

PRELIMINARY DRAINAGE PLAN GUIDELINES

Preliminary Drainage Plans for all new construction or developments are required to show the following as a minimum:

1. Plan shall be titled "Preliminary Drainage Plan."
2. Firm name, address, phone number, and name of the engineer that prepared the plan and the owner.
3. Date on all submittals and date of all revisions, including month, day, and year.
4. Scale of drawing with a minimum scale of 1" = 100'.
5. Location or vicinity map drawn to a scale.
6. Benchmark and reference benchmark with datum and year of adjustment. All projects must be tied vertically and horizontally to a City of Pearland or Brazoria Drainage District No. 4 benchmark.
7. District notes in accordance with Section 5.H.
8. Copies of authorization documents, e.g., licenses, consent, etc., showing permission to cross privately held easements and fee strips.
9. Signature lines for the District superintendent and the District engineer in accordance with Section 4.D.
10. Contour lines at 0.5 foot intervals where slopes do not exceed 1.0% and 1 foot intervals for slopes exceeding 1.0% intervals covering the entire development and extended beyond the development boundaries at least two hundred (200) feet on all sides for development over five (5) acres, and fifty (50) feet on developments under five (5) acres. Two contours minimum are required.
11. Cross-section of existing and/or proposed detention facility, swales, and ditches.
12. Drainage area divides for the project area, including off-site areas, with peak runoff rates for each inlet, structure, or drainage area.
13. Location and dimensions of all existing and proposed drainage easements and fee strips. (See Section 9.)
14. Location of all drainage arteries adjacent to or crossing the development as determined by actual ground survey by the developer's surveyor including filing information and the

District Unit No. for the channel. Survey shall have been completed within the past year and shall show the stream alignment two hundred (200) feet upstream and downstream of development. This shall include identifying the static water level (if any).

15. Detention calculations in accordance with the applicable provisions of Appendix A, including volumetric calculations of detention provided. Calculations shall include the allowable release rate and restrictor sizing analysis. The detention service area, rate of detention, detention required, and detention provided shall be shown on the plans.
16. Drainage area map of receiving system if discharging to existing storm sewer system. Drainage area of receiving channel if discharging to open ditch or stream. Provide calculations to prove available capacity.
17. Limits of the floodway and the 100-year floodplain scaled from the current FIRM. If none exists within the project limits, add a note stating that the entire project is outside of the floodplain.
18. Location of all existing and proposed buildings, structures, paving or other impermeable cover within the site or development.
19. Location of all planned drainage improvements proposed for moving runoff water from the development to the drainage artery and the point(s) of entry into the drainage artery.
20. Points at which structures or pipelines will cross any and all drainage ditches, streams, etc., within the development.
21. Location of structures or other physical features on the development area to provide orientation as required during field inspection of the site.
22. Location of all existing drainage structures, pipelines and other underground features on the property, and adjacent easements and fee strips.
23. Names of adjacent property owners.
24. Copy of application to Corps of Engineers requesting approval of discharge if connecting to one (1) of the seven (7) major drainage arteries.
25. Copy of request for a TxDOT Permit if applicable.
26. Plan shall contain Engineer's interim review stamp.

***** PLEASE REFER TO SECTION 4 PAGES 12-14 OF THE RULES, REGULATIONS, & GUIDELINES DOCUMENT *****