

Staff Report

for the Regular Meeting of the Board of Directors, December 11, 2019

TO: Board of Directors

FROM: Doug Roderick, P.E., Engineering Manager

DATE: December 3, 2019

SUBJECT: Alta Sierra Reservoir Replacement Project (FATR #6971)

ENGINEERING

RECOMMENDATION:

Award a design-build contract with Gateway Pacific/Bennett Engineering/DN Tanks in the amount of \$6,742,123 and authorize the General Manager to execute the appropriate documents.

BACKGROUND:

The existing Alta Sierra Reservoir is a 3 million gallon hypalon lined and covered treated water reservoir. Hypalon is a reinforced synthetic rubber material that was installed in 1976. The hypalon is continuing to deteriorate and is at the end of its useful life. The goal of this project is to replace the existing deteriorated facility with a new storage facility that will reduce the risk of contamination related to deteriorated facilities, meets storage volume requirements, and allows for maintenance and cleaning. The mitigated negative declaration for this project was approved by the Board at the September 26, 2018 Board meeting.

Staff developed a Request for Proposal (RFP) that included three different storage volumes as well as the type of tanks to be constructed. The three volumes to be considered is 3 million gallons (MG), 4 MG, and 5 MG. The type of tanks allowed to be constructed are the AWWA D110 Type 1 pre-stressed concrete tank and the AWWA D100 welded steel tank.

The 3 MG option is the minimum storage volume needed to meet current customer needs and includes 10 years of demand growth. Additional volumes above the minimum should be considered for economy of scale and relatively small incremental costs of storage. In addition to cost savings, constructing the larger storage volume now will increase emergency fire storage for Alta Sierra and Lake

of the Pines communities, accommodate 30+ years of demand growth and reduce impacts to the surrounding neighborhood by not having to construct another tank. The design life of the proposed storage tank is 100 years, and the maximum storage the site can accommodate is 5 MG.

The RFP was sent out on October 8, 2019, to 24 contractors, consultants, and tank manufacturers. Two proposals were received on November 22, 2019. Five staff members reviewed each of the proposals for the project without being given the project costs so that the proposal could be evaluated without any bias towards costs. There were a total of 65 points for the proposal evaluations and 35 points for costs. Once the proposals were evaluated by staff and points were totaled, each proposal was awarded points for costs for the final score.

Proposal Team	Total Points
Gateway Pacific/Bennett Engineering/DN Tanks	58.1
Kiewit/GHD/Paso Robles Tanks	49.0

3 Million Gallon Storage Option

Proposal Team	Total Points	Costs
Gateway Pacific/Bennett Engineering/DN Tanks	93.1	\$5,541,200
Kiewit/GHD/Paso Robles Tanks	81.5	\$5,971,000

4 Million Gallon Storage Option

Proposal Team	Total Points	Costs
Gateway Pacific/Bennett Engineering/DN Tanks	93.1	\$6,166,235
Kiewit/GHD/Paso Robles Tanks	79.0	\$7,204,000

5 Million Gallon Storage Option

Proposal Team	Total Points	Costs
Gateway Pacific/Bennett Engineering/DN Tanks	93.1	\$6,742,123
Kiewit/GHD/Paso Robles Tanks	76.7	\$8,527,000

Of the two proposals received, one team proposed the concrete tank option, and the other proposed the welded steel tank option. Based on the scoring above, staff recommends the contract be awarded to the Gateway Pacific/Bennett Engineering/DN tanks team. The Gateway team proposed constructing a concrete tank.

As the preferred proposal reflects, the costs associated with increasing the storage volume above the minimum was considerably less than the costs for the minimum volume. The price per gallon for the minimum volume is \$1.85. The additional storage volume price per gallon for the 4 MG and 5 MG volumes is \$0.63 and \$1.20 respectfully.

Based on the incremental costs to construct the larger storage volumes as well as the additional benefits including emergency fire storage, demand growth, and

neighborhood impacts, staff is recommending that the Board award the design-build contract with Gateway Pacific/Bennett Engineering/DN Tanks for \$6,742,123 for the 5 MG storage volume.

Construction management and inspection will be performed by District staff. District staff has previous experience with this type of tank construction with the Banner-Taylor Reservoir Replacement Project, which included two AWWA D110 pre-stressed concrete tanks. District staff performed all construction management and inspection for that project.

