



NAVARRO COUNTY SUBDIVISION MANUAL

Revised July 13th, 2026

Table of Contents

ARTICLE 1: STATUTORY AUTHORIZATION, FINDING OF FACT AND PURPOSE AND INTENT 4

 SECTION A. TITLE..... 4

 SECTION B. PURPOSE AND INTENT 4

 SECTION C. AUTHORITY 4

 SECTION D. JURISDICTION AND APPLICATION 4

 SECTION E. LEGAL STATUS..... 5

ARTICLE 2: DEFINITION OF TERMS 6

ARTICLE 3: CIRCUMSTANCES REQUIRING PLATTING AND APPROVAL 13

 SECTION A. PLATTING REQUIRED 13

 SECTION B. FILING AND COUNTY APPROVAL REQUIRED 14

ARTICLE 4: PROCEDURE FOR SUBDIVIDING LAND..... 14

 SECTION A. PRE-APPLICATION PROCEDURE 15

 SECTION B. ACCEPTANCE OF COUNTY ROADS FOR MAINTENANCE 16

 SECTION C. SUBDIVISIONS 18

 SECTION D. SMALL SUBDIVISIONS (MINOR PLAT) 20

 SECTION E. PROCEDURE FOR VARIANCES 21

ARTICLE: 5 DOCUMENT SPECIFICATIONS..... 22

 SECTION A. PRELIMINARY PLAN 22

 SECTION B. PRELIMINARY PLAT 22

 SECTION C. CONSTRUCTION/IMPROVEMENT PLANS 24

 SECTION D. FINAL PLAT..... 27

 SECTION E. DISPUTES AND DISCREPANCIES 28

 SECTION F. FINANCIAL RESPONSIBILITIES AND GUARANTEES 29

 SECTION G. MAINTENANCE 29

 SECTION H. PRIVATE SUBDIVISION 30

 SECTION I. REVISION OF PLAT 31

 SECTION J. PENALTIES 33

APPENDIX A: PLATTING GUIDELINES 34

 A3. ADDITIONAL EXCEPTIONS 34

 A4. VESTING REQUIREMENTS 35

APPENDIX B: ENGINEERING GUIDELINES 35

 B1. LOT REQUIREMENTS 35

 B2. ROAD ALIGNMENTS 35

B3. MINIMUM ROAD DESIGN REQUIREMENTS	36
B4. CONSTRUCTION – GENERAL	37
B5. ROAD NAMES, SIGNS, AND MARKERS	43
B6. DRAINAGE AND FLOOD CONTROL	43
APPENDIX C: PLAT NOTES	47
C1. PROPERTY OWNER DEDICATION	47
C2. NOTARY ACKNOWLEDGEMENT	48
C3. LIEN HOLDER RELEASE AND ACKNOWLEDGEMENT	49
C4. SURVEYOR CERTIFICATION	50
C5. COUNTY PLANNING & DEVELOPMENT'S APPROVAL.....	51
C6. COUNTY COMMISSIONER APPROVAL.....	52
C7. FLOODPLAIN ADMINISTRATOR APPROVAL	52
C8. ROAD NAME AND 911 ADDRESSING APPROVAL	53
C9. COUNTY CLERK'S CERTIFICATION	53
C10. MAILBOXES	54
C11. DEVELOPMENT NOTES.....	54
C12. ROAD WIDENING EASEMENTS	54
C13. ROADWAY CONSTRUCTION	54
C14. PROPERTY OWNERS' RESPONSIBILITIES	54
APPENDIX D: LOT REQUIREMENTS	55
D1. LOT DIMENSIONS	55
D2. SET BACK REQUIREMENTS	55
APPENDIX E: ROADWAY FEATURES	56
APPENDIX F: INTERSECTION APPROACH DETAIL	57
APPENDIX G: DECLARATION OF MAINTENANCE COVENANT FOR STORMWATER STRUCTURAL CONTROLS.....	58
APPENDIX H: COUNTY CLERK'S RECORDING CHECKLIST	61
APPENDIX I: COUNTY CLERK'S AFFIDAVIT FOR RECORDATION	62
APPENDIX J: WATER SERVICE AGREEMENT	63
APPENDIX K: GROUNDWATER AVAILABILITY CERTIFICATE	64

ARTICLE 1: STATUTORY AUTHORIZATION, FINDING OF FACT, AND PURPOSE AND INTENT

SECTION A. TITLE

This Order shall be known as the "Navarro County Subdivision Regulations." As a short title, these Regulations shall be known and may be cited as, the "Subdivision Regulations."

SECTION B. PURPOSE AND INTENT

It is the purpose of Navarro County Subdivision Regulations ("Subdivisions Regulations") to help promote, protect and improve the public health, safety, comfort, convenience, prosperity, and general welfare of the citizens of Navarro County. Similarly, it is also the purpose of these Subdivision Regulations to:

1. Establish standards of subdivision design which will encourage the development of sound and economically stable communities, and the creation of healthful living environments, including drainage, water treatment and distribution, and sewage treatment and disposal;
2. Provide the efficient, adequate, and economic supply of utilities and services to new land development and the citizens of Navarro County;
3. Provide safe and convenient traffic circulation, both vehicular and pedestrian, in new land development;
4. Develop, account for, and maintain accurate and orderly records for the convenience and protection of the public and for adequate identification and permanent location of real estate boundaries and those structures erected pursuant to these Subdivision Regulations;
5. Provide for the equitable handling of all subdivision plats by providing uniform procedures and standards applicable to both the subdivider and the County and to reduce Hazards due to flooding; and Hazards due to inadequate traffic management and congestion; and
6. Provide for and promote the safe, efficient and sustainable delivery of government services to the citizens of Navarro County and the public at large, for the general welfare of the public, including without limitation, providing fire protection, EMS, law enforcement, emergency response, flood control, building standards, road infrastructure and general hurricane evacuation and response.

SECTION C. AUTHORITY

These Subdivision Regulations have been prepared and are adopted under the authority of Chapter 232 of the Texas Local Government Code, and all applicable federal, state and local law.

SECTION D. JURISDICTION AND APPLICATION

The regulations established herein shall be applicable to all unincorporated areas of Navarro County, Texas, and shall be construed to be minimum requirements. They may also apply to any municipality in Navarro County that elect to adopt them.

Encompassed in this County are other entities which may have other regulations applicable to developing land which include, but are not limited to, cities located within Navarro County and drainage districts created by the Texas Legislature.

Navarro County recognizes extra-territorial jurisdictions (E.T.J.) for all unincorporated areas of the County. In accordance with Chapter 42 of the Local Government Code, each city's E.T.J. boundaries are determined by the following chart.

Population	Distance
Less than 5,000	One Half (1/2) Miles
5,000 — 24,999	One (1) Mile
25,000 - 49,999	Two (2) Miles
50,000 - 99,999	Three and One-Half (3-1/2) Miles
100,000 - or More	Five (5) Miles

Many of the municipalities' E.T.J. are governed by the subdivision regulations of the individual municipality. It is the Property Owner and/or developer's responsibility to determine if the tract lies within a city's E.T.J. and to determine if that city enforces its authority for subdividing/platting within its E.T.J. These municipalities may insist that their road standards and building standards apply in the E.T.J., and those standards will apply in the event of conflict or if the County's requirements require less than the municipalities' requirements. In other words when conflicting requirements occur the most stringent will govern. However, such roads, if dedicated to the public, shall be ultimately maintained by the County and therefore the County shall review plans for those roads and their construction.

Within the jurisdiction of these Subdivision Regulations, except as provided otherwise, no subdivision shall be made, platted, or recorded, nor shall any building permit be issued, unless such subdivision meets all requirements of these Subdivision Regulations and has been approved in accordance with the requirements as hereinafter provided. Further, no subdivision street will be accepted for maintenance unless that street exists in a platted subdivision.

SECTION E. LEGAL STATUS

Severability

Sections, paragraphs, sentences, clauses, and phrases of these Subdivision Regulations are severable. If any section, paragraph, sentence, clause or phrase of these Subdivision Regulations are declared void, ineffective or unconstitutional by a valid law, court opinion, judgment or final decree of any court of competent jurisdiction, then such law, court opinion, judgment or final decree shall not affect any of the remaining sections, paragraphs, sentences, clauses or phrases hereof, and such unaffected portions of these Subdivision Regulations shall remain in full force and effect.

Effective Date

These Subdivision Regulations shall take effect immediately upon the adoption of a resolution of the Navarro County Commissioners Court and supersede all previous applicable subdivision regulations.

ARTICLE 2: DEFINITION OF TERMS

Except where specific definitions are used within a specific article or section of these Subdivision Regulations for the purpose of such sections, the following terms, phrases, words, and their derivation shall have the meaning given herein when not inconsistent with the context. Words used in the present tense include the future, words in the plural number include the singular number and words in the singular number include the plural number. The words "used for" shall include the meaning "designed for." These definitions may be regulatory on their face. The words "shall" and "will" are mandatory and the word "may" is permissive. Definitions not expressly authorized herein are to be considered in accordance with customary usage in engineering practices.

ALLEYS: A road or street provided to serve as a secondary access to a business, commercial, industrial, and/or residential areas, for the purpose of service access, off-street loading, unloading, and/or parking consistent with and adequate for the uses permissible on the property.

APPLICATION: A submittal that includes a completed Plat Application form along with all required attachments which may be required as part of that submittal and the appropriate review fee. These attachments may include, but are not limited to, drawings, drainage or geotechnical reports or electronic data files.

AMERICAN WITH DISABILITIES ACT (ADA): The civil rights legislation signed into law on July 26, 1990, and all amendments thereto.

BFE (BASE FLOOD ELEVATION): The elevation shown on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, VE, or SHADED X for 500 Year, that indicates that the water surface elevation resulting from the flood that has a 1% (100 Year) or 0.2% (500 Year) chance of being equaled or exceeded in any given year — also called the Base Flood Elevation (BFE). New residential development shall be constructed so that the top of slab is 1 Ft above the 100 Year BFE.

BENCHMARK: A land surveyor's mark made on a stationary object of previously determined position and elevation and used as a reference point in tidal observations and surveys.

BLOCK: A tract of land bounded by streets, or by a combination of streets and public parks, cemeteries, railroad right-of-ways, shorelines of waterways, and any other definite barrier or boundary of a city, town or village.

BUILDING: Any structure designed or built for the support, enclosure, shelter, or protection of persons or property. **BUILDING LINE/SETBACK LINE:** A line established, in general, parallel to the property line. No building or structure may be permitted in the area between the building line and the street right-of-way.

CERTIFICATE OF OWNERSHIP: Either (1) an opinion of an attorney at law based upon an examination of an abstract or title, showing that the person submitting a plat for approval is the owner(s) of the real estate included in said proposed plat; or (2) the certificate of an abstract company or title insurance company licensed to do business in the State of Texas, certifying that the Property Owner and/or developer submitting a plat for approval, is the owner or the legal representative of the owner of the tract included in said proposed plat. Such opinion of attorney or certificate of an abstract or title insurance company shall show the names of all persons or entities holding recorded liens on said real estate.

CLERK: The County Clerk of Navarro County.

COMPREHENSIVE PLAN: The plans, or parts thereof, prepared and adopted by the Court for guiding the County's future physical development in regard to transportation, public facilities, utilities and other physical needs. This includes, but is not limited to, the Thoroughfare Plan, Mobility Plan, Drainage Criteria Manual, and any other regulation, ordinance, plan, study, code, and/or order approved/accepted and added to the

comprehensive plan added by the Commissioners' Court. **COMMERCIAL DEVELOPMENT:** Properties used specifically for business or income generating purposes, including, but not limited to industrial, residential, multi-family rental, hotel and retail projects and developments.

- **INDUSTRIAL DEVELOPMENT:** The development involving the use of premises for manufacturing, processing, bulk storage, warehousing, distribution, assembly, production, or testing.
 - **Heavy Manufacturing:** These buildings are heavily customized and contain machinery needed to operate and produce goods and services.
 - **Light Assembly Manufacturing:** These buildings are generally customized but on a smaller scale than heavy manufacturing and typically used for product assembly or storage.
 - **Bulk Warehouse:** These buildings are usually large and are used as distribution centers.
 - **Flex Industrial:** These properties contain a mix of both industrial and office space.
 - **Processing:** These buildings are typically used to process food, minerals, chemicals, and solid, gas or liquid waste.
- **RESIDENTIAL SUBDIVISION:** Land subdivided for a Planned Community in which lots will be sold or developed for single family homes.
- **MULTI-FAMILY RESIDENTIAL:** Consists of all types of residential real estate buildings outside of single – family.
 - **Duplex, triplex and Quadplex:** Rental properties that are divided into two-unit three unit and four-unit homes.
 - **Apartments:**
 - **Manufactured housing community:** A community in which the operator or owner leases ground sites to owners of manufactured homes.
 - **Special purpose housing:** A multifamily property that provides housing to a particular population segment or demographic, including student housing, senior housing, and subsidized housing.
- **HOTEL:** Buildings providing accommodations, meals, and other services for travelers and tourists.
- **RETAIL:** Buildings that are generally used for retailers and restaurants. These buildings can be used as multitenant or single use, standalone buildings.

CONDOMINIUM DEVELOPMENT: A form of real property with portions of the real property designated for separate ownership or occupancy, and the remainder of the real property designated for common ownership or occupancy solely by the owners of those portions. For the purposes of these Regulations, Condominiums shall include all developments created under Chapter 82 of the Texas Property Code, also known as the Uniform Condominium Act.

COUNTY: Land area within the jurisdictional boundaries of Navarro County that is not located within the jurisdictional boundaries of a municipality; or, Navarro County, the governmental entity established pursuant to Texas Local Government Code § 71.001.

PLANNING & DEVELOPMENT DEPARTMENT: Means that department of the County designated by the Court that is responsible for the administration of these Subdivision Regulations. The Planning & Development Department may issue certificates as required by these rules subject to general policies of the Commissioners Court or to specific orders of the Court.

COURT: The Commissioners Court of Navarro County, Texas.

CUL-DE-SAC STREETS: Local streets having only one (1) open end providing access to another street; the closed end provides a turnaround circle for vehicles.

DEAD END STREET: A road that has no outlet, without a cul-de-sac.

DETENTION POND: A basin that is designed to hold runoff from an area and then release the runoff to a receiving body of water over time.

DEVELOPMENT CONTROLS OR REQUIREMENTS: Includes these Subdivision Regulations, Building Permit

Regulations, Fire Code, On-Site Sewage Facility Permitting, Drainage Criteria Regulations, Infrastructure Manual, Manufactured Home Ordinance, and any other ordinances/regulations adopted or used by Navarro County with respect to development in County.

DRC (DEVELOPMENT REVIEW COMMITTEE): Required meeting with County officials to review the Preliminary Plan, layouts and sketches. This meeting is required for all new subdivisions or developments of property within the County. **DEVELOPER (SUBDIVIDER):** A Property Owner or his or her authorized agent proposing to divide property in two (2) or more parcels, or someone planning to construct buildings that fall within the scope of the County's Development Requirements.

DWELLING: A building or portion thereof designed or used primarily for residential occupancy.

EASEMENT: Right given by the owner of a parcel of land to another person, the general public, a public agency, or private corporation for the specific and limited use of that parcel. It usually constitutes a privilege or right-of-use or enjoyment granted on, above, under, or across a particular tract of land by one owner to another.

ENGINEER: A qualified person registered and currently licensed to practice engineering in the State of Texas.

ENGINEERING CERTIFICATION LETTER: Letter stating that the improvements including streets, drainage and utilities were made in accordance with the approved improvement plans and County Development Requirements; or as-built drawings containing an engineer's certification stating that the changed improvements are in accordance with the County's Development Requirements.

ENVIRONMENTAL DEPARTMENT: The Navarro County Planning & Development Department.

ETJ (EXTRATERRITORIAL JURISDICTION): The unincorporated territory extending beyond the city limits of a city as set forth by Chapter 42.021, Local Government Code. The unincorporated area which is contiguous to the corporate boundaries of the municipality.

FEMA: The Federal Emergency Management Administration.

FIRE HYDRANTS: Means a fitting in a street or other public place with a nozzle by which a fire hose may be attached to a water main. Fire hydrants shall be color coded according to the flow available at the hydrant, subject to approval by the County Fire Marshal or regulating local utility. Blue pavement reflectors shall be installed by the developer on roadways and streets near the center strip of the roadway, on the side of the stripe which the hydrant is located.

FIRE SUPPRESSION SYSTEM: If a subdivision is not served by fire hydrants, the developer is required to provide firefighting water sources (water tank) consisting of a limited fire suppression system meeting the following requirements:

- (1) for a subdivision of fewer than 50 tracts, 2,500 gallons of storage; or
- (2) for a subdivision of 50 or more tracts, 5,000 gallons of storage

The firefighting water sources and access road shall be indicated on the final plat.

All water tanks must be maintained in proper working condition and shall not be removed unless it is replaced with an equivalent water source that must be approved by the Navarro County Commissioners Court.

FLOOD PLAIN ADMINISTRATOR: County employee or agent who enforces the building regulations established pursuant to the Federal Emergency Management Administration regulations and the Texas Water Code for the benefit of Navarro County and the public at large.

FOUNDATION: Lowest level of a residence whether it is a masonry slab, or a pier and beam structure, that is partly or wholly below the surface of the ground and on which the building structure rests or will rest.

FRONTAGE: The length of the property lines of lots, or tracts of land abutting a public street, road, highway or undeveloped right-of-way.

GRADE: The slope or inclination of a feature with respect to the horizontal, generally expressed by stating vertical rise or fall as a percentage of the horizontal distance. This term is generally used in these Subdivision

Regulations to describe the slope of planes, ridges, and inverts found on roads, ditches, ponds, and unimproved land.

- Subdivision plats that are filed in Navarro County shall contain a community green space dedication at a ratio of 1/4 acre of green space for every 100 lots. Green space areas must be no smaller in size than 1/4 acre and must be at least 20 feet in width in order to provide access and sufficient useable area.
 - Landscape setbacks and ditch rights-of-way along roadways, will not be considered green space unless they are wider than required by County regulations.
 - Pipeline easements will be accepted as green space if they contain an improved walking trail as defined above.
 - Detention easements, excluding the actual detention pond area, will be accepted as green space if they contain an improved walking trail as defined above.
- Subdivision plats that contain less than 100 lots shall dedicate a minimum of 1/4 acre of green space
- Plats that have single family residential lots 1 acre in size or larger are exempt from the green space requirement.

Maintenance and Ownership for Green Space. For the purposes of upkeep, permanent maintenance and ownership responsibilities of dedicated Green Space, title shall be conveyed by Developer to the public, an existing or newly formed Property Owners' association, or other approved entity established for the development, and such conveyance, reserve or dedication must be properly identified upon the recording of the final plat.

HAMMERHEAD ROAD: Local streets having only one (1) open end providing access to another street; the closed end being a "T"-shaped turnaround adequate for vehicular turn around.

ILLUMINATION: Required for all subdivisions with maximum spacing of luminaires is 200 FT apart.

IMPERVIOUS SURFACE: Any surface that impedes or prevents natural infiltration of water into the soil.

Impervious surfaces may include, but are not limited to, asphalt, concrete, gravel, crushed stone, clay, bedrock, limestone, compacted soil, wood, glass and plastic products.

IMPROVEMENTS: May include, but are not limited to street pavement, curbs and gutters, sidewalks, alley pavements, walkway pavements, water mains, water systems, sanitary sewers, storm sewers or drains, or facilities that efficiently manage the flow of storm water runoff in the subdivision and coordinate subdivision drainage with the general storm drainage pattern for the area, street name signs, landscaping, permanent reference monuments (P.R.M.'s), permanent control points (P.C.P.'s), or any other improvement required by the Court.

JOINT USE AGREEMENT: A letter from the utility company stating that they have no objection to the proposed road crossing their easement. If the utility company operates a pipeline within the easement, the letter shall further state that the pipeline either meets the requirements in Article 7, Section I — Pipeline Crossing -- or has been adjusted to meet these requirements.

LAND SURVEYOR: A surveyor registered under Chapter 1071, Texas Occupation Code, who is in good standing with the Texas State Board of Professional Land Surveying.

LOT: A portion of a surface of land contained within property lines of a specific area, including land within easements and building setback lines of said area, but excluding any land within a street right-of-way. The word "lot" includes the words "plot," "parcel" or "tract."

CORNER LOT: A lot abutting upon two (2) or more streets at a street intersection, or abutting upon two (2) adjoining and deflected lines of the same street. Corner lots should be 25% larger than the minimum lot requirement.

DOUBLE FRONTAGE LOT: A lot having two (2) or more of its non-adjoining property lines abutting upon a street or streets.

FLAG LOT: a lot that abuts a street by means of a strip of land that does not comply with the requirements of this section for minimum lot width.

LOT DEPTH: The average horizontal distance between the front and rear property lines of a lot.

LOT WIDTH: The distance, measured along the building setback lines, between the two (2) side property lines of a lot. **MANUFACTURED HOME RENTAL COMMUNITY:** A plot or tract of land that is separated into two or more spaces or lots that are rented, leased, or offered for rent or lease, for a term of less than 60 months without a purchase option, for the installation of manufactured homes for use and occupancy as residences. These communities shall conform to subdivision requirements.

MUNICIPALITY: Any incorporated city or town.

MUTCD: The Texas Manual of Uniform Traffic Control Devices.

OSSF (ON SITE SEWAGE FACILITIES): Subdivisions utilizing OSSFs must meet all requirements found in 30 Texas Administrative Code (TAC) 285.4(c) and all other applicable laws.

PERMANENT CONTROL POINT: Which shall be a secondary horizontal control monument and shall be a 1/2-inch iron rod (24 inches long) set flush on centerline of pavement (if flexible base) or "x" mark (concrete pavement).

PRELIMINARY PLAN: The first official submission of a subdivision scheme to the County Planning & Development which consists of an application and drawing showing general lot and street layout and other pertinent features of a proposed subdivision for the purpose of discussion prior to the formal subdivision platting process. The Preliminary Plan is normally reviewed at the County Development Review Committee (DRC) meeting, which must occur at the initial stages of the development process.

SKETCH: An informal drawing prepared by the Property Owner and/or developer or authorized agent requesting the general lot and street layout, and pertinent features of a proposed development.

PLAT: A map or drawing of a proposed subdivision prepared in a manner suitable for recording in the Clerk's records and containing accurate and detailed engineering data, dimensions, and dedicatory statements and certificates.

