



Staff Report

TO: Board of Directors

FROM: Adrian Schneider, P.E., Senior Engineer
Doug Roderick, P.E., Interim Engineering Manager

DATE: September 22, 2021

SUBJECT: David Way Pump Station Replacement (Project #2322) (Consent)

ENGINEERING

RECOMMENDATION:

Award a manufacturing contract with EFI-Solutions in the amount of \$412,475.77, approve Budget Amendment 2021-182, and authorize the General Manager to execute the appropriate documents.

BACKGROUND:

The David Way Pump Station, constructed in 1969, is located on the David Way Tank site (District 3). The site includes two tanks that serve water to the surrounding properties on a gravity zone basis. The booster pump station serves 93 properties in a separate pressure zone around the David Way tank site. The original pump station includes a single pump that works in unison with a pressure tank. The station has reached the end of its life expectancy, does not meet the minimum fire flow capacity requirements, and does not have a backup pump.

The David Way Pump Station Project is identified in the District's Five-Year Capital Improvement Program (CIP) for next year's Annual Budget (2022). However, due to the increased concern regarding fire risk, it has been determined that it is the District's best interest to replace the pump station now to meet fire flow requirements, allow for the replacement of the booster pump that is well past its expected life cycle, and to install a redundant pump to address outages due to unknown circumstances or planned outages.

It is proposed to replace the old pump station with a new pre-manufactured pump station. District staff evaluated whether or not to construct a new replacement pump station or to utilize a pre-manufactured pumping station. It was determined that it is in the District's best interest to utilize a pre-manufactured pump station because it is less expensive and easier to install. Additionally, the pre-manufactured station is delivered complete, including a building enclosure ready to place on a foundation. This will allow for the pump station to be connected to the existing piping and electrical power, making the transition from abandoning the existing station and connecting to the new one more efficient.

Staff reached out to four companies that provide pre-manufactured pump stations. Only two of the four companies contacted by staff expressed an interest in providing the District with a pre-manufactured pump station quote. On June 17, 2021, staff sent a formal request for quotes to EFI-Solutions and DPX Enterprises. On July 2, 2021, the District received quotes from both EFI-Solutions and DPX Enterprises.

The quote results are as follows:

EFI-Solutions	\$412,475.77
DPX Enterprises	\$449,962.52

The quote from EFI-Solutions was significantly more detailed and thorough than the quote from DPX Enterprise and as indicated above, the least expensive option. District staff have previously contracted with EFI for two pre-manufactured pump stations and have been very satisfied with the operation of the facilities.

The pump station from EFI is anticipated to be delivered in approximately 30-weeks after contract signing. The new pump station will include two normal-duty pumps, one fire-flow pump, and a new propane backup generator. A separate contract to have the pump station installed will be necessary.

It is the recommendation of staff to award a contract with EFI-Solutions for \$412,475.77.

BUDGETARY IMPACT:

As previously stated, the David Way Pump Station Replacement project (Project #2322) was not budgeted for 2021. However, the North Auburn Water Treatment Plant Generator project (Project #2376) that was budgeted in 2021, has \$450,000 remaining in its budget for 2021. The North Auburn Project's priority has decreased as the electric grid that supplies North Auburn Treatment Plant also supplies the Auburn Faith Hospital, reducing risks from PSPS events. Additionally, the North

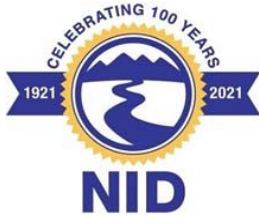
Auburn project is delayed due to required coordination with PG&E to upsize a required gas line.

Therefore it is staff's recommendation to amend the 2021 Annual Budget to move the remaining funding from the North Auburn Water Treatment Plant Generator project to the David Way Pump Station Replacement project (Project #2322). This proposal will not change Water Fund 10's total appropriated budget for 2021. As such, a Budget Amendment is requested for \$413,000 to be transferred from Account #10151-52915-**2376** to Account #10151-52915-**2322**. This transfer will leave a balance of \$37,000 in the budget for project #2376

ATTACHMENTS: (4)

- Budget Amendment Request
- Project Site
- Project Location Photos
- Station Design (Plan & Profile)

AS



NEVADA IRRIGATION DISTRICT BUDGET AMENDMENT FORM

Budget Amendment #

BA 2021 - 182

Date: 9/22/2021
 To: Jennifer Hanson, General Manager
 From: Doug Roderick, Interim Engineering Manager

Initial DR

Budget Increase: Accounts being increased. Enter positive number.

