



## OFFICE OF THE CITY ENGINEER STORM DETENTION REQUIREMENTS FREQUENTLY ASKED QUESTIONS

This guide answers questions about the [supplemental storm detention requirements](#) in Chapter 9 of the Infrastructure Design Manual (IDM). The new requirements go into effect on March 31, 2021.

### SUBMITTAL REQUIREMENTS

**Will sitework plan submittal be enough to grandfather the detention requirements? What types of phased construction would be grandfather in the old detention requirements?**

A “sitework plan” or “drainage plan for plat” submitted prior to March 31, 2021, is not enough for using the older rate. The City will need to receive a substantially complete plan. Submittal should include, but is not limited to:

- Letters of availability (Wastewater and Water Capacity Reservation Letter) – WCR
- Completed Storm Water Information Form
- Calculation of Impervious Surface – existing and proposed
- Mitigation Plan (if it is within 100-year or 500-year floodplain)
- Site Plan (including existing and proposed buildings, parking lots, grading permits, sanitary sewer, water, and storm connections)
- Grading Permits
- Design of water, wastewater, storm, and street pavement connections (if any) to the City system.

### TRACT SIZE

**For projects in the City limits that are out-falling into a Harris County Flood Control District (HCFCD) channel, do we follow HCFCD detention requirements (0.65 AC-FT/AC) or the new City of Houston criteria?**

A project site of 20 acres or less is required to use the detention rate curve chart, where the minimum detention rate is 0.75 ac-ft/ac.

A project site larger than 20 acres that discharges DIRECTLY into the HCFCD requires HCFCD review and approval.

**For partial redevelopment on tracts 20 acres or more, if an owner wants to add 15,000 sq. ft. of private access road, is modeling required?**

Modeling is not required for a small amount added into the existing development.

If existing property is 20 acres, and more property is added to it to become larger than 20 acres (after March 31, 2021), then the curve must be utilized on the additional property. The percent impervious surface will define the detention rate. Refer to section 3e of the [Ch. 9 Supplement](#) for the curve.

**Will the City revise the IDM to avoid subdividing larger tracts into small tracts to reduce detention requirement?**

Yes, the City will add the following sentence to section 9.2.01.H.3.b SFR less than 7500 sq ft and section 9.2.01.H.3.c SFR less than 7500 sq ft with shared driveway on page 9-26 of IDM Ch. 9, which will be effective March 31, 2021:

*“Subdividing of larger tracts into smaller tracts to reduce stormwater detention requirements will not be permitted.”*

## STORM DETENTION REQUIREMENTS FREQUENTLY ASKED QUESTIONS

### **SINGLE-FAMILY RESIDENTIAL (SFR)**

**Will the City consider removing the SFR detention requirement to align more closely with the Harris County requirements? By when does the COH plan to implement the Fee in Lieu of Detention?**

The City is working on a Fee in lieu of (FILO) program for single-family development, redevelopment and structure additions. A timeline for this program is not yet defined.

**In Section 9.2.01.H.3.b/c, the threshold for small single-family lots has been reduced from 15,000 sf to 7,500 sf. Is it the City's intention to treat all single family lots with area greater than 7,500 sf the same as commercial developments? Will all disturbed areas resulting in impervious cover require the addition of detention storage? Does this include repair and replacement of existing driveways and patio areas?**

Until a Fee In Lieu Of (FILO) program is established for SFR greater than 7,500 sq. ft., these lots will be treated the same as commercial developments.

**What are the requirements for submitting a drainage plan for storm review? The plans do not need to be engineered sealed but must be detailed enough to show the drainage.**

The City requires a drainage plan to show the size of project, impervious surface, existing and proposed elevation, and flow direction, which most people call it as "drainage plans". The plans do not need to be engineered sealed but must be detailed enough to show the drainage.

**If a project has been permitted, but the owner decides to modify the permit to add more lot coverage (new pool, additional foundation/structure) after March 31, will the new work be managed under the old detention rates or the new rates for the additional work? For example, a client has a residential permit for a 9,000 SF property and wants to modify the permit to add a pool. Currently, they would only be required to provide detention for lot coverage in excess of 65%. Will they be required to provide detention for the entire additional lot coverage after March 31, or only be required to detain coverage in excess of 65% under the rules in effect at the time of the original/current construction permit?**

The new work/scope (to add more lot coverage) must use the new established detention rates.

### **MASTER PLANS**

**A master plan might not have exact acreage disturbed/impervious surface. Do we make sure the entire site drains to the detention pond or use another method?**

If the subdivision master plan provided detention is based on the Atlas 14 rainfall data, the City will allow development to proceed under the approved Master Plan for up to 5 years, provided development is continuous.

If the Master Plan detention is not based on the Atlas rainfall data, then the delta of the detention requirement will have to be provided by the property owner.

## STORM DETENTION REQUIREMENTS FREQUENTLY ASKED QUESTIONS

### **CRITERIA**

If a driveway or parking lot is being maintained or replaced, but the existing stormwater collection, conveyance or runoff conditions are not modified in any way, does this count as development? Now this not only applies to commercial development parking and driveway areas, but also to residential driveways and sidewalks. It does not seem to be consistent with the prior intent of Chapter 9 to require detention if the site is not redeveloped or altered.