PRELIMINARY PLAT: Preliminary map or drawing of a proposed subdivision with sufficient detail to fully describe or convey the full intent of the proposed subdivision including, but not limited to, thoroughfares, local and interior streets. **FINAL PLAT:** The final map, drawings and plans completed to the specifications of these Subdivision Regulations with all necessary dedications, approvals, and requirements for recording with the Clerk's Office as an official document. A Final Plat must be approved by Commissioner's Court before any lots in the subdivision may be sold or conveyed.

PRIVATE ROAD / ON PUBLIC ROW: Publicly accessible road or street, as defined herein, constructed and maintained by others and which are not a dedicated right-of-way and which will not be maintained by the County.

PRM (Permanent Reference Monument): Such monument can be (1) a one-half inch iron rod at least 24 inches long; or (2) a 1 1/2-inch diameter metal pipe at least 24 inches long. The monument shall be encased in concrete. The concrete shall be a minimum of 6 inches in diameter and extending at least 18 inches below the top of the monument. A metal cap marker with the reference marked thereon shall bear the registration of the land surveyor certifying the plat of record and the letters PRM shall be placed in the top of the monument.

PROPERTY OWNER: An individual, partnership, corporation, or other legal entity recognized by Texas law, or agent thereof, which undertakes the activities covered by these Subdivision Regulations. The term "Property Owner and/or

developer" includes "subdivider," "owner," "builder," etc., even though the person and their precise interests may vary at different project stages.

REPLAT: A revision of a Subdivision Plat on file with the Navarro County Clerk.

ROW (Right of Way): A dedication of land to be used generally for streets, alleys, drainage, canals, lakes, or other public uses, wherein the owner gives up his surface rights to the land and succeeds all surface rights to the County.

ROAD/STREET: The terms "street" or "road" are interchangeable and mean a vehicular way, including culverts and bridges, and are used to describe all vehicular ways regardless of any other designation they may carry. All roads shall be categorized into one of the following functional classifications:

ARTERIAL ROAD: Arterial roads are those that are principally regional in nature and are used for through or high-volume traffic and shall be divided into the following three sub-classifications:

- Roads which will serve vehicular traffic beyond the limits of the subdivision; and/or connect one collector or arterial with one or more collectors or arterials.
- Roads which are existing county roads, are at least one mile in length, and carry a numerical designation.
- Roads included as an arterial on a county or city transportation plan.

COLLECTOR ROAD: Collector roads are those which connect arterial roads with local roads.

LOCAL ROAD: Local roads are those which principally provide direct access to lots within a subdivision. All roads shall also be classified as follows:

CURB & GUTTER/ URBAN ROAD: An urban road is any road that has average spacing of driveways less than 100 feet when measured over a distance of one-quarter (1/4) mile. Also, any road with concrete curb and gutter requirements will be considered an urban road. All subdivisions with curb and gutter streets or urban road shall have a minimum 5-foot-wide sidewalk on each side of each urban road with curb ramps meeting ADA accessibility requirements.

OPEN DITCH/ RURAL ROAD: A rural road is any road that has average spacing of driveways 100 feet or more when measured over a distance of one-quarter (1/4) mile.

SCREENING: Screening is designed to provide a visual, physical, or sound separation of service areas and/or adjacent conflicting land uses, and should be designed and installed so that it is an orderly part of the landscape and does not dominate the view. Screening should not compromise safety by blocking vision at intersections, and elements requiring screening should not be placed to impede vision of any street corner or obstruct visibility of vehicles entering or leaving driveways. Required screening that is adjacent to residential areas should consist of densely planted strips or areas and should be an effective buffer for all seasons of the year. Mature vegetation should be retained in such areas and supplemented as necessary by new evergreen vegetation to screen sight lines.

VEGETATIVE SCREENING: When vegetative screening is required for conflicting land uses or transitional land uses, the screening, at a minimum, unless otherwise directed, shall form a solid continuous visual screen. All new plantings shall be at least six (6') feet in height upon planting. The proposed vegetative screening strip shall be composed of trees and shrubs that are of a major deciduous and major evergreen nature.

FENCING SCREENING: All required fencing, which is used to screen or create privacy, shall adhere to the following requirements:

- The preferred fencing type is brick/masonry or stone. The use of untreated wood, plain concrete block, chain link, wire, metal mesh, or corrugated metal panels shall not be used as fencing or screening.
- Fences shall be set back from the street right of- way to allow a clear area for utilities and landscaping. Landscaping shall not conflict with any utility easements.
- Fencing shall be designed to facilitate maintenance and shall not modify natural drainage so as to endanger adjacent property.
- The use of berms with appropriate dense screen planting along the top of the berm is encouraged. Landscaping shall include trees planted as defined for commercial and industrial development.

Fencing for developments shall lie within defined common open space areas or easements owned and/or maintained by established Property Owner associations.

SEWAGE SYSTEM: A system for collection, treatment and disposal of sewage, whether said system is a wastewater treatment plant permitted by the TCEQ (Texas Commission on Environmental Quality) or an OSSF (on-site sewage facilities) permitted by the Navarro County Planning & Development or the TCEQ.

SIDEWALK: Required for all subdivisions that have curb and gutters roads or urban roads. Sidewalks must be a minimum of 5 feet wide and contain reinforced concrete that meets the slope, ramp and safety requirements of the ADA and Texas Accessibility Standards. Sidewalks will not be maintained by the County.

SMALL SUBDIVISION (MINOR PLAT) - A parcel of land divided into four (4) or fewer parts and meeting the requirements set out in Article 4, Section D.

SUBDIVIDER: See "Property Owner" and "developer" in these definitions.

SUBDIVISION: The division of any tract of land, situated outside the corporate limits of any city located in Navarro County, Texas, into two (2) or more parts, for the purpose of laying out a subdivision of any tract of land, including an addition, creation of lots, or the laying out of streets, alleys, squares, or parks, or other portions intended for public use or for the use of purchasers or owners of lots fronting on or adjacent to the streets, alleys, squares, parks or other parts of the development.

TCEQ: Texas Commission on Environmental Quality

TRACT: A specified parcel of land.

TxDOT: The Texas Department of Transportation.

TxDOT STANDARD SPECIFICATIONS: The latest edition of TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges.

TMUTCD: The latest edition of the Texas Manual on Uniform Traffic Control Devices.

UTILITY: An entity as defined herein, engaged in this State in the:

1. Production, generation, transmission, distribution, sales, or furnishing of electric power;
2. Transportation, conveyance, distribution, sales through a local distribution system of natural or other gas for domestic, commercial, industrial, or other use;
3. Ownership, management, operation, leasing or controlling of a pipeline for the transmission, conveyance, distribution, delivery, or sale of natural or other gas, natural gas liquids, crude oil or petroleum products to other pipeline companies, refineries, local distribution systems, municipalities, or industrial consumers;
4. Conveyance, transmission, or receiving communications over a telephone system and providing telephone or telegraph service to others including fiber optic, cable, or any other telecommunication technology implemented;
5. Production, transmission, distribution, or sale of steam or water
6. Operation of a railroad; and/or
7. The provision of sewer service to others

VARIANCE: A granted exception to these Subdivision Regulations when specific enforcement would result in unnecessary hardship based on unforeseen consequences that on balance, would cause these Subdivision Regulations to have unintended consequences. A variance may also be requested if the alternate would create a better product. Any variance request shall be submitted to the Planning & Development Department for approval. If approved, then a recommendation will be submitted to Commissioners Court. Any variance request can only be approved by the Commissioners Court. Complete variance applications will include, at minimum, the following:

- Specific criteria from which the applicant is seeking a variance;
- The specific undue hardship resulting or which would result from compliance with the Subdivision Regulations;
- The proposed alternative to the Subdivision Regulations, if any;

- A comparison of the Subdivision Regulation to the proposed alternative as it relates to the undue hardship resulting from compliance with the established criteria; and
- Any potential effects on the health, safety, welfare, and convenience of the general public.

Approved variance request shall be listed on the cover sheet of the permitted set of plans.

WALKING TRAIL: An improved 6-foot-wide minimum path, consisting of a material conducive to walking, running, strolling, or cycling. Crushed granite, concrete, and asphalt are considered appropriate surface materials for walking trails.

Warranty Period: Means the two-year period of time, or a long period of time if extended, between the date upon which the Final Plat is accepted by the Commissioners Court and the time at which the subdivisions roads and drainage improvements are accepted into the County's maintenance system.

WATER SYSTEM: A system for the supply of potable water, whether said system is publicly- owned, community-owned, or privately-owned.

ARTICLE 3: CIRCUMSTANCES REQUIRING PLATTING AND APPROVAL

SECTION A. PLATTING REQUIRED

As a guide to the public in determining when it is necessary to file a plat and comply with these Subdivision Regulations, the Commissioners Court (as an incident of its power to enforce the subdivision laws and regulations under Section 232.003, Texas Local Government Code, and with the specific authority of Section 232.0015) has adopted the following policy guidelines stating when the division of an existing tract will be considered by the court to be a subdivision requiring the filing of a plat by law, and thus requiring compliance with these Subdivision Regulations:

FORM OF SALE: If a plat is required under these guidelines, it is immaterial that the sale or conveyance of tracts of land or lots within the subdivision is by contract, option, long-term lease, or lease-purchase, rather than by deed, or that the daughter tracts are described by metes and bounds rather than lot and block.

DEVELOPMENT: Unless otherwise specifically exempted, a plat is always required when two or more tracts of land or lots are sold from a larger tract of land as part of a unified plan for development of the property. The existence of such a plan may be inferred from circumstances, such as the form of advertising or the sale of multiple tracts within a one-year period.

A plat is always required, even if all lots are over 10 acres in size or are to be used for agriculture or veteran's tracts, if any lot or tract is created that does not have at least 150 feet of frontage on and direct access to a public road, or if any streets, alleys, squares, parks, or other parts of the tract are to be dedicated to public use or for the use of purchasers or owners of lots fronting on or adjacent to such parts. Private roads and easements are not public roads; rights-of-way that have been dedicated to the public remain private until accepted by the County for maintenance. A driveway that is owned or used in common with other tracts is a private road. This section requires each separate tract to have 150 feet of separate frontage on a public road, to be used for access by that tract alone. If any lot or tract is out of compliance with this requirement, the subdivider must plat the entire subdivision. Any tract that has less than 90 feet of frontage to a public road is restricted from any further subdivision.

Exceptions to Platting Requirements:

There are limited exceptions to the platting requirements in these Subdivision Regulations contained in §232.0015 of the Texas Local Government Code. Below are some of those applicable exceptions.

- a. The owner does not lay out a part of the tract described by §232.001(a)(3) and the land is to be used primarily for agriculture use, as defined by Section 1-d, Article VIII, Texas Constitution, or for farm, ranch, wildlife management, or timber production use within the meaning of Section 1-d01, Article VIII, Texas Constitution. If the primary use above ceases to be the primary use, the platting requirements will apply to the tract.

- b. Division of tracts into four or fewer parts and does not lay out a part of the tract described by §232.001(a)(3) to have a plat of the subdivision prepared if each of the lots is to be sold, given, or otherwise transferred to an individual who is related to the owner within the third degree by consanguinity or affinity, as determined under Chapter 573 of the Government Code. If any lot is sold, given, or otherwise transferred to an individual who is not related to the owner within the third degree by consanguinity or affinity, the platting requirements will apply.
- c. Division of tracts into two or more parts when all of the lots of the subdivision are more than 10 acres in area and the owner does not lay out a part of the tract described by §232.001(a)(3).
- d. Division of tracts into two or more parts if all the lots are sold to veterans through the Veterans' land Board program.
- e. Division of tracts belonging to the state or any state agency, board, or commission or owned by the permanent school fund or any other dedicated funds of the state unless the subdivision lays out a part of the tract described by Section 232.001(a)(3).
- f. Division of tracts when the owner of the land is a political subdivision of the state, the land is situated in a floodplain and the lots are sold to adjoining landowners.
- g. Division of tracts by owner when the owner does not lay out a part of the tract described by 232.001(a)(3) and the new part is to be retained by the owner, and the other part is to be transferred to another person who will further subdivide the tract subject to the plat approval requirements of Chapter 232 of the Texas Local Government Code.
- h. Division of tracts by owner when the owner does not lay out a part of the tract described by 232.001(a)(3) and all parts are transferred to persons who owned an undivided interest in the original tract and a plat is filed before any further development of any part of the tract.

SECTION B. FILING AND COUNTY APPROVAL REQUIRED

In accordance with §232.001 of the Texas Local Government Code, all plats must be filed and recorded with the County Clerk where the tract is located, and the plat is subject to the filing and recording provisions of §12.002 of the Texas Property Code. County may require a digital map of the plat in a format that is widely used in a common geographic information system software, unless the owner requests an exception supported by an acknowledged statement indicating the digital mapping technology was not reasonably accessible.

Approval

In accordance with §232.002 of the Texas Local Government Code, the Commissioners Court of the County must approve, by an order entered in the minutes of the Court, a plat as required under by §232.001 of the Texas Local Government Code and these Subdivision Regulations.

Disapproval

The Court may refuse to approve a plat if:

1. It does not meet the requirements prescribed by these Subdivision Regulations or the Texas Local Government Code, Chapter 232; or
2. If any bond required by Texas Local Government Code §232.001 et. seq. is not filed with the County.

ARTICLE 4: PROCEDURE FOR SUBDIVIDING LAND

The purpose of this section is to establish a systematic procedure in preparing, reviewing and approving subdivision plans and plats. In addition, with compliance with these Subdivision Regulations, the Property Owner and/or developer must also comply with all applicable requirements of the appropriate city ETJ and drainage district. Property Owner and/or developer is solely responsible for determining and complying with those requirements.

Transmittal Letters: All submissions made to the Planning & Development Department Planning & Development Department must be accompanied by a transmittal letter giving the purpose of the submission such as:

- for information only
- preliminary or final review
- the name and location of the project
- and the controlling jurisdiction such as city, ETJ, or County.

A listing of all enclosed documents and drawings must be included.

SECTION A. PRE-APPLICATION PROCEDURE

Before any preliminary work is initiated, the Property Owner and/or developer of any land within the County should become familiar with the various provisions and any and all subdivision requirements, including these Subdivision Regulations. This should help avoid heavy expenditures of time, effort, and money, only to find that costly changes are required by the County Planning & Development Department to make the plans conform to these requirements. The Navarro County Drainage Criteria, and Navarro County Infrastructure also applies to the design and construction of subdivisions and are hereby incorporated by reference to these Subdivision Regulations. Property Owners and developers should consult and comply with these additional regulations and requirements.

A mandatory DRC needs to be scheduled at the initial phases of development and design. This meeting will help developers learn how the process will function moving forward. Engineering, Fire Code Official for the area of construction, Municipal Utilities District and Floodplain and Permitting will be present to help answer any questions during this meeting. Plans shall be submitted online to the Planning & Development Department for all departments to review before the tract is subdivided establishing more than one (1) lot, any street, alley, easement or public right-of-way's or before any building, street, drainage, or utility construction is begun.

All Development -The enforcement of plat restrictions is the responsibility of the developer and other owners in the subdivision; however, in an Extraterritorial Jurisdiction or Limited Purpose Annexation both the city and the Commissioners Court of Navarro County shall have the right and authority to enforce plat restrictions through appropriate legal procedure to prohibit the construction or connection of utilities, or issuing of permits unless or until the requirements of the plat requirements have been complied with by owner or developer.

Until approval of final plat is made and approved by Commissioner's Court, no conveyances of any property shall be made.

The County will assume no responsibility for drainage ways or easements in the subdivision, other than those running on or along the streets and roads under the County's ownership or control. Maintenance and liability of landscaped areas, sidewalks, illumination, utilities and other improvements within the right-of-way will be the responsibility of the developer, the municipal utility district, neighborhood association, home owner's association, or other legal entity assuming this responsibility for such maintenance and liability.

Notes to Include in Final Plat:

Drainage and other improvements outside of County Road right of way will be maintained by the subdivision owner or developer, the municipal utility district, neighborhood association, home owner's association, or other legal entity assuming this responsibility for such maintenance and liability.

All drainage reserves and easements shall be kept clear of fences, buildings, tree, shrubs, and other obstructions to the operations and maintenance of the drainage facility and abutting property shall not be permitted to drain to the easement except by means of an approved drainage structure. All reserves and easements shall be maintained by the subdivision developer, the municipal utility district, neighborhood association, home owners' association, or other legal entity assuming this responsibility for such maintenance and liability.

A driveway to any lot or tract in a subdivision shall not be permitted access onto a public roadway unless:

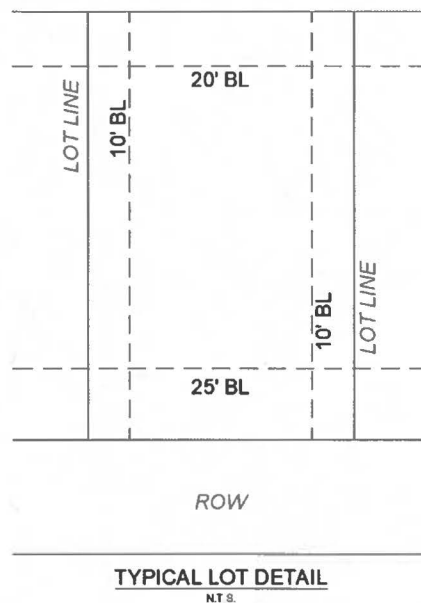
- A Permit for a Culvert installation is issued;
- The County Road & Bridge Department has approved the culvert size and grade; and
- The driveway satisfies the minimum spacing requirement in these Subdivision Regulations or the County's then current spacing requirements for such driveways.

Sales of lots or conveyance of any property within the area of an unrecorded plat shall not be made until the improvements necessary to ensure access, utilities, and drainage have been completed to a point that the land or lots to be conveyed have full public services available directly to such property.

- No structure in this subdivision shall be occupied until connected to a public sewer system or to an onsite wastewater system which has been approved and permitted by Navarro County Planning & Development.
- No structure in a subdivision shall be occupied until legally and properly connected to an individual water supply or a state approved community water system.

A subdivision Developer/ Owner shall dedicate to the public a strip of land 20 feet wide on each side of any and all gullies, ravines, draws, sloughs, rivers, or other natural drainage conveyances located in or adjacent to said subdivision as easements for drainage purposes, giving the County the right to enter upon said easement at any and all times for the purpose of maintaining or improving drainage.

A Subdivision Developer or Owner shall relinquish all rights of access to major streets or thoroughfares shown hereon except by way of the platted streets shown.



Preliminary plan Submittal

County will review the proposed plat and plan documents to determine preliminary compliance with the Development Requirements.

SECTION B. ACCEPTANCE OF COUNTY ROADS FOR MAINTENANCE

Once the Subdivider/Developer has received all necessary approvals, completed all subdivision improvements, have reimbursed the county for any outstanding fees (Review fees, Inspection fees, testing fees, etc.) provided the necessary bond(s) and documentation, and the Engineering Certification Letter signed and sealed, the Final Plat will be presented to Commissioners Court for approval and recordation.

By accepting a subdivision plat for filing, the Commissioners Court does not thereby accept the streets and roadside drainage in the subdivision for ownership purposes or maintenance. Rather, the Commissioners Court is merely accepting the Final Plat for filing and recordation. The following provisions of these Subdivision Regulations specify when the roads and drainage improvements reflected in the plat are accepted by County for ownership and maintenance.

The owner or owners of the platted lots are responsible for maintenance of all streets or roads within the subdivision until such time as County accepts the roads and drainage and places the roads and drainage into the County's maintenance system. County will not accept the roads and drainage into the County's maintenance system until the requirements below are completed or met:

1. Developer makes a written request to the Planning & Development Department to accept the roads and drainage improvements into the County's maintenance system; and
 - a. Fifty percent (50%) or more of the subdivision has been built out and completed AND two years have elapsed from the date of the Final Plat being accepted by Commissioners Court for filing and recordation, , the Warranty Period, unless failure of workmanship or material has occurred during such period.
 - b. Alternatively, if fifty percent (50%) of the subdivision has not been built out and completed within two years from the date the Commissioners Court accepted the Final Plat for filing and recordation, the developer will have the option to extend the period until fifty percent (50%) build out and completion of the buildings or homes in the subdivision has occurred. After the two years, or more by extension, 50% or more build out and completion of homes or buildings, and a request to accept the subdivision roads and drainage dedicated to the public into the County maintenance system, the County Commissioner or his or her designated employees or agents, will inspect the subdivision improvements and provide a written punch list to the owner/developer for repair, construction or implementation. Supplemental new punch lists will be required if punch list items are not completed within three (3) months. Once all items are inspected, completed and approved as compliant, then the County Commissioner of the precinct in which the subdivision is located shall make a recommendation to the Commissioners Court to accept the roads and drainage improvements into the County maintenance system.
2. A maintenance bond is required for the warranty period to begin. In lieu of the bond an owner may deposit cash, a letter of credit issued by a federally insured financial institution, or another acceptable financial guarantee. If a letter of credit is used, it must, list the sole beneficiary the county judge of County and be conditioned that the owner of the tract of land to be subdivided will construct any roads or streets in the subdivision in accordance with the Development Requirements, including the Subdivision Regulations adopted by the commissioners' court and within a reasonable time set by the Court.
 - a. Be executed by a company authorized to do business as a surety in this state if the Court requires a surety bond executed by a corporate surety; and
 - b. Be conditioned that the roads and streets and the drainage requirements for the subdivisions will be constructed:
 - In accordance with the specifications adopted by the Court in these Development Requirements, including Subdivision Regulations; and
 - Within a reasonable time set by the Court
3. County's General Guidelines and Requirements on bonds. The following guidelines and requirements must be met to comply with these Development Requirements, including these Subdivision Regulations.
 - a. The principal of the bond must be listed as the developer or owner who filed the plat and seeks to have the County accept the roads and road drainage into the County's maintenance system.
 - b. The bond must specifically reference: (i.) the name of the subdivision or property subject to the bond, including the location of the subdivision, property and roads; (ii.) a general description of the roads and drainage improvements covered by the bond, which should include all the subdivision roads and drainage subject to the Development Requirements and Subdivision Regulations; (iii.) in the description of the bond, the obligation of the principal will be reflected to require the principal to construct, improve, maintain and repair all the roads and drainage improvements in the name of the subdivision in complete compliance with the County's Development Requirements, including County's

Subdivision Regulations, until such time as the County releases the bond; and (iv) that if the principal fails to perform, or if the roads and drainage improvements do not comply with the County's Development Requirements, including the County's Subdivision Regulations in the time frame set forth in the Development Requirements, the surety of the bond will be responsible and liable to the County up to the penal amount of the bond. The term of the bond will continue for a period of at least 2 years in length, plus additional time to allow for at least 50% of the homes or buildings in the subdivision to be completed in compliance with the Development Requirements. Once the roads and drainage improvements have been in place for a minimum of 2 years in length and at least 50% of the homes or buildings of the subdivision have been completed, and no defects in the roads and drainage improvements are discovered, and the roads and drainage improvements meet the requirements of the Development Requirements, including these Subdivision Regulations, then County will release and return the bond back to the principal ,owner or developer, and the bond surety, at which time, the term of the bond will expire.

