



- Surveying
- Civil Engineering
- Permitting
- Estimating
- Construction Consulting

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Stockton, CA 95209
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Stockton, CA 95207
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**The Trustees of Reclamation District 1614
509 West Weber, 5th Floor
Stockton CA 95201
209 948-4910**

11/10/14

Re: Engineering Proposal for Wisconsin Pump Station

RD 1614 is currently planning on replacing the Wisconsin Pump station at an estimated cost of \$2,600,000 to provide a new pump station with 31,000 gallons per minute (GPM) of capacity. Green Mountain Engineering (GME) has reviewed the information readily available and offers a second opinion for options to upgrade the pump station.

Prior to designing a repair or replacement GME would review the existing overall drainage system. The capacity of the existing gravity storm drain system would be examined to assure that the pumping capacity does not exceed the gravity fed storm drain systems capabilities.

GME recommends using state of the art Vinyl sheetpile products and High Density Polyethylene piping. These products provide a longer service life than steel and are comparable in cost if not less expensive.

Enclosed are estimates for the following tentative proposed scope of services.

Phase 1 Planning.

- a. Review existing drainage calculations and capability of the system.
- b. Provide and evaluate options, (repair vs. replace)
- c. Review detention possibilities.
- d. Evaluate impact of Caltrans Highway improvements impact on drainage and provide report.
- e. Provide detailed cost estimates of options and potential areas of savings.

Total Estimated Cost= \$ 77,625

Option 1- Repair sump and provide additional pumping capacity.

- a. Repair wall and support existing foundation with either concrete or vinyl sheetpiles/walers.
- b. Provide bottom for sump.
- c. Replace one existing 30 hp pump with a 100 hp pump and 30" discharge.
- d. Service and reinstall one (E) 30HP pump.
- e. All new discharge pipes.

Total Capacity = 23,000 gpm

Total Estimated Cost= \$ 478,875

Option 1a- Install additional 50 hp pump

Furnish new 50 HP pump in existing sump outside of existing control building with 24" discharge. Additional capacity provided = 8,000 Total =31,000 gpm.

Total Estimated Cost= \$ 183,000

Additional Capacity= 8,000 gpm

Total 1 and 1a = \$ 662,175

Total Capacity = 31,000 GPM

Option 2- New pump station and pumps.

Provide new sump and platform (for 4 pumps total) install 2 ea 100 hp pumps and service and reinstall one 30HP pump. Provide all new piping (2 at 30" and 1 at 18"). Total capacity of 41,000 gpm plus future capacity.

Total Estimated Cost= \$ 1,269,175

Total Capacity= 41,000 GPM

Proposals includes the following:

Engineering and surveying.
Plans and specifications.
Bidding and contract management.
Construction supervision.
Levee fill at pump station.
Discharge protection.
New pumps and controls.
New discharge piping.
Control house

Allowances are included for items beyond GME's control:

PGE new service cost.
Permits from Reclamation Board and or Corps of Engineers.
Cleaning of Discharge Ditch and mitigation.

Enclosed are details of the proposed option and estimated costs. Also enclosed is a budget estimate prepared by Delta Pump for a new 50 HP and 100 HP pump.

Conditions of Proposal are as follows:

1. Available engineering and studies performed to date to be provided.
2. CEQA and NEPA is excluded.
3. FEMA correspondence for 100-year certification is excluded.
4. Pump station is designed as a private pump station and not to San Joaquin County standards.
5. Discharge valves are excluded.

The construction costs are estimated and will be administered either through competitive bidding or as a Design and Build contract under GME's General Engineering Contracting License (A- 809767).

This proposal is subject to review of the District. Comments or revisions to the proposal will be addressed within 2 weeks of receipt of comments.

If you have any questions please contact via e-mail. greenmountaindom@hotmail.com or cell 209 649 4555.

Green Mountain Engineering.



Dominick Gulli, PE, PLS

Attachments:

Cost Estimates.
Delta Pump Price Quotation.
HDPE and Vinyl Sheetpile information
Schematic drawings.

DELTA PUMP CO.

