DRAINAGE REGULATIONS: JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7 November 2019

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SECTION 1 GENERAL PROVISIONS

1.0 FINDINGS

The Jefferson County Drainage District No. 7, in consultation with the cities of Port Arthur Nederland, Port Neches, Groves, and Jefferson County, makes the following findings:

- A. Because of the generally flat terrain throughout the region, areas within the boundaries of the Drainage District No. 7 are subject to accumulation of stormwater and the overflow and flooding from existing watercourses and drainage facilities.
- B. Increased growth and development, which change the characteristics of the surface of the land, can create stormwater and flooding problems or exacerbate existing problems.
- C. The existing drainage facilities under the jurisdiction of the Drainage District No. 7 require continuous maintenance and, at times, redesign to provide drainage capacity for stormwater runoff.
- D. Drainage District No. 7 collects an ad valorum tax from property owners within its jurisdiction to defray the costs of providing drainage facilities and for maintenance of drainage facilities.
- E. Drainage District No. 7, in cooperation with Jefferson County, the Texas General Land Office, the Texas Division of Emergency Management, and the Federal Emergency Management Agency, has expended funds to mitigate repetitive flooding of improved properties.
- F. A comprehensive and coordinated approach for the review and approval of subdivision proposals and development proposals is an effective and efficient approach to address existing and future needs.

1.1 AUTHORITY AND PURPOSE

These regulations are adopted pursuant to the authority set forth in the Texas Water Code §49.211.

It is the purpose of these regulations to protect, maintain and enhance public health, safety and general welfare, and to minimize the impacts of increases in stormwater runoff and flooding, by providing for the review and approval of the drainage plans and proposals for management of stormwater and flooding associated with certain development proposals,

and to establish minimum requirements and efficient procedures by which these regulations are to be administered and enforced.

It is the intent of these regulations that the 100-year peak flow runoff within the boundaries of subdivisions and developments, and the 100-year peak flow runoff that flows from subdivisions and developments, be conveyed safely, that these flows have flow paths to the most appropriate District outfalls, that along the flow paths, property is not adversely impacted by these flows, and that it be demonstrated that the receiving District outfalls and ditches have the capacity to convey the additional flows without increasing downstream flooding.

1.2 JURISDICTION

These regulations shall apply to all land located within the boundaries of the Jefferson County Drainage District No. 7 (the District), as those boundaries are amended from time to time.

1.3 APPROVALS REQUIRED, COMPLIANCE, AND EXEMPTIONS

- A. **District Approvals Required**. Except as exempted in Section 1.3(F), no person, property owner, property developer, or subdivider shall undertake any development or subdivide any land that requires plat approval by Jefferson County, or other municipality located in the District, without obtaining the District's approval.
- B. **District Approvals Encouraged.** Persons, property owners, property developers, and subdividers proposing activities that are not required to obtain approvals are encouraged to contact the District engineering staff for information on drainage conditions, flood hazard areas, and recommendations to minimize or avoid drainage problems and exposure to flooding.
- C. **Local Jurisdiction Approvals.** The Applicant/Owner is responsible for submission to and satisfaction of the requirements of the applicable local jurisdiction(s).
- D. **Compliance.** Persons, property owners, property developers, and subdividers, and any and all entities performing work on behalf of those entities, whether for compensation, shall carry out the proposed drainage work in accordance with the Approval issued by the District and the drainage report and drainage plans attached thereto.
- E. **Processing Fee.** The District charges a processing fee to cover the basic cost for consultant or internal review of drainage plans, plats, and construction plans. See Section

- 2.6 for the Fee Schedule.
- F. **Exemptions.** The following activities are exempt from the requirement to obtain approval from the Drainage District No. 7:
- 1. Development of single-family homes on individually-owned lots that are not located in subdivisions.
- 2. Development of single-family homes that are located in subdivisions that were platted and approved by the appropriate jurisdiction prior to enactment of these regulations, provided such development does not require plat approval by Jefferson County, or other municipality located in the District.
- 3. Development with a total impervious area, including buildings, roads and parking areas, of less than 10,000 square feet, unless adjacent to and sharing a property line with a DD7 property or an easement line with a DD7 easement.
- 4. Utility projects, except those involving impervious areas of more than 10,000 square feet, unless crossing, or adjacent to and sharing a property line with a DD7 property or an easement line with a DD7 easement.
- 5. Other activities, upon submission of a request for an exemption pursuant to Section 2.5.

1.4 VALIDITY OF APPROVALS

- A. Concept Approval. A Concept Approval issued pursuant to these regulations shall be valid for no longer than twelve (12) months. Upon receipt of a written request for extension that explains the need for such extension, at the District's sole discretion the District may extend the validity of a Concept Approval for no longer than an additional twelve (12) months. As part of consideration of a request for extension the District reserves the right to require a meeting with the Applicant/Owner (or authorized representative).
- B. **Approval.** An Approval issued pursuant to these regulations shall be valid for no longer than twelve (12) calendar months. Failure to commence construction of the subject subdivision or development within twelve (12) calendar months shall make such Approval null and void.

1.5 INTERPRETATION, CONFLICT, SEVERABILITY AND LIABILITY

A. **Interpretation.** In their interpretation and application, the provisions of these regulations shall be held to be the minimum necessary for promotion of the public health,

safety and welfare with respect to stormwater runoff, drainage, and reduction of flood hazards.

