Individual Single Family Lot Residential Development
Engineering Plans Checklist
Revised: October 30, 2008

This checklist is intended to assist the developer of individual or a small number (four or less) of single-family home lots with requirements for engineering plan submittal. Closely following this checklist will help minimize the number of comments returned and speed the overall process of engineering plan review. Please read the ***Engineering Plan Submittal Requirements*** thoroughly for more detailed explanation of requirements listed below.

It is strongly suggested that a meeting be held with the City Civil Engineer prior to purchasing a lot for building a home and prior to hiring an engineer.

Prior to Submission please research and have the following questions answered:

1. Does the lot have existing water and sewer services that are relatively new (less than 20-year old) and could be used for the new home? – Contact Utilities Division to verify – Engineering plans are required If new water or sanitary sewer services are needed.
2. Does the street in front of the lot have curb and gutter or no curb and gutter (only ditches)? Engineering plans are required if there is a ditch in front of the house and a culvert is needed.
3. Is there significant off-site storm water directed to the lot? Engineering plans are required if there is significant off-site storm water runoff draining through or directed toward the site.
4. Is the lot in or adjacent to a floodplain? Engineering plans will be required if the site is adjacent to or contains a significant drainage feature such as a ditch, creek, detention pond or floodplain.
5. Does the area have a history of flooding problems as recorded in the Engineering Division complaint database? Engineering plans are required if the area has a history of flooding problems.
6. Does the lot need platting?

Items that <u>MUST</u> be completed and submitted for Engineering Division to accept plan submittal:

- ☐ Letter of transmittal listing everything included in submittal
- ☐ Engineering Plan Submittal Application form
- ☐ Two sets of Engineering Plans (size 22” x 34”) – see below for typical requirements
- ☐ Engineering Plan Submittal Application Review Fee

Engineering Plan Set Will Generally Include the Following Sheets:
(Read *Engineering Plan Submission Requirements* and *Engineering Plan Checklist* for detailed requirements)

- ☐ Cover Sheet
- ☐ Dimensional Control & Paving (usually on the same sheet)
- ☐ Grading Plan
- ☐ Drainage Area Map
- ☐ Drainage Plan
- ☐ Utility Plan – Show water and sewer services to City mains with water meter location and size
- ☐ Appropriate Standard Details

Grading, Drainage Area Map & Drainage Plans are generally the most difficult portion of the engineering plans. These plans must include/address the following:

- ☐ Provide side yard swales and drainage around house with spot elevations and drainage direction arrows (lot-to-lot drainage is generally prohibited)
- ☐ Show the Minimum Finish floor elevation – see Drainage Ordinance for requirements
- ☐ Show the topography for site and at least 50 feet outside of site
- ☐ Show Benchmarks – Elevation and description of benchmark location
- ☐ Show adjacent drives, adjacent ditches, adjacent homes, adjacent culverts
- ☐ If a culvert is required – Hydraulic calculations, pipe embedment details, precast SET headwalls & profile
- ☐ Drainage Area Map – show contributing off-site drainage to site and bar-ditch
- ☐ Hydraulic Study / Flood Study Information –If adjacent to a Drainage Feature or in a floodplain