

Summary of City of Hudson Engineering Standards Update

November, 2024

Summary of Changes for Section 4 – Storm Collection

1. Increased design capacity requirements for new ditches, culverts and bridges.
2. Clarified design requirements for new storm pipes and ditches.
3. Other minor text changes or clarifications.

Summary of Changes for Section 5 – Storm Water Management

1. Added requirement that designer shall identify storm water management storage volumes necessary to withhold a 100-year post developed peak discharge to the 10-year pre-development discharge. Prior to this, the 100-year post-development discharge was permitted to discharge at the 100-year pre-development rate.

Note: The standards already require that the design of storm water management ponds withhold the 25-year post-developed peak discharge to the 2-year pre-developed discharge rate. The standards also state that the City may require the use of the 1-year pre-developed rate as the limiting storm.

2. Identified the maximum, pre-developed Curve Number (CN) used for runoff calculations. The CN value is parameter indicating the runoff response characteristic of a drainage area related to land use and soil type. By indicating the maximum, pre-development CN value, calculations for redevelopment sites, where no stormwater management is present, will be required to design future storm water storage facilities prior to development (roofs, parking lots, etc) generating higher storage volumes, alleviate flooding of downstream properties.
3. Clarified the methodology to be used to identify storm water storage criteria as alternate method may generate undersized storage requirements.
4. Required a 20% increase in National Oceanic Atmospheric Administration (NOAA) Atlas 14 rainfall intensity data to account for more frequent and extreme rainfall events. The NOAA Atlas data is used to predict future rainfall events and storm water calculations.
5. Required standard table requirements for storm water management calculation summaries to reduce staff time in reviewing new stormwater management designs.
6. Other minor text changes or clarifications.