- B. **Conflict.** These regulations are not intended to interfere with, abrogate, or annul any other ordinance, rule, or regulation, statute, or other provision of law. Where any provision of these regulations imposes restrictions different from those imposed by Jefferson County or an incorporated municipality within the boundaries of the District, whichever provisions are more restrictive or impose higher standards shall control.
- C. **Severability.** If any part of these regulations, or application of same to a particular person or circumstance, should for any reason be held to be invalid by a court of competent jurisdiction, such invalidity shall not affect the remaining portions of these regulations, and to such end the various portions and provisions of these regulations are declared to be severable.
- D. **Liability.** Neither the issuance of an Approval under these regulations nor the compliance with such Approval or compliance with any condition imposed by the District shall relieve any Applicant/Owner from responsibility for damage to persons, property, drainage systems, living resources, or the general environment nor impose any liability upon the District for damages to persons or property.

1.6 **DEFINITIONS**

100-Year Peak Flow Discharge is that flow caused by a rainfall event with a 1%-annual-chance (100-year) recurrence interval of a duration which is defined by the size and characteristics of the contributing drainage area and as further defined in the drainage criteria manual adopted by the District.

Aerial overhang means any obstruction which extends into the easement or right-of-way by crossing the vertical plane extended skyward from the edge of the easement or right of way. Limbs of trees which grow across this plane are aerial overhang and shall be trimmed or removed as needed by the District.

Applicant/Owner is any person, group of persons, firm or firms, subdivider, corporation or corporations, or any other legal entity having legal title to or sufficient proprietary interest in the land sought to be subdivided or developed and who is seeking approval pursuant to these regulations; the Applicant/Owner may designate an authorized representative in writing.

Approval is the written notice issued by the District pursuant to the District engineering

staff's review of a property developer's drainage report, drainage plans, and plats for a proposed subdivision or development, that the drainage report, drainage plans, plats, and supporting documentation have been determined to conform to the District's Master Drainage Plan, the requirements of these regulations, and the drainage criteria manual adopted by the District.

Base flood elevation is the water surface elevation of the flood that has a one-percent chance of being equaled or exceeded in any given year (commonly called the 100-year flood).

Concept Approval is a written summary issued by the District subsequent to a presubmission conference to summarize the concepts, proposals, and agreements discussed at the pre-submission conference.

Development is the new construction or enlargement of any exterior dimension of any building, structure, or other improvements, including but not limited to site development such as grading and impervious surfaces.

Disapproval is the written notice issued by the District pursuant to the District engineering staff's review of a property developer's drainage report, drainage plans, and plats for a proposed subdivision or development, that the drainage report, drainage plans, plat, and supporting documentation have been determined not to conform to the District's Master Drainage Plan, the requirements of these regulations, and the drainage manual adopted by the District.

District is the Jefferson County Drainage District No. 7.

Drainage is runoff of rainfall and stormwater from the surface of the land.

Drainage Criteria Manual is the manual adopted by the District that establishes criteria for preparation of drainage reports and drainage plans. The contents of the drainage criteria manual shall include but are not limited to accepted computation methods and design specifications for drainage facilities and other components of the drainage system that may be constructed.

Drainage Plans are the drawings that are included in the Drainage Report and that are prepared in accordance with these regulations, accepted criteria, and the drainage criteria manual adopted by the District. The contents of drainage plans shall include, but are not limited to: identifying information; location maps; property boundaries and easements; benchmarks and ground elevations; flood hazard areas; location of existing and proposed

buildings, impervious areas, drainage features, bridges and culverts; design specifications for drainage structures and ditches; cross-section locations; flow paths; location of wetlands; methods of elevating buildings and specifications for placement of fill; and notes required to be shown on the drainage plans. See Section 3.2.

Drainage Report is the report, including drainage plans, that is prepared to document conformance with these regulations, accepted engineering criteria, and the drainage criteria manual adopted by the District. The contents of the drainage report shall include, but are not limited to: identifying information; computations, data, and computer models; identified deviations; identification and description of easements and rights-of-way; the drainage plans; and the engineer's statement. See Section 3.1.

Drainage system is any natural, modified, or man-made channel, ditch, stream, watercourse, conduit, culvert, drain, gully, swale, basin, or other feature of the landscape that is natural or designed to collect, convey, manage, discharge, or dispose of drainage.

Drainage facility is the property, either real, personal, or a combination thereof, that is used to provide drainage and that is included in the District's drainage system.

Flood hazard area is any normally dry land area that is susceptible to being inundated by water from any source. Flood hazard areas include areas shown on Flood Insurance Rate Maps and other areas that are known and documented by the District to be subject to periodic flooding, or that have experienced a flood of record.

Flood Insurance Rate Map means an official map of a community on which the National Flood Insurance Program has delineated both the special flood hazard areas and the risk premium zones applicable in those areas.

Flood of record means the greatest flood recorded (documented) for a location.

Floodway is the channel of a waterway and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a height designated in the Flood Insurance Studies of the respective jurisdiction.

Impervious area means any surface which inhibits infiltration of rainfall into the soil. Surfaces that are impervious include pavement (asphalt, concrete, brick pavers, etc.), rooftops, non- wooden decks and patios (wooden decks with slotted surfaces are deemed pervious unless the underlying surface is impervious), and graveled surfaces.

Lowest floor means, for buildings in flood hazard areas, the lowest floor of the lowest enclosed area (including basement); an unfinished or flood-resistant enclosure that is used only for parking of vehicles, building access, storage, or as a crawlspace is not the lowest floor provided the enclosure complies with the requirements of the applicable municipality or Jefferson County.

