streets impractical.

(3) Be laid out so that street right-of-way lines intersect at 90 degrees and so that no street curvature is closer to the point of intersection of right-of-way lines than 35 feet on residential streets and 50 feet on collector and arterial streets.

(4) Make use of existing median openings in the thoroughfares without any alterations to them and provide necessary minimum left-turn lane storage lanes for entry into subdivisions along both traveled ways, as necessary.

TABLE 1 - STREET DESIGN CRITERIA

STREET CLASSIFICATION						
	Residential	Collector and Minor Arterial (Undivided)			Principal Arterial (Divided)	
Number of Lanes	2	2	4	5	4	6
Width of Pavement	31' B-B (back to back)	37' B-B	49' B-B	61' B-B	27' B-B Each Direction	37' B-B Each Direction
Right-of-Way Width (1)	50'	60'	80'	80'	100'	120'
Design Speed	25 mph	30 mph	40 mph	40 mph	50 mph	50 mph
Max. Degree of Curvature (2)/Minimum Radius for Design (Center Line or Normal Crown)	19/300'	13/428'	7/821'	7/821'	4/1389'	4/1389'
Median Width	---	---	---	---	25'	23'

Parkway Width	9.5'	11.5'	15.5'	9.5'	12.5'	11.5'
Spacing for Median Openings	---	---	---	---	400'-600'	400'-600'
Street Intersection Radius at Face of Curb	25'	25'	30'	30'	35'	35'
Corner Clip Right-of-Way Dedication	7.5'x7.5'	7.5'x7.5'	9.5'x9.5'	9.5'x9.5'	10.5'x10.5'	10.5'x10.5'

NOTES:

(1) Additional right-of-way will be required at major intersections for left or right turn lanes, if required: To maintain traffic volume capacities through the intersection. Additional right-of-way will be required for acceleration or deceleration lanes where appropriate.

(2) Under special conditions, the city engineer will determine the maximum degree of curvature.

(5) The above design standards are considered minimal. Other design elements such as stopping sight distance, super elevation, and grades shall be used in design whenever appropriate as dictated by good engineering practice.

(6) No residential and collector (2-lane) street intersection with arterial streets shall be allowed within 350 feet of a major arterial street intersection (4-lane undivided and above) and/or within proposed right turn lane limits.

(7) Residential streets shall be laid out in a manner to discourage use by through traffic. Jogs and offsets at intersections measuring less than 125 feet in residential streets and 200 feet in undivided collector streets, measured between centerlines, are prohibited. This provision shall not apply if the intersecting street is a divided street and a median opening is not provided for either street. Street right-of-way widths shall conform to the city's master thoroughfare plan. In no case shall a street right-of-way be less than 50 feet wide.

(8) At the intersection of street right-of-way lines a triangular area shall be dedicated for right-of-way. Dimensions for the additional area are shown in Table 1. In the event the streets intersect at other than 90 degrees, as approved

by the granting of a variance, the required dimensions may be increased as determined by the city engineer. In addition to the right-of-way corner clip a 25' x 25' public open space easement shall be dedicated per the City of Ferris Zoning Ordinance.

(9) At the intersection of a street right-of-way line and an alley right-of-way line, a 15-foot triangular area (measured along each projected right-of-way) shall be dedicated for right-of-way. In the event the street right-of-way and the alley right-of-way intersect at other than 90 degrees, as approved by a granting of a variance, the 15-foot dimension shall be increased as determined by the city engineer.

(10) Half streets shall be prohibited, except where necessary to the reasonable development of the subdivision in conformance with the other requirements of these regulations and where the city finds it will be practical to require the dedication of the other half when the adjoining property is subdivided or platted. When a half street has already been provided, the remaining portion of the street shall be platted within such subdivision. Where part of a residential or collector street is being dedicated along a common property line, the first dedication shall be one-half of the proposed street right-of-way plus five (5) feet, with a minimum of 20 feet of pavement width to be constructed.

(11) Dead end streets shall not be longer than 600 feet in length, measured from the intersecting centerline to the radius point of the cul-de-sac turnaround. All dead end streets shall terminate with an approved cul-de-sac having a minimum radius of 50 feet to the right-of-way line.

(12) Street grades shall be set at a minimum of 0.50 percent and a maximum of 6.0 percent for all streets other than residential streets, which may be set at a maximum of 8.0 percent. The minimum street grade will not apply to non-curbed streets. Streets cross slope shall be 2.0 percent for concrete streets.

(13) Control of access lines, at street intersections, for driveway locations, to be shown on all plats and engineering site plans, shall be in accordance with the guidelines shown on Table 2. All dimensions are measured to the near radius point(s) of the driveways.

TABLE 2 - MINIMUM DISTANCES FROM INTERSECTION OF R.O.W. LINES

Street Classification	Approaching Intersection	Leaving Intersection
Residential	50 feet	50 feet
Collector	75 feet	50 feet
Minor Arterial	100 feet	75 feet
Principal Arterial	150 feet	100 feet

(c) Concrete Strength Requirements. The minimum compressive strength shall be 3600 psi at 28 days except that in intersections and in areas where hand finishing is required the minimum compressive strength shall be 3750 psi. The minimum cement ratio shall be 6.0 sacks per cubic yard, including intersections and areas where hand finishing is required.

(d) Pavement Thickness Requirements. Residential streets and residential alleys shall be a minimum of five inches (5") of concrete. Collector streets and commercial alleys shall be a minimum of six inches (6") of concrete in thickness. All commercial streets 40 feet in width and over shall be a minimum thickness of eight inches (8") of concrete. All alleys shall be considered commercial except those serving only single-family and two-family zoning classifications and uses.

TABLE 3 - PAVEMENT THICKNESS REQUIREMENTS

Pavement Width	Concrete Thickness	
31' Residential street	5 inches	
37' Collector street	6 inches	
40' and 44' Commercial street	8 inches	
Above 44' Commercial street	Per city engineer	

(e) Sub-grade. All street and alley paving shall be placed on a sub-grade of minimum thickness of six inches. The sub-grade shall be lime-stabilized sub-grade or cement stabilized sub-grade, dependent upon the recommendation contained in the soils investigation report. In the event the city waives the requirement to obtain a report, the city will specify the use of lime stabilization, cement stabilization, flexible base, or an alternate to be used as sub-grade.

(f) Pavement Width Requirements. The minimum pavement width for residential streets shall be 31 feet measured back-to-back of curbs. The minimum pavement width for designated residential collector streets shall be 37 feet measured back-to-back of curbs. Commercial streets shall be a minimum of 37 feet measured back-to-back of curbs. Wider street paving shall be constructed to provide the number of through lanes, left turn lanes, right turn lanes, acceleration, and deceleration lanes as required and shown as part of the city's master thoroughfare plan and in Table 1 "Street Classification."

(g) Monolithic Curbs. All streets shall be constructed with a monolithic curb continuous on each side of the street pavement. Monolithic curbs shall be six (6) inches in height and six (6) inches wide, in accordance with the appropriate construction standard.

(h) Sidewalks. A four (4) foot sidewalk shall be constructed along both sides of all streets. Curb ramps shall be provided for all pedestrian crossings. Sidewalks shall be included on construction plans and on engineering site plans.

Sidewalks shall be located within the right-of-way line where possible, but in no instance closer than three feet from the back of curb. Approved trees, as determined by the city may be located within this area. Developers of tracts served by sidewalks not meeting the requirements of this article, or sidewalks not structurally sound shall be responsible for removing the existing sidewalks and constructing new sidewalks to meet current requirements. The dedication of additional right-of-way or easement may be required to provide adequate space for the construction of sidewalks.

Exterior sidewalks shall be constructed along major arterial streets, parks, and collector streets as designated by the city, an eight (8) foot sidewalk shall be provided. These Sidewalks shall be a minimum of five (5) inches thick and be reinforced with 3/8 bar eighteen (18) inches on center. Sidewalks across bridges shall be continuous and approved safety features shall be incorporated into the design to adequately protect pedestrian traffic.

Sidewalks adjacent to residential lots shall be constructed by the builder prior to final inspection of the residential units. The developer shall construct sidewalks adjacent to non-residential lots as a part of the infrastructure improvements associated with the development. With special approval by the city, selected sections of sidewalk construction along the frontage of non-residential lots, may be delayed from the time of subdivision development to the time of building construction. The construction of sidewalks may not be delayed at street intersections, areas of existing high pedestrian

traffic, across bridges and drainage locations, which would not be subject to destruction during later construction such as buildings. In areas where sidewalk construction is delayed, grading shall be in full conformance with the typical section. Where construction of sidewalk is delayed, no certificate of occupancy will be issued or final building inspection performed until the sidewalk is complete.

(i) Driveways. All driveways in the City of Ferris shall be constructed by city permit only. A permit will be granted only after due consideration of safety, traffic flow, and conflicts with existing and proposed facilities. In addition to the above, access to state controlled highways shall require state and city permits. The design or location of driveways shall be in accordance with the control of access guidelines at street intersections.

(1) Residential driveway approaches shall follow these guidelines:

(A) Residential driveways will be permitted to residential streets and discouraged onto any designated collector or arterial streets.

(B) All driveways must access onto alleys where alleys are constructed or will be constructed.

(C) Width shall be 12 feet (minimum) and 24 feet (maximum) per lot, plus a 5-foot radii (if access is onto street) or 5 foot flare (if access is onto an alley).

(D) The radius or flare point at the street or alley of any driveway shall not extend beyond the property line(s).

(E) All driveway approaches shall be constructed in accordance with the city standard driveway construction details.

(F) Maximum slope of a residential driveway shall not exceed 8 percent up to the right-of-way line and 14 percent beyond the right-of-way line.

(2) Commercial driveway approaches shall follow these guidelines:

(A) Recommended widths:

One-way 15 feet with 10-foot radii

Two-way 30 feet with 15-foot radii

A maximum width of 35 feet plus 15 feet radii will be allowed where significant truck traffic is projected for two-way access as determined by

the city engineer. The city engineer may approve wider driveway approaches under special conditions.

(B) Maximum slope of a commercial driveway shall not exceed 7 percent up to the right-of-way line and 10 percent beyond the right-of-way line.

(C) The minimum spacing between driveways (measured at inside edge of driveway to inside edge of driveway at ROW) along:

(i) Principal and minor arterial streets shall be 75 feet on the same platted lot, and 50 feet between adjacent lots.

(ii) Collector streets shall be 50 feet.

(D) All two-way driveways shall intersect at 90 degrees.

(E) Adequate site distances and on-site maneuvering shall be available from every driveway. The parking lot and driveways shall be so designed to allow vehicles to exit the street in a forward manner; park, load and unload totally within the site, and shall enter onto the street in a forward manner. In no instances shall vehicles use street right-of-way to travel in reverse.

(F) A two-way divided drive approach will be considered on a case-by-case basis.

(G) All driveway approaches shall be constructed in accordance with the city standard driveway construction details.

(3) Application for a curb cut permit can be made as part of the engineering site plan request or as a separate request. Driveway permit applications shall contain sufficient information to allow the city to fully assess the adequacy of the proposed driveway design. A permit application for a commercial or multi-family driveway on arterial and collector streets shall include, at minimum, the following:

(A) Drawn to the maximum scale of 1"=40'.

(B) Show the dimensions, locations, and design of the driveway(s) being requested.