Department	Object / Account	Amount Increase
10151 Engineering	52915 Project: Non-Programmatic	\$ 413,000

Budget Decrease: Accounts being decreased. Enter negative number.

Department	Object / Account	Amount (Decrease)
10151 Engineering	52915 Project: Non-Programmatic	\$ (413,000)

Reserve Impact: Increase = Positive, Decrease = Negative.

Division Funding	Funding Account	Increase/(Decrease)

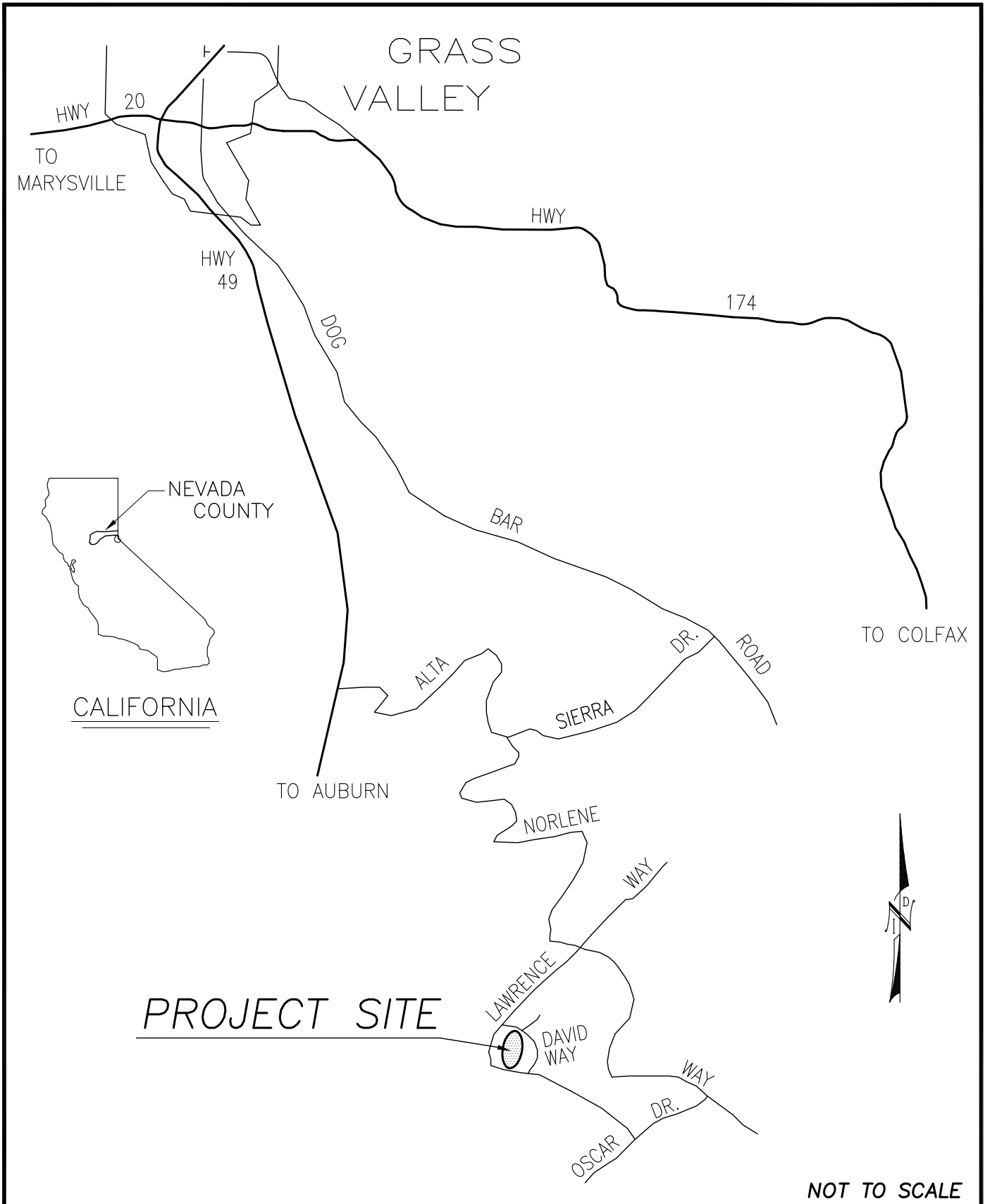
Explanation: Enter narrative explaining reason for amendment.