Master Drainage Plan means the plan, adopted by the Board of Directors pursuant to the powers granted to the District in the Texas Water Code § 49.211, and any revisions thereto.

Outfall means the receiving District ditch, the point at which a contributory open drainage ditch discharges into the District's ditch, and/or the end of a drainage pipe that discharges into a District ditch; as appropriate to the circumstance; the term includes slope paving or other means to control erosion at the outfall.

Person means an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity.

Pre-Submission Conference is optional meeting with the District which shall take place prior to submission of the drainage report and drainage plans. See Section 2.0 and Section 2.1.

Registered Professional Land Surveyor is a person who is duly registered or otherwise authorized by the State of Texas to practice in the field of land surveying.

Registered Professional Engineer is a person who is duly registered or otherwise authorized by the State of Texas to practice in the field of engineering.

Stormwater (see Drainage).

Subdivider is any person who, having an interest in land, causes it, directly or indirectly, to be divided into a subdivision and who is required to obtain approval of the subdivision plat of the proposed subdivision from a municipality or county that is located within the boundaries of the Drainage District No. 7, as those boundaries are amended from time to time.

Subdivision is any land, vacant or improved, which is divided or proposed to be divided into two or more lots, parcels, sites, units, plots, or interests for the purpose of offer, sale, lease, or development, either on the installment plan or upon any and all other plans, terms, and conditions, including re-subdivision.

SECTION 2 PROCEDURES

2.0 INFORMATION FOR PRE-SUBMISSION CONFERENCE

A pre-submission conference is optional (see Section 2.1). The form to be used to submit information required for the pre-submission conference is available at http://www.dd7.org. Submission of the completed form indicates that the Applicant/Owner is requesting that the pre-submission conference be scheduled. The District shall contact the Applicant/Owner, and designated representative, to schedule the pre-submission conference. The pre-submission conference shall take place at the District's office.

2.1 PRE-SUBMISSION CONFERENCE

- **A. Pre-Submission Conference Optional.** Applicants/Owners, or designated representatives, are encouraged to meet with the District engineering staff in order to understand the existing drainage system in the vicinity of and downstream of the proposed subdivision or development site (except as provided in paragraph C). The District engineering staff may provide information, data and computer models from the District's engineering studies, elevation benchmarks, or provide evidence of drainage and flooding concerns based on observations and data collected from past flood events. At the presubmission conference, the measures that are necessary and appropriate to address drainage and flooding will be discussed.
- B. **Timing of Pre-Submission Conference.** The District encourages Applicants/Owners to submit the information required for the pre-submission conference (see Section 2.0) in order to schedule the pre-submission conference well in advance of submission of the drainage report and drainage plans. Jefferson County, or other municipality located in the District, may require submission of the District's Concept Approval as part of submissions for approval of subdivision plats, site plans, and building permits. It is the responsibility of the Applicant/Owner to determine the requirements of the applicable jurisdiction.
- **C. Negotiations with the District.** The District acknowledges that drainage concerns, the adequacy of the existing drainage system and access for maintenance, and solutions to address inadequacies and flooding that may be exacerbated by new development vary from location to location. Applicants/Owners are encouraged to enter into negotiations with the District to arrive at mutually agreeable solutions and measures (see Section 2.3).

2.2 APPROVAL PROCESS

The process to obtain the District's Approval is as follows:

- A. Submission of Information for Pre-Submission Conference. See Section 2.0.
- B. Pre-Submission Conference. See Section 2.1.
- C. **Issuance of Concept Approval.** After the pre-submission conference, the District shall issue a Concept Approval to the Applicant/Owner to summarize the concepts, proposals, and agreements discussed at the pre-submission conference. Issuance of a Concept Approval shall not bind the District if subsequent preparation of drainage reports and drainage plans reveals different conditions.
- D. Acceptance of Concept Approval by Applicant/Owner. Upon receipt of a Concept Approval, the Applicant/Owner proceeds with preparation of the drainage report and drainage plans that are consistent with the Concept Approval, with reasonable assurance of the District's final Approval. A Concept Approval is not valid until counter-signed by an Applicant/Owner and returned to the District.
- E. Submission of Concept Approval, Drainage Report, Drainage Plans, and Preliminary Plats. An Applicant/Owner shall submit to the office of Jefferson County Drainage District No. 7, two (2) copies for the District, of the counter-signed Concept Approval, if any, and the drainage report, drainage plans, and plat(s) as part of submissions required for preliminary plat or site plan approval. The Applicant/Owner is responsible for submission to and satisfaction of the requirements of the applicable local jurisdiction.
- F. **The District's Review.** The District shall review submissions for consistency with the Concept Approval, the District's drainage criteria manual, and these regulations. Additional information may be requested if necessary to perform the District's review.
- G. Suspension of the District's Review. The District may suspend its review if:
- 1. A written request for suspension is submitted by a municipality or Jefferson County; the suspension shall remain in effect until such time as a request to resume the review is received from the requesting municipality or Jefferson County.
- 2. A proposed subdivision or development falls within a designated Floodway and a floodway analysis prepared in accordance with the specifications of the National Flood Insurance Program has not been prepared or such analysis indicates that there will be a change to the Floodway and/or Base Flood Elevations; the suspension shall remain in effect until such time as the Applicant/Owner modifies the proposal to avoid the Floodway or

provides evidence that a Conditional Letter of Map Revision is issued by the National Flood Insurance Program.