(C) Show the location of any building or structure, either existing or proposed.

(D) List uses on commercial lots (such as office, retail store, gas station, etc.).

(E) Show the parking lot layout with the proposed internal circulation pattern. There shall be a minimum of 20 feet between the street and the internal traffic lane at driveway locations.

(F) All existing or proposed driveways, gutters, storm sewers, manholes, fire hydrants, utility poles, service fixtures, etc., which may affect driveway operations.

(G) Any existing driveways or curb cuts located on adjacent lots or lots across the street.

(H) All of the geometric design features of the roadway itself, including the presence of a median, the number and width of travel lanes, the presence of a shoulder or a parking lane, etc.

(I) Show the distances to intersecting streets.

(J) Any bond or contractor registration required by the city.

(j) Turning Lanes. Left turn lanes shall be provided on all approaches to intersections when four or six lane streets cross (whether existing or future). Left turn lanes shall also be provided along all divided streets where median openings provide access to streets, alleys, or driveways.

Right turn/deceleration lanes shall be provided on all approaches to intersections where four or six lane streets cross (whether existing or future). Right turn/deceleration lanes shall also be provided at driveways to commercial or industrial sites serving five (5) acres or more.

The minimum length of left turn lanes, right turn lanes and deceleration lanes shall be 100 feet except at locations specifically identified by the city as needing less than 100 feet. All left turn lanes along divided streets at approaches to four or six lane streets shall be a minimum of 200 feet in length.

The developer shall be responsible for the dedication of all rights-of-way for the construction of all turning lanes. The developer shall be responsible for all construction of turning lanes at intersections where the property is undeveloped.

(k) Alleys. If alleys are used in detached or attached single-family residential zoning districts, the following guidelines shall be used:

(1) All interior alleys shall be a minimum of eighteen (18) feet in width of right-of-way and a minimum of twelve (12) feet in width of paving; paving to be centered within the right-of-way.

(2) All perimeter alleys shall be a minimum of twenty (20) feet width right-of-way and a minimum of twelve (12) feet in width of paving.

(3) Alleys shall be laid out so that they intersect street at 90 degrees, and be designed so that no alley curvature shall be closer than 20 feet to the point of intersection of street and alley right-of-way lines.

(4) In the event the alley and street right-of-way intersect at other than 90 degrees, as approved by granting of a variance, the required dimensions may be increased as determined by the city.

(5) Alley turnouts shall have paving radii of a minimum of ten (10) feet to the back of curb. The alley invert shall be no more than four (4) inches except at points of sidewalk intersection, where the maximum invert shall be three (3) inches.

(6) Alley intersections and sudden changes in alignment shall be avoided, but where necessary, lot corners shall be cut off at least fifteen (15) feet on each tangent to permit safe vehicular movement. See Figures 1 and 2 for details concerning residential alley intersections of 90 and 45 degree turns.

(7) All residential alley cuts shall be made onto residential streets. All commercial alley cuts shall conform to the minimum control of access distances as shown in Section 10.202(b).

(8) Dead-end alleys shall be prohibited.

(9) Fences constructed on any lot, specifically corner lots, will be subject to, and shall conform to the visibility range requirements contained in the fence ordinance. The city engineer may require additional clear zones.

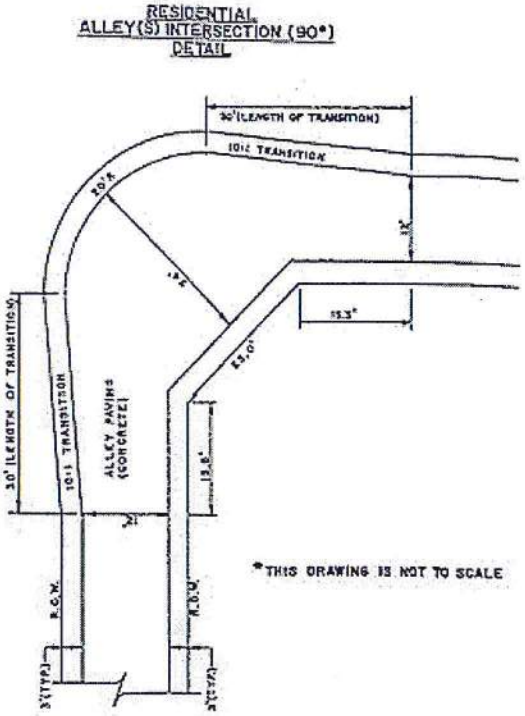


FIGURE 1

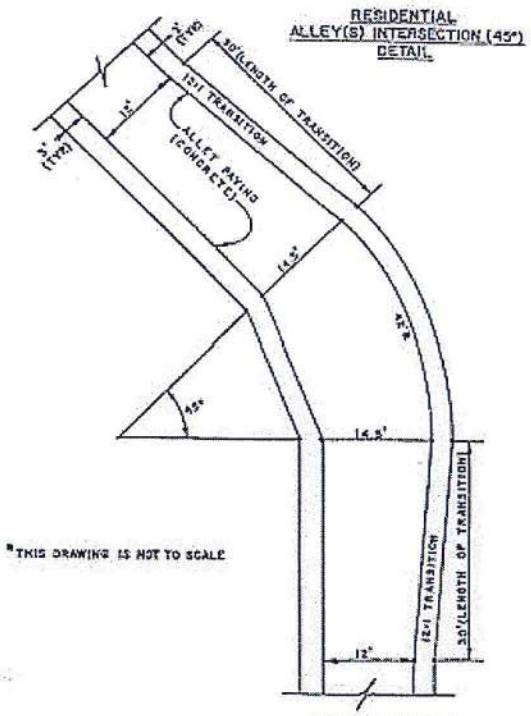


FIGURE 2

Sec. 10.203 Blocks

(a) The length, widths, and shapes of blocks shall be determined regarding provision of adequate building sites suitable to the special needs of the type of use proposed as well as for convenient access, circulation, control, and safety of traffic.

(b) Where no existing subdivision controls block lengths, arterial blocks shall be a minimum of 500 feet and a maximum of 2600 feet in length. Blocks in multi-family, commercial and industrial zoned developments shall be a minimum distance of 500 feet and a maximum distance of 1800 feet.

(c) Blocks in single-family and two family zoned developments shall not contain more than 18 platted lots on either side between intersections and shall not exceed a maximum distance of 1800 feet. When conditions prevent the installation of streets to address block lengths, a fire control easement of 40 feet may be allowed to define the appropriate block length. One fire control easement may be used per block. No structures may be allowed within such easement.

(d) In the event a property owner is platting only major street rights-of-way for dedication and construction, the requirements stated herein shall be met with final platting of the property into lots and blocks.

(e) All distances specified shall be measured along the centerline of the street right-of-way between the center point of street intersections.

Sec. 10.204 Lots

(a) All lots shall conform to the requirements of the city's zoning ordinance. Double frontage lots in residential areas shall have a front building line on both streets. Each single-family or duplex lot shall adjoin a street and shall not face minor and/or principal arterial streets. All other lots shall adjoin a public street. When any unplatted tracts or parcels are landlocked, an access easement (ingress/egress) may be accepted as an alternative to public street frontage. Such access easement shall meet the same minimum standards as required for a fire lane, although the easement itself may not be a required fire lane. Side lot lines shall be approximately at right angles to straight street lines and radial to curved street lines.

(b) The reservation of private strips of land at the end of, or adjacent to, proposed or existing streets and intended for the purpose of controlling access to property, shall be prohibited.

Sec. 10.205 Easements

(a) General Provisions. Easements shall be provided for all city-owned public facilities (water, sanitary sewer, and storm drainage) and shown on subdivision plats. Easement across lots on rear or side lot lines shall be provided for utilities when necessary and shall be a minimum of fifteen (15) feet in width, except as otherwise provided. Where a subdivision is bounded by a watercourse, drainage way, channel or stream, there shall be provided a storm sewer easement or drainage right-of-way conforming substantially to the lines of such watercourse or of such width to provide for any future construction plus fifteen (15) feet on each side, except for concrete lined channels, which shall have 15' one side and 5' on the other side. A statement from property owners acknowledging and accepting all drainage coming on and across their property shall accompany any drainage easement dedicated by plat or by separate instrument.

In situations where a city-owned utility lies within its own prescribed minimum easement and a privately-owned utility (electric, gas, telephone, cable) is located, underground or overhead, adjacent to and outside the city easement, it would be agreeable to the city that such easements may be mutually shared for ingress-egress and for temporary storage of equipment or materials.

In situations where two city utility systems are to be installed separately in parallel easements, the maximum width of the easements may be reduced by a combined total of five (5) feet.

In residential subdivisions, separate easements of at least seven and one-half (7.5) feet for all other utilities, such as electric, telephone, gas, and cable, shall be provided as required and where necessary.

(b) Water and Sanitary Sewer Line Easements. Where a city-owned underground facility (up to 12-inch diameter size) is not adjacent to a public right-of-way, and has a cover not to exceed five (5) feet, a minimum fifteen (15) foot easement shall be provided. The easement width may be reduced by five (5) feet when the facility is contiguous with a public right-of-way.

Refer to Table 4 for proper waterline easement widths for different pipe sizes at different depths of cover. Table 5 refers to easement widths for sanitary sewer.

TABLE 4 - WATERLINE EASEMENTS

Pipe Size	Minimum Depth of Cover	Maximum Depth of Cover	Minimum Width of Easements
6"-12"	3.5'	5.0'	15'
14"-20"	4.0'	6.0'	20'
24"-48"	4.5'	7.0'	25'

Note: Width(s) may be reduced by 5 feet when the easement is contiguous with street right-of-way.

TABLE 5 - SANITARY SEWER EASEMENTS

Pipe Size	Minimum Depth of Cover	Maximum Depth of Cover	Minimum Width of Easements
6"-12"	5.0'	6.0'	15'
14"-20"	5.0'	9.0'	20'
24"-48"	5.0'	15.0'	35'

Note: For each additional 2 feet of cover, add 5 feet to easement width(s). Width(s) may be reduced by a maximum of 5 feet when the easement is contiguous with street right-of-way.

(c) Storm Drainage Easements. A minimum fifteen (15) foot width shall be provided for all enclosed drainage systems (existing or proposed) for sizes up to twenty-four (24) inch diameter and a maximum five (5) foot of cover.

Additional widths may be required depending upon the engineering design, size, depth, soil conditions and other criteria as determined by the city engineer or his representative. See Table 6 for determining proper widths.

TABLE 6 - DRAINAGE EASEMENTS FOR ENCLOSED SYSTEMS

Pipe Size	Minimum Depth of Cover	Maximum Depth of Cover	Minimum Width of Easements
18"-24"	(2)	5.0'	15'
27"-48"	(2)	7.0'	20'
54"-72"(1)	(2)	8.0'	25'

Notes:

(1) For pipes larger than 72" diameter, the city engineer, based on design conditions, will determine easement width(s).

(2) Minimum depth is controlled by hydraulic grade line requirements. As per design manual, hydraulic grade line will be no closer than 1.5' from surface.

(3) For each additional 2 feet of cover, add 5 feet to easement width(s).

(4) Width(s) may be reduced by a maximum of 5 feet when the easement is contiguous with street right-of-way.

(5) An additional 5 feet may be reduced as conditions warrant and as determined by the city.