646 S. CALIFORNIA ST. STOCKTON, CA 95203
 PHONE: (209)466-9625 FAX: (209)466-1324

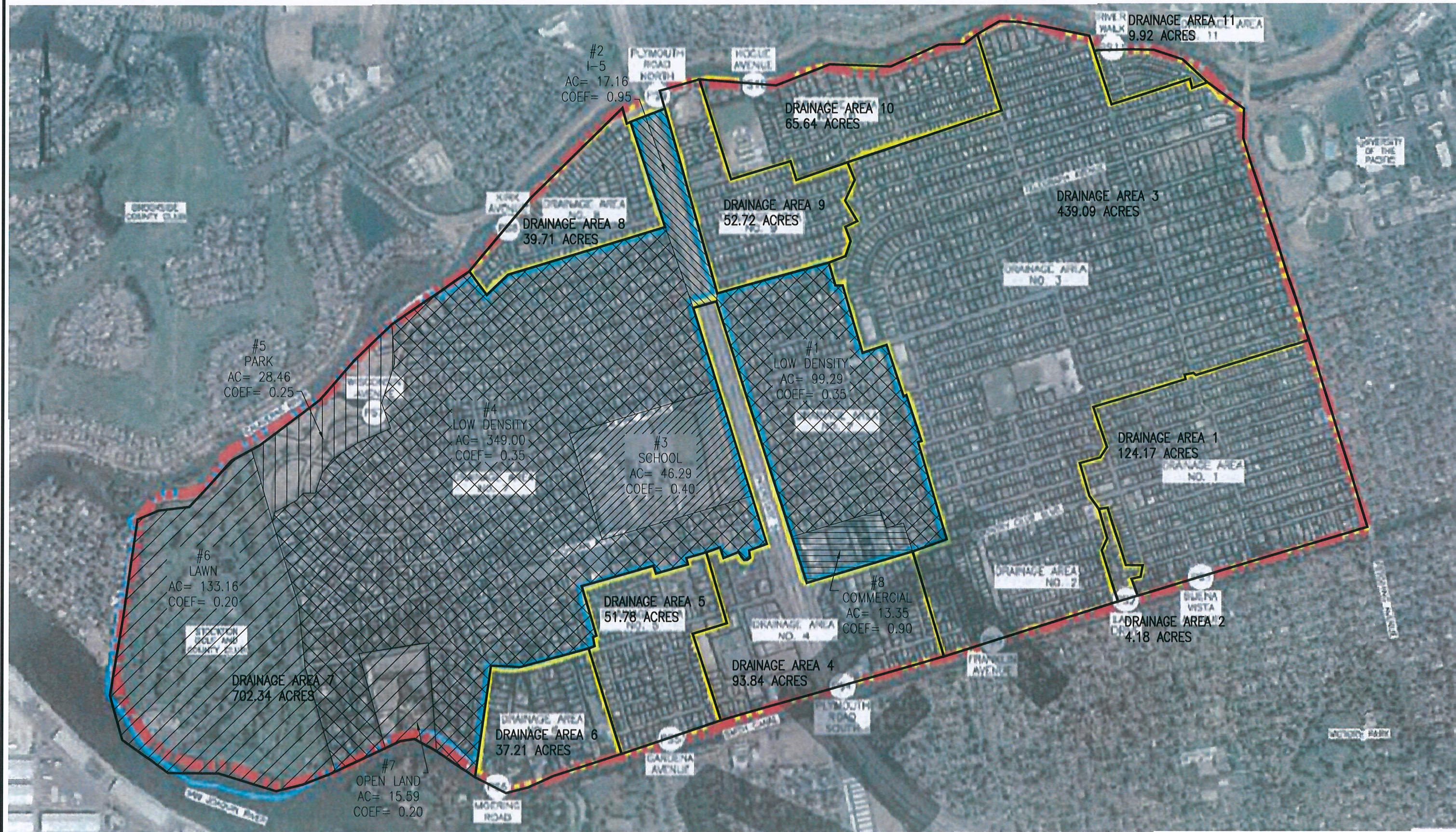
ESTIMATE ONLY

CUSTOMER: Reclamation District # 1614
 PO Box 4807
 Stockton, Ca 95204

DATE November 7, 2014
CONTACT Dominique
PHONE 209-649-4555
EMAIL greenmountaindom@hotmail.com

JOB SITE Wisconsin Pump Station # 7 Stockton, Ca

Quantity		TOTAL AMT.
	LABOR -- Remove existing 30 hp pump, crane install new 50 hp pump and motor, crane install new 100 hp pump and motor, install 400 amp electrical service, switch gear, install float switch assemblies, wire and conduit, make motor terminal connections	\$ 10,680.00
	MATERIAL	
1	Pump, 50 hp, below base discharge, approximate over all length 15', to provide 8,000 gpm @ 15' tdh, 80 % bowl efficiency, including 880 rpm 50 hp VHS motor	\$ 42,400.00
1	Pump, 100 hp, below base discharge, approximate over all length 15', to provide 18,000 gpm @ 15' tdh, 83% bowl efficiency, including 700 rpm, 100 hp VHS motor	\$ 57,762.00
1	Electrical service, 400 amps, including 400 amp non fused disconnect switch, wire and conduit, mscl material	\$ 5,500.00
1	Pump panel, 100 hp part wind start, 480 volts	\$ 6,500.00
1	Pump panel, 50 hp, across the line start, 480 volts	\$ 1,400.00
2	Float switch assemblies	\$ 1,200.00
1	MSCL lubrication assemblies, solenoid valve, electrical tape, oil and mounting hardware	\$ 600.00
	Estimate valid for 30 days	
	115,362 Material	\$ 72,962.00
	9,229 Sales Tax 8.00%	\$ 5,836.96
	10,680 Labor	\$ 10,680.00
	2,000 Crane Fees	\$ 2,000.00
	200 Building Permit	\$ 200.00
	\$ 137,471 Total	\$ 91,678.96



SCALE: 1"=1000'

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REV.	DATE	DESCRIPTION



WISCONSIN WELL
 PUMP STATION REHABILITATION
 DRAINAGE AREA MAP
 WISCONSIN AVE & CALAVERAS RIVER
 SAN JOAQUIN COUNTY, CA

PROJECT NO:	GME
DRAWN BY:	GME
DESIGN BY:	DL
CHECK BY:	DG
SCALE:	AS SHOWN
DATE:	2015-01-21
CAD FILE:	141106_MASTER.DWG

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 DATE: _____

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 OF
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 SHEETS



SCALE: 1"=50'

REVISIONS		
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WISCONSIN WELL
PUMP STATION REHABILITATION
DETENTION DESIGN
WISCONSIN AVE & CALAVERAS RIVER
SAN JOAQUIN COUNTY, CA

PROJECT NO:	GME
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CHECK BY:	DG
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OF	2
SHEETS	



NOTES:
 1. INSTALL (1) 18"x140' HDPE PIPE TO THE 30 HP PUMP, (1) 24"x140' HDPE PIPE TO THE 50 HP PUMP & (1) 30"x140' HDPE PIPE TO THE 100HP PUMP. (1) 36"x140' HDPE PIPE TO BE INSTALLED IN FUTURE TO THE PROPOSED 150 HP PUMP.

