

CITY OF FAIRVIEW

BOARD OF COMMISSIONERS WORKSESSION MINUTES

APRIL 21, 2022

Debby Rainey, Mayor
Lisa Anderson, Vice Mayor
Brandon Butler, Commissioner
Rod Dawson, Commissioner
Scott Lucas, Commissioner
Scott Collins, City Manager
Tim Potter, City Attorney
Brandy Johnson, City Recorder

BOC Present: Anderson, Butler, Dawson (entered at 5:20), Rainey, Lucas

PC Present: Anderson, McDonald, Senyard (also Butler and Rainey of the BOC)

Staff Present: Collins, Johnson, Totty, Sullivan, Ross, Eggimann, Paisley

1. Call to Order by Mayor Rainey at 5:02 p.m.

2. Process & Overview of Stormwater Calculations, Mark Lee PE, SEC, Inc.

- 2 main parts to understanding stormwater calculations: hydrology (determining how much flow) and hydraulics (designing infrastructure to handle the flow)
- 3 basic levels to design for: very frequent 1-year storm event, moderately frequent 10-year storm event, rarely frequent 100-year storm event
- Hydrology approaches: peak flow and hydrograph methods
- Hydrology considerations: watershed area, soil type (ranges from very well drained to rocky), ground cover/land use (developed/raw, residential/commercial/agricultural, treed/pastures, etc.), ground slope, time of concentration (time watershed flow begins to contribute to the outflow = peak), design storm (statistical data used for water quality designs under design flows set by local governments)
- Hydraulic design: inlets, ditches, culverts including catch basins, curb inlets, pipe culvert, box culvert and detention ponds
- Catch basins and curb inlet designs – is the inlet on a slope or a sag
- Ditch and swale (shallow ditch) designs – keep average velocity below 5.0 fps so it doesn't become too erosive
- Pipe and box culvert designs – considers size, shape, slope, roughness in determining hydraulic calculations
- Detention pond designs – perfect design would match the predevelopment runoff to peak control detention but the calculations to get there are trial and error, typically use 100-year storm calcs to design for overflow/spillway

3. Drainage Law and the Responsibility of the Design Engineer/Local Government, John Chlarson PE, MTAS Public Works Consultant

- Drainage law in Tennessee governed by natural flow rule (water has a natural easement along its natural paths) and lower property owners are required to accept water that would naturally flow from the upper landowner
- Landowner cannot: impede the natural flow of water, increase the natural volume of water, increase the natural velocity of water
- Local government reviews the designs for compliance with design standards and codes
- Design engineer holds the ultimate responsibility for the design
- Government entities are immune from suits relating to public improvements (TCA 29-20-204, 205)
- City has no responsibility for drainage problems among private landowners unless the city has violated the natural flow rule

- It is generally held that city streets include also the ditches alongside of them. Municipalities have police control over their streets and the obligation to prevent the obstruction of their streets. If a homeowner doesn't maintain their ditch, the city may take legal action to do so.
- Public funds can only be used for public purposes so the city may not perform work to benefit individual property owners.

6. Adjournment by Mayor Rainey at 6:45 p.m.

Brandy Johnson, City Recorder