(d) Access Easements. In lieu of street frontage, lots may be accessed by means of an access and utility easement. Such easement must be dedicated by a plat and filed with the county clerk. Such easement must be maintained by the owners and shall in no way be the responsibility of the city. The width of such easements shall be determined by following the usual platting process established in the subdivision ordinance.

(e) Slope Easements. Slope easements or extensions of parkway cross slopes shall be required in areas of new development, where significant earth (cut or fill) slopes extend into private property beyond street right-of-way lines. These slopes are required for the stability of the roadway sections, effective erosion control, drainage, and maintenance. At developer's option, either of the following alternatives shall be followed:

Refer to Table 4 for proper waterline easement widths for different pipe sizes at different depths of cover. Table 5 refers to easement widths for sanitary sewer.

(1) The width and slope of the slope easement, shown in Table 7, will be determined by the height of cut or fill measured at the right-of-way line.

TABLE 7 - SLOPE EASEMENT

Height of Cut or Fill (Feet)	Maximum Slope (H:V)	Easement Required
0-3.0	3:1	None
3.1-10.0	3:1	From ROW to Limit of Slope
10.1-15.0	4:1	From ROW to Limit of Slope

Note: The city will determine easements for heights over 15 feet of cut or fill.

(2) Other maintenance-free slope protection methods (e.g. concrete rip-rap, retaining walls, etc.) may be utilized for slopes steeper than 3:1.

(f) Parkway Cross Slope Extensions. The parkway cross slope (3%) shall be extended an additional ten (10) feet beyond the right-of-way line to the hinge point of the slope for cut or fill slopes in excess of three (3) feet in height. No easements or additional right-of-way will be required. The additional parkway and cut or fill slope shall be landscaped as required to equal the adjacent public parkway in accordance with the landscaping requirement of the zoning ordinance.

(g) Fire Hydrant and Water Meter Easements. A blanket easement of three (3) foot radius from the center point of all fire hydrants and a two (2) foot radius from the center point of all other appurtenances such as valves, water meters, and meter boxes shall be granted to the city for each platted lot in the city. This blanket easement shall be noted on the final plat and will be used for constructing, reconstructing, inspecting, and maintaining the above named appurtenances.

(h) Construction Easements. The developer, at his own cost, shall be responsible for obtaining appropriate temporary construction easements or letters of agreement from adjacent property owners for the proper construction of streets, drainage, water, and sewer facilities and provide such documentation to the city. If the easements or agreements are granted to the contractor, the written authorizations shall be worded as to save harmless the city of any responsibility whatsoever relative to any construction easement obtained by the contractor.

Sec. 10.206 Drainage

(a) General Provisions. The preliminary plat submittal shall be accompanied by a preliminary drainage study which shall include:

(1) An identification, acreage determination and run-off coefficients of the contributing watersheds within, upstream and downstream of the proposed subdivision;

(2) Identification of the five-year and one hundred-year precipitation events;

(3) Computation of peak flow and time of concentration for each watershed and all watercourses entering and exiting the proposed subdivision;

(4) One hundred-year floodplain and floodway as delineated by the current Federal Emergency Management Agency (FEMA) flood study and proposed rerouting of natural drainage ways, if any;

(5) Proposed inlet and storm sewer locations;

(6) Proposed typical channel design and capacity;

(7) Proposed easements; and

(8) Show the assessment of the effect on upstream and downstream flood elevations caused by project.

(9) The owner of the property acknowledges and accepts all storm drainage runoff coming onto and across the property.

A registered professional engineer shall prepare the preliminary drainage study. Upon approval of the preliminary drainage study, the developer shall submit detailed plans and specifications prepared by a registered professional engineer registered in the State of Texas and experienced in municipal drainage work. The design shall reduce the runoff rate to that of a single-family development. All new development that requires the platting or replatting of a parcel(s) of land will be required to comply with the requirements as set out in the subdivision regulations. Existing and proposed flow lines of all improvements shall be shown. Unless otherwise specified herein, drainage requirements shall be based on the City of Fort Worth Storm Drainage Criteria and Design Manual. In cases not covered by this manual, The Hydraulic Manual as prepared and compiled by the Texas State Department of Highways and Public Transportation's Bridge Division, with current revisions, may be used.

(b) Design Flows. All streets and storm drains shall be designed so that the storm water runoff from a 100-year frequency design storm is contained within the available right-of-way or drainage easements. Underground storm drains shall be designed and provided in accordance with the following standards:

(1) Local streets shall have the capacity to carry a five (5) year storm-flow without topping the curb and the one hundred (100) year storm-flow shall be contained within the right-of-way.

(2) Collector streets shall have the capacity to carry a five (5) year storm-flow without topping the curb and at least one (1) lane of traffic shall be kept

open at all times. In addition, the one hundred (100) year storm-flow shall be contained within the right-of-way.

(3) Principal arterials shall have the capacity to carry a five (5) year storm-flow without topping the curb and maintain at least one (1) open lane of traffic in each direction. In addition, the one hundred (100) year storm-flow shall be contained within the right-of-way.

The size of the underground storm drain shall be sufficient to contain the portion of the 100-year storm flow not carried by surface flow within the street right-of-way or drainage easement. All storm drains shall be installed within street right-of-way or within drainage easements. See Figures 3 - 5 for the preferred location of proposed storm drains within street right-of-way. All storm drains shall be shown on plan and profile views of construction drawings.

Open channels shall be designed to carry the storm water from a 100-year frequency storm with a minimum of one foot of additional freeboard. Culverts and crucial low point drainage facilities shall be designed using the 100-year frequency storm flow with a minimum of one foot of freeboard. Bridges shall be designed with a two-foot freeboard between the 100-year water surface elevation and the lowest point of the bridge.

Flows entering a project from upstream shall be calculated for fully developed conditions in the contributing watershed.

(c) Design Standards. The developer shall have prepared, by a registered professional engineer, the plans for the installation and construction of all necessary drainage facilities. Details shall be included for the construction of all proposed storm drain systems. The city's engineer shall review the drainage facilities construction plans. After all review comments have been satisfactorily addressed, the plans shall be released for construction. Where there is a question as to the justification of size of the facility required, the question will be resolved in favor of additional drainage capacity. Final determination of necessary storm drain facilities and construction requirements shall be the responsibility of the city's engineer.

The developer shall install an underground storm drain beginning at the point where the calculated storm water runoff is of such quantity that it will overflow the street at curb height during a storm event of five (5) year frequency. The storm drain shall be constructed from this point to an approved outlet where storm water can be discharged safely without damage or flooding to the adjacent property. All drainage facilities shall be constructed on public right-of-way or easements dedicated for this purpose and of sufficient size to permit access for maintenance of the drainage facility. Easement sizes are shown in Table 6. Drainage facilities shall be handled by one of three methods:

(1) A concrete channel liner designed for the one hundred (100) year water flow as based upon total development of the drainage area involved;

(2) An underground reinforced concrete pipe; or

(3) A natural drainage channel that may be retained. Where natural drainage is retained, the entire limits of the one hundred (100) year floodplain shall be dedicated as a drainage easement and encroachments of fill into the floodway fringe shall be limited to less than fifty percent (50%) of the total floodway fringe designated on the FEMA maps. Normal maintenance of these areas shall remain the responsibility of the adjacent landowner or homeowner's association, but adequate access shall be provided for the city to perform emergency maintenance, if required.

Where concrete lined channels exist or are required, a permanent chain link fence or other fence (4' minimum), meeting the requirements of the city, shall be constructed along the top of the channel to enclose the area where it is adjacent to residential lots. In other cases, where the city deems it necessary to restrict access to the channel, fencing may also be required.

(d) Access Points. An access easement shall be designed to facilitate maintenance access to the drainage channel by city crews and equipment. Additional easements shall be required at any other access points and the access points shall be designed to restrict access by unauthorized personnel. An access point will typically be required at every intersection of the drainage easement with street right-of-way.

(e) Retention/Detention Ponds.

(1) The amount of storage volume of the detention basin shall be that volume required to reduce the runoff rate to a single-family rate. A retention pond (maintains a permanent water elevation) and/or a detention pond (no permanent water storage) may be required by the city. Dedicated detention/retention basins shall also include an additional one foot of freeboard and two feet of sediment storage. The volume of runoff storage for drainage areas greater than 100 acres shall be computed in accordance with an acceptable design method. The method used shall be well documented and will be subject to the approval of the city engineer.

(2) Retention/detention ponds shall be encompassed by an easement. The facility will remain the maintenance responsibility of the owner/developer, unless otherwise accepted by the city. Acceptance by the city will be contingent upon the facility being a part of a dedicated park, which meets the city's approval.

(f) Determination of Runoff. For watershed areas less than 200 acres, the rational method may be used. The rational method design is explained in the City of Fort Worth Storm Drainage Criteria and Design Manual.

For watershed areas greater than or equal to 200 acres, a unit hydrograph method shall be used.

The applicable SCS Runoff Curve Numbers are shown in Table 8. These curve numbers are based upon Antecedent Moisture Condition (AMC) 11 and la=0.2S.

(g) Existing Developed Areas. In the design of storm drains for existing areas, the design criteria outlined herein shall be followed to the extent possible, as determined in writing by the city engineer.

TABLE 8 - SCS RUNOFF CURVE NUMBERS

Land Use and Hydrologic Condition	Ave. % Impervious Area	Curve Numbers for Hydrologic Soil Group			
		A	B	C	D
Fully Developed urban areas (vegetation established) Open space (lawns, parks, golf courses, cemeteries, etc.)					
*Poor condition (grass cover less than 50%)		68	79	86	89
*Fair condition (grass cover 50% to 75%)		49	69	79	84
*Good condition (grass cover greater than 75%)		39	61	74	80
Impervious Areas					
*Paved parking lots, roofs, driveways, etc. (ex. ROW)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (exclud. ROW)		98	98	98	98
Paved; open ditches (including ROW)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including rights-of-way)		72	82	87	89
Urban Districts					
Commercial	85	89	92	94	95
Industrial	72	81	88	91	93

Residential Districts by Average Lot Size:					
1/8 acres or less (town houses)	65	77	85	90	92
1/3 acre	30	57	72	81	86
¼ acre	38	61	75	83	87
½ acre	25	54	70	80	85
1 acre	20	51	68	79	84
Apartments	65	77	85	90	92
Agricultural Lands					
Grassland or Range-continuous forage for grazing	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadows-continuous grass, protected from grazing and generally mowed for hay		30	58	71	78
Brush-brush, weed, grass mixture w/brush the major element	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30	48	65	73
Woods-grass combination (orchard or tree farm)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods-grass combination (orchard or tree farm)	Poor	45	66	77	83
	Fair	36	60	73	79

	Good	25	55	70	77
Farmsteads-buildings, lanes, driveways and surrounding lots		59	74	82	86

See National Engineering Handbook. See Section 4, Hydrology for information regarding development of SCS Runoff Curves.

Sec. 10.207 Water Lines

(a) General Provisions. This section deals with general requirements for water line construction in the City of Ferris. All water lines shall be sized and designed in accordance with the city water distribution plan. All construction shall be in accordance with city standard specifications and construction standards. The Texas Department of Health, Texas Commission on Environmental Quality (TCEQ) [formerly Texas Natural Resources Conservation Commission (TNRCC)] and the Environmental Protection Agency (EPA) must be consulted for their regulations and specifications, where required. Also see Appendix A for further requirements.

