



CITY OF TARPON SPRINGS, FL

CITY MANAGER

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MEMORANDUM

To: Bob Robertson, Project Administration Director
From: Mark LeCouris, City Manager
Date: May 10, 2024
Re: Bayshore Sewer Project

Thank you for the work done on this document. It confirms the course of action taken by the city on the Bayshore Sewer Project. There is no viable feasible ability to change this project or halt it any further.

I am authorizing the continuation of the project as engineered. In this short time, you have already found some possible ways to help the residents, please continue looking at all options and alternatives that may address their concerns.

Please continue to post updates for the residents by the multiple methods you have devised. Any assistance we can give during the construction is approved.

MGL/th



Project Administration Department

324 East Pine Street
Tarpon Springs FL 34689
(727) 942-5638

Memorandum

Date: May 10, 2024
To: Mark LeCouris, City Manager
From: Bob Robertson, P.E. Project Administration Department Director
Subject: Bayshore Drive Septic to Sewer – Response to Residents’ Comments and Concerns

In response to additional questions and concerns that we have received this week, my team and I have prepared the following additional information regarding the project as you have requested.

Based on the information provided below, is this sufficient for you to authorize re-starting construction next week (Week of May 13)?

Grinder Pump Grant

In response to residents’ inquiry about additional grant assistance for the individual pump portion of the project, the City’s Grant Project Specialist (grant writer) is working with the Florida Department of Environmental Protection (FDEP) on an application for a Water Quality Improvement Grant. This is the same grant program Hillsborough County is using. She has confirmed that grant can cover grinder pump installation costs, but it would not be able to cover connection fees or septic tank abandonment fees (those would be the typical fees associated with a standard gravity sewer system connection). The grant application is due in June, and we are applying for \$500,000 to use to help residents offset the costs of grinder pump purchase and installation. Grant awards are not guaranteed and are subject to a ranked score and State funding eligibility and availability.

LPSS vs. Gravity Sewer

With regards to Low Pressure Sewer Systems (LPSS) and its application in this area, there is already an existing LPSS system on Bayshore Blvd. The system is installed and currently serves home addresses between and including 770 Bayshore Blvd. through 903 Bayshore Blvd. Therefore, the new construction is an *extension* of an existing LPSS. It was necessary to complete this section as the first phase since it provides the direct connection to the Bayshore Heights lift station (a lift station that the City paid the developer to oversize to accommodate the Bayshore Blvd septic-to-sewer conversion customers).

As reported in the 2022 Alternatives Analysis prepared by engineering consultant Wright Pierce, gravity sewer systems present significant challenges in this project area. As the report states, the South Bayshore area consists of 24 homes, and the report states that gravity sewer installation in the south Bayshore segment is not feasible.

For the north Bayshore area, two options are discussed in the report (gravity sewer and LPSS). The report notes that the construction cost of a gravity sewer system (\$1.93M) is nearly four times the cost of an LPSS system (\$510K). Furthermore, the \$1.93M cost estimate for the gravity sewer system didn't include the additional cost of property acquisition (or potentially eminent domain) to acquire property to construction at least one central lift station. This is further complicated by a lack of readily available vacant space in the immediate area for such use to make acquisition possible.

The report also lists LPSS advantages such as less construction time and restoration time (and thus disruptions to homeowners) and the ability to connect directly to the existing LPSS system. Furthermore, after the City's experience with the challenges of installing a gravity sewer system in the low-lying coastal residential area on Seabreeze Drive, the City preferred to avoid potentially similar construction issues and disruptions.

Finally, both the LPPS system and the gravity system would each require a 4-inch force main to be installed. Therefore, construction of the new 4-inch force main should be cleared to continue in the project area.

Hillsborough County's LPSS experience

City staff spoke with Hillsborough County staff regarding their experience with LPSS systems in southern Hillsborough County. The County owns and maintains approximately 1,500 grinder pump stations that are installed on private properties. The County states that these systems had not historically been maintained adequately and many of them were 40 years older or more. For this set of circumstances, they decided to update the sewage collection in the South-County area with a vacuum sewer* system (not a gravity sewer system). The County stated that this does not mean low pressure sewer systems in themselves do not work or that they frequently fail. It's just these older systems that were not consistent and are causing them more maintenance due to their age and prior lack of maintenance. The County also agreed that quality components (and if the City could assist residents with specification of quality components) would go a long way towards systems working more reliably. The County also spoke of ensuring the individual service lines be of sufficient diameter (over 1.5-inches diameter) and pumps with sufficient flushing velocity to minimize clogs. Please note that the City has specified 2-inch diameter service connections.

**Note that a vacuum sewer system is not feasible in the Bayshore Blvd. area due to many factors, including the requirement to install a large vacuum sewer station building. Please visit Highland Nature Park for an example of the size of the required vacuum sewer station building (located near the boardwalk on the east side of the park).*

Grinder Pump Alternatives

We are looking into an alternative to using a grinder pump that still would be able to use the City's LPSS system. A system known as a Septic Tank Effluent Pump (or STEP system) is an option. This system would be able to utilize a homeowner's existing septic tank for storage and solids settling and separation. A pump would still be required, but it would be at the outlet side of the existing septic tank and would not need to be grinder pump. Further, homeowners would save money on the septic tank abandonment costs because they could potentially re-purpose their existing septic tank and eliminate the drain field portion. Also, depending on their configuration,

septic tanks could have larger storage volumes than many grinder pump configurations, so residents would be able to utilize that sewage storage during power outages. There is also an option to install a submersible sewer pump inside the existing septic tank as well. City staff contacted the Department of Health, and they agree that these systems are viable, but they would be subject to inspection and approval and would require a septic tank that is in good condition. A failing septic tank would not be eligible for such an installation.

Further information and details on this option will be shared with residents.

Connection Schedule

With the cooperation of the City Attorney, we are looking into the requirements of State Statute and City Ordinance to focus on giving residents the maximum amount of time possible to connect to the City sewer system. Further information and details will be shared with residents.