SCALE: 1"=20'

REVISIONS		
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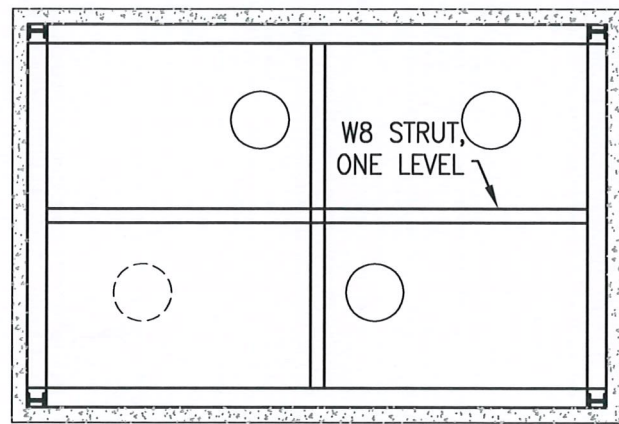


WISCONSIN WELL
 PUMP STATION REHABILITATION
 PLAN VIEW - CONSTRUCT NEW P.S.
 WISCONSIN AVE & CALAVERAS RIVER
 SAN JOAQUIN COUNTY, CA

PROJECT NO:	353
DRAWN BY:	GME
DESIGN BY:	DL
CHECK BY:	DG
SCALE:	AS SHOWN
DATE:	2014-11-07
CAD FILE:	141106_MASTER.DWG

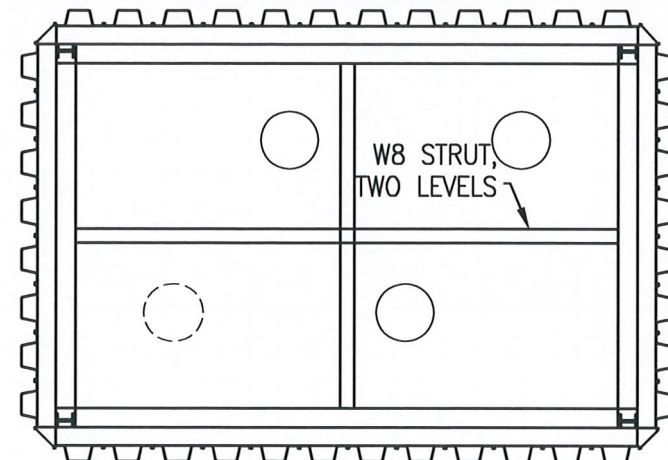
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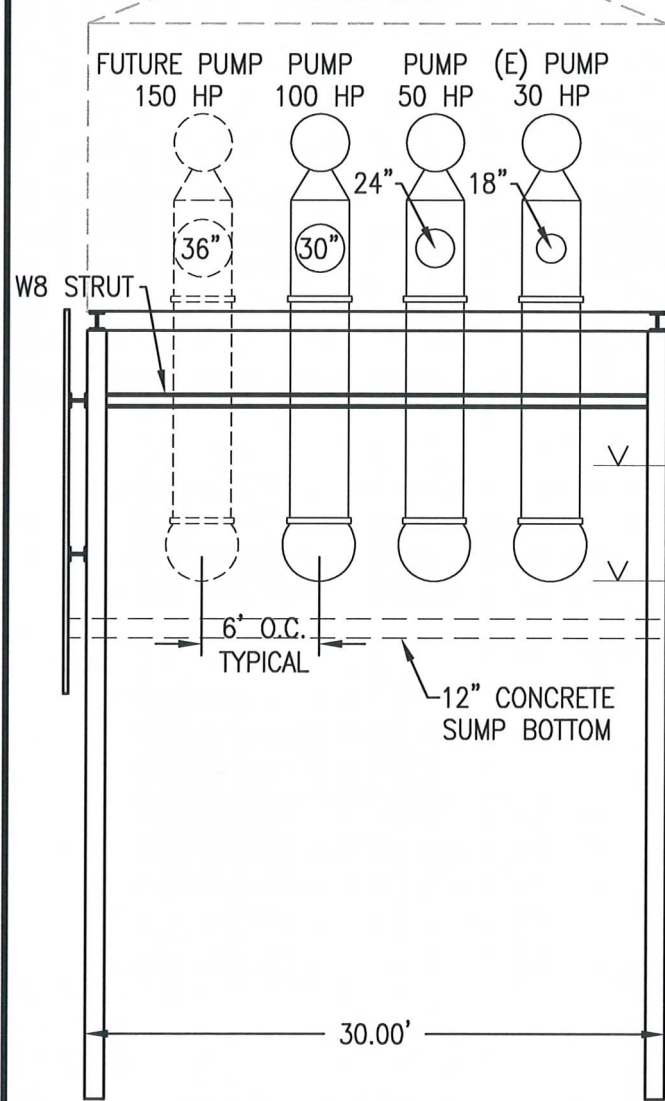
PRECAST CONCRETE W/ (3) CAST IN PLACE I-BEAM WALERS