(b) Water Main Categories. Water lines in the City of Ferris are categorized as:

(1) Distribution Lines - sizes 6 inches through 14 inches (nominal diameter).

(2) Transmission Lines - sizes 16 inches (nominal diameter) and larger.

Distribution lines shall be of sufficient size to provide adequate water for potable and fire protection needs. Transmission line sizes are as shown on the city water distribution system plan.

The City water distribution system plan may be periodically revised to meet the current demands as well as future needs as development occurs.

(c) Water Line Requirements. The Waterline Requirements Table of this section provides the basic water line requirements. These requirements are considered minimum.

The owner/developer shall be required to install all water lines up to twelve (12) inch size at the owner/developer's expense, including all engineering costs. It shall be the developer's responsibility to determine the demand of the subject development. All off-site water mains required to connect service to the subdivision shall be installed at the expense of the developer up to twelve (12) inches. The owner shall also be responsible for obtaining easements, when required, from other property owners for off-site water main connections.

All water lines shall be designed to complete a looped system to avoid dead-end lines. Valves shall be placed at or near the ends of mains in such a manner that a shut down can be made for a future main extension without causing a loss of service on the existing main.

Valve and fire hydrant spacing as shown on the Waterline Requirements Table is considered minimum. Additional valves and fire hydrants may be required as determined by the city.

All water mains shall be installed within street right-of-way or within water line easements. See Figures 3 - 5 for the preferred location of proposed water mains within street right-of-way. All water lines shall be shown on the plan and profile views of construction drawings.

Waterline crossings at existing streets in an established neighborhood will be required to be dry-bored with encasement required at street intersections.

All service lines shall be installed for each lot, with a suitable marker placed at the point of stub-out for reference in advance of street paving, sidewalk construction or any other item of street construction. Service lines shall be provided with a corporation at the main and an angle meter stop at the property line. A suitable reference marked "W" (minimum letter height of two inches) shall be stamped on top of a curb, or on pavement where there is no curb.

Service connections will not be permitted on transmission mains or fire hydrant leads unless authorized by the city.

Meter boxes shall be located between the curb and property line.

(d) Water Line Materials. All water line materials (pipes and fittings) shall conform to AWWA standards.

(1) Water lines of twelve (12) inches (nominal) or less in diameter shall be of the following:

(A) P.V.C. AWWA standard C-900, class 150 (D.R. 18).

(2) Water lines fourteen (14) inches (nominal) diameter or above shall be one of the following:

(A) Ductile iron pipe, cement-lined, bituminous-coated class 250, with polyethylene encasement.

(B) P.V.C. AWWA Standard C-905, Class 235 (D.R. 18)

(C) Bar-wrapped concrete pressure pipe, AWWA standards C303.

(D) Pre-stressed concrete pressure pipe, AWWA standard C301.

(3) Fittings shall be either gray or ductile cast iron and shall be cement-lined inside and bituminous-coated on the outside. Fittings for reinforced concrete cylinder pipe shall be specially manufactured in accordance with AWWA standards.

(e) Backflow Devices. Approved double check detector check valves must be installed on all privately maintained fire lines, at locations approved by the city.

The International Plumbing Code governs requirements for backflow devices other than fire lines.

(f) Booster Pump Stations. The City of Ferris will operate and maintain only those booster pump stations and force mains that serve the public. Booster pump stations and force mains serving private developments shall be privately maintained.

(g) Over sizing and Extensions. The City of Ferris may elect to oversize certain mains as required or as depicted in the current water distribution system plan. The City of Ferris will participate on lines greater than twelve (12) inches if the demand of the project is less than or equal to a 12-inch line capacity, and the line is depicted on the water distribution system plan.

If a development requires lines exceeding 12 inches to serve the service area, the City of Ferris may participate in over sizing above the size needed to supply the development.

If a project requires the City of Ferris participation, and if city funds are available, the developer, owner, builder, or applicant shall design the project and submit the plans that have been released for construction for bidding by the City of Ferris. If the city funds are not available, the developer may design and construct the project subject to an agreement for connection and reimbursement.

Water extensions outside the City of Ferris will not be granted to private entities. Water extensions outside the City of Ferris may be granted to neighboring municipalities or governmental entities as approved by the City of Ferris City Council.

(h) Meter Requirements. An approved device shall meter each connection to service individual or multiple spaces or structures.

All meters shall be dedicated to the City of Ferris except devices classified as private and utilized for sub-metering.

Temporary water service for all water requirements shall be metered by the City of Ferris Water Department, excluding the water necessary for flushing and disinfecting purposes.

Sec. 10.208 Fire Protection

(a) General Provisions. The fire chief of the City of Ferris will review all plans and specifications of all commercial and residential developments in the city and will determine whether or not adequate fire protection may be afforded the building or buildings situated or proposed to be situated on such property with existing or proposed fire hydrants and water lines.

If, in the opinion of the fire chief, adequate fire protection requires additional hydrants and water lines to serve proposed developments, the fire chief will direct the owner of the property, in writing, to locate at pre-designated positions on the property, a fire hydrant or hydrants and adequate water lines to provide adequate fire protection at the owner's expense. The location and number of fire hydrants and water lines shall be situated as to afford adequate fire protection to all buildings located or proposed to be located on the property. Such installation shall be completed in such reasonable time as the fire chief may direct. Also see Appendix A for further requirements.

(b) Fire Hydrant Specifications and Coverage Requirements.

(1) Commercial or Industrial Areas:

(A) Fire hydrants shall be located no more than a 300-foot truck lay to all points of any structure or combustible storage area on the lot.

(B) Fire hydrants located on the opposite side of a street, designated as four-lane or larger on the current city thoroughfare plan, shall not be considered acceptable for meeting hydrant coverage requirements.

(C) Fire hydrants shall be positioned to allow truck lays to follow normal traffic access to the site.

(2) Residential Areas:

(A) Fire hydrants shall be placed on block corners or near the center of the block to place every structure within 500 feet truck lay from a fire hydrant.

(B) Fire hydrants located on the opposite side of a street, designated as four-lane or larger on the current city thoroughfare plan, shall not be considered acceptable for meeting hydrant coverage requirements.

(C) Fire hydrants shall be positioned to allow truck lays to follow normal traffic access to the site.

(c) Fire Hydrant Specifications. All fire hydrants shall be placed on mains of not less than 6" in diameter and have the following:

(1) One (1) 4.5" pumper nozzle and two (2) 2.5" hose nozzles with the city's standard threads,

(2) A main barrel valve opening of not less than 5.25,"

(3) A six (6) inch gate valve on the fire hydrant lead anchored to the main.

Each fire hydrant shall have a minimum of two primer coats. The final coat of paint on the body of all hydrants shall be a red color of an approved paint. The top of all fire hydrants shall be painted by the developer with a machine-implemented paint or approved equal, in accordance with the most current adopted code of the National Fire Protection Association (NFPA).

(d) Fire Protection Distribution Systems. Water distribution systems shall be of sufficient size to provide adequate water for fire protection to the development and shall conform to the city's master water distribution plan.

(1) Residential Areas:

(A) Minimum water line size shall be 6" in diameter. Dead end lines over 300' and up to 600' in length shall be 8" minimum. Dead end lines over 600' in length will not be allowed. Dead end lines shall terminate at a fire hydrant, which shall be installed for maintenance purposes and may not necessarily be considered for fire hydrant density as required. Flush hydrants may be installed in lieu of hydrants at terminating points of dead end lines for maintenance purposes only.

(B) Additional isolation valves may be required to be installed depending upon the configuration of the system as determined by the city.

(C) All water line construction shall conform to construction standards located elsewhere in these construction standards.

(2) Commercial Areas:

(A) Minimum water line size shall be 8" in diameter. Dead end lines over 300 feet and up to 600 feet in length shall be 10-inch minimum. Dead end lines over 600 feet in length will not be allowed. Dead end lines shall terminate at a fire hydrant, which shall be installed for maintenance purposes and may not necessarily be considered for fire hydrant density as required. Flush hydrants may be installed in lieu of hydrants at terminating points of dead end lines for maintenance purposes only.

(B) Additional isolation valves may be required to be installed depending upon the configuration of the system as determined by the city.

(C) All water line construction shall conform to construction standards located elsewhere in these construction standards and be in compliance with all other codes relating to fire protection (FPC, NFPA, UFC, and LSC).

Sec. 10.209 Sanitary Sewer Lines

(a) General Provisions. The design, size, type, and location of all sanitary sewer lines shall be in accordance with the sanitary sewer system master plan, City of Ferris standard construction drawings, regulations, standard specifications, these construction standards and good engineering practice. In addition, the design and construction methods shall meet or exceed Texas Department of Health, Texas Commission on Environmental Quality (TCEQ) [formerly Texas Natural Resource Conservation Commission (TNRCC)], and the Environmental Protection Agency (EPA) regulations. Also see Appendix A for further requirements.

(b) Sewer Line Requirements. All lots shall be required to connect to the City of Ferris sanitary sewer system in accordance with these construction standards. All sanitary sewer lines shall be installed within street right-of-way or within sanitary sewer easements. See Figures 3 - 5 for the preferred location of proposed sanitary sewer lines within street right-of-way. All sanitary sewer lines shall be shown on plan and profile views of construction drawings.

(c) Materials. Sanitary sewer lines 12 inches in diameter and less shall be PVC SDR-35 or cement-lined ductile iron with polyethylene wrapping. Lines larger than 12 inches diameter shall be as specified by the city.

(d) Manhole Spacing. The maximum distance between manholes shall be 500 feet. Manholes shall be provided at all points of directional change, including the P.C. and P.T. on horizontal curves. Manholes shall be provided at vertical points of intersection (vertical curves are generally not allowed).

(e) Manhole Size Criteria. The criteria for the size of sanitary sewer manholes is based on depth, pipe size, and maximum allowable pipe connections. Table 9 states the minimum size of sanitary sewer manholes based on this criteria.

TABLE 9 - SANITARY SEWER MANHOLE SIZE

Pipe Size	Depth of Cover	Diameter of Manhole	Construction Options	Maximum Number of Pipe Connections Allowed in Manhole
12" and under	5'-6'	4'	Cast-in-place	3
	7'-10'	4'	Cast-in-place	3
	11'-15'	5'	Cast-in-place	4
15"-21"	5'-9'	5'	Cast-in-place	3
	10'-15' (1)	6'	Pre-cast only	4
24"-36"	5'-9'	5'	Cast-in-place	3(24"-27")
	10'-20' (1)	6'	Pre-cast only	2(30"-36")
				3(24"-27")
				2(30"-36")
39"-48"	5'-9'	6'	Pre-cast only	2
	10'-20'(1)	6'	Pre-cast only	2

Note:

(1) If the proposed system design requires lines to be constructed to depths greater than shown above, the city engineer's office shall be consulted for additional requirements.

(2) Where the above requirements cannot be met. A junction structure may be utilized.

(3) Where drop connections are proposed, the city engineer's office shall be consulted for proper sizing.

(f) Minimum Pipe Size. The minimum size of sanitary sewer lines shall be 8 inches in diameter for lines maintained by the city.

