

CALIFORNIA AMERICAN WATER

10.16.13

TECHNICAL PROPOSAL FOR **DESIGN-BUILD**

of the Monterey Peninsula Water Supply Project

Desalination Infrastructure

SECTION 3.0 TECHNICAL PROPOSAL




Preliminary Drawings for 9.6 mgd Base Project

**CDM
Smith**



MONTEREY PENINSULA WATER SUPPLY PROJECT DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT



	REVISIONS		REVISIONS		 <small>100 Pringle Avenue, Suite 300 Walnut Creek, CA 94598 Tel: (925) 933-2900</small>	XXX  <small>DRAWN BY D. RAMALES PROJECT ENG'R D. BROWN</small>	MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT GENERAL COVER SHEET 9.6 MGD BASE CASE				
	△		△				XXX XXX XXX	DATE OCT 2013	CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE NTS
	△		△				LICENSED PROFESSIONAL ENGINEER NO. XXX	PROJECT 5000-28306	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-G-1
	△		△								
	△		△								

SHEET NO GENERAL

- G 1 COVER SHEET
- G 2 INDEX SHEET
- G 3 GENERAL NOTES, SYMBOLS AND LEGEND
- G 4 ABBREVIATIONS
- G 5 PROCESS FLOW DIAGRAM
- G 6 RESIDUALS PROCESS FLOW DIAGRAM
- G 7 HYDRAULIC PROFILE WITH PRESSURE FILTERS

SITE/CIVIL

- C 1 PROPOSED SITE PLAN
- C 3 PROPOSED SOIL BORING LOCATIONS
- C 4 YARD PIPING ULTIMATE CONDITIONS
- C 5 FUTURE SURFACE WATER INTAKE OPTION

STRUCTURAL SHEETS

- S 1 ADMINISTRATION BUILDING FOUNDATION PLAN
- S 2 ADMINISTRATION BUILDING ROOF FRAMING PLAN
- S 3 ADMINISTRATION BUILDING SECTIONS
- S 4 SWRO BUILDING FOUNDATION PLAN
- S 5 SWRO BUILDING ROOF FRAMING PLAN
- S 6 SWRO BUILDING SECTIONS
- S 7 GRANULAR MEDIA PRESSURE FILTER AND GALLERY FOUNDATION PLAN
- S 8 GRANULAR MEDIA PRESSURE FILTER AND GALLERY ROOF FRAMING PLAN
- S 9 GRANULAR MEDIA PRESSURE FILTER AND GALLERY SECTIONS

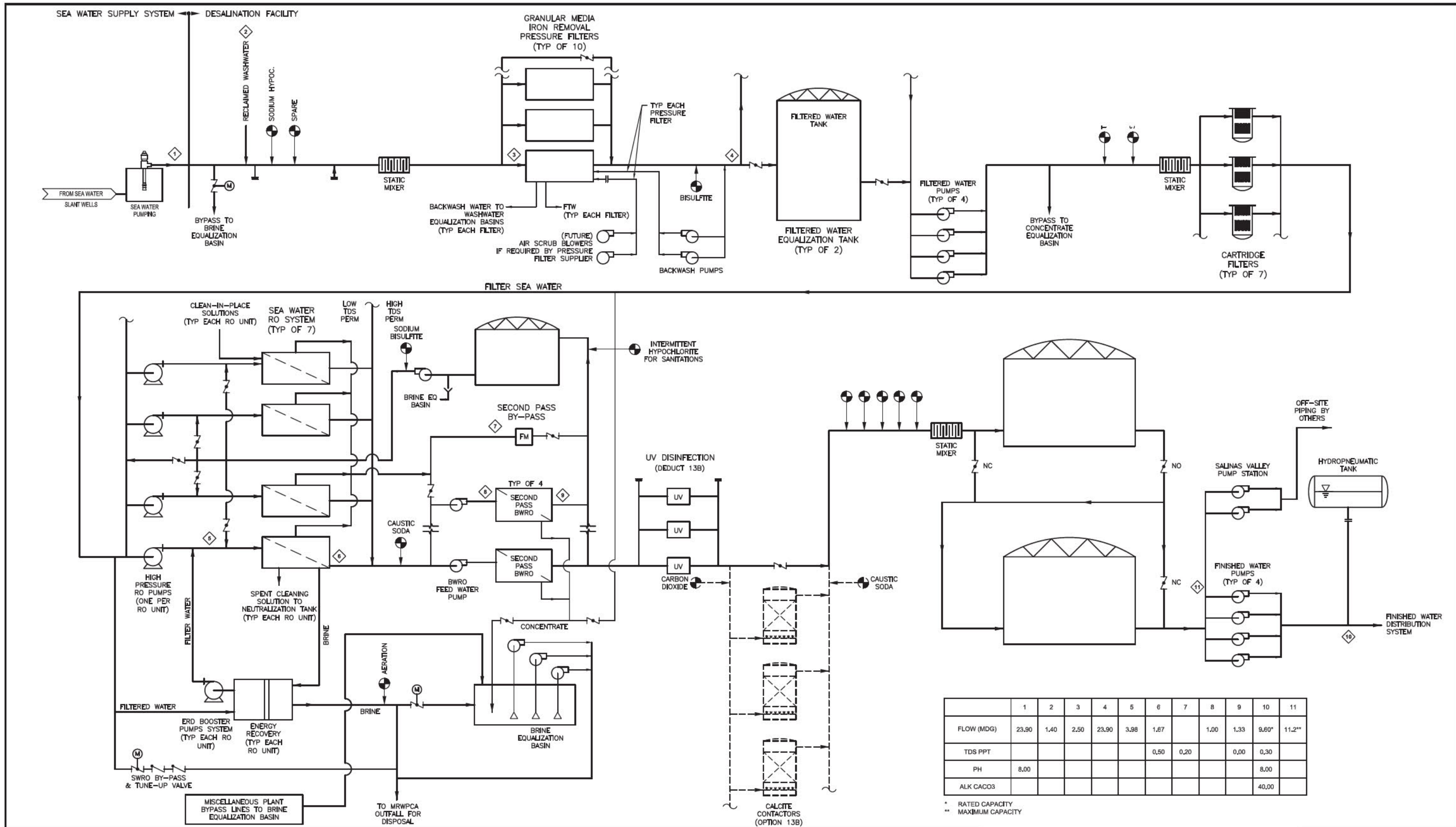
ARCHITECTURAL

- A 1 FINISH SCHEDULE
- A 2 CODE PLANS
- A 3 NORTH AND SOUTH ELEVATIONS
- A 4 EAST AND WEST ELEVATIONS
- A 5 LIGHT FIXTURES
- A 6 ADMIN BUILDING SECTIONS
- A 7 SWRO ELEVATIONS
- A 8 ADMIN AND SWRO ROOF PLAN
- A 9 LANDSCAPING PLAN FOR TOUR GARDEN AREA

PROCESS/MECHANICAL

- M 1 SEA WATER PRESSURE FILTER PLAN AND SECTION
- M 2 FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER & FINISHED WATER PUMP PAD PLAN
- M 3 FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER & FINISHED WATER PUMP PAD SECTIONS 1
- M 4 FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER & FINISHED WATER PUMP PAD SECTIONS 2
- M 5 RO LAYOUT
- M 6 SWRO LAYOUT SECTIONS
- M 7 SECOND PASS BWRO EQUIPMENT ELEVATION
- M 8 CHEMICAL SYSTEMS PLAN AND SECTIONS
- M 9 UV SYSTEM PLAN AND SECTIONS
- M 10 SATURATED LIME SYSTEM & PERMEATE FLUSH TANK SYSTEM PLAN
- M 11 CARBON DIOXIDE POST TREATMENT STABILIZATION SYSTEM PLAN
- M 12 BRINE EQUALIZATION PUMP STATION
- M 13 BACKWASH RECLAMATION BASIN PUMP STATION
- M 14 FILTERED WATER STORAGE TANKS PLAN
- M 15 FILTERED WATER STORAGE TANKS SECTIONS
- M 16 FINISHED WATER STORAGE TANKS PLAN
- M 17 FINISHED WATER STORAGE TANKS SECTIONS

	REVISIONS		REVISIONS		 100 Pajaro Avenue, Suite 300 Walnut Creek, CA 94598 Tel: (925) 933-2900	XXX XXX XXX		MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT GENERAL 9.6 MGD BASE CASE INDEX SHEET			
	△		△					DRAWN BY D. RAMALES PROJECT ENGR D. BROWN	CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE NTS
	△		△					DATE OCT 2013	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-G-2
	△		△					PROJECT 5000-28306			
	△		△					REGISTERED PROFESSIONAL ENGINEER NO. XXX			



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



XXX
XXX
XXX

CALIFORNIA AMERICAN WATER

DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN

DATE OCT 2013

PROJECT 5000-28306

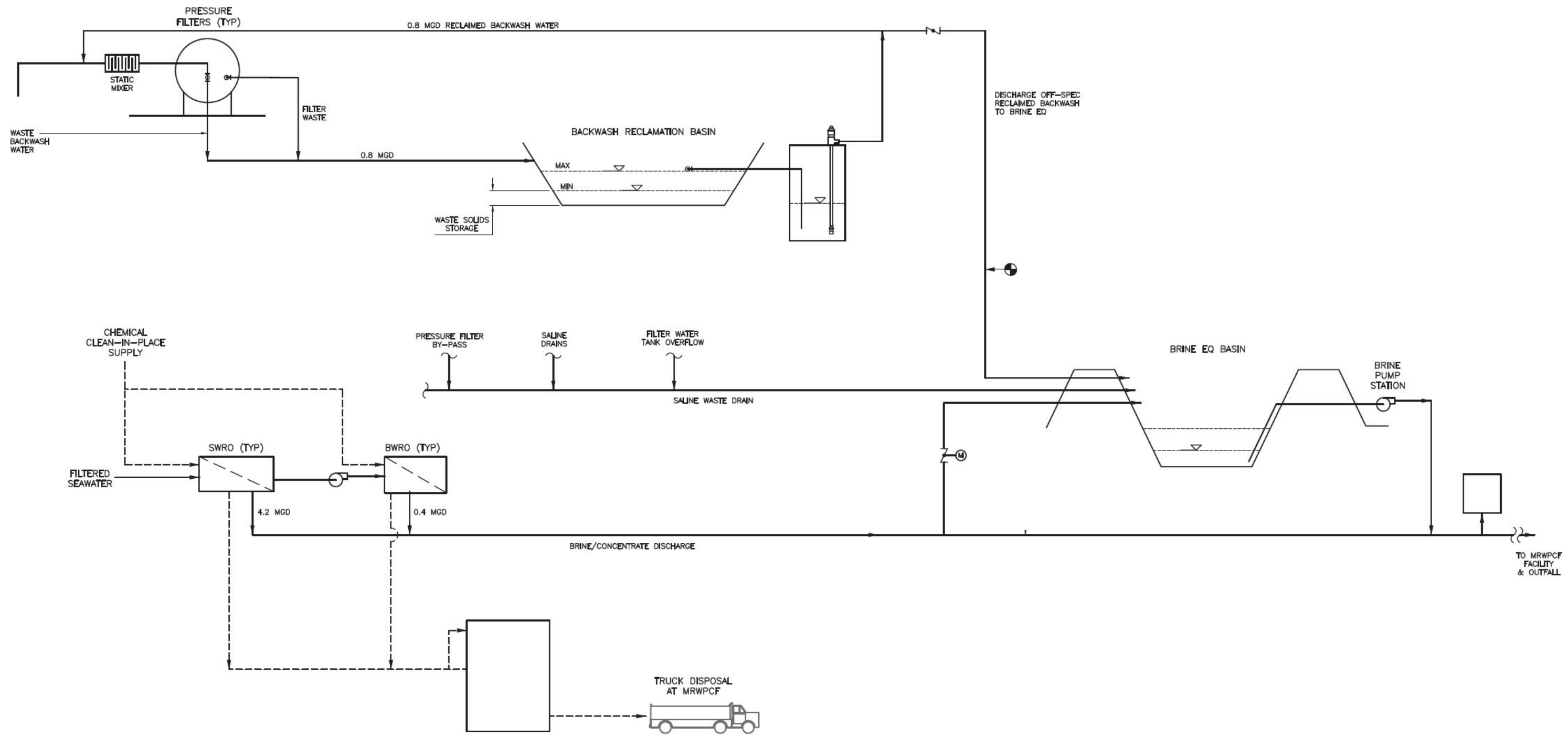
REGISTERED PROFESSIONAL ENGINEER
NO. XXX

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT

GENERAL PROCESS FLOW DIAGRAM

9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE NTS
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-G-5



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

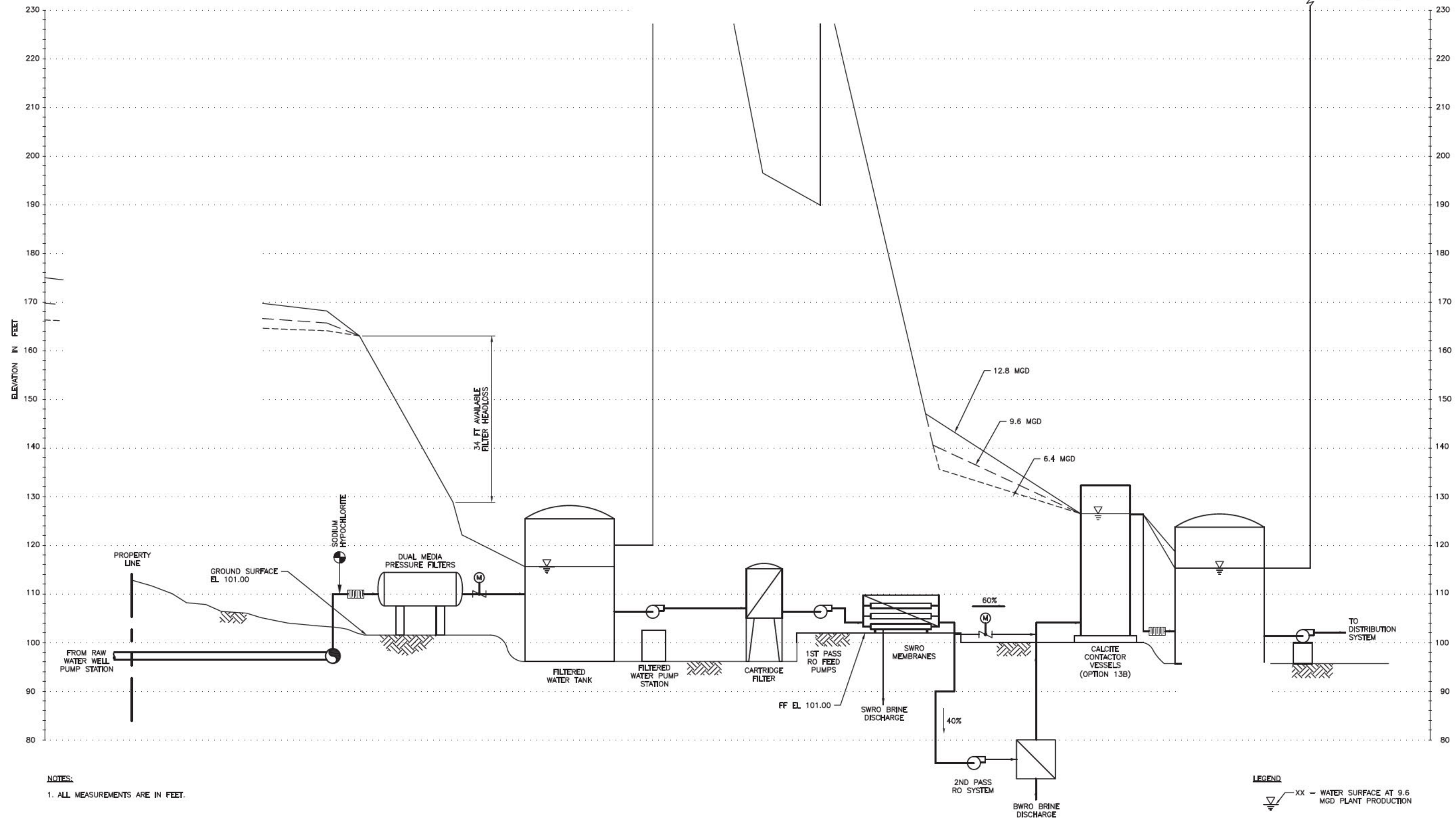


XXX
 COLLECTED PROFESSIONAL ENGINEER
 NO. XXX

XXX
 XXX
 XXX
CALIFORNIA AMERICAN WATER
 DRAWN BY D. RAMALES
 PROJECT ENG'R D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
GENERAL RESIDUAL PROCESS FLOW DIAGRAM
9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE NTS
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-G-6



NOTES:
1. ALL MEASUREMENTS ARE IN FEET.

LEGEND
XX - WATER SURFACE AT 9.6 MGD PLANT PRODUCTION



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

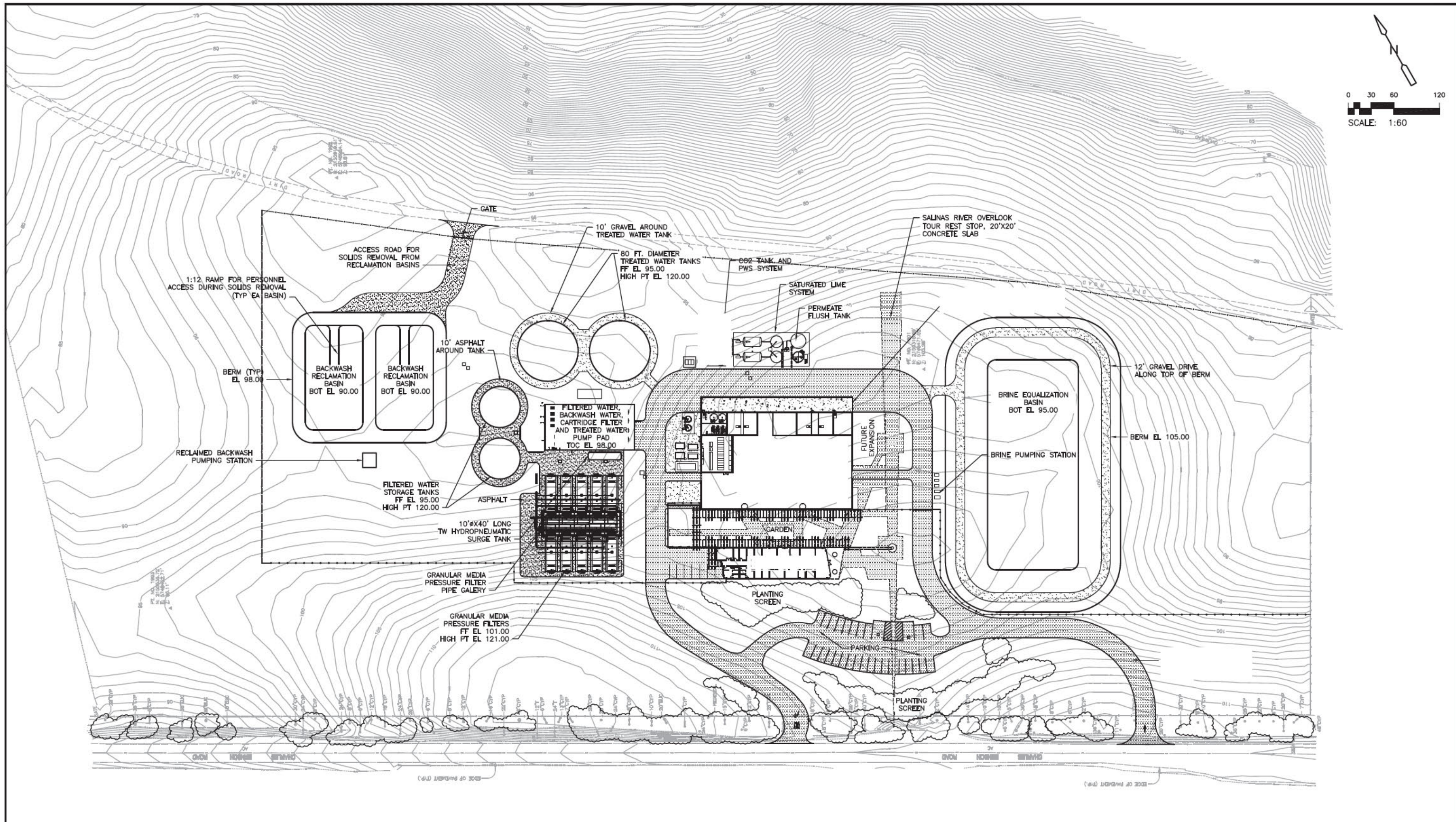
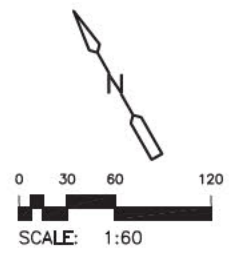





LICENSED PROFESSIONAL ENGINEER
No.