(P) PUMP STATION - CONCRETE PANEL PLAN VIEW

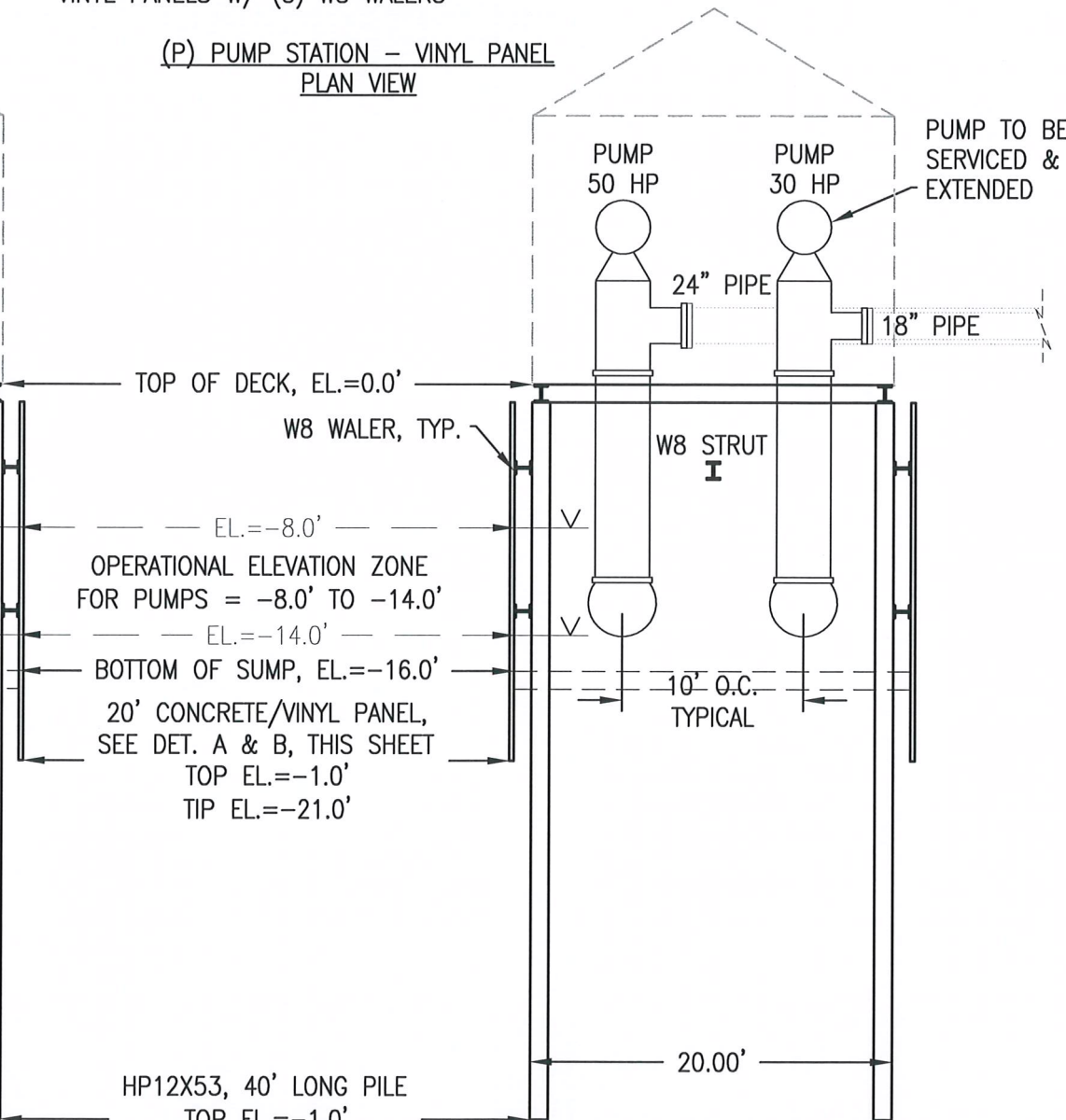


VINYL PANELS W/ (3) W8 WALERS

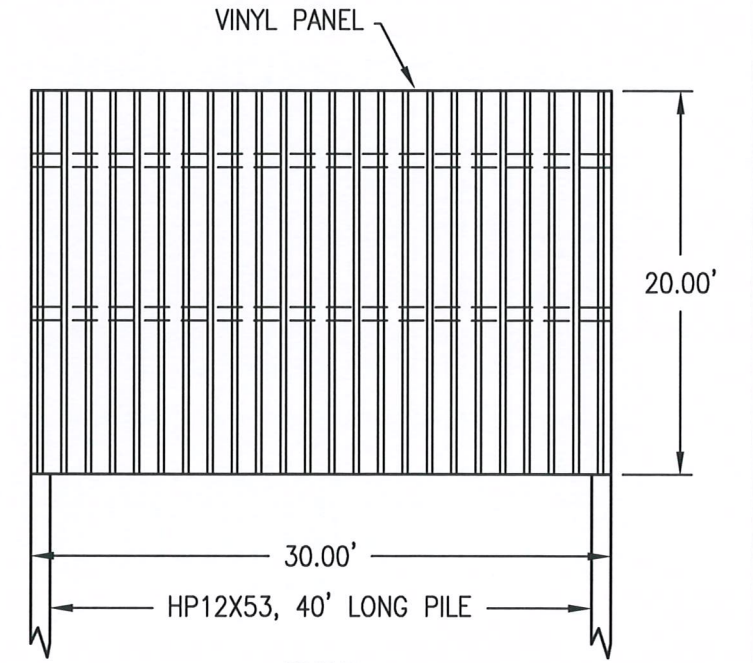
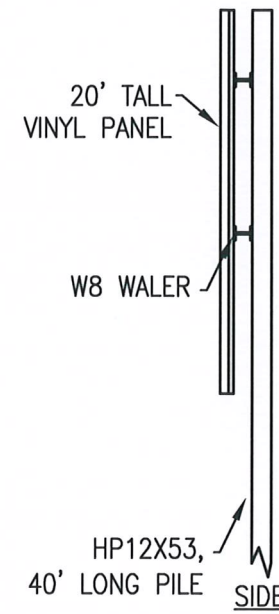
(P) PUMP STATION - VINYL PANEL PLAN VIEW



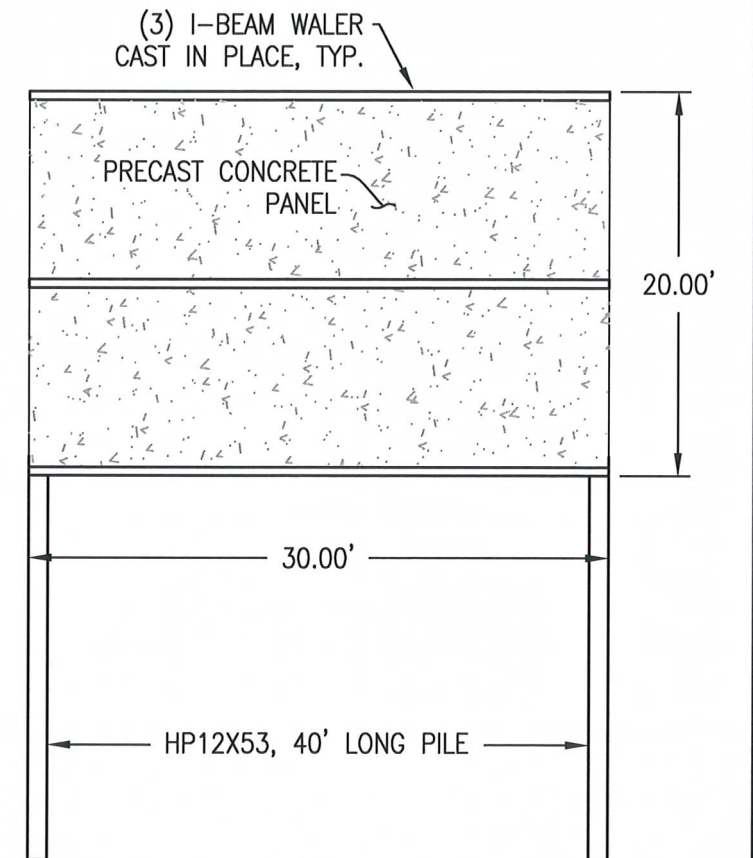
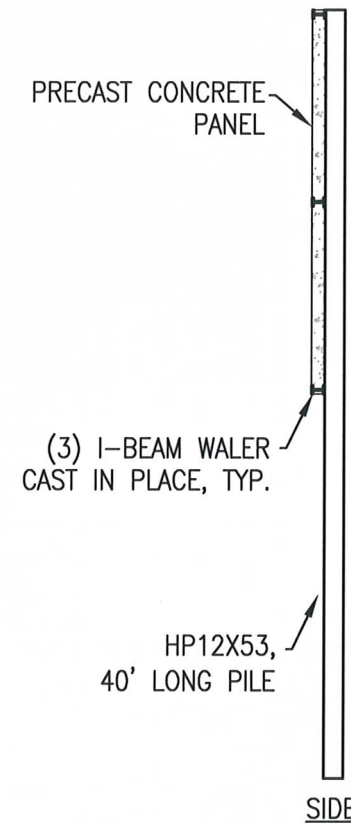
(P) PUMP STATION SECTION A-A



(P) PUMP STATION SECTION B-B



DET. A: VINYL PANEL



DET. B: CONCRETE PANEL

SCALE: 1"=10'

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WISCONSIN WELL
 PUMP STATION RECONSTRUCTION
 XSECTIONS & DETAILS
 WISCONSIN AVE & CALAVERAS RIVER
 SAN JOAQUIN COUNTY, CA