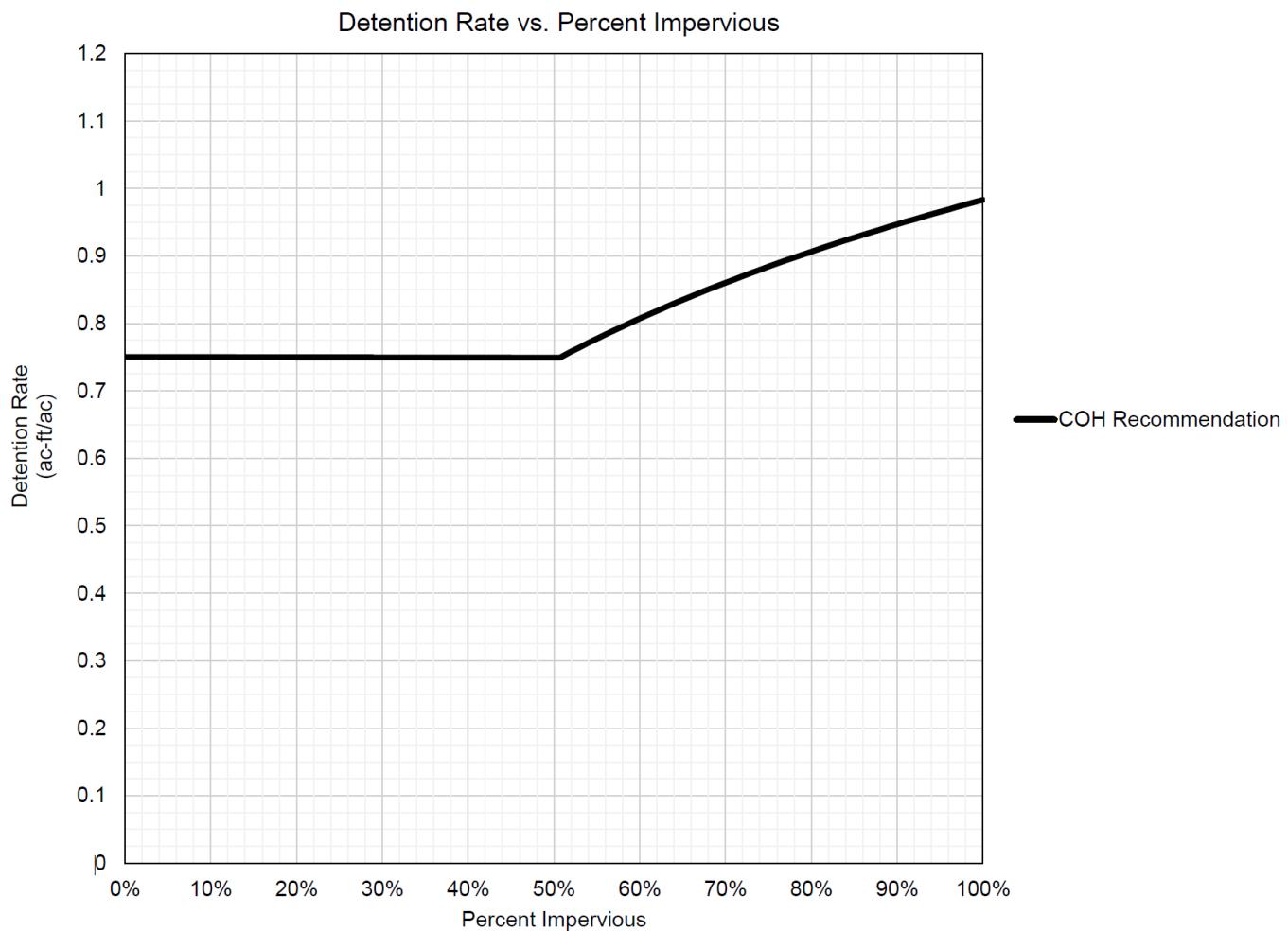
Mitigating detention is not required for maintenance projects where the activity does not alter existing storm drainage infrastructure, amount of impervious cover, or paving grade.

**Can the Detention Rate vs. Percent Impervious graph also be provided in a tabular or equation form?  
Above 50% impervious, the detention recommendation line appears to be a curve, not a line.**

Yes, a table and larger version of curve is provided below.

<b>Proposed Percent Impervious</b>	<b>Minimum Detention Rate acre-foot/acre</b>
0% - 51%	0.75
55%	0.78
60%	0.81
65%	0.83
70%	0.86
75%	0.88
80%	0.91
85%	0.93
90%	0.95
95%	0.97
100%	0.98

## STORM DETENTION REQUIREMENTS FREQUENTLY ASKED QUESTIONS



**Will the City clarify what is intended to qualify as a change in existing stormwater collection, conveyance, or runoff conditions in Section 9.1.04.F.3 (Site Modifications) Case 2?**

This issue will not be revisited.

**Will the City re-evaluate the impervious definition of pools, dry detention basins, etc.?**

No, this issue will not be revisited.

**Will these detention requirements apply in the extra-territorial jurisdiction (ETJ)?**

Yes, these apply in the ETJ.

## STORM DETENTION REQUIREMENTS FREQUENTLY ASKED QUESTIONS

### **GREEN INFRASTRUCTURE**

#### **Will the City waive the soils report pre-requisite?**

For a single-family residential driveway project, the soils report can be waived if paver/permeable pavement is used.

For a commercial driveway or parking lot project, the soils report cannot be waived.

#### **Will the City consider the use of rain barrels to mitigate detention?**

Yes, rain barrels may be used to mitigate detention for single-family residences. A storm water quality (SWQ) permit will be required.