This item is in alignment with Goal Numbers 1 and 4 of the District's Strategic Plan by proactive management of our financial resources and the integration of proven practices and technologies to enhance the reliability and quality of our water supply.

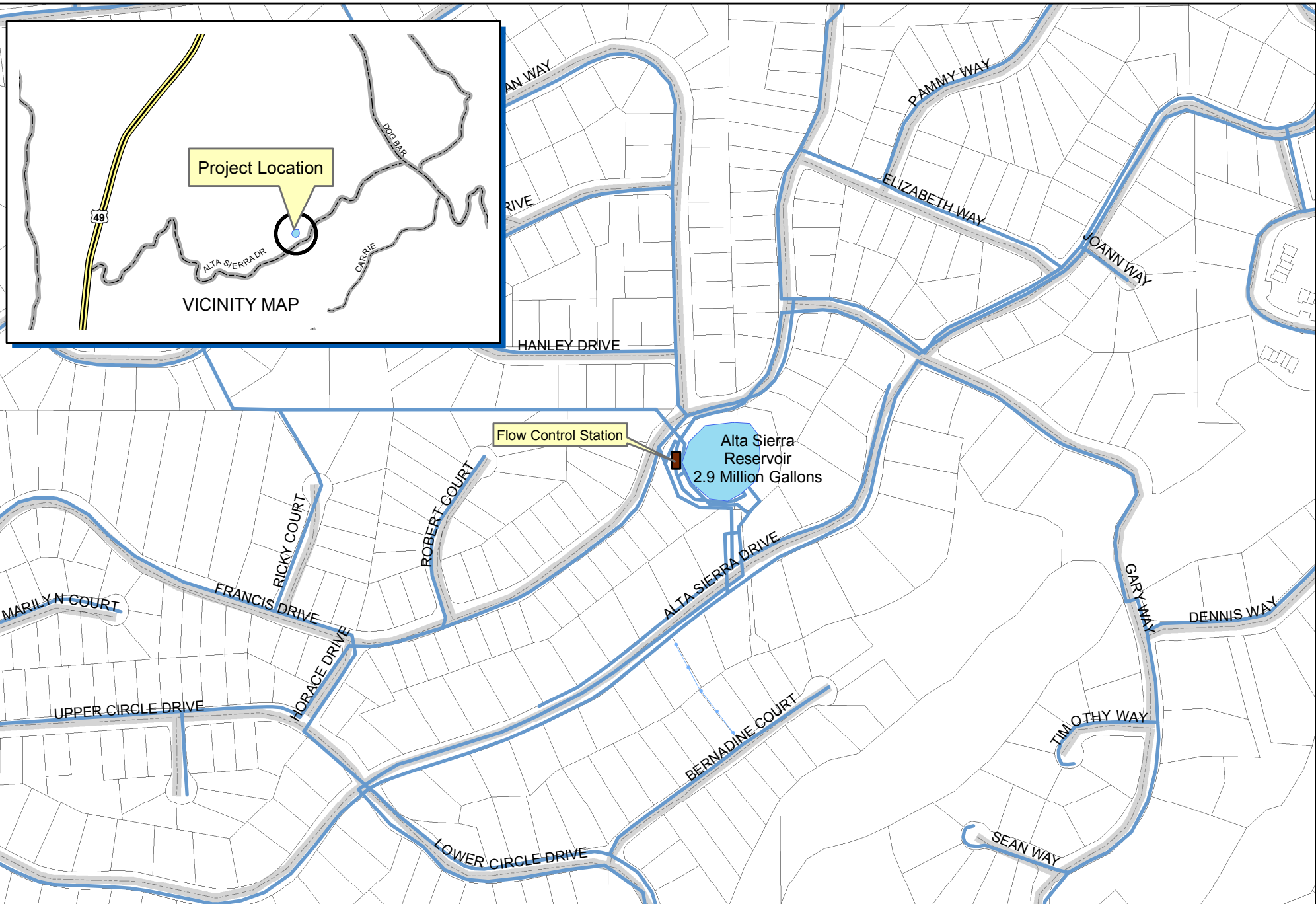
BUDGETARY IMPACT:

The current budget for this project in 2019 is \$2,000,000 from Account #10151-52915-6971. Budget for 2020 is \$5,000,000 from Account #10151-52915-6971. After this commitment, there will remain \$257,877 in this account. The project will be constructed over two years and is anticipated to be completed in 2021.