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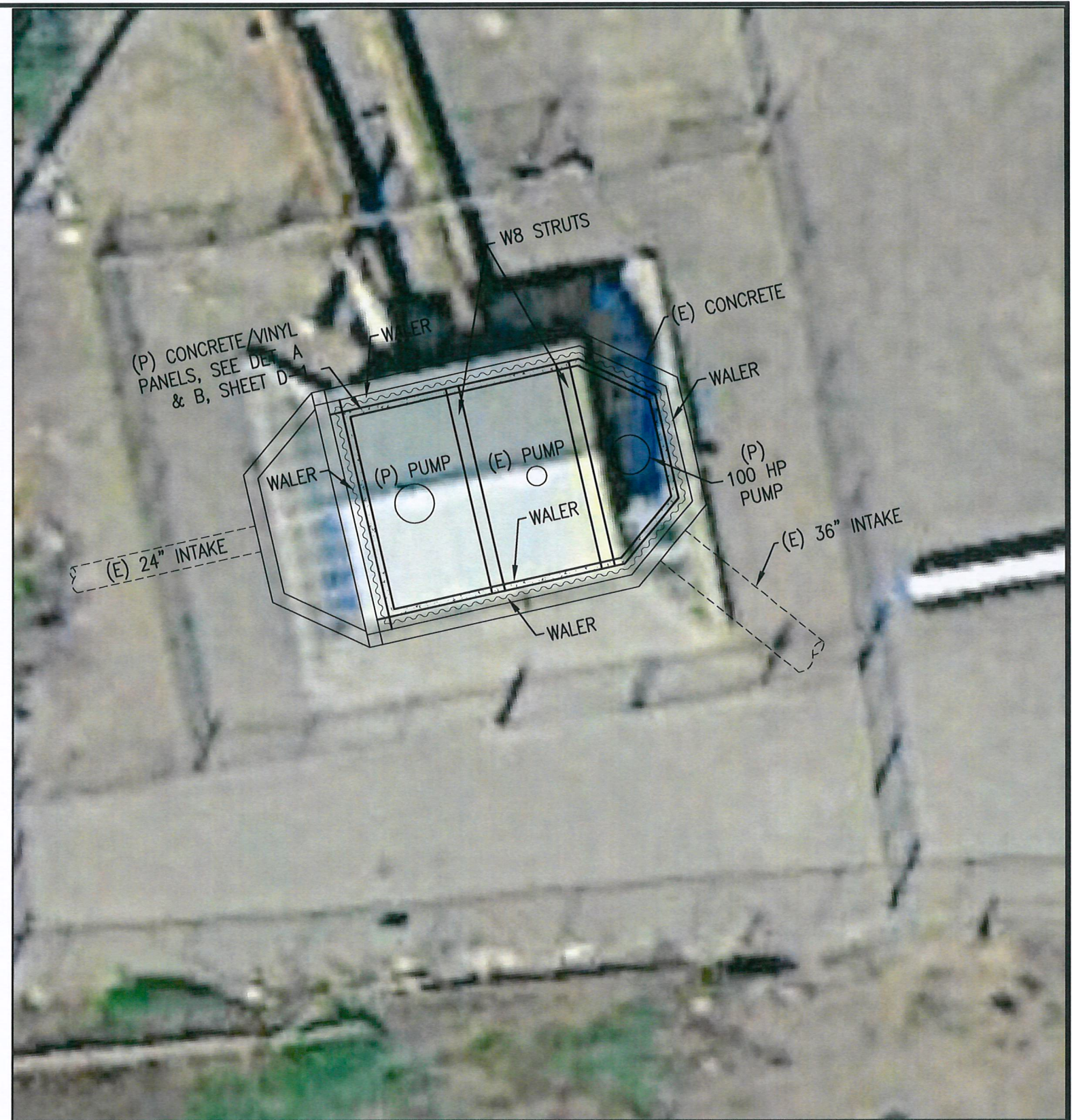
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(E) PUMP STATION



(P) PUMP STATION - RETROFIT

SCALE: 1"=10'