SECTION C. SUBDIVISIONS

Preliminary Plan Submittal

Before a Property Owner or developer submits a final plat for approval or recordation, the owner or developer must send the County through its Planning & Development Department Planning and Development Department the following Digital submissions:

1. A transmittal letter requesting review of the preliminary plan for a development of property; and
2. Two (2) paper copies of the preliminary plan.

The Planning & Development Department Planning and Development Department will respond via email confirming receipt of the plans unless otherwise requested. An optional pre-planning meeting will be available to discuss the requirements and/or preliminary plan if it is determined to be necessary by the Planning & Development Department Planning and Development Department.

Preliminary Plat Submittal

Following the submittal and review process of the preliminary plan, the developer or Property Owner must deliver to the County through its Planning and Development Department the following Digital submissions:

1. A transmittal letter requesting review of the preliminary plat; and
2. Three digital copies of the preliminary plat for the County Planning & Development Administrator, Flood Plain Administrator, and/or Fire Marshal.

Following the submittal, the County Planning & Development Administrator will provide an email written response to the owner or developer submitting the preliminary plat, notifying the Property Owner and/or developer of any missing documents and provide initial comments or concerns with the preliminary plat submittal, or other deficiencies that may apply.

Drainage Plans, Construction/Improvement Plans, Studies, and Material

In accordance with §232.003 of the Texas Local Government Code, the County also requires that the developer or Property Owner submit additional items in connection with the proposed plans and plats. In addition to submitting the preliminary plans and preliminary plat, the owner or developer must submit to the County through its Planning and Development Department Planning & Development Department a drainage plan, signed and sealed construction/improvement plans, studies, and other supportive material. The County will review or have reviewed by a consulting engineering firm for the Planning & Development Department Planning and Development Department the proposed drainage plan from the owner or developer. The fee for this review will be charged to, and must be paid for by, the Property Owner and/or developer. The developer or owner must

also submit a set of Construction and Improvement Plans, Studies and supporting Materials to the County through its Planning & Development Department Planning and Development Department. The signed and sealed Construction Plans and Improvement Plans, Studies and supporting Materials must include all detailed specifications and drawings necessary for the owner or developer to bid the construction of the subdivision or improvements with a reasonable degree of accuracy on pricing and scope of work.

In connection with the submittal, Property Owner or developer must deliver to the Planning & Development Department Planning and Development Department the following Digital submissions:

1. A transmittal letter requesting approval of Planning and Development Department Planning & Development Department; and
2. Digital copies of all drainage plans, Construction and Improvement Plans, Studies and supporting Materials to be reviewed and approved.

Final Plat Submittal

After receiving preliminary and conditional approval of the preliminary plat, drainage plans, signed and sealed Construction Plans and Improvement Plans, Studies and Supportive Materials, the Property Owner or developer must deliver to the Planning and Development Department Planning & Development Department the following:

1. Application for Final Plat Approval;
2. Final Plat - Digital copies for the County Planning & Development Administrator, Flood Plain Administrator and Fire Marshal;
3. Final set of the approved signed and sealed construction/improvement plans from both the Fire Code Official for the area of construction and/or County Planning & Development Administrator;
4. Final set of the approved drainage plans;
5. TIA and any requirement approval from TxDOT if the proposed subdivision is along a state right-of-way, then an approval letter from the State in reference to access onto the state right-of-way as well as right of-way requirements will be necessary;
6. Approval from Public Utilities providing service to the subdivision or TCEQ acceptance of the creation of a Special District that will provide those public utilities;
7. An approved OSSF Subdivision Plan in accordance with 30 Texas Administrative Code 285.4(c) for subdivisions utilizing OSSFs; and
8. Joint Use Agreement, if applicable.

The Planning and Development Department Planning & Development Department will respond via letter expressing approval or disapproval, or if a decision cannot be made, then identify additional documents or information needed to complete the review for a decision.

The County's Response

If the final plat does not meet all requirements, the Planning and Development Department Planning & Development Department will send a letter notifying applicant of any missing documents or information and provide comments or concerns needed to be addressed or answered before a decision can be made. If all of the requirements of the Development Regulations have been met, and the improvements have been completed for roads and drainage as required, the Property Owner and/or developer shall then supply the Planning and Development Department Planning & Development Department with two (2) Mylar copies of the final plat and upon receipt, the Planning & Development Department will recommend approval of the final plat to the

Commissioners Court at the next regularly scheduled and available commissioners court meeting. If the Commissioners Court approves the final plat, the owner or developer may begin construction of the development; however, the County Planning & Development Administrator will withhold the two (2) signed copies of the final plat from recording until all improvements are completed in accordance with the improvement plans. If within three (3) years, no improvements have been made and no request for an extension has been made by the Property Owner and/or developer and approved by the County Planning & Development Department, the County Planning & Development Administrator may request the Court to abandon the plat and cancel the subdivision pursuant to *Texas Local Government Code §232.008*.

Completion of Improvements

The County reserves the right to conduct periodic inspections during all construction activities. Once construction is completed to satisfaction of the Planning & Development Department, the Property Owner and/or developer's engineer shall request that the final plat be released for recordation.

If a Property Owner or developer desires to file the Plat prior to roads and drainage improvements being completed, then the Property Owner or developer shall provide a bond of 150% of cost of all remaining roads, drainage elements and other improvements to be constructed as identified by the developer's engineers. The Property Owner or developer will be responsible for any fees incurred during this process.

The request must contain:

1. A letter requesting the release;
2. The 150% construction bond must be provided to the County. The bond will be held for a specified warranty period which must be at least 2 years and until 50% of the homes are complete;
3. The Property Owner and/or developers engineer's certification certifying that the improvements were made in accordance with the approved improvement plans and County regulations or as-built drawings and an engineer's certification certifying that the changed improvements were made in accordance with the County's regulations. Any major deviations from the plan of improvement shall be approved by the County;

Electronic Submittals

The Planning & Development Department Planning and Development Department may require that all plats and other documents required to be submitted to County be submitted electronically.

SECTION D. SMALL SUBDIVISIONS (MINOR PLAT)

The County Planning & Development Administrator will recommend that the Court approve a small subdivision if:

1. The Property Owner and/or developer does not lay out streets, alleys, squares, parks, or other parts of the tract intended to be dedicated to public use or for the use of purchasers or owners of lots fronting on or adjacent to the street, alley, square, park, or other parts;
2. No more than four (4) Lots result from the subdivision of a tract of land and each Lot is at least one (1) net acre in area; (i.e. easements do not count as part of tract). Subdivision of a tract of land resulting in each parcel being 10 acres or more is exempt from the minor plat requirements if developer does not lay out streets, alleys, squares, parks, or other parts of the tract intended to be dedicated to public use.
3. The original parcel to be divided cannot be the result of a division using the small subdivision process within five (5) years from the date of application;

4. Each Lot has adequate, separate (not shared) access to a publicly-maintained road, with at least 60 feet of frontage along such road;
5. The proposed division is not expected to have adverse impact on drainage as confirmed in writing by the Planning and Development Department (or by the County Road and Bridge Department in which it is located);
6. Each Lot is suitable size and condition to allow the provision of adequate water systems and sewer service facilities, as confirmed in writing by the Texas Commission on Environmental Quality or the respective Utility District in which the property is located;
7. Property Owner and/or developer shall provide necessary right-of-way dedications and setbacks.

Procedure

1. The Property Owner and/or developer shall meet with the Planning & Development Department. Property Owner and/or developer shall provide to the Planning & Development Department a sketch of what is proposed and a copy of the deed of the tract being divided.
2. If the proposed division meets the County's requirements, the Property Owner and/or developer will then be responsible for getting a letter from the Planning & Development Department, and a tax certificate showing that all taxes are paid on the tract. The Property Owner and/or developer will also be responsible for obtaining a "plat of survey" from a land surveyor containing a legal description of all tracts created.
3. Upon approval, the Planning & development Department will supply the Property Owner and/or developer with a letter granting approval, which shall be filed along with the plat of survey signed and sealed by the land surveyor

SECTION E. PROCEDURE FOR VARIANCES

A variance request is when a Property Owner or developer submits a formal request to comply with County Standards through another equal or better indirect method.

Application

The Property Owner or developer shall file in the Planning & Development Department's office an application stating clearly and definitively the reason for a request of variance and how the applicant intends to satisfy or accommodate these Subdivision Regulations. The variance application will be submitted to the Commissioners Court for consideration.

Court Determination

The Court shall determine the following facts:

1. The Development Requirements will be satisfied through the proposed alternative measures;
and
2. The variance will not adversely affect the adjacent property nor will it be detrimental to the general public's interest.

ARTICLE: 5 DOCUMENT SPECIFICATIONS

SECTION A. PRELIMINARY PLAN

Two (2) copies of a preliminary plan are required to be delivered to the Planning & Development Department before proceeding to the platting portion of the procedures specified in Article 5 of these Subdivision Regulations. The preliminary plan shall include:

1. Street design and layout including designations of private or public roads, road materials such as concrete or asphalt, road dimensions including amount of traffic lanes, turn lanes and shoulders, as applicable. Plan should include an overview with all previous sections included (i.e. Phase 1, Phase 2, etc.)
2. Commercial and residential designations for each proposed lot;
3. Right-of-way designations for streets;
4. Smallest and largest lot size (for each section if more than one (1) section);
5. Utility accommodations, designations and locations (e.g., water system and sewer system) and whether such Utilities are private or public;
6. Detention/mitigation, and conveyance areas set aside for drainage;
7. Parks, squares, common areas, and other places of green space;
8. Any other pertinent information the developer feels is appropriate for County consideration and guidance.

SECTION B. PRELIMINARY PLAT

All subdivision plats shall receive their "official" consideration as "preliminary plat." At this stage, the following procedures are required.

The Property Owner or developer shall have a land surveyor or engineer prepare the preliminary plat in conformance with the format, design and improvement requirements of these Subdivision Regulations. If more than one sheet must be used, the scale shall not exceed 200 feet to 1 inch.

The preliminary plat shall provide the following items:

1. The abstract and survey in which the property is located;
2. A description of the boundary survey of the property having a maximum error of closure of 1:15,000;
3. Names and mailing addresses of the Property Owner or developer, engineer and land surveyor;
4. Name of the proposed Subdivision, which shall not be the same or deceptively similar to any other subdivision within the County unless the subdivision is an extension of a preexisting, contiguous subdivision. Applications for subdivisions which are an extension of a pre-existing, contiguous subdivision shall include a designation of the sequence order for each separate application (e.g. Phase II, Section 3, etc.);
5. Boundary lines of any applicable incorporated municipality including boundary lines of any extraterritorial jurisdiction of any municipality;
6. Location, length and right-of-way widths of all proposed roadways and a depiction of how all proposed roadways connect with previously dedicated, platted or planned roadways within the vicinity of the Subdivision;
7. Proposed names or designations for all roadways, public access easements, and shared access driveways, and a statement indicating that the Applicant has coordinated all such names or designations with the County "911" Coordinator;
8. Location, size and proposed use of all proposed access easements, or Shared Access Driveways, if any;

9. A designation of the classification of each roadway to be constructed or existing roadways abutting any Lot;
10. Commercial and residential lot designations;
11. Scale;
12. North point (with North being at the top of the map, if feasible), scale and date;
13. Other pertinent legend data;
14. Total area, number of lots and approximate lineal feet in streets;
15. Lot design scheme (details below);
16. Vicinity sketch or key map at a scale of not more than 2,000 feet to the inch showing the position of the subdivision with relation to the surrounding streets and properties and other important features such as railroads, corporate limits of an adjacent city;
17. Boundary closure calculation (computer printout or calculation sheet); 100-year and 500-year flood plain map showing proposed plat boundary; Topographic map showing proposed plat boundary;
18. Soil survey showing proposed plat boundary, Geotechnical Report or USGS survey;
19. Notes Stating:
 - The County will assume no responsibility for drainage ways or easements in the subdivision, other than those running on or along the streets and roads (i.e., dedicated roadway drainage). Maintenance and liability of landscaped areas, sidewalks, illumination, utilities, Green Space, and other improvements within the right-of-way will be the responsibility of the developer, neighborhood association, homeowner's association, or other legal entity.
 - Drainage and other improvements outside of the County Road right of way will be maintained by developer, neighborhood association, homeowner's association, or other legal entity.
 - All drainage reserves, drainage improvements and easements shall be kept clear of fences, buildings, tree, shrubs, and other obstructions to allow unobstructed operations and maintenance of the drainage reserves, drainage improvements and easements, and abutting properties shall not be permitted to drain to the easement except by means of a County approved drainage plan and structure. All drainage reserves, drainage improvements and drainage easements shall be maintained by the developer, neighborhood association, homeowner's association, or other legal entity.
20. The location of all proposed utility easements or infrastructure, including water well sanitary easements, if applicable; and
21. The proposed building setback lines.

Lot Design Scheme

The lot design scheme will be drawn on a scale of not more than 100 feet to the inch (except where the minimum size lot is one (1) acre net or more), in which case a scale of 200 feet per inch may be used. The following features shall be shown:

1. The location of existing property lines, boundaries of incorporated areas, existing easements, streets, buildings, lakes, water courses, and culverts within the tract or immediately adjacent within 200 feet thereof;
2. The proposed location and width of street rights-of-way;
3. Street names;

4. Lot lines and numbers must be shown, but no dimensions are required;
5. The names and boundaries of all adjoining subdivisions;
6. Location of existing and proposed water systems, location and type of proposed O.S.S.Fs and the potential replacement areas in the event of such equipment or system failure; and
7. Contours with intervals of 1 foot or less, when the general grade is less than 3%, and at interval of 5 feet or less when the general grade exceeds 3% (shall refer to M.S.L. data). Benchmarks shall be provided at convenient points with locations and elevations indicated on the preliminary plan or in the Drainage Plan.

SECTION C. CONSTRUCTION/IMPROVEMENT PLANS

All improvement plans shall be approved by the County Planning & Development who shall certify that the plan is in conformance with these Subdivision Regulations and Development Requirements. Variance from the requirements shall be permitted only by Court approval and action.

The developer shall have an engineer prepare the Improvement Plans in conformance with the format, design, and improvement standards required by these Subdivision Regulations and Development Requirements. Utility companies and other concerned public agencies should be consulted before these plans are prepared for review and adoption of other applicable requirements.

Construction Drawings

The sheet size for construction drawings shall be 18"x 24". The drawings shall reflect the name and unit number of the proposed subdivision, show elevations based on M.S.L. datum plan, and be in compliance with the following requirements:

- **Street Connections** – As authorized under Local Government Code Ch. 232.0034(c) (which allows for adoption of more stringent infrastructure standards) and Local Government Code Ch. 232.101, at least two means of ingress and egress from subdivisions to existing arterial and/or collector roads are required in subdivisions consisting of 300 or more lots. Where two ingress and egress points are required, each shall be remotely connected to an arterial and/or collector road a distance apart equal to not less than 1/2 of the length of the diagonal distance of the overall area to be served measured in a straight line between them. If an energy or utility easement or right-of-way bisects a subdivision in a manner which may prevent residents from crossing said easement or right-of-way in the event of the failure, leakage, or collapse thereof, at least one means of ingress and egress to an arterial or collector road shall be provided on each side of the easement.
- **Street Plan Profile** - The plan of each proposed street indicating the existing ground elevations and proposed street grade surface including existing street grade for a distance of 100 feet beyond the tract boundary at a scale of not more than 100 feet per inch.
- **Typical Street Sections** - A typical section of each proposed street, if all are not the same, not to scale, but having horizontal and vertical measurements showing the width of proposed stabilization, road base, wearing surface, curbs, shoulders and ditches.

All streets shall comply with the Design Standards herein with regard to rights of way, lane widths, geometry, structure, markings, signing, median design and widths and the specific requirements of the County Planning & Development Administrator when, in his or her judgment, safety or functionality alteration are required.

- **Cul-de-Sac's** - Cul-de-Sac termination of residential streets is required on all dead-end streets. Turnarounds shall be a minimum of 96 feet of paved diameter, unless an exception is made by the ESD.
- **Stub Streets** – Stub streets are to provide for access to adjacent land areas. A temporary turnaround shall be provided and indicated on the plat and included in accordance with the Development Requirements and the Subdivision Regulations.

- **New Streets** - New streets which are an extension of existing streets shall bear the names of existing streets and shall be constructed with appropriate transitions and widths.
- **Street Names** - New Street names shall not be named to duplicate or cause confusion with existing street names. New street names shall be approved by the 911 Coordinator.
- **Street addresses** - Street addresses will be assigned by the 911 Coordinator at the time of approval and recordation of the final plat or other recordable plat with the issuance of a construction permit.
- No 911 address will be provided for any development type (i.e. residential or commercial) until proof of adherence to platting regulations is confirmed.
- All addresses shall be provided by the 911 Addressing Coordinator.
- Address numbers shall be placed on mailboxes, gates and houses, so that emergency personnel can easily locate the correct location.
- **Water System and Sanitary Sewer System** - The plans and profiles of proposed and existing water systems and sewer systems, if submitted to the required state agencies for approval, shall be submitted to the Planning & Development Department prior to commencement of construction.
- **Storm Sewer Drainage** - The size, location and typical sections of drainage ditches (or storm sewers, if used) including drainage reserves, shall be shown. All drainage plans, profiles and computations shall be submitted to the Planning & Development Department for approval prior to construction.
- **Existing Utilities** - Plans and profiles of existing utilities shall be shown where applicable.
- **Benchmarks** - One or more shall be provided for all subdivisions as approved by the County Planning & Development Administrator, with description, location and M.S.L. elevations indicated on the improvement plan prepared in reference to NAD 83 Texas State Plane South Central Texas (foot).
- **Comprehensive Drainage and Flood Plain Impact Plan** - Shall conform to the Development Requirements, including the Navarro County Drainage Criteria, Infrastructure, and these Subdivision Regulations.
- **Fire Hydrants** – Follow requirements of the Public Water System or Emergency Services District servicing the area of the proposed subdivision.

IBC 2015 Table 602 shall determine building setback lines of buildings and structures subject to County ESD fire code.

Building Lines and Setbacks - All structures shall be a minimum of 20 feet from any structure on adjacent properties. All Commercial and Industrial developments shall be setback 50 feet from any County road right of way. Below is a table reflecting applicable setback lines depending on the type of roads and the type of development.

Front Building Lines		
Residential/Minor Streets	25 feet	
Collector/Arterial Street Commercial/Industrial	50 feet	
County/State Thoroughfare	50 feet	
Side Lot Setbacks		
Single Family Detached Residential	Lots > 1 acre net square feet in area	10 feet either side
	Lots > 1 acre net in area but < 10,000 sq. ft.	10 feet either side
	Lots > 2 acres net.	10 feet either side
Non-Residential	20 feet when abutting a residential platted lot; residentially developed property. May be reduced to 10 feet when the common property line abuts a nonresidential developed or plat restricted lot.	
Rear Lot Setbacks		
Single Family detached Residential;	Lots > 1 acre net in area but < 10,000 sq. ft.	10 feet
	Lots > 2 acres net	10 feet
Non-Residential		20 feet
Where Drainage and Utility Easements run through or between lots, a 10-foot setback is required from the easement boundary.		

Construction/Improvement Plan Review

The County Planning & Development Department shall review the improvement plans and notify the developer in writing, of his approval, conditional approval or denial. In no case shall the County Planning & Development Department be authorized to vary the requirements of these Subdivision Regulations, since variances can only be granted by action of the Court as prescribed herein.

Physical Improvement Drawings

A blackline or digital set of the original drawings showing the "as- built" plans of the installed improvements shall be provided by the owner or developer at the request of the County Planning & Development Department.

SECTION D. FINAL PLAT

Final Plat Materials

The final plat materials, which all Property Owners or developers are required to submit, shall consist of two (2) groups of materials — plats for recording and forms submitted to the Planning & Development Department. The Property Owner and/or developer shall have a land surveyor prepare the final plat in conformance with the format, design, and improvement requirements of these Subdivision Regulations. The Final plat will not be recorded until all construction of streets, drainage and improvements are completed in accordance with County specifications and requirements, unless a bond is provided as described herein. The final proposed plat submitted to Court for consideration and approval must be on mylar or stable base film (0.004 inches thick, minimum) and shall contain dark, stable ink lines which cannot be smudged or removed by ordinary handling. The overall sheet size shall be 18"x24" with a half inch margin on all sides. If necessary, more than one sheet may be used as long as a key map is shown to relate each sheet to the entire platted area.

Abbreviations will not be allowed on Plat.

The information required on the face of this sheet is as follows:

1. Title Block – Abbreviations will not be allowed.
2. Legal Description - A written legal description of the property platted, tied to an original corner of the original survey and placed at an appropriate location on the face of the plat.
3. Location Sketch - A sketch or "key map" at a scale of not more than two (2) miles to the inch showing the position of the subdivision with relation to surrounding streets and properties and also showing other important features such as railroads and corporate limits of an adjacent city.
4. Dedication - The dedication shall:
 - Be per **(Appendix C1)**; and
 - Be approved by the County Planning Development Department.
5. Lot Design Scheme - The lot design scheme shall be drawn at a scale of not more than 100 feet to the inch, unless lots are one (1) acre net or more in size; then a scale of 1 inch = 200 feet may be used with North oriented to the top of the sheet when possible and shall show the following:
 - a. Street lines - with names and widths, control point references;
 - b. Subdivision plat - boundary lines of tract, monuments of tract, street centerlines with bearings and distances, easements, lot lines with accurate dimensions, street names, lot numbers, blocks lettered alphabetically or numbered, reservations and dedications; and
 - c. The size of each lot.
6. Benchmarks - One or more benchmarks shall be provided for all subdivisions at convenient points with appropriate descriptions as approved by County Planning & Development Administrator, location and M.S.L. elevations indicated on the plat prepared in reference to NAD 83 Texas State Central Texas (foot) and NAVD 88. All benchmarks shall be placed in a permanent location.
7. Certificate of Land Surveyor - Per **(Appendix C4)**;
8. County Commissioner Certification - Per **(Appendix C6)**;
9. Certificate of Clerk - Per Appendix C10
10. Certificate of City Council - Per city instruction if within 1 mile of the city's E.T.J
11. Pipeline Note - Per Appendix H
12. Flood Plain Certificate - Per Appendix C8
13. Application - Attach appropriate forms:
 - For final plat approval;
 - For small subdivision approval; and
 - For variance.