(g) Parallel Sanitary Sewer Collection System. Residential or commercial sanitary sewer collection lines shall be designed to not exceed maximum depths of 12' - 0" measured from finished grade to the bottom of the pipe. Depths greater than 12' - 0" will only be permitted when parallel sanitary sewer collection lines to serve properties on both sides of the street are provided. The city engineer shall be consulted to determine the location and design criteria of the parallel lines prior to final design.

(h) Over sizing and Extensions. The City of Ferris may elect to oversize certain mains as required or as depicted in the most recent sanitary sewer system master plan. The city will participate on lines greater than 12 inches if the demand of the project is less than or equal to a twelve (12) inch line capacity.

During the process of development, the owner(s) of the subject property shall extend sewer mains by constructing the necessary sewer line within proper easements, at their sole expense, to serve the adjacent property, when the adjacent property or any portion thereof, are considered to be in the same sewer basin. The construction of the lines shall extend along the frontage or through the property to the furthest point possible, where the adjacent property can readily tie into the system.

Sanitary sewer lines outside the City of Ferris will not be granted to private entities. Sanitary sewer extensions outside the City of Ferris may be granted to neighboring municipalities or governmental entities as approved by the City of Ferris City Council.

(i) Clean Outs. All sanitary sewer lines shall terminate at a manhole except that a clean out may be approved on eight (8) inch lines when a manhole is located within three hundred (300) feet from the end of the line. A clean out, directed toward the main, shall be provided on all services at the property line or easement line unless the service line connects to the main at a manhole and the service line is no longer than fifty (50) feet from the manhole to the property or easement line.

(j) Additional Easements. Additional easements for sanitary sewer lines shall be dedicated along state-controlled routes and along other routes when the right-of-way is not sufficient to adequately provide for the orderly construction and maintenance of the sanitary sewer improvements.

(k) Emergency Maintenance. When conditions warrant, the city may perform maintenance operations during the warranty period. The cost of such maintenance shall be paid for by the developer/contractor.

(l) Criteria for Repairs. The developer shall make repairs if the city inspector notes problems, including but not limited to the following:

(1) Pulled or slipped joints.

(2) Water infiltration.

(3) Cracked or damaged pipe.

(4) If standing water is found in pipes of gradients equal to or greater than 0.7 percent.

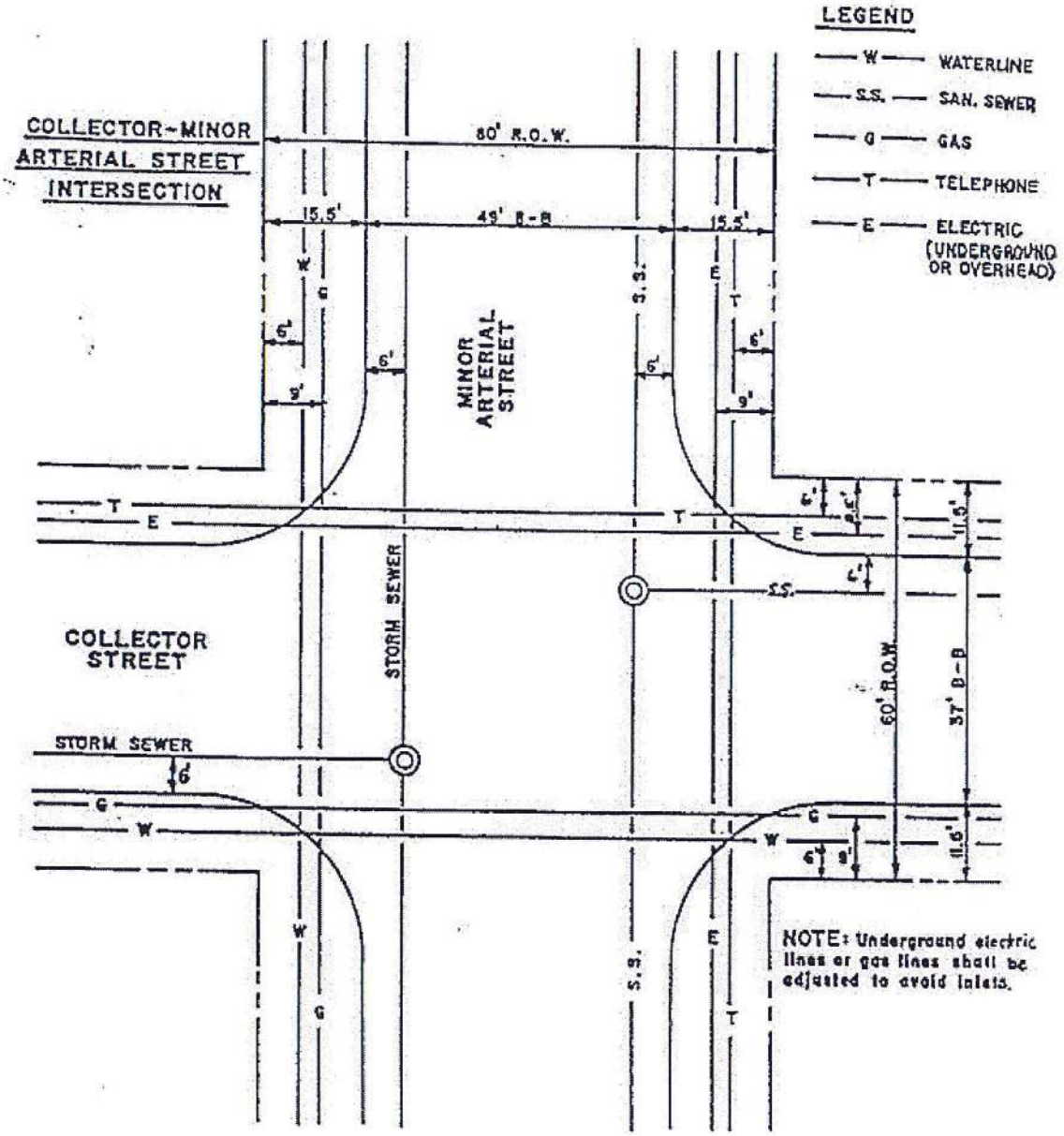
(5) In pipes of gradients less than 0.7 percent, a maximum one-half (1/2) inch of standing water will be allowed in six (6) inch through twelve (12) inch diameter pipes; and a maximum ten (10) percent of pipe size or three (3) inches, whichever is less, in pipes greater than twelve (12) inches in diameter.

(6) Structural damage to pipe.

The city shall make the final determination for repairs. A letter must be transmitted to the developer or contractor for needed repairs within five (5) working days after the inspection. All verbal repair requests shall be valid and noted in the letter.

If repairs are required, another inspection may be made after the repairs are complete if deemed necessary by the city inspector, at the developer or contractor's expense.

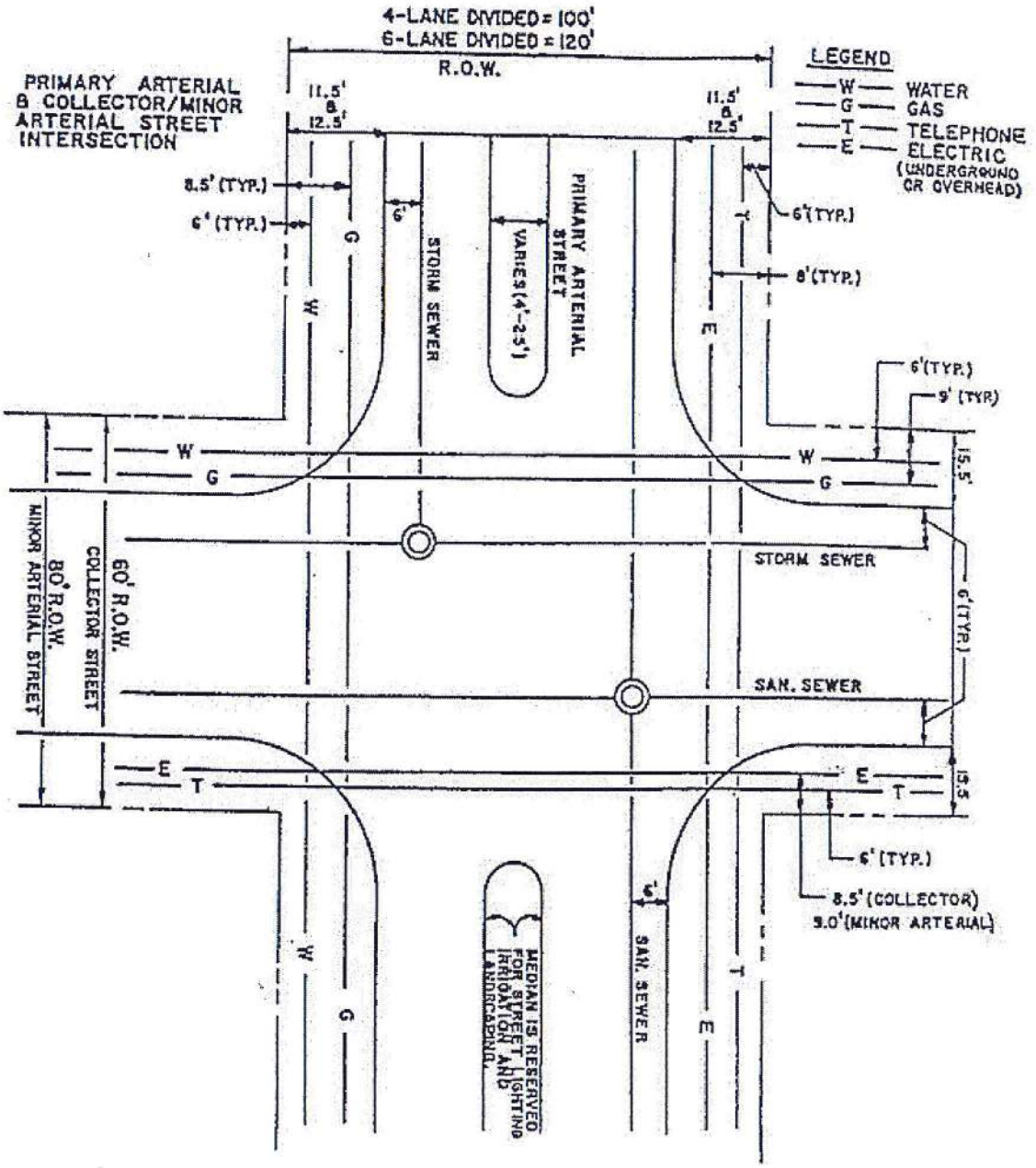
UTILITY LOCATION PLAN WITHIN STREET RIGHT-OF-WAY AT A RESIDENTIAL STREET & COLLECTOR STREET INTERSECTION



* THIS DRAWING IS NOT TO SCALE

FIGURE 4

UTILITY LOCATION PLAN WITHIN STREET RIGHT-OF-WAY AT A COLLECTOR STREET & MINOR ARTERIAL STREET INTERSECTION



* THIS DRAWING IS NOT TO SCALE

FIGURE 5

UTILITY LOCATION PLAN WITHIN STREET RIGHT-OF-WAY AT A PRIMARY ARTERIAL STREET & MINOR ARTERIAL STREET INTERSECTION

Sec. 10.210 Erosion Control

(a) General Provisions. Private property owners, developers, or builders shall be accountable for any erosion of their property or construction site that results in measurable accumulation of sedimentation in dedicated streets and alleys. An erosion control plan shall be submitted to city engineer prior to actual construction. The erosion control plan shall be in conformance with all Texas Commission on Environmental Quality (TCEQ) [formerly the Texas Natural Resources Conservation Commission (TNRCC)] regulations and all Environmental Protection Agency (EPA) regulations.

