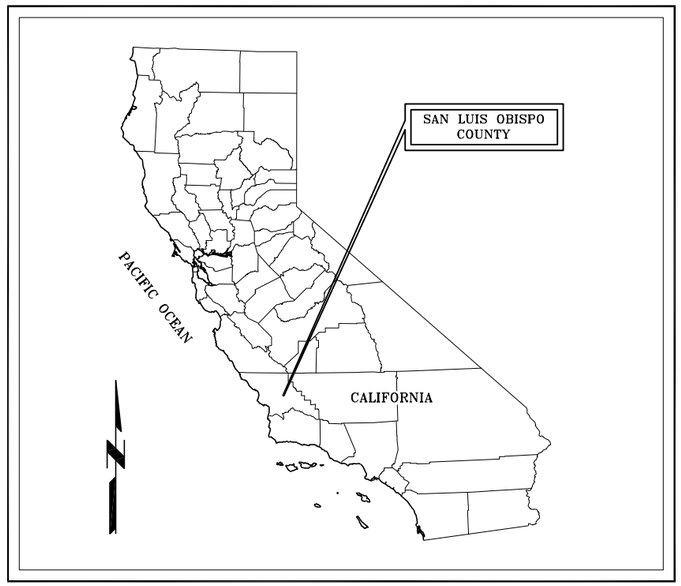
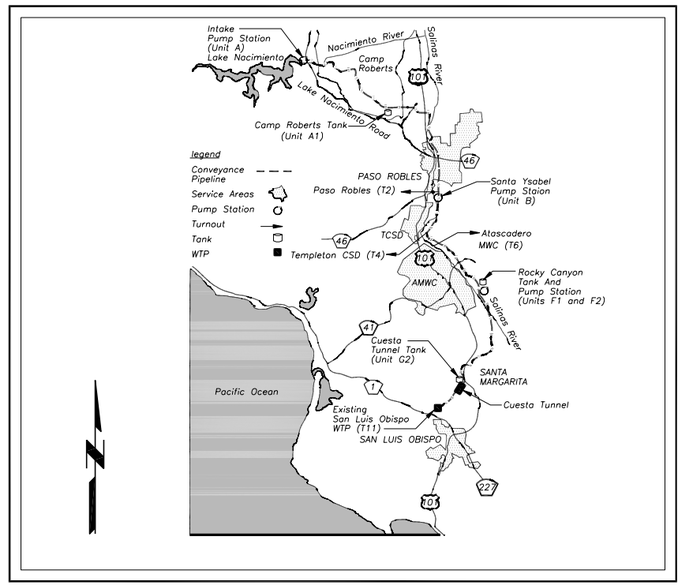
COUNTY OF SAN LUIS OBISPO, CALIFORNIA
FLOOD CONTROL AND WATER CONSERVATION DISTRICT
PLANS FOR THE CONSTRUCTION OF

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

B&V PROJECT NO. 137522
COUNTY CONTRACT NO. 300187.08
SPECIFICATION 02
NWP FACILITIES



VICINITY MAP
NO SCALE



FACILITIES LOCATIONS
NO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

THESE DOCUMENTS REPRESENT A 90% PERCENT COMPLETE DESIGN, ARE PRELIMINARY AND ARE NOT FOR CONSTRUCTION OR BIDDING PURPOSES. THESE DOCUMENTS WILL BE FURTHER REVISED BEFORE A FINAL DESIGN IS ACCOMPLISHED. THEY HAVE NOT RECEIVED REGULATORY REVIEW AND DO NOT HAVE FINAL APPROVAL OR ACCEPTANCE OF THE GOVERNING REGULATORY AGENCIES. THESE DOCUMENTS ARE PREPARED WITH THE STANDARD OF CARE FOR THE TIME, LOCALE, AND SYSTEM AS GIVEN IN THE DOCUMENTS. THESE DOCUMENTS ARE THE COPYRIGHTED PROPERTY OF BLACK & VEATCH AND ARE NOT TO BE REPRODUCED OR DISTRIBUTED WITHOUT THE EXPRESS PERMISSION OF BLACK & VEATCH AND THEIR CLIENT, SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.

APPROVED:

NACIMIENTO PROJECT MANAGER
RPE C59001 (EXP 6-30-2007)

APPROVED BY:
BLACK & VEATCH CORPORATION

STEVE FOELLMI, P.E.
PROJECT MANAGER

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT AT THE REQUEST OF COUNTY OF SAN LUIS OBISPO, IN _____ , _____.

