**MINUTES OF THE Stormwater Commission**

**April 6, 2021**

1. Call to Order. The eighth meeting of the Stormwater Commission (Commission) was called to order at 6:33 PM by Chair Todd Thompson.
2. Attendance-Roll Call. The following Commission members were present via virtual meeting (Zoom): Garry Aronberg, Bob Criss, Mark Holly, Eric Karch, Todd Thompson. Also in attendance were Tim Cusick, Councilman, Sinan Alpaslan, Director of Public Works, John Mulligan, City Attorney. Ms. Lubershine has decided her other commitments preclude her participation in the Stormwater Commission and has resigned.
3. Agenda. The following agenda was accepted without objection: *Roll Call; Approval of Agenda; Approval of Minutes; Citizen Participation; New Business – Relief Map, Field Survey, USACE Study; Old Business – FEWS Briefing to Council, RFQ for Storm Water Planning; Subcommittee Reports – FEWS, Communications; Miscellaneous Business – Sherwood Lake Update; Council Liaison Comments; Adjournment.*
4. Minutes. The March 2, 2021 minutes were approved with spelling corrections of several names: Stein, Lubershine, Asunskis.
5. Citizen Comments. There were no citizen comments.
6. New Business.

* Relief Mapping Project. Mark Holly reported on the three-dimensional relief mapping project. He has been inserting the survey response locations and the USACE buyout ideas. He is exploring scale up, mounting, and painting a large tabletop display. Costs would be about $2,860 and take about 12 weeks to prepare. In addition to being useful for the Stormwater Commission public education goals, the model may be useful for the work of rezoning and comprehensive plan revisions. A vote on production was delayed until the Commission clarifies a message appropriate to the 3D mapping project. We agreed to meet to experience the model.
* Field Survey with rented GNSS unit. Messrs. Criss and Stein determined the elevation at 60 high water marks and other points in and near University City to help calibrate the warning model and to evaluate the accuracy of HEC-RAS flood models. To establish the accuracy of the GPS elevation instrument, Messrs. Criss and Stein compared their direct measurements to known benchmark elevations and found agreement to within an inch. They observed that the absolute accuracy of water levels reported by USGS gauges near University City were within about 5 inches, but levels at three gages in the Deer Creek basin deviated by 6 to 11 feet from the true elevation. LiDAR data was found to typically be within a foot of actual elevation. Dr. Criss compared measured elevations at key floodplain points to the Wood and USACE models. He found that the models for the 2008 flood are as much as 3 vertical feet too low. He encouraged the Commission to obtain more vertical data including staff gauges on bridges and to determine the difference in elevation across bridges - head loss at bridges. The accumulation of elevation data could be used to prepare inundation maps based on historical elevation data and to properly calibrate the FEMA-sponsored HEC-RAS models.
  + The Early Waring Committee will develop recommendations for needed measurements of water surface elevations and identify the purchase by University City of water elevation measuring devices to get those measurements.
  + Mr. Alpaslan will get records of frequency of debris removal at bridges to help evaluate flooding trends.
* USACE Report on Flood Mitigation. The Corps is evaluating detention basins and levees to mitigate flooding along the River des Peres -- likely to be very expensive. The draft report and recommendations will be discussed at the May 10 Council Work Session. The Corps’ internal draft report submittal is May 26.

1. Old Business
   * Early Warning System.
     + The Olivette Parks Director is eager to cooperate with University City to allow a rain gage station to be installed in an Olivette park. Mr. Alpaslan is keeping in close contact with the Olivette Parks Director.
     + The University City Fire chief is examining methods to distribute the flood warning. He also is eager to use the early warning system.
     + The Early Warning subcommittee is still calibrating and refining the system. The system needs the upwind Olivette gauge.

* RFQ for Storm Water Master Plan – Short list of three consultants will be prepared soon. Interviews of the short list will be in the near future by staff. A subcommittee of the Commission will serve as coordination focal point between the staff and the Commission. The subcommittee will be appointed by Chair Thompson.

1. Miscellaneous Business
   * Sherwood Lake Dam update – tabled.
2. Subcommittee Reports. --- Communication Subcommittee will prepare another article for Roars summer edition. June 5 is next submission due date.
3. Council Liaison. Mr. Cusick, Councilman and liaison, reported that all of the Costco property is now under contract and the developer has made a $3 million contribution to the City for the benefit of programs in the third ward -- the development will move quickly now.
4. Adjournment: 8.45 by moved and second by Messrs. Aronberg and Holly and passed.
5. Attachments: The following items were attachments to the Commission Agenda that was distributed on April 2, 2021 or brought to and used during the meeting. The attached items were exhibits during the meeting:

* Relief Map Project Progress and Action Report
* Status of selection of Storm Water Master Planning Consultant
* **Other items**…

Minutes Preparation. Minutes were prepared by Garry Aronberg.

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