



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Sewer/Stormwater

To: City Council

From: City Manager & Staff

Council Meeting Date: July 5, 2016

Re: Report – 307 W. Alhambra Storm Water / Erosion / Floodplain Issues

Executive Summary

Councilperson Peters requested a report on the erosion and storm water issues at 307 W. Alhambra at the June 6, 2016 Council meeting. During the meeting the property owner of 307 W. Alhambra spoke during the scheduled public comment period about erosion in the backyard of the property and floodplain issues.

Discussion

History

Rockbridge Subdivision, including 307 W. Alhambra, was constructed in the late 1960's and early 1970's prior to standardized requirements to address storm water management. There was a long history of street and structure flooding in the neighborhood. Severe flooding included basements that would regularly receive one to three feet of water and streets with two to four feet of water over the road. Active members of the Rockbridge Subdivision homeowners association were instrumental in lobbying to pass the storm water utility vote in 1993 to fund improvements to the City's storm water system to address severe storm water management issues.

Two phases of storm water improvements in the Rockbridge Subdivision have been constructed to date, totaling over \$1 million in improvements. There is one additional project that needs to be completed, identified as Mill Creek Phase 3 and is currently in the FY17 Draft CIP document which is proposed for the 6 to 10 year timeframe. The improvements in all three phases of the projects were prioritized such that houses and streets with the most severe flooding and erosion were addressed in the first two phases.

Mill Creek Phase 3 Project

The Mill Creek Phase 3 project is located at El Cortez and Valencia, Phase 3 is proposed to install a piped storm system and green infrastructure to address continuing street flooding problems. Staff is adding the evaluation of stabilizing the stream from 307 W. Alhambra to Bethel Street to the proposed Mill Creek Phase 3 project. The Mill Creek Phase 3 project description and map (C49111 and ID1620) in the FY 17 CIP document have been revised to reflect the addition of the streambank stabilization work from Alhambra to Bethel. The cost estimate for the project has not yet been updated as a detailed estimate for the additional work has not been completed. A reasonable planning cost estimate for the additional work is \$200,000. This would result in the Phase 3 total cost to be approximately \$410,000. Currently, there are many critical storm water projects (flooding, failing infrastructure,



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streambank stabilization, etc.) competing for the resources available to the Storm Water Utility. It is proposed this project remain in the 6 to 10 year time frame. The U.S Army Corps of Engineers (Corps) has funding for streambank stabilization projects that the City has been able to use for projects in the past. In an effort to possibly accelerate the timing and reduce costs of this project, staff contacted the Corps to determine if funding was available. The Corps responded that streambank stabilization work on individual residential lots does not meet their criteria for funding.

In the future when the project is funded and initiated, staff will meet with the affected property owners to determine the feasibility and interest in performing any streambank stabilization work. The work would require significant construction and disturbance impact to the properties therefore staff recommends that all affected property owners agree to the project prior to moving forward. It should be noted that by current City policy open channels are not maintained by the City. This policy has been communicated to previous and current property owners at 307 W. Alhambra, as well as many other property owners around the City who have open channels on their property.

Floodplain

The area of the drainage basin above Bethel Street at Granada Boulevard, including Rockbridge Subdivision and the commercial development at Green Meadows and Providence Outer Road, are considered the "upper square mile" of the Mill Creek watershed. In early FEMA Flood Studies, properties in the upper square mile of a drainage basin (including 307 W. Alhambra) were listed as a Zone B. In 2011, FEMA updated their maps and 307 W. Alhambra, along with adjacent properties are now located in an unnumbered A zone. The improvement work that the City performed did not cause this change in designation. It is unknown why FEMA changed the designation. The purpose of Flood Plain regulations is to provide reasonable access to flood insurance for property owners. Unfortunately the revised FEMA maps do not include base flood elevation data. This makes it extremely difficult and costly for a property owner to provide an elevation certificate to demonstrate the structures are above the base flood elevation. More than one property owner in this area has inquired about the possibility of the city having a flood study completed. Staff has contacted an engineering firm experienced in performing these type of studies and also familiar with the process of obtaining FEMA acknowledgment of the study for use in providing base flood elevations. The engineering firm provided a preliminary cost estimate of approximately \$26,000 to complete this study and an additional estimated cost from FEMA of up to \$10,500 to review and incorporate the study. The completion of the study and acceptance by FEMA could benefit approximately 40 property owners in providing an elevation certificate to demonstrate the elevation of the home relative to the base flood elevation. City Council can direct staff to proceed with performing the study if it is deemed appropriate for the City to complete.

The floodplain maps for Columbia are again in the process of being revised by FEMA. Currently the revision process is in the appeal period and appeals are accepted until early August 2016. This may be a great opportunity for property owners to express concerns



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directly to FEMA regarding the maps not having base flood elevation included. Below is a link to the FEMA website with the schedules for appeals:

https://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/mapScheduleSearch.action;jsessionid=E9B922622EB4652AF2C32DFFDDE979F1?zipCode=65203

Fiscal Impact

Short-Term Impact: Completion of a floodplain study is estimated to cost approximately \$36,500.

Long-Term Impact: The Mill Creek Phase 3 project is estimated to cost approximately \$410,000 with the streambank stabilization added to the project.

Vision & Strategic Plan Impact

Vision Impacts:

Primary Impact: Community Facilities & Services, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

Strategic Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Environmental Management, Tertiary Impact: Not Applicable

Legislative History

Date	Action
None	None

Suggested Council Action

Report is for informational purposes.