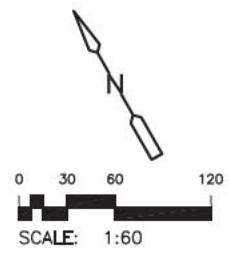
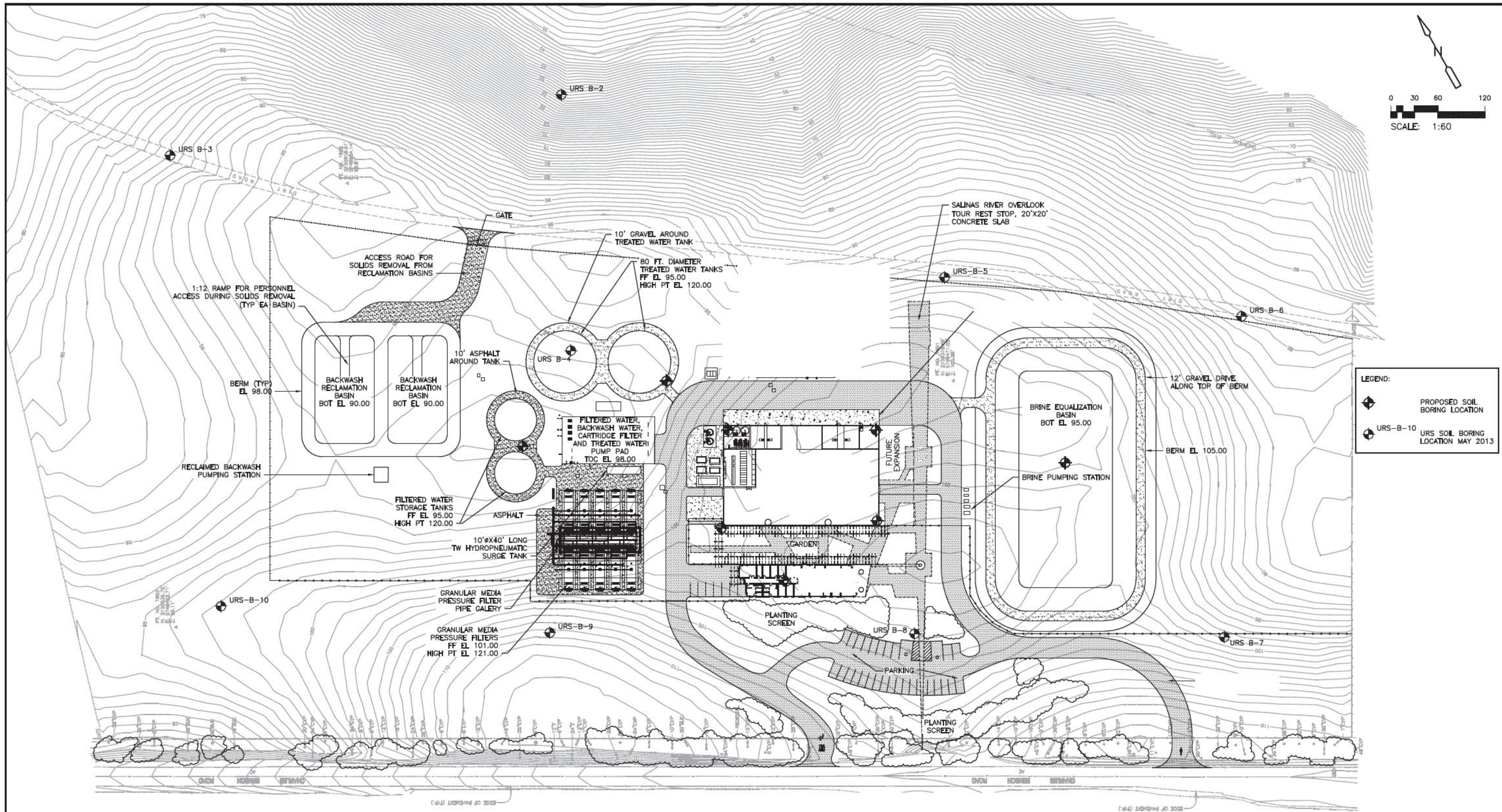
California American Water logo
DRAWN BY D. RAMALES
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
GENERAL
HYDRAULIC PROFILE - 9.6 MGD BASE CASE
WITH PRESSURE FILTERS

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-G-7



	REVISIONS	REVISIONS	 <small>100 Pringle Avenue, Suite 300 Walnut Creek, CA 94596 Tel: (925) 933-2900</small>	XXX	 <small>DRAWN BY D. RAMALES PROJECT ENGR D. BROWN DATE OCT 2013 PROJECT 5000-28306</small>	MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT CIVIL 9.6 MGD BASE CASE PROPOSED SITE PLAN		
	△	△		XXX XXX XXX		CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
	△	△		XXX		USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-C-1
	△	△		XXX				
	△	△		XXX				



LEGEND:

	PROPOSED SOIL BORING LOCATION
	URS-B-10 URS SOIL BORING LOCATION MAY 2013



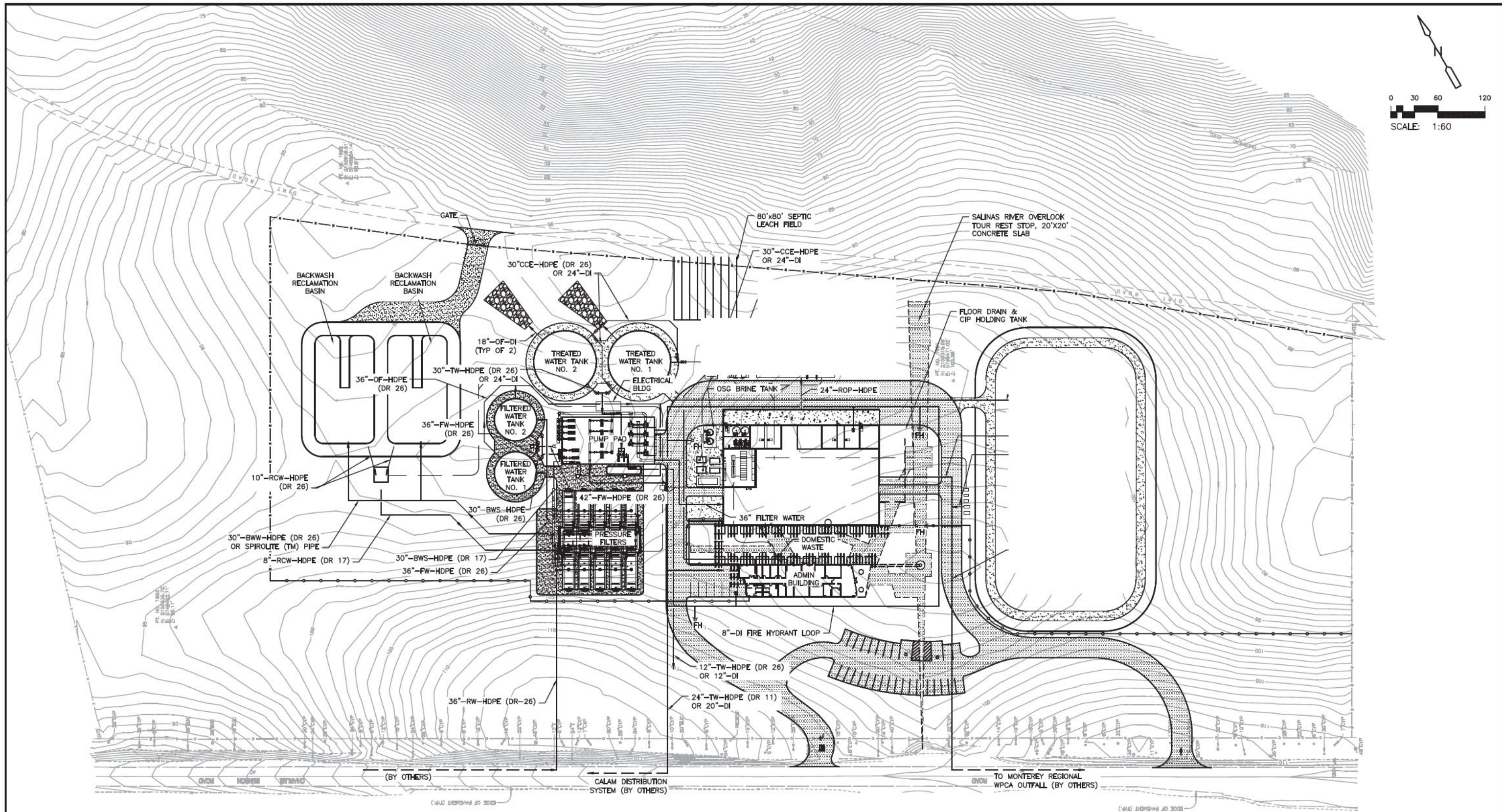
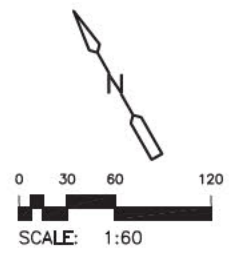
REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



XXX
 XXX
 XXX
 REGISTERED PROFESSIONAL ENGINEER
 NO. XXX

DRAWN BY D. RAMALES
 PROJECT ENGR D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT CIVIL 9.6 MGD BASE CASE PROPOSED SOIL BORING LOCATIONS		
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-C-3



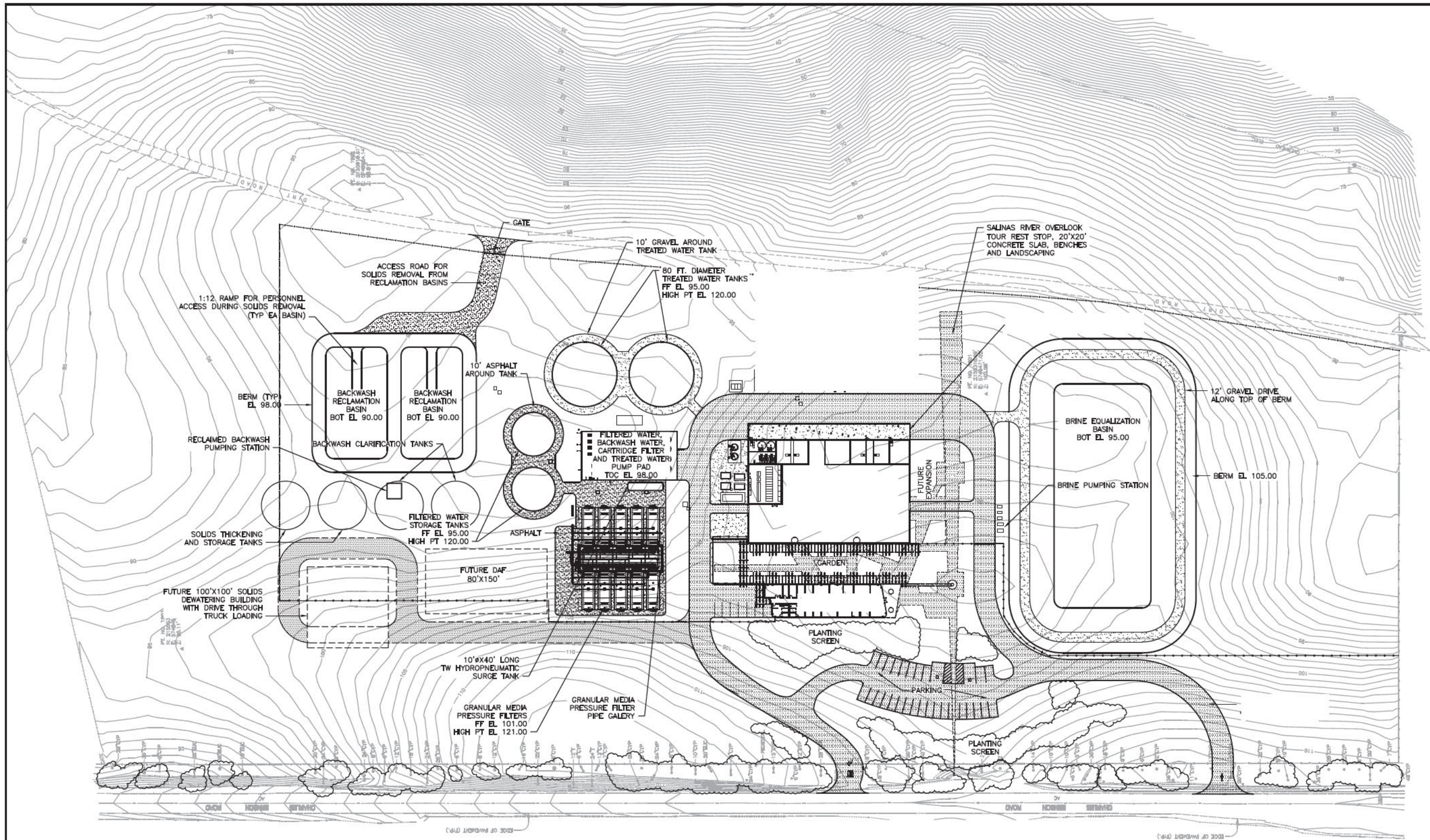
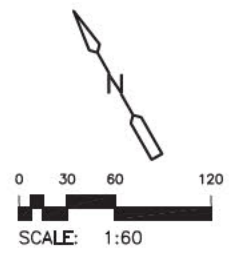
REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	



XXX
 XXX
 XXX
CALIFORNIA AMERICAN WATER
 DRAWN BY D. RAMALES
 PROJECT ENGR D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
CIVIL
YARD PIPING ULTIMATE CONDITIONS
9.6 MGD BASE CASE


CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-C-4



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



XXX
XXX
XXX



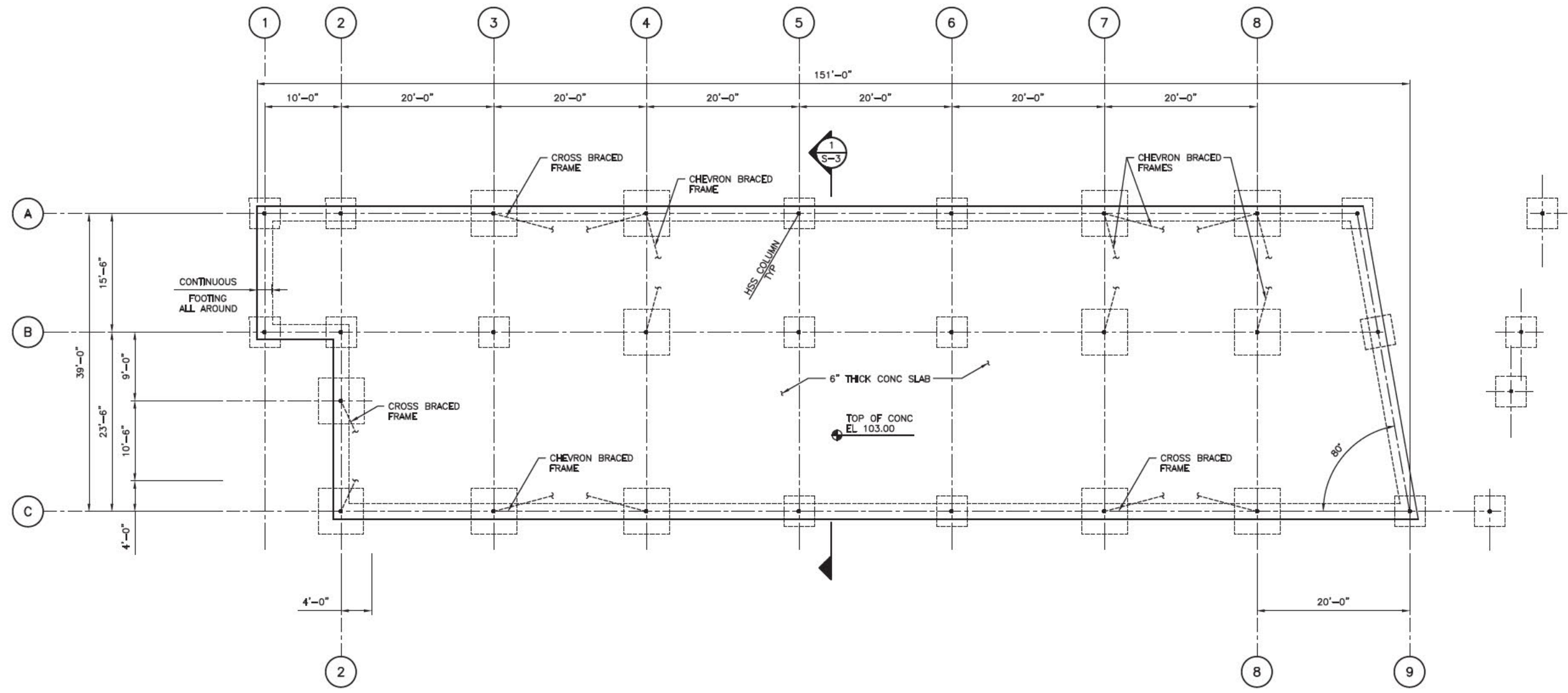
DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
CIVIL
9.6 MGD BASE CASE
FUTURE SURFACE WATER INTAKE OPTION

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-C-5



1/8" = 1'-0"
 4 2 0 4 8



FOUNDATION
 PLAN
 1/8" = 1'-0"



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



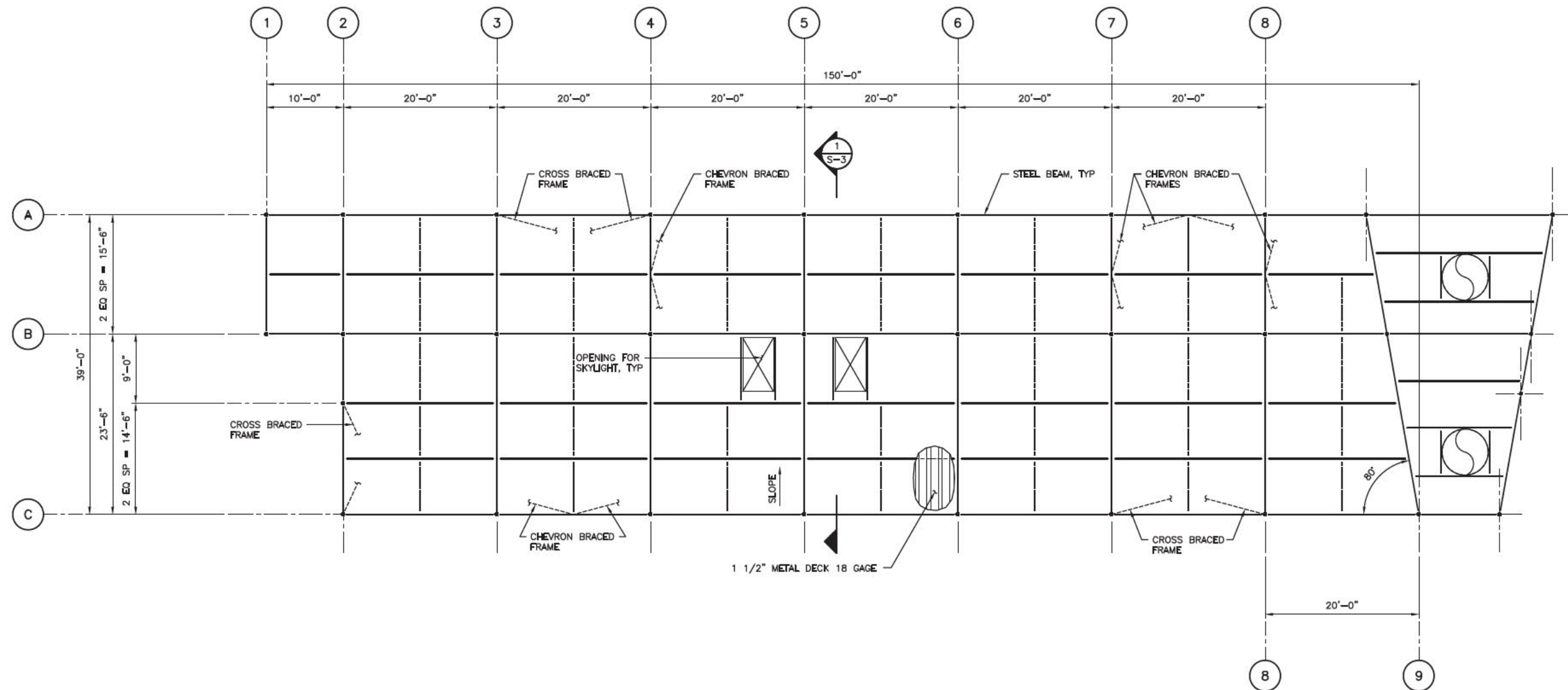
XXX
 LICENSED PROFESSIONAL ENGINEER
 No. XXX

CALIFORNIA AMERICAN WATER
 DRAWN BY A. JOHNSON
 PROJECT ENG'R D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
 STRUCTURAL
 9.6 MGD ADMINISTRATION BUILDING
 FOUNDATION PLAN
 CALIFORNIA AMERICAN WATER CO.
 USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES
 XXX
 USE DIMENSIONS ONLY
 SCALE 1/8"=1'-0"
 S-1



1/8" = 1'-0"
 4 2 0 4 8



ROOF FRAMING
 PLAN
 1/8" = 1'-0"



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

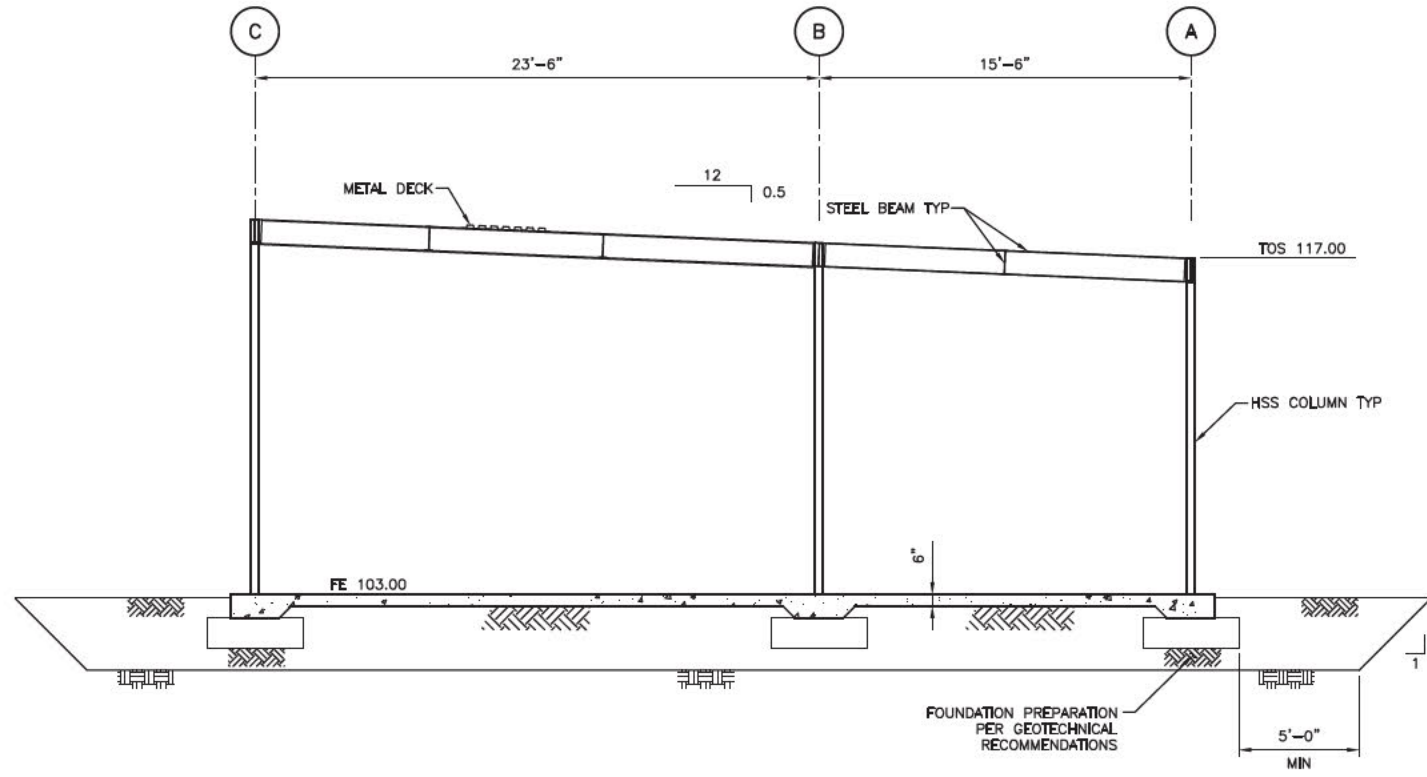


DRAWING HAS NOT BEEN MODIFIED FROM THE 9.6 MGD SCENARIO

CALIFORNIA AMERICAN WATER
 DRAWN BY A. JOHNSON
 PROJECT ENG'R D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD ADMINISTRATION BUILDING
ROOF FRAMING PLAN

CALIFORNIA AMERICAN WATER CO.	XXX	USE DIMENSIONS ONLY SCALE 1/8"=1'-0"
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES		S-2



SECTION 1
1/4" = 1'-0" S-1, 2



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



XXX
LICENSED PROFESSIONAL ENGINEER
No. XXX



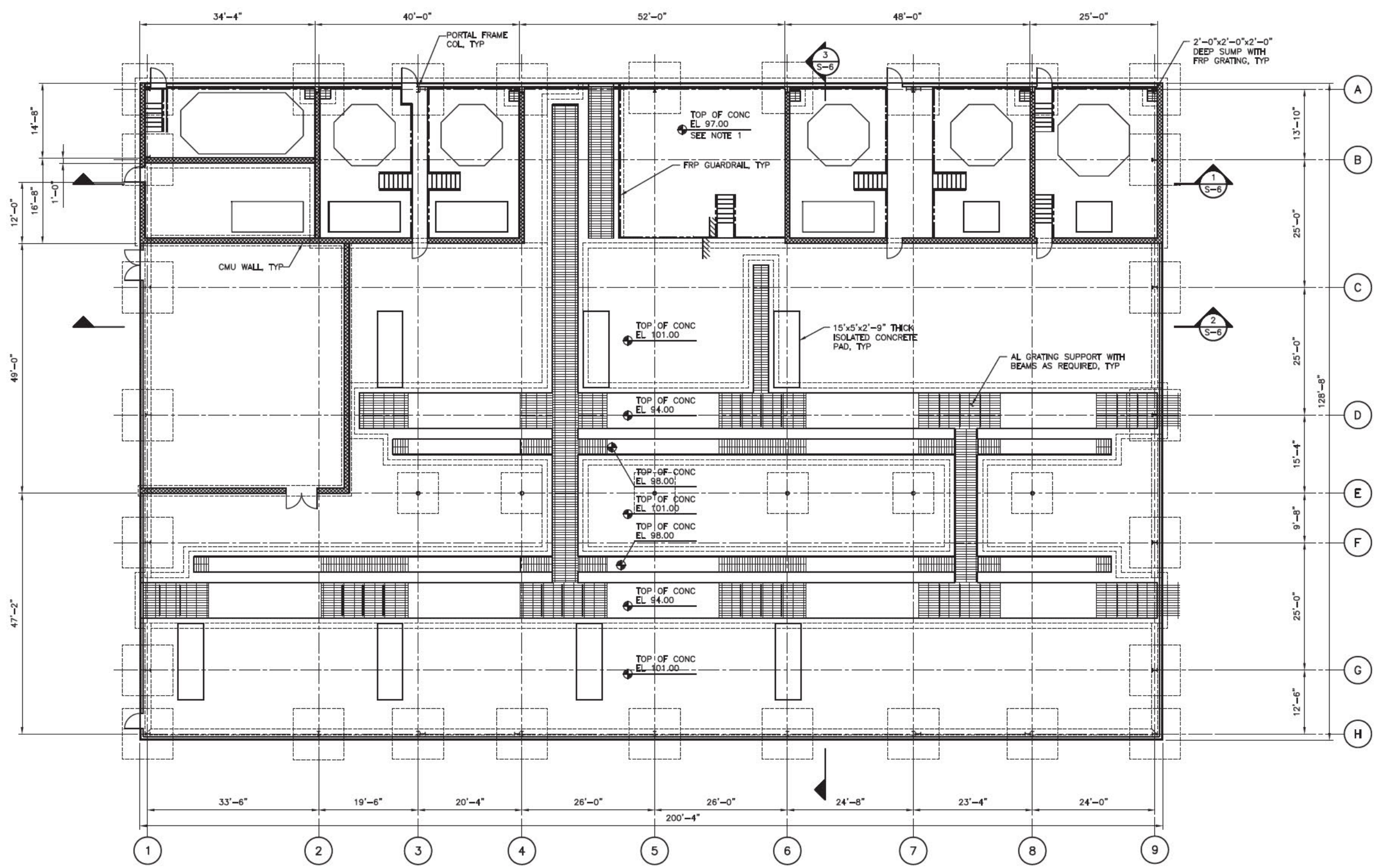
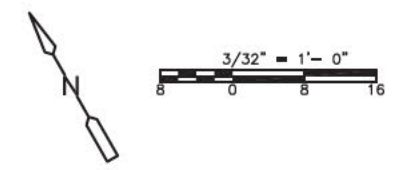
DRAWN BY J. MITCHELL
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD ADMINISTRATION BUILDING
SECTIONS

