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Title: Actions pertaining to the design of North Avenue sewer trunk main realignment (Council Districts 3 and 5, County of Fresno):

1. Award a consultant services agreement to Carollo Engineers, Inc., in the amount not to exceed \$210,920
2. Authorize the Director of Public Utilities, or designee, to sign the agreement on behalf of the City of Fresno

Sponsors: Department of Public Utilities

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Attachments: 1. 2019-06-27 Attachment 1 - Consultant Services Agreement.pdf, 2. 2019-06-27 Attachment 2 - Vicinity Map.pdf

Date	Ver.	Action By	Action	Result
6/27/2019	1	City Council	approved	

REPORT TO THE CITY COUNCIL

June 27, 2019

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Department of Public Utilities

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SUBJECT

Actions pertaining to the design of North Avenue sewer trunk main realignment (Council Districts 3 and 5, County of Fresno):

1. Award a consultant services agreement to Carollo Engineers, Inc., in the amount not to exceed \$210,920
2. Authorize the Director of Public Utilities, or designee, to sign the agreement on behalf of the City of Fresno

RECOMMENDATIONS

Staff recommends that City Council award a consultant services agreement to Carollo Engineers, Inc., in the amount not to exceed \$210,920, including a contingency of \$20,000, for professional engineering services to design the realignment of a section of the North Avenue sewer trunk main (Project) and authorize the Director of Public Utilities, or designee, to sign the agreement on the behalf of the City of Fresno (City).

EXECUTIVE SUMMARY

The Department of Public Utilities (DPU), Wastewater Management Division, is seeking to award a Consultant Services Agreement for professional engineering services to Carollo Engineers, Inc., in the amount not to exceed \$210,920, including a contingency of \$20,000, to design the realignment of a section of the North Avenue sewer trunk main. Structural instability of the existing main requires the sewer main to be realigned. The Closed-Circuit Television (CCTV) inspection found the condition of the said section of sewer trunk main to be structurally deficient and unable to support a point repair. This section of the sewer trunk main must be realigned to relieve stress on the existing sewer pipe caused by hydrogen sulfide gas erosion.

BACKGROUND

The existing sewer trunk main in North Avenue transports an average of 11.5 million gallons of wastewater per day to the Fresno/Clovis Regional Wastewater Reclamation Facility. This sewer trunk main experienced a localized structural collapse in North Avenue north of the Fresno Colony No. 24 Canal and east of the Burlington Northern Santa Fe Railway and the Union Pacific Railroad. Without the emergency repair and the additional work, a full collapse may cause a sanitary sewer overflow impacting public health and safety.

During a routine inspection of the Fresno Colony No. 24 Canal, the Fresno Irrigation District (FID) discovered a large sinkhole on their property adjacent to the canal. Upon further inspection by the DPU Wastewater Collection System Division found that the 57-inch diameter North Avenue sewer main, located just to the west of sewer access structures No. 3260-24, to have a structural failure due to the complete erosion of the crown of the sewer trunk main. The location of the failure is bound by a major railroad crossing that services both the Burlington Northern Santa Fe Railway and the Union Pacific Railroad to the west, FID irrigation canal to the south, commercial property to the north, and Maple Avenue to the east. The location of this structural collapse limits City's options and confines response activities within this geographical area.

Attempts were made to expose a section of main to assess the condition of the rest of the pipe, which caused further erosion of the crown of the pipe. Due to the severe lack of structural integrity of the sewer main, it was determined that rehabilitation of the pipe is not an option. An emergency, temporary, solution was taken to stabilize the point of failure and the surrounding area to allow time to contract an engineering consultant to design a viable solution for this section of sewer main.

An emergency purchase order was issued to Floyd Johnston Construction Co., Inc., to secure stability of the area surrounding this sewer trunk main and to construct a suction vault necessary for a bypass in the event of a full collapse. These actions were also necessary in order to conduct a CCTV inspection of the sewer trunk main between access structure No. 3260-24 and No. 3260-02 to fully assess the extent of the failure. The CCTV inspection found the condition of the entire 207 feet of sewer trunk main to be structurally deficient and unable to support a point repair. This section of

the sewer trunk main must be realigned to relieve stress on the existing sewer pipe caused by hydrogen sulfide gas erosion. DPU staff recommended a full bypass to allow construction of a structural concrete cap to cover the opening, using the surrounding ground for support while placing no stress on the compromised sewer trunk main. This measure will only be a temporary solution that will stabilize the area and prevent further soil erosion from entering the sewer trunk main.

The Statewide General Waste Discharge Regulations Order No. 2006-0003-DWQ (c), requires rehabilitation and replacement of sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. The severity of the condition of the North Avenue sewer trunk main calls for its immediate replacement. DPU will be moving forward with a Capital Improvement Project for the installation of a parallel main in Fiscal Year 2020. Staff will return to City Council within 180 days with a recommendation to award a contract for the construction of a permanent replacement (parallel main) of this section of the North Avenue sewer trunk main.

A competitive solicitation was previously performed and, Carollo Engineers, Inc., was pre-qualified for design of DPU projects and was selected for this design based on a rotation of four pre-qualified design firms. Carollo Engineers, Inc., was asked to submit a level of effort and scope of services. Staff negotiated a professional engineering services fee of not to exceed \$210,920, including a contingency of \$20,000.

ENVIRONMENTAL FINDINGS

By the definition provided in the California Environmental Quality Act (CEQA) Guidelines Section 15378, the award of this contract is not a “project” as defined by CEQA.

LOCAL PREFERENCE

Local Preference was not implemented because Carollo Engineers, Inc., is a local business pursuant to the Fresno Municipal Code Section 4-109(b).

FISCAL IMPACT

Approval of this Consultant Services Agreement will not impact the General Fund. The Project is located in Council Districts 3 and 5 and County of Fresno. Funding for this Project is included in the Fiscal Year 2020 capital improvement budget within the Wastewater Division’s Sewer Enterprise Fund 40501.

Attachments:

Attachment 1 - Consultant Services Agreement

Attachment 2 - Vicinity Map