Decrease budget for Project #2376 North Auburn Treatment Plant Project and transfer to Project #2322 David Way Pump Station. Project #2376 no longer has a critical need for the backup generator in the event of a PSPS event. Transfer is between projects within the same program.

APPROVALS:

	<u>Date</u>	<u>Signature</u>	<u>AGM/FM Signature</u>	<u>Approved/Denied</u>
Level I:				
Level II:				
Level III:				

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DAVID WAY PUMP STATION PROJECT

REVISION DATE

7/9/2021

SHT 1 of 1

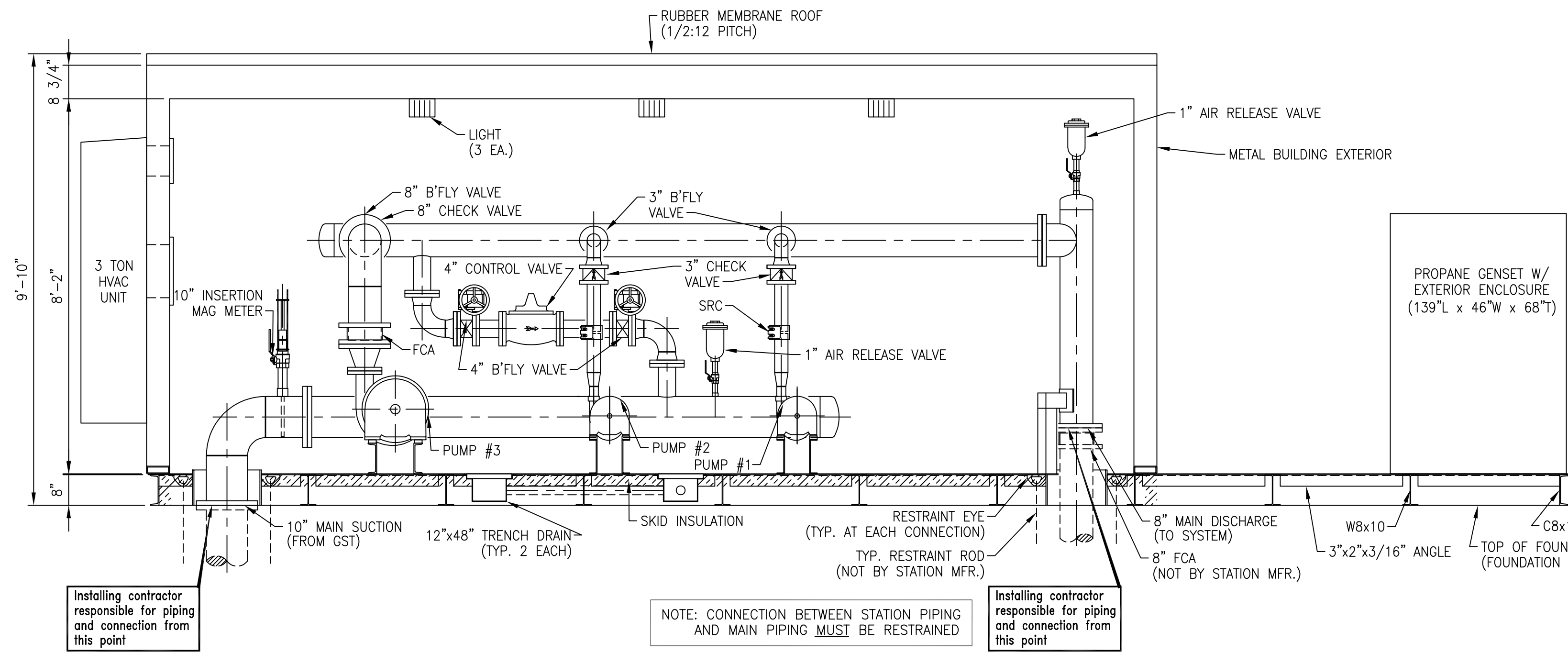


Existing pump station building, white pressure tank, generator and storage tank, northeast view

