



June 12, 2025

MEMO

RE: **Joshua Court Subdivision – Justification for Dry Pond as Preferred Stormwater Management Option
Township of West Lincoln**

The Joshua Court Subdivision Stormwater Management Plan (March 2024), proposed that a dry pond located at the southeast limits of the proposed roadway along with a swale at the southeast corner of the property, will provide the required stormwater storage in order to meet the required stormwater management criteria outlined in the SWM Plan.

The dry pond has been chosen as the preferred SWM option based on a number of factors. Peak flow controls are necessary for this development in order to not increase erosion downstream. In order to provide the required peak flow controls a large amount of stormwater storage is required. The dry pond is the optimal SWM option for this scenario since it can provide the largest amount of storage. Furthermore, Due to the location of the site, major overland flows must be controlled within the site in order to not impact the surrounding lands. The only option that can effectively capture major overland flows is a dry pond. Due to the dry ponds large surface area, it captures the most amount of stormwater. Other options such as capturing stormwater flows using catch basins will be constrained by how much stormwater the catch basin can take in at once, causing excess stormwater to flood the site and impact surrounding lands. The proposed grading plan will direct stormwater flows to the proposed SWM facility away from the adjacent lands, where stormwater will be stored and released at a controlled rate that is less then existing conditions.

Due to the relatively flat topography of the site and surrounding lands it is not possible to utilize underground stormwater storage and maintain an above ground stormwater outlet. The utilization of underground storage would require the current stormwater outlet to be much deeper then it currently is which is not possible.

Maintenance of the dry pond is similar to the maintenance of a roadside ditch, and therefore is standard practice for the Township's maintenance crews. Furthermore, the dry pond will remain dry unless there is a storm event, which makes scheduling maintenance of the pond very straight forward. Inspection of the dry pond is very simple, as the worker does not need to access the facility and can visually inspect it from surface level. Comparatively, maintenance of an underground SWM facility presents challenges that a typical maintenance crew is not prepared for. Accessibility of an underground facility would require specialized equipment and training. The facility would require regular inspections and annual maintenance activates, where workers will have to access the facility for even the most basic of activities. If this facility is not fenced, the adjacent landowners may cut the grass to maintain the aesthetics of the adjacent properties.

Therefore, the dry pond is best stormwater management option for this site for its ability to receive major overland flows, provide the required stormwater storage while being able to outlet to a shallow above ground outlet and maintenance and inspection of the pond is very simple and does not require specialized equipment and training. Upper Canada Consultants is currently taking actions to ensure RVL Homes and the landowners secure an easement for the proposed stormwater outlet.

Respectfully submitted,

Zach Barber, E.I.T.
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