14. Joint Use Agreement (if applicable) - A letter from the utility company stating that they have no objection to the proposed road crossing their easement. If the utility company operates a pipeline within the easement, the letter shall further state that the crossing meets the requirements.
15. Certificate of Ownership - See Article 2 - "Definitions."
16. Additional Plat Statements - The following statements shall be noted on the face of the final plat:

"I do hereby dedicate forever to the County a strip of land, minimum 20 feet wide on each side of any and all gullies, ravines, draws; sloughs, rivers, or other natural drainage conveyances located in or adjacent to said subdivision as easements for drainage purposes, giving the County the right to enter upon said easement at any and all times for the purpose of maintaining or improving drainage.

FURTHER, I hereby relinquish all rights of access to major streets or thoroughfares shown hereon except by way of the platted streets shown.

All drainage reserves and easements shall be kept clear of fences, buildings, tree, shrubs, and other obstructions to the operations and maintenance of the drainage facility and abutting property shall not be permitted to drain to the easement except by means of an approved drainage structure. All reserves and easements shall be maintained by the developer, neighborhood association, homeowner's association, or other legal entity"

Recording Final Plat

The final plat shall be recorded immediately after approval of the improvements by the Court.

Property Owner or developer must provide a tax certificate from each tax collector of a political subdivision in which the property is located, with the plat to be recorded, showing that all taxes owed to the county, school district, and all other political subdivisions have been paid in full to date.

The Property Owner or developer shall furnish three (3) copies to be distributed as follows:

1. Clerk's Office - Original Mylar; and
 2. Planning & Development Department Office - One (1) Mylar copy and one (1) paper copy.
- Original and copies shall conform to "Final Plat."

SECTION E. DISPUTES AND DISCREPANCIES

The County Planning & Development Administrator shall decide all questions and difficulties, of whatever nature, which may arise relative to the interpretations of the plans, construction, prosecution and fulfillment of the Development Requirements, including these Subdivision Regulations. In the event a dispute or discrepancy in the Development Requirements cannot be resolved by the County Planning & Development Administrator, a committee, comprised of the developer's engineer, the County Planning & Development Administrator and an independent third-party engineer, agreeable to both sides, will attempt to resolve any outstanding disputes or discrepancies. Such resolution should be final. The fee of the third engineer shall be submitted to the County and paid for by the County. The Property Owner or developer shall reimburse the County for such fee.

SECTION F. FINANCIAL RESPONSIBILITIES AND GUARANTEES

1. To protect the public interest, the Commissioner's Court of Navarro County hereby decrees under the provisions of Chapter 232, Local Government Code, that the Owner of any tract of land that desires to obtain approval of a subdivision plat for recording in the County records shall construct all roads and drainage facilities, including storm water detention, and any other items required by other governmental agencies, in said subdivision to the standards and specifications set forth in the Engineering Guidelines incorporated as Appendix B of these Regulations before offering said plat for approval, unless exempted by Section 7.2.
2. If the Property Owner desires to have the plat placed on record before completion of construction of the roads and drainage, then the owner shall give a good and sufficient bond, cash, or letter of credit as set forth herein.
3. In areas within the ETJ of a city, the city letter of credit policy may apply if the Commissioners' Court finds that the City policy provides adequate protection of the County's and public's interest in the land development and construction of infrastructure, and the County is named with the City on the financial document.
4. The Property Owner may be entitled to partial reductions of the security requirement upon written approval by the County Commissioner and the County Judge, and in accordance with the City ordinance when the subdivision lies inside the ETJ of a city.
5. Upon approval of the construction plans, all inspections will be conducted by the County Commissioner, which will bill the County directly and be reimbursed by the developer by way of a County invoice.
6. When submitting the construction plans for approval by the County Planning & Development Department, an electronic version of the construction plans (.pdf format) shall accompany the construction cover sheet.
7. For all landscaping, irrigation, sidewalks, illumination, water quality features, etc., within County right-of way, the developer, neighborhood association, or homeowner's association shall be responsible for the maintenance and liability of these features. This organization should have assessment authority to insure the proper funding for maintenance.
8. Once the construction has been completed and the County Planning & Development Department has approved the construction, the Owner shall provide the County Planning & Development Department with a digital file of the "As Built" plans showing the original approval signatures and the seal of a Registered Professional Engineer. A paper copy is not required. These plans are to show the improvements as they were actually built. The file shall be in an Adobe .pdf format and CAD format. After the "As Built" plans, Subdivision certifications, County inspection and review costs are received and all construction deficiencies have been satisfied, the County Planning & Development Department will provide the Owner and the Subdivision Designee with a letter recommending the start of a 2 year and 50% build out of homes or buildings maintenance period.

SECTION G. MAINTENANCE

1. By accepting a subdivision plat for filing, the Commissioner's Court does not thereby accept the roads in the subdivision for ownership or maintenance by the County. The Property Owner of the platted lots is responsible for maintenance of all roads within the subdivision until such time as the construction of the roads have been accepted by the County, which is after a minimum of 2 years from completion and 50% build out of homes or buildings. At the end of the warranty period, the County Commissioner will do a final walkthrough inspection. Once satisfied, the County Commissioner will present the County with an approval letter to end the maintenance period and recommend acceptance by the County.

2. In addition, written certification from the Property Owner's Registered Professional Engineer is required, stating that the facilities were constructed in accordance with the applicable Development Requirements, including these Subdivision Regulations with any approved variances in effect when the subdivision was recorded (or has been upgraded to those standards). If a final plat for the subdivision where the facilities are located was never recorded, the facilities must meet the current applicable subdivision regulations with any approved variances.
3. The enforcement of plat requirements is the responsibility of the Property Owner(s) of the subdivision; however, in an Extraterritorial Jurisdiction both the city and the Commissioner's Court of Navarro County shall have the right and authority to enforce plat requirements through appropriate legal procedure to prohibit the construction or connection of utilities, or issuing of permits unless or until the requirements of the plat have been achieved.
4. The County will assume no responsibility for drainage ways or easements in the subdivision outside of the roadway right-of-way. Maintenance and liability of improvements including but not limited to landscaping, illumination, sidewalks, water quality features, or any other improvements shall not be the responsibility of the County.

SECTION H. PRIVATE SUBDIVISION

If an Owner wishes to create a subdivision utilizing private roads, it must meet the following requirements:

1. Private roads must meet all county road standards, except where specific variances have been granted by Commissioner's Court for adequate cause in each case.
2. The title of the final plat for private subdivisions shall contain the phrase, "A Private Subdivision".
3. The subdivision plat and restrictions must contain a statement that Navarro County will not accept or maintain the roads.
4. A homeowner's association with assessment authority shall be formed in conjunction with the recording of the final plat. Membership in the association shall be mandatory for each lot owner. The association shall be responsible for the maintenance of the roads and off-road drainage in the subdivision.
5. The subdivision plat must contain a statement that the roads shall be maintained to such a standard which will allow emergency vehicles access for the roadway design speed in perpetuity by the homeowner's association, and must contain a mechanism for assessing the Owners within the subdivision to produce adequate revenue for perpetual maintenance.
6. The plat must contain a requirement that every deed contain notice to the grantee that all roads are private, that the homeowners association shall be perpetually liable for maintenance, that the County will never accept them for maintenance, and that the quality of the roads must be maintained as to not affect access by public service agencies such as police, fire, and emergency medical services.
7. All arterial roads must be dedicated to the public and constructed to County standards. Other roads shall be dedicated to the homeowner's association for the use of the Property Owners, their assigns and successors, and emergency response agencies.
8. A Texas Manual Traffic Control Device approved sign shall be placed at the entrance of the subdivision clearly stating that the roads in this subdivision are private roads. The location of this sign shall be shown in the construction plans.
9. Any Owner that gates the entrances to the subdivision shall provide either a crash gate or a lock box and letter of approval from all of the affected emergency response agencies stating their approval of full-time access to and from the subdivision.
10. The County will not be responsible for providing enforcement of traffic control within private subdivisions.

SECTION I. REVISIONS OF PLAT

*THIS SECTION REFERS TO THE REVISION OF REAL PROPERTY IN AN EXISTING PLATTED SUBDIVISION FILED WITH THE COUNTY CLERK.

1. Revision of Subdivision Plats

Replat means a revision of a subdivision plat on file with the County Clerk.

Requirements:

- Application to Commissioner's Court requesting the revision.
- Notice to be published by the applicant as herein specified.
- Cost of publication to be paid by applicant.
- Notarized Letter from the applicant proving the revision is not in violation of existing deed restrictions to Commissioners Court.
- Letter from Property Owners Association President stating they have no objection to the revision or replat.
- If no Property Owners Association, the applicant shall provide notice to each lot owner located within 200 feet of said tract by certified mail, return receipt requested, and presented to the Commissioner's Court at the time of presentation of application.
- Persons replating property within the service area of a water or sewer utility provider shall have the written consent of the provider.

Application. A person who owns subdivided land that is subject to this order may apply in writing to the Commissioners Court of the county for permission to revise the subdivision plat that has been filed for record with the County Clerk.

- The replat shall provide the following information:
- Legal description. The legal description of the land to be subdivided shall be sufficient for the requirements of title examination, including the current deed.
- Statement of conformance or list of variances. The statement of conformance shall declare that the plat (including its supporting information) conforms to these Rules (including the associated Appendices) or shall list the instances in which it does not comply with these Rules, the reason for each such non-compliance, and whether a variance is requested. A variance request must be approved by the Commissioner's Court prior to presentation for approval of the plat revision. (See Article 5, Section 4)
- Location Map. A location map or sketch at a scale of not more than four thousand (4,000) feet to one (1) inch shall show the proposed subdivision, existing adjacent subdivisions, school district lines, and roads in the vicinity.
- Vicinity Map. A vicinity sketch or map at approximately one (1) inch = four hundred (400) feet scale shall show existing subdivisions, streets, easements, right-of-way, parks and public facilities, tracts of acreage in the vicinity, the general drainage plan and ultimate destination of water, and possible storm sewer, water, gas, electric, and sanitary sewer connections by arrows.
- Location with respect to any municipal ETJ line. A statement indicating whether any part of the proposed subdivision lies within any extraterritorial jurisdiction of a municipality (under Texas Local Govt. Code § 42.021 or 212.001) shall be provided. If an ETJ line traverses the subdivision, it shall be delineated and identified upon the plat.
- Map of earlier plat. If the subdivision is part of a previously filed subdivision plat, a map shall be provided showing the portion of the earlier-filed plat that is owned by the applicant and included in the plat.
- Restrictive covenant. Any restrictive covenants proposed to be imposed for the subdivision should be attached for reference. It should be noted whether these are existing or proposed and if proposed, at what time they will be recorded, prior to or concurrently with the recording of the final plat.

- The owner shall certify, if applicable, that the plat has been reviewed and conforms to the requirements of the Texas Commission on Environmental Quality, municipal utility districts, 911 addressing, the gas, electricity, water, telephone, and television cable companies, irrigation, ground water, or water control and improvement districts; or that the agencies mentioned in the preceding paragraph were given at least ten (10) working days to review the proposed plat. This certification shall be in letter form and shall include the name, title, address, and telephone number of the person to whom the applicant delivered the plat for review.
- The replat shall include the name, address, and telephone number of the record owner(s) of lands being subdivided, and of the engineer, the surveyor, and any other persons responsible for the preparation of the data and information being submitted.
- The replat shall include the subdivision name, which shall not duplicate the spelling or the pronunciation of any existing subdivision in the County.
- The replat shall delineate and define the boundary of the subdivision by metes and bounds. Subdivision boundaries shall be indicated by a heavy line at least one sixteenth (1/16) inch wide. The total acreage in the subdivision shall be noted.
- The replat shall locate the subdivision with respect to an original corner of an original survey of which it is a part.
- The replat shall show the primary control points or description used to establish the subdivision. The description, location, and tie to such control points, including all dimensions, angles, bearings, block numbers, shall be noted.
- The replat shall note the date of preparation, date of survey, the scale of the plat, combined scale factor basis of bearings, and North arrow.
- The replat shall show building setback lines (front, side, and rear). For corner lots, the front setback line shall be located on only one of the public streets or roads. Except as provided in Subsection (c) the following building set back lines apply.
- Building Set Back Lines shall be at least twenty-five feet (25') from the right-of-way lines, and ten feet (10') from back and side property lines on lots of 1.0 acres or more.
 - Building Set Back Lines shall be at least twenty-five feet (25') from the edge of pavement (and in no instance less than fifteen feet (15') from the right-of-way lines) and five feet (5') from back and side property lines on lots of less than 1.0 acres net.
 - Replats of lots in an existing platted subdivision shall conform to the building setback lines set forth in the original subdivision plat or found in the original subdivision deed restrictions or conditions, covenants and restrictions on file with the County Clerk. In the event there are no building setback requirements set forth in the original subdivision plat then Subsections (a) and (b) shall apply.
- The replat shall show the net area contained within each lot or tract to the nearest one hundredth (1/100) of an acre.
- The replat shall show the limits of any flood hazard areas as indicated by the respective Llano County Flood Insurance Rate Map(s) and the proposed finished floor elevation of any building within these flood hazard limits.

The replat shall include or have attached a document containing a description in English of the water and sewer facilities and roadways and easements dedicated for the provision of water and sewer facilities that will be

(1) constructed or installed to service the subdivision and a statement specifying the date by which the facilities will be fully operational.

(2) The replat shall have attached a certified letter from a water utility provider that water is available to the proposed replat sufficient in quality and quantity to meet the minimum state standards required by Section 16.343, Water Code, and that water of that

quality and quantity will be made available to the point of delivery to all lots in the subdivision.

(3) The replat shall have attached a certified letter from a sewer utility provider that sewage treatment facilities meet minimum state standards to fulfill the wastewater requirements of the replator furnish certification by the Texas Commission on Environmental Quality indicating that the lots in the subdivision can be adequately and legally served by septic systems as provided under Chapter 366, Health and Safety Code.

(4) The replat shall have attached certification that electrical connections and gas connections, if available, will meet minimum state standards.

Notice. After the application is filed with the Commissioners Court, the Court shall require a notice by the applicant to be printed in a newspaper of general circulation in the county. The notice must include a statement of the time and place at which the Commissioners Court will meet to consider the application and to hear protests to the revision of the subdivision plat.

- The notice must be published at least three times within the period beginning on the 30th day and ending on the 7th day before the date of the meeting. All costs of publication shall be paid by the applicant.
- If all or part of the subdivided tract has been sold to non-developer owners, notice shall also be given to each owner, at his address on said tract, by certified mail or registered mail; return receipt requested.

Hearing. The Commissioners Court, during a regular meeting of the court, shall adopt an order permitting the person to revise the subdivision plat if it is shown to the court:

- That the revision will not interfere with the established rights of any owner of a part of the subdivided land;
- If the revision interferes with the rights of an owner of a part of the subdivided land, the owner has agreed to the revision;
- That the revision is not a violation of any existing deed restriction(s); or
- That the applicant has complied with Section 232.009, Texas Local Government Code.

Filing. If the Commissioners Court permits a person to revise a subdivision plat, the person shall make the revision by filing for record with the County Clerk a revised plat or part of a plat showing the changes made to the original plat.

SECTION J. PENALTIES

1. Section 232.005 of the Texas Local Government Code, as amended, provides for the enforcement of the state subdivision laws and of these Subdivision Regulations.

2. A person commits an offense if the person knowingly or intentionally violates a requirement of these Subdivision Regulations, including the Engineering Guidelines and other appendices incorporated herein. Such offense is a Class B Misdemeanor, punishable by (1) a fine not to exceed \$2,000; (2) confinement in jail for a term not to exceed 180 days; or (3) both such fine and confinement. (Texas Penal Code, Title 3, Ch. 12, Sections 12.03; 12.22, as amended).

3. A person may be jointly responsible as a party to an offense if the person (acting with intent to promote or assist the commission of the offense) solicits, encourages, directs, aids, or attempts to aid another person to commit the offense (Texas Penal Code, Title 2, Sec. 7.01-7.03, as amended). Thus, a real estate agent or broker, a lender, an attorney, a surveyor, an engineer, a title insurer, or any other person who assists in violating these Subdivision Regulations may also face criminal penalties.
4. Besides prosecuting a criminal complaint, the Navarro County Criminal District Attorney or other attorney for the County may file a civil action in a court of competent jurisdiction to enjoin any violation or threatened violation of these Subdivision Regulations, and to recover damages.
5. A tract that has been subdivided without compliance with these Subdivision Regulations will be ineligible to obtain a permit for development, addressing, on-site sewage facilities, water or electrical services located on the tract until compliance has been reached.

APPENDIX A: PLATTING GUIDELINES

As a guide to the public in determining when it is necessary to file a plat and comply with these Regulations (as amended), the Commissioners Court (as an incident of its power to enforce the subdivision laws and regulations under Chapter 232, Texas Local Government Code, as amended) has adopted the following policy guidelines stating when the division of an existing tract shall be considered by the Court to be a subdivision requiring the filing of a plat by law, and thus requiring compliance with these Regulations:

A3. ADDITIONAL EXCEPTIONS

A3.1. The Commissioners Court has adopted the following additional policy guidelines stating when the division of an existing tract shall be considered exempt from the requirements for filing of a plat:

- A3.1.1. Any tract whose boundary has not changed since February 21, 1985 may be sold in its entirety without being platted.
- A3.1.2. A plat is not required when daughter tracts are created solely for purposes of platting them as individual subdivisions in their own right. The Owner must submit to the Court the preliminary plat for the project as a whole before claiming this exception.
- A3.1.3. A plat is not required when two adjacent landowners adjust or change the property lines which separate their respective tracts, so long as there is the same number of tracts and Owners after the transaction as existed before it. (and does not create other plat issues) This exemption applies whether the transaction requires an exchange of land by both Owners, or only a transfer of land from one Owner to the other, and whether the transaction takes the form of a sale or of an exchange in kind.
- A3.1.4. Any land added to a tract through such a transaction shall become an integral part of that tract, and may not be separately conveyed except in compliance with the subdivision laws. Each resulting tract shall, of course, be subject to the minimum lot size requirements of these Subdivision Regulations and other applicable laws. This exception does not apply if the adjustment will change the boundary between two legally platted lots, or add or subtract land from a legally platted subdivision. This exemption may not be exercised within two years of exercising another exemption.
- A3.1.5. A plat is not required when a smaller tract is surveyed out of the parent tract solely for the purposes of obtaining financing for purchase or improvement of that part of the property, provided that possession and primary beneficial ownership of the entire parent tract are intended to remain unified.
- A3.1.6. A plat is not required when a smaller tract is created by the legitimate foreclosure of a valid lien on a part of the parent tract. This provision does not exempt sham transactions or foreclosures staged to avoid the platting requirement.
- A3.1.7. A plat is not required if the property has been divided by the final decree of a court of record with appropriate jurisdiction.

A3.2. All exemptions in this subsection must be approved in writing by the Planning & Development Department prior to the division of the property. To claim any exemption, the person or entity who claims to be entitled to any exclusion to platting set out in these Guidelines must provide:

- A3.2.1. An affidavit claiming the exemption and setting out the detailed basis for exclusion from the platting requirement, subject to penalties of perjury.
- A3.2.2. A copy of the deeds or other instruments creating the daughter tracts referenced in the affidavit.

A4. VESTING REQUIREMENTS

A4.1. In accordance with V.T.C.A., Chapter 245, Local Government Code, a completed application submitted prior to the effective date of the ordinance from which this chapter is derived will be reviewed on the basis of any regulations or requirements in effect at the time the completed application is filed; unless, at the applicant's option, the applicant elects to proceed under the new regulations or requirements.

A4.2. In reliance upon properly issued permits or approvals, any applicant that claims exception from any provision of this subchapter based upon a claim of vested rights shall file a request for vested rights determination with the County demonstrating:

- A4.2.1. The applicant made substantial financial commitments or assumed substantial financial obligations within the purview of the activities authorized by said permit or approval; and
- A4.2.2. The applicant has proceeded in good faith, and no approvals or permits have lapsed or been revoked; or
- A4.2.3. The applicant has established any other factor which may establish vested rights under state or federal law; or
- A4.2.4. The applicant filed an application as provided in VTCA, Local Government Code ch. 245 prior to adoption of the regulations against which vested rights are claimed, that the regulations against which vested rights are claimed are not subject to an exemption as provided in VTCA, Local Government Code § 245.004 and that the project has not become dormant as defined in VTCA, Local Government Code § 245.005 and this chapter.

A4.3. After receiving a request for vested rights determination, the County shall review the request and approve, deny or request additional information to be provided for consideration of the request within 20 working days. Upon review of the request, if the County finds that the applicant has provided sufficient information to establish that one or more permits exists on a project, the administrator shall issue a certificate to the applicant recognizing vested rights for the project and the terms and conditions required for the continuance of the vested rights.

APPENDIX B: ENGINEERING GUIDELINES

BI. LOT REQUIREMENTS

B1.1. For determining the area required for an on-site sewage facility, the minimum lot size shall be in accordance with the current regulations of the Texas Commission on Environmental Quality and Appendix D. Always use most stringent requirement when requirements contradict.

B1.2. Minimum lot width requirements shall be in accordance with Appendix D.

B1.3. Minimum building setback requirements

B2. ROAD ALIGNMENTS

B2.1. Roads shall be laid out so as to align with existing roads in adjoining or nearby subdivisions. No gaps between the subdivision and the public roadway system may be left. Collectors and arterials shall be placed to facilitate the safe and efficient movement of traffic.

B2.2. New roadways that do not connect to an existing public road will not be approved.

B2.3. The County may require an internal road system that minimizes driveways and cross streets to existing County or other public roadways where the existing right of way is less than 60' wide. The County may also require that lots bordering on an existing arterial road have access to an internal platted road and the final plat shall contain a restriction requiring driveways to connect only to an internal platted road.

