



Harral and Stevenson
Civil Engineering and Surveying

April 14, 2022

Administrator, DSOD
Attn: Greg Fedner, P.E.
Section Manager, Plan Review Section
1250 Fairwood Avenue
Columbus, OH 43206

Dear Mr. Fedner:

I am writing to apply for a Type II Non-Stream Protection Variance. This variance application is associated with CC-19521, which is currently under review. As requested in the guidance document I have provided a summary of the relevant project information below.

CC-19521, a.k.a. Trevco Business Center Phase 2, is located at 4281 Hamilton Square Blvd, Groveport, OH 43125. The site is identified as parcel number 010-215431-00 on the Franklin County Auditor's website. The entire site is 7.65 acres and in Phase 2 we propose approximately 3 acres of disturbance.

Sincerely,

Jason W. Harral, P. E. 71458

Type II Non-Stream Protection Variance Application

Section 1

In the preliminary review by the City, we received the following comment, “*BFE appears to be approximately 745' NAVD. The downstream outlet of your basin would be subject to tailwater during the 100-yr flood on Blacklick Creek. Per SWDM 3.1.7 basin volume below the 100-yr flood elevation shall not be considered as storage capacity to meet the site detention requirements*”. Application of the SWDM 3.1.7 will deprive the Owner of reasonable use of the land and loss of revenue from development of said land, resulting in significant hardship. Due to this fact, we are requesting a variance from requirements of Section 3.1.7 of the City of Columbus Stormwater Drainage Manual.

The existing site was acquired by the current Owner in 2018. Phase 1 of development began the same year under the previous edition of the City of Columbus Stormwater Drainage Manual (SWDM). The Owner's decision to invest in the property was informed by the overall site planning at the time. Site planning that was designed to comply with SWDM (2012 edition) requirements at the time. The changes to section 3.1 in the updated SWDM (2021 edition) between development phases hinder the financial viability of developing the site.

The financial hardship and loss of reasonable use of land faced by the Owner under the application of 3.1.7 results from the conditions of the site and surrounding area. Stormwater basins exist in the surrounding area below the base flood elevation of 745.00'. According to the Franklin County Auditor's Map, nearby parcels 010-285253-00 and 010-264981 are both in or adjacent to the flood plain and providing stormwater detention below the base flood elevation. Like the surrounding parcels, the existing elevations on our site limit reasonable detention solutions above the base flood elevation. As demonstrated below, in Section 2, providing detention above the base flood elevation will require either, a significant amount of fill to raise the entire site, or enlarging the basin footprint and having large shallow basin. Raising the site will result in significant construction costs and the loss of a planned building. On the other hand, a large shallow basin will result in the loss of multiple planned buildings. Both solutions result in significant financial hardship to the Owner through construction cost and/or loss of future revenue.

If the variance is granted, the preferred development plan will have the following stormwater impacts. The dry detention basin will have a bottom elevation of 741.00', a top berm elevation of 746.00', an emergency overflow at 745.00', and a total volume of ~43,262 ft³ below the emergency overflow. Per LOMA (Case: 21-05-3868A, attached) the minimum existing elevation in the planned basin area is 745.60'. Therefore, the entirety of the proposed detention volume will be new volume, created by excavation. The proposed basin will also be capable of containing the entire 100 year storm event volume (42,934 ft³). Therefore, in the event of a tailwater at elevation 745', the basin will be able to completely contain the necessary volume in order to not raise the existing base flood elevation for the surrounding area. Under these flood conditions it is uncertain whether the basin will drain in the required timeframe. Otherwise, under normal circumstances the basin will provide stormwater quality and quantity control in compliance with the current City of Columbus and Ohio EPA requirements.

Section 2

In the attached documents I have provided the three requested development alternatives and accompanying narratives. Each alternative is summarized below.

No Impact - This solution will fully comply with SWDM 3.1.7 by raising the entire basin above the base flood elevation. With this solution stormwater quality and quantity control will be regulated by the basin in full compliance with the current City of Columbus and Ohio EPA requirements. However, raising the site by approximately 4' will be a significant construction cost and will reduce the overall usability of the site. We estimate that raising the site as proposed will cost the Owner approximately \$250,000 in earth work alone. Furthermore, the transitional slope needed will result in an unbuildable area between the phases and the loss of the second largest planned building and future revenue.

Minimal Impact – This solution will not fully comply with 3.1.7, however it will reduce the storage volume below the base flood elevation (745.00'). This will be accomplished by raising the site approximately 0.50' above the preferred plan and utilizing a large shallow basin. Under this solution stormwater quality and quantity will be controlled in accordance with the current City of Columbus and Ohio EPA requirements with the exception of some storage volume being below base flood elevation. While this solution will not result in the same significant construction costs that the No Impact plan will, it will require the Owner to forfeit two planned buildings and significant future revenue streams.

Preferred Development Plan – As discussed above, the preferred development plan proposes building a basin that is capable of storing the entire 100 year storm hydrograph volume in the basin, and creating this basin volume through excavation so as to not impact the base flood elevation of the surrounding area. Furthermore, under normal circumstances the basin will provide stormwater quality and quantity control in compliance with the current City of Columbus and Ohio EPA requirements. This will allow the Owner to develop the property as initially planned, while also preventing any additional flooding of the surrounding area.



Jason W. Harral, P. E. 71458

