



CITY OF KIRKLAND
Department of Public Works
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MEMORANDUM

To: Kurt Triplett, City Manager

From: Aaron McDonald, P.E., Senior Project Engineer
David Snider, P.E., Capital Projects Manager
Kathy Brown, Public Works Director

Date: April 4, 2019

Subject: GOAT HILL STORM DRAINAGE IMPROVEMENTS - SDC 0077
AUTHORIZATION TO BID

RECOMMENDATION:

City Council to:

- Receive a project update with information on a potential need for increased project funding, and
- Authorize staff to advertise for contractor bids on the Goat Hill Storm Drainage Improvement Project – SDC 0077 (Project).

By taking action on this request at the April 16th meeting, City Council is authorizing staff to advertise the Project for contractor bids. A contract award and budget adjustment, if needed, will occur through a recommended action at a future City Council meeting.

BACKGROUND DISCUSSION:

In 2011, the City undertook a study to evaluate the overall condition of the storm water infrastructure in the Juanita, Finn Hill, and Kingsgate areas, which the City had recently annexed. Through that analysis, Goat Hill system deficiencies were identified and three capital improvement projects were created as part of the 2015-2020 CIP: SDC 07700, SDC 09000, and SDC 09900 (see Attachment A, "Vicinity Map").¹

The highest priority project and the subject of this memo is SDC 07700. The Project is to upsize the drainage system from the basin outfall for the Goat Hill area to accommodate increased flows and future development. Engineering design for this Project began in 2015, and the scope of work was to complete engineering to the 100% level.

¹ The Vicinity Map refers to these CIP projects as CIP 1, CIP 2, and CIP 3, respectively.

The other two projects are related to the first, and both are slated to begin construction in 2021. Project SDC-09000 improves existing upstream drainage infrastructure, and project SDC 09900 expands upstream drainage infrastructure. These two projects were combined into one during the 2019-2024 CIP update and now both are referred to as SDC-09000.

Staff recognized that the three projects were geographically close to each other and saw the opportunity to achieve time and budget savings. The savings were possible because the consultant could collect site data, conduct survey work, and perform drainage basin analyses in essentially the same area. Therefore, the scope of work for SDC 07700 was amended to include preliminary design for the other two projects (now called SDC-09000). The direction to the consultant for the other two elements was to take them to the 60% design level, which would mean they would be ready to submit for permits in 2021. However, all engineering costs to date have been accounted for in SDC 07700.

Table 1, below, shows design costs associated with each project (also see Attachment B, "Project Map"). Design costs for SDC-09000 and SDC-09900 are approximated.

Table 1: Design Costs, Scope & Status

Project ID	Design/Mgmt. Expenditures	Project Description
SDC-07700	\$311,210	Designed (100%) and permitted new city stormwater outfall. Upsizing drainage system from outfall for Goat Hill area to accommodate increased flows/future development.
SDC-09000	\$76,268	Designed to level for permit application (60%). Project improves additional upstream drainage infrastructure. Combined with Former project SDC-09900 was added to this SDC-09000 for 2021 start.
SDC-09900 (former name)	\$76,268	Designed to level for permit application (60%). Project expands upstream drainage infrastructure. Combined with SDC-09000 for 2021 start.
TOTAL (design/mgmt.)	\$463,746	

Because the design costs for all three projects are accounted for in SDC-07700, the ratio of engineering-to-construction costs seem higher than typical for this Project. However, when the other two projects are taken to 100% design the ratio of engineering-to-construction will be lower than typical.

The final design for the subject Project, SDC-07700, is complete and the opinion of probable costs (i.e., engineer's estimated cost) for construction is above the programmed funding (see Table 2, below).