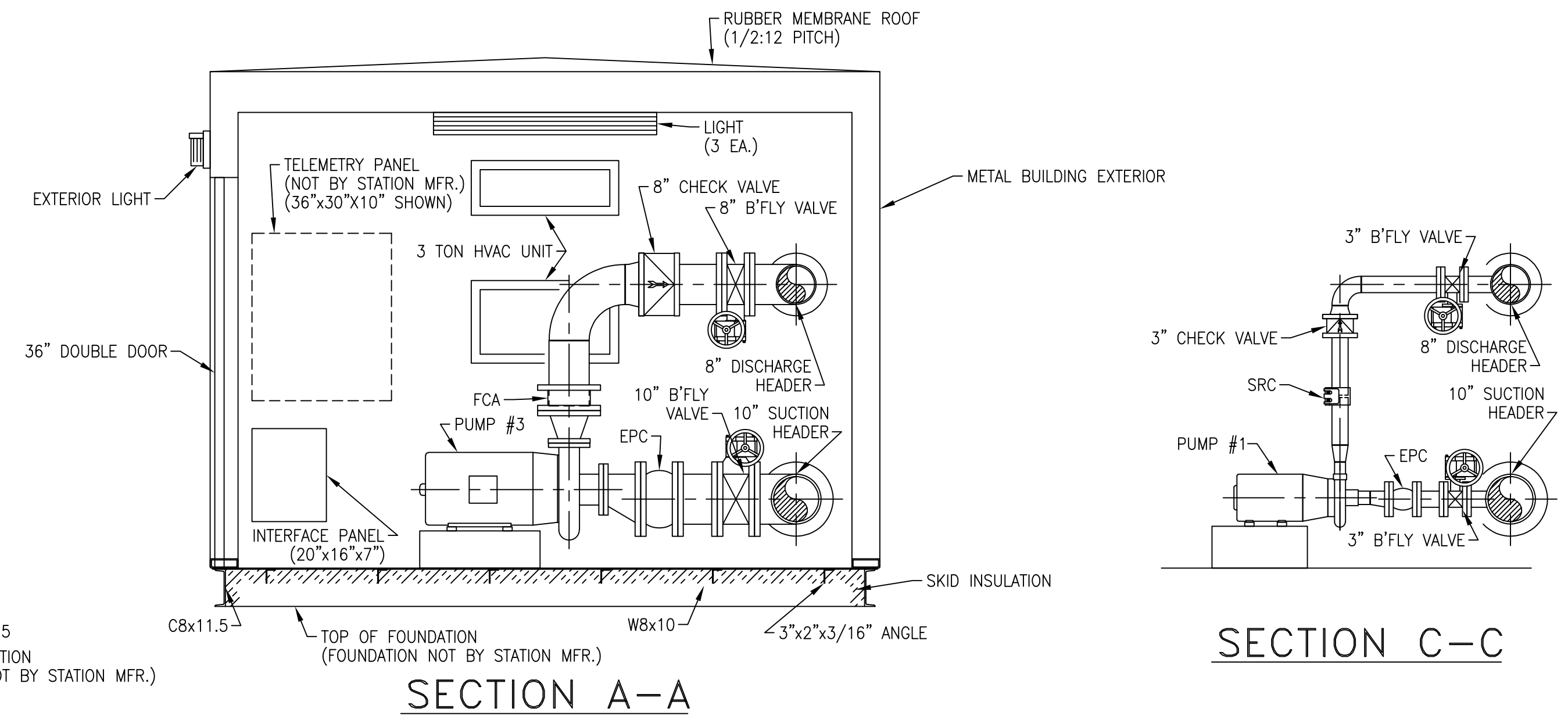


Existing pump station building, pressure tank, and storage tank from entrance, south view

