H2O urban solutions

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Re: Proposal for the Hydraulic Modeling to Verify 750 gpm Fire Flow at Walt Tyler School Rebuild in the Grizzly Flats CSD Service Area

I am pleased to present the proposal for performing the hydraulic modeling to verify the availability of 750 gpm Fire Flow at the Walt Tyler School Rebuild in the GFCSD Service Area. Due the loss of the school during the Caldor Fire along with the loss of key GFCSD pumping and storage facilities in the system, the rebuilding of the school will require compliance with current fire code requirements. Per conversations and meetings with the participation of Ken Earle of the Pioneer Fire District, it was stated that a fire flow of 750 gpm for 2 hours is required for the school under current NFPA code requirements.

Previously, the GFCSD water system was designed and constructed to be able to provide a maximum of 500 gpm fire flow throughout the system. The Walt Tyler School is located in the main pressure zone served previously by the Tyler Tank & Booster Pump Station and the Winding Way Tank & Booster Pump Station. Both of these facilities were severely damaged as well during the Caldor Fire. Per Ken Earle during prior conversations and recent discussions with the School District and their Design Team, current fire code would require the GFCSD system to provide 750 gpm fire flow for 1 hour for homes over 3,600 square feet up to the next category.

GFCSD has an existing water hydraulic model that was last updated in 2017 but under the existing condition of 500 gpm fire flow. The reconstruction of the Tyler Booster Pump Station covered under insurance and mitigation upgrades for meeting new codes under the approval of FEMA could allow the possibility of meeting the 750 gpm fire flow requirement with some larger pumps. This would need to be confirmed through hydraulic modeling along with the existing distribution system and the new water main extension into the newly designed Walt Tyler School. The existing water distribution system would be expensive to upgrade, however, it is likely with the looped pressure system that 750 gpm can be achieved in the existing 6 inch water mains. The water main extension to the school site can be verified if a 6 inch or possibly larger main will be needed since most of the hydraulic head loss or friction occurs when the water is traveling through a non-looped dead end water main or lateral.

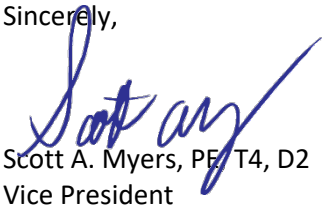
H2O Urban Solutions is proposing to perform the hydraulic modeling to verify the ability to provide 750 gpm fire flow on to the school site at the proposed fire hydrant and fire department connection. This will require updating the 2017 model for the pressure system. Additional modeling will be required to verify the need to meet 750 gpm fire flow throughout the GFCSD system as a separate parallel task. The scope will be limited for this effort to only verify the 750 gpm fire flow for the school and confirm the size of the new water main extension needed.

The cost proposal to perform the hydraulic modeling to verify the 750 gpm fire flow for the school site only is shown below.

Task #	*Task Description*	*Qty or Hours*	*Rate*	*Amount*	*Totals*
1	Software Rental for Q4 – 2022	1	LS	$250	$ 250
2	Hydraulic Modeling to Verify 750 gpm Fire Flow for Walt Tyler School	1	LS	$1,750	$ 1,750
				Task Subtotal	$ 2,000
				Total	**$ 2,000**

Thank you for the opportunity to support your project. Please let me know if you need anything else or have any questions.

Sincerely,



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