ATTACHMENTS: (4)

- General Vicinity Map
- Exhibit of proposed 3 MG storage option
- Exhibit of proposed 4 MG storage option
- Exhibit of proposed 5 MG storage option

DR



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NEVADA IRRIGATION DISTRICT

NEVADA COUNTY -- PLACER COUNTY
GRASS VALLEY, CALIFORNIA

ALTA SIERRA RESERVOIR REPLACEMENT PROJECT

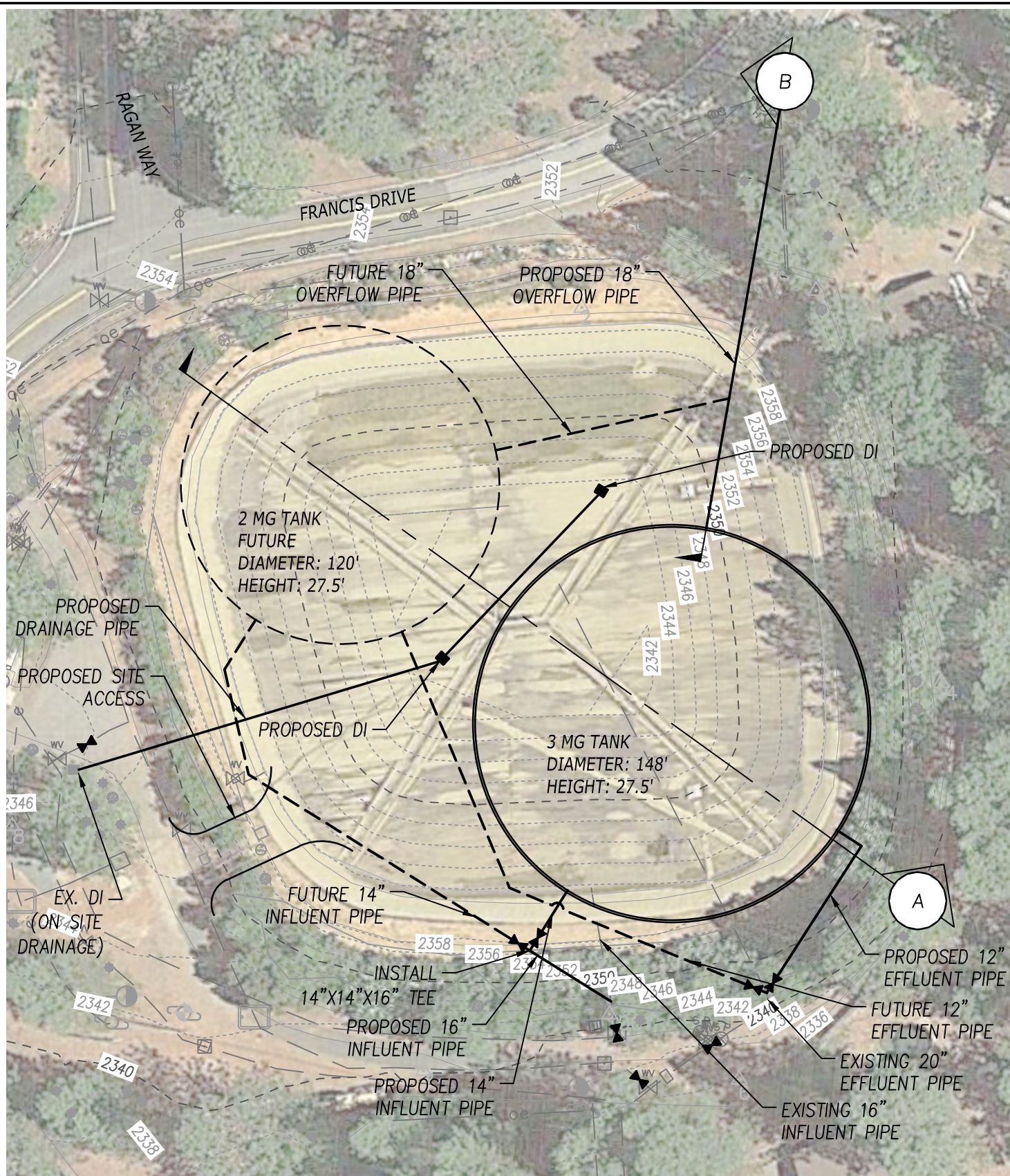
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Sheet: 1 of 1