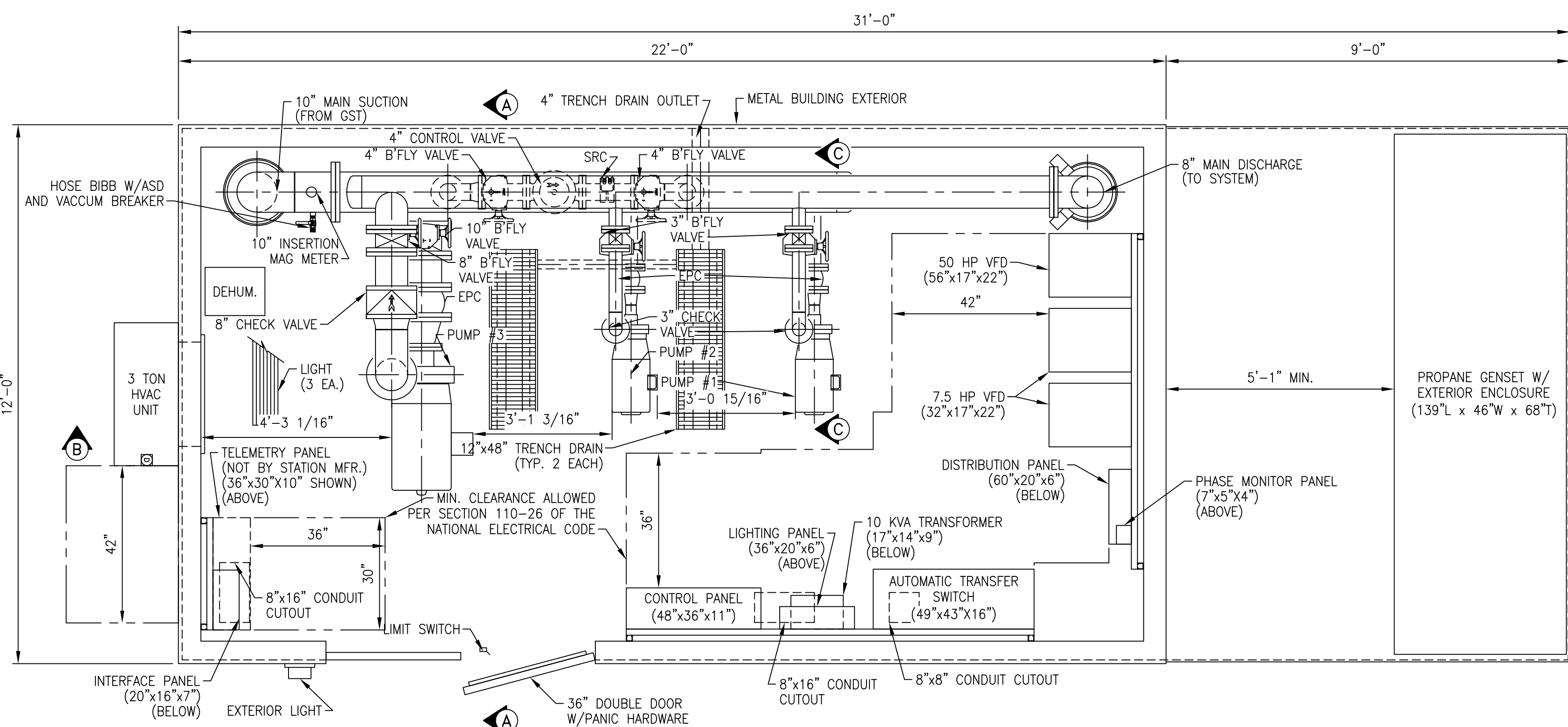
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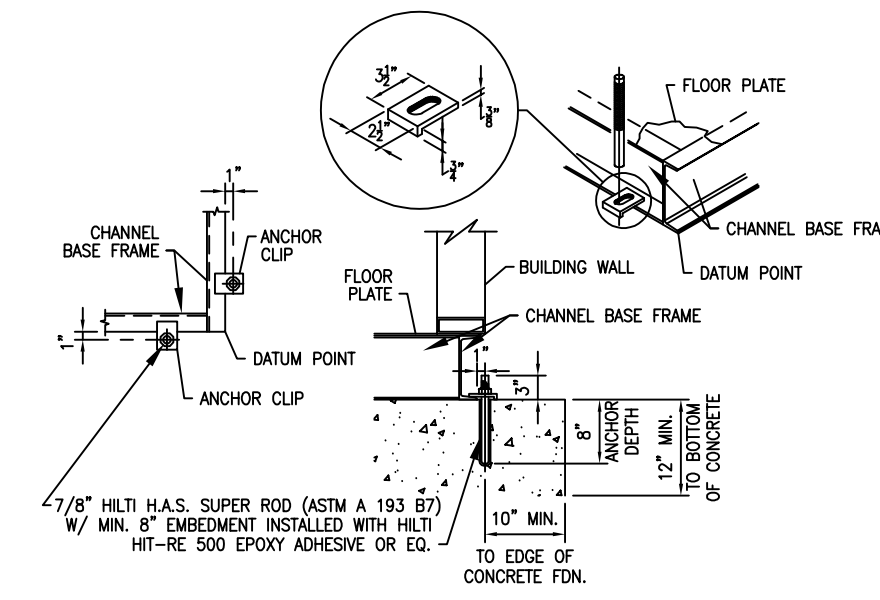
SECTION B-B