B3. MINIMUM ROAD DESIGN REQUIREMENTS

B3.1. The Owner must improve all existing roads within the plat, as well as all boundary roads to which the proposed subdivision will have direct access, to meet the requirements of these Subdivision Regulations. The exclusion from the plat of a road that would provide access to future plats will not be permitted. Lots intended specifically for future roads will not be approved.

B3.2. Unless otherwise stated in these Subdivision Regulations, all roads shall be designed in accordance with the latest version of the Institute of Texas Department of Transportation, "Roadway Design Manual", the latest version of the American Association of State Highway and Transportation Officials (AASHTO) "A Policy on Geometric Design of Highways and Streets. Should there be a conflict between these publications, the more stringent value shall overrule. All references to "mountainous terrain" shall not apply to the County.

B3.3. For purposes of this Appendix, ADT shall be defined as the anticipated average daily traffic at the time of complete build out of the subdivision, including any future development that may be served by a given road. For planning purposes, it shall be assumed that any future residential lots will generate 10 ADT. If an area of future development consists of two or more acres, it shall be assumed that such development will produce an ADT of 40 per acre, unless there is a note prohibiting future subdivision.

B3.4. Arterial roads shall be designed as follows:

- B3.4.1. The minimum right-of-way width for all arterial roads should be 100 feet.

B3.5. Collector roads shall be designed as follows:

- B3.5.1. If the collector is included in a roadway or transportation plan, the right-of-way and pavement cross section shall be as required in the plan.

B3.6. Local Roads shall be designed as follows:

- B3.6.1. The minimum right-of-way width shall be 70 feet for rural residential subdivisions with public water and sewer, 60 feet for rural residential subdivisions without public water and sewer and 50 feet for urban residential subdivisions and all nonresidential subdivisions.

B3.7. The following standards apply to all roads:

- B3.7.1. Roads shall be dedicated to the public except as indicated in this manual. The Owner may dedicate either the fee Ownership in the land or an easement for road, drainage and utility purposes, at the Owners' option.
- B3.7.2. Where concrete curb and gutter are constructed, the curb shall be 6 inches in width. Where concrete laydown curbs are constructed, they shall be 12 inches in width. For both types of curb, the pavement base course shall extend 18 inches beyond the back of the curb. All concrete curb shall contain steel reinforcement.
- B3.7.3. Approaches to intersections shall have a minimum pavement width of 39 feet, for a minimum length of 50 feet, when it is anticipated that, at full build out of the subdivision, the number of left turns from the approach will exceed 100 vehicles per hour per ADT.
- B3.7.4. Driveway spacing on roads without curb and gutter shall be a minimum of 10 feet measured from culvert to culvert.
- B3.7.5. In new subdivisions, the Owner shall install cluster mailboxes at a reasonable location(s) inside the subdivision boundaries. The placement of individual or cluster mailboxes along arterial and collector roads shall not be permitted in new subdivisions. Mailboxes shall not encroach in any fashion on or

over sidewalks or other public walks or ways in the County right-of-ways and shall be installed in accordance with applicable postal regulations.

B3.8. The following requirements apply to dead end roads and cul-de-sacs:

- B3.8.1. Dead end roads in developments that are not proposed to be extended at some time in the future and have a throat length of 150 feet or less shall have a cul-de-sac with a minimum radius of 96 feet.
- B3.8.2. Cul-de-sacs shall be constructed on a sufficient grade to insure a minimum cross slope grade and along the flow line.
- B3.8.3. "No Outlet" signs shall be placed at the entrance to the dead end road, even if the road is planned to be extended at some time in the future.
- B3.8.4. Dead end roads that end at undeveloped property must be extended to the property line. At the terminus, a temporary cul-de-sac shall be provided for all such streets having a throat length more than 150 feet, constructed in accordance with the requirements of this Appendix. Hammerhead design is not preferred; however, alternate designs, such as landscape center islands, may be considered by the Planning & Development Department to ensure a sufficient turnaround area is provided.
- B3.8.5. For all temporary cul-de-sacs, temporary easements shall be established for the portions of the cul-de-sac which lie outside the road right-of-way. Such easements which lie within the plat boundary shall be shown on the final plat. Easements which lie outside the boundary of the plat may be in the form of a separate document, but must be recorded prior to construction of any roadway improvements.

B3.9. Additional Right of Way for Existing Roads

- B3.9.1. When a subdivision is adjacent to an existing road, the Planning & Development Department shall determine the right-of-way width that will be necessary for the maintenance and improvement of the existing road. If the existing road is a major thoroughfare, as defined herein, the Owner shall dedicate to the public up to 120 feet in overall width of the right-of-way, as determined by the Planning & Development Department. The Owner may dedicate either the fee ownership in the land or an easement for road, drainage and utility purposes, at the Owners' option.

B3.10. Required Private Road Right-of-way

In the interest of the health, safety, and welfare of residents of lots in private subdivisions, excepted from platting requirements, the right-of way of all roads shall be a minimum of 40 feet in width and each dead end road shall be constructed with a cul-de-sac meeting the specifications detailed in these Subdivision Regulations. The minimum roadway width shall be that width specified in Section 2.a.

B4. CONSTRUCTION – GENERAL

B4.1. A preconstruction meeting shall be scheduled prior to the start of construction. The Design Engineer, Owner, Contractor, County Commissioner, Planning & Development Department and County Planning & Development Administrator shall attend this meeting. All roads are to be constructed in accordance with the construction documents as approved by the County Commissioner and in accordance with the specifications found in the current version of the "Texas Department of Transportation Manual Standard Specifications for Construction of Highways, Streets, and Bridges" unless otherwise stated on the construction documents approved by the County Commissioner's Court.

B4.2. All materials shall be sampled and tested by a Certified Independent Testing Laboratory in accordance with the construction documents approved by the County Commissioner. The Owner shall pay for all testing services and shall furnish the County Commissioner and County Planning & Development Administrator with certified copies of these test results. The County Commissioner must approve the test results prior to constructing the next course of the roadway structure. Any material which does not meet the minimum required test specifications shall be removed and re-compacted or replaced unless alternative remedial action is approved in writing from the County Commissioner.

B4.3. All pavements shall meet requirements outlined in the appendix as a minimum. Alternatives for consideration by the County Commissioner shall be designed by a Registered Professional Engineer. The design shall be based on a 20-year design life and in conjunction with recommendations based upon a soils report of samples taken along the proposed roadways. Test borings shall be placed at a maximum spacing of 1,000 feet or other sampling frequency approved by the County Commissioner based on recommendations provided by the geotechnical engineer. One sample is required if the road is less than 1,000 feet in length. The soils report and pavement design shall be submitted to the County Commissioner for review. The pavement design must be approved by the County Commissioner prior to or concurrently with the review and approval of the construction plans. In addition to the basis of the pavement design, the soils report shall contain the results of sampled and tested subgrade for plasticity index, pH, sulfate content, and maximum density.

1. GRAVEL, CONCRETE STREETS OR ROADS WITH CURB AND GUTTER:

Must meet 80,000 GVW loading requirements, certified by a Registered Professional Engineer. Engineer in this section refers to the subdivider's engineer.

Gravel concrete streets or roads with curb and gutter sections shall be constructed as follows:

- a) Minimum width shall not be less than 28' back to back of curb.
- b) Minimum Thickness: Gravel concrete shall be 6" uniform thickness and 6" of sub-base compacted to 95% standard AASHTO density. If plasticity index (PI) exceeds 12, the sub-base shall be lime stabilized and a 2" sand cushion will be required between the subbase and gravel concrete.
- c) Expansion Joints. All slabs shall be provided with acceptable load transmission device at expansion joint, with expansion joints at 60' intervals or less. Expansion joints shall also be placed at all structures and at curb return at street intersections. Material for expansion joints shall be redwood or equal.
- d) Contraction Joints. (Dummy Joints) shall have a maximum spacing of 20 feet.
- e) Construction Joints (transverse) when not placed at expansion or contraction joint shall not be closer than 15' to an expansion or contraction joint. Longitudinal construction joints shall be at the centerline of 28 foot pavements and at approved locations for greater width pavements.
- f) Reinforcing Steel. Gravel concrete pavement shall be reinforced with 1/4 welded wire (12" x 12") mesh mats.
- g) Curbs shall be as shown on the Standard Details and constructed monolithic with the pavement, or approved construction joint, using reinforcing dowel bar minimum 8" long set in fresh concrete at time of pavement pour.

- h) Minimum gutter gradients and inlet spacing shall be in accordance with recommendations for drainage and requirements for storm sewers.
- i) Hot-poured Rubber-joint sealing compound or equivalent shall be used at all expansion joints, construction joints (except contraction joints made with 1/8" asphalt saturated fiberboard).
- j) All pipes shall be reinforced concrete or high-density polyethylene (HDPE), ADS N12 or equivalent. All pipes under roadways shall be backfilled with compacted 2-sack cement stabilized sand.

2. GRAVEL CONCRETE STREETS OR ROADS WITHOUT CURB AND GUTTER:

Must meet 80,000 GVW loading requirements certified by a Registered Engineer. Engineer in this section refers to the subdivider's engineer.

- a) Gravel concrete streets or roads with an open ditch section shall have a minimum roadway base of 26' and minimum wearing surface of 20' and a minimum roadway width of 10' wider than the roadway surface with a maximum slope of 2 1/2:1 (usual 3:1) from the roadway sub-grade crown to the ditch bottom. The improved shoulder (3' min.) shall be primed with MC-30 or equivalent,
- b) The slab thickness shall be a minimum of 6", with the same reinforcing, expansion joints, contraction joints, and construction joints as gravel concrete roads with curb and gutter.
- c) Driveway culverts may not exceed 30' in length, except where deviation is specifically approved by the County Court Designee.

3.FLEXIBLE BASE WITH CURB AND GUTTER:

Must meet 80,000 GVW loading requirement, certified by a Registered Professional Engineer. Engineer in this section refers to the subdivider's engineer.

- a) Flexible base roads shall be constructed of crushed limestone or equivalent and shall be a minimum of 6" compacted thickness on all streets and shall have 6" sub-base compacted to 95% standard AASHTO density. If the plasticity index (PI) exceeds 12, the sub-base shall be lime stabilized. All flexible base pavements shall be compacted to 95% standard AASHTO density and primed with an approved primer. Compaction to be accomplished by the use of approved and acceptable compaction equipment.
- b) The base material shall be ADHPT Type A, Grade 2, and shall consist of limestone or equivalent. This material, when properly slaked and tested by standard THD laboratory methods, shall meet the following requirements:
Grade 2: (Tri-axial Class 1 to 2.3) min. compressive strength, psi 35 at 0 psi lateral pressure and 175 at 15 psi lateral pressure. 32

Retained on Sq. Sieve %
1-3/4" 0-10

No. 4	45-75
No. 40	60-85
Max LL	40
Max PI	.12

Wet ball Mill

Max. Amount	50
Max. Increase in Passing	
No. 40	20

Material passing the No. 40 sieve shall be known "Soil Binder" and shall meet the above requirements when prepared in accordance with test Method Tex-101 -procedure.

- c) Curb and gutter construction shall be of gravel concrete and shall meet all specifications required for curb and gutter of gravel concrete roads with a curb and gutter.
- d) Minimum width shall not be less than 28' back to back of curb, with a 24' wide wearing surface of asphalt.
- e) Flexible base roads shall be surfaced with 1 1/2" of compacted asphalt via machine with cold-mix limestone rock asphalt, hot-mix cold laid or hot-mix hot laid asphalt. Approved tack oil will be applied to the primed base before applying the asphalt surface. All surface materials and application thereof shall conform to TXDOT standard specifications for constructions of highways, streets, and bridges.
- f) A laboratory certified copy of the test report on the base should be submitted to the County Court Designee before application of the wearing surface.
- g) All pipes shall be reinforced concrete or high-density polyethene (HDPE), ADS N12 or equivalent. All pipe under roadways shall be backfilled with compacted 2-sack cement stabilized sand.

4. FLEXIBLE BASE ROADS WITHOUT CURB & GUTTER:

Flexible base roads without curb and gutter shall meet all requirements of flexible base roads with curb and gutter except:

- a) They shall have a minimum roadway base of 26' and a minimum wearing surface of 20' and a minimum roadway width of 10' wider than the roadway surface with a maximum slope of 2½:1 (usual 3:1) from the roadway sub-grade crown to the ditch bottom. The improved shoulder (3' minimum) shall be primed with MC-30 or equivalent.
- b) Driveway culverts may not exceed 30' in length, except where deviation is specifically approved by the County Court Designee.

5. SUB-GRADE:

- a) Sub-grades for all types of roads shall be accurately shaped prior to placing base material or pavement thereon, and shall be compacted to provide for uniform density capable of supporting the pavement loads to be imposed upon. Unstable sub-grade is to be carefully stabilized by the addition of suitable material or removing the unstable area and placing therein-suitable sub-grade material.
- b) If the plasticity index (PI) exceeds 12, the sub-grade shall be lime stabilized a minimum of 6" deep and of not less than 5% lime treatment and shall be compacted to 95% standard AASHTO density or equivalent. Compaction to be accomplished by use of approved and acceptable compaction equipment.

6. CONSTRUCTION METHODS:

a) Preparation of Sub-base. The roadbed for all types of roads shall be excavated and shaped in conformity with the typical sections shown on plans and to the lines and grades established by the plans. All unstable or otherwise objectionable material shall be removed from the sub-grade and replaced with approved material. This item shall consist of treating the sub-grade or existing sub-base by pulverizing, addition of lime if required, mixing and compacting the mixed material to the required density. Sub-grade will be stabilized by the addition of lime when the PI exceeds 12. If the PI is equal or below 12, an approved alternative means of stabilization will be required such as cement stabilizer or use of fabric. This item applies to natural ground or embankment, and shall be constructed as specified herein and in conformity with the typical sections, lines, and grades as shown on the plans.

1. Depth of lime treatment shall be a minimum of 6".
2. Method of placement shall be slurry plowing.
3. Percent of lime used will be 5% unless otherwise determined in Test Method Tex-121-E.

The material and lime shall be thoroughly mixed by approved road mixers or other approved equipment, and the mixing continued until, in the opinion of the Engineer, a homogeneous friable mixture of material and lime is obtained, such that when all non-slaking aggregate retained on the $\frac{3}{4}$ " sieve are removed, the remainder of the material shall meet the following requirements when tested from the roadway in the roadway condition by laboratory sieves:

PERCENT:

Minimum passing $1\frac{3}{4}$ " sieve 100

Minimum passing $\frac{3}{4}$ " sieve 85

The soil lime mixture shall be sprinkled during the mixing operation as directed by the Engineer to provide optimum moisture in the mixture. During the interval of time between application and mixing, hydrated lime that has been exposed to the open air for a period of six hours or more or has had excessive loss due to washing or blowing will not be accepted. Compaction of the mixture shall begin immediately after final mixing unless approval is obtained from the Engineer. The material shall be sprinkled to provide optimum moisture until the depth of mixture is uniformly compacted to the specified compaction. The sub-grade on gravel concrete roads shall have a minimum 2" cover layer of sand if the plasticity index (PI) exceeds 12.

b) First Base Course. Immediately before placing the base material, the sub-grade shall be checked as to conformity with grade and section. The material shall be delivered in approved vehicles of a uniform capability and it shall be the charge of the contractor that the required amount of specified material shall be delivered in each 100' station. Material deposited upon the sub-grade shall be spread and shaped the same day unless otherwise directed by the Engineer in writing. In the event inclement weather or other unforeseen circumstances render impractical the spreading of the material during the first 24-hour period, the material shall be scarified and spread as directed by the Engineer. If such action is taken, the Engineer will notify the County Court Designee. The material shall be sprinkled, if directed, and shall then be bladed, dragged, and shaped to conform to typical sections as shown on plans. All areas and "nests" of segregated course or fine material shall be corrected or removed and replaced with well-graded material, as directed by the engineer. If additional binder is considered desirable or necessary after the material is spread and shaped, it shall be furnished and applied in the amount directed by the Engineer. Such binder material shall be carefully and evenly incorporated with the material in place by scarifying, harrowing, brooming or other methods. The course shall then be sprinkled and rolled to secure maximum and uniform compaction as directed by the Engineer (95% standard AASHTO density). Throughout this entire operation, the shape of the course shall be maintained by blading and the surface, upon completion, shall be smooth and in conformity with the typical sections shown on plans and to the established lines and grades. In that area on which pavement is to be placed, any deviation in excess of 1/4" in cross section and in length of 16' measured longitudinally shall be corrected by loosening, adding or removing. Depressions or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, reshaping, and re-compacting by sprinkling and rolling. Construction methods for all succeeding courses shall be the same as those prescribed,

c) Design and Testing:

1. A laboratory certified copy of all test reports should be submitted to the County Court Designee of Navarro County.
2. All concrete shall be approved design and tested by some recognized laboratory and shall have a minimum of 5 sacks of Portland cement per cubic yard of concrete. Gravel concrete shall have a flexural strength of 600 lbs. p.s.i. at 28 days. One BEAM (two breaks) shall be required for each 1,000 sq. yd. of pavement One CORE test shall be required for each 1,000- linear ft. of pavement. Each core shall be checked for thickness and compressive strength. Required compressive strength shall be 3,000 lbs. p.s.i. Minimum of 3 core tests required.

d) Curing:

Gravel concrete shall be cured continuously for a minimum of 4 days and beginning the day it is poured and placed. Curing may be done by using approved curing paper, plastic sheets, mats, or an approved curing compound. When a curing compound is used, it shall be applied at the rate as recommended by the manufacturer.

B5. ROAD NAMES, SIGNS, AND MARKERS

B10.1. All roads shall be named, with prior approval for said name from the Planning & Development Department. Roads must be named in a manner to avoid confusion in identification. Roads that are extensions of existing roads must carry the names of those in existence. Roads that are not continuous, or which have 90 degree turns, shall have different names. The Property Owner shall provide the Subdivision Designee with two digital files of the plat. One file shall be in an Adobe .pdf format, and the other file shall be in an AutoCAD .dwg format georeferenced to NAD 1983 State Plane Grid Coordinate System, Texas Central Zone (4203), with drawing units of US feet. The road names shall be displayed on standard intersection road marker signs erected by the Property Owner in compliance with the TxMUTCD "Street Name Signs" and at the locations as indicated on the construction plans.

B10.2. Traffic control signs (such as stop, yield, and speed limit signs) shall be installed by the Property Owner of said subdivision in compliance with the TxMUTCD and at the locations as indicated on the approved construction plans. Other traffic control signs, as shown on the construction plans, shall be installed to indicate any unusual traffic road hazard or conditions that may exist. All traffic control devices shall be placed in compliance with the

TxMUTCD and the construction cost shall be the Property Owner's expense.

B10.3. A speed limit of 30 mph for local roads, 35 mph for collector roads and 45 mph for arterial roads within all platted subdivisions is hereby adopted. This limit may be changed only by Commissioner's Court upon the basis of an engineering and traffic investigation showing that the prima facie maximum reasonable and prudent speed for a particular road (or part of a road) should be different. The placement of a stop sign or a yield sign on the minor road at intersections shall be evaluated on a case-by-case basis in accordance with the TxMUTCD.

B10.4. For any road that is proposed to be extended at some time in the future, a minimum of three metal channel posts, equally spaced, shall be placed at the end of the road. Each post shall have an 18"x18" red diamond object marker sign (type OM-4 per TxMUTCD) placed four feet above the existing ground.

B10.5. Signage that differs from the standard signage that is maintained by the County shall be maintained by the Property Owner. The signage shall be maintained in such a fashion to comply with the TxMUTCD requirements.

B10.6 Each lot or tract shall be clearly identified with visible markings corresponding with the assigned lot number or address numbers that can be seen from the adjacent roadway

B6. DRAINAGE AND FLOOD CONTROL

A. General

a-1. All storm sewers shall meet or exceed the requirements of the "Drainage Criteria for Navarro County, Texas", the requirements of the Water Service Provider, as applicable, and the Development Requirements.

a-2. All storm water systems shall be designed, and be equipped with appropriate treatment facilities, to meet the Texas Commission on Environmental Quality Standards where applicable.

B. Storm Sewer Materials

b-1. Reinforced Concrete pipe or HDPE is required for any future system to be maintained by the County.

b-2. Storm sewer outfalls shall have slope protection to prevent erosion. Slope protection may be constructed of slope paving or rip-rap. Slope paving shall be four-inch (4"), five (5) sack concrete with # 3 steel rebar on twenty-four-inch (24") centers, each way. Rip-rap shall be a minimum of six-inch (6") broken concrete rubble with no exposed steel or well-rounded stone and shall be a minimum of eighteen inches (18") thick. Slope protection texturing shall be required where public access is likely. Refer to the Standard Details for minimum dimensions. The Navarro County Planning & Development Administrator shall approve all outfall design features prior to installation in drainage facilities, bayous or wetland areas.

Adequate safety features shall be installed to prevent and deter children and animals from entering outfalls.

b-3. Alternate materials may be used with specific approval from the County Planning & Development Administrator.

C. Storm Sewer Location c-1. Public storm sewers shall be located within a public street right-of-way or a storm sewer easement, dedicated to the public and adjoining a public street right-of-way.

c-2. Recommended alignment with a public street right-of-way:

- a. Storm sewers in the boulevard pavement sections shall be aligned with the median along the centerline of the right-of-way.
- b. Storm sewers in undivided pavement sections shall be located five feet (5') inside the right-of-way. For all storm sewer located in a public street right-of-way, a minimum distance of two feet (2') shall be maintained inside the right-of-way line to the outside edge of the storm sewer unless otherwise accompanied by an adjacent easement. Alternate locations for a storm sewer may be permitted by the County Planning & Development when good cause is shown.

c-3. Recommended alignment within an exclusive storm sewer easement:

- a. Storm sewers within easements shall be placed no closer than five feet (5') measured from the outside edge of the pipe to the edge of an easement, except when adjoining another easement or public right-of-way where the distance may be reduced to two feet (2'). The storm sewer shall be placed in the center of the easement. When the storm sewer easement adjoins a public right-of-way, the easement may be reduced to a minimum of ten feet (10') and the storm sewer may be aligned closer to the right-of-way line, as long as required clearances are met, with specific approval of the County Planning & Development.

D. Construction Plan Requirements d-1. A Drainage Area Map shall be included in the construction plans. The drainage area map shall include:

- a. Drainage areas, including areas draining from off-site onto or adjoining the project. b.

Design storm runoff.