- H. **Issuance of Approval.** Upon a determination that the submission is in conformance with the District's Master Drainage Plan, the Concept Approval, these regulations, and the drainage criteria manual, the District shall issue an Approval within thirty (30) days of receipt of the submission.
- I. **Issuance of Disapproval.** Upon a determination that the submission is not in conformance with the District's Master Drainage Plan, the Concept Approval, these regulations, or the drainage criteria manual, the District shall issue a Disapproval within thirty (30) days of receipt of the submission. If the District issues a Disapproval, the District shall prepare and provide to the Applicant/Owner a written report that explains the reasons for the disapproval and that recommends changes, if applicable.
- J. **Notification of Local Jurisdiction.** The District shall send a copy of the Approval or Disapproval to Jefferson County or the appropriate municipality. For Disapprovals, a copy of the District's written report shall be provided to Jefferson County or the appropriate municipality.
- K. **District's Receipt of Construction Plans.** Jefferson County and/or the appropriate municipality require Applicant/Owners to submit construction plans for approval prior to the start of construction. The County and/or City coordinate review and approval of the construction plans with the District. Applicants are advised that the District's Approvals are conditioned upon the District's review and approval of the construction plans which shall show plan and profile, cross-section(s), and construction details of proposed drainage system components.
- L. Responsibility to Obtain Approvals by Others. It shall be the responsibility of the Applicant/Owner to obtain any and all approvals required by others. As part of its preliminary comments or review of the drainage report and drainage plans, the District may request submission of evidence that the Applicant/Owner has applied for or obtained approvals required by others.

2.3 **NEGOTIATIONS**

Negotiations between the District and the Applicant/Owner may be undertaken for the express purpose of understanding the drainage and flood hazard concerns on and in the vicinity of the proposed subdivision or development, the adequacy of the drainage system

and access for maintenance, and provisions to address drainage and flooding problems that may be created or adversely impacted by the proposed new subdivision or development. The District acknowledges that drainage and flood hazard reduction measures that may be examined on a case-by-case basis include, but are not limited to, the following:

- A. Drainage standards set forth in Section 4.0.
- B. Flood hazard reduction standards set forth in Section 4.1.
- C. Cooperative projects undertaken with the Applicant/Owner.
- D. Contributions of land by the Applicant/Owner to the District for District drainage facilities, including ditches, laterals, outfalls, and detention facilities.
- E. Platting of drainage easements or granting of increases to existing drainage easements for the purpose of drainage and drainage improvements and for maintenance of such drainage and drainage improvements. Applicants/Owners are advised that the District may take fee title to easements; the District will prepare the deed if the Applicant/Owner submits a survey and a metes and bounds description prepared by a Registered Professional Land Surveyor.
- F. Other contributions by the Applicant/Owner for improvement of the District's drainage facilities.
- G. Other measures that are mutually agreed upon.

2.4 DUTIES OF THE DISTRICT UNDER THIS REGULATION

Pursuant to implementation of these drainage regulations, the District has the duty to:

- A. Coordinate with the municipality and/or the County in which a proposed subdivision or development is located.
- B. Provide valid information, data, elevation benchmarks, and computer models from existing drainage and watershed studies reports and information about drainage and flood hazard concerns.
- C. Conduct pre-submission conferences with Applicants/Owners or authorized representatives.
- D. Negotiate in good faith with Applicants/Owners or authorized representatives.

- E. Receive and review drainage reports and drainage plans.
- F. Issue Concept Approvals and, as applicable, provide recommendations intended to result in approval.
- G. Issue Approvals or Disapprovals.
- H. Inspect approved work for compliance with the drainage report and drainage plans.
- I. Maintain records related to drainage reports and drainage plans, and Approvals and Disapprovals issued.

2.5 PERMITS

Jefferson County Drainage District No. 7 requires that a permit be applied for and approved by the Board of Commissioners for the following activities.

"a. any pipeline, utility or other facility is constructed upon or across any property, easements, or rights-of-way owned or controlled by the District and used for drainage, hurricane flood protection or other operations of Drainage District No. 7.

b. any new structure or modification to existing structure, discharging into any property, easements, or rights-of-way owned or controlled by the District and used for drainage, hurricane flood protection or other operations of Drainage District No. 7.

c. any new flow or change to existing flow into any property, easements, or rights-of-way owned or controlled by the District and used for drainage, hurricane flood protection or other operations of Drainage District No. 7. "

As a condition of approval and acceptance of proposed development improvements by the DD7 Board of Commissioners, a permit package will be required to be submitted, reviewed, and approved.

2.6 EXEMPTIONS, WAIVERS, VARIANCES, AND APPEALS

- A. Request by Applicant/Owner. The Applicant/Owner may, in writing, request an exemption, waiver, or variance of a provision of these regulations or the District's drainage criteria manual. The request shall be made in writing, with justification, and submitted to the District engineering staff.
- B. Decision by the District Engineering Staff. The District engineering staff shall render a

written decision on an Applicant/Owner's request for an exemption, waiver, or variance.

- C. Appeal of Decisions. The Applicant/Owner may appeal the District engineering staff's decision made on a request for an exemption, waiver, or variance.
- D. Appeal of Disapprovals. The Applicant/Owner may appeal the issuance of a Disapproval.