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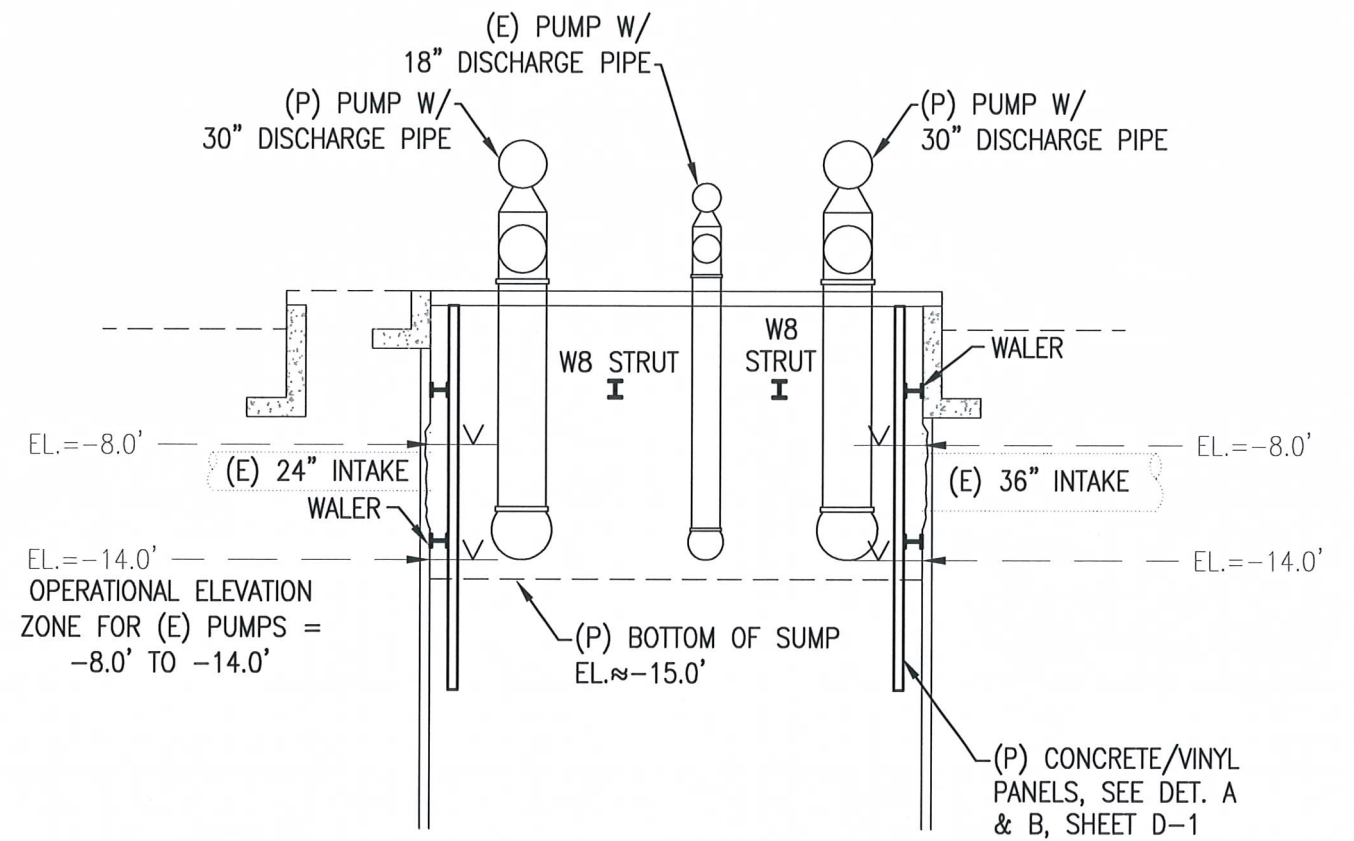
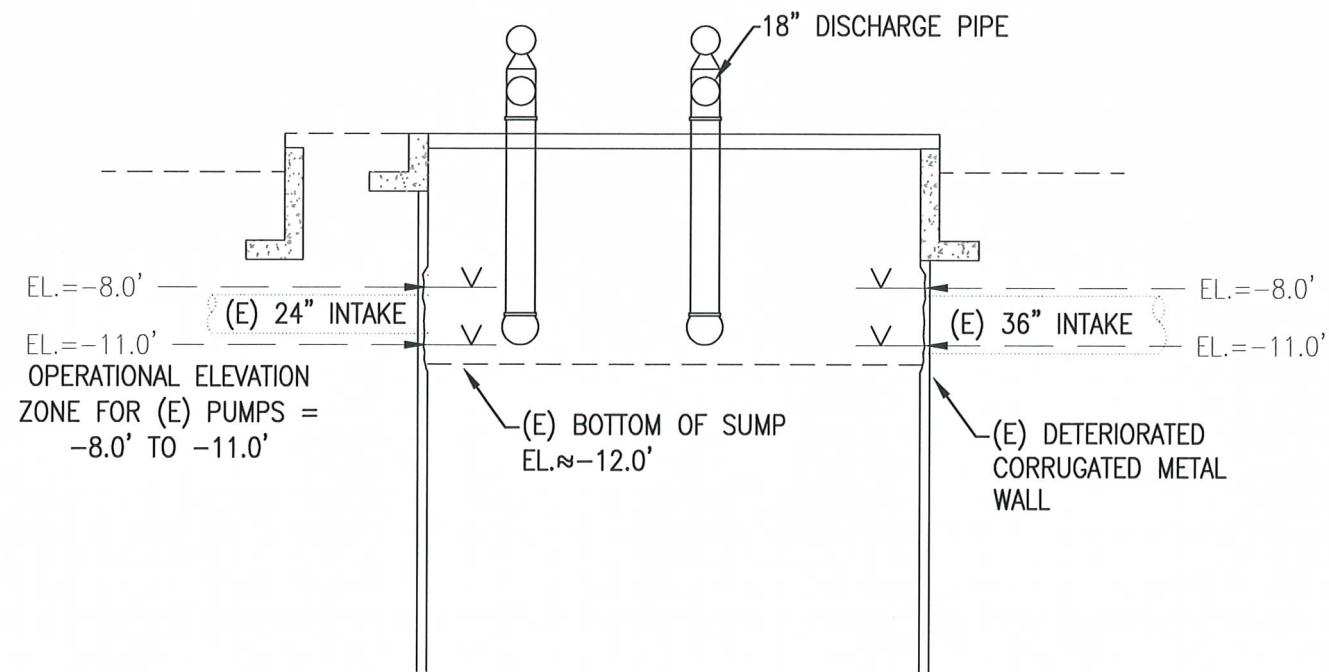
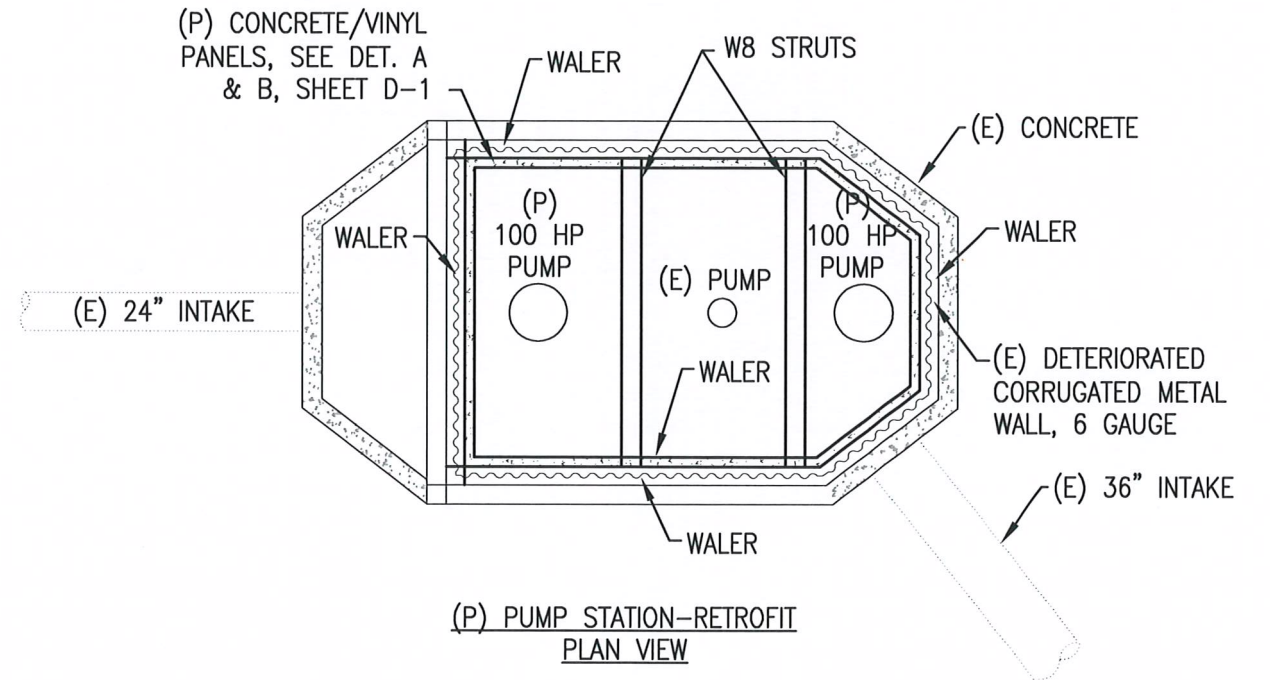
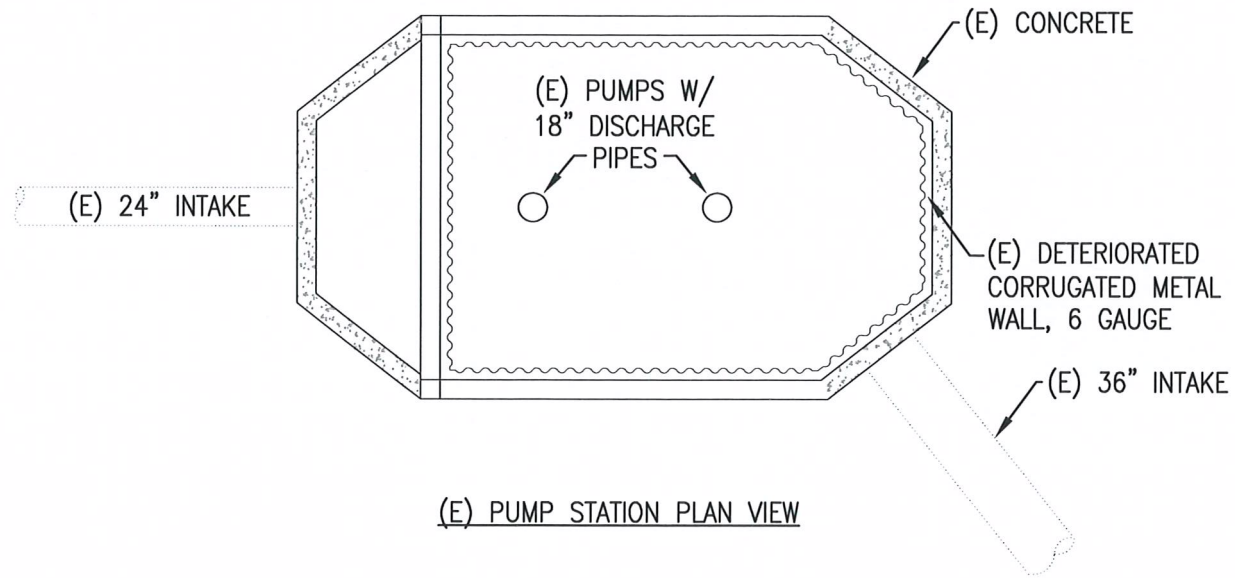
WISCONSIN WELL
 PUMP STATION RETROFIT
 PLAN VIEW
 WISCONSIN AVE & CALAVERAS RIVER
 SAN JOAQUIN COUNTY, CA

PROJECT NO:	353
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20.2017



SCALE: 1"=10'

REVISIONS		
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WISCONSIN WELL
PUMP STATION RETROFIT
XSECTIONS & DETAILS
WISCONSIN AVE & CALAVERAS RIVER
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