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PLAN VIEW
SCALE: 1" = 50'

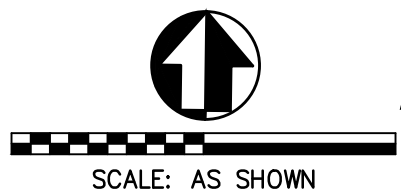
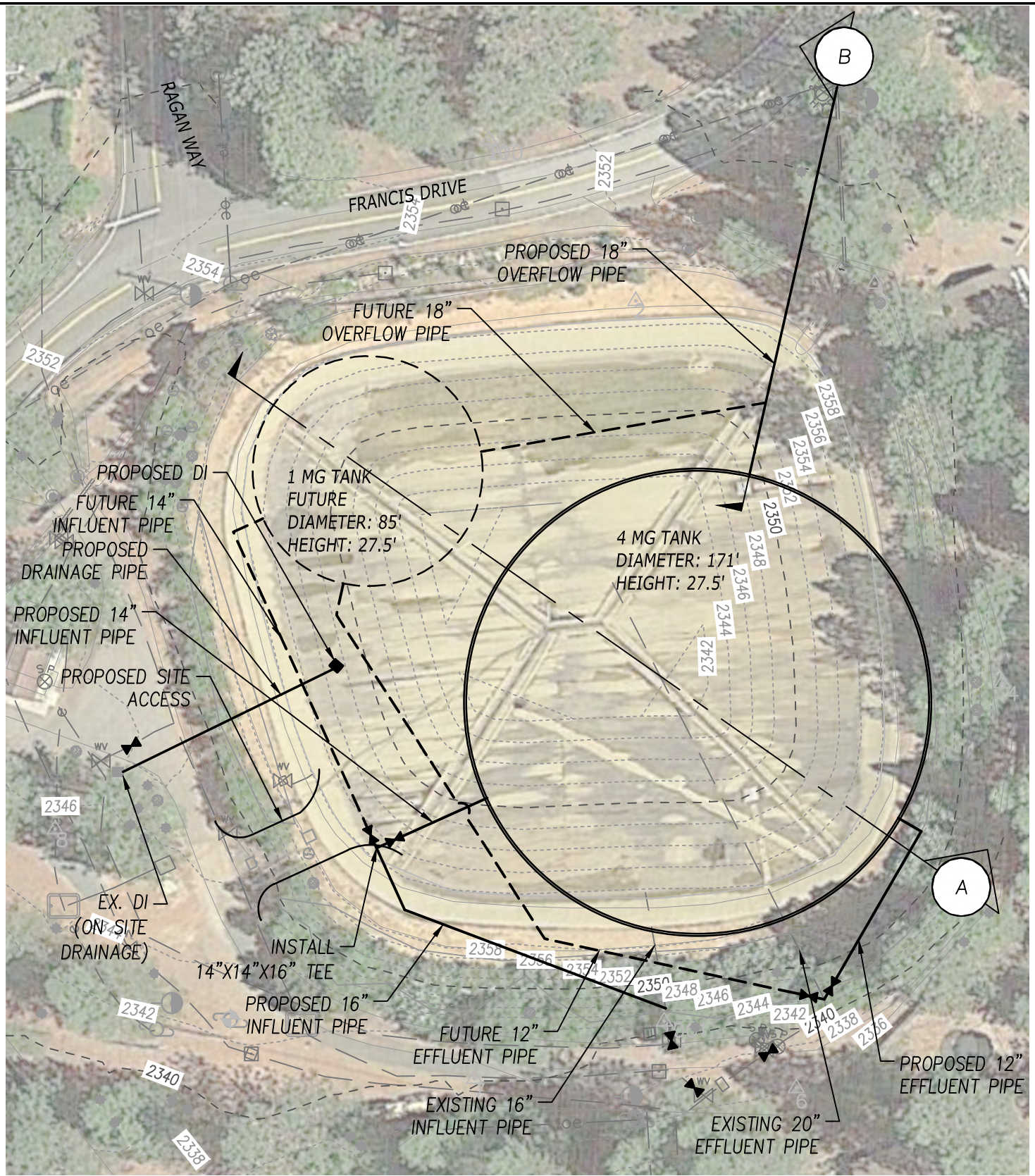


EXHIBIT B - 3MG TANK

ALTA SIERRA RESERVOIR REPLACEMENT
PROJECT No. p19115

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PLAN VIEW
SCALE: 1" = 50'