E. Processing Appeals by the Board.

- 1. Within fourteen (14) days of receipt of the District engineering staff's decision on a request for an exemption, waiver or variance, the Applicant/Owner may submit a written request for a hearing before the District's Board of Directors.
- 2. Within fourteen (14) days of receipt of a Disapproval, the Applicant/Owner may submit a written request for a hearing before the District's Board of Directors.
- 3. The Board of Directors shall, if practical, schedule a hearing within thirty (30) days of receipt of a request and shall provide written notification of the date of the hearing at least ten (10) days prior to a hearing
- 4. The Applicant/Owner may appear in person or may be represented by the authorized agent.
- 5. Prior to or at the hearing the Applicant/Owner may submit additional relevant information and data, in written form, to the Board of Directors.
- 6. Prior to or at the hearing, the Board of Directors shall receive any additional relevant information and data presented by the Applicant/Owner and the authorized agent. The Board of Directors may extend the period for submission of information and data that may be specifically requested by the Board.
- 7. For appeals of the District engineering staff's decisions on requests for exemptions, waivers, or variances, the Board of Directors shall render decisions based on a vote of a majority of the Commissioners voting to grant, accept, modify or deny the Applicant/Owner's request. The Board may return the matter to the District engineering staff, with instructions for further action.
- 8. For appeals of Disapprovals, The Board of Directors shall render decisions based on a vote of a majority of the Commissioners voting to uphold the Disapproval or to return the matter to the District engineering staff, with instructions for further action.

- 9. The Board may attach to its decisions such instructions and conditions as it sees fit to provide substantial conformance with the intent of these regulations.
- 10. The Board's decisions shall be transmitted, in writing, to the Applicant/Owner within a reasonable period of time after the hearing.
- 11. The ruling of the Board of Directors to uphold a Disapproval shall be the final ruling of the District.
- F. Basis for Board Decisions. The Board shall base its decisions on appeals on a consideration that the requested action:
 - 1. Will not result in a substantial deviation from the intent of these regulations.
 - 2. Will not be detrimental to the public health, safety, or welfare, or injurious to other property and property owners in the vicinity.

2.7 FEES

Fee Schedule

Review of Preliminary Submittal including Drainage Report,	
Preliminary Drainage Plans, Preliminary Plat	
Review of Construction Plans, Details, and Specifications	\$750
DD7 Permit	\$250

SECTION 3 DRAINAGE REPORTS AND DRAINAGE PLANS

3.0 PREPARATION OF DRAINAGE REPORTS AND DRAINAGE PLANS

Drainage reports and drainage plans shall be prepared by, or reviewed and approved by, and signed and sealed by a Registered Professional engineering staff who is qualified to prepare drainage calculations, drainage designs, drainage reports, drainage plans and subdivision plans.

3.1 CONTENTS OF DRAINAGE REPORTS

Drainage Reports shall contain the information specified in this section. Drainage Reports shall be prepared in accordance with the standards set forth in Section 4 and, as applicable, the drainage criteria manual adopted by the District. The District encourages inclusion of computations and specifications developed to satisfy the requirements of the applicable municipality, or Jefferson County. Deviations from the District's standards and criteria shall be identified in the drainage report and technical justification for such deviations, including computations as appropriate, shall be provided.

Unless waived by the District at its sole discretion as a result of the pre-submission conference, drainage reports are required to contain, at a minimum, the following items:

- A. Applicant/Owner name, address, telephone number, facsimile number, and e-mail address.
- B. Applicant/Owner's authorized representative's name, address, telephone number, facsimile number, and e-mail address.
- C. Name, address, telephone number, facsimile number, e-mail address, and registration of the Registered Professional Engineer who prepared the drainage report and drainage plan.
- D. The title or name under which the proposed subdivision or development is to be recorded.
- E. Date of all submittals, with date(s) of revisions, including month, day and year.
- F. Computations, data, and diagrams pertaining to the effects of the proposed subdivision or development on 100-year peak flow runoff rates, times of concentration, and flowline elevations and depths, especially relative to the outfall to the District's drainage facility. For properties with multiple drainage areas, the computations shall be provided for each

drainage area. Computations shall be performed in accordance with accepted engineering practices and with the methodologies specified in the District's drainage criteria manual.

- G. If the District has provided a computer model, the model shall be modified as appropriate to include the 100-year peak flow runoff hydrograph from the proposed subdivision or development; a description and documentation of the modifications to the computer model and the consequent changes in peak flows shall be included.
- H. Submissions containing HEC models used to develop discharges and water surface elevations shall include a map of the drainage network with subareas and nodes, a printout of the basin and route characteristics (or HEC model input files), and a printout of the master summary of the final design.
- I. An electronic copy of computer models used to develop the drainage report shall be provided on a portable digital storage device and shall become the property of the District.
- J. Computations to support proposed ditches, storm drains, inlets, detention or retention facilities, pipes, culverts, and similar drainage system components.
- K. Computations, drawings, and data prepared in a manner consistent with the requirements of the National Flood Insurance Program, if any portion of the proposed subdivision or development falls within the Floodway as designated on the effective Flood Insurance Rate Map.
- L. Identified deviations from these regulations and the District's drainage criteria manual, and an explanation and technical justification, including computations as appropriate, of all such deviations.
- M. Identification and description of drainage easements and/or other rights-of-way obtained by the Applicant/Owner from third parties for the purpose of conveying drainage to a District drainage facility. The Applicant/Owner is responsible for obtaining, recording, and preserving any and all such easements and/or rights-of-way. The District may take fee title to easements (see Section 2.3(E)).
- N. The drainage plans for the proposed subdivision or development, as specified in Section 3.2.
- O. A statement signed, dated and sealed by the Registered Professional Engineer who prepared or supervised preparation of the drainage report and drainage plans, that the drainage report and drainage plans are consistent with and substantially in conformance

with the District's drainage standards and drainage criteria manual. The statement shall be as follows:

"I hereby state that I have developed or reviewed this drainage report and the accompanying drainage plans, and that the proposed drainage design and methods of construction are consistent with and substantially in conformance with the drainage regulations, standards, and the drainage criteria manual of the Jefferson County Drainage District No. 7."