CALIFORNIA AMERICAN WATER CO.
USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

XXX

USE DIMENSIONS ONLY
SCALE 1/4"=1'-0"
S-3



FOUNDATION
PLAN
3/32" = 1'-0"



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



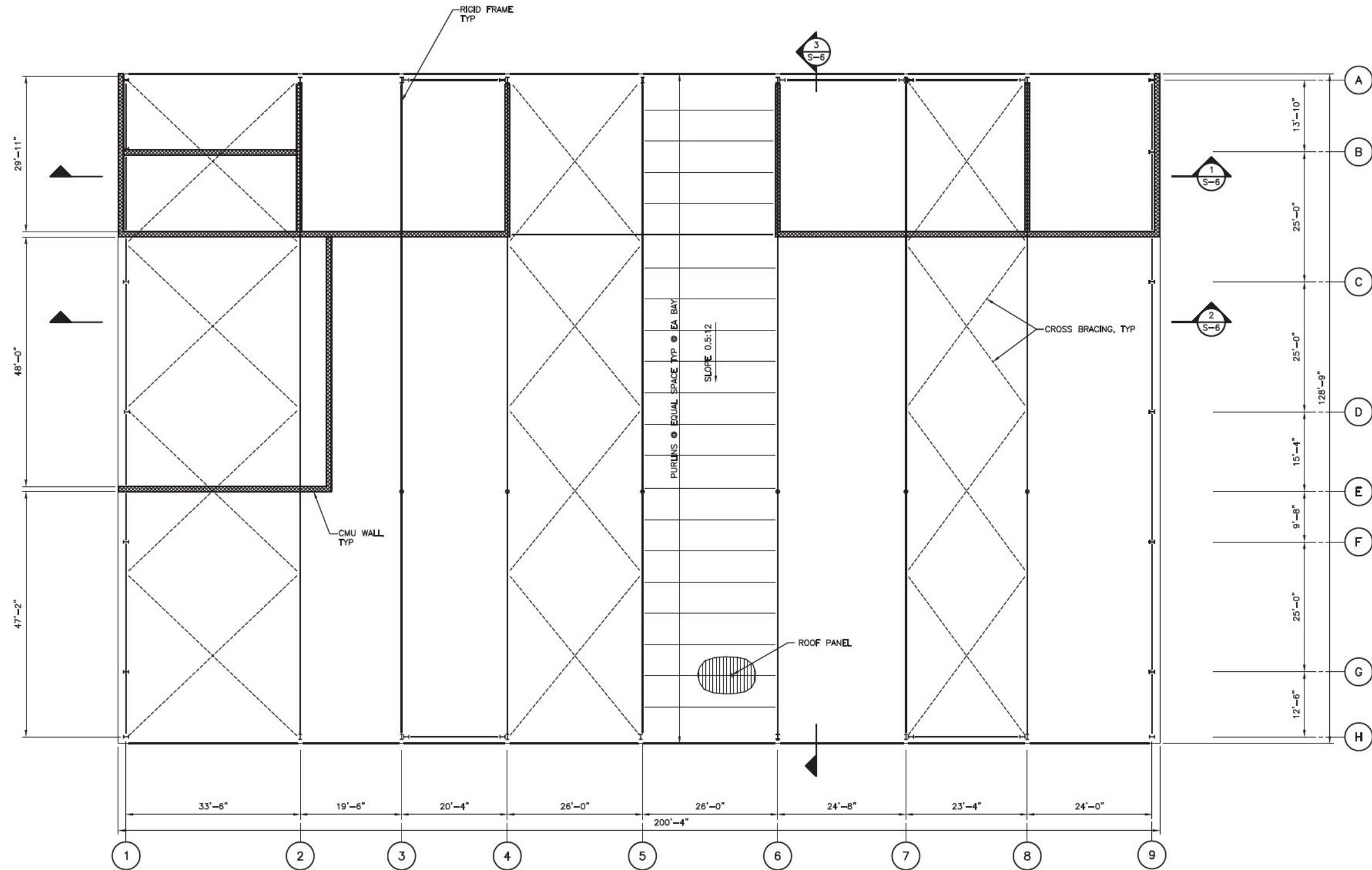
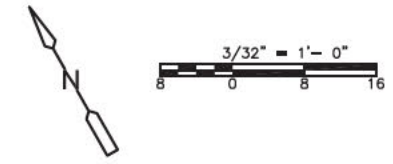
XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY A. JOHNSON
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD SWRO BUILDING
FOUNDATION PLAN

CALIFORNIA AMERICAN WATER CO.	XXX	USE DIMENSIONS ONLY SCALE 3/32"=1'-0"
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES		S-4



ROOF PLAN
3/32" = 1'-0"



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY A. JOHNSON
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

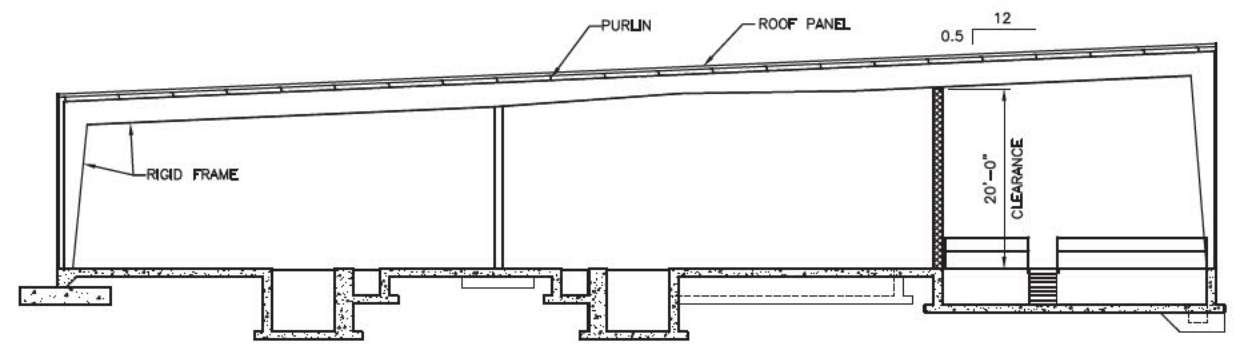
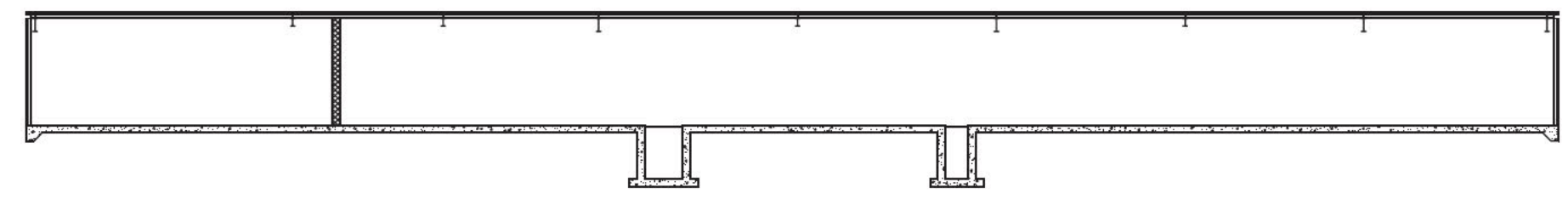
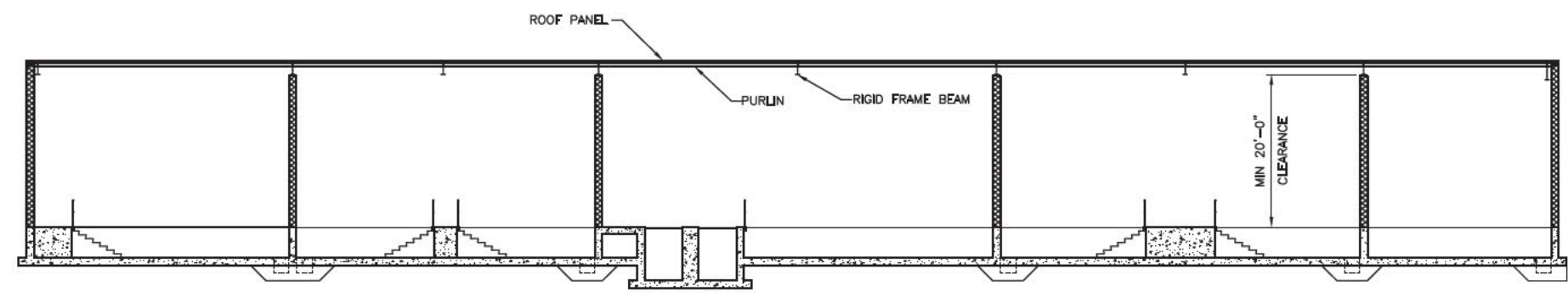
MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD SWRO BUILDING
ROOF FRAMING PLAN

CALIFORNIA AMERICAN WATER CO.
USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

XXX

USE DIMENSIONS ONLY
SCALE 3/32"=1'-0"
S-5

3/32" = 1'-0"
 8 0 8 16



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

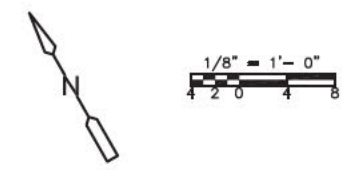
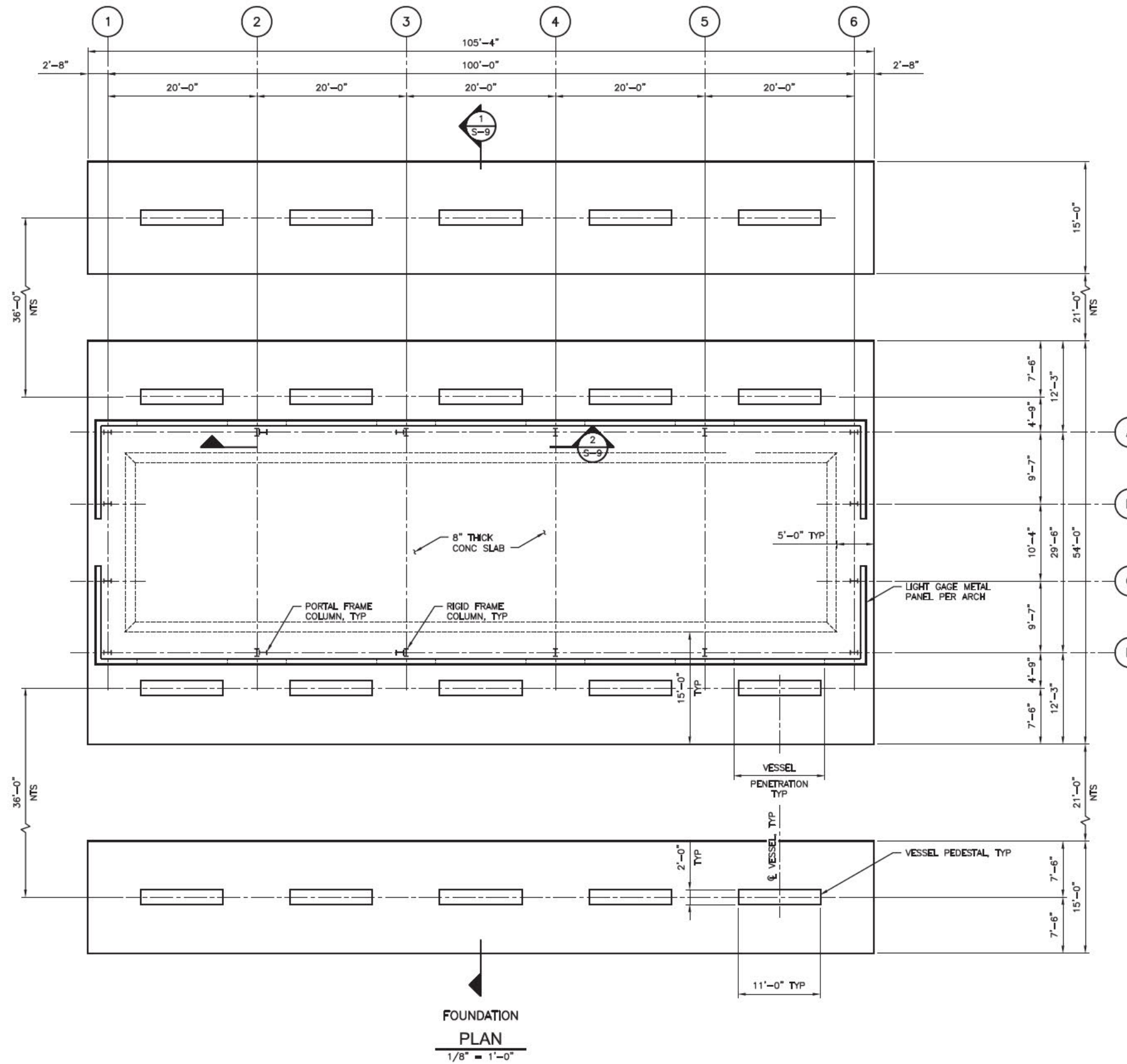
CDM Smith
 100 Pingle Avenue, Suite 300
 Walnut Creek, CA 94596
 Tel: (925) 933-2900

XXX
 REGISTERED PROFESSIONAL ENGINEER
 NO. XXX



DRAWN BY A. JOHNSON
 PROJECT ENG'R D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT STRUCTURAL 9.6 MGD SWRO BUILDING SECTIONS			
CALIFORNIA AMERICAN WATER CO.	XXX	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	USE DIMENSIONS ONLY SCALE 3/32"=1'-0"
			S-6



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



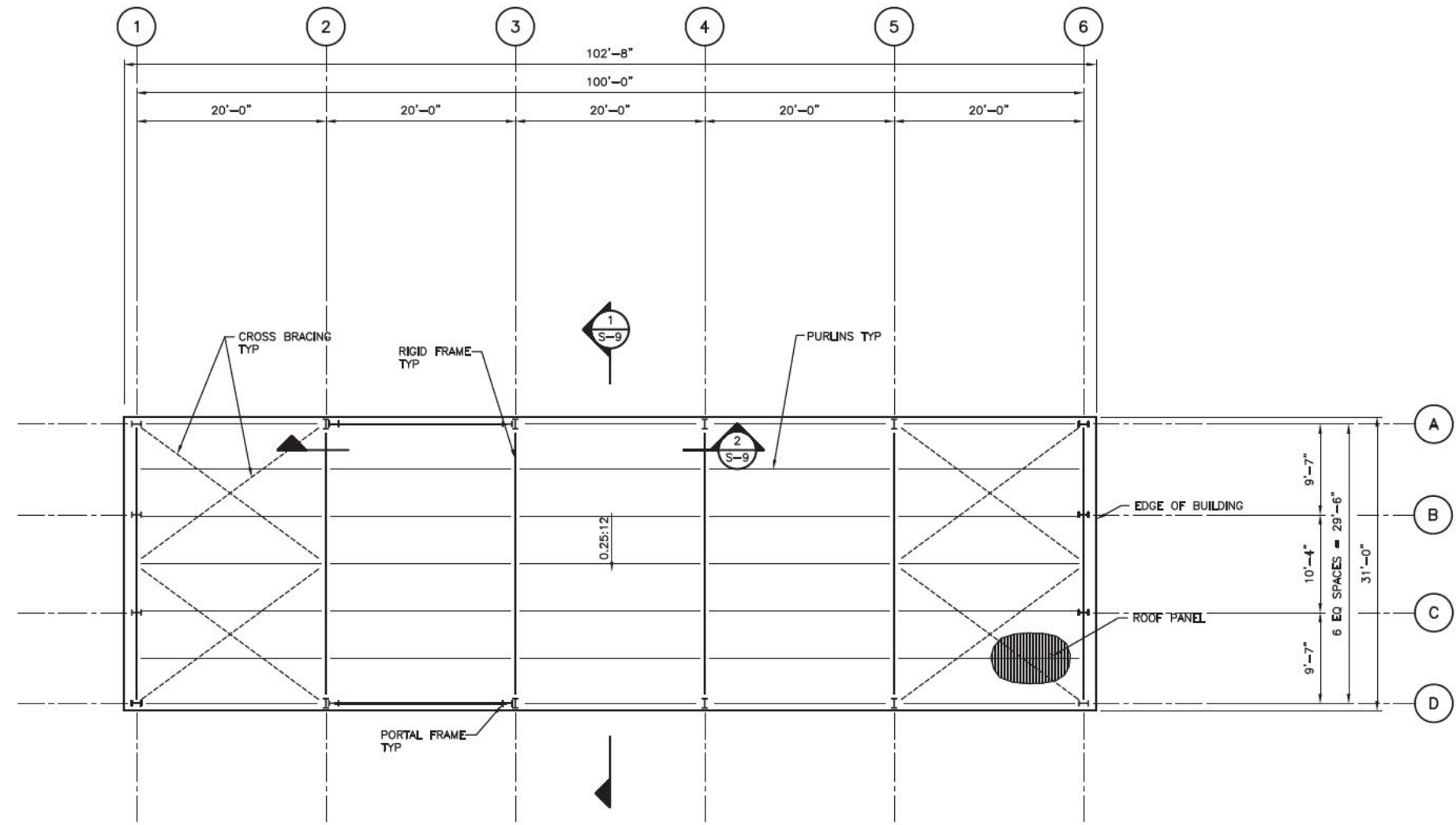
DRAWN BY A. JOHNSON
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD GRANULAR MEDIA PRESSURE FILTER AND GALLERY
FOUNDATION PLAN

CALIFORNIA AMERICAN WATER CO.	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	USE DIMENSIONS ONLY SCALE AS NOTED
			S-7



1/8" = 1'-0"
4 2 0 4 8



ROOF FRAMING
PLAN
1/8" = 1'-0"



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



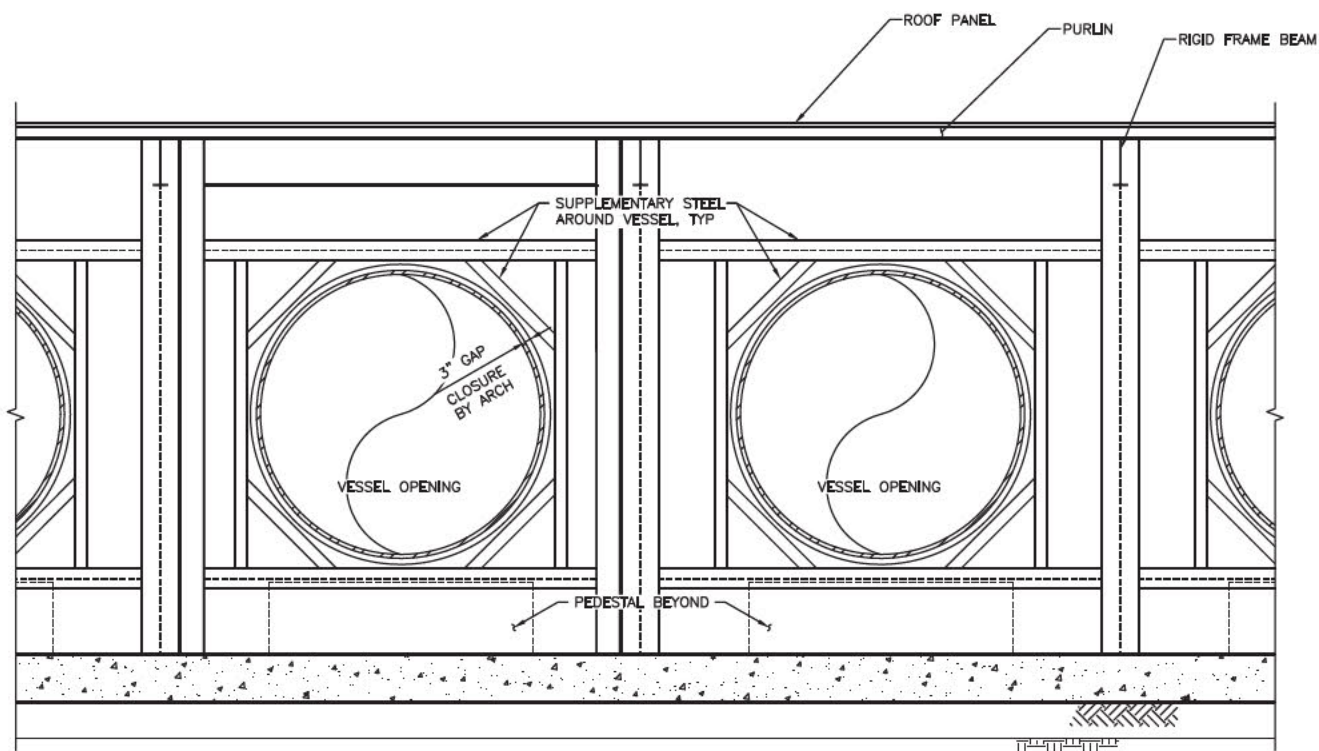
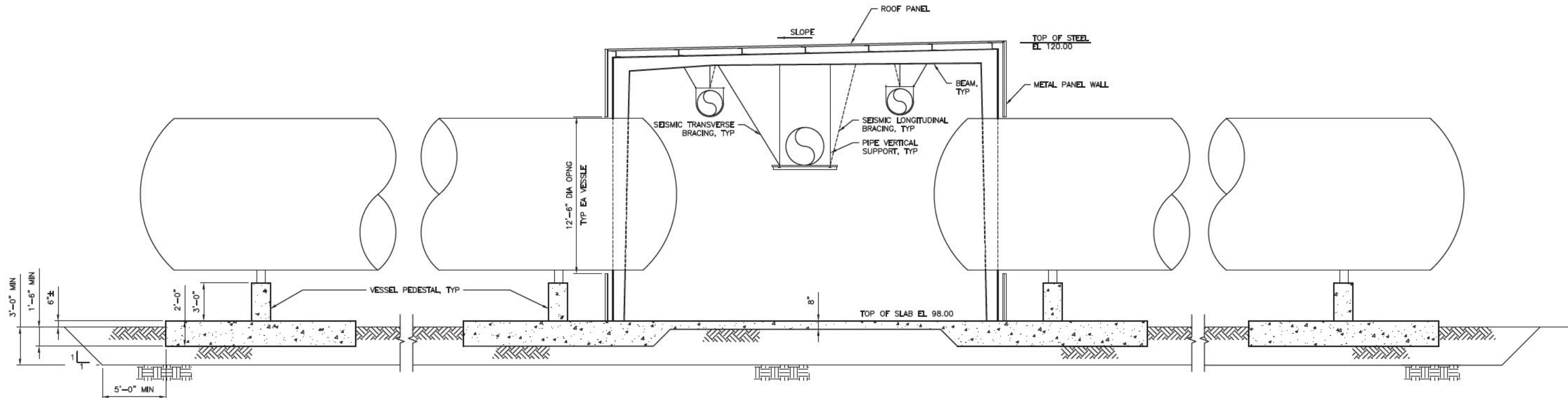
XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY A. JOHNSON
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD GRANULAR MEDIA PRESSURE FILTER AND GALLERY
ROOF FRAMING PLAN

