

TRACIE DAVIES  
Director

July 23, 2018

Steve Schmidt, P.E.  
Project Manager  
City of Columbus, Department of Public Service  
50 West Gay Street  
Columbus, OH 43215

RE: Stormwater Drainage Manual (SWDM) Type III Variance Request – SR 315 & North Broadway Interchange Improvements

Mr. Schmidt:

This letter is in response to the subject variance request to SWDM Section 1.3 Stream Corridor Protection Zone. An estimated 425 ft. of an unnamed tributary to Olentangy River and its associated Stream Corridor Protection Zone will be impacted by the proposed work. More specifically, an estimated 412 ft. of the unnamed stream in the southbound SR 315 Right of Way (R/W) will need to be relocated in order to accommodate a westerly shift in the alignment of the existing southbound SR 315 exit Ramp to Olentangy River Road. This change is necessary to accommodate the geometry of the new direct exit ramp to North Broadway in compliance with safety requirements and ODOT standards. Additionally, Rock Channel Protection (RCP) will need to be placed in an estimated 13 ft. of this same stream in the northbound SR 315 R/W for erosion protection and energy dissipation at the outlets of existing twin 60-inch culverts under SR 315. Total existing SCPZ impacts are estimated to be 0.55 Ac.

The SWDM Variance Type III Request was submitted to the City on April 16, 2018. The Variance Review Committee met and reviewed the subject Variance Request on May 16, 2018.

As part of the Variance review process, the subject Variance request was posted on the City website on May 2, 2018 to solicit public comments. A letter detailing comments and questions from Friends of Lower Olentangy Watershed (FLOW) was received on May 18, 2018.

The submitted Variance Request was found to be in compliance with the SWDM Stream Protection Type III Variance Application requirements. Three alternatives were considered within the application – Full Compliance (no impact), Minimal Impact and the Preferred Alternative.

The Full Compliance (no impact) Alternative would require keeping the ramp at its present alignment. That, in turn, would require altering the curvature of the ramp, lowering its design speed from 40 (preferred) to 35 mph, and construction of retaining walls/concrete barriers to avoid impacts to the SCPZ. Other geometry changes necessitated by this alignment would also require a pump station and an offset intersection at North Broadway, making direct alignment of the exit ramp with the proposed new entrance road to OhioHealth HQ impossible. Significant traffic safety and geometric deficiencies resulting from the No Impact Alternative would not be acceptable to ODOT. Therefore, due to these considerations, this Alternative was found to be unfeasible.

Under the Minimal Impact Alternative, several options were reviewed to minimize the impact to the affected stream and its SCPZ. A retaining wall positioned between the proposed ramp and the stream was considered as well as a



bridge structure that would carry the ramp over the encroachment area. Both options would invariably introduce a safety hazard not present under the Preferred Alternative, and make the design non-compliant with ODOT standards. The retaining wall option would also introduce an HSSD deficiency which would require reduction of the design speed from the preferred 40 mph to 33 mph. Likewise, a bridge option would require a concrete parapet which would compromise an HSSD along the ramp. Both options would also unavoidably encroach upon the SCPZ due to construction requirements. The resulting SCPZ impacts, while less significant than under the Preferred Alternative, would still require off-site mitigation. Due to these considerations, the Minimal Impact Alternative was also found to be unfeasible.

The Preferred Alternative consists of a single lane exit ramp diverging from SR 315 southbound that both maintains the existing exit to Olentangy River Road and accommodates the proposed new exit ramp to North Broadway. The proposed ramp is shifted slightly to the west to accommodate the new direct exit ramp to North Broadway in a configuration that meets minimum ODOT curvature, design speed and HSSD standards. The Preferred Alternative is the only feasible alternative of those considered within the Variance application compliant with ODOT minimum safety standards.

The applicant has also submitted a proposed mitigation plan within the Variance request. All proposed stream channel impacts, and the majority of riparian SCPZ impacts are proposed to be mitigated on-site. Proposed off-site riparian SCPZ mitigation consists of invasive species removal and revegetation activities in the Olentangy River riparian corridor along the Olentangy Trail between West 2nd and West 1st Avenues. Proposed off-site riparian SCPZ mitigation will occur at an approximate acreage ratio of 1:9, significantly exceeding the SWDM-required minimum ratio of 1:2.

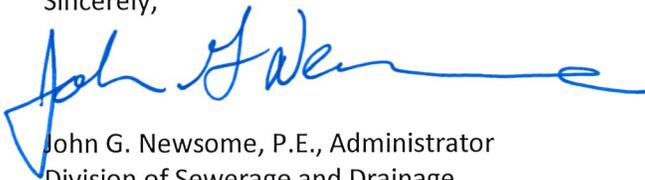
Upon reviewing and discussing the application and other supportive documentation submitted by the applicant's consultant, the Variance Review Committee accepts the argument that the existing site conditions make the Preferred Alternative the only feasible alternative compliant with ODOT requirements for improvements within ODOT's Limited Access Right of Way (LA R/W).

In light of the above, the subject Variance Request (Preferred Alternative) is conditionally approved contingent upon the following stipulations:

- Mitigation construction plans will need to be submitted to the City in a CC-Plan format upon the finalization of the proposed mitigation plan.
- Storm CC-Plans and Stormwater Management Report to be submitted and approved by the City

No approval contained herein relieves or absolves the applicant of any provisions of applicable state or federal laws. Please contact Private Development Section Manager Greg Fedner, P.E. at 614-645-8072 with any questions.

Sincerely,



John G. Newsome, P.E., Administrator  
Division of Sewerage and Drainage

pc: Variance Review Committee  
File