September 27, 2021

Ms. Hannah Lee
Senior Civil Engineer
Marin County Flood Control Zone 3
3501 Civic Center Drive, Room 304
San Rafael, CA 94903

Re: Request for Funds

Dear Ms. Lee:

As previously discussed, the city is seeking funds from Flood Control Zones 3 to support a number of critical projects to address existing flooding issues and provide resiliency to future sea level rise impacts. Thanks to the Flood Control Zone's support, the city adopted a Flood Management and Storm Drain Master Plan in April of 2021. The Master Plan was a comprehensive project that involved a great deal of analysis, public input and assistance of an Advisory Task Force that Flood Zone staff participated in. Since the plan was adopted, staff has been working on a number of projects outlined in the Master Plan and is seeking the Flood Control Zone's financial participation for the following:

Blithedale Avenue Rehabilitation
This project includes complete rehabilitation of Blithedale Avenue from the 101 Freeway to Sunnyside Avenue. Approximately 330 linear feet of pipe, six manholes and 17 storm drain inlets in the corridor are being replaced to improve flow or relocated to accommodate ADA access. The main improvement being completed to address drainage and flood issues is rebuilding insufficient curb and gutter as depicted in Master Plan Sections 4.5 and 4.7. The street's lack of curbs has decreased the flow capacity and should be restored to prevent future damage to structures. Pending funding, approximately 7,600 linear feet of curb and gutter that is too small to carry storm runoff, will be replaced as part of this project. In addition, storm drain pipe in Blithedale Avenue at Camino Alto, Alta Vista and across a commercial driveway that was identified as insufficient will be upgraded, if funding is made available. These projects are listed in the Appendix of the Master Plan.

Estimated cost: $1,650,000

Downtown Paving, Sidewalk and Utility Rehabilitation
The city has relocated or rehabilitated 1,450 linear feet of storm drain lines, four manholes and 20 storm drain inlets drains over the past two years to accommodate stormwater runoff while improving ADA access. The third phase of the project is currently under design with a number of concepts and alternatives being considered. Each concept includes modifications to storm drains, curb and gutter and underground drainage pipes to allow storm water to be contained in gutters prior to being

transported underground to its ultimate destination. Restoring curb heights as described in the Master Plan is a critical component to increasing the city's drainage capacity. The Master Plan highlights the need to replace the storm drain pipe in Madrona Street to meet design criteria, listed as Project 7 in Appendix I of the Master Plan

Estimated cost: $1,110,000

Sycamore Pump Station Replacement
The city has hired a consultant to complete a detailed needs assessment of this existing facility. However, by all accounts, the pump station has surpassed its useful life. At a minimum the station requires a complete rehabilitation consisting of:

a. Raising elevation of the top of wet well to prevent cyclical pumping
b. New debris catchment
c. New pump control panel & communications on raised slab
d. Misc. piping – It may be possible to reuse some of the existing piping
e. New generator and transfer switch
f. Miscellaneous electrical upgrades and potentially new PG&E feeds

However, it would likely be more cost efficient to fully replace the station. Ultimately the city desires to bring this pump station into compliance with current standards and then dedicate the station to the Flood Control Zone to own, operate and maintain. The city does not have any other stormwater pump stations. As part of their core services, the Flood Control Zone owns, operates and maintains five pump stations housing 13 pumps.

Estimated cost: $1,300,000

Flap gates and check valves throughout the Storm Drain system
The city has successfully installed three check valves and a number of flap gates in recent years. The Master Plan identified additional locations in low lying neighborhoods where new valves are required to keep high tides from backing up through the storm drain system and onto city streets.

Estimated cost: $35,000

Detailed mapping and database
In working on the Flood Management and Strom Drain Master Plan, city staff quickly realized that there the city does not have a reliable map or database available to help manage the city's storm drain system. The Master Plan consultant estimated that there are 15.7 miles of pipe with 1,300 junction boxes/manholes. To effectively maintain this infrastructure, the city desires to have an accurate map and database developed. Combined inspecting the system conditions and implementing a computerized work order management system, staff will be able to more effectively manage and maintain the city's stormwater infrastructure. This is detailed on page ES-12 of the Master Plan.

Estimated cost: $350,000

Preliminary analysis and feasibility study to determine impacts of improvements to Floodway Designation

Much of Mill Valley's downtown corridor is located within the FEMA mapped floodway. The modeling for the maps was conducted in 2012 by BakerAECOM. Since that time, the city has installed drainage improvements that might alleviate some of the flooding shown on the effective FIRM and reduce the limits of the Floodway boundary. In addition, Stetson Engineers completed some hydrologic calibrations that might change the flows studied in 2012. The city would like to conduct a feasibility study to determine whether a letter of map revision would be beneficial to show the improvements from work conducted since 2012. The feasibility study would also provide the city with a scope and level of effort required to revise the effective FIRM.

Estimated Cost - $35,000

Miller Avenue hydrology study

The city desires to understand better what is happening in the Miller Avenue area south of Camino Alto considering Sea Level Rise and new drainage infrastructure installed with the Miller Avenue rehabilitation project in 2018. Staff requested funding for the project to include a pump station adjacent to the outfall between the Redwoods and Pickleweed development and to raise the elevation of Miller Avenue in the vicinity of Almonte Boulevard by a foot, but neither of these improvements was funded. Miller Avenue, south of Camino Alto, regularly floods and is closed to traffic during storm and high tide events. It is too early to develop a scope and cost estimate for this study, or even who which agency would lead the study effort. Instead, the city desires to work collaboratively with the Flood Zone, the County and other stakeholders to better understand the issue and to develop potential scope and mitigations for addressing issues and provide resiliency to future sea level rise.

As these improvements will directly affect flooding issues within Flood Control Zone 3, we respectfully request that funds from Zone 3 be programmed to cover the expected costs. I look forward to continuing to work with you and can be reached at (415) 384-4848 or aposter@cityofmillvalley.org to discuss this request.

Very truly yours,

Andrew D. Poster, P.E.
Director of Public Works

CC: Alan Piombo, City Manager