CALIFORNIA AMERICAN WATER CO.	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	USE DIMENSIONS ONLY SCALE AS NOTED
			S-8



NOTE: METAL PANEL NOT SHOWN FOR CLARITY



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	



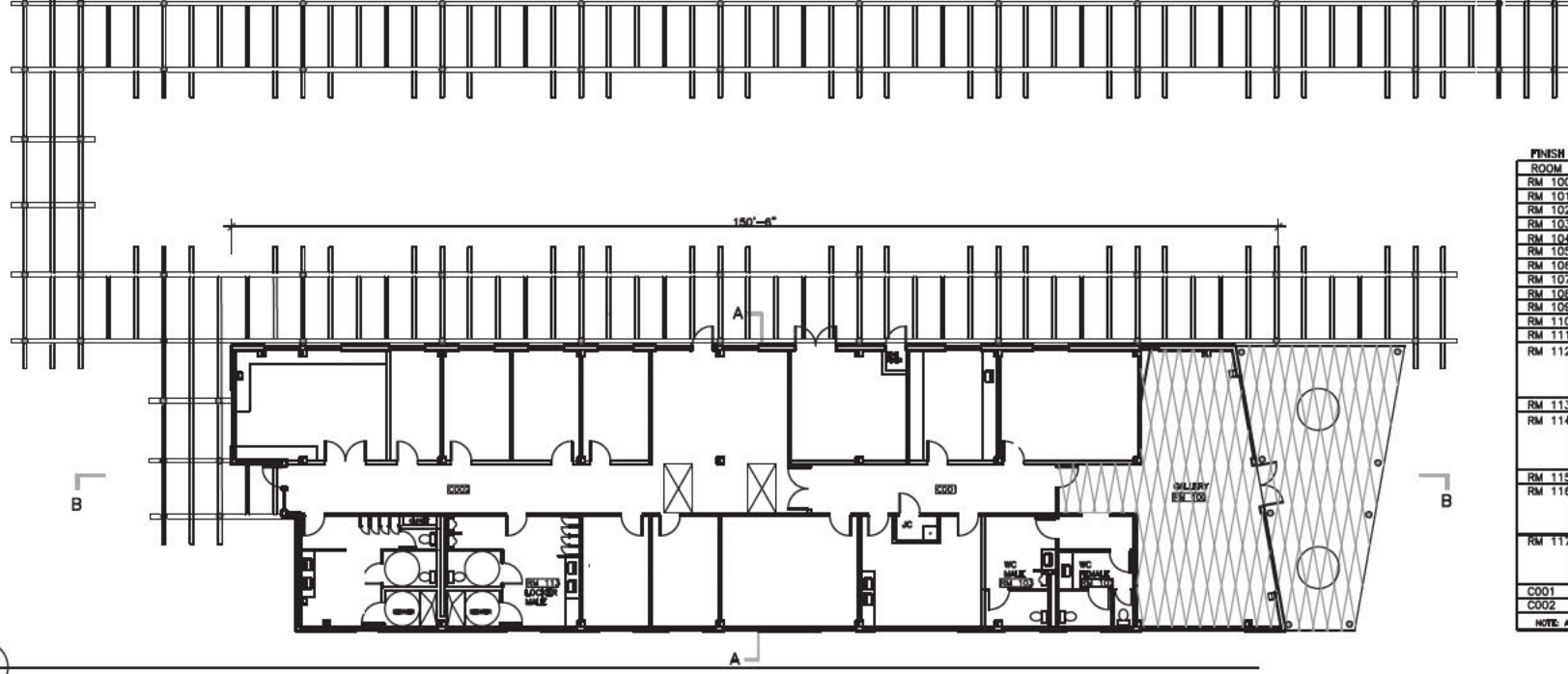
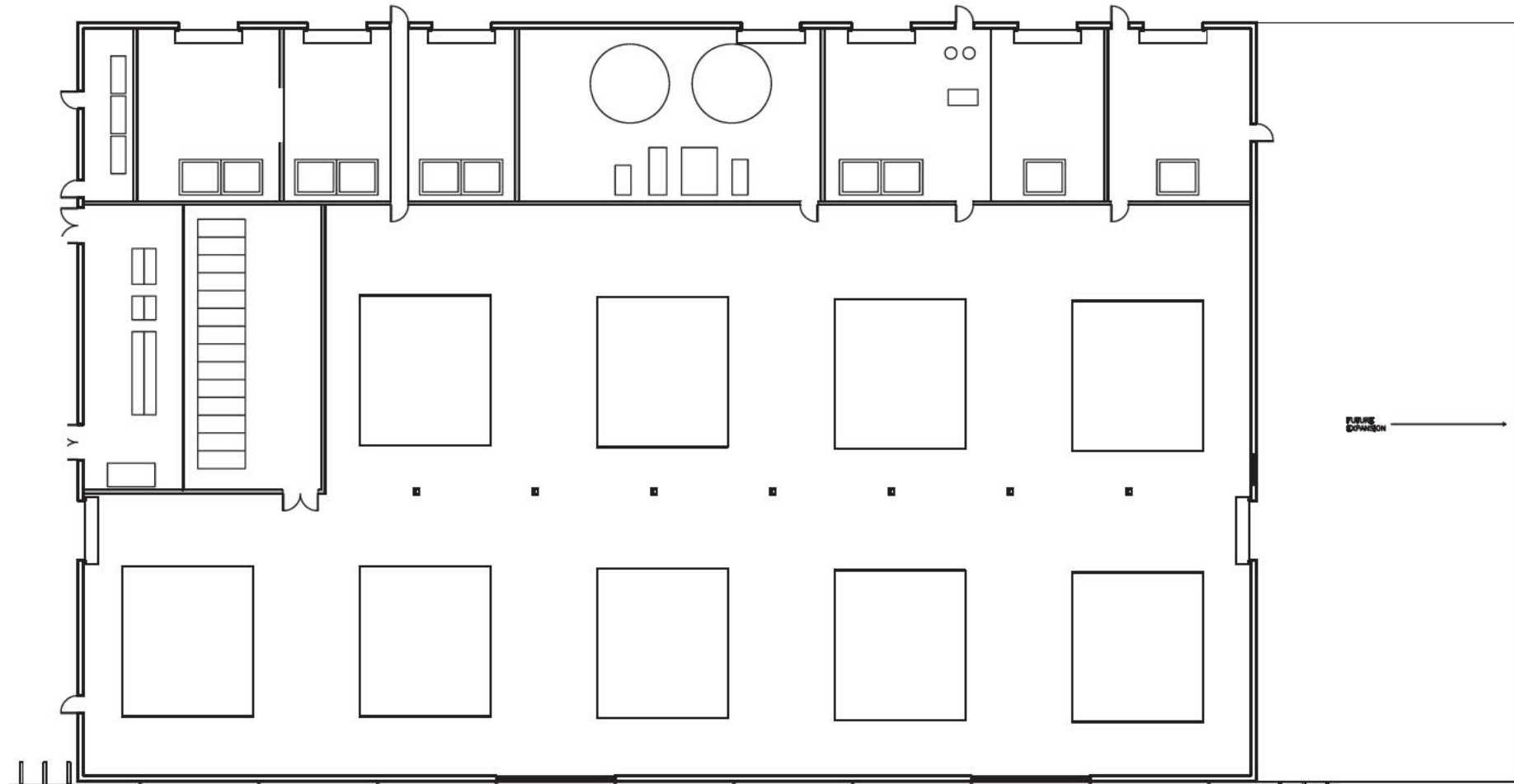
XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY A. JOHNSON
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
STRUCTURAL
9.6 MGD GRANULAR MEDIA PRESSURE FILTER AND GALLERY
SECTIONS

CALIFORNIA WATER CO.	XXX	USE DIMENSIONS ONLY SCALE 1/4"=1'-0"
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES		S-9



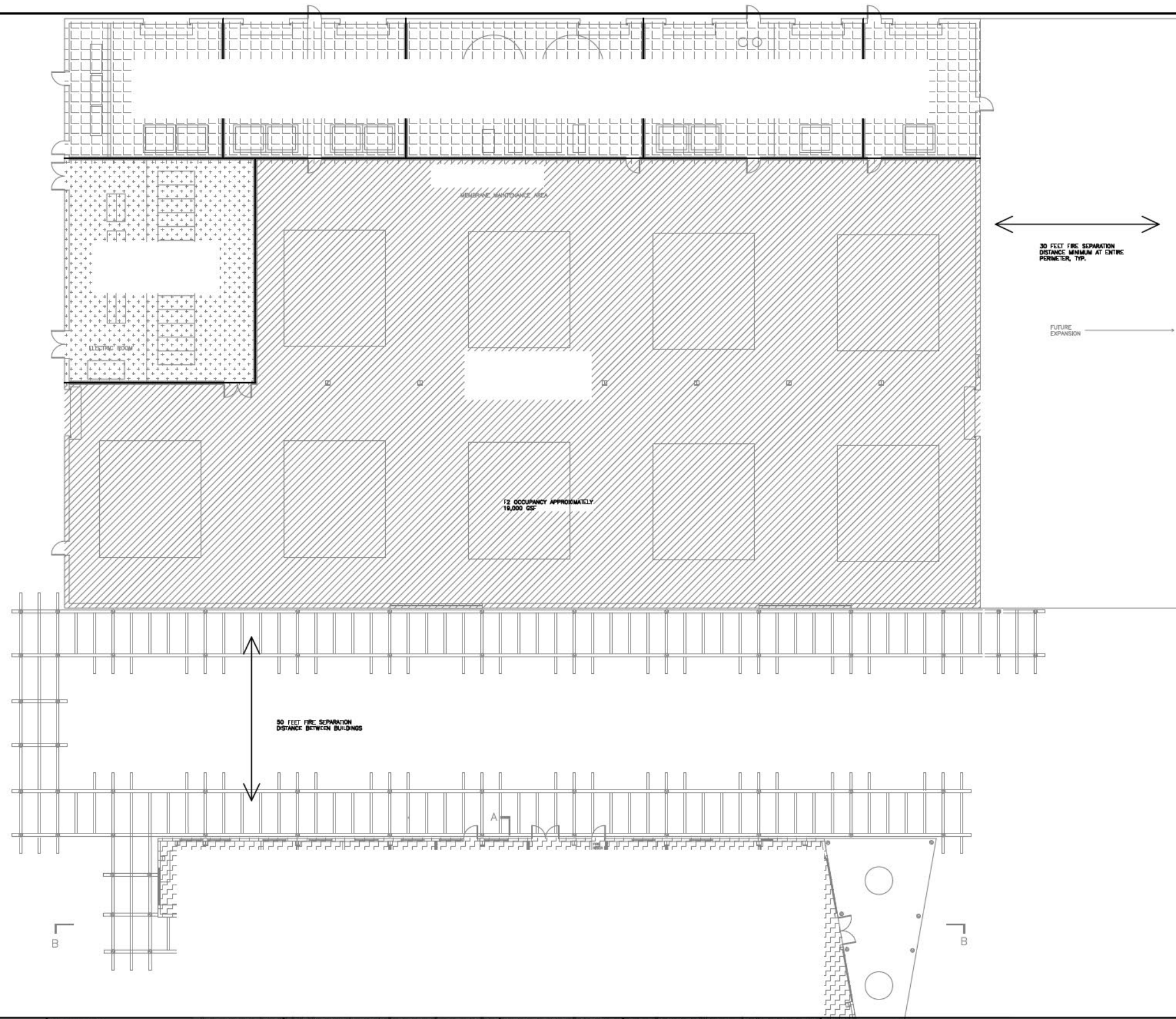
FINISH SCHEDULE

ROOM	FLOOR	CEILING	WALLS	BASE
RM 100	INOLEUM	EXP. CEIL.	PAINT	RUBBER
RM 101	INOLEUM	ACT.	PAINT	RUBBER
RM 102	TILE	GYP.	PAINT	TILE
RM 103	TILE	GYP.	PAINT	TILE
RM 104	INOLEUM	ACT.	PAINT	RUBBER
RM 105	INOLEUM	ACT.	PAINT	RUBBER
RM 106	INOLEUM	ACT.	PAINT	RUBBER
RM 107	INOLEUM	ACT.	PAINT	RUBBER
RM 108	INOLEUM	EXP. CEIL.	PAINT	RUBBER
RM 109	INOLEUM	EXP. CEIL.	PAINT	RUBBER
RM 110	INOLEUM	EXP. CEIL.	PAINT	RUBBER
RM 111	INOLEUM	EXP. CEIL.	PAINT	RUBBER
RM 112	STEEL TROWEL EXP. CONCRETE	ACT.	PAINT	RUBBER
RM 113	TILE	GYP.	PAINT	TILE
RM 114	STEEL TROWEL EXP. CONCRETE	ACT.	PAINT	RUBBER
RM 115	TILE	GYP.	PAINT	TILE
RM 116	STEEL TROWEL EXP. CONCRETE	ACT.	PAINT	RUBBER
RM 117	STEEL TROWEL EXP. CONCRETE	ACT.	PAINT	RUBBER
CO01	INOLEUM	ACT.	PAINT	RUBBER
CO02	INOLEUM	EXP. CEIL.	PAINT	RUBBER

NOTE: ALL PLUMBING FIXTURES TO BE AMERICAN STANDARD

1
X.XX

 CALIFORNIA AMERICAN WATER	REVISIONS	REVISIONS	 CDM Smith <small>100 Pringle Avenue, Suite 300 Walnut Creek, CA 94596 Tel: (925) 933-2900</small>	 EHDD <small>Esherick Homsey Dodge & Davis 500 Treat Avenue San Francisco CA 94110 Tel: (415) 285-9193</small>	XXX	 CALIFORNIA AMERICAN WATER	MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT ARCHITECTURAL CODE PLANS 9.6 MGD BASE CASE																			
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;">△</td><td></td><td style="width: 20px; height: 20px;">△</td><td></td></tr> <tr><td style="width: 20px; height: 20px;">△</td><td></td><td style="width: 20px; height: 20px;">△</td><td></td></tr> <tr><td style="width: 20px; height: 20px;">△</td><td></td><td style="width: 20px; height: 20px;">△</td><td></td></tr> <tr><td style="width: 20px; height: 20px;">△</td><td></td><td style="width: 20px; height: 20px;">△</td><td></td></tr> <tr><td style="width: 20px; height: 20px;">△</td><td></td><td style="width: 20px; height: 20px;">△</td><td></td></tr> </table>	△					△		△		△		△		△		△		△		△		△			
△		△																								
△		△																								
△		△																								
△		△																								
△		△																								



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

CDM Smith
 100 Pringle Avenue, Suite 300
 Walnut Creek, CA 94596
 Tel: (925) 933-2900

EHDD
 Esherick Homsey
 Dodge & Davis
 500 Treat Avenue
 San Francisco CA 94110
 Tel: (415) 285-6193

XXX
 XXX
 XXX

XXX LICENSED PROFESSIONAL ENGINEER
 NO. XXX

CALIFORNIA AMERICAN WATER

DRAWN BY XXX
 PROJECT ENGR XXX

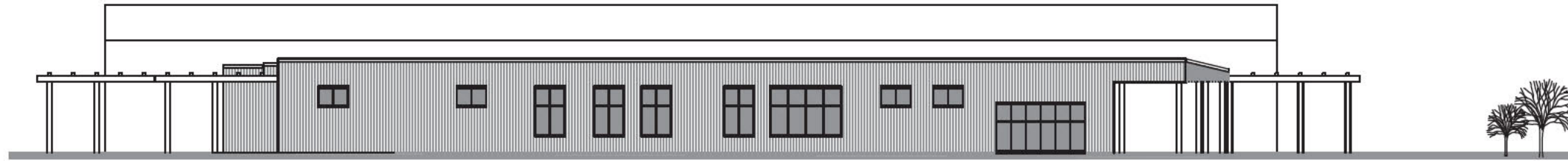
DATE OCT 2013

PROJECT 5000-28306

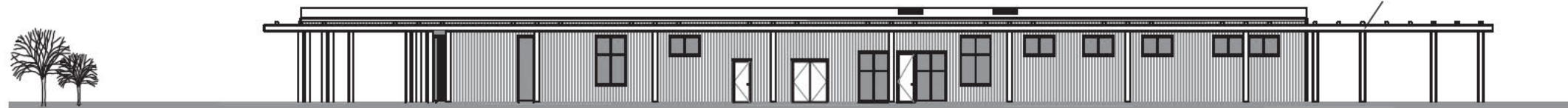
MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
 ARCHITECTURAL
 CODE PLANS
 9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO. ESSEX-PASSAIC SERVICE AREA USE DIMENSIONS ONLY
 SCALE NTS

USE APPROVED DRAWINGS ONLY
 FOR CONSTRUCTION PURPOSES XXX 5000-28306-A-



3 ELEVATION SOUTH
NTS



4 ELEVATION NORTH
NTS



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

CDM Smith

100 Pringle Avenue, Suite 300
Walnut Creek, CA 94596
Tel: (925) 933-2900

EHDD

Esherick Homsey
Dodge & Davis

500 Treat Avenue
San Francisco CA 94110
Tel: (415) 285-9193

XXX
XXX
XXX
DRAWN BY XXX
PROJECT ENG'R XXX
DATE OCT 2013
PROJECT 5000-28306
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY XXX
PROJECT ENG'R XXX

DATE OCT 2013

PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
ARCHITECTURAL
ELEVATIONS
9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.

USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

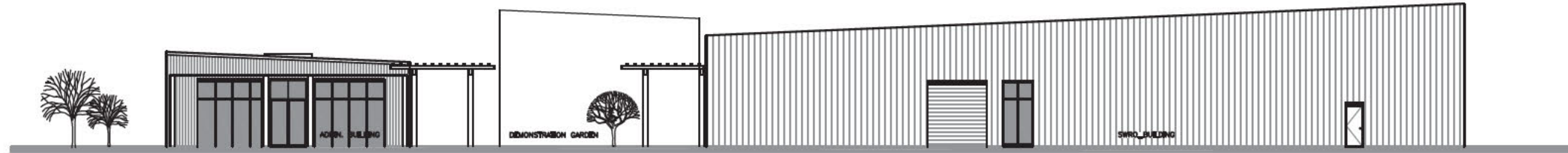
ESSEX-PASSAIC SERVICE AREA

XXX

USE DIMENSIONS ONLY
SCALE NTS

5000-28306-A-3

500028306A



1 ELEVATION EAST
NTS



2 ELEVATION WEST
NTS



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

CDM Smith

100 Pringle Avenue, Suite 300
Walnut Creek, CA 94596
Tel: (925) 933-2900

EHDD

Esherick Homsey
Dodge & Davis
500 Treat Avenue
San Francisco CA 94110
Tel: (415) 285-9193

XXX
XXX
XXX
DRAWN BY XXX
PROJECT ENG'R XXX
DATE OCT 2013
PROJECT 5000-28306
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DATE OCT 2013

PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
ARCHITECTURAL
ELEVATIONS
9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.

USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

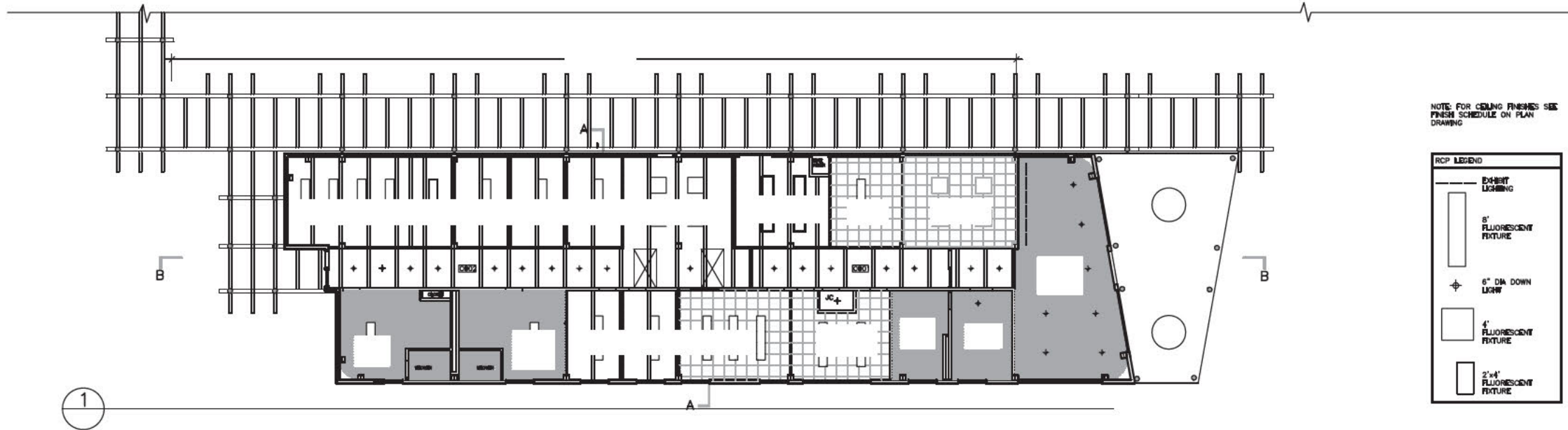
ESSEX-PASSAIC SERVICE AREA

XXX

USE DIMENSIONS ONLY
SCALE NTS

5000-28306-A-4

500028306A



NOTE: FOR CEILING FINISHES SEE
FINISH SCHEDULE ON PLAN
DRAWING

RCP LEGEND	
	EXHIBIT LIGHTING
	8' FLUORESCENT FIXTURE
	6" DIA DOWN LIGHT
	4' FLUORESCENT FIXTURE
	2'-4" FLUORESCENT FIXTURE

1

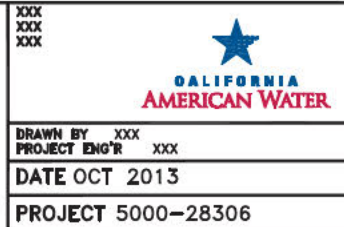


REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

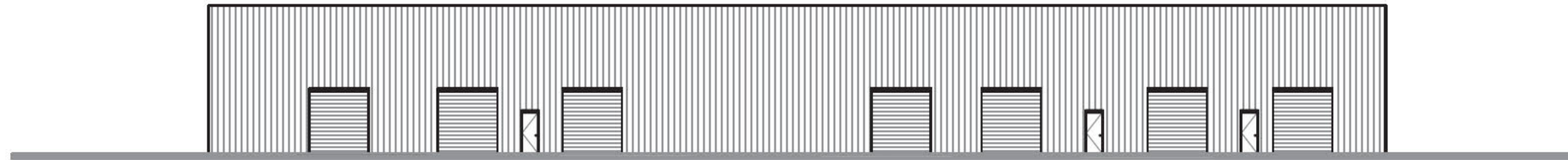
CDM Smith
100 Pringle Avenue, Suite 300
Walnut Creek, CA 94596
Tel: (925) 933-2900

EHDD
Esherick Homsey
Dodge & Davis
500 Treat Avenue
San Francisco CA 94110
Tel: (415) 285-9193

XXX
XXX
XXX
DRAWN BY XXX
PROJECT ENGR XXX
DATE OCT 2013
PROJECT 5000-28306
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT ARCHITECTURAL RCP 9.6 MGD BASE CASE		
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE NTS
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-A-5



5 SWRO NORTH ELEVATION
NTS



6 SWRO SOUTH ELEVATION
NTS



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	
△		△	

**CDM
Smith**

100 Pringle Avenue, Suite 300
Walnut Creek, CA 94596
Tel: (925) 933-2900

EHDD

Esherick Homsey
Dodge & Davis

500 Treat Avenue
San Francisco CA 94110
Tel: (415) 285-9193

XXX
XXX
XXX
DRAWN BY XXX
PROJECT ENG'R XXX
DATE OCT 2013
PROJECT 5000-28306
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY XXX
PROJECT ENG'R XXX

DATE OCT 2013

PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
ARCHITECTURAL
ELEVATIONS
9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.

USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

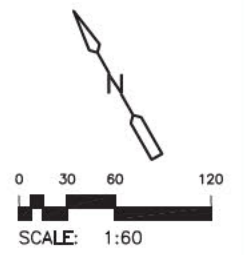
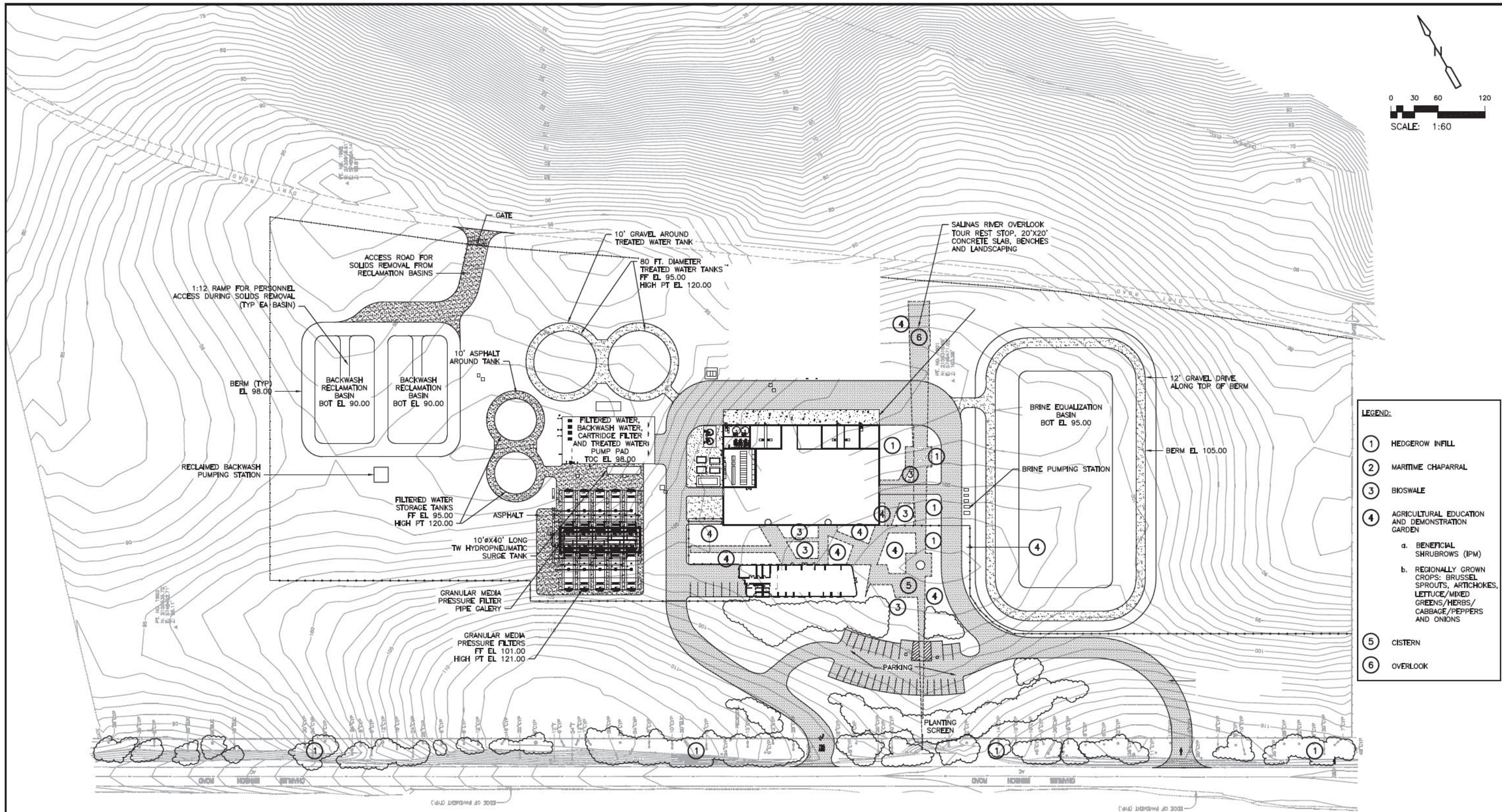
ESSEX-PASSAIC SERVICE AREA

XXX

USE DIMENSIONS ONLY
SCALE NTS

5000-28306-A-

500028306A



- LEGEND:**
- ① HEDGEROW INFILL
 - ② MARITIME CHAPARRAL
 - ③ BIOSWALE
 - ④ AGRICULTURAL EDUCATION AND DEMONSTRATION GARDEN
 - a. BENEFICIAL SHRUBBROWS (IPM)
 - b. REGIONALLY GROWN CROPS: BRUSSEL SPROUTS, ARTICHOKEs, LETTUCE/MIXED GREENS/HERBS/CABBAGE/PEPPERS AND ONIONS
 - ⑤ CISTERN
 - ⑥ OVERLOOK



REVISIONS		REVISIONS	
△		△	
△		△	
△		△	
△		△	



XXX
XXX
XXX

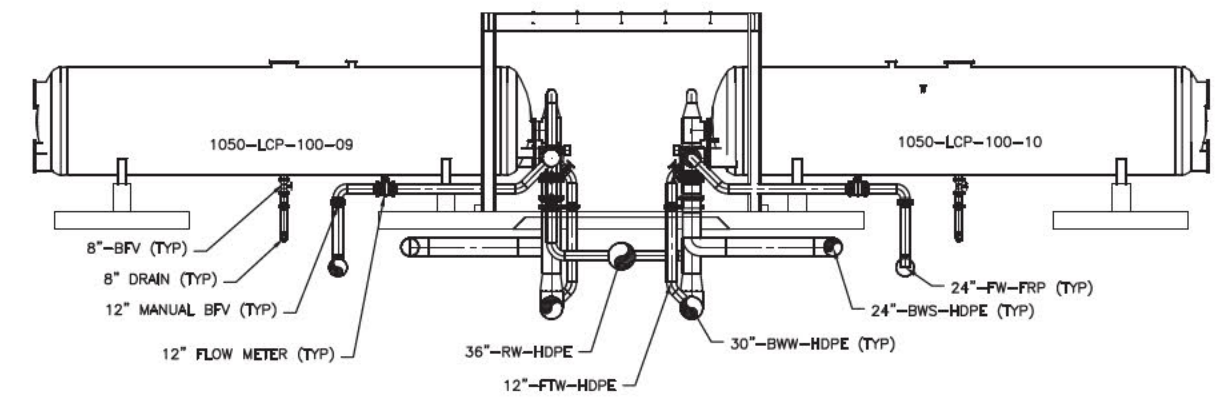
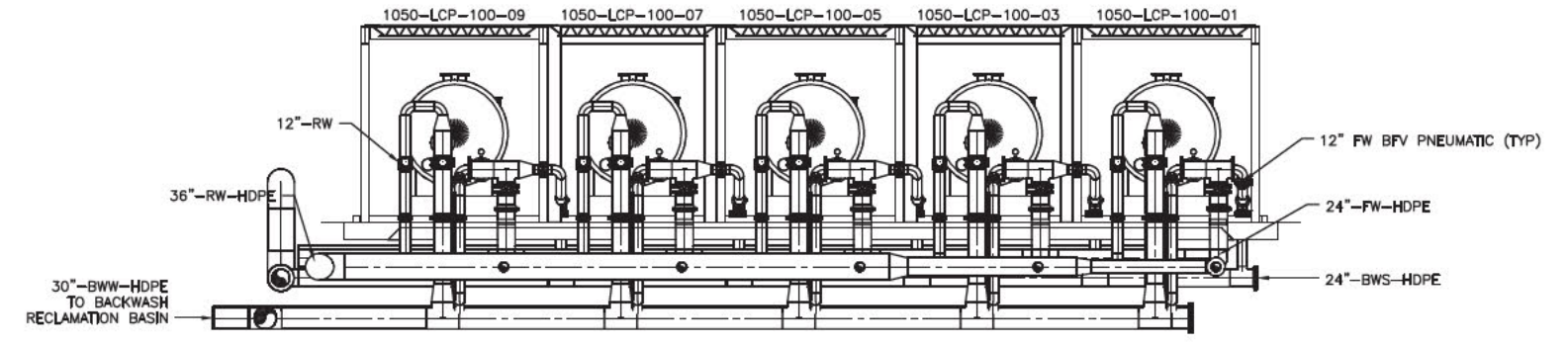
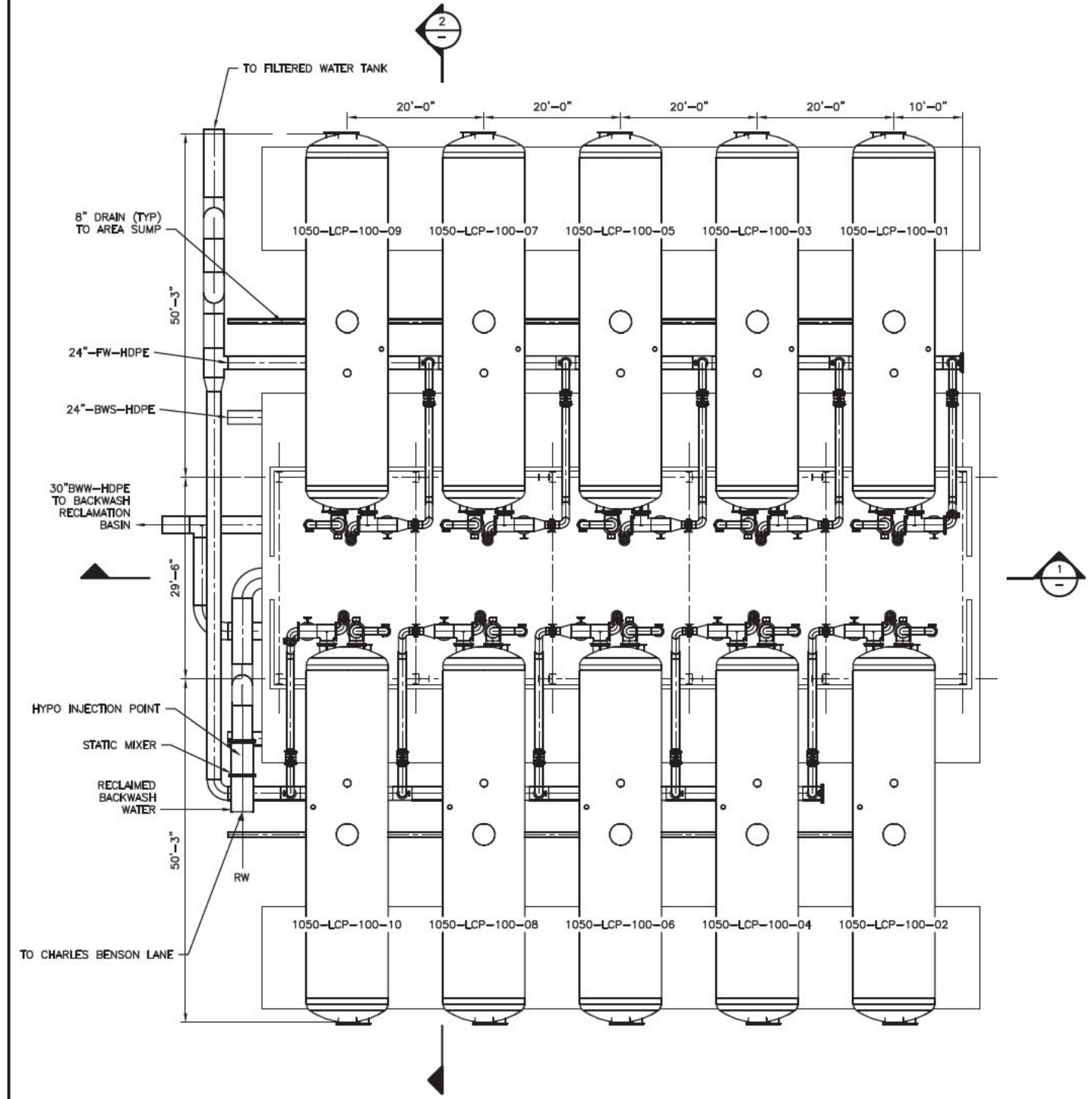
DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

**MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
ARCHITECTURAL
9.6 MGD BASE CASE
LANDSCAPING PLAN FOR TOUR GARDEN AREA**

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-A-9



3/32" = 1' - 0"
8 0 8 16



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



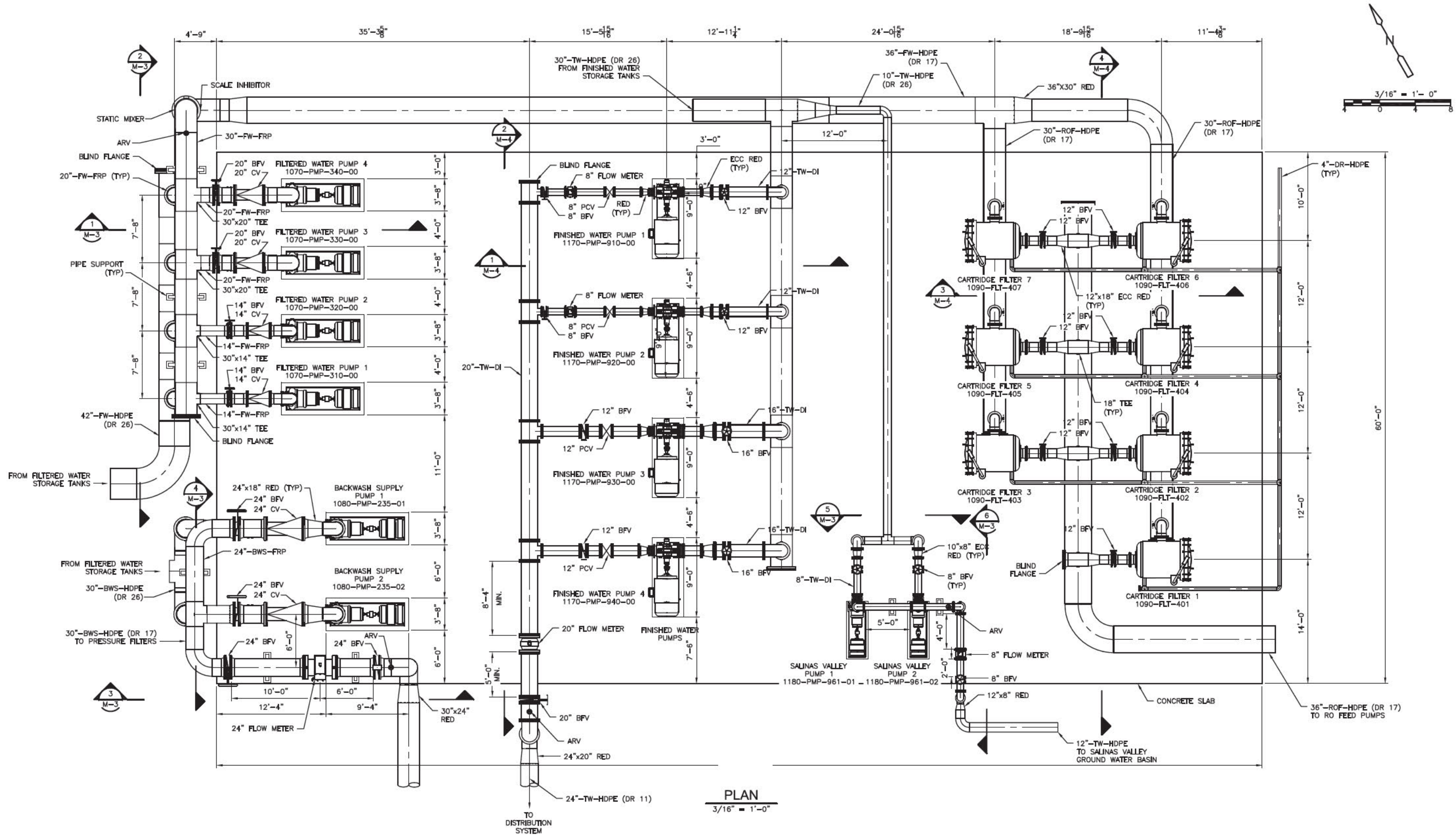
XXX
XXX
XXX
DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306



MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
PLAN AND SECTION
SEA WATER PRESSURE FILTER

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-1

500028306MX1



PLAN
3/16" = 1'-0"



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

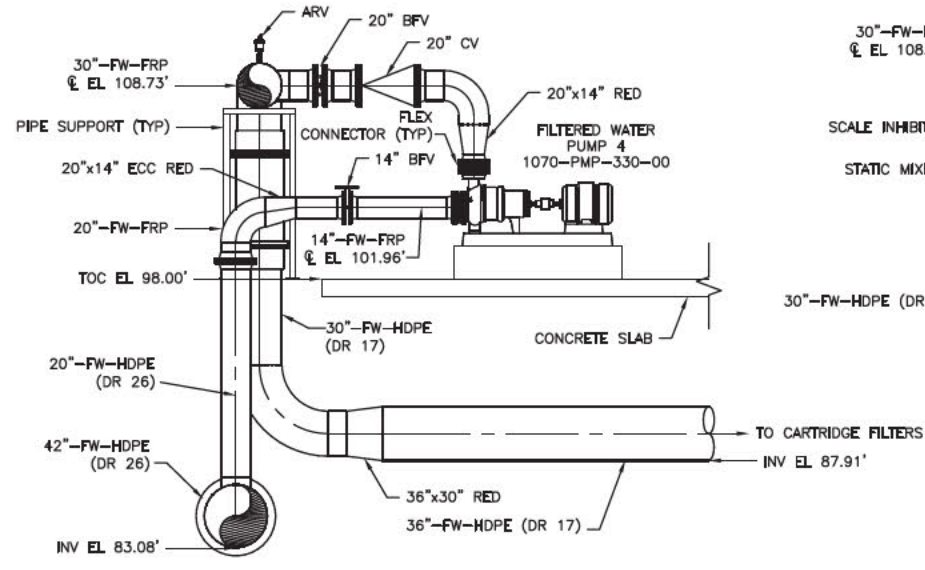


XXX
XXX
XXX
DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

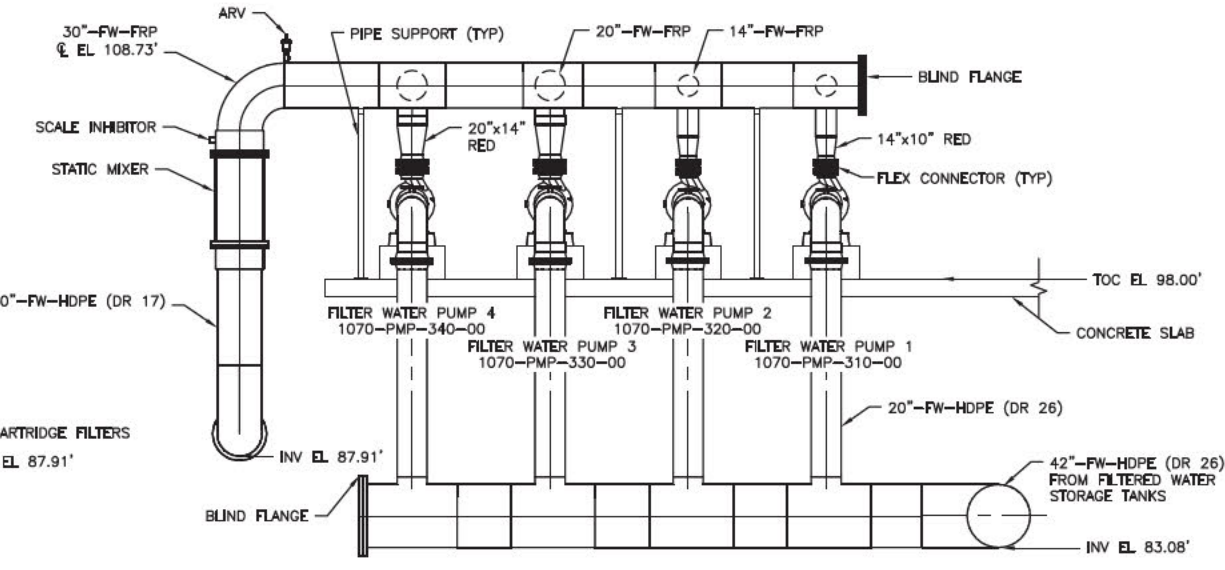


MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL - PLAN
FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER
AND FINISHED WATER PUMP PAD - 9.6 MGD
CALIFORNIA AMERICAN WATER CO. ESSEX-PASSAIC SERVICE AREA
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES
XXX
5000-28306-M-2
50028306M20

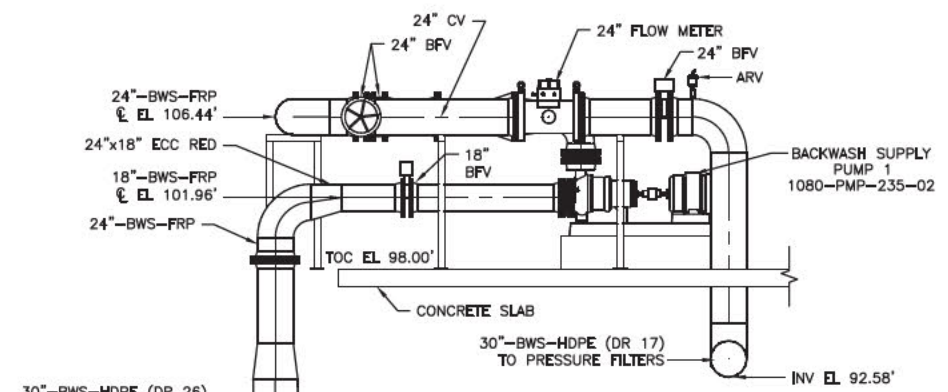
3/16" = 1'-0"