_____
L.S. XXXX (EXP. XX-XX-XXXX)

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

FD137522
D137522

NO.	BY	CK	APP	REVISIONS AND RECORD OF ISSUE	DATE

CYGNET ID: 137522-G-BP5-E000081HO | XREF1:
WF: BP2-G001.dwg | XREF2:
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PLOTTED: MCC10764, 10/5/2006 10:04:05 AM | XREF4:
USER: MCC10764 | DRG VER: 2.4 | XREF5:

REGISTERED PROFESSIONAL ENGINEER STEVEN N. FOELLMI No.C059141 Exp. 6/30/08 STATE OF CALIFORNIA

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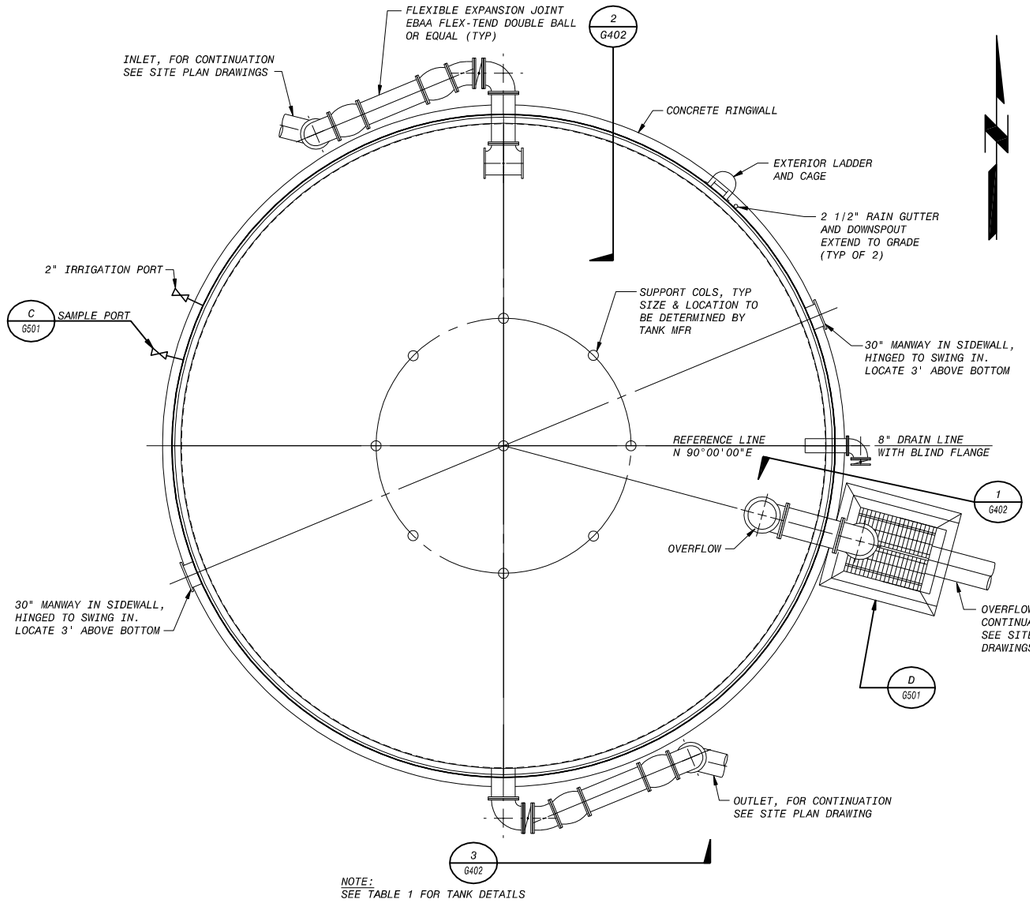
B&V ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