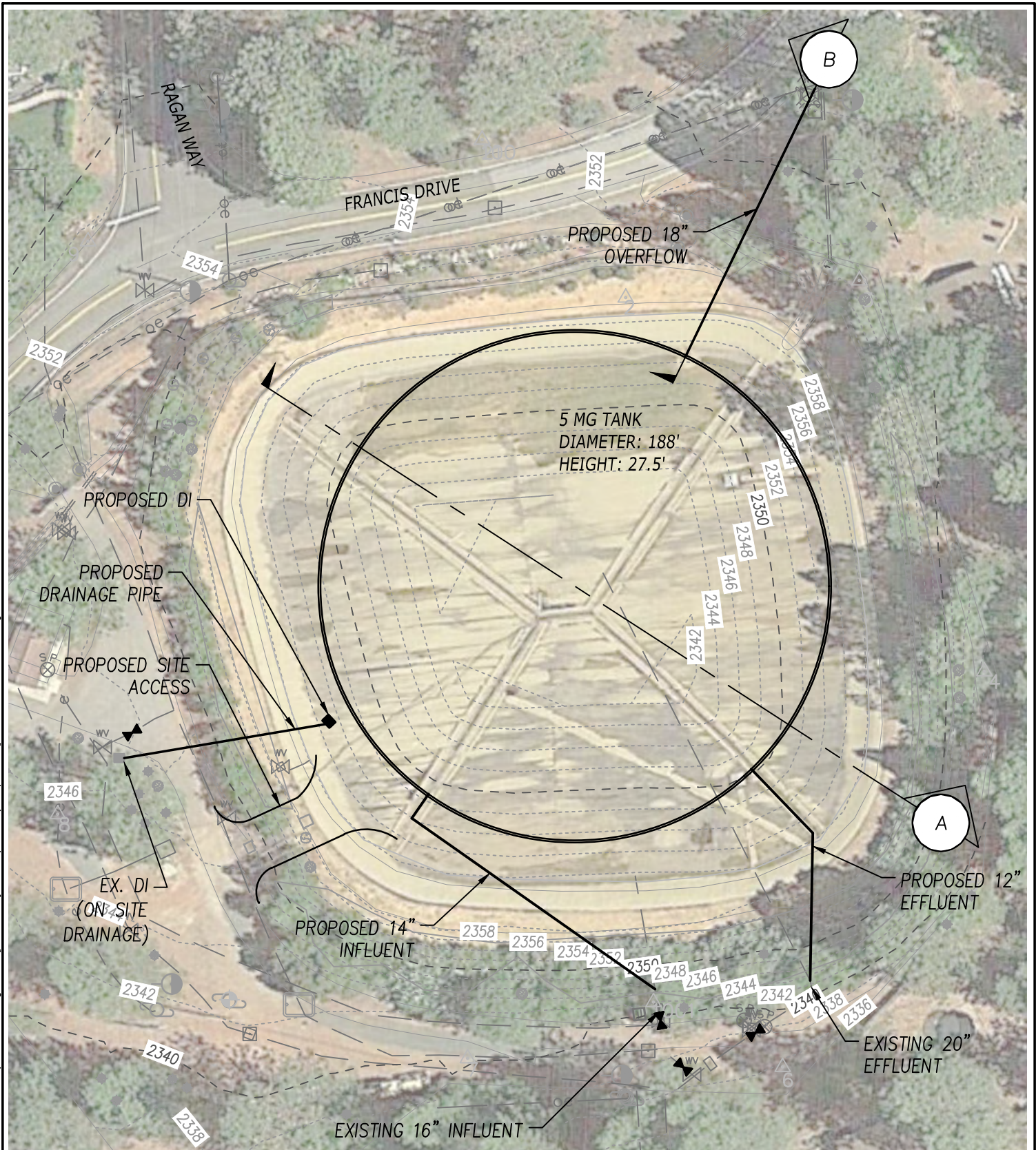


SCALE: AS SHOWN

EXHIBIT C - 4MG TANK

ALTA SIERRA RESERVOIR REPLACEMENT
PROJECT No. p19115

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PLAN VIEW
SCALE: 1" = 50'



SCALE: AS SHOWN

EXHIBIT D - 5MG TANK

ALTA SIERRA RESERVOIR REPLACEMENT
PROJECT No. p19115