3.2 CONTENTS OF DRAINAGE PLANS OR PRELIMINARY PLATS

For all proposals subject to these regulations, the drainage plans or preliminary plats shall be prepared in accordance with the standards set forth in Section 4.0 and Section 4.1 (as applicable), and the District's drainage criteria manual. Unless otherwise approved by the District as part of the pre-submission conference, at a minimum drainage plans or preliminary plats are required to show the following:

- A. Applicant/Owner name, address, telephone number, FAX number, and e-mail address.
- B. Applicant/Owner's authorized representative's name, address, telephone number, FAX number, and e-mail address.
- C. Name, address, telephone number, facsimile number, e-mail address, registration number, seal and signature of the Registered Professional Engineer who prepared the drainage report and drainage plan.
- D. Name, address, telephone number, facsimile number, e-mail address, registration number, seal and signature of the Registered Professional Land Surveyor who prepared the survey on which the drainage report and drainage plan are based.
- E. The title or name under which the proposed subdivision or development is to be recorded.
- F. Date of all submittals, with date(s) of revisions, including month, day and year.
- G. Location of the subdivision or development and vicinity map, drawn to scale.
- H. Scale of the drawings, with a minimum scale of 1'' = 100'.
- I. Benchmark(s) and reference mark(s) with datum and year of adjustment. Benchmarks shall be converted and shown adjusted to the National Geodetic Vertical Datum 1929 or

North American Vertical Datum 1988. The District maintains data on benchmarks and will provide such data in the vicinity of proposed projects.

- J. Boundaries of the property and adjacent property owners.
- K. Applicable "Notes for Drainage Plans and Plats," in accordance with Section 3.3.
- L. Ground elevations and contour lines.
- M. The map number and date of the effective Flood Insurance Rate Map, the boundaries and base flood elevations of flood hazard area shown on Flood Insurance Rate Map, the limits of the Floodway, if applicable, and other flood hazard area delineations provided by the District.
- N. Delineation of existing and proposed buildings, roads, parking and other impervious areas, with a determination of the total impervious area compared to the total area.
- O. Locations of existing and proposed drainage features, including drainage channels, watercourses, ravines, creeks, bayous, streams, gullies, ditches and drainageways, and flood control improvements and other facilities.
- P. Locations of existing and proposed bridges, culverts, outfalls, and drainage structures.
- Q. Drainage area divides for the vicinity of the proposed subdivision or development, including off-site areas draining to the site.
- R. Peak runoff rates for each inlet, structure, or drainage area; peak runoff rates shall be as required by the applicable municipality and/or Jefferson County.
- S. 100-year peak flow runoff rates shall be shown where drainage leaves the property boundaries of the proposed subdivision or development and at the District's outfalls.
- T. For drainageways, including ditches, storm drain culverts, and pipes, the flow path for runoff discharges that exceed the capacity of the drainageway, up to and including the discharge associated with the 100-year peak flow runoff rates.
- U. Details of all ditches, swales and drainageways, for a minimum distance of two hundred (200) feet upstream and two hundred (200) feet downstream, which are to convey rainfall-runoff from the proposed subdivision or development and/or through the proposed subdivision or development to the appropriate downstream drainageway and the location of that drainageway.

- V. Locations and dimensions of existing and proposed drainage easements, including widths, on both sides of all natural, existing, and proposed drainage system components.
- W. Delineations of wetlands, if applicable.
- X. The proposed method of elevating buildings to meet the requirements of the municipality and/or Jefferson County, if any portion of the proposed subdivision or development falls within the Special Flood Hazard Area as delineated on the effective Flood Insurance Rate Map, or other flood hazard areas identified by the District as subject to flooding.
- Y. If fill is proposed to elevate buildings in flood hazard areas, final height of the compacted fill, the total volume of fill for each such placement, and the flow path of drainage in the area to accommodate the proposed placement of fill.

3.3 NOTES FOR DRAINAGE PLANS AND PLATS

The drainage plans, preliminary plats, final plats, and construction plans, as applicable, shall include notes that are pertinent to the development:

A. Notes to be Shown on Drainage Plans:

1. District's Approval of Drainage Plan	1s. These draina	age plans are hereby approved
DD7 District Engineer	Date	Approval No.
<u> </u>		

2. **Validity of Approval.** The District's Approval evidenced by the signature above is valid for twelve (12) months from the date of issuance unless a written request for extension is submitted and the District grants an extension as set forth in regulation.

B. Additional Notes to be Shown on Final Plats:

- 1. **Purpose of Drainage Easements.** Drainage easements shall be maintained to provide for the free flow of water and to provide unobstructed access; permanent structures, accessory structures, fences, and permanent landscaping shall not be placed, erected or installed in a drainage easement.
- **2. Drainage Easements Shown.** Each drainage easement shown on this Plat is labeled as to responsibility for maintenance by a third party or by the City of Beaumont,

Jefferson County, or the District.

