CITY OF DEARBORN

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
PLAN REVIEW COMMENTS

Storm water detention requirements for projects of less than one-acre of earth disturbance & not belonging to a larger common plan of development

Detain 1 inch of rainfall on the property's whole area for 24 hours. So the detention volume is:
V in cft = 1 inch (1 ft / 12 in) (43560 sft / 1 ac) (A in ac * C adjustment)
V in cft = 3630 * A * C
This shall accommodate for the storm water built-up in the pipes (as long as the pipes are properly maintained) due to restricting the allowable peak discharge into the City's sewer system to 0.5 cfs/acre; note that the flow restriction shall be fulfilled by designing a flow restrictor (orifice).
Note that: The proposed storm water drainage pipes could be utilized to fulfill this detention requirement; as long as, these pipes are designed to have adequate flow capacity (size and slope) based on 10-year storm intensity equations found in the 2021 Wayne County Manual and to store the required detention volume. However, a separate detention system with a water quality measure at the inlet is recommended to be utilized for easier maintenance of the proposed storm water management system.
Note that: The proposed storm water management system must be shown on the site plan along with calculations, profile, details & proposed/ existing tap into the City's sewer system.