- c. 100- & 500-Year storm runoff.
- d. Route of overland flow including the overflow to a drainage way sized to accommodate the 100-year flow.
- e. Elevations for the 25-year, 100-year and 500-year.
- f. Flow per inlet.
- g. Maximum 100-year and 500- year ponding elevation.
- h. Lot grading with flow alongside lot lines from back to front of property lines.
- i. Detailed drainage calculations shall be submitted with the construction plans.
- j. The hydraulic gradient for the design storm shall be shown on the construction drawings. Calculations for the elevation of the hydraulic gradient shall be provided with the design storm drainage calculations.
- k. TPDES techniques and facilities shall be noted on the plans sufficiently to establish that pollution discharges will be prevented, as much as is practical.

E. Design Requirements

- a. Minimum depth of a storm sewer (measured to the top of pipe) shall be eighteen inches (18") below top of curb or finished grade, whichever is lower. Minimum size storm sewer for main and inlet lead shall be eighteen inches (18").
- b. Storm sewers shall be bedded using cement stabilized sand in accordance with the Standard Details.
- c. Pipe Requirements:

Reinforced concrete pipe shall meet or exceed the following minimum requirements listed in Table 6:

Table 6	
Pipe class	Maximum Cover (Ft)
III	15'
IV	30'

d. Reinforced concrete pipe installed at a depth greater than thirty feet (30') shall be designed by the design engineer for the specific installation and approved by the County Planning & Development. Reinforced concrete pipe shall be designed in accordance with the American Concrete Pipe Association, "Concrete Pipe Design Manual". Maximum cover on the pipe shall be to the ultimate finished grade or natural ground, whichever is greater.

e. Storm sewers shall have a minimum clearance of six inches (6") from all other utilities. The clearance shall be measured from the outside wall of the pipe. Design storm runoff shall be calculated in accordance with the "Drainage Criteria for Navarro County, Texas".

f. Storm sewers less than forty-two inches (42") in diameter shall be constructed on a straight horizontal and vertical alignment between manholes. Storm sewers greater than or equal to forty-two inches (42") in diameter may be laid along a curve using manufactured bends of less than or equal to 11-1/4". Camera inspection may be required on storm sewers constructed along a curve.

F. Hydraulic Requirements

See Navarro County Drainage Criteria.

G. Appurtenances g-1. Manholes

a. Manholes shall be placed at all changes in vertical alignment (except sewers laid along a curve); at a change of size of storm sewers; at the intersection of two or more storm sewers; at all inlet leads; and at the end of all storm sewers.

b. Maximum spacing between manholes shall be five hundred feet (500').

c. Manhole covers shall be cast iron, traffic bearing, type ring and cover with the words "Storm Sewer" cast into the cover. See Standard Details.

H. Inlets

h-1. Curb inlets shall be spaced and sized to intercept the calculated runoff for the design storm. The water surface elevation at the inlet shall be less than or equal to the top curb for the design storm flow.

h-2. Maximum travel distance of water in the street to a curb inlet shall be three hundred feet (300') on a major thoroughfare and in a commercial area. The maximum travel distance of water in the street permitted in a single-family residential area shall be five hundred feet (500').

h-3. Curb inlets should be located on the intersecting side street at an intersection with major thoroughfare. Locations on the major thoroughfare at intersections shall be specifically approved by the County Planning & Development.

h-4. Grated inlets will not be permitted in an open ditch.

h-5. Backslope swale interceptors shall be placed in accordance with the requirements of the County Planning & Development when permitted.

h-6. Curb inlets shall have grate inlet lids (see Standard Details).

h-7. Backfill around inlets with 1.5 sacks per cubic yard of cement stabilized and to top of first stage inlet. B11.1. Storm water management controls, when needed, shall be designed, constructed and maintained to restrict the rate of drainage from the platted area to the rate of drainage of the land in its natural state. When a development shall have several sections, storm water management controls for the ultimate developed area shall be constructed if not located in the first platted section. Storm water management controls are to be designed by a Registered Professional Engineer using a basis of a 2, 10, and 100-year storm. Exceptions may be allowed when the Property Owner can demonstrate that downstream property shall not be adversely affected. B11.2. Drainage calculations shall be made using the edition of the Navarro County Drainage Criteria in effect as of the date of these Regulations or other methods satisfactory to the County Planning & Development. All data and calculations must be presented to the County Planning & Development as part of the construction plans. The following requirements shall be incorporated into the design:

- B11.2.1. Bridges and cross drainage structures for arterial and collector roads shall be designed to convey the 25-year storm without overtopping the facility.
- B11.2.2. Bridges and cross drainage structures for local roads shall be designed to convey the 10-year storm without overtopping the facility.
- B11.2.3. All longitudinal drainage structures shall be designed to convey the 10-year storm.
- B11.2.4. On curb and gutter roadways, the roadway shall be designed so that no more than one half of one travel lane shall be inundated by the 10-year storm.

B11.3. All drainage structures and appurtenances shall be designed by a Registered Professional Engineer. A profile shall be shown in the construction plans for all drainage structures. Each profile shall show the design flow, velocity, invert elevations, and the hydraulic grade line.

B11.4. Driveway culverts shall have a minimum interior diameter of 15" or equal and a minimum length of 20' feet. Driveway culverts may have safety end treatments with concrete aprons. No plastic safety ends will be allowed.

B11.5. Maintenance responsibility for drainage will not be accepted by the County other than that accepted in connection with draining or protecting the road system. Maintenance responsibility for storm water management controls will remain with the Property Owner or HOA.

B11.6. Drainage Reserves shall be provided for all drainage courses in and across property to be platted. The location and width shall be shown on the plat and marked "Drainage Reserve". In general, a "Drainage Reserve" shall be a minimum of 30 feet in width. All named channels shall have a drainage reserve dedicated that is 60 feet either side of the centerline of the channel. Any existing unnamed channels shall have a minimum drainage reserve dedicated that is 30 feet wide. Storm sewer, outside of roadway right of way, can be in a 20 feet minimum easement or reserve.

B11.7. All roadside ditches shall have a minimum depth equal to the diameter of the driveway culvert pipe(s) plus nine inches, and a bottom width equal to the diameter of the driveway culvert pipe(s). The side slopes of the ditches are to be 3.5:1 on front slope and 3:1 for back slope or flatter.

B11.8. All detention, or retention ponds shall have a minimum 15 feet wide access berm around the perimeter. The side slopes for the area shall be a 3.5:1 or flatter. If articulating concrete blocks are used, then the side slope can be steeper and the access berm eliminated.

B11.9 All ponds shall include a required DECLARATION OF MAINTENANCE COVENANT FOR STORMWATER STRUCTURAL CONTROLS.

APPENDIX C: PLAT NOTES

C1. PROPERTY OWNER DEDICATION

STATE OF TEXAS §

COUNTY OF NAVARRO §

KNOW ALL MEN BY THESE PRESENTS;

(Separate statements may be made for each owner, or a joint statement made for all owners.)

I (or We), (name of owner or owners, or in the case of corporations, name of President and Secretary, together with the words "President" and "Secretary" respectively of name of corporation) owner (or owners) of the property subdivided in the above and foregoing map of the (Name of subdivision), do hereby make subdivision of said property (in case of corporation use words "for and on behalf of said name of company") according to the lines, streets, alleys, parks, reserves and easements shown herein, and designate said subdivision as (name of subdivision) in the (name of Head right survey), Abstract (number), an addition in Navarro County

Texas; and (in case of corporation use words "for and on behalf of said name of company") Do dedicate to public use, the streets, alleys, parks, reserves and easements shown thereon forever except where noted on the map for private streets; and do hereby waive any claims for damages occasioned by the establishing of grades as approved for the streets and alleys dedicated, or occasioned by the alteration of the surface of any portion of the streets or alleys to conform to such grades; and do hereby bind myself (or ourselves), my (or our) successors and assigns; or the Home Owner's Association is so assigned, to warrant and forever defend the title of the land so dedicated.

(to be added if overhead utilities are used for service to the subdivision):

There is also dedicated for utilities an unobstructed aerial easement five feet wide from a plane 20 feet above the ground upward located adjacent to each side of all utility easements shown hereon.

I (or We) do hereby dedicate forever to the public all drainage easements indicated on this map for drainage purposes, giving the County or any entity the right to enter upon said easements at any and all times for any drainage/utility purpose.

Further, I or We) hereby relinquish all rights of access to major streets or thoroughfares shown hereon except by way of the platted streets shown.

I (or We) certify that the plat of this subdivision complies with all the applicable Ordinances, Laws, and Statutes of Navarro County, the State of Texas and the United States of America as they may apply to this property.

WITNESS MY (or OUR) HAND(S) IN Navarro County, Texas, this
_____ day of _____ 20____.

_____ <Owner's signature>

C2. NOTARY ACKNOWLEDGEMENT

Notary Acknowledgement. (May use separate acknowledgement for each owner or joint acknowledgement as applicable)

STATE OF TEXAS

COUNTY OF NAVARRO (or County where plat is signed)

Before me, the undersigned authority on this day personally appeared (name of owner or owners known to me to be persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and considerations therein expressed, and in the capacity therein and herein set out.

Given under my hand and seal of office, this ____ day of, 20____.

/s/ ____ Notary Public in and for (County), Texas



C3. LIEN HOLDER RELEASE AND ACKNOWLEDGEMENT

Lien Holders Release

(May use separate statement for each lien holder or joint statement as applicable)

I (or We), (Name of lien holder), owner and holder of a lien (or liens) upon the land described herein, do hereby ratify and confirm said subdivision and dedication(s), and do hereby in all things subordinate to said subdivision and dedication the lien (or liens) owned and held by me (or us) against said land.

Witness my (or our) hand in (city or town), County, (State), this day ____ of _____, 20__.

/s/

Signature of Lien holder Printed Name

/s/

Signature of Lien holder Printed Name

Lien Holder Notary Acknowledgement

(May use the following corporate statement or, if an individual, the statement above)

STATE OF TEXAS §

COUNTY OF NAVARRO (or County where plat is signed) §

Before me, the undersigned authority on this day personally appeared (name of President or authorized officer), and (name of Secretary), Secretary of (Name of corporation) known to me to be the persons whose names are subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and considerations therein expressed, and in the capacity therein and herein set out, as the act and deed of said corporation.

Given under my hand and seal of office, this ____ day of _____, 20__.

is/ _____ Notary Public in and for (County), Texas



C4. SURVEYOR CERTIFICATION

This is to certify that I; (name of surveyor), a Registered Professional Land Surveyor (or Texas State Land Surveyor); in the State of Texas; have platted the above subdivision from an actual survey made under my supervision on the ground on or during (date); that all monuments, block corners; angle points and points of curve are, or will be properly marked with iron rods a minimum of 1 inch in diameter and 24 inches in length with cap stamped _____. This subdivision is located in Flood Zone (X, Shaded X, A, AE, or D) according to FIRM

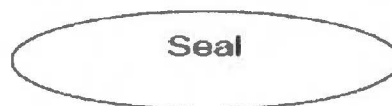
Community Panel No. _____ dated _____. (If A or AE give Base Flood Elevation)

Date _____

Signature of Surveyor _____

Printed Name and Title _____

Texas Registration No. _____



C5. COUNTY PLANNING & DEVELOPMENT'S APPROVAL

County Planning & Development's Certification

I, (_____), do hereby certify that the plat of this subdivision complies with the Subdivision Regulations of Navarro County, Texas and Design Standards applicable thereto, this day ____ of _____, 20____.

Date: _____

Signature Of County Planning & Development Printed Name and Title

STATE OF TEXAS §
COUNTY OF NAVARRO §

The Platted area meets or exceeds the minimum requirements established by the Texas Commission on Environmental Quality for On-Site Sewage Facilities, to be licensed by Navarro County Authorized Agent.

Approved this the _____ day of _____, 20____.

Designated Representative, Navarro County

C6. COMMISSIONERS COURT APPROVAL

STATE OF TEXAS §
COUNTY OF NAVARRO §

Certificate of approval by the Commissioners' Court of Navarro County, Texas:

Approved this _____ day of _____, 20____.

County Judge

Commissioner, Precinct No. 1

Commissioner, Precinct No. 2

Commissioner, Precinct No. 3

Commissioner, Precinct No. 4

C7. FLOODPLAIN ADMINISTRATOR APPROVAL

Based upon the representations of the Engineer or Surveyor whose seal is affixed hereto, and after review of the plat as represented by the said Engineer or Surveyor, I find that this plat complies with the Navarro County Floodplain Regulations. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. Navarro County disclaims any responsibility to any member of the public for independent verification of the representations, factual or otherwise, contained in this plat and the documents associated within it.

<name of current floodplain administrator>

Date

Navarro County Floodplain Administrator

C8. ROAD NAME AND 911 ADDRESSING APPROVAL

STATE OF TEXAS §
COUNTY OF NAVARRO §

Road name and address assignments verified this the ____ day of _____, 20____ A.D.

911 Network Addressing Coordinator

C9. COUNTY CLERK'S CERTIFICATION

STATE OF TEXAS §
COUNTY OF NAVARRO §

KNOW ALL MEN BY THESE PRESENTS;

I, _____ <name of current clerk>, Clerk of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the ____ day of _____, 20__ A.D., at ____ o'clock, _____, and duly recorded this the ____ day of _____, 20__ A.D., at ____ o'clock, __. M., in the Official Public Records of said

County in Instrument
No. _____.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Corsicana, Texas, the date last shown above written.

By, _____ Deputy

County Clerk of Navarro County, Texas

C10. MAILBOXES

Rural mailboxes shall be set to meet local USPS or TxDOT standards. Cluster boxes may be required by the post master. Mailboxes shall not be set closer than 6 inches to the back of curb or edge of pavement.

C11. DEVELOPMENT NOTES

No structure or land within this plat shall hereafter be located or altered without first obtaining a Development Permit from the Navarro County Floodplain Administrator.

The minimum lowest finished floor elevation shall be one foot higher than the highest spot elevation that is located within five feet outside the perimeter of the building, or one foot above the BFE in the floodplain, whichever is higher.

C12. ROAD WIDENING EASEMENTS

Right-of-way easements for widening roadways or improving drainage shall be maintained by the landowner until road or drainage improvements are actually constructed on the property. The County has the right at any time to take possession of any road widening easement for the construction, improvement or maintenance of the adjacent road.

The landowner assumes all risks associated with improvements located in the right-of-way or road widening easements. By placing anything in the right-of-way or road widening easements, the landowner indemnifies and holds the County, its officers, and employees harmless from any liability owing to property defects or negligence not attributable to them and acknowledges that the improvements may be removed by the County and that the Owner of the improvement shall be responsible for the relocation and/or replacement of the improvement.

C13. ROADWAY CONSTRUCTION

In approving this plat by the Commissioner's Court of Navarro County, Texas, it is understood that the building of all roads, and other public thoroughfares and any bridges or culverts necessary to be constructed or placed is the responsibility of the Property Owner(s) of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the Commissioner's Court of Navarro County, Texas. Said Commissioner's Court assumes no obligation to build any of the roads, or other public thoroughfares shown on this plat, or of constructing any of the bridges or drainage improvements in connection therewith. The County will assume no responsibility for drainage ways, reserves or easements in the subdivision, other than those draining or protecting the road system.

C14. PROPERTY OWNER'S RESPONSIBILITIES

It is the responsibility of the Property Owner, not the County, to assure compliance with the provisions of all applicable state, federal and local laws and regulations relating to the platting and development of this property.

The County assumes no responsibility for the accuracy of representations by other parties in this plat. Floodplain data, in particular, may change. It is further understood that the Property Owners of the tract of land covered by this plat must install at their own expense all traffic control devices and signage that may be required before the roads in the subdivision have finally been accepted for maintenance by the County.

APPENDIX D: LOT REQUIREMENTS

D1. LOT DIMENSIONS

Minimum Lot size is one acre, net. Lots with Curb and Gutter Streets shall be a minimum of 150 feet in width as measured at the front property line. Lots with open ditch streets shall be a minimum of 150 feet in width as measured at the front property line.

For determining the area required for an on-site sewage facility, the minimum lot size shall be in accordance with the current regulations of Texas Commission On Environmental Quality or with the requirements of any other agency responsible for issuing permits for on-site sewage disposal as may be designated by the Navarro County Commissioner's Court. Drainage easements, beds and banks of wet weather creeks, bodies of water, and road widening easements shall not be included when calculating the lot area.

D2. SET BACK REQUIREMENTS

The building setback line on all TxDOT highways and major County roads shall be 50 feet from the edge of the right- of-way.

The building setback line on all public roads other than major highways and roads shall be 25 feet from the edge of the right-of-way.

The following roads are designated as major highways and roads. The Commissioner's Court may specify additional roadways upon recommendation by the County Planning & Development:

- All state and federal system roadways
- All County thoroughfares

If the building set back lines as stated above conflict with the setback requirements adopted by a municipality, the municipal requirements shall prevail if they are in the ETJ of the municipality.

APPENDIX E: ROADWAY FEATURES

Standard Specifications Table 9	LOCAL	LOCAL	COLLECTOR	COLLECTOR	ARTERIAL	ARTERIAL	MAJOR	MAJOR ARTERIAL
	Open Ditch	Curb & Gutter	Open Ditch	Curb & Gutter	Open Ditch	Curb & Gutter	Open Ditch	Curb & Gutter
Total Street Width *	26'	28'	38'	40'	TBD	TBD	TBD	TBD
ADT RANGE**	0-1999	0-1999	2000-3999	2000-3999	4000-9999	4000-9999	10,000 plus	10,000 plus
Lane width	13'	12'	19'	12'	12'	12'	4 lanes 12'	4 lanes 12'
Paved Shoulder Width	NA	NA	8'	8'	8'	8'	8'	8'
Sod Shoulder Width***	6'	NA	3'	NA	3'	NA	3'	NA
Right of Way Width with public water and sewer	70'	50'	80'	70'	100'	100'	120'	120'
Right of Way Width without public water and sewer	60'							
Minimum Lot Width @ Right of Way line Horizontal Clearance	150'	150'	150'	150'	150'	150'	150'	150'
Minimum Design Speed	30 mph	30 mph	35 mph	35 mph	45 mph	45 mph	45 mph	45 mph
Cross Slope Range	1.5%-	2%-3%	1.5%-	2%-3%	2%	2%	2%	2%
Minimum Pavement Design All have 6" LIME SUBGRADE	2" ACP 9" FLEX-BASE	7" JRCP	3" ACP 10" FLEX-BASE	8" JRCP	2" ACP "D" 4" ACP "C"	9" JRCP 2" ACP "D"	TBD	TBD
Minimum Horizontal Clearance	10'	3'	10'	3'	10'	3'	TBD	TBD
Minimum Vertical Clearance	14'	14'	14'	14'	14'	14'	14'	14'
Roadway Design Loading	H-20	H-20	H-20	H-20	H-20	H-20	H-20	H-20
Bridge Design Loading	HS-20	HS-20	HS-20	HS-20	HS-20	HS-20	HS-20	HS-20

NOTES

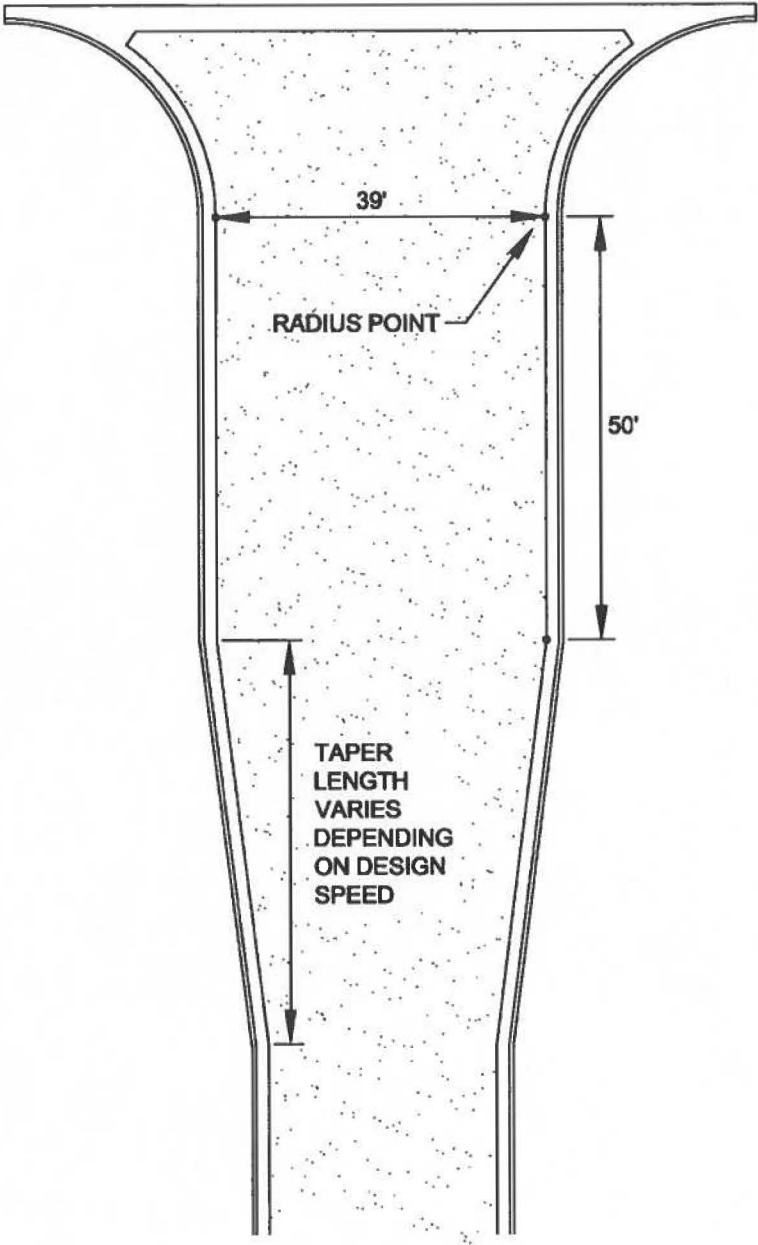
*TOTAL STREET WIDTH - IS MEASURED FROM BACK OF CURB TO BACK OF CURB FOR CURB AND GUTTER OR EDGE OF SURFACE TO EDGE OF SURFACE FOR OPEN DITCH

** ADT RANGE - EACH LOT REPRESENTS 8 ADT WITH EXCEPTION TO ANY COMMERCIAL LOTS

***SOD SHOULDER WIDTH - SHALL BE APPROXIMATELY 4 % CROSS SLOPE

TBD - SHALL BE DETERMINED THROUGH ENGINEER STUDY

APPENDIX F: INTERSECTION APPROACH DETAIL



APPENDIX G: DECLARATION OF MAINTENANCE COVENANT FOR STORMWATER STRUCTURAL CONTROLS

This Declaration of Maintenance Covenant for Stormwater Structural Control(s) ("Declaration") executed on _____, is by and between _____ ("Declarant") and Navarro County ("County").