SECTION A-A

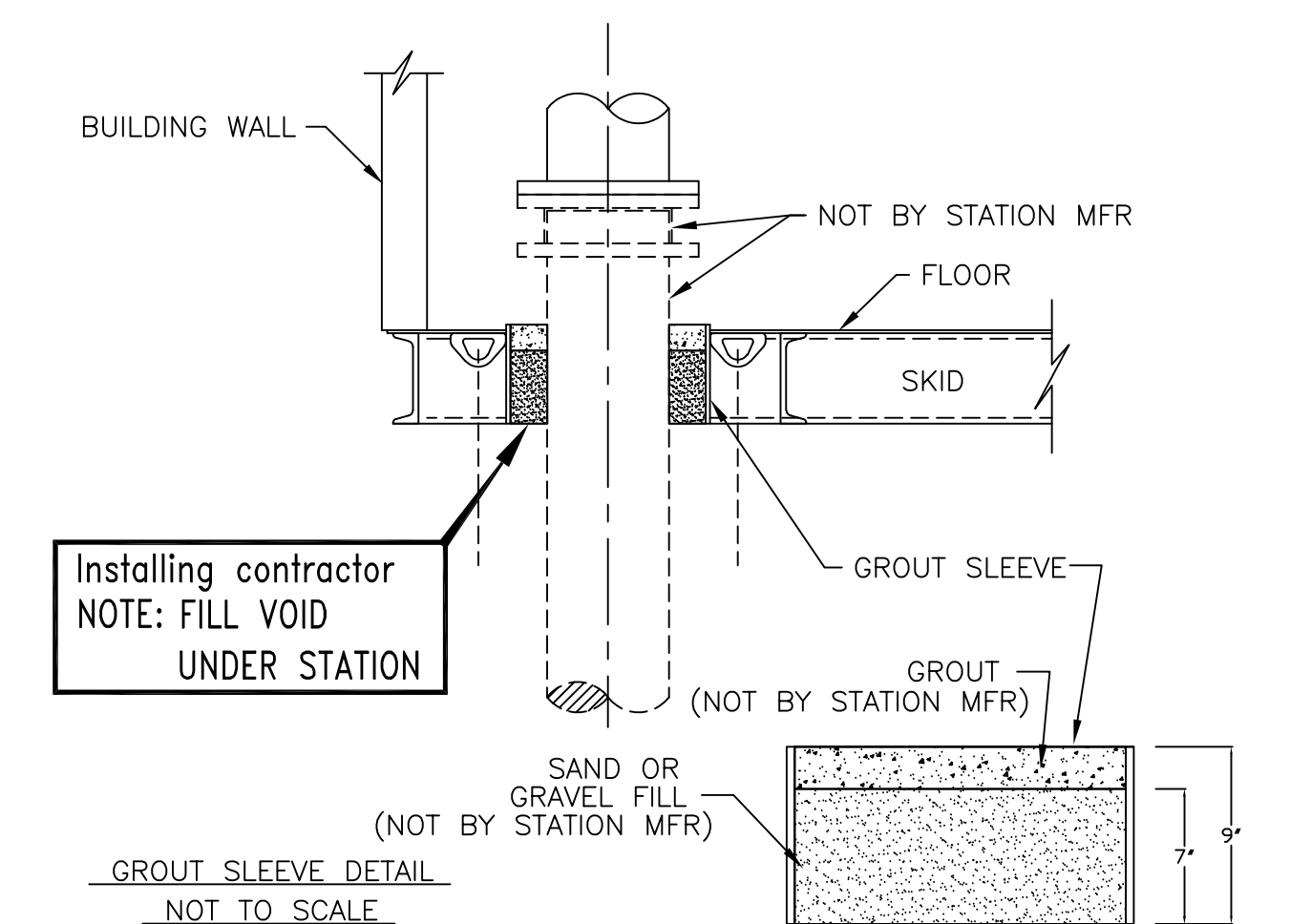


PLAN



BASE FRAME ANCHOR DETAIL CHANNEL FRAMING MEMBERS

- NOTE:
- ANCHOR CLIPS FURNISHED BY E.F.I.
 - ANCHOR BOLTS AND NUTS BY INSTALLER.
 - FINAL FOUNDATION AND ANCHOR BOLT DESIGN AND DIMENSIONS AS DIRECTED BY ENGINEER (DIMENSIONS ARE SHOWN).
 - SHIMS MAY BE REQUIRED AROUND PERIMETER OF BASE FRAME FOR LEVELNESS AND PROPER DOOR ALIGNMENT IN FRAME.
 - QUANTITY OF ANCHOR BOLTS SPECIFIED BY ENGINEER.
 - ANCHOR BOLTS SHALL BE PLACED WITHIN 12" OF EACH CORNER WITH THE REMAINING ANCHORS BEING SPACED NO MORE THAN 6" APART ALONG ALL SIDES OF THE BUILDING FOOTPRINT WITH ANY WALL OF 7 FEET OR LESS HAVING TWO ANCHOR BOLTS, ALL ACCORDING TO IBC 2308.3.1, 2015 ED.



TYPICAL GROUT DETAIL

DESIGN CRITERIA

Controls TELEMETRY (NOT BY STATION MFR.)
Power Service: 480 Volts, 3 Phase, 60 Cycle

PUMP DATA

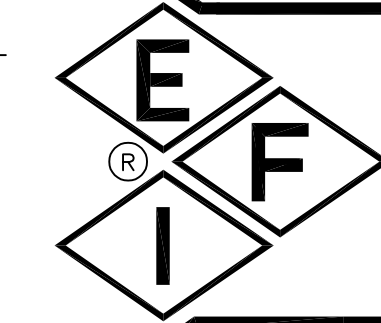
Type: HORIZ., CLOSE CPLG., END SUCTION
Pump 1 & 2
Capacity: 200 G.P.M. AT 115 FEET T.D.H.