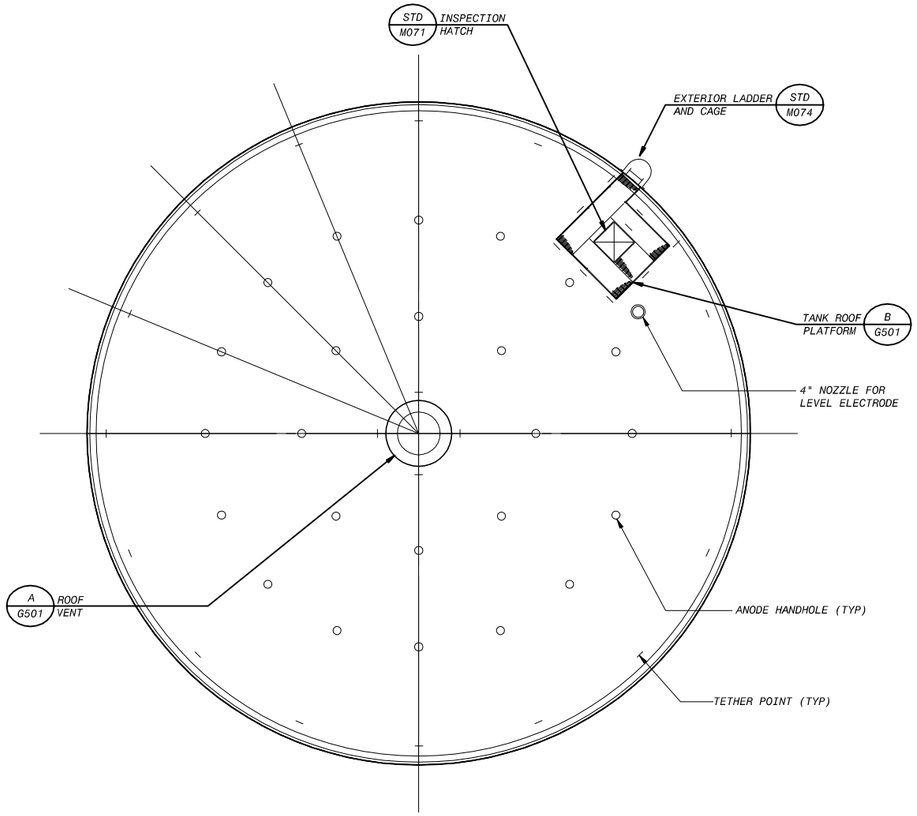
NWP FACILITIES
COVER SHEET

DESIGNED:	
DETAILED:	SMM
CHECKED:	
APPROVED:	
DATE:	10/05/06
BV PROJECT NO.	137522
NWP PROJECT NO.	300187.08
SPEC	02
	G001
SHEET	OF



NOTE:
SEE TABLE 1 FOR TANK DETAILS

SECTIONAL PLAN
NO SCALE



NOTE:
SEE TABLE 1 FOR TANK DETAILS

ROOF PLAN
NO SCALE

TABLE 1 -TANK DETAILS

TANK NAME	TANK DIA	TANK HEIGHT	TANK INLET/OUTLET DIA	TANK OVERFLOW DIA	LEVEL TRANSMITTER DIA	TANK MANWAY DIA	INLET/OUTLET LOCATION DEG*	OVERFLOW LOCATION DEG*	IRRIGATION PORT LOCATION DEG*	ROOF VENT LOCATION	MANWAY LOCATION DEG*	SAMPLE PORT LOCATION DEG*	LADDER LOCATION DEG*	OVERFLOW ELEV	BOTTOM TANK ELEV
CAMP ROBERTS	70'	30'	30"	36"	4"	30"	0° / 180°	67.45°	295°	CENTERED ON TOP OF ROOF	55° 235°	285°	45°	1020'	990'
ROCKY CANYON	70'	30'	18"	24"	4"	30"	0° / 180°	270°	295°	CENTERED ON TOP OF ROOF	55° 235°	285°	45°	1001'	971'
CUESTA TUNNEL	52'	20'	18"	24"	4"	30"	45° / 225°	125°	160°	CENTERED ON TOP OF ROOF	0° 180°	150°	270°	1370'	1350'

* ALL ANGLES MEASURED CLOCKWISE FROM NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

F0137522
D137522

NO.	BY	CK	APP	DATE	REVISIONS AND RECORD OF ISSUE

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USER: GUT45251
XREF1: F1-C-TANK.dwg
XREF2:
XREF3:
XREF4:
XREF5:
DRD VER: 2.4

REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. 30578 Exp. 03/31/08 — STATE OF CALIFORNIA

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BOYLE
ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

NWP FACILITIES
GENERAL
TANK PLANS

DESIGNED: MJ
DETAILED: SMM
CHECKED:
APPROVED:
DATE: 8/18/06

BV PROJECT NO. 137522
NWP PROJECT NO. 300187.08
SPEC 02
G401 SHEET OF

STATIONING

UNIT A | UNIT A1 | UNIT A1a | UNIT C | UNIT C1a | UNIT C1b | UNIT C1c | UNIT D | UNIT E | UNIT F | UNIT F1 | UNIT G | UNIT G1 | UNIT G2 | UNIT H | UNIT H1