WHEREAS, Declarant is the Property Owner of the real property described on Exhibit A attached hereto and incorporated by reference (the "Property"); and

WHEREAS, Declarant intends to construct and thereafter maintain stormwater structural controls (the "Controls") on the Property including, but not limited to, conduits, inlets, channels, pipes, retention or detention ponds and other devices and measures, necessary to collect, convey, store and control stormwater runoff, to be used for conveying stormwater from the Property to the County's municipal separate storm sewer system (MS4).

WHEREAS, to ensure that the Controls continue to function according to the design and performance standards to which they were constructed, Declarant is imposing upon the Property, as a covenant running with the land, the obligation to maintain the Controls until such time, if ever, as the obligation to maintain the Controls is properly terminated;

NOW, THEREFORE, in consideration of the foregoing premises, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Declarant declares as follows:

1. **Covenant Running with the Land.** Declarant covenants that the burdens and benefits made and undertaken under this Declaration constitute covenants running with the Property, binding all successors and assigns.
2. **Declarant's Responsibility to Construct and Maintain.** Declarant shall be responsible for the construction of the Controls. Declarant, its successors and assigns will at all times be responsible for the maintenance, repair and inspection of the Controls. The Controls are to be constructed in accordance with all applicable laws, ordinances, regulations, rules, and directives of appropriate governmental authorities.
3. **Location of the Controls.** The Controls shall be located on, over, across or under the Declarant's Property.
4. **Navarro County.** The County, or its designee, is authorized to access the Property as necessary to conduct inspections of the Controls to ascertain compliance with this Declaration and the County's stormwater management program requirements ("County Requirements") and if necessary or desirable, to maintain the Controls as provided under Paragraph 6 below. The County is relieved of all responsibility for the maintenance of the Controls for the term of this Declaration. In no event shall this Declaration be construed to impose any such obligation on the County.
5. **Maintenance of Controls.** The Declarant shall be entirely responsible for all maintenance activities associated with the Controls. The Declarant shall implement appropriate maintenance activities immediately if any of the following instances occur: obstructions of inlets/outlets, mechanical failures (valves, pumps, gates, etc.), accumulation of trash, erosion or instability of slopes, accumulated sedimentation of 25% or more of the original design capacity, excessive growth of vegetation/trees, and/or if written notice from the County is issued requesting maintenance on the Control. The Declarant shall retain documentation of all maintenance activities performed on the Control and make the records available to the County for review upon request.

6. **Failure to Maintain.** If Declarant or its successors or assigns fails to maintain the Controls as required by this Declaration after 30 days written notice thereof, the County, may, but is not obligated to, cause any and all maintenance to be taken and performed and otherwise to take whatever steps the County deems necessary to maintain the Controls at the Declarant's expense. Declarant shall reimburse the County within 10 days from receipt of written demand from the County all costs incurred by the County together with interest thereon from the date incurred by the County at the lesser of (i) the maximum lawful rate of interest or (ii) 15% per annum until paid in full. Nothing in this paragraph or this Declaration, shall create or impose any liability on the County, its agents, employees, successors or assigns, for damages alleged to result from or to be caused by stormwater drainage from the Property.

7. **Conflicts.** The County Requirements control over any inconsistent provisions of this Declaration. As applicable provisions of the County Requirements are amended, modified, revised, deleted or moved to different sections, this Declaration is deemed to be revised so as to conform to the provisions of the County Requirements as they may exist from time to time and are applicable to the Property or any part thereof.

8. **Successors and Assigns Bound.** Declarant hereby agrees and acknowledges that maintenance of the Controls as set forth herein, the cost of maintenance, the County's access to the Controls, the County's rights of ingress and egress to the Controls and the County's right to recover all costs if Declarant fails to maintain the Controls are a burden and restriction on the use of the Property and the provisions of this Declaration shall be binding upon the Declarant, its successors and assigns and upon any future Property Owners of the Property.

Every person who now or hereafter owns or acquires any right, title or interest in or to any portion of the Property is and shall be conclusively deemed to have consented and agreed to every covenant contained in this Declaration, whether or not any reference to this Declaration is contained in the instrument by which the Property was conveyed to such person. Whenever in this Declaration a reference is made to a party, such reference is deemed to include a reference to the heirs, executors, legal representatives, successors and assigns of such party.

9. **Negation of Partnership.** None of the terms or provisions of this Declaration shall be deemed to create a partnership between or among Declarant and the County or any Property Owners, mortgagees, occupants or otherwise; nor shall it cause them to be considered joint ventures or members of any joint enterprise. This Declaration is not intended nor shall it be construed to create any third-party beneficiary rights in any person, except as expressly stated herein.

10. **Enforcement.** If any person, persons, corporation or entity of any other type shall violate or attempt to violate this Declaration, it shall be lawful for the County or its successors to prosecute proceedings at law, or in equity, against the person or entity violating or attempting to violate this Declaration and to prevent the person or entity from violating or attempting to violate the Declaration. The failure at any time to enforce this Declaration by the County or its successors whether any violations hereof are known or not, shall not constitute a waiver or estoppel of the right to do so in the future.

11. **Entire Agreement.** This Declaration contains all the representations and the entire agreement of Declarant with respect to the subject matter. Any prior correspondence, memoranda or agreements or superseded by this Declaration. The provisions of this Declaration shall be construed as a whole according to their common meaning and not strictly for or against Declarant.

12. **Notices.** All notices required or permitted under this Declaration shall be served by certified mail, return receipt requested, to a party at its last known address or its principal place of business. Date of service of notice shall be the date on which such notice is deposited in a post office of the United States Postal Service or successor governmental agency.

13. **Governing Law; Performance.** This Declaration and its validity, enforcement and interpretation shall be governed by the laws of the State of Texas without regard to any conflict of laws principles and applicable federal law. This Declaration is performable only in Navarro County, Texas.

14. **Amendment.** This Declaration may not be amended or abrogated in part or whole, without the express written consent of the County.

15. **Rights of Mortgagees, Trustees or Lienholders.** No violation of any of these restrictions, covenants or conditions shall affect or impair the rights of any mortgagee, trustee or lienholder under any mortgage or deed of trust, or the rights of any assignee of any mortgagee, trustee or lienholder under any such mortgage or deed of trust.

16. **Gender and Grammar.** The singular wherever used herein shall be construed to mean or include the plural when applicable, and the necessary grammatical changes required to make the provisions hereof apply either to corporations or other entities or individuals, male or female, shall in all cases be assumed as though in each case fully expressed.

17. **Titles.** The titles of sections contained herein are included for convenience only and shall not be used to construe, interpret or limit the meaning of the term or provision contained in this Declaration.

18. **Recording of Agreement.** This Declaration shall be recorded in the Official Public Records of Navarro County, Texas and shall constitute notice to all successors and assigns of the title to the Property of the rights and obligations contained herein.

DECLARANT

Organization: _____

Signature: _____

Print Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, on this day personally appeared _____, known to me or proved to me through proper documentation to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, ____.

Notary Public in and for the State of _____
My commission expires: _____

APPENDIX H: COUNTY CLERK'S RECORDING CHECKLIST

It shall be the responsibility of the Property Owner to record a plat with the Navarro County Clerk. A plat will not be recorded until all of the following requirements have been met:

1. **Previous approval of the subdivision plat.** All plats must have been approved by a municipal planning / development department or the County Commissioners' Court prior to recording by the County Clerk's Recording Office.
 - 1.1. If the subdivision is located **within the city limits** of a municipality the plat must have been approved by the municipality and must have been signed by the appropriate official(s). Contact the municipal planning department for information.
 - 1.2. If the subdivision is located **within the extra-territorial jurisdiction (ETJ)** of a municipality the plat must have been approved by the municipality or the County Commissioners' Court and must have been signed off by the appropriate official(s). Contact the municipal planning department or the County Planning & Development office for information.
 - 1.3. If the subdivision is **not located within the city limits or the ETJ** of a municipality the plat must have been approved by the County Commissioners' Court and must have been signed by the appropriate official(s). Contact the County Planning & Development office for information.
2. **County Clerk requirements for recording subdivision plats.** These items can be delivered to the Recording Office in person, by courier, by mail.
 - 2.1. **Copy of the subdivision plat.** At least one mylar copy of the subdivision plat, including all signatures and seals.
 - 2.2. **Affidavit(s) for Recordation.** An original, signed and notarized affidavit is required from each entity owning property included in the subdivision. Digital copies are not being accepted at this time but mylar copies may be delivered in person.
3. **Navarro County Tax Certificate(s).** Texas State law requires submittal of an original tax certificate for each tract or parcel included in the subdivision, so at least one Navarro County Tax Certificate is required for every subdivision plat, showing that the taxes are currently in good standing (Property Code, Section 12.002 (e)).
 - 3.1. Tax certificates are required even for non-taxable entities such as churches and government agencies.
 - 3.2. The Recording Office will accept digitized copies of tax certificates but only if submitted by the tax office. Contact the Navarro County Tax Assessor Collector's office for information.
4. **County Plat Recording Fees.** The Navarro County Clerk's subdivision plat filing fee total \$100.00 for the first page and \$25.00 per additional page. The Tax Certificate is \$10.00 or as amended.
 - 4.1. The Recording Office will record and process the original and 2 copies of a plat for the fees noted above.
5. **Plat Cover Sheet.** The submitter should fill in the name of the subdivision and the contact information, leaving all other portions blank.
6. **Items Returned to the Plat Submitter.** The plat submitter will receive all recorded copies of the plat, a copy of the Plat Map Recording Sheet, a receipt for recording fees, and, if requested, a copy of the Plat Cover Sheet. Tax Certificates and affidavits will be kept by the County.
7. **Plat Cover Sheet.** The submitter shall fill in the name of the subdivision and the contact information, leaving all other portions blank.
8. **Font Size.** All text on subdivision plats shall have a font size of 10 points or greater.

APPENDIX I: COUNTY CLERK'S AFFIDAVIT FOR RECORDATION

STATE OF TEXAS §
COUNTY OF NAVARRO §

Before me, the undersigned authority, on this day personally appeared _____, known to me or proved to me through proper documentation to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, _____.

Notary Public in and for the State of _____
My commission expires: _____

"My name is _____. I am over the age of eighteen years.

_____ (the "Owner", whether one or more) is/are the sole owner(s) of the property described in the plat of the subdivision to be known as (the "Subdivision"). I am the Owner or authorized representative of the Owner.

The original tax certificate(s) attached to the plat of the Subdivision describe all of the property contained within the Subdivision and all taxing entities with jurisdiction over the Subdivision."

(Signature)

(Printed Name)

APPENDIX J: WATER SERVICE AGREEMENT

AGREEMENT REGARDING WATER SERVICE FOR THE PROPOSED _____
SUBDIVISION.

PARTIES: This Water Service Agreement (Agreement) is by and between the Utility and the Subdivider, to wit:
The Utility is the governing board or owner of a retail public utility, which supplies drinking water, known as _____.

The Subdivider is _____ that is the owner, or the authorized agent of the owner, of a tract of land in Navarro County, Texas, that has been proposed to be divided into a subdivision (the Subdivision) known as _____.

TERMS: The Subdivider has prepared a plat of the Subdivision for submission to Navarro County for its approval. The Subdivider plans to construct for the Subdivision a drinking water distribution system to be connected to the Utility's public water system. The Utility has reviewed the plans for the Subdivision (the Plans) and has estimated the drinking water flow anticipated to be needed by the Subdivision under fully built-out conditions (the anticipated water flow) to be approximately _____ gallons daily.

The Utility covenants that it has or will have the ability to provide the anticipated water flow for at least thirty years, and that it will provide that water flow. These covenants will be in effect until thirty years after the plat of the Subdivision has been recorded and the Subdivision's water distribution system has been connected to the Utility's water supply system.

The Subdivider covenants that the water distribution system will be constructed as shown in the Plans and as provided for through the plat approval process so that the residents of the lots of the Subdivision may receive drinking water service from the Utility. Upon completion of the water distribution system and upon its approval and acceptance by the Utility, the Subdivider will convey to the Utility all right and title to the water distribution system.

The Subdivider has paid the Utility the sum of \$ _____ which sum represents the total costs of water rights acquisition fees, and all membership or other fees associated with connecting the individual lots in the Subdivision to the Utility's water supply system.

The above provisions notwithstanding, this Agreement shall no longer be in effect if the plat of the Subdivision is not approved by Navarro County or by a municipality whose approval is required.

By affixing his or her signature to this Agreement, the person signing for the Utility warrants that he or she is authorized to sign this Agreement on behalf of the Utility. By affixing his or her signature to this Agreement, the person signing for the Subdivider warrants that he or she is authorized to sign this Agreement on behalf of the Subdivider.

This Agreement is effective on the date of the last party to sign and date below.

The Utility By: _____

Printed Name: _____

Signature: _____

Title: _____

Date: _____

The Subdivider By: _____

Printed Name: _____

Signature: _____

Title: _____

Date: _____

APPENDIX K: GROUNDWATER AVAILABILITY CERTIFICATION

TITLE 30 ENVIRONMENTAL QUALITY

PART 1 TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CHAPTER 230 GROUNDWATER AVAILABILITY CERTIFICATION FOR PLATTING

RULE §230.1 Applicability

(a) Subdivisions utilizing groundwater as the source of water supply. In the plat application and approval process, municipal and county authorities may require certification that adequate groundwater is available for a proposed subdivision if groundwater under that land is to be the source of water supply. The municipal or county authority is not required to exercise their authority under Texas Local Government Code, §212.0101 or §232.0032. However, if they do exercise their authority, the form and content of this chapter must be used.

(b) Use of this chapter. If required by the municipal or county authority, the plat applicant and the Texas licensed professional engineer or the Texas licensed professional geoscientist shall use this chapter and the attached form to certify that adequate groundwater is available under the land of a subdivision subject to platting under Texas Local Government Code, §212.004 and §232.001. These rules do not replace other state and federal requirements applicable to public drinking water supply systems. These rules do not replace the authority of counties within designated priority groundwater management areas under Texas Water Code, §35.019, or the authority of groundwater conservation districts under Texas Water Code, Chapter 36.

(c) Transmittal of data. If use of this chapter is required by the municipal or county authority, the plat applicant shall:

(1) provide copies of the information, estimates, data, calculations, determinations, statements, and certification required by §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data), §230.9 of this title (relating to Determination of Groundwater Quality), §230.10 of this title (relating to Determination of Groundwater Availability), and §230.11 of this title (relating to Groundwater Availability and Usability Statements and Certification) to the executive administrator of the Texas Water Development Board and to the applicable groundwater conservation district or districts; and

(2) using the attached form, attest that copies of the information, estimates, data, calculations, determinations, statements, and the certification have been provided to the executive administrator of the Texas Water Development Board and the applicable groundwater conservation district or districts. The executive director may make minor changes to this form that do not conflict with the requirements of these rules.

Attached Graphic

Source Note: The provisions of this §230.1 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective February 13, 2003, 28 TexReg 1206; amended to be effective July 31, 2008, 33 TexReg 5933

TRANSMITTAL OF DATA

Use of this form: If required by a municipal authority pursuant to Texas Local Government Code, §212.0101, or a county authority pursuant to Texas Local Government Code, §232.0032 the plat applicant shall use this form to attest that information has been provided in accordance with the requirements of 30 TAC Chapter 230. This form shall be provided to the municipal or county authority, the executive administrator of the Texas Water Development Board, and the applicable groundwater conservation district or districts.

Name of Proposed Subdivision: _____

Property Owner's Name(s): _____

Address: _____

Phone: _____ Fax: _____

Plat Applicant's Name: _____

Address: _____

Phone: _____ Fax: _____

I, _____, the Plat Applicant, attest that the following information has been provided in accordance with 30 TAC Chapter 230.

Has the Certification of Groundwater Availability for Platting Form (Figure: 30 TAC §230.3(c)) been provided to the:		(Please Circle One)
1. Municipal or County authority?	Yes	No
2. Executive administrator of the Texas Water Development Board?	Yes	No
3. Applicable Groundwater Conservation District or Districts?	Yes	No
Name of Groundwater Conservation District or Districts:		
Have copies of the information, estimates, data, calculations, determinations, and statements been provided to the:		
4. Executive administrator of the Texas Water Development Board?	Yes	No
5. Applicable Groundwater Conservation District or Districts?	Yes	No
Name of Groundwater Conservation District or Districts:		

Note: Mail the required information to the executive administrator of the Texas Water Development Board at the following address:

Executive Administrator
Texas Water Development Board
Groundwater Resources Division
P.O. Box 13231
Austin, Texas 78711-3231

Contact and other information for the Groundwater Conservation Districts within the state may be accessed on the following Internet pages:

http://www.tceq.state.tx.us/permitting/water_supply/groundwater/districts.html

<http://www.twddb.state.tx.us/GwRD/pages/gwrdindex.html>

<http://www.texasgroundwater.org/index.htm>

RULE §230.2 Definitions

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise. If a word or term used in this chapter is not contained in this section, it shall have the same definition and meaning as used in the practices applicable to hydrology and aquifer testing.

(1) Applicable groundwater conservation district or districts--Any district or authority created under Texas Constitution, Article III, Section 52, or Article XVI, Section 59, that:

(A) has the authority to regulate the spacing of water wells, the production from water wells, or both, and

(B) which includes within its boundary any part of the plat applicant's proposed subdivision.

(2) Aquifer--A geologic formation, group of formations, or part of a formation that contains water in its voids or pores and may be used as a source of water supply.

(3) Aquifer test--A test involving the withdrawal of measured quantities of water from or addition of water to a well and the measurement of resulting changes in water level in the aquifer both during and after the period of discharge or addition for the purpose of determining the characteristics of the aquifer. For the purposes of this chapter, bail and slug tests are not considered to be aquifer tests.

(4) Certification--A written statement of best professional judgement or opinion as attested to on the Certification of Groundwater Availability for Platting Form contained under §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting).

(5) Drinking water standards--As defined in commission rules covering drinking water standards contained in Chapter 290, Subchapter F of this title (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems).

(6) Executive administrator--The executive administrator of the Texas Water Development Board.

(7) Full build out--The final expected number of residences, businesses, or other dwellings in the proposed subdivision.

(8) Licensed professional engineer--An engineer who maintains a current license through the Texas Board of Professional Engineers in accordance with its requirements for professional practice.

(9) Licensed professional geoscientist--A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with its requirements for professional practice.

(10) Plat applicant--The owner or the authorized representative or agent seeking approval of a proposed subdivision plat application pursuant to municipal or county authority.

(11) Requirements applicable to public drinking water supply systems--The requirements contained in commission rules covering public drinking water supply systems in Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems).

Source Note: The provisions of this §230.2 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective February 13, 2003, 28 TexReg 1206; amended to be effective July 31, 2008, 33 TexReg 5933

RULE §230.3 Certification of Groundwater Availability for Platting

(a) Certification. The certification required by this chapter must be prepared by a Texas licensed professional engineer or a Texas licensed professional geoscientist.

(b) Submission of information. The plat applicant shall provide to the municipal or county authority, the executive administrator of the Texas Water Development Board, and the applicable groundwater conservation district or districts the certification of adequacy of groundwater under the subdivision required by this chapter.

(c) Form required. This chapter and the following form shall be used and completed if plat applicants are required by the municipal or county authority to certify that adequate groundwater is available under the land to be subdivided. The executive director may make minor changes to this form that do not conflict with the requirements of these rules.

Attached Graphic

Source Note: The provisions of this §230.3 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective February 13, 2003, 28 TexReg 1206; amended to be effective July 31, 2008, 33 TexReg 5933

Figure: 30 TAC §230.3(c)

CERTIFICATION OF GROUNDWATER AVAILABILITY FOR PLATTING FORM

Use of this form: If required by a municipal authority pursuant to Texas Local Government Code, §212.0101, or a county authority pursuant to §232.0032, Texas Local Government Code, the plat applicant and the Texas licensed professional engineer or Texas licensed professional geoscientist shall use this form based upon the requirements of Title 30, TAC, Chapter 230 to certify that adequate groundwater is available under the land to be subdivided (if the source of water for the subdivision is groundwater under the subdivision) for any subdivision subject to platting under Texas Local Government Code, §212.004 and §232.001. The form and Chapter 230 do not replace state requirements applicable to public drinking water supply systems or the authority of counties or groundwater conservation districts under either Texas Water Code, §35.019 or Chapter 36.

Administrative Information (30 TAC §230.4)
1. Name of Proposed Subdivision:
2. Any Previous Name Which Identifies the Tract of Land:
3. Property Owner's Name(s):
Address:
Phone:
Fax:
4. Plat Applicant's Name:
Address:
Phone:
Fax:
5. Licensed Professional Engineer or Geoscientist:
Name:
Address:
Phone:
Fax:
Certificate Number:
6. Location and Property Description of Proposed Subdivision:
7. Tax Assessor Parcel Number(s).
Book:
Map:
Parcel:

Proposed Subdivision Information (30 TAC §230.5)
8. Purpose of Proposed Subdivision (single family/multi-family residential, non-residential, commercial):
9. Size of Proposed Subdivision (acres):
10. Number of Proposed Lots:
11. Average Size of Proposed Lots (acres):
12. Anticipated Method of Water Distribution.

Expansion of Existing Public Water Supply System?	Yes	No
New (Proposed) Public Water Supply System?	Yes	No
Individual Water Wells to Serve Individual Lots?	Yes	No
Combination of Methods?	Yes	No
Description (if needed):		
13. Additional Information (if required by the municipal or county authority):		
Note: If public water supply system is anticipated, written application for service to existing water providers within a 1/2-mile radius should be attached to this form (30 TAC §230.5(f) of this title).		