Table 2: Estimate v. Funding for the subject Project

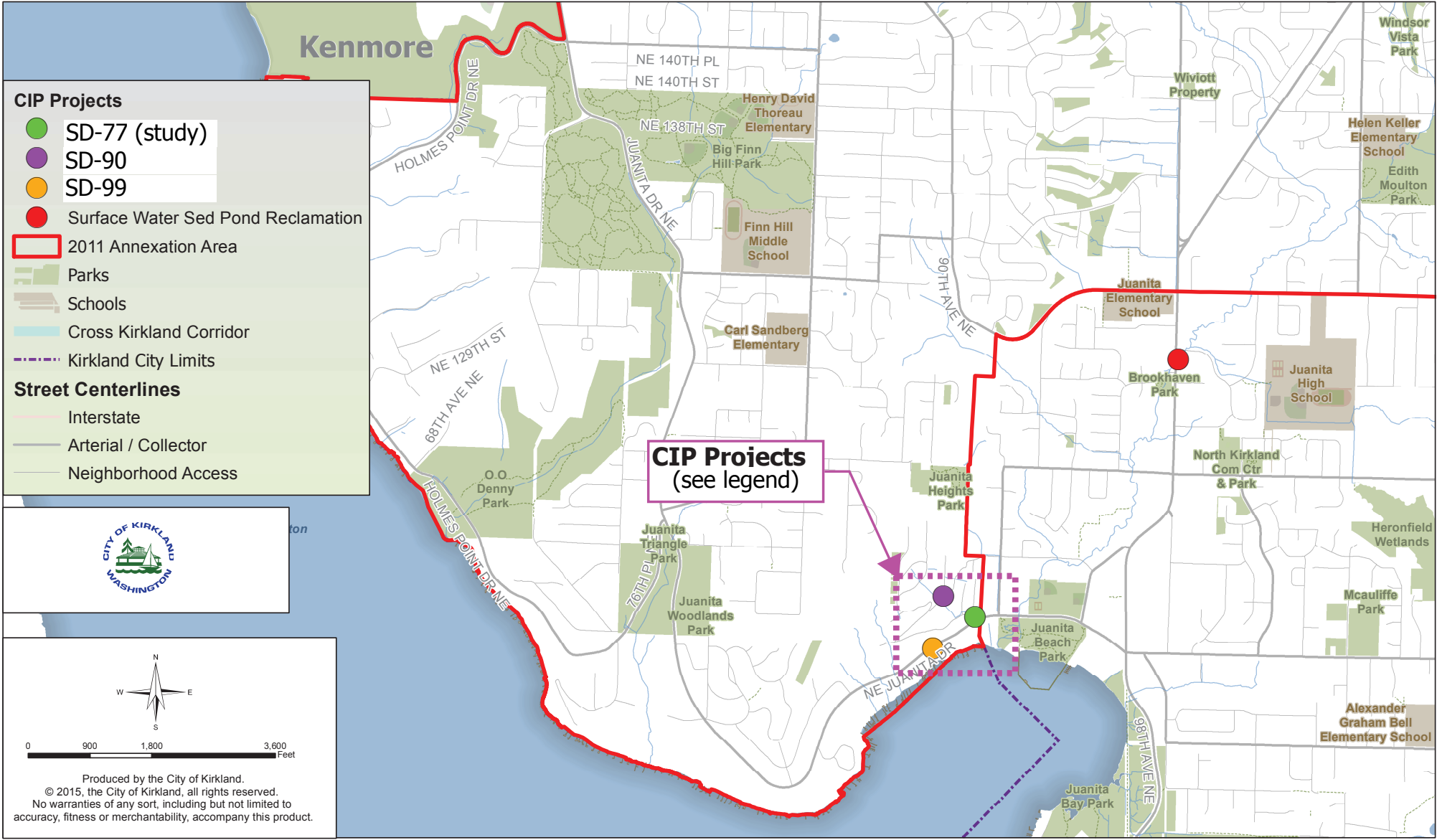
Items	Estimate
Soft Costs (Design/Inspection/Staff/Permitting)	\$592,385
Construction and Contingency (Project)	\$617,090
TOTAL	\$1,209,475
	Funding
Soft Costs (Design/Inspection/Staff/Permitting)	\$468,700
Construction and Contingency (Project)	\$525,000
TOTAL	\$993,700
Estimated Funding Shortfall	(\$215,775)

Construction costs in the region continue to follow the hyper-active market and contractors are struggling to find resources, trucks for hauling, and heavy civil construction materials. Kirkland, other jurisdictions, and area consultants have been recognizing this trend, with resultant increased estimated costs to more closely match current contractor bid pricing.

