



November 24, 2014

Mr. Jim Rogers
Executive Director
Elmhurst Park District
375 W. First Street
Elmhurst, Illinois 60126

RE: Peer Review Services – Park District Properties
City of Elmhurst Request Letter

Dear Mr. Rogers:

Per request of the Elmhurst Park District, V3 has performed a peer review of the request letter dated November 12, 2014 provided by the City of Elmhurst regarding York Commons Park. The City is specifically asking the Elmhurst Park District to vote on using the east lobe of York Commons Park for flood storage. In addition, the City provided cost estimates related to the different York Commons options. As part of our peer review, V3 evaluated the information presented in the letter to confirm the stated facts and costs. Pursuant to our review, we offer the following.

Technical Request for Information

In Page 2, Paragraph 4 of the City letter, it is stated that:

If just the west lobe of York Commons Park is used for stormwater storage, a minimal amount of volume would be available to mitigate the flooding on Crescent Avenue. No flood reduction benefits would be provided for the two downstream problem areas (Washington Street and Swain Avenue/Vallette Street).

This statement is not consistent with the other flood data provided by the City:

- Based on previous flood information from the City, it is understood that the Crescent Avenue problem area needs approximately 8 Acre-Feet of storage to remove all 38 homes from flooding impact. The West Lobe of York Commons, as proposed by the Elmhurst Park District, could potentially provide up to 11 Acre-Feet of stormwater storage.
- Based on previous flood information from the City, the 16 Acre-Feet provided in York Commons Park - East Lobe Only, provided the following results:
 - Removed all 38 Homes in Crescent Avenue problem area from flood impact
 - Removed 13 Homes in Washington Street from flood impact
 - Lowered flood elevations in Washington Street by 0.5 feet in 100-Year event
 - Did not lower 100-Year flood elevations in the Swain/Vallette problem area

- Based on previous flood information from the City, the 23 Acre-Feet provided in York Commons Park – Both Lobes, provided the following results:
 - Removed all 38 Homes in Crescent Avenue problem area from flood impact
 - Removed 13 Homes in Washington Street problem area from flood impact
 - Lowered 100-Year flood elevations in Washington Street by 0.7 feet
 - Removed 1 Home in Swain/Valette problem area from flood impact
 - Lowered 100-Year flood elevations in Swain/Valette by less than 0.1 feet

Therefore, in order for the Elmhurst Park District to effectively evaluate the City of Elmhurst request to hold an official vote on using the East Lobe of York Commons for flood storage, V3 is requesting the following additional information:

1. Engineering information to demonstrate why the 11 Acre-Feet in the West Lobe of York Commons does not provide flood reduction benefits for the affected problem areas.
2. A similar comparison table demonstrating the *Number of Homes Flooded Per Flood Frequency* and *Flood Depths Per Flood Frequency* for the 11 Acre-Feet option proposed by the Elmhurst Park District.

This information should help the Elmhurst Park District Board evaluate the statements made within the City Letter that “minimal volume would be available to mitigate Crescent Avenue” and that “no flood reduction benefits would be provided for the two downstream problem areas” due to the proposed West Lobe York Commons solution.

Cost Comparison

In Page 1, Paragraph 3 of the City letter, it is stated that 38 homes would be protected from flooding on Crescent Ave, and 14 homes in the Washington Street and Swain/Valette flooding areas if the York Commons Park – Both Lobes option is implemented and that valuable flood reduction benefits would occur in all the affected problem areas. Therefore the City uses 195 homes (total benefited homes in all three flooding areas) to calculate the \$16,400 per home cost of the York Commons – Both Lobes flood storage option. *The cost benchmark is based on total benefited homes.*

In Page 2, Paragraph 4, it is stated that 38 homes would be protected from flooding on Crescent Ave, and that none of the downstream problem areas would receive flood reduction. Therefore the City uses 38 homes (just Crescent Avenue) to calculate the \$36,800 per home cost of the York Commons – West Lobe Only flood storage option and does not include the flood benefit for every downstream problem area. It is V3’s opinion that all 195 homes in the impacted areas will be benefited by this additional 11 Acre-Feet of volume, therefore, it appears that *the cost benchmark is based on homes removed from impact.*

In Page 3, Paragraph 1, it is stated that Alternative #2A involving pump station upgrades would benefit 167 homes in Washington Street and Saylor/Jackson areas. The resulting cost is \$115,000 per home for each of the benefited structures. *The cost benchmark is based on total benefited homes.*

These cost estimates are difficult to compare because they do not provide equivalent benchmarks. Therefore V3 has completed Table 1 and Table 2 below to present the City cost estimates more fully for the Elmhurst Park District Board to evaluate. In addition, V3 has provided the Southwest Study Area Alternative #4 option for cost comparison because the homes in the Swain/Valette problem area are included in the total benefited homes number used by the City, and Alternative #4 is required to remove these homes from flood impact.

Table 1 – Total Benefited Homes Cost Comparison

Proposed Alternative	Estimated Cost	Total Benefited Homes	Cost Per Home
York Commons – Both Lobes	\$3.2 million	195	\$16,400
York Commons – West Lobe Only	\$1.4 million	195	\$7,200
Alternative #2A – Pump Capacity (Washington & Saylor/Jackson)	\$19.2 million	167	\$115,000
Alternative #4 – Pump Capacity (Swain/Valette)	\$11.5 million	94	\$122,000

Table 2 – Homes Removed from Impact Cost Comparison

Proposed Alternative	Estimated Cost	Homes Removed from 100-Year Flood	Cost Per Home
York Commons – Both Lobes	\$3.2 million	52*	\$61,500*
	* The East Lobe project will cost approximately \$1.8 million and remove 14 additional homes, at a cost of \$128,500 per home.		
York Commons – West Lobe Only	\$1.4 million	38 (Plus Any Homes on Washington Street?)	\$36,800
Alternative #2A – Pump Capacity (Washington & Saylor/Jackson)	\$19.2 million	100	\$192,000
Alternative #4 – Pump Capacity (Swain/Valette)	\$11.5 million	87	\$132,000

Thank you for the opportunity to assist the Elmhurst Park District with a review of the City of Elmhurst letter dated November 12, 2014 as it relates to your park district properties. We trust these comments and additional information will help the EPD Board with timely decisions regarding the proposed dual use of your properties. If you have any questions, please do not hesitate to contact me.

Sincerely,
V3 COMPANIES

A handwritten signature in black ink, appearing to read "G. Wolterstorff", with a long horizontal line extending to the right.

Gregory V. Wolterstorff, P.E.
Director of Natural Resources

cc:
V3 File