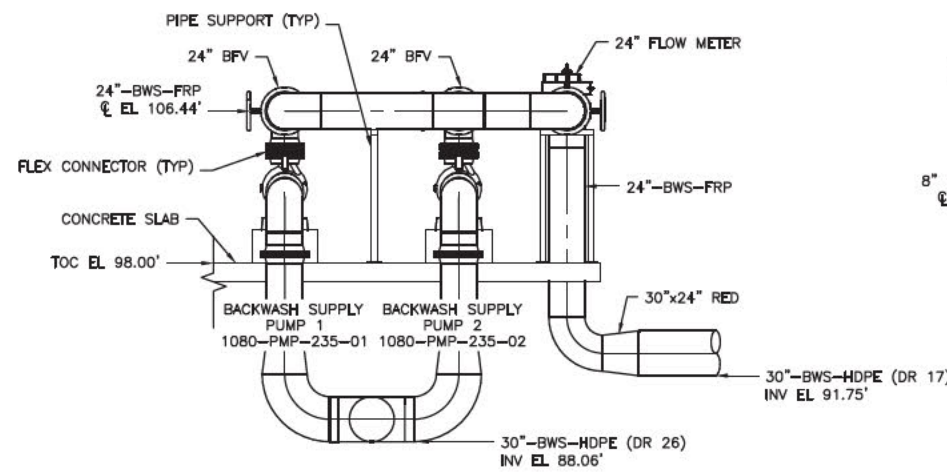
FILTERED WATER PUMP STATION



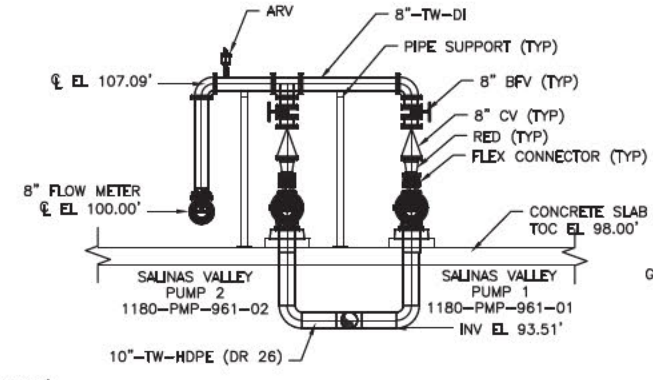
FILTERED WATER PUMP STATION



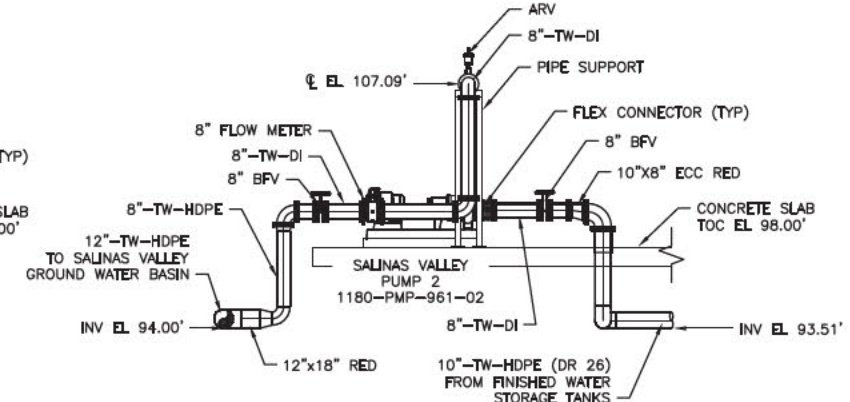
BACKWASH SUPPLY PUMP STATION



BACKWASH SUPPLY PUMP STATION



SALINAS VALLEY PUMP STATION



SALINAS VALLEY PUMP STATION

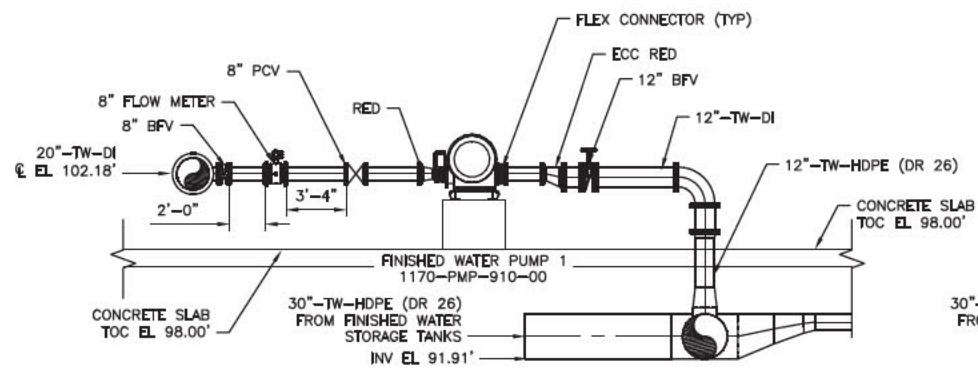


REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

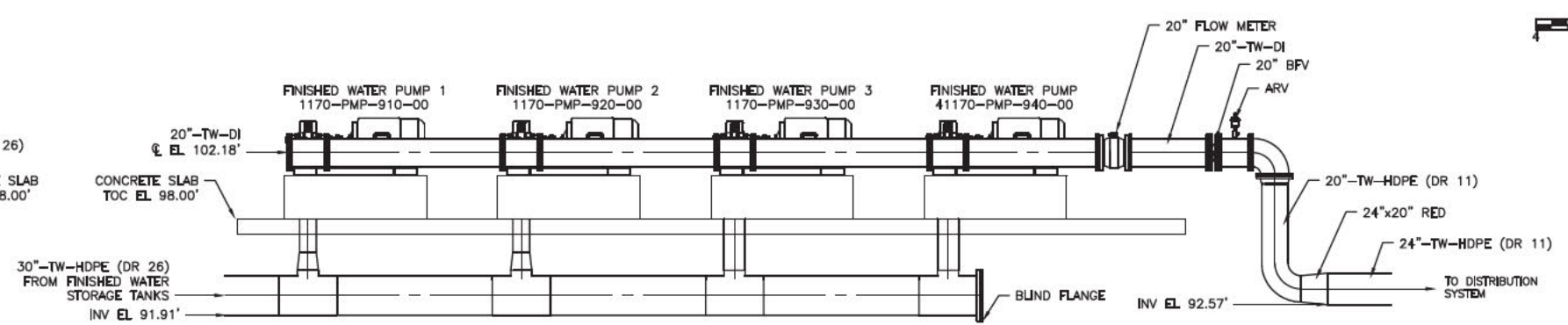


XXX
 XXX
 XXX
 CALIFORNIA AMERICAN WATER
 DRAWN BY D. RAMALES
 PROJECT ENGR Z. SHARP
 DATE OCT 2013
 PROJECT 5000-28306
 REGISTERED PROFESSIONAL ENGINEER
 NO. XXX

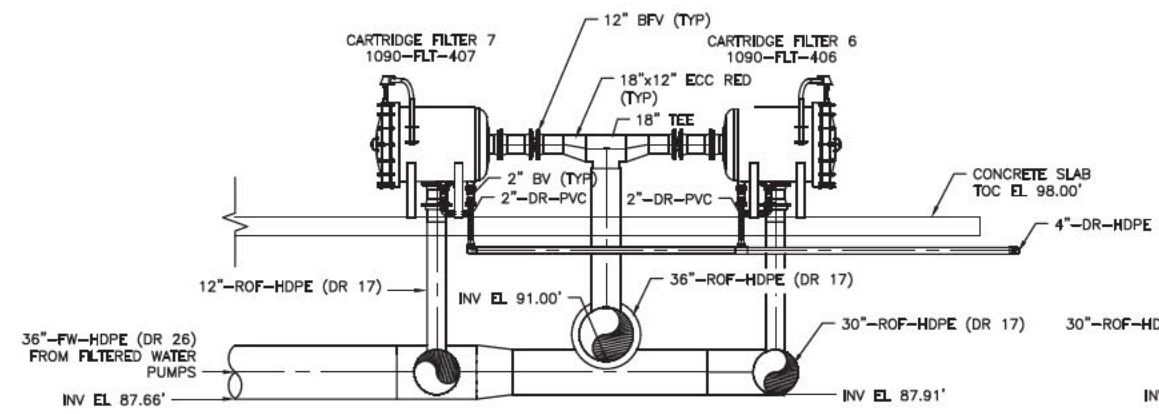
MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
 PROCESS MECHANICAL - SECTIONS
 FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER
 AND FINISHED WATER PUMP PAD - 9.6 MGD
 CALIFORNIA AMERICAN WATER CO. ESSEX-PASSAIC SERVICE AREA
 USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES
 XXX
 5000-28306-M-3
 USE DIMENSIONS ONLY SCALE AS NOTED



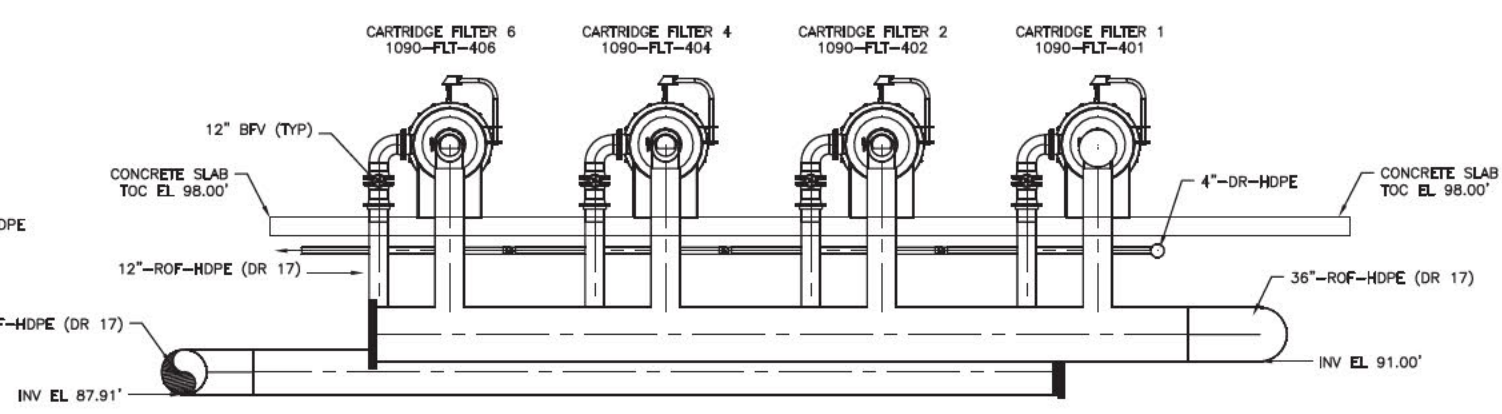
FINISHED WATER PUMP STATION



FINISHED WATER PUMP STATION



CARTRIDGE FILTERS



CARTRIDGE FILTERS



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

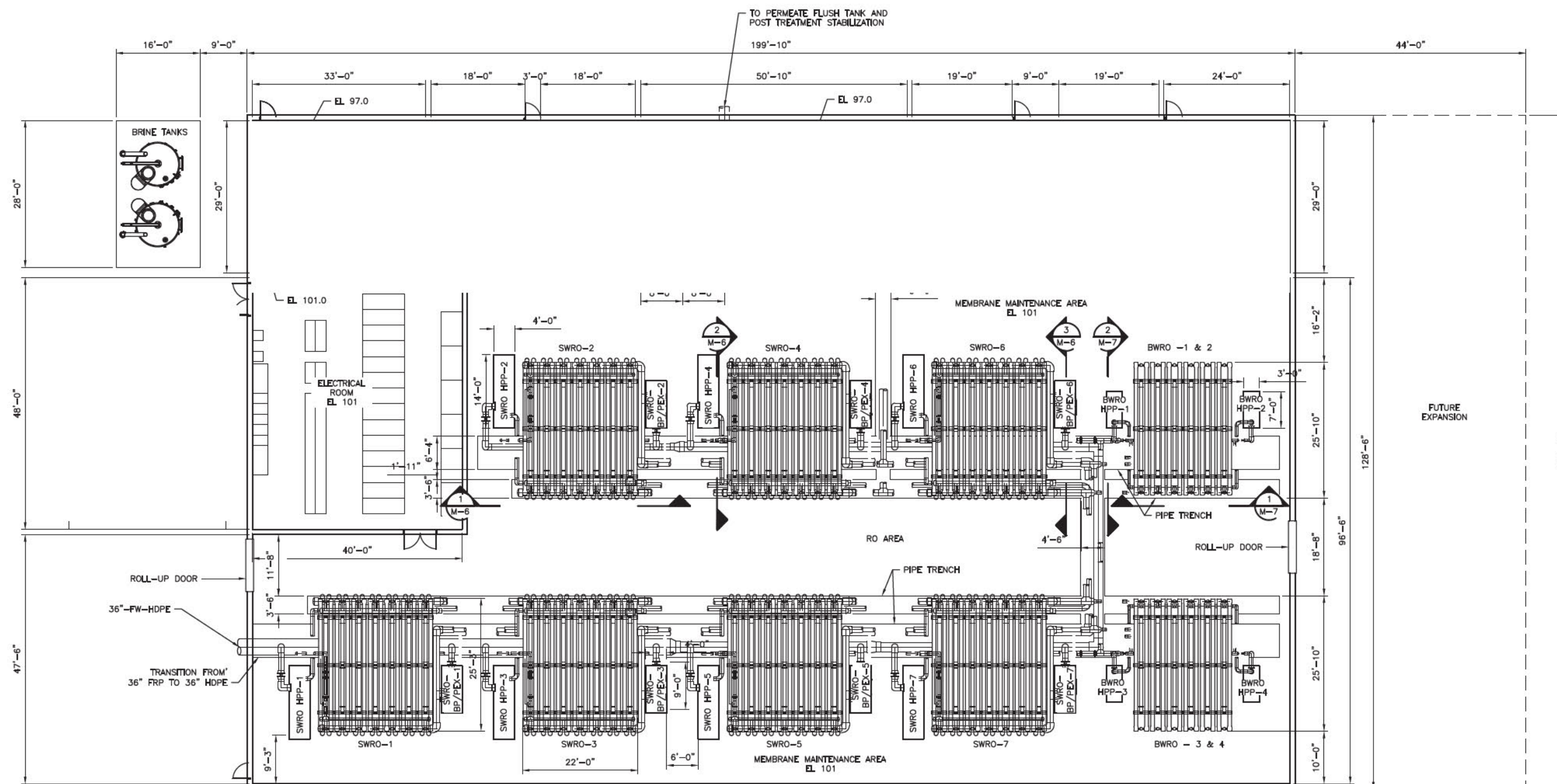


XXX
XXX
XXX

DRAWN BY D. RAMALES
PROJECT ENGR Z. SHARP
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL - SECTIONS
FILTERED WATER, BACKWASH WATER, CARTRIDGE FILTER
AND FINISHED WATER PUMP PAD - 9.6 MGD

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-4



PLAN

3/32" = 1'-0"



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



XXX

CALIFORNIA AMERICAN WATER CO.
XXX
XXX

CALIFORNIA AMERICAN WATER

DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN

DATE OCT 2013

PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
RO LAYOUT
9.6 MGD BASE CASE

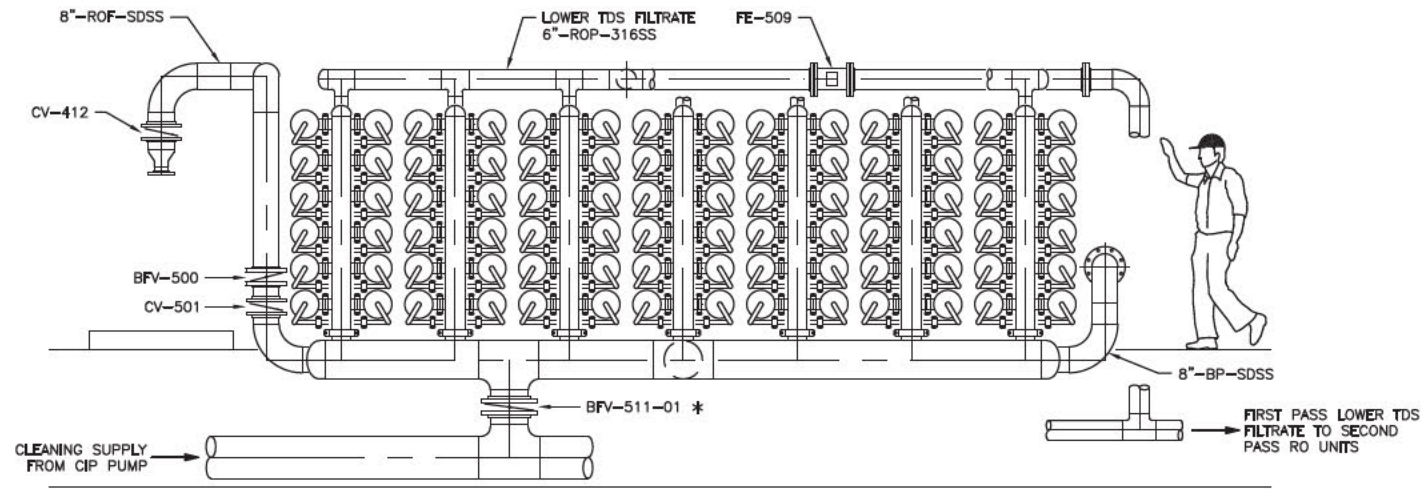
CALIFORNIA AMERICAN WATER CO. ESSEX-PASSAIC SERVICE AREA

USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES

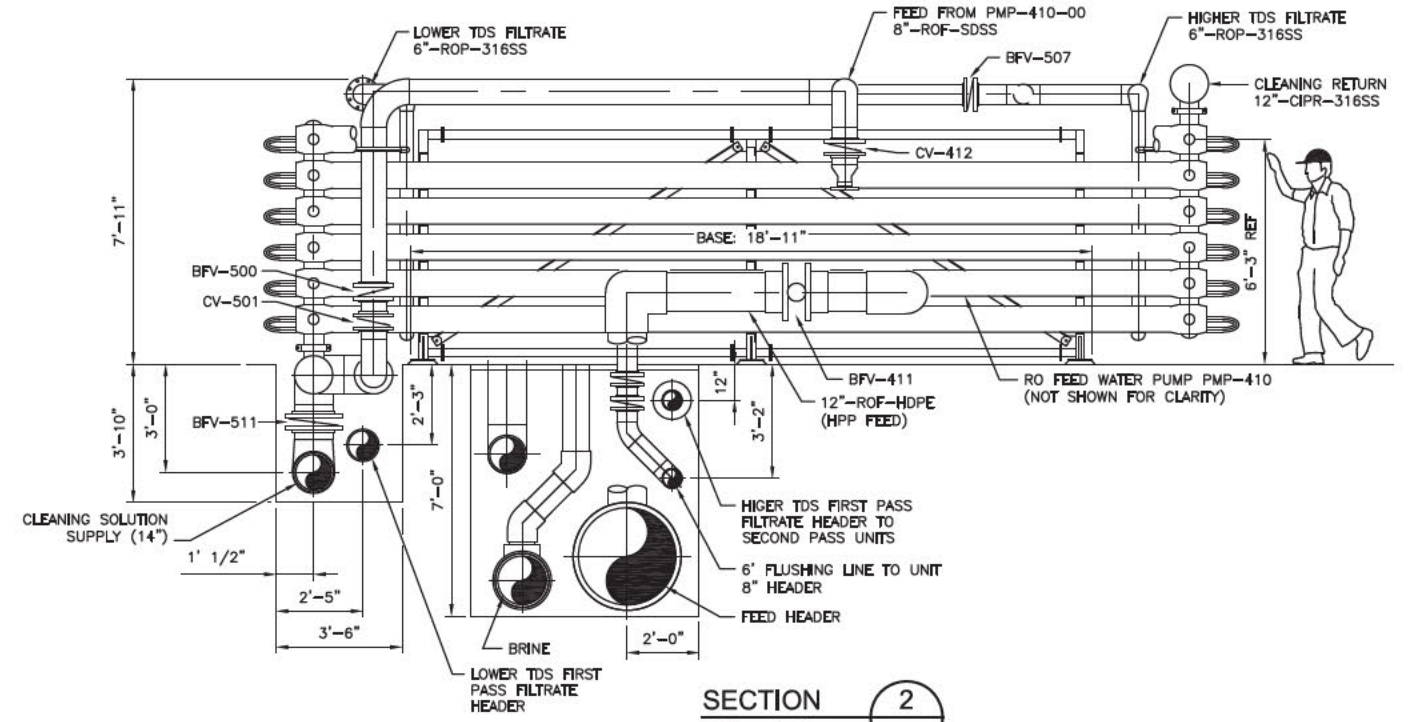
XXX

USE DIMENSIONS ONLY SCALE AS NOTED

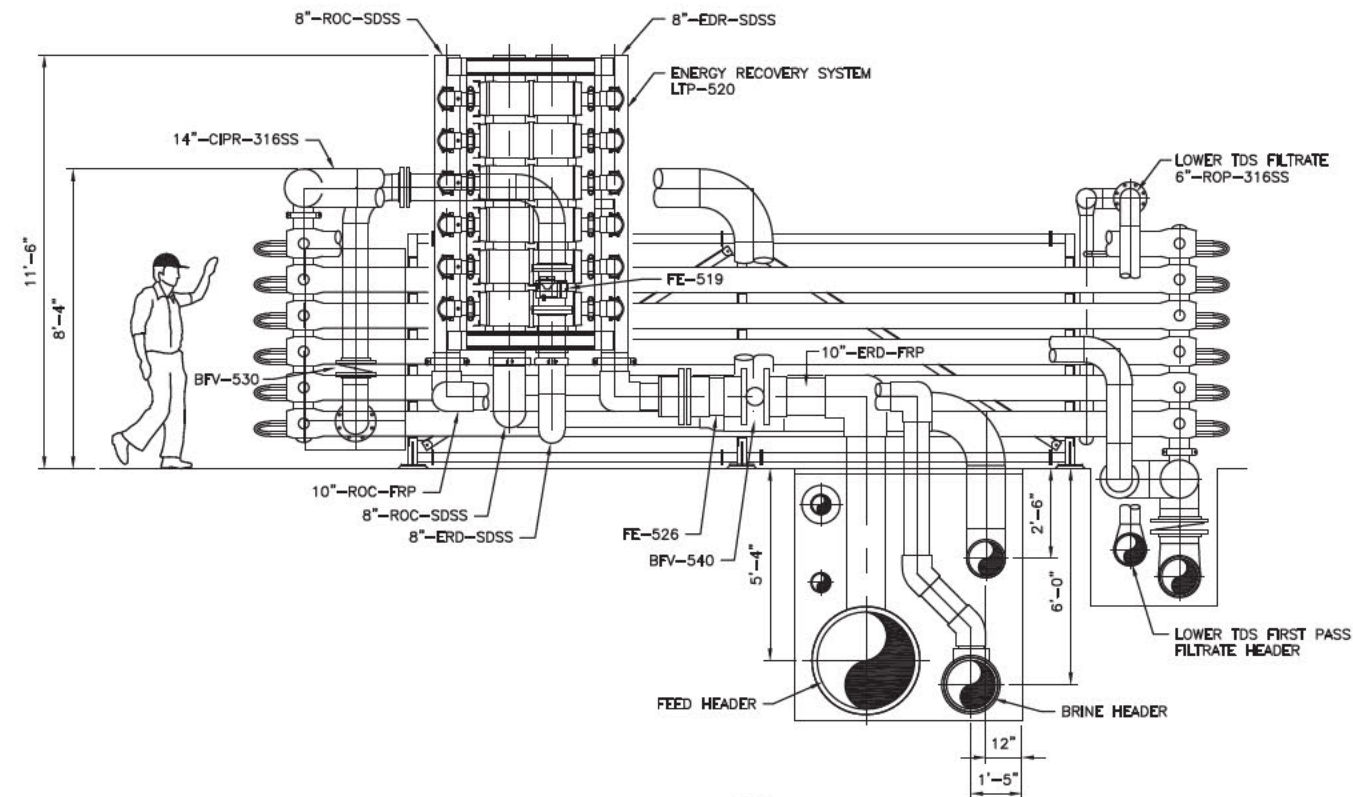
5000-28306-M-5



SECTION 1
3/8" = 1'-0" M-5



SECTION 2
3/8" = 1'-0" M-5



SECTION 3
3/8" = 1'-0" M-5

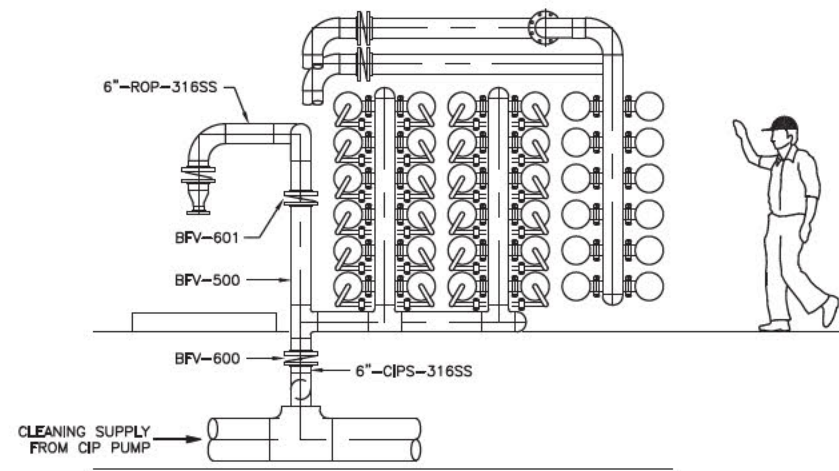


REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

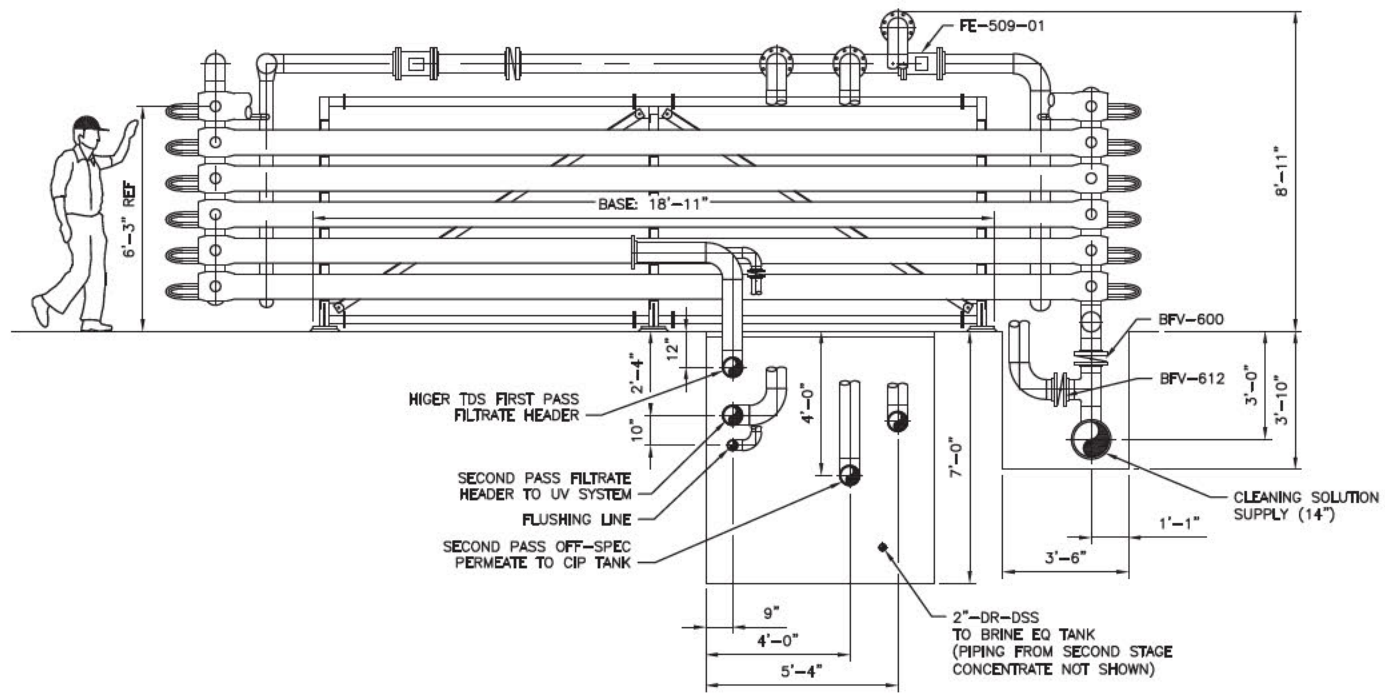


XXX	XXX XXX XXX
DRAWN BY D. ISLAS PROJECT ENG'R D. BROWN	
DATE OCT 2013	
PROJECT 5000-28306	
REGISTERED PROFESSIONAL ENGINEER NO. XXX	