Size: 2" X 2.5" X 7"
Motor: 10 H.P., 3600 R.P.M.
Pump 3
Capacity: 1000 G.P.M. AT 115 FEET T.D.H.
Size: 4" X 6" X 12"
Motor: 50 H.P., 1800 R.P.M.

NOTE: FCA - FLANGED COUPLING ADAPTER
SRC - SELF RESTRAINED COUPLING
EPC - ELASTOMER PIPE CONNECTION

REVISION #	DATE	REVISED BY	DESCRIPTION

DESIGNED BY: LS MECHANICAL CHECKED BY (C.E.): ELECTRICAL CHECKED BY: SCALE: 1/2" = 1'-0"

DRAWN BY: CK



ENGINEERED FLUID, INC.
P.O. DRAWER 723 • CENTRALIA, ILLINOIS 62801 • 618-533-1351

BOOSTER PUMP STATION
DAVID WAY PUMP STATION
GRASS VALLEY, CA

JOB REF NO. 4767 DRWG. NO. P-4767-B-001.

NOTE: "EXCEPT FOR PIPE END SUPPORTS, WHICH ARE SHOWN, VERTICAL AND ANGLE PIPE BRACES ARE NOT SHOWN FOR DRAWING CLARITY"

This drawing is conceptual and does not reveal certain details and manufacturing processes required to successfully build the equipment. As such, Engineered Fluid, Inc. is not responsible for injury or damages caused by any unauthorized fabrication or assembly using all or any part of this drawing.

