



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Matt Cano

SUBJECT: SEE BELOW

DATE: December 2, 2020

Approved

Date

12/4/20

SUBJECT: FIRST AMENDMENT TO MASTER CONSULTANT AGREEMENT WITH WOOD RODGERS, INC. FOR CITY-WIDE MASTER PLANNING FOR THE STORM SEWER SYSTEM

RECOMMENDATION

Approve the First Amendment to the Master Consultant Agreement with Wood Rodgers, Inc., for master planning consultant services for the City's storm sewer system, extending the term of the agreement from June 30, 2021 to June 30, 2023, and increasing the amount of compensation by \$750,000 for a total amount not to exceed \$2,250,000, subject to the appropriation of funds.

OUTCOME

Council approval of the First Amendment to the Master Consultant Agreement with Wood Rodgers, Inc will allow the City to proceed with consultant services that are necessary to complete the refinement of the City-wide hydrologic and hydraulic computer model of the storm sewer system, to identify preferred alternatives of conveyance projects with green stormwater infrastructure (GSI) consideration wherever applicable, and to finalize the storm drain master plan with prioritized CIP projects.

BACKGROUND

On March 20, 2018, the City Council (Council) approved a Master Consultant Agreement (Agreement) with Wood Rodgers, Inc. (Consultant), in the amount of \$1,500,000 for professional consulting services for the City-wide Storm Sewer Master Plan Study. The original term was through June 30, 2021. The scope of the Agreement included refinement of the hydrologic and hydraulic model, integration of riverine boundary conditions with post-2017 flood updates, support for the GSI Planning effort, evaluation of conveyance project alternatives to address flood issues for approximately half of the City's 180-square mile service area, training the City's four-member team to perform a similar scope of planning and analysis in the

remaining half of the City’s service area, and preparation of a final storm sewer master plan report.

The Consultant has completed a comprehensive alternatives analysis and recommended preferred alternatives for North San Jose, Stockton-Taylor and Diridon areas, as well as model network refinement for Coyote Creek and Lower Silver Creek watersheds. An estimated 25,000 feet of trunk system improvements have been identified with a program level cost estimate of \$110M.

For the Measure-T funded Charcot area flood protection project, the Consultant identified a cost-effective alternative using a new pipeline system to divert flow from the Charcot area to the Rincon II pump station. The diversion project would cost approximately \$34.4M, compared to \$40.3M for a new stormwater pump station at Charcot Avenue.

With the training and assistance provided by the Consultant, the City team has completed the refinement of the storm sewer system for the City’s modeling areas. The City team is incorporating the updated riverine boundary using Valley Water’s post-2017 flood Hydrologic Engineering Center’s River Analysis System (HEC-RAS) models, and will start to refine model calibration in late 2020 or early 2021.

The original budget set for the Master Agreement was \$1,500,000. Six service orders have been issued to date, totaling \$1,438,868. A summary of the service orders and budgets remaining is presented below:

SO	Major Tasks	SO Amount	Remaining Balance as of 12/1/2020
1	Develop a GIS database with standardized features and automation tools	\$99,807	\$0
2	Refine H&H models for 6 priority locations identified for Phase VI large-trash-capture	\$97,894	\$0
3	Refine models of high priority study area, including NSJ and Diridon; identify CIP projects	\$369,969	\$0
4	Refine models for upstream Coyote watershed; identify CIP projects	\$467,420	\$37,585
5	Refine models for Downtown, Willow Glen, and Ross Creek study areas; identify CIP projects	\$362,674	\$56,060
6	Estimation of spatially variable 85th percentile storm; coordination with Paradigm	\$41,104	\$9,566
	Remaining Balance	\$61,132	\$61,132
	TOTAL	\$1,500,000	\$164,343

ANALYSIS

During model refinement, the Consultant spent additional time and budget expenditure in the following tasks:

- Additional modeling and analysis in support of the Coyote and Guadalupe Emergency Action Plans following the 2017 event,
- Unexpectedly time-consuming highway drainage area geo-referencing,
- Extra modeling training due to high turn-over of modeling staff,
- Time-consuming importing and building of the riverine models for boundary conditions where importing HEC-RAS models into Integrated Catchment Model (ICM) models required much manual review and edits,
- Additional training to City staff on detailed modeling analysis for pre-design consultant's inquiries for the Charcot Area Storm Drain Improvement Project, and
- Modeling of additional drainage areas originally planned for City's modeling team.

Due to an unexpected staff turnover and separation from the City in the past two years, the City team staffing has been down to 50 percent of the original level for many months. While recruiting qualified staff had been a challenge, training new staff to proficiently use the ICM during the shelter-in-place situation is another challenge. Increased budgets for the Consultant to provide training to City staff to complete City's work split area as well as to review and perform modeling analysis for the Measure-T Charcot Area drainage improvement project, and for the Consultant to take on additional work split areas will be necessary.