3. Conveyance of Easement to the District.

SAMPLE STATEMENT IF AN EASEMENT IS TO BE CONVEYED TO THE DISTRICT:

[OWNER'S NAME] ("OWNER"), DOES HEREBY CERTIFY THAT IT IS THE RECORD OWNER OF [NUMBER] ACRES OF THE LAND ("LAND") EMBRACED WITHIN THE BOUNDARIES OF SAID LAND SHOWN, DESCRIBED, AND DEPICTED UPON THIS MAP, THAT OWNER HAS CAUSED SAID LAND TO BE SUBDIVIDED AND PLATTED AS SHOWN AND REFLECTED ON THIS MAP; THAT OWNER HEREBY DEDICATES TO PUBLIC USE FOR NO OTHER PURPOSE, ALL EASEMENTS FOR DRAINAGE AS REFLECTED ON THIS MAP; THAT OWNER HEREBY IMPOSES ON THE LAND ALL OF THE BASIC RESTRICTIONS AND LIMITATIONS SHOWN AND REFLECTED ON THIS MAP; AND THAT OWNER ADOPTS THIS MAP FOR THE PURPOSES OF [MAKING SUBDIVISION OF THE LAND or <u>UNDERTAKING DEVELOPMENT</u>] AS SHOWN AND REFLECTED HEREON, DEDICATING FOR PUBLIC USE AND NO OTHER PURPOSE, ALL EASEMENTS FOR DRAINAGE AS SHOWN AND REFLECTED ON THIS MAP; IMPOSING ON THE LAND THE BASIC RESTRICTIONS AND LIMITATIONS SHOWN AND DEPICTED ON

- 4. **Maintenance of Drainage.** For parts of the drainage system that are not conveyed to the District, the City of Beaumont, or the County, maintenance is the responsibility of the property owner or the property owner's legal heirs, grantees, successors, or assignees.
- 5. **No Obstruction of Drainage.** Obstructions, including accessory structures, fences and permanent landscaping, shall not be erected or installed in a drainage easement.
- 6. **Flood Hazard Areas.** The base flood elevation and lowest floor elevation are as shown for each parcel; submission of surveyed final ground elevation and lowest floor elevation will be required by the applicable local permitting authority.

7. Engineer's Statement.

The drainage design prepared for (project name) was prepared by me (or

under my supervision) in accordance with standard engineering practices and Jefferson County DD7 Design Criteria and Regulations. I understand that Jefferson County DD7 does not, and will not, assume liability for drainage facilities designed by others.

John A. Smith, P.E.

Texas Licensed Professional Engineer no. XXXXXX

C. Notes to be Shown on Construction Plans:

If placement of concrete is proposed for any portion of the work to be conveyed to the District, the following note shall be shown on the construction plans:

- 1. **Work to be Conveyed to the District.** The contractor shall notify the District at (409) 985-4369, for an inspection at least forty-eight (48) hours prior to forming and pouring concrete.
- 2. **Note 7 from the previous paragraph B.** Engineer's Statement

SECTION 4 STANDARDS

4.0 DRAINAGE STANDARDS

These standards are intended to assure that the 100-year peak flow runoff within the boundaries of subdivisions and developments, and the 100-year peak flow runoff that flows from subdivisions and developments, will be conveyed safely, that these flows have flow paths to the most appropriate District outfalls, that along these flow paths properties are not adversely impacted by these flows, and that the receiving District outfalls and ditches have the capacity to convey the additional flows without increasing downstream flooding. The following standards are required for the preparation of drainage reports and drainage plans, unless otherwise approved by the District. These standards are in addition to those required by the appropriate jurisdiction:

- A. Runoff computations to show the pre-development and post-development conditions at the District's outfalls shall be based on the 100-year peak flow.
- B. Computations to show the impacts on discharge and hydrograph timing shall be carried downstream to a control point such as a road crossing or a receiving drainage ditch. On a case-by-case basis, the District may reduce or waive this requirement based on conditions downstream of the proposed subdivision or development.
- C. Drainage interior to the subdivision or development, including swales, pipes, culverts and streets, shall be designed to convey peak runoff rates as required by the applicable municipality and/or Jefferson County.
- D. When streets or parking areas are proposed to be used for storage of runoff, the maximum depth of water shall be no more than 1 foot deep during peak discharge conditions.
- E. The subdivision or development shall be designed such that the water surface elevation of 100-year peak flow will rise no higher than 18-inches below the lowest finished floor of any proposed building that is part of the subdivision or development; this requirement allows the 100-year peak flow to overflow the designed drainage without flooding proposed buildings. Based on an assessment of the downstream impact of increases in the 100-year peak flow, if the District outfall, the downstream drainage system or existing buildings are adversely impacted, provisions shall be made to mitigate the adverse impacts.
- F. Minimum easements shall be provided to allow for unobstructed access for maintenance of the drainage system components. Permanent structures, accessory structures, fences, and

permanent landscaping shall not be placed, erected or installed in a drainage easement. Aerial overhang of a drainage easement shall be prohibited unless specifically approved in writing by the District.