CUESTA TUNNEL

INTAKE AND PUMP STATION
STA. 88+24 – NACIMIENTO RIVER CROSSING
STA. 529+28 – CAMP ROBERTS TANK
STA. 560+00
STA. 782+57 – HIGHWAY 101 CROSSING
STA. 794+52
STA. 838+00 – PIPE SIZE CHANGE
SALINAS RIVER CROSSING (WELLSONA)
STA. 1050+18
STA. 1071+08
STA. 1197+50 – PASO ROBLES TURNOUT, PIPE SIZE CHANGE
STA. 1217+36 – SANTA YSABEL PUMP STATION
STA. 1410+90 – TCSD TURNOUT
STA. 1493+10 – AMWC TURNOUT
STA. 1772+41 – ROCKY CANYON TURNOUT
STA. 1785+90 – ROCKY CANYON TANK & PUMP STATION
SALINAS RIVER CROSSING
STA. 2151+55 – RTE 58 CROSSING
HIGHWAY 101 CROSSING
STA. 2308+01
STA. 2312+00 – CUESTA TANK
STA. 2370+00
STA. 2509+98

ELEVATION (FEET)

2200, 2100, 2000, 1900, 1800, 1700, 1600, 1500, 1400, 1300, 1200, 1100, 1000, 900, 800, 700, 600, 500, 400, 300

1255'
1138'
1009'
979'
953'
890'
879'
1272'
1172'
1161'
1121'
1061'
1040'
781'
765'
1613'
1461'
988'
1363.5'
1361'
1358'
1151'
799'

MAX W.S. 800 FT.
DESIGN O.L. = 740'
LAKE NACIMIENTO
MIN. W.S. 670 FT.

30"ø PIPE
Q=32.79 cfs ULTIMATE
Q=23.49 cfs PHASE 1

36"ø PIPE
Q=32.79 cfs ULTIMATE
Q=23.49 cfs PHASE 1

30"ø PIPE
Q=32.79 cfs ULTIMATE
Q=23.49 cfs PHASE 1

24"ø PIPE
Q=19.89 cfs ULTIMATE
Q=14.46 cfs PHASE 1

24"ø PIPE
Q=18.62 cfs ULTIMATE
Q=13.43 cfs PHASE 1

18"ø PIPE
Q=8.40 cfs ULTIMATE
Q=5.14 cfs PHASE 1

24"ø EXIST.
V=2.67 fps

12"ø EXIST.
V=10.7 fps

FLOW

0, 10,000, 20,000, 30,000, 40,000, 50,000, 60,000, 70,000, 80,000, 90,000, 100,000, 110,000, 120,000, 130,000, 140,000, 150,000, 160,000, 170,000, 180,000, 190,000, 200,000, 210,000, 220,000, 230,000, 240,000, 250,000

TOTAL LENGTH (FEET)

LEGEND:
HGL STEADY STATE (Q=100%) ULTIMATE
HGL STEADY STATE (Q=100%) PHASE 1

NO.	BY	CK	APP
REVISIONS AND RECORD OF ISSUE			
DATE			

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USER: HOL45472

XREF1:
XREF2:
XREF3:
XREF4:
XREF5:
DWG VER: 3.0

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BOYLE
ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

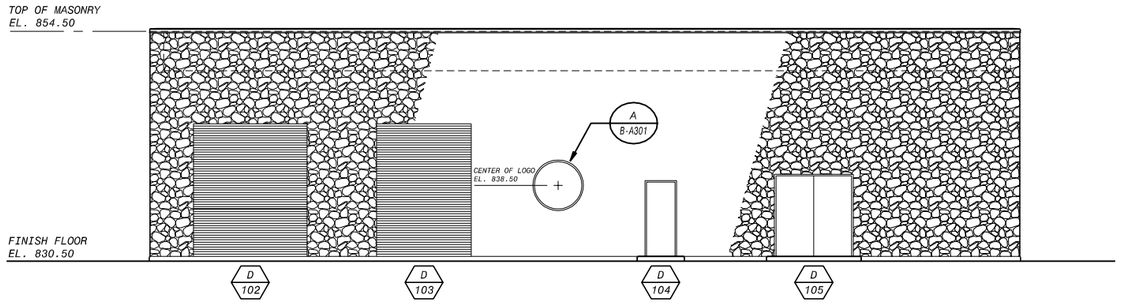
NWP FACILITIES
GENERAL
HYDRAULIC PROFILE

DESIGNED:	J. GARCIA
DETAILED:	D. GHILARDUCCI
CHECKED:	
APPROVED:	
DATE:	11/1/06
BV PROJECT NO.	137522
NWP PROJECT NO.	300187.08
SPEC	02
	G601
SHEET	OF