Projected Water Demand Estimate (30 TAC §230.6)		
14. Residential Water Demand Estimate at Full Build Out (includes both single family and multi-family residential).		
Number of Proposed Housing Units (single and multi-family):		
Average Number of Persons per Housing Unit:		
Gallons of Water Required per Person per Day:		
Water Demand per Housing Unit per Year (acre feet/year):		
Total Expected Residential Water Demand per Year (acre feet/year):		
15. Non-residential Water Demand Estimate at Full Build Out.		
Type(s) of Non-residential Water Uses:		
Water Demand per Type per Year (acre feet/year):		
16. Total Water Demand Estimate at Full Build Out (acre feet/year):		
17. Sources of Information Used for Demand Estimates:		

General Groundwater Resource Information (30 TAC §230.7)		
18. Identify and describe, using Texas Water Development Board names, the aquifer(s) which underlies the proposed subdivision:		
Note: Users may refer to the most recent State Water Plan to obtain general information pertaining to the state's aquifers. The State Water Plan is available on the Texas Water Development Board's Internet website at: www.twdb.state.tx.us		

Obtaining Site-Specific Groundwater Data (30 TAC §230.8)		
19. Have all known existing, abandoned, and inoperative wells within the proposed subdivision been located, identified, and shown on the plat as required under §230.8(b) of this title?	Yes	No

20. Were the geologic and groundwater resource factors identified under §230.7(b) of this title considered in planning and designing the aquifer test required under §230.8(c) of this title?	Yes	No
21. Have test and observation wells been located, drilled, logged, completed, developed, and shown on the plat as required by §230.8(c)(1) - (4) of this title?	Yes	No
22. Have all reasonable precautions been taken to ensure that contaminants do not reach the subsurface environment and that undesirable groundwater has been confined to the zone(s) of origin (§230.8(c)(5) of this title)?	Yes	No
23. Has an aquifer test been conducted which meets the requirements of §230.8(c)(1) and (6) of this title?	Yes	No
24. Were existing wells or previous aquifer test data used?	Yes	No
25. If yes, did they meet the requirements of §230.8(c)(7) of this title?	Yes	No
26. Were additional observation wells or aquifer testing utilized?	Yes	No
Note: If expansion of an existing public water supply system or a new public water supply system is the anticipated method of water distribution for the proposed subdivision, site-specific groundwater data shall be developed under the requirements of 30 TAC, Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) and the applicable information and correspondence developed in meeting those requirements shall be attached to this form pursuant to §230.8(a) of this title.		

Determination of Groundwater Quality (30 TAC §230.9)		
27. Have water quality samples been collected as required by §230.9 of this title?	Yes	No
28. Has a water quality analysis been performed which meets the requirements of §230.9 of this title?	Yes	No

Determination of Groundwater Availability (30 TAC §230.10)		
29. Have the aquifer parameters required by §230.10(c) of this title been determined?	Yes	No
30. If so, provide the aquifer parameters as determined.		
Rate of yield and drawdown:		

Specific capacity:		
Efficiency of the pumped well:		
Transmissivity:		
Coefficient of storage:		
Hydraulic conductivity:		
Were any recharge or barrier boundaries detected?	Yes	No
If yes, please describe:		
Thickness of aquifer(s):		
31. Have time-drawdown determinations been calculated as required under §230.10(d)(1) of this title?	Yes	No
32. Have distance-drawdown determinations been calculated as required under §230.10(d)(2) of this title?	Yes	No
33. Have well interference determinations been made as required under §230.10(d)(3) of this title?	Yes	No
34. Has the anticipated method of water delivery, the annual groundwater demand estimates at full build out, and geologic and groundwater information been taken into account in making these determinations?	Yes	No
35. Has the water quality analysis required under §230.9 of this title been compared to primary and secondary public drinking water standards as required under §230.10(e) of this title?	Yes	No
Does the concentration of any analyzed constituent exceed the standards?	Yes	No
If yes, please list the constituent(s) and concentration measure(s) which exceed standards:		

Groundwater Availability and Usability Statements (30 TAC §230.11(a) and (b))	
36. Drawdown of the aquifer at the pumped well(s) is estimated to be _____ feet over a 10-year period and _____ feet over a 30-year period.	
37. Drawdown of the aquifer at the property boundary is estimated to be _____ feet over a 10-year period and _____ feet over a 30-year period.	
38. The distance from the pumped well(s) to the outer edges of the cone(s)-of-depression is estimated to be _____ feet over a 10-year period and _____ feet over a 30-year period.	
39. The recommended minimum spacing limit between wells is _____ feet with a recommended well yield of _____ gallons per minute per well.	
40. Available groundwater is / is not (circle one) of sufficient quality to meet the intended use of the platted subdivision.	
41. The groundwater availability determination does not consider the following conditions (identify any assumptions or uncertainties that are inherent in the groundwater availability determination):	

Certification of Groundwater Availability (30 TAC §230.11(c))

Must be signed by a Texas Licensed Professional Engineer or a Texas Licensed Professional Geoscientist.

42. I, _____, Texas Licensed Professional Engineer or Texas Licensed Professional Geoscientist (circle which applies), certificate number _____, based on best professional judgment, current groundwater conditions, and the information developed and presented in this form, certify that adequate groundwater is available from the underlying aquifer(s) to supply the anticipated use of the proposed subdivision.

Date: _____ (affix seal)

RULE §230.4 Administrative Information

At a minimum, the following general administrative information as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting), shall be provided for a proposed subdivision for which groundwater under the land will be the source of water supply:

- (1) the name of the proposed subdivision;
- (2) any previous or other name(s) which identifies the tract of land;
- (3) the name, address, phone number, and facsimile number of the property owner or owners;
- (4) the name, address, phone number, and facsimile number of the person submitting the plat application;
- (5) the name, address, phone number, facsimile number, and registration number of the licensed professional engineer or the licensed professional geoscientist preparing the certification as required in this chapter;
- (6) the location and property description of the proposed subdivision; and
- (7) the tax assessor parcel number(s) by book, map, and parcel.

Source Note: The provisions of this §230.4 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective February 13, 2003, 28 TexReg 1206

RULE §230.5 Proposed Subdivision Information

At a minimum, the following information pertaining to the proposed subdivision shall be provided as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting):

- (1) the purpose of the proposed subdivision, for example, single family residential, multi-family residential, non-residential, commercial, or industrial;
- (2) the size of the proposed subdivision in acres;
- (3) the number of proposed lots within the proposed subdivision;
- (4) the average size (in acres) of the proposed lots in the proposed subdivision;
- (5) the anticipated method of water distribution to the proposed lots in the proposed subdivision including, but not limited to:
 - (A) an expansion of an existing public water supply system to serve the proposed subdivision (if groundwater under the subdivision is to be the source of water supply);
 - (B) a new public water supply system for the proposed subdivision;
 - (C) individual water wells to serve individual lots; or
 - (D) a combination of methods;
- (6) if the anticipated method of water distribution for the proposed subdivision is from an expansion of an existing public water supply system or from a proposed public water supply system, evidence required under §290.39(c)(1) of this title (relating to Rules and Regulations for Public Water Systems) which shall be provided demonstrating that written application for service was made to the existing water providers within a 1/2-mile radius of the subdivision; and
- (7) any additional information required by the municipal or county authority as part of the plat application.

Source Note: The provisions of this §230.5 adopted to be effective July 9, 2000, 25 TexReg 6345

RULE §230.6 Projected Water Demand Estimate

(a) Residential water demand estimate. Residential water demand estimates at full build out shall be provided as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting). Residential demand estimates shall, at a minimum, be based on the current demand of any existing residential well including those identified under §230.8(b) of this title (relating to Obtaining Site-Specific Groundwater Data), or §290.41(c) of this title (relating to Rules and Regulations for Public Water Systems), and:

- (1) the number of proposed housing units at full build out;
- (2) the average number of persons per housing unit;
- (3) the gallons of water required per person per day;
- (4) the water demand per housing unit per year (acre feet per year); and
- (5) the total expected residential water demand per year for the proposed subdivision (acre feet per year).

(b) Non-residential water demand estimate. Water demand estimates at full build out shall be provided for all non-residential uses as specified in §230.3(c) of this title. Non-residential uses shall be specified by type of use and groundwater demand per year (acre feet per year) for each type of use. The estimate shall also include the existing non-residential demand of any well including those identified under §230.8(b) of this title or §290.41(c) of this title.

(c) Total annual water demand estimate. An estimate of the total expected annual groundwater demand, including residential and non-residential estimates at full build out (acre feet per year), shall be provided as specified in §230.3(c) of this title.

(d) Submission of information. The sources of information used and calculations performed to determine the groundwater demand estimates as required by this section shall be made available to the municipal or county authority if requested. The plat applicant shall provide any additional groundwater demand information required by the municipal or county authority as part of the plat application.

Source Note: The provisions of this §230.6 adopted to be effective July 9, 2000, 25 TexReg 6345

RULE §230.7 General Groundwater Resource Information

(a) Aquifer identification. Using Texas Water Development Board aquifer names, the aquifer(s) underlying the proposed subdivision which is planned to be used as the source of water for the subdivision shall be identified and generally described as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting).

(b) Geologic and groundwater information. To meet the requirements of this chapter, the following geologic and groundwater information shall be considered in planning and designing the aquifer test under §230.8(c) of this title (relating to Obtaining Site-Specific Groundwater Data):

- (1) the stratigraphy of the geologic formations underlying the subdivision;
- (2) the lithology of the geologic strata;
- (3) the geologic structure;
- (4) the characteristics of the aquifer(s) and their hydraulic relationships;
- (5) the recharge to the aquifer(s), and movement and discharge of groundwater from the aquifer(s); and
- (6) the ambient quality of water in the aquifer(s).

Source Note: The provisions of this §230.7 adopted to be effective July 9, 2000, 25 TexReg 6345

RULE §230.8 Obtaining Site-Specific Groundwater Data

(a) Applicability of section. This section is applicable only if the proposed method of water distribution for the proposed subdivision is individual water wells on individual lots. If expansion of an existing public water supply system or installation of a new public water supply system is the proposed method of water distribution for the proposed subdivision, site-specific groundwater data shall be developed under the requirements of Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) and the information developed in meeting these requirements shall be attached to the form required under §230.3 of this title (relating to Certification of Groundwater Availability for Platting).

(b) Location of existing wells. All known existing, abandoned, and inoperative wells within the proposed subdivision shall be identified, located, and mapped by on-site surveys. Existing well locations shall be illustrated on the plat required by the municipal or county authority.

(c) Aquifer testing. Utilizing the information considered under §230.7(b) of this title (relating to General Groundwater Resource Information), an aquifer test shall be conducted to characterize the aquifer(s) underlying the proposed subdivision. The aquifer test must provide sufficient information to allow evaluation of each aquifer that is being considered as a source of residential and non-residential water supply for the proposed subdivision. Appropriate aquifer testing shall be based on typical well completions. An aquifer test conducted under this section utilizing established methods shall be reported as specified in §230.3(c) of this title and shall include, but not be limited to, the following items.

(1) Test well and observation well(s). At a minimum, one test well (i.e., pumping well) and one observation well, shall be required to conduct an adequate aquifer test under this section. Additional observation wells shall be used for the aquifer test if it is practical or necessary to confirm the results of the test. The observation well(s) shall be completed in the same aquifer or aquifer production zone as the test well. The locations of the test and observation well(s) shall be shown on the plat required by the municipal or county authority.

(2) Location of wells. The test and observation well(s) must be placed within the proposed subdivision and shall be located by latitude and longitude. The observation well(s) shall be located at a radial distance such that the time-drawdown data collected during the planned pumping period fall on a type curve of unique curvature. In general, observation wells in unconfined aquifers should be placed no farther than 300 feet from the test well, and no farther than 700 feet in thick, confined aquifers. The observation well should also be placed no closer to the test well than two times the thickness of the aquifer's production zone. The optimal location for the observation well(s) can be determined by best professional judgement after completion and evaluation of the test well as provided in paragraph (4) of this subsection.

(3) Lithologic and geophysical logs. The test and observation wells shall be lithologically and geophysically logged to map and characterize the geologic formation(s) and the aquifer(s) in which the aquifer test(s) is to be performed.

(A) A lithologic log shall be prepared showing the depth of the strata, their thickness and lithology (including size, range, and shape of constituent particles as well as smoothness), occurrence of water bearing strata, and any other special notes that are relevant to the drilling process and to the understanding of subsurface conditions.

(B) Geophysical logs shall be prepared which provide qualitative information on aquifer characteristics and groundwater quality. At a minimum, the geophysical logs shall include an electrical log with shallow and deep-investigative curves (e.g., 16-inch short normal/64-inch-long normal resistivity curves or induction log) with a spontaneous potential curve.

(C) The municipal or county authority may, on a case-by-case basis, waive the requirement of geophysical logs as required under this section if it can be adequately demonstrated that the logs are not necessary to characterize the aquifer(s) for testing purposes.

(4) Well development and performance. The test and observation well(s) shall be developed prior to conducting the aquifer test to repair damage done to the aquifer(s) during the drilling operation. Development shall insure that the hydraulic properties of the aquifer(s) are restored as much as practical to their natural state.

(A) Well development procedures applied to the well(s) may vary depending on the drilling method used and the extent of the damage done to the aquifer(s).

(B) During well development, the test well shall be pumped for several hours to determine the specific capacity of the well, the maximum anticipated drawdown, the volume of water produced at certain pump speeds and drawdown, and to determine if the observation wells are suitably located to provide useful data.

(C) Water pumped out of the well during well development shall not be allowed to influence initial well performance results.

(D) Aquifer testing required by this section shall be performed before any acidization or other flow-capacity enhancement procedures are applied to the test well.

(5) Protection of groundwater. All reasonably necessary precautions shall be taken during construction of test and observation wells to ensure that surface contaminants do not reach the subsurface environment and that undesirable groundwater (water that is injurious to human health and the environment or water that can cause pollution to land or other waters) if encountered, is sealed off and confined to the zone(s) of origin.

(6) Duration of aquifer test and recovery. The duration of the aquifer test depends entirely on local and geologic conditions. However, the test shall be of sufficient duration to observe a straight-line trend on a plot of water level versus the logarithm of time pumped. Water pumped during the test shall not be allowed to influence the test results. Aquifer testing shall not commence until water levels (after well development) have completely recovered to their pre-development level or at least to 90% of that level.

(A) At a minimum, a 24-hour uniform rate aquifer test shall be conducted. Testing shall continue long enough to observe a straight-line trend on a plot of water level versus the logarithm of time pumped. If necessary, the duration of the test should be extended beyond the 24-hour minimum limit until the straight-line trend is observed.

(i) If it is impractical to continue the test until a straight-line trend of water level versus the logarithm of time pumped is observed within the 24-hour limit, the test shall continue at least until a consistent pumping-level trend is observed. In such instances, failure to observe the straight-line trend shall be recorded.

(ii) If the pumping rates remain constant for a period of at least four hours and a straight-line trend is observed on a plot of water level versus the logarithm of time pumped before the 24-hour limit has been reached, the pumping portion of the test may be terminated.

(iii) The frequency of water level measurements during the aquifer test shall be such that adequate definition of the time-drawdown curve is made available. As much information as possible shall be obtained in the first ten minutes of testing (i.e., pumping).

(B) Water-level recovery data shall be obtained to verify the accuracy of the data obtained during the pumping portion of the test. Recovery measurements shall be initiated immediately at the conclusion of the pumping portion of the aquifer test and shall be recorded with the same frequency as those taken during the pumping portion of the aquifer test. Time-recovery measurements shall continue until the water levels have recovered to pre-pumping levels or at least to 90% of that level. If such recovery is not possible, time-recovery measurements should continue until a consistent trend of recovery is observed.

(7) Use of existing wells and aquifer test data.

(A) An existing well may be utilized as an observation well under this section if sufficient information is available for that well to demonstrate that it meets the requirements of this section.

(B) The municipal or county authority may accept the results of a previous aquifer test in lieu of a new test if:

(i) the previous test was performed on a well located within a 1/4-mile radius of the subdivision;

(ii) the previous test fully meets all the requirements of this section;

(iii) the previous test was conducted on an aquifer which is being considered as a source of water supply for the proposed subdivision; and

(iv) aquifer conditions (e.g., water levels, gradients, etc.) during the previous test were approximately the same as they are presently.

(8) Need for additional aquifer testing and observation wells. Best professional judgement shall be used to determine if additional observation wells or aquifer tests are needed to adequately demonstrate groundwater availability. The Theis and Cooper-Jacob nonequilibrium equations, and acceptable modifications thereof, are based on well documented assumptions. To determine if additional information is needed, best professional judgement shall be used to consider these

assumptions, the site-specific information derived from the aquifer test required by this section, the size of the proposed subdivision, and the proposed method of water delivery.

(d) Submission of information. The information, data, and calculations required by this section shall be made available to the municipal or county authority, if requested, to document the requirements of this section as part of the plat application.

Source Note: The provisions of this §230.8 adopted to be effective July 9, 2000, 25 TexReg 6345

RULE §230.9 Determination of Groundwater Quality

(a) Water quality analysis. Water samples shall be collected near the end of the aquifer test for chemical analysis. Samples shall be collected from each aquifer being considered for water supply for the proposed subdivision and reported as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting).

(1) For proposed subdivisions where the anticipated method of water delivery is from an expansion of an existing public water supply system or a new public water supply system, the samples shall be submitted for bacterial and chemical analysis as required by Chapter 290, Subchapter F of this title (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems).

(2) For proposed subdivisions where the anticipated method of water delivery is from individual water supply wells on individual lots, samples shall be analyzed for the following:

- (A) chloride;
- (B) conductivity;
- (C) fluoride;
- (D) iron;
- (E) nitrate (as nitrogen);
- (F) manganese;
- (G) pH;
- (H) sulfate;
- (I) total hardness;
- (J) total dissolved solids; and
- (K) presence/absence of total coliform bacteria.

(3) Conductivity and pH values may be measured in the field, and the other constituents shall be analyzed in a laboratory accredited by the agency according to Chapter 25, Subchapters A and B of this title (relating to General Provisions and Environmental Testing Laboratory Accreditation, respectively) or certified by the agency according to Chapter 25, Subchapters A and C of this title (relating to General Provisions and Environmental Testing Laboratory Certification, respectively).

(b) Submission of information. The information, data, and calculations required by this section shall be made available to the municipal or county authority, if requested, to document the requirements of this section as part of the plat application.

Source Note: The provisions of this §230.9 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective July 31, 2008, 33 TexReg 5933

RULE §230.10 Determination of Groundwater Availability

(a) Time frame for determination of groundwater availability. At a minimum, both a short- and long-term determination of groundwater availability shall be made, each considering the estimated total water demand at full build out of the proposed

subdivision. Groundwater availability shall be determined for ten years and 30 years and for any other time frame(s) required by the municipal or county authority.

(b) Other considerations in groundwater availability determination. Groundwater availability determinations shall take into account the anticipated method of water delivery as identified under §230.5 of this title (relating to Proposed Subdivision Information) and will be compared to annual demand estimates at full build out as determined under §230.6 of this title (relating to Projected Water Demand Estimate).

(c) Determination of aquifer parameters. The parameters of the aquifer(s) being considered to supply water to the proposed subdivision shall be determined utilizing the information considered under §230.7 of this title (relating to General Groundwater Resource Information) and data obtained during the aquifer test required under §230.8 of this title (relating to Obtaining Site-Specific Groundwater Data) for individual water wells or under Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems) and reported as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting). The time-drawdown and time-recovery data obtained during the aquifer test shall be used to determine aquifer parameters utilizing the nonequilibrium equations developed by Theis or Cooper-Jacob, or acceptable modifications thereof. The following aquifer parameters shall be determined:

- (1) rate of yield and drawdown;
- (2) specific capacity;
- (3) efficiency of the pumped (test) well;
- (4) transmissivity;
- (5) coefficient of storage;
- (6) hydraulic conductivity;
- (7) recharge or barrier boundaries, if any are present; and
- (8) thickness of the aquifer(s).

(d) Determination of groundwater availability. Using the information and data identified and determined in subsections (b) and (c) of this section, the following calculations shall be made.

(1) Time-drawdown. The amount of drawdown at the pumped well(s) and at the boundaries of the proposed subdivision shall be determined for the time frames identified under subsection (a) of this section.

(2) Distance-drawdown. The distance(s) from the pumped well(s) to the outer edges of the cone(s)-of-depression shall be determined for the time frames identified under subsection (a) of this section.

(3) Well interference. For multiple wells in a proposed subdivision, calculations shall be made to:

(A) determine how pumpage from multiple wells will affect drawdown in individual wells for the time frames identified under subsection (a) of this section; and

(B) determine a recommended minimum spacing limit between individual wells and well yields from the wells that will allow for the continued use of the wells for the time frames identified under subsection (a) of this section.

(e) Determination of groundwater quality. The water quality analysis required under §230.9 of this title (relating to Determination of Groundwater Quality) shall be compared to primary and secondary public drinking water standards and the findings documented as specified in §230.3(c) of this title.

(f) Submission of information. The information, data, and calculations required by this section shall be made available to the municipal or county authority, if required, to document the requirements of this section as part of the plat application.

Source Note: The provisions of this §230.10 adopted to be effective July 9, 2000, 25 TexReg 6345

RULE §230.11 Groundwater Availability and Usability Statements and Certification

(a) Groundwater availability and usability statements. Based on the information developed under §230.10 of this title (relating to Determination of Groundwater Availability), the following information shall be provided as specified in §230.3(c) of this title (relating to Certification of Groundwater Availability for Platting):

- (1) the estimated drawdown of the aquifer at the pumped well(s) over a ten-year period and over a 30-year period;
- (2) the estimated drawdown of the aquifer at the subdivision boundary over a ten-year period and over a 30-year period;
- (3) the estimated distance from the pumped well(s) to the outer edges of the cone(s)-of-depression over a ten-year period and over a 30-year period;
- (4) the recommended minimum spacing limit between wells and the recommended well yield; and
- (5) the sufficiency of available groundwater quality to meet the intended use of the platted subdivision.

(b) Groundwater availability determination conditions. The assumptions and uncertainties that are inherent in the determination of groundwater availability should be clearly identified as specified in §230.3(c) of this title. These conditions must be identified to adequately define the bases for the availability and usability statements. These bases may include, but are not limited to, uncontrollable and unknown factors such as:

- (1) future pumpage from the aquifer or from interconnected aquifers from area wells outside of the subdivision or any other factor that cannot be predicted that will affect the storage of water in the aquifer;
- (2) long-term impacts to the aquifer based on climatic variations; and
- (3) future impacts to usable groundwater due to unforeseen or unpredictable contamination.

(c) Certification. Based on best professional judgement, current groundwater conditions, and the information developed and presented in the form specified by §230.3(c) of this title, the licensed professional engineer or licensed professional geoscientist certifies by signature, seal, and date that adequate groundwater is available from the underlying aquifer(s) to supply the estimated demand of the proposed subdivision.

Source Note: The provisions of this §230.11 adopted to be effective July 9, 2000, 25 TexReg 6345; amended to be effective February 13, 2003, 28 TexReg 1206