Due to the unanticipated extra work that has been required to perform the services under the Agreement, there is only \$164,343 remaining in the budget to complete modeling of up to 75 percent of the City-wide storm drain system by June 2021. As a result, additional time and funding is necessary to complete modeling of the remaining areas and for the other uncompleted tasks set forth in the Agreement.

In addition, a larger budget will be needed for storm drain system modeling analysis to support the City-wide GSI Implementation Planning effort, because currently, the small amount already budgeted will not be sufficient for this task.

Staff anticipate that additional modeling support for the updates of Coyote Creek and Guadalupe River Emergency Action Plan may be required in coming years, and expansion of the trunk system model to smaller diameter pipes will be necessary as the CIP project alternatives are evaluated. The budget increase for this task is included as Optional Services.

The First Amendment to the Agreement will add \$750,000 in compensation for consultant services to complete the master plan project. Of this amount, \$325,000 is allotted to model expansion in deficient systems for project alternative evaluations and storm drain modeling analysis in support for the City-wide GSI implementation planning effort. Also, \$100,000 will be added for the Consultant to take on additional modeling areas. Another \$100,000 will be needed for the Consultant to provide modeling training to City staff to perform work in City's work split areas in order to acquire modeling experience for future hydraulic analysis and to provide modeling support for Charcot area Measure-T project and future CIP projects. Another \$75,000 will be needed for continued project management, and \$150,000 is included for possible optional services identified during term of agreement.

CONCLUSION

This First Amendment will increase the amount of compensation for engineering consultant services by \$750,000, for a total agreement not to exceed \$2,250,000, and extend the term by two years to June 30, 2023. The amendment will provide necessary budget and time for the Consultant to complete the remaining tasks for City-wide Master Plan and recommend prioritized CIP projects and prepare a report for the study.

EVALUATION AND FOLLOW-UP

Service orders under the master agreement will be approved by the Director of Public Works. No additional follow-up action with the City Council is expected at this time.

CLIMATE SMART SAN JOSE

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

POLICY ALTERNATIVES

Alternative #1: Do not approve the amendment to master consultant agreement and direct City staff to provide the required services with in-house resources.

Pros: Keeping the project in-house would give City staff the opportunity to expand computer modeling experience, including calibration of the riverine model and incorporating the Green Infrastructure Plan.

Cons: The City has limited in-house experience in calibrating riverine models and incorporating a Green Infrastructure Plan.

Reason for not Recommending: While City staff has experience in developing hydrologic and

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hydraulic models and running simulations to identify deficiencies, the enhancement to include a calibrated riverine model and incorporating the Green Infrastructure Plan requires additional resources and technical expertise. It would be more efficient and effective for City staff to gain the necessary experience and technical skills by working with an experienced consultant on this project, and then applying the acquired skills to conduct in-house analyses in the future.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the December 15, 2020 City Council meeting.

COORDINATION

This first amendment to agreement and memorandum were coordinated with the Department of Planning, Building and Code Enforcement, the City Attorney's Office, and the City Manager's Budget Office.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

FISCAL/POLICY ALIGNMENT

This agreement is consistent with the City Council-approved Budget Strategy for Economic Recovery in that the master planning consultant retained under this master agreement will assist drainage studies to identify capital improvement projects that will spur construction spending in our local economy.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: \$750,000
2. COST ELEMENTS OF AGREEMENT/CONTRACT:

	Current Contract	Add	1st Amendment
Project Management	\$198,789	\$75,000	\$273,789
Refine H&H Model	\$840,433	\$100,000	\$940,433
Support ESD on Green Infrastructure Plan and RAA	\$14,354	--	\$14,354
Recommend CIP & ICM Modeling for GSI Implementation	\$253,793	\$325,000	\$578,793
QA/QC for City work split model and GIS; training City on modeling for master plan and CIP/GSI projects	\$131,499	\$100,000	\$231,499
Optional Services	--	\$150,000	\$150,000
SUB-TOTAL	\$1,438,868	\$750,000	\$2,188,868
Remaining Balance	\$61,132	--	\$61,132
TOTAL	\$1,500,000	\$750,000	\$2,250,000

3. SOURCE OF FUNDING: Fund 469 – Storm Sewer Capital Fund
4. FISCAL IMPACT: Increase of this contract compensation will have no impact on operating or maintenance costs.

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the amendment to master agreement recommended as part of this memorandum.

Fund #	Appn. #	Appn. Name	Total Appn.	Amt. for 1 st Amendment*	2020-2021 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
469	5252	Storm Sewer Master Plan – City-wide	\$1,069,000	\$750,000	V-112	10/20/20, Ord. 30494

*Funding for anticipated service orders in 2020-2021 is sufficient and available in the 2020-2021 Adopted Capital Budget. Costs to be incurred in future fiscal years are subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

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CEQA

Exempt, File No. PP17-001, CEQA Guidelines Section 15262, Feasibility and Planning Studies.

/s/

MATT CANO

Director of Public Works

For questions, please contact Michael O'Connell, Deputy Director, at Michael.OConnell@sanjoseca.gov.