

TECHNICAL INTERPRETATION

Date: October 18, 2012

To: DuPage County Website for application within DuPage County

From: Anthony J. Charlton, P.E., Director, Stormwater Management

Re: Accessory Structure Flood Openings

Issue: An application was received for an addition to an existing detached garage that is an accessory structure for an existing single-family residential property within a partial waiver community. The existing floor is above the base flood elevation (BFE) and below the flood protection elevation (FPE). The proposed floor of the addition will match the existing floor elevation based upon fill in the flood plain. The DuPage County Countywide Stormwater and Flood Plain Ordinance (CSFPO) effective April 25, 2012 requires flood openings to be installed below the FPE and sized in accordance with FEMA Technical Bulletin 1 (TB1). The flood openings could not meet FEMA TB1 for sizing the openings if they are constructed above the BFE.

Ordinance Section: Article X, Section 15-81.B.7.d of the CSFPO effective April 25, 2012 states: “The walls of the accessory structure shall include openings to allow floodwater to enter the structure from the adjacent grade to the FPE. For a detached garage, this applies to three sides of the garage. Floodwater openings should be sized according to FEMA Technical Bulletin 1.”

Ordinance Sub-Sections: Article X, Section 15-81.B.7 “Accessory structures such as detached garages and sheds may be constructed within a SFHA if they meet all of the following criteria:”

Article X, Section 15-80.F “The Flood Protection Elevation (FPE) is the BFE plus one foot of freeboard.”

Applicable History: The CSFPO adopted April 24, 2012, effective April 25, 2012, includes Section 15-81.B.7 to provide relief from regulations for accessory structures such as sheds and detached garages in regard to elevation requirements. All prior versions of the CSFPO would regulate these accessory structures as buildings, and would subsequently require that the floor be elevated to one (1) foot above the BFE.

Discussion:

FEMA TB1 states that “Only those portions of openings that are below the BFE can be counted towards the required net open area.” If the floor of the garage is above the BFE after adequately filling in the flood plain, then Section 15-87.B.7.d cannot be met for flood openings in regard to location and sizing. If this provision is applied to all accessory structures, then an applicant would be required to lower the finished floor elevation below the BFE in order to be given credit for flood openings in accordance with TB1. If this provision is only applied to accessory structures with a finished floor elevation below the BFE, then a shed or garage in the flood plain may be elevated above the BFE, but below the FPE, and would not need to provide flood openings, and may still be certified under Section 15-81.B.7 and utilize the relief for accessory structures in the CSFPO.

Director Interpretation:

The Director interprets that Section 15-81.B.7.d should apply to all accessory structures until such time that the CSFPO is amended to state otherwise. When the finished floor elevation of a detached garage or shed is below the BFE, TB1 and Section 15-81.B.7.d can both be satisfied with flood openings located below the BFE sized in accordance with TB1. When the accessory structure has a finished floor elevation above the BFE, but below the FPE, the applicant must install flood openings with a net area below the FPE equivalent to the net area that TB1 would require for accessory structures built below the BFE. The applicant shall meet all the additional provisions under 15-81.B.7 in order to acquire a certification. All materials constructed below the FPE shall be of flood resistant materials per the building protection standards in the CSFPO.