- 1. Lot lines shall not extend into or across a drainage easement.
- 2. For channels and ditches to be conveyed to the District, unless otherwise approved the minimum easement widths shall be the final top width of the channel or ditch plus twenty-five (25) feet on each side. The District may take fee title to easements (see Section 2.3(E)).
- 3. Unobstructed access paths to the District's drainage easement or drainage facility from a public road or street shall be provided at least every 2,000 feet along any District drainage easement or drainage facility; access paths shall be at least twenty (20) feet in width.
- 4. For underground drainage components to be conveyed to the District, unless otherwise approved the minimum easement width shall be thirty (30) feet, centered over the underground drainage component.
- 5. For channels and ditches that are not to be conveyed to the District, the minimum recommended width of a private drainage easement is the final top width of the channel or ditch plus ten (10) feet on each side, or as specified by the requirements of the applicable local jurisdiction.
- 6. For underground drainage components that are not to be conveyed to the District, the minimum recommended width of a private drainage easement is the twenty (20) feet, centered over the underground component.
- G. At the District's outfalls, erosion protection shall be provided based on the anticipated discharges and velocities.
- H. Measures to manage increases in runoff, if approved or required by the District based on the limitations of downstream drainage system and downstream flooding of existing buildings, may be on-site and/or off-site measures, including drainage improvements, detention or retention facilities, or contributions to measures planned by the District.

4.1 FLOOD HAZARD REDUCTION STANDARDS

The following standards are required for the preparation of drainage reports and drainage

plans for subdivision and development proposals that propose activities in flood hazard areas as defined by these regulations, unless otherwise approved by the District. These standards are in addition to those required by the appropriate jurisdiction:

A. Buildings shall have their lowest floor, including basement, elevated at least eighteen (18) inches above the higher of the following:

- 1. The flood of record based on records maintained by the District; or
- 2. The base flood elevation specified on Flood Insurance Rate Maps or in Flood Insurance Studies for flood hazard areas shown on Flood Insurance Rate Maps; or
- 3. The flood elevation determined by the District.
- B. For subdivisions that propose buildings in flood hazard areas, the drainage plans and the final plat shall show the base flood elevation and the minimum elevation of the lowest floor for each such building, as specified in paragraph A.

SECTION 5 OTHER CONDITIONS AND REQUIREMENTS

5.0 GENERAL APPROVALS

In granting any Approval pursuant to these regulations, the District may impose such additional conditions and requirements as may be reasonably necessary to protect public health, safety and welfare, to preserve and maintain the District's drainage system, to achieve substantial conformance with the intent of these regulations, and to prevent creation of nuisances or unreasonable hazards to persons and property.

SECTION 6 INSPECTION, ENFORCEMENT AND COMPLIANCE

6.0 INSPECTION BY THE COUNTY OR MUNICIPALITIES

Jefferson County or the municipality in which subdivision or development for which the drainage report and drainage plans have been approved by the District is located shall have such authority for inspection and enforcement as set forth in its respective ordinances and regulations.

6.1 INSPECTION BY THE DISTRICT

The District has the authority to inspect drainage construction and other work as set forth in this section:

- A. The Applicant/Owner, by signing the Concept Approval, grants free and unobstructed access during normal work hours to the District, the District's personnel, or the District's authorized representatives, for the purpose of inspection of the drainage construction and other work covered by the District's Approval.
- B. The Applicant/Owner or the designated engineer or contractor shall notify the District engineering staff at least forty-eight (48) hours prior to forming and pouring concrete for any portion of the approved work that will be conveyed to the District; the District engineering staff or other District personnel shall meet on site to inspect the proposed concrete work. Failure to request this inspection or failure to coordinate the inspection sufficiently in advance of pouring concrete may require additional work or evidence of compliance. This meeting does not relieve the Applicant/Owner or the designated engineer or contractor of the responsibility to comply with the Approval and the approved drainage plans.
- C. At any time the District engineering staff or District personnel may conduct an inspection.
- D. At any time the Applicant/Owner or the designated engineer or contractor may request that the District inspect, meet, or consult on the work covered by the Approval or other work determined to be necessary during the course of construction.
- E. The Applicant/Owner or the designated engineer or contractor shall notify the District when the work is completed; at the District's discretion, the District shall conduct a final inspection within one (1) month after receipt of such notification.

6.2 ENFORCEMENT BY THE DISTRICT

The District has the authority to enforce these regulations as set forth in this section.

- A. If the District determines that the work is not proceeding in conformance with the Approval, the District shall notify, in writing, the appropriate authority in the county or the municipality in which the subdivision or development is located.
- B. The District shall identify, in writing, any work that is not in substantial conformance with the Approval and the approved drainage plans; the work so identified shall be completed as approved or, if applicable, the Applicant/Owner or the designated engineer or contractor may propose alternate work; the District may require submission of written

documentation of such alternate work prior to approval. The District's discussion of alternate work that may resolve the nonconformance does not constitute approval of such alternate work; alternate work shall be approved in writing by the District.

C. The District may rescind Approvals if it determines that work is not in substantial conformance with the Approval and the approved drainage plans and the Applicant/Owner or designated engineer or contractor has failed to propose or to obtain the District's approval for alternate work; the District will not accept work for which an Approval has been rescinded.

D. The District will notify the appropriate municipality or Jefferson County if the District rescinds an Approval. Applicant/Owners are advised that the District's approval is required prior to acceptance, approval, or issuance of an occupancy certificate by the appropriate municipality or Jefferson County.

6.3 COMPLIANCE OF WORK CONVEYED TO THE DISTRICT

The District shall issue a notice of compliance and final acceptance of work to be conveyed to District ownership or easement, after:

- A. The District conducts a final inspection and determines that the work, including vegetative stabilization, is in substantial conformance with the Approval.
- B. The District accepts the instrument conveying the District's interest, which must be acceptable in form and content.
- C. The District executes the final plat showing the District's ownership and/or easements.

6.4 COMPLIANCE OF OTHER WORK

The District shall issue a notice of compliance of other work after the District conducts a final inspection and determines that the work is in substantial conformance with the Approval.