

June 18, 2015

Steve Schooler
Director of Construction
J.R. Anderson Real Estate
Rookwood Tower
3805 Edwards Road, #700
Cincinnati, OH 45209



Re: Grand Traverse Town Center
VGT-Phase 1 SUP#2009-1P
Storm Water Riser Height Waiver

Dear Steve,

As you know the review of the VGT Final Stormwater Collection and Treatment System has been determined to be complete and satisfactory. However, during the June 8, 2015 Planning Commission meeting it was pointed out that Gosling Czubak Engineer Robert Verschaeve's report states that the outlet risers in both basins are 36 inches in diameter, but that the Acme Stormwater Ordinance requires them to be 48 inches in diameter.

According to Mr. Verschaeve the purpose of having a 48 inch diameter riser is for cleaning of the riser. As stated in his report and attached memo, it is his opinion that a 36 inch riser is acceptable. Nonetheless, the 36 inch diameter riser is a technical violation of the Ordinance. Therefore, as we discussed it is my belief that a Waiver is appropriate in this case. Section 11 of the Stormwater Ordinance allows for a waiver from ordinance requirements upon a finding that both of the following are met:

- A. The application of the ordinance provisions will present or cause practical difficulties for a development or development site; provided, however, that practical difficulties shall not include the need for the developer to incur additional reasonable expenses in order to comply with the ordinance; and
- B. The granting of the relief requested will not substantially prevent nor result in less effective management of storm water runoff.

I have found that both A and B are met in this case. There will be practical difficulties for the development site if VGT is required to remove the current riser pipe and replace it. As demonstrated over the last year the VGT development site is mostly clay which has caused

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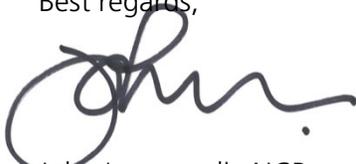
 *initiative*

runoff into Acme Creek and resulted in an MDEQ ACO. Neither Acme Township nor the VGT want any additional impact to Acme Creek. Unnecessary construction activity would open up the clay laden site and risk runoff containing sediment discharging into Acme Creek if there were to be a storm event. Furthermore, the MDEQ has required, and Acme Township agrees, that the VGT site should be vegetated to the maximum extent possible within the shortest time possible. Re-opening the basins to install new risers would set back the site vegetation which could result in another winter with unsatisfactory vegetative cover. The above amounts to practical difficulties for the development site and therefore A is met.

The use of a 36 inch riser pipe will not substantially prevent nor result in less effective management of stormwater runoff. As stated by Mr. Verschaeve, the 48 inch diameter requirement is unnecessary. A 36 inch riser will not impact the system in any way and can be adequately cleaned. Furthermore, a 36 inch riser meets the MDEQ Best Management Practices manual. The VGT stormwater system will function equally as well with a 36 inch riser and therefore B is met. To conclude, the requirement for a 48 inch riser in the basins for this phase of the stormwater system is waived and 36 inch diameter risers are sufficient.

This waiver does not apply to any future stormwater review or construction. Please let me know if you have any questions.

Best regards,



John Iacoangeli, AICP
Principal

Cc: Jay Zollinger, Township Supervisor
Karly Wentzloff, Chairperson, Acme Township Planning Commission
Nikki Lennox, Zoning Administrator
Jeff Jocks, Township Attorney

Technical Memo – Storm Water Review

To: John Iacoangeli - Beckett & Raeder, Inc.

From: Robert Verschaeve, P.E. – Gosling Czubak Engineering Sciences, Inc.

Date: June 18, 2015



RE: Grand Traverse Town Center
Basin Outlet Risers

It is our understanding that a waiver from the requirements of the Acme Township Storm Water Control Ordinance is being requested for the 36 inch diameter outlet riser pipes at Basin #1 and Basin #2. The Ordinance requires a minimum diameter of 24 inches and risers greater than 5 feet in height shall be 48 inches. The existing 36 inch riser pipes at both basins are greater than 5 feet in height and the request is for deviation from the 48 inch diameter requirement.

Granting a waiver for this situation will not substantially prevent nor result in less effective management of storm water runoff. The main function of the outlet riser is to control the runoff release rate and promote the removal of sediment, nutrients, and pollutants. This function is accomplished through the orifices located on the side of the riser through which all the runoff flows. The diameter of the riser has no effect on the orifices or their function. The diameter is more of a maintenance function. The MDEQ Nonpoint Source Best Management Practices Manual description for a Wet Detention Basin states that "All outlets should have an accessible, above-ground cap to allow easy cleaning. The outlet should be designed so that trapped trash and debris can be easily removed." The existing outlets meet these criteria.