Maximum use shall be made of vegetation to minimize soil loss. Natural vegetation should be retained wherever possible. Where inadequate natural vegetation exists, or where it becomes necessary to remove existing natural vegetation, temporary controls should be installed promptly to minimize soil loss and insure that erosion and sedimentation does not occur. Runoff shall be diverted away from construction areas as much as possible.

Wastes or disposal areas and construction roads should be located and constructed in a manner that will minimize the amount of sediment entering streams and city storm sewers.

When work areas or material sources are located in or adjacent to live streams, such area shall be separated from the stream by a dike or other barrier to keep sediment from entering a flowing stream. Care shall be taken during the construction and removal of such barriers to minimize the sediment transport into a stream.

Should preventative measures fail to function effectively, the applicant shall act immediately to bring the erosion and/or situation under control by whatever additional means are necessary.

Developers, builders, or owners of property shall permanently stabilize all disturbed areas prior to final acceptance of the subdivision, project, and/or structure. Stabilization shall be accomplished through the use of perennial vegetative cover or other permanent means, such as channel lining, retaining wall, etc.

Any accumulation deeper than one (1) inch in dedicated streets, alleys, or off-site private property constitutes a violation of this policy.

(b) Permanent Erosion Control. Permanent erosion controls are installed at or near end of the construction project when no further disturbance of the area will occur. The purpose of these controls is to permanently minimize soil loss by such methods as restoring ground cover, building retaining walls for steep slopes, or reducing wave or water action by lining channels or shorelines with gabions, jute mats, vegetation, or similar materials. Examples of typical permanent measures are vegetation cover using perennial plants, headwalls, stilling basins, riprap, tree wells, gabions, matting along channels, retention lakes, terracing, and retaining walls.

(c) Temporary Erosion Control. Temporary erosion control methods are used to abate sediment runoff from construction sites. The application of control devices can yield significant water quality and drainage benefits at a minimal cost to the developer. The erosion control measures can be grouped as barriers, filter devices, or routing devices.

(d) Erosion Control Barriers. Barriers trap sediment and prevent high runoff velocities that cause erosion. The erosion control methods that can be classified as barriers include:

(1) Straw bale sediment barrier;

(2) Sandbag sediment barrier;

(3) Check dam;

(4) Sediment trap.

The straw bale and the sandbag sediment barriers can reduce sediment loads significantly. Siltation berms and check dams are not as effective for sediment removal as the other types of barriers and operate best in storm events of limited intensity.

(e) Erosion Control Filters. Filtering methods can be used in place of barriers. Filter devices allow runoff to pass through but retain sediment by filtration. The types of filters available are:

(1) Filter berm;

(2) Filter fence;

(3) Filter inlet; and

(4) Vegetation filter strip.

Excellent sediment removal can be achieved using a filter berm, fence, or inlet. The filter berm is constructed of rock and therefore is capable of withstanding heavier storm events than the filter fence or filter inlet. In general, the vegetation filter strip will operate less effectively than the other devices.

(f) Routing Devices. Only one method, the flexible downdrain, is classified strictly as a routing device. The purpose of the device is to convey water down steep slopes or across highly erosive soils.

Some of the methods classified under erosion control barriers can be used as routing devices to protect erosive areas. Sandbag sediment barriers and straw bale sediment barriers are both suitable for this purpose.

A routing device is an erosion prevention tool that can eliminate erosion problems on steep slopes and other critical areas. It is not designed to capture any solids already moving with the water.

(g) Performance. Erosion from construction sites can be a significant water quality problem. Developing areas are cleared of vegetation during construction leaving the soil exposed and susceptible to erosion. Runoff then transports eroded sediment from these areas and deposits it downstream. The accumulation of silt in streams and ponds is a form of water pollution that is unattractive and impedes drainage.

Prevention is a key aspect of erosion control. Many of the control methods presented herein can be placed in a manner that will protect highly erosive areas such as steep slopes. The prevention of erosion requires prior planning to ascertain the placement of selected control methods. The rewards of this planning will be significant reduction in soil loss. Not only can soil loss be prevented, but also eroded soil can be recovered on the construction site and used for fill.

The particulate material in construction site runoff is generally heavier and larger than particulates in urban runoff. These attributes facilitate the removal of the material whether the removal is by settling in a sediment trap or by filtration through a filter fence. Temporary sediment traps, filters, and routing devices can effectively control erosion for construction sites if properly applied. These methods are used in an effort to control temporary increases in sediment loads.

A quantifiable assessment of performance is difficult because the nature of erosion control is more preventative than corrective. A rough assessment of performance can be conducted by comparing the soil loss from a site with controls to the loss from a comparable site without controls.

(h) Design Considerations. Sediment traps and flexible drains are flow-collection devices that will require hydraulic design. An estimate of the peak design flow rate and runoff volume is necessary for proper sizing of these management methods. Runoff volume and peak flow are calculated based on the design storm. Design storms for temporary erosion control structures shall be based on the ten (10) year return frequency.

The design storm frequency for construction sites should consider several factors including:

(1) The length of time and size of construction activity;

(2) The severity of damage that could result to downstream waters if the design storm is exceeded; and

(3) Local concerns toward environmental protection.

(i) Enforcement. Should proper erosion controls fail or become inoperative, the city shall notify the owner, builder, or developer of the violation in writing. The owner, builder, or developer has five (5) days after being notified to begin correcting the problems. If no corrections are started, the city may revoke the development permit, building permit, or withhold issuance of a certificate of occupancy or final acceptance.

Sec. 10.211 Private Utilities

(a) General Provisions. In the course of development, the services of other private utility agencies may be required. The private franchised utility companies providing services to the City of Ferris are as follows:

(1) VERIZON Telephone Company

(2) ATMOS Energy Gas

(3) T.X.U. Energy Electric

(4) Charter Communications Cable T.V.

(b) Underground Utilities. In areas where no overhead utility lines currently exist, all new utility lines (power, cable, telephone) of 60KV and below shall be placed underground.

(c) In areas where overhead utility lines exist, the utility companies may augment, upgrade, repair, replace, and maintain as necessary.

(d) Relocations may take place based on no change in the character of service. Overhead lines may be relocated overhead and underground lines shall be relocated underground.

(e) The utility companies shall be responsible for developing administrative policies and cost reimbursement procedures for the installation and extension of underground facilities. These policies should permit the utility companies to recover the cost differential between the cost of extending and installing overhead and underground service, in the event the city or a developer request such facilities from the utility companies.

(f) All utilities shall be constructed and installed in accordance with current standards of the City of Ferris and the utility companies. No utility shall be constructed closer than two (2) feet to any curb.

(g) Adequate easement shall be provided at the time of platting for all underground utilities.

Sec. 10.212 Miscellaneous Construction

(a) General Provisions. The developer shall be responsible for the construction or payment in lieu of construction, of all traffic control devices, railroad crossings, and bridges within or adjacent to the development.

(b) Traffic Control Devices. Traffic control devices include traffic signage, street name signs, lane line striping, pavement markings, school flashers, traffic signals, and all related items. Unless otherwise approved by the city, the city will install all permanent traffic control devices. The developer shall pay to the city an amount determined by the city for the installations. Any developer whose development necessitates the modification of an existing traffic signal shall pay for 100% of the total cost of the design and construction of the modifications to the traffic signal, roadway approaches, signage, and all related items.

(c) Street Lighting. Street lights are required to be installed at street intersections, cul-de-sacs, bridges, railroad crossings and other selected points when the city determines that a street light is needed for traffic safety. Additionally, streetlights are required to be installed at 600-foot intervals along all streets.

The standard city streetlight for all single-family detached and attached residential subdivisions shall be a 100-watt high-pressure sodium light mount on an ornamental pole. This provision also applies to major thoroughfares primarily within or adjacent to residential areas. The standard city streetlight for all other areas shall be a 100-watt high-pressure sodium light on a wooden pole. In certain locations, a 200-watt high-pressure sodium light on a wooden pole may be required for increased safety.

At the request of the developer/applicant, ornamental poles may be substituted for wooden poles for proposed developments. The developer/applicant requesting ornamental poles shall pay the difference to the city.

The developer shall arrange with the city for installation of street lighting. Texas Utilities Electric Company will install streetlights as requested by the city. The city will pay monthly charges for all required streetlights. The above requirements do not apply to signalized intersections where streetlights are an integral part of the traffic signal.

(d) Railroad Crossings. The developer whose development is adjacent to a railroad shall pay the total cost of the railroad crossing.

(e) Bridges. The developer who first develops any quadrant of land adjacent to a bridge location shall pay for the total cost of design and construction of the bridge.

(f) Payment. Payments made to the city as a condition of this section shall be made immediately following the approval of the final plat or engineering site plan (if a final plat is not required) and prior to the commencement of construction.

ARTICLE 10.300 MONUMENTS, COMMUNITY FACILITIES AGREEMENT AND CONSTRUCTION DRAWINGS

The monument guide, community facilities agreement and construction drawings made a part of these regulations are incorporated herein by reference as if fully set forth at length, and are on file in the office of the city secretary for inspection.

(Ordinance 2218-02 adopted 1/28/03)

ARTICLE 10.400 SIDEWALKS

(a) Sidewalks are required:

(1) On new construction on vacant property;

(2) On new subdivisions;

(3) When improvements to existing property meet or exceed 50% of the most current appraised tax value.

(b) When sidewalks are required they shall be installed in the following situations:

(1) On both sides of streets adjacent or leading to schools and school sites extending to no less than one thousand five hundred (1,500) feet from such schools and sites;

(2) At any public place where, at the time construction plans for public improvements are considered, it appears that sidewalks are desirable for safe pedestrian traffic, especially for children going to and from parks and schools;

(3) In front of and, in the case of corner property, on the street side of any multi-family or commercially zoned property;

(4) On both sides of streets having a right-of-way dedication of sixty (60) feet or more.

(c) All plans required to be submitted for city approval shall be reviewed for compliance with this article and no construction plan shall be approved or building permit issued unless sidewalks as required in this article are shown.

(d) Sidewalks and ramps shall be constructed to meet current ADA standards and city specifications.

(e) Sidewalks and ramps shall be 2" cushion sand, 3/8 rebar 24" on center with 4" of concrete with 3000 PSI at 28 days.

(f) Sidewalks will be a minimum of 48" wide abutting the property line. When circumstances do not allow abutting the property, then a 6' sidewalk abutting the back of curb will be installed.

ARTICLE 10.500 ACCESS DRIVEWAY FACILITIES

Sec. 10.501 Application

This article shall apply to all new access facilities and to the extension of or improvement of any existing access facility. (1987 Code of Ordinances, Chapter 3, Section 15A)

Sec. 10.502 Proposed Entrance and Exit Principles

(a) Access facilities shall be for the bona fide purpose of securing access to abutting property and due consideration shall be given to the location of access driveways to provide maximum safety for street traffic and for users of the driveway facility.