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT PROCESS MECHANICAL SWRO LAYOUT - SECTIONS I 9.6 MGD BASE CASE		
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-6



SECTION 1
3/8" = 1'-0"



SECTION 2
3/8" = 1'-0"



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

CDM Smith
100 Pajaro Avenue, Suite 300
Walnut Creek, CA 94596
Tel: (925) 933-2900

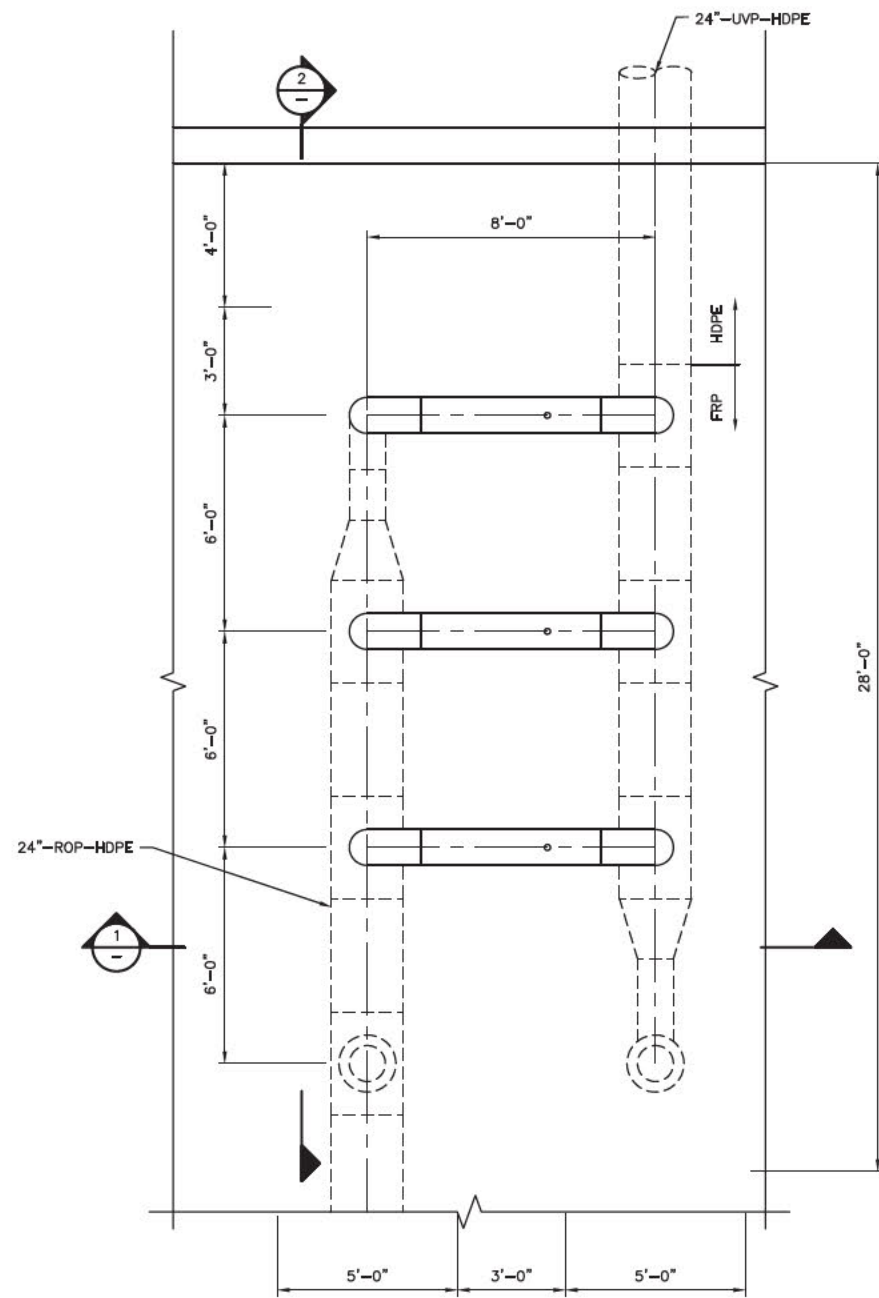
XXX
XXX
XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



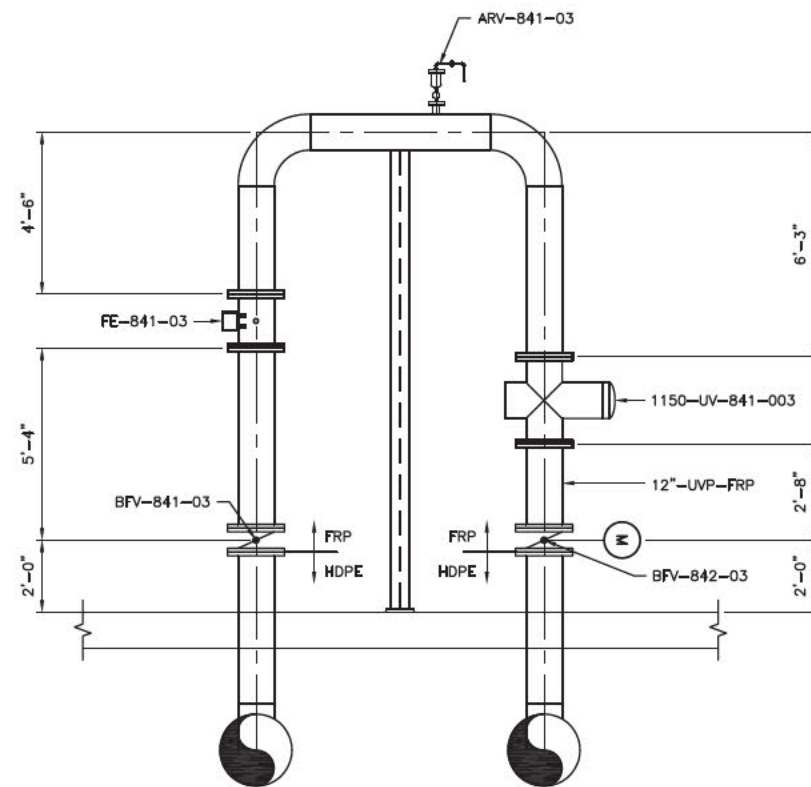
DRAWN BY D. ISLAS
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
SECOND PASS BWRO EQUIPMENT ELEVATION
9.6 MGD BASE CASE

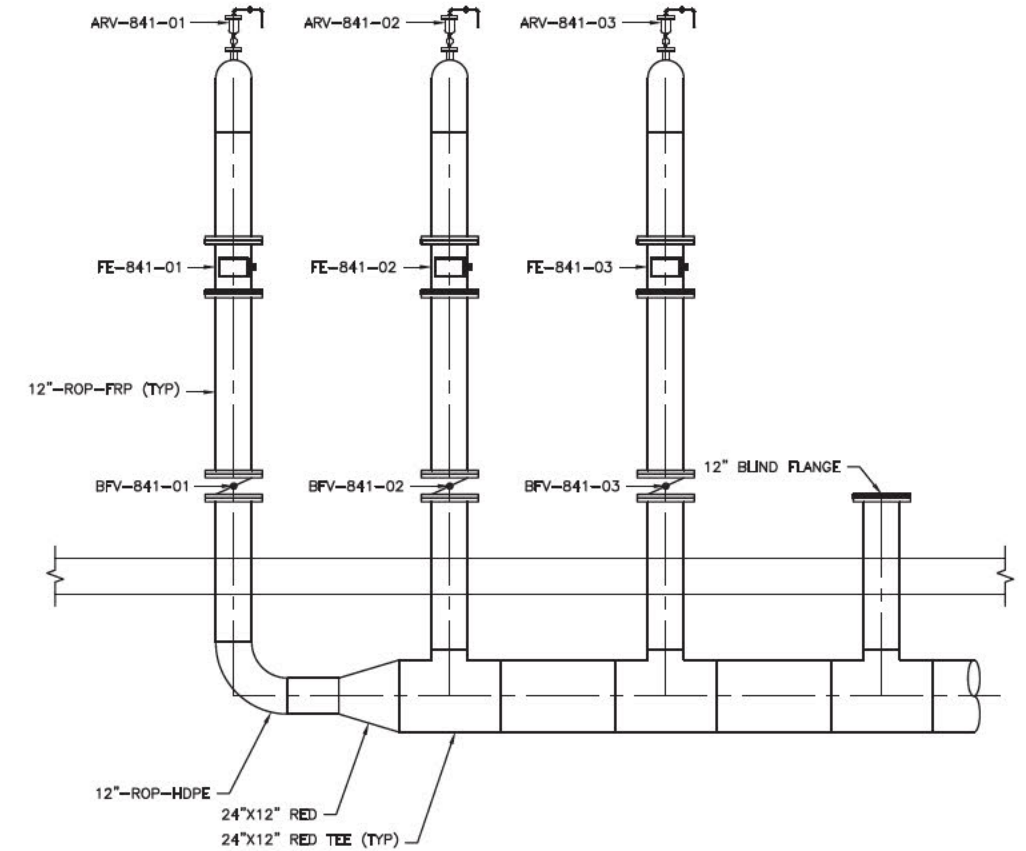
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-7



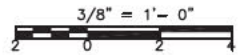
PLAN
3/8" = 1'-0"



SECTION 1
3/8" = 1'-0"



SECTION 2
3/8" = 1'-0"



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△

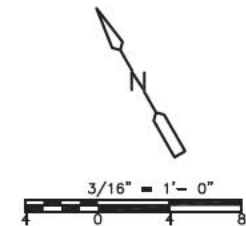
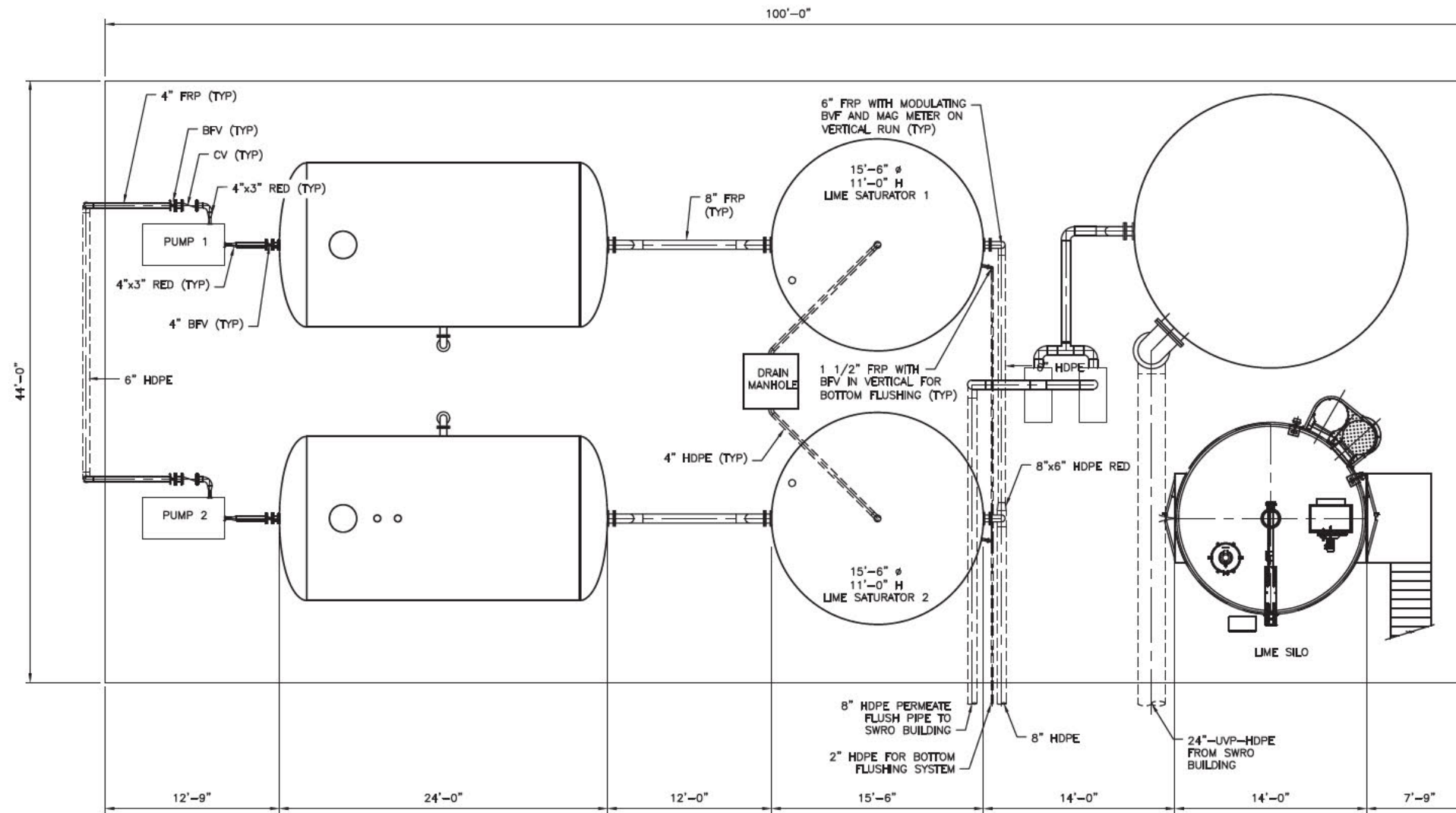


XXX
 REGISTERED PROFESSIONAL ENGINEER
 NO. XXX

California American Water logo
 DRAWN BY D. RAMALES
 PROJECT ENGR D. BROWN
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
 PROCESS MECHANICAL
 UV SYSTEM PLAN AND SECTIONS
 9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-9



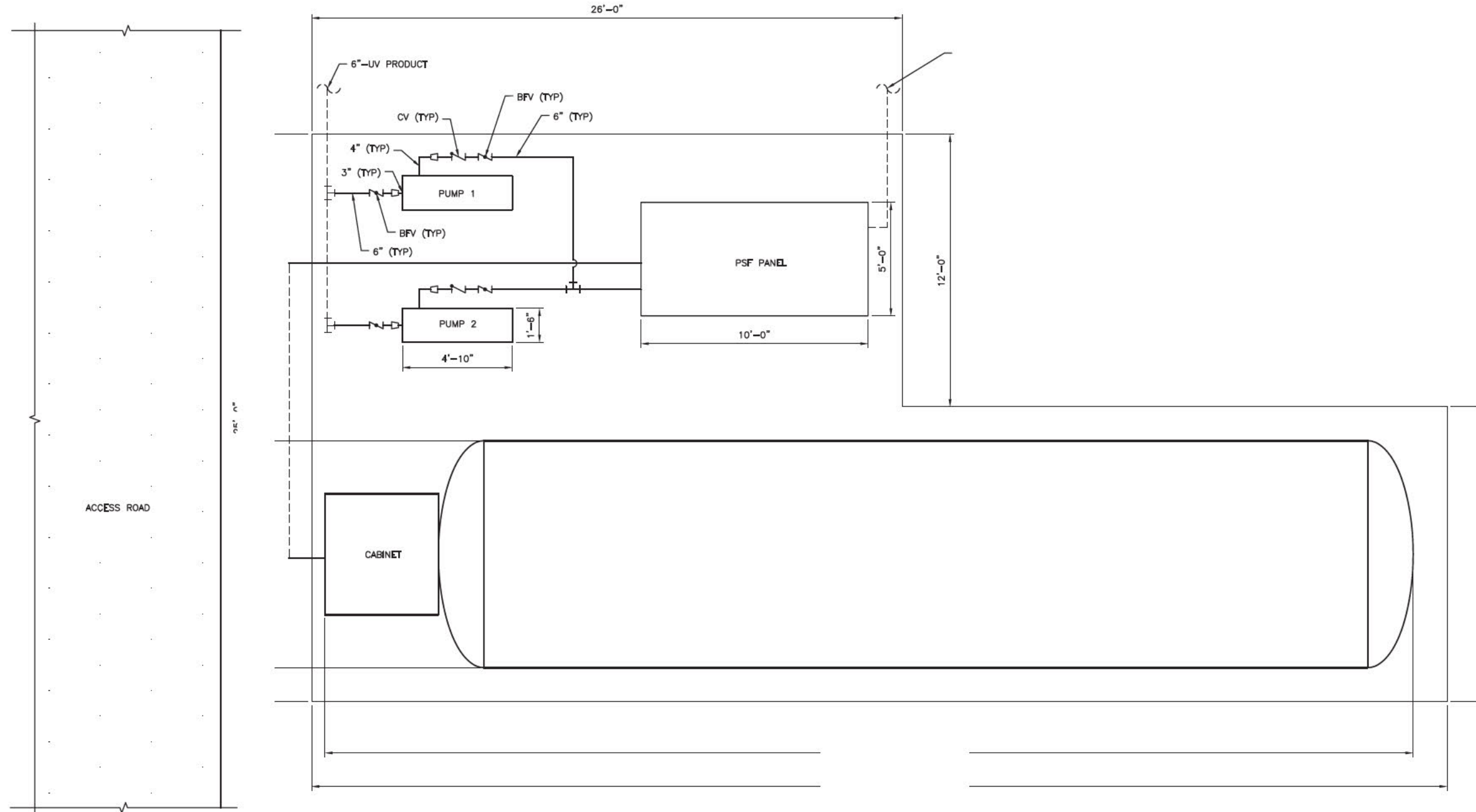
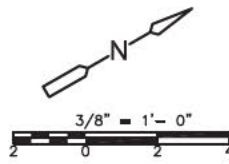
REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



XXX
XXX
XXX

DRAWN BY D. RAMALES
PROJECT ENG'R C. HOBBS
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT PROCESS MECHANICAL PLAN SATURATED LIME SYSTEM AND PERMEATE FLUSH TANK SYSTEM		
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-10



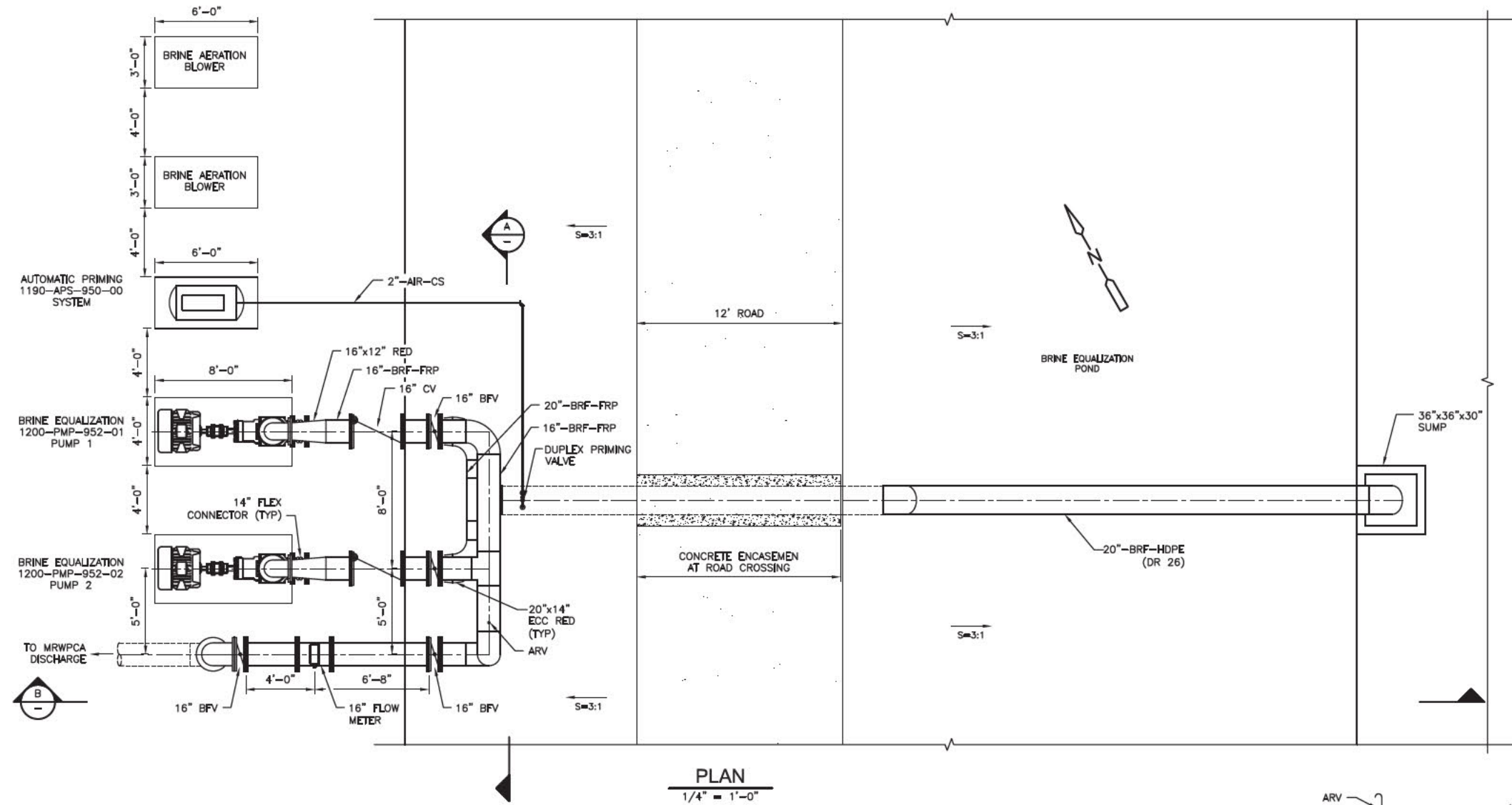
REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



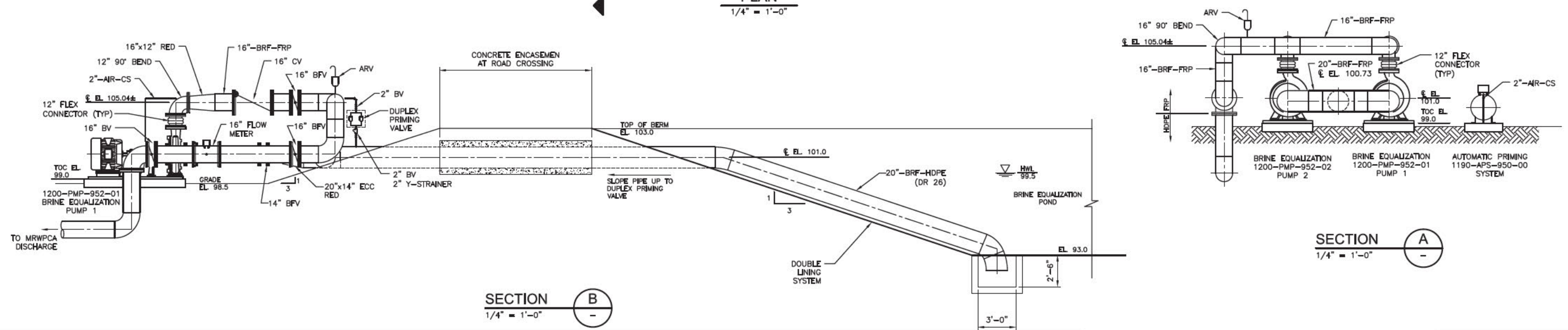
XXX
 XXX
 XXX
 REGISTERED PROFESSIONAL ENGINEER
 NO. XXX