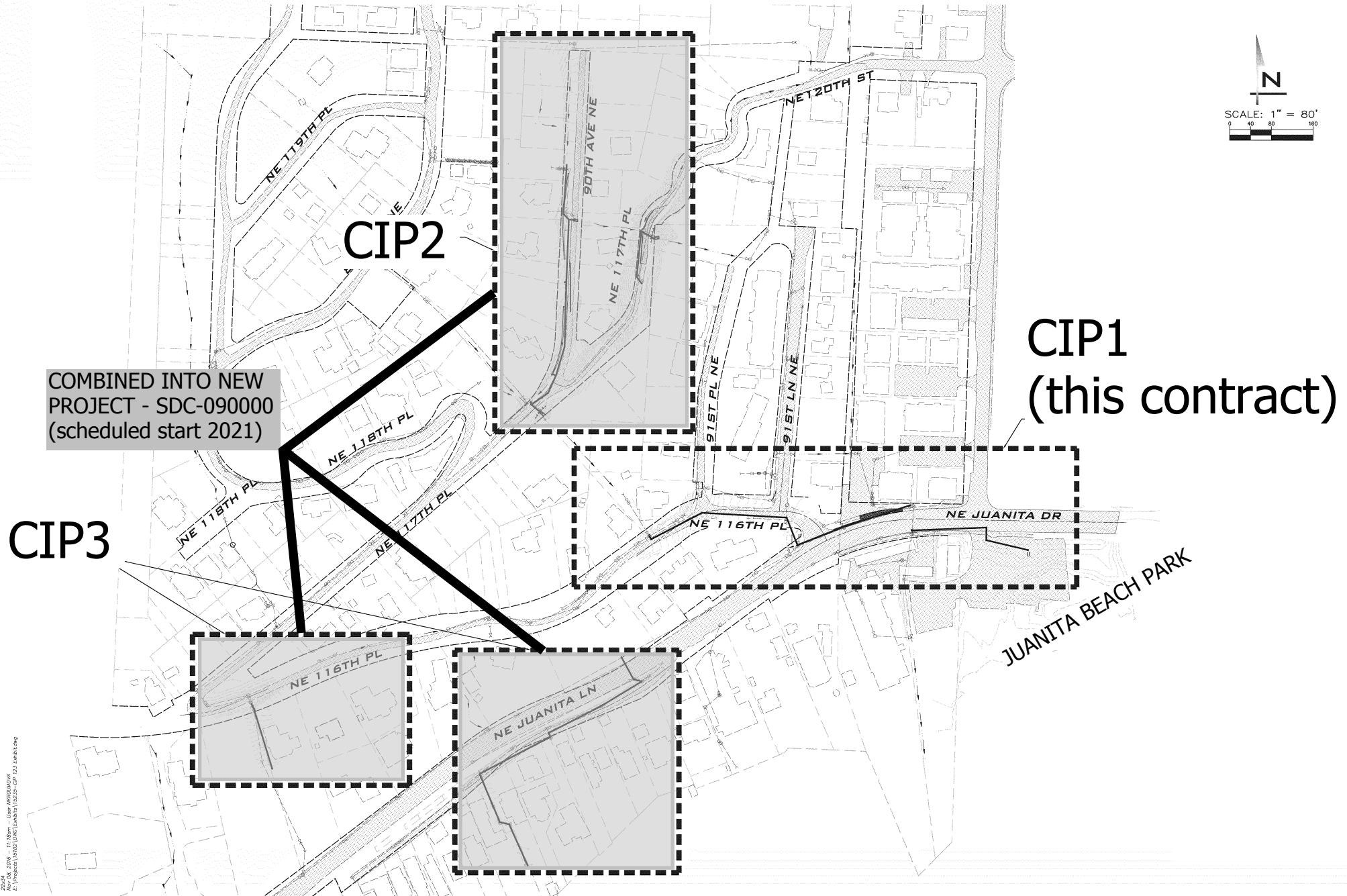
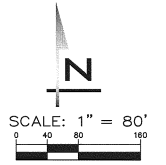
As currently funded, the design work for the combined SDC-09000 and SDC-09900 will be completed in 2021 with construction in 2022.

Recognizing that time of year does influence the bids received (earlier in the year generally leads to more favorable bids because contractors prefer to line-up work for the summer construction season), staff recommends moving forward with the bidding process. Once bids are received and analyzed, staff will determine if additional funds are needed to complete the Project. Staff will return to City Council with a recommended action and a source for additional funds, if needed.

Attachment A: Vicinity Map
 Attachment B: Project Map



**VICINITY MAP
GOAT HILL PROJECTS**



PROJECT MAP - GOAT HILL CIP PROJECTS

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