(1) Existing curb and gutter and driveways will be compensated for prior to the levying of assessments at the per foot bid price of curb and gutter only as a credit to the assessment. In addition, existing curb and gutter and driveways will be utilized or replaced upon determination of the city engineer. If replacement is deemed proper, the property owner will not be charged.

(2) Property without any curb and gutter prior to the paving project will be provided with one standard residential drive only if it is developed or a building permit has been issued based upon completed plans for the immediate construction of a facility on the property. In no case will a piece of property without more than one (1) existing improved driveway be provided additional driveways without payment of the bid cost of such additional driveway.

(b) Owners of commercial property will be allowed one (1) foot of standard driveway approach for each five (5) foot of frontage with a minimum of twenty-four (24) feet of approach width for each platted lot. The city will construct the same on each such commercial lot fronting a bond project improved street. Should the owner of the commercial property request an additional width on the driveway approach, such construction will be accomplished at bid cost per foot of drive width to be paid by the property owner and in accordance with city standards. The provisions of this article shall apply only to property being utilized for commercial purposes or to those instances wherein a building permit has been issued based upon completed plans for the immediate construction of a commercial facility on the property.

(c) Principles of traffic channelization shall be applied in the design of entrance and exit driveways with their width limited to that necessary for adequate access.

(d) Safety zones shall be established between entrances and exit drives, at intersections and at other places when needed to preserve lateral sight distance, channelization of traffic flow, and for safety of pedestrians; and curbs or posts shall be installed as necessary to prohibit vehicle parking and movement in or through them.

APPENDIX "A"

REQUIREMENTS FOR INSTALLATION OF PUBLIC IMPROVEMENTS (WATER AND WASTEWATER)

INTRODUCTION

The following requirements are hereby established as the standard for the City of Ferris and are to be used in conjunction with the Standard Specifications for Public Works Construction as released by the North Central Texas Council of Governments (NCTCOG) and the specifications of the American Water Works Association (AWWA).

GENERAL REQUIREMENTS

1. A Performance, Maintenance and Payment Bond shall be on file with the City Secretary's office prior to the start of the utility construction.

   A. The Performance and Maintenance bond shall be for the cost if the utility construction.

   B. The Performance bond shall be in effect until project completion. The Maintenance Bond shall be effective for a 12-month period following project completion and acceptance by the City of Ferris and shall cover 100% of the cost of the public improvement portion of the project.

2. No utility-construction shall begin until a set of engineering drawings of the proposed construction, stamped by a Texas Licensed Engineer, is received by the City of Ferris and approved by signature of the Utility Superintendent or his designee.

3. Any utility construction located in a State of Texas right-of-way must be permitted. The engineer or contractor shall furnish to the City the required Texas Department of Transportation (TXDOT) forms along with required back up documentation and the City will secure the permit. At least a 48-hour notice is required prior to construction beginning after the permits are issued. Permits can only be obtained by the City.

4. If the utility construction is to be located in easements on private property, the Public Works Department of the City of Ferris shall verify the easement by plat. All plats shall be provided to the City by the developer or contractor when the plans are submitted.

5. All utility construction shall be performed in accordance with the specifications listed herein and shall be inspected and documented by the City of Ferris Utility

Department.

6. If the utility construction is required to be done after normal working hours, or on weekends or holidays, all overtime pay for the City Utility Inspector shall be paid for by the contractor. Failure to pay overtime fees shall result in the forfeiture of the posted Performance and Maintenance Bond.

7. The contractor or owner will be responsible for replacement of any City of Ferris property damaged during construction, including, but not limited to, facilities, appurtenances, lines, valves, fire hydrants, manholes, lift stations, etc.

8. For new construction projects, an emergency contact with telephone number must be on file in case of an emergency (27/7).

GENERAL CONSTRUCTION REQUIREMENTS

1. All main utility lines must have a minimum cover of 42-inches.

2. All utility lines and appurtenances must be inspected and approved by the City Utility department prior to back filling or covering.

3. City Streets and/or curbs shall not be cut without the express written approval of the City of Ferris, Director of Public Works.

4. All water and wastewater taps shall be indicated on the front of the curb by stamps, 1-inch in height x 1/4-inch deep, indicating "W" for water and "S" for wastewater.

5. All main utility lines must connect to any existing main line that the new main may cross. The method of connection to be approved by the Utility Superintendent.

WATER MAIN DESIGN

GENERAL

- Water main construction must in all ways meet AWWA minimum design standards.

- All water meter boxes/vaults and valve boxes must be at grade and visible at the time the job is completed and until the 12-month final inspection is completed. The Maintenance Bond shall not be released if boxes/vaults are not visible.

MINIMUM SIZE AND MATERIAL

- The minimum acceptable water pipe size for public utilities shall be eight (8) inches; larger sizes may be required by the Utility Superintendent as a result of the plan review process.

- The minimum acceptable water pipe material for three (3) inch and larger public lines shall be C900, Class 150. All potable water lines laid in the City must be blue in color.

- The minimum acceptable water pipe material for any public line two (2) inches or smaller shall be Schedule 80 PVC water pipe or Type K or L copper.

MAIN LINE LOCATION

- All main water lines shall be located in one of the two parkways (between the back of curb and the leading edge of the sidewalk.) The leading edge of the pipe shall always be set two (2) feet behind the back of curb.

- At no time is a water line to be place closer than nine (9) feet to a wastewater line.

- Prior to back filling, all main water lines shall have a 12-gauge copper wire laid on top of the pipe to assist in locating the line once it is covered. Said copper line shall be tied to the pipe at 15-feet intervals in order to keep it on top of the pipe. The wire shall as much as possible be an unbroken run looped into valve boxes and fire hydrant runs. All connections must be made with wire nuts and secured with electrical tape.

JOINTS

- All water main fittings must be of ductile iron.
- All joints shall be flange or mechanical.
- All mechanical joints must use Mega-Lugs.
- No slip joints will be allowed on three (3) inch or smaller lines.
- No glue joints are allowed on any line.
- All valves shall be approved.
- All fittings subject to surge or pressure must be blocked with 1/3 yard, or more, of 5 sack concrete.
- Line valves must be located so that no more than 500-feet of line will be out of service if a main failure occurred.

BEDDING

- All water lines must be bedded with cushion sand at depts. Of four (4) inches below the pipe and six (5) inches above the pipe.

FIRE HYDRANTS

- All fire hydrants that are installed as public utilities shall be:

  A. Sized with a 5 1/2 - inch barrels.

  B. 3-way hydrants with one 4.5 inch steamer and two 2.5 inch outlets; outlets shall have national standard thread.

  C. Installed so that the center nut of the steamer cap is located at 18-inches above the final grade.

  D. Installed with a Mueller valve between the hydrant and the main line.

  E. Blocked with at least 1/3 of a yard, or more of 5 sack concrete (all L's also).

  F. Anchored with ductile iron couplings.

G. Set with the steamer of the hydrant facing the street or fire lane.

H. Set at 600-foot intervals in residential areas and 300-foot intervals in commercial/industrial areas.

I. Installed in parkways and are not to encroach upon sidewalks or curbs in any fashion.

J. Pea gravel must be used as back fill up to 12-inches above the foot of the hydrant.

PRESSURE TESTING

- All water lines shall pass an appropriate pressure test, 150 PSI for four (4) hours.

NOTE: Does not include underground fire sprinkler system lines and/or private fire protection lines which shall be tested at 200 PSI for two (2) hours.

SAMPLING AND TESTING

- Water samples must meet Texas Commission on Environmental Quality standards before a line may be placed into service. Copies of the test results must be sent to the City of Ferris.

- All testing shall be at the expense of the contractor and shall be conducted under the direct supervision of the City of Ferris Utility Department.

- Water lines that pass all tests shall be put into service at the time when the Maintenance Bond time period begins.

- After the acceptance of the main utility lines and public fire hydrants, the Fire Department will flow test and paint the hydrants.

ALLOWABLE TYPES OF WATER METERS

- All meters shall be installed by City of Ferris Utility Department.

METHOD OF METER INSTALLATION

- All water meter boxes must be installed in public right-of-ways.
- All water meters 2-inches or smaller shall be installed in metal meter boxes with lids.
- All meter boxes shall be installed so that the top of the box is at final grade.
- Angle stops will be set ten (10) inches below finish grade.

METER BOX OR VAULT INSTALLATION

- All meter boxes shall be corrugated metal with metal lids and vaults must be pre-cast concrete: NO plastic meter boxes or vaults will be accepted.
- All vaults are required to be large enough for a repairman to enter for meter repair or replacement and shall have a sump at least eight 8-inches by one 1-foot installed and equipped with a pump which will keep the work area dry. Purchase and maintenance of the pump shall be the customer's responsibility.
- The meter box/vault shall be large enough to accommodate both meter and valves.
- The meter box/vault shall be large enough to allow repair work.
- The lid must be large enough o allow access for repair work. On large vaults, there must be a small meter reader lid in line with the meter dial.
- Meter boxes are not to be re-located without notifying the Utility Serviceman or the Director of Utilities.

TAPPING REQUIREMENTS

- Tapping saddles must be used for all taps.
- All taps must use a saddle made of stainless steel, Teflon coated, wide or double straps.
- Corporations must be brass with tapered threads, not pipe threads, flare or compression with internal locking ring only.

- All service lines from the main must be Type K copper if less than 1-1/4 inches and Type L copper if 1-1/4 inches or larger.

- All 3/4-inch or 1-inch curb stops, angle or straight stops, must be brass, flare or compression with internal locking ring only.

- The utilities Superintendent shall determine if tie ins to existing water lines are to be wet.

- All connections must be inspected by City of Ferris personnel.

VALVES

- All valves shall be installed so that the valve box lid will be a finished grade.

- All valves shall be approved.

- All valve boxes shall have an 18-inches x 18-inches concrete pad around the lid at finished grade.

- Valves must be located so that no more than 500-feet of line will be out of service in the event of a main failure.

WASTEWATER DESIGN

Definitions:

ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association

GENERAL

- Wastewater plans and specifications must be prepared by a Professional Engineer registered in Texas and must be strictly adhered to during construction. Appropriate ASTM, ANSI, ASME, or AWWA standards shall be cited and used where appropriate. All standards must be the latest revision.

- Plans and specifications must be reviewed and approved by the City of Ferris prior to any work beginning.

- All cleanouts and manholes must be at grade and visible at the time of job completion and at the end of the year final inspection. The 12-month Maintenance Bond shall not be released if these are not visible.

- The City of Ferris will not be responsible for any malfunction or failure of any line, connection, assembly or system that results in wastewater back ups onto or into the property of a customer.

MINIMUM SIZE AND MATERIAL

- No sewer other than service laterals and forced mains shall be less than six (6) inches in diameter. Larger sizes may be required by the Utility Superintendent as a result of the plan review process.

- The minimum acceptable material shall be ASTM D3034, SDR 35. All gravity wastewater mains shall be green in color.

MAIN LINE LOCATION

- All main wastewater lines shall be located in one of the two parkways (between the back of the curb and the leading edge of the sidewalk.) The back of curb edge of the pipe shall always be set two 2-feet behind the back of curb.

- When a new sanitary sewer is installed, they shall be installed no closer to waterlines than nine 9-feet in al directions. Sewers that parallel waterlines must be installed in separate trenches. Where the nine 9-foot separation distance cannot be achieved, the guidelines from TAC 30 Chapter 317 Appendix E will apply.