DRAWN BY D. RAMALES
 PROJECT ENG'R C. HOBBS
 DATE OCT 2013
 PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT PROCESS MECHANICAL PLAN - BASE CASE CO2 (CALCIUM HYDROXIDE) - FOR 6.4 MGD AND 9.6 MGD		
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-11



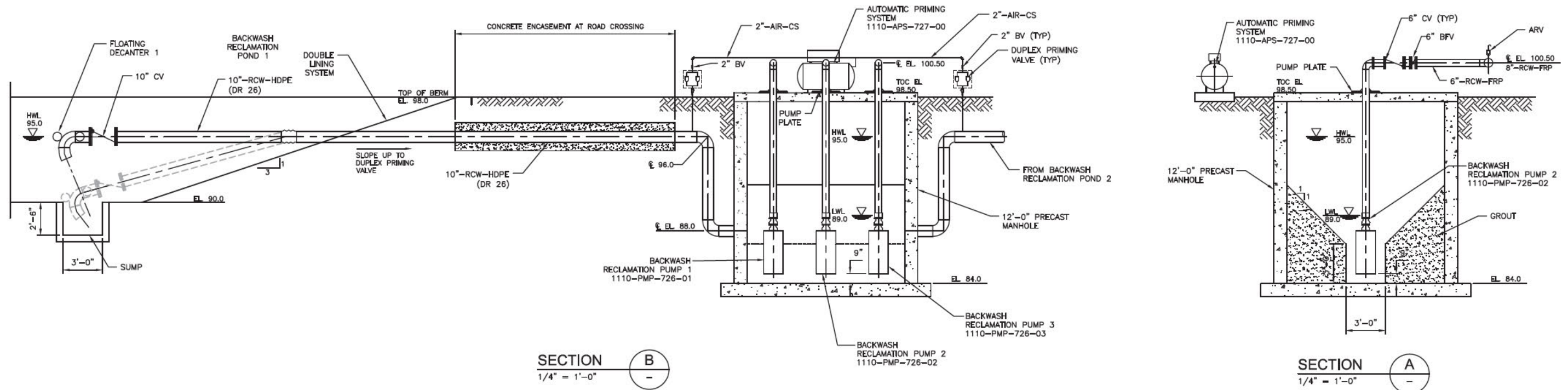
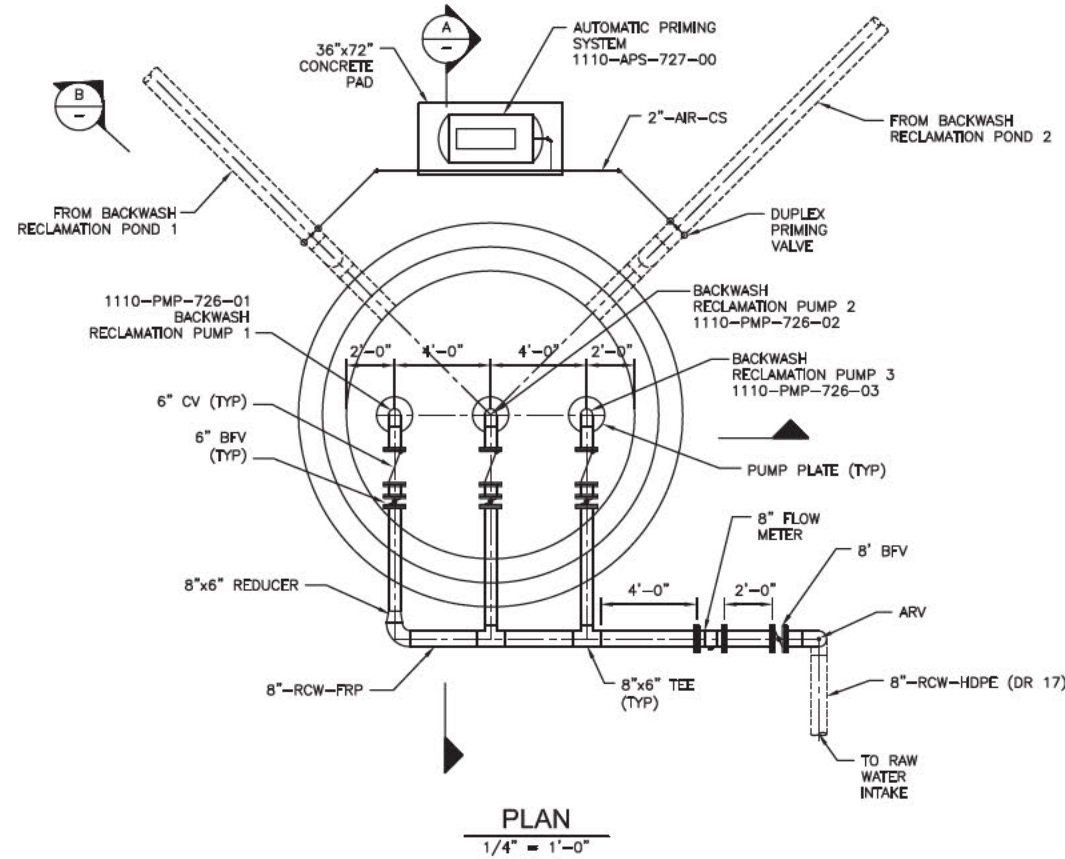
PLAN
1/4" = 1'-0"



SECTION B
1/4" = 1'-0"

SECTION A
1/4" = 1'-0"

	REVISIONS	REVISIONS		XXX		MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT		
	△	△		XXX		BRINE PROCESS MECHANICAL		
	△	△		XXX		BRINE EQUALIZATION PUMP STATION		
	△	△		XXX		9.6 MGD BASE CASE		
	△	△		XXX		CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
				DRAWN BY D. RAMALES PROJECT ENGR Z. SHARP DATE OCT 2013 PROJECT 5000-28306	USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-12	
50028306M40								



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



XXX
XXX
XXX

LICENSED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY D. RAMALES
PROJECT ENGR Z. SHARP

DATE OCT 2013

PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
BACKWASH RECLAMATION BASIN PUMP STATION
9.6 MGD BASE CASE

CALIFORNIA AMERICAN WATER CO.

ESSEX-PASSAIC SERVICE AREA

USE DIMENSIONS ONLY
SCALE AS NOTED

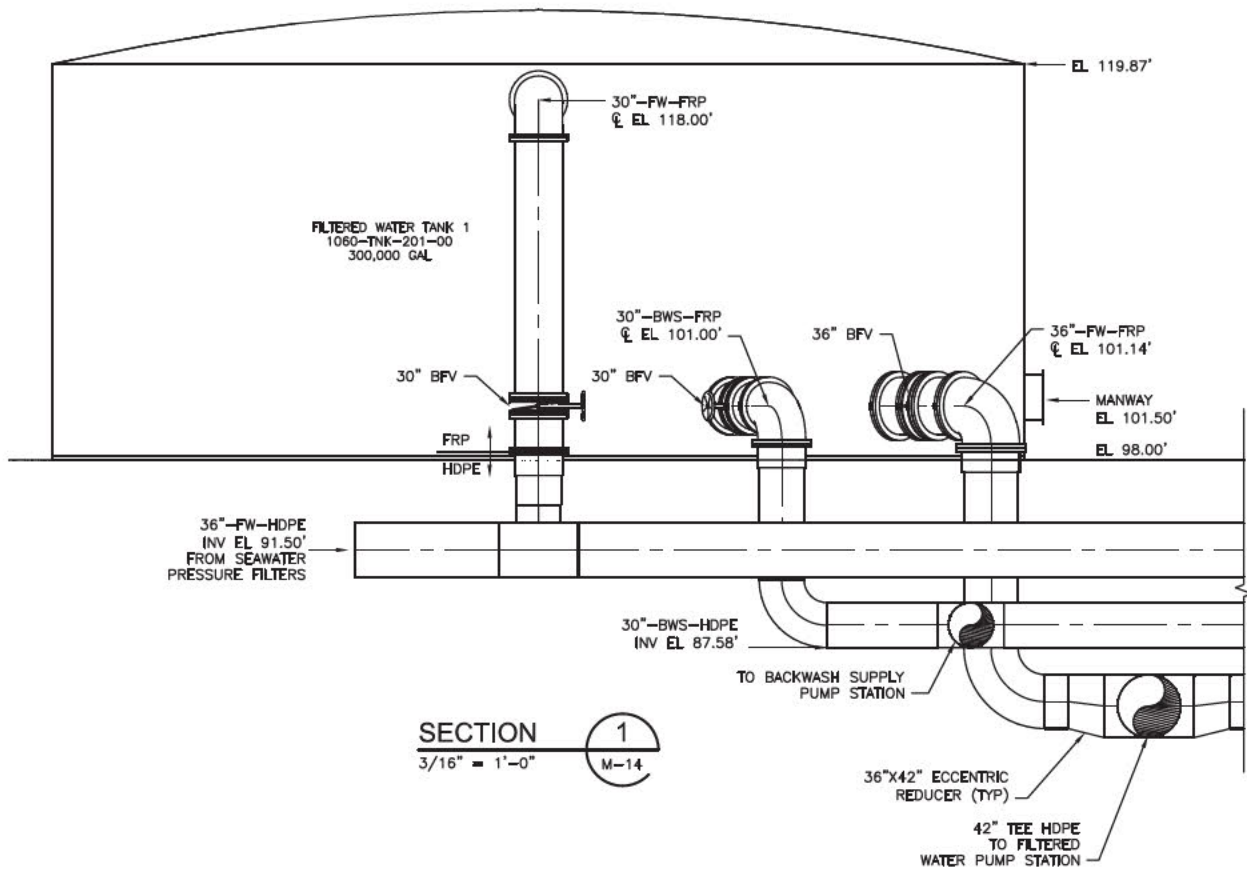
USE APPROVED DRAWINGS ONLY
FOR CONSTRUCTION PURPOSES

XXX

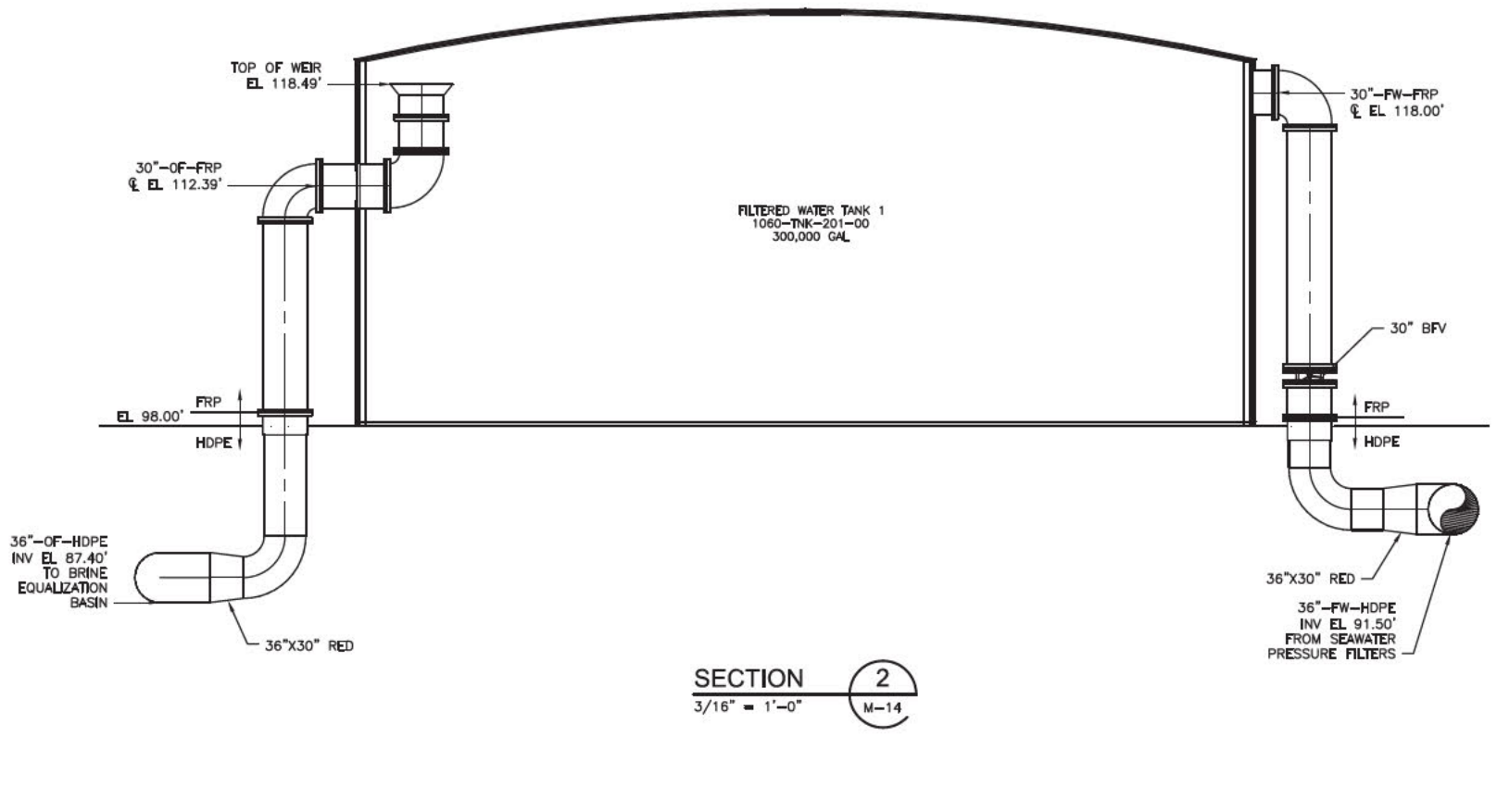
5000-28306-M-13

500028306M45

3/16" = 1'-0"



SECTION 1
3/16" = 1'-0"
M-14



SECTION 2
3/16" = 1'-0"
M-14



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



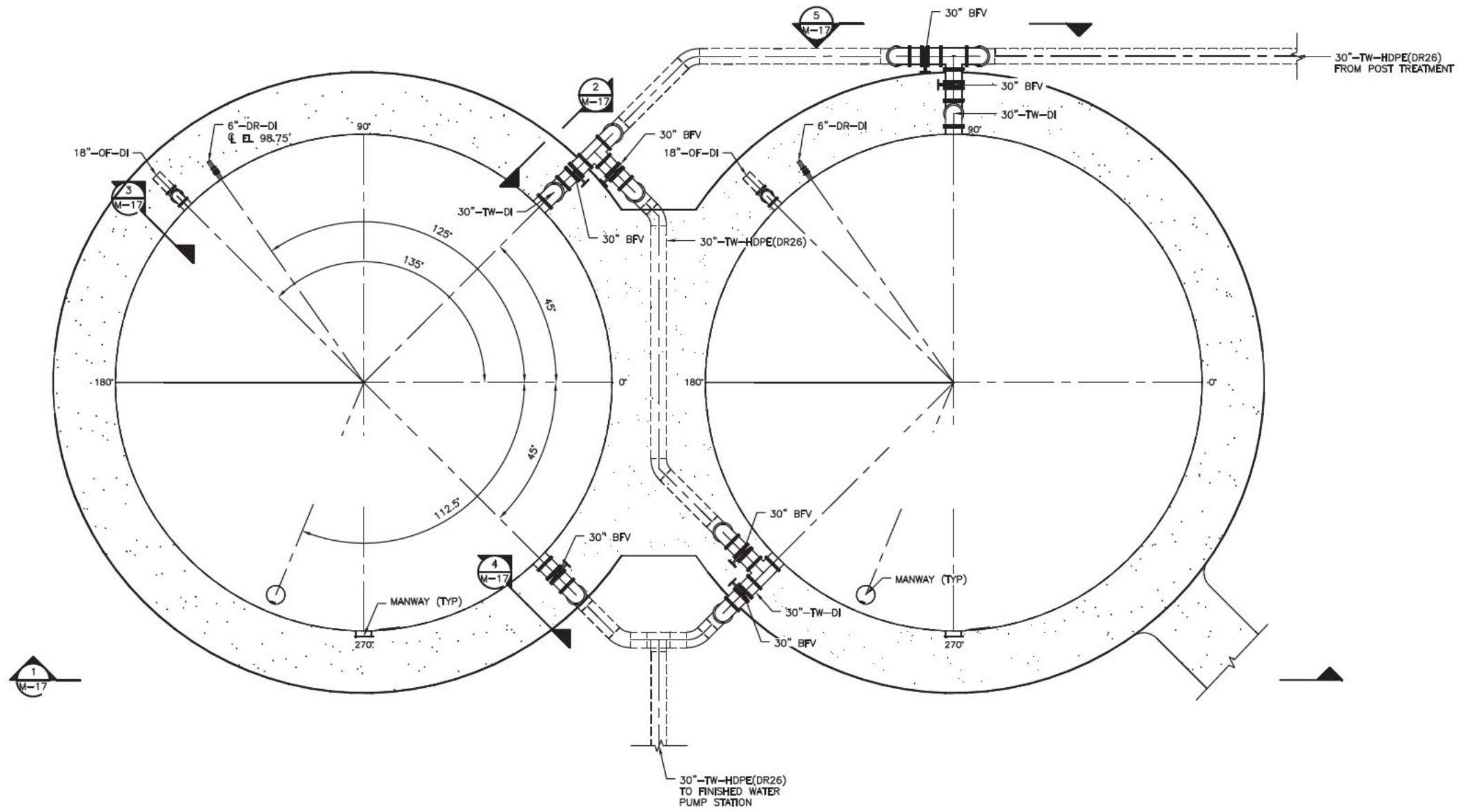
XXX
XXX
XXX
LICENSED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY D. RAMALES
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
FILTERED WATER STORAGE TANKS
SECTIONS

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-15



PLAN
3/32" = 1'-0"



REVISIONS	REVISIONS
△	△
△	△
△	△
△	△
△	△



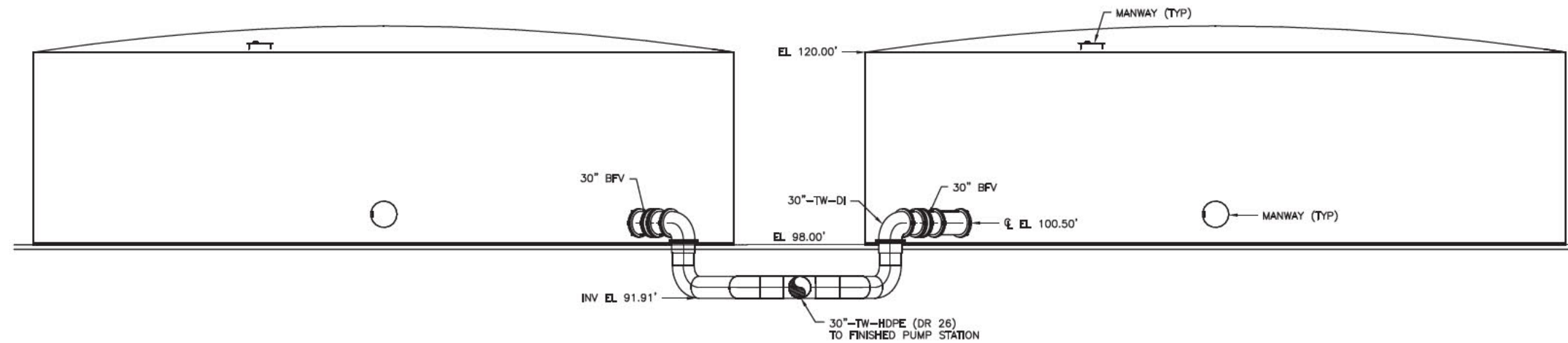
XXX
XXX
XXX

DRAWN BY D. RAMALES
PROJECT ENG'R D. BROWN
DATE OCT 2013
PROJECT 5000-28306

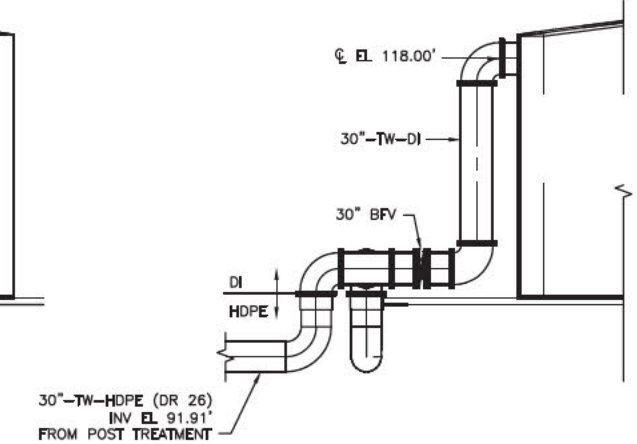
REGISTERED PROFESSIONAL ENGINEER
NO. XXX

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
FINISHED WATER STORAGE TANKS
PLAN

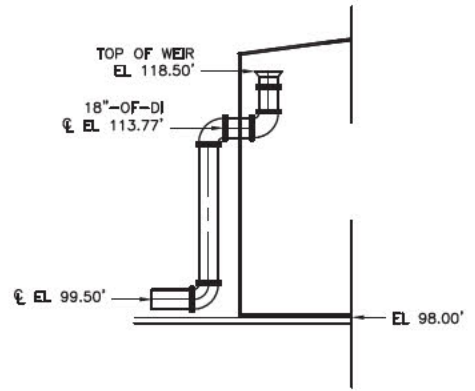
CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-16



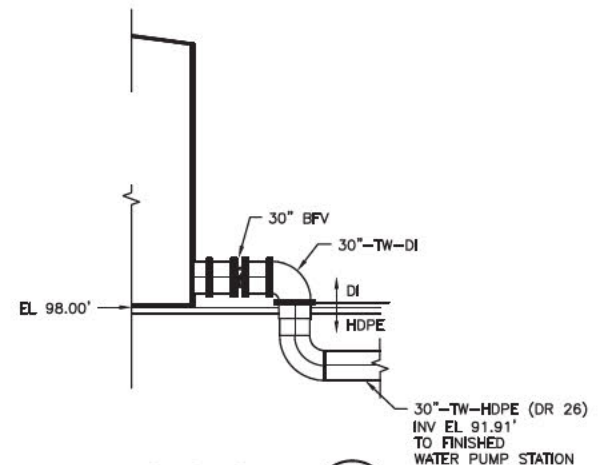
SECTION 1
1/8" = 1'-0" M-16



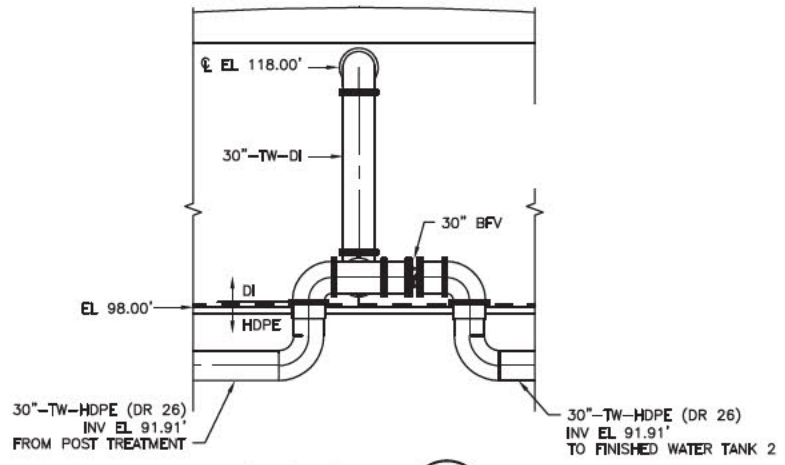
SECTION 2
1/8" = 1'-0" M-16



SECTION 3
1/8" = 1'-0" M-16



SECTION 4
1/8" = 1'-0" M-16



SECTION 5
1/8" = 1'-0" M-16



REVISIONS	REVISIONS
XXX	△
△	△
△	△
△	△
△	△



XXX
XXX
XXX
REGISTERED PROFESSIONAL ENGINEER
NO. XXX



DRAWN BY D. RAMALES
PROJECT ENGR D. BROWN
DATE OCT 2013
PROJECT 5000-28306

MPWSP DESALINATION INFRASTRUCTURE DESIGN-BUILD PROJECT
PROCESS MECHANICAL
FINISHED WATER STORAGE TANKS
SECTIONS

CALIFORNIA AMERICAN WATER CO.	ESSEX-PASSAIC SERVICE AREA	USE DIMENSIONS ONLY SCALE AS NOTED
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES	XXX	5000-28306-M-17