

# J&A Comments

Item	Document	Section No.	Section Subject	City Revision	J&A Comment	City Comment
1	DCM	2.3	Runoff Calculation Methods	No minimum SCS, but Rational allowed to 200 acres.	If both Rational Method and SCS have minimum acreage of 0 acres, it should be noted that either can be used at the Engineer's Discretion, up to 200 acres.	Minimum for SCS method will be 0. Since the minimum acreage for both methods is 0 acres, it is implied that the engineer can use either method without concurrence or approval by the City.
2	DCM	3.3.1.C	Inlet Design Flow and Location	If a street/roadway is designed to drain towards a "T" intersection and intersecting street is flowing at 70% or greater street capacity as described in Section 3.2.2 above, then inlets must be placed before the intersection to intercept all of the upstream street discharge.	"Intercept" 100% of flows at T intersection or XX%? Need more clarification from the city. <b>How about "Intercept upstream discharge so that the combined flows do not exceed the receiving street capacity (for Q25)"</b>	This sentence will be revised to: "At 'T' intersection locations, storm sewer systems must be provided to intercept runoff in the streets such that the depth of flow at the downstream curb return of the 'T' intersection does not exceed 70% of the street capacity as described in Section 3.2.2 above." The remainder of the paragraph will not be changed.  The addition of the FHWA methodology was added in response to a question received during the public meetings in 2021. We are not asking for additional calculations. The FHWA method calculates inlet interception based on the longitudinal and cross slopes of the street. If FHWA is used for storm sewer inlet design, then the OKC Standard inlet sizes listed in Table 3-1 will be used for the design.
3	DCM	3.3.2 Extra	Curb Inlets (Design 2 Inlets) - Design and Construction Standards	FHWA Inlet capacity methodology will be acceptable provided that the calculated inlet capacities do not exceed those listed in Table 3-1.	Provide calculations for lower capacities? Wouldn't engineers just want to use those listed in Table 3-1 instead of providing additional calculations?	
6	DCM	4.3	Bridge, Culverts, and Other Special Structures - Design Standards	Culvert slopes less than 0.50% must be approved by the City Engineer.	City Engineer approval should only be needed for pipes smaller than a specified size. There are several cases where RCBs can't be designed at 0.5%. Sizing should be based on flows/velocities.	This section states that a minimum culvert slope of 0.50% must be used UNLESS the site conditions or slope of the natural channel requires the use of a flatter slope. If that is the case, culvert slopes less than 0.50% must be approved by the City Engineer and have minimum 2.5 fps velocity.
7	DCM	4.4.1	Erosion Control and Scour - Maximum Shear Stress	A detailed designed of channel protection based on "Design of Roadside Channels with Flexible Linings" (FHWA) or "Hydraulic Design of Energy Dissipators fo Culverts and Channels" (USDOT) shall be provided.	Need more clarification on these "detailed studies". What is Table 4-1 referenced from?	The engineer will be required to provide calculations to show maximum shear stress isn't exceeded based on Tables 4-1 and 4-2.
8	DCM	6.4	Design and Construction of Detention Ponds - Outlet Configuration	Grass or sod overflow spillways will not be allowed.	Need to include in this section about compounded outfalls. Barry has commented previously that the maximum allowable pipe size outfall is 18", but that introduces higher chances of clogging and slopes are limited. This should be based on flows/velocities, or up-stream drainage area.	There is a sentence above this paragraph that states outlet control structures can be compound outfalls -- weirs, culverts standpipes, or any combination thereof..
9	DCM	6.5	Underground Detention	4. Outflow must be able to drain directly into an existing storm facility without mechanical assistance.	This seems shortsighted for downtown development.	When the City started accepting underground detention almost 10 years ago this was a requirement
10	Code	16-5.2	Responsibility Improvements - Stormwater Improvements	Definitions of Public vs. Private Drainage based on Public vs. Private Streets. PV subject to cursory review. Public and Private storm sewers must be deisgned to public requirements. All private storm sewer is inspected by Public Works Field Services.	City should maintain public sewer under public road even if proposed private storm sewer is connecting to public. Property owner shouldn't have to pay out of pocket for road replacement if sewer fails.	The City does maintain public storm sewer under public streets. The property owner or HOA is required to maintain private storm sewer under private streets.
11	Code	16.16.1.m.iv	FPAT Requirements	An exception to Subsection 1.j through 1.l above may be made for oil and gas drilling operations...provided the following special requirements are met...	Does this include gas facilities that are non-habitable?	1.m.ii covers permanent structures or appurtenances