- All force mains shall have a 12-gauge copper wire laid with the pipe to assist in locating the line once it is covered. Said copper wire shall be attached to the pipe at a minimum of 15-feet intervals. Test points for connection to the locator wire must be provided at finished grade and in 500-feet intervals.

- Pipe shall be laid to the lines and grades indicated on the drawings.

JOINTS

- All joints shall be rubber gasketed and jointing procedures shall comply with the instructions and recommendations of the manufacturer.

BEDDING

- Wastewater lines must be bedded with four (4) inches of pea gravel, washed rock, or 3/8-inch to3/4-inch crushed stone below the pipe and six (6) inches above the pipe.

MANHOLES

- Manholes shall be placed at all points of change in alignment, grade, or size of sewer, at the intersection of all sewers and the end of all sewer lines. Stub outs at the flow line from the end manhole may be required to facilitate future expansion. Manholes shall be set at a maximum of 500-feet intervals on 6-inches to larger lines. Any proposal which deviates from this requirement shall be justified to the satisfaction of the Utility Superintendent.

- Manholes shall be of sufficient inside diameters to allow personnel to work within them and to allow proper joining of the sewer pipes in the manhole wall. The inside diameter of manholes less than 8-feet deep shall not be less than 48-inches. Manholes deeper than 8-feet deep shall not be less than 48-inches. Manholes deeper than 8-feet shall have an inside diameter of not less than 60-inches.

- Manholes shall be cast-in-place using 3000 PSI, 5 sack concrete, or, precast concrete meeting ASTM C478.

- Manhole rings and lids must be Bass and Hayes Model # 300-24. Rings must be grouted to the manhole.

- Manhole inverts. The bottom of the manhole shall be provided with a "U" shaped channel that is as much as possible a smooth continuation of the inlet and outlet pipes. For manholes connected to pipes less than 15-inches in diameter the channel depth shall be at least half the largest pipe diameter. For manholes connected to pipes 15 to 24-inches in diameter the channel depth shall be at least three-fourths the largest pipe diameter. For manholes connected to pipes greater than 24-inches in diameter the channel depth shall be at least equal to the largest pipe in diameter. In manholes with pipes of different sizes, the pipes shall be placed at the same elevation and flow channels in the invert sloped on an open slope pipe to pipe. A drop pipe should be provided for a sewer entering a manhole more than 24-inches above the invert.

TESTING

- Manholes will be vacuum tested before backfilled.

- After backfilling is completed, and before acceptance of the work, wastewater mains must pass a deflection and/or pressure test as required.

- Television inspection tests may be required on any gravity sewer main and will be at the contractor's expense.

- Any lines found to be defective will be corrected at the Contractor's expense. All defects will be repaired to the satisfaction of the City of Ferris.

WASTEWATER SERVICE LINES

- All wastewater service lines must be extended to the property line and installed with a cleanout in the City parkway.

- All cleanouts located in the parkways shall be enclosed in metal boxes that are 15-inch in diameter and have lids that are clearly labeled sewer or wastewater. Any proposal which deviates from this requirement shall be justified to the satisfaction of the Utility Superintendent.

- All cleanout boxes shall be installed so that the lid is at final grade.

PRIVATE LIFT STATIONS

- The installation of any private lift station must be approved in writing by the Director of Public Works or his designee.

- On lots where wastewater will not gravity flow into the City's wastewater mains and it becomes necessary to install a small lift station and force main, the force main must empty into a manhole.

- If no manhole is located in the vicinity, then a manhole must be installed.

- All individual lift stations of this type will be installed on private property and will be maintained by the property owner.

- All wastewater forced mains will be constructed of C900, Class 150 water pipe or its equivalent. All wastewater force mains shall use white pipe.

PUBLIC LIFT STATIONS

- The City of Ferris must approve the location of any lift station that will be conveyed to the City for maintenance.

- All lift stations that are to be conveyed to the City of Ferris shall be designed and stamped by a Texas Registered Professional Engineer.

- Contractors shall submit pump specifications to the City for prior approval. The data and specifications for each unit shall include, but shall not be limited to the following:

- All Public lift stations shall have submergible pumps.

  <u>Operation and Maintenance Data and Manuals.</u>

  Operation and Maintenance Manuals shall include the following:

Equipment function, normal operating characteristics, and limiting conditions, assembly, installation, alignment, adjustment, and checking instructions, operating instructions for start-up, routine and normal operation, regulation and control, shutdown, and emergency conditions, lubrication and maintenance instructions, guide to troubleshooting, parts list and predicted life of parts subject to wear, outline, cross-section, and assembly drawings; engineering data; and writing diagrams, test data, and performance curves, where applicable.

- All public lift stations shall have a concrete access road and shall have a 20 feet x 20 feet, minimum concrete pad around the lift station.

- All public lift stations shall be fenced for security. Fencing material is to be approved by the City of Ferris.

- In some situations, such as lift stations located in residential areas, landscaping around the security fencing will be required.

ARTICLE XIV - SEVERABILITY

That should any work, phrase, sentence, paragraph or section of this ordinance be held to be void and unconstitutional, the
remaining provisions of this ordinance shall remain in full force and effect the same as if no portion of this ordinance had been held to be void and unenforceable.

ARTICLE XV - EMERGENCY CLAUSE

The fact that the present regulations of the City of Ferris are inadequate to properly protect the public health, safety and welfare creates an urgency and an emergency and requires that this ordinance shall take effect immediately from and after its passage as the law in such cases provides.

DULY PASSED BY THE CITY COUNCIL OF THE CITY OF FERRIS on the 21ST day of AUGUST, 2006.

APPROVED:

Mayor

ATTEST:

City Secretary

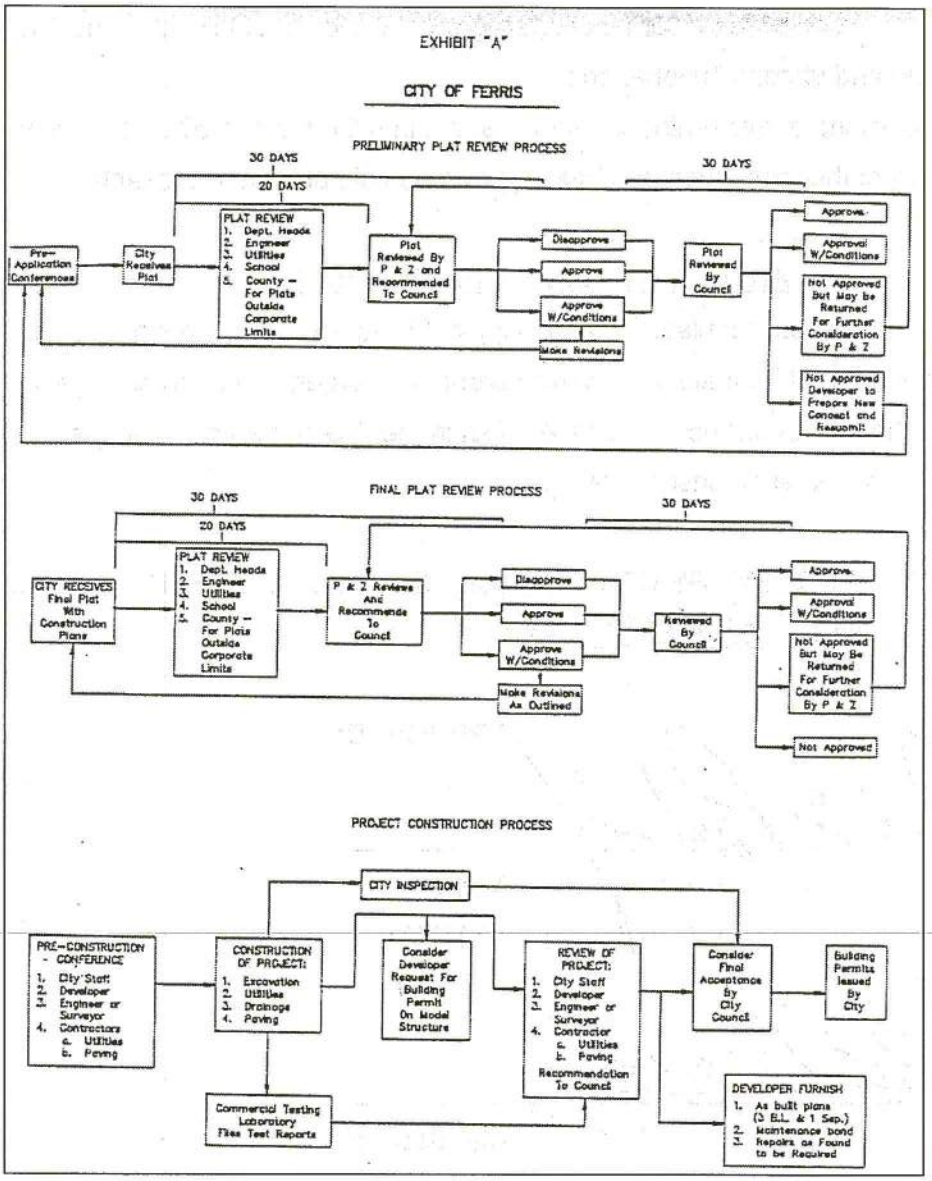


EXHIBIT "A"
CITY OF FERRIS
PRELIMINARY PLAT REVIEW PROCESS
30 DAYS
20 DAYS
30 DAYS
Pre-Application Conferences
City Receives Plat
PLAT REVIEW
1. Dept. Heads
2. Engineer
3. Utilities
4. School
5. County - For Plats Outside Corporate Limits
Plat Reviewed By P & Z and Recommended To Council
Disapprove
Approve
Approve W/Conditions
Make Revisions
Plat Reviewed By Council
Approve
Approval W/Conditions
Not Approved But May be Returned For Further Consideration By P & Z
Not Approved Developer to Prepare New Concept and Resubmit
FINAL PLAT REVIEW PROCESS
30 DAYS
20 DAYS
30 DAYS
CITY RECEIVES Final Plat With Construction Plans
PLAT REVIEW
1. Dept. Heads
2. Engineer
3. Utilities
4. School
5. County - For Plats Outside Corporate Limits
P & Z Reviews And Recommends To Council
Disapprove
Approve
Approve W/Conditions
Make Revisions As Outlined
Reviewed By Council
Approve
Approval W/Conditions
Not Approved But May Be Returned For Further Consideration By P & Z
Not Approved
PROJECT CONSTRUCTION PROCESS
CITY INSPECTION
PRE-CONSTRUCTION - CONFERENCE
1. City Staff
2. Developer
3. Engineer or Surveyor
4. Contractors
a. Utilities
b. Paving
CONSTRUCTION OF PROJECT:
1. Excavation
2. Utilities
3. Drainage
4. Paving
Consider Developer Request For Building Permit On Model Structure
REVIEW OF PROJECT:
1. City Staff
2. Developer
3. Engineer or Surveyor
4. Contractor
a. Utilities
b. Paving
Recommendation To Council
Consider Final Acceptance By City Council
Building Permits Issued By City
Commercial Testing Laboratory Files Test Reports
DEVELOPER FURNISH
1. As built plans (3 B.L. & 1 Sep.)
2. Maintenance bond
3. Repairs as Found to be Required