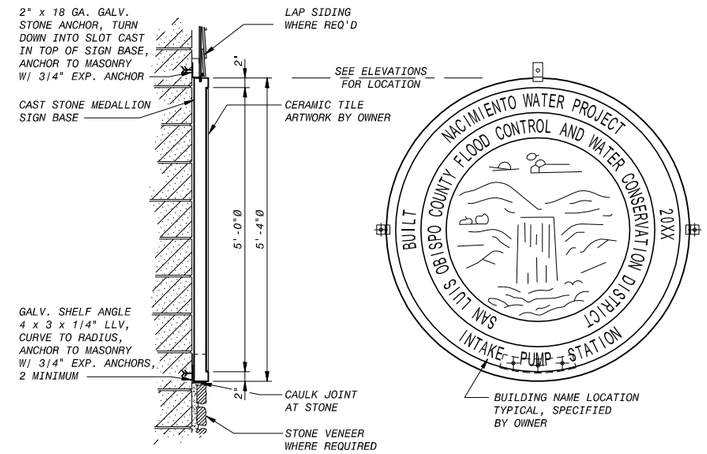
PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

FD137522
D137522



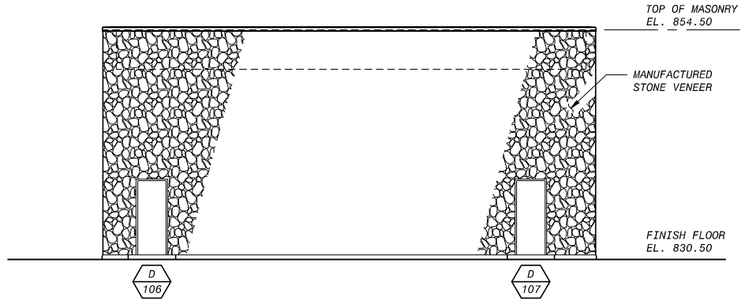
NORTH ELEVATION
1/8" = 1'-0"



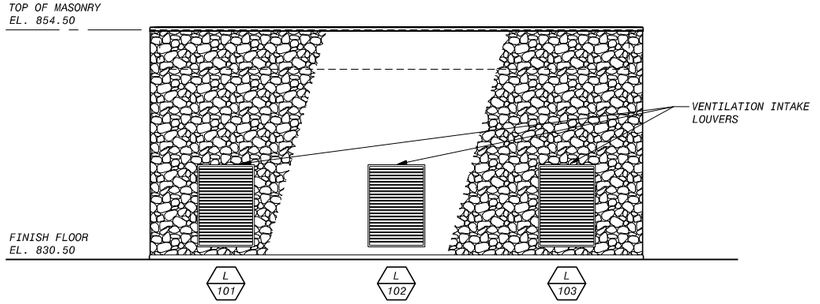
SECTION

ELEVATION

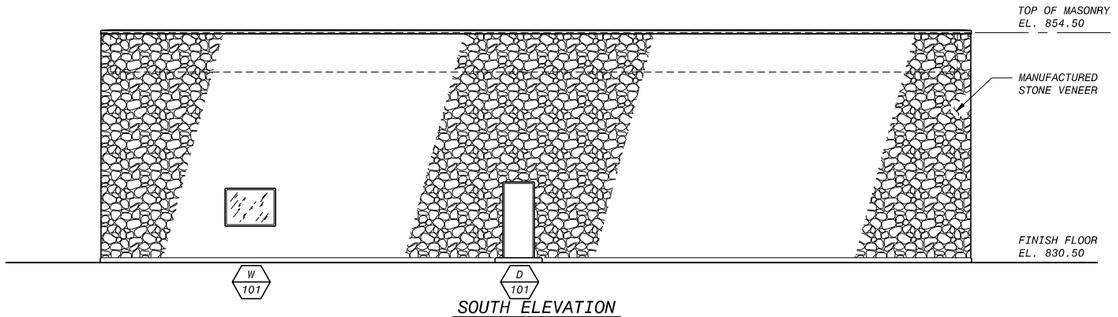
SIGNWORK DETAIL A
3/4" = 1'-0"
A-A301, B-A301, F2-A301



WEST ELEVATION
1/8" = 1'-0"



EAST ELEVATION
1/8" = 1'-0"



SOUTH ELEVATION
1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

LICENSED ARCHITECT
RYAN R. RADER
C-23531
RENEWAL 08/31/07
STATE OF CALIFORNIA

NO.	BY	CK	APP	DATE	REVISIONS AND RECORD OF ISSUE

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XREF3:
XREF4:
XREF5:
DRD VER: 2.5

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BOYLE
ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT A - INTAKE PUMP STATION
ARCHITECTURAL
ELEVATIONS

DESIGNED:	MAJ
DETAILED:	JKL, BMS
CHECKED:	
APPROVED:	
DATE:	10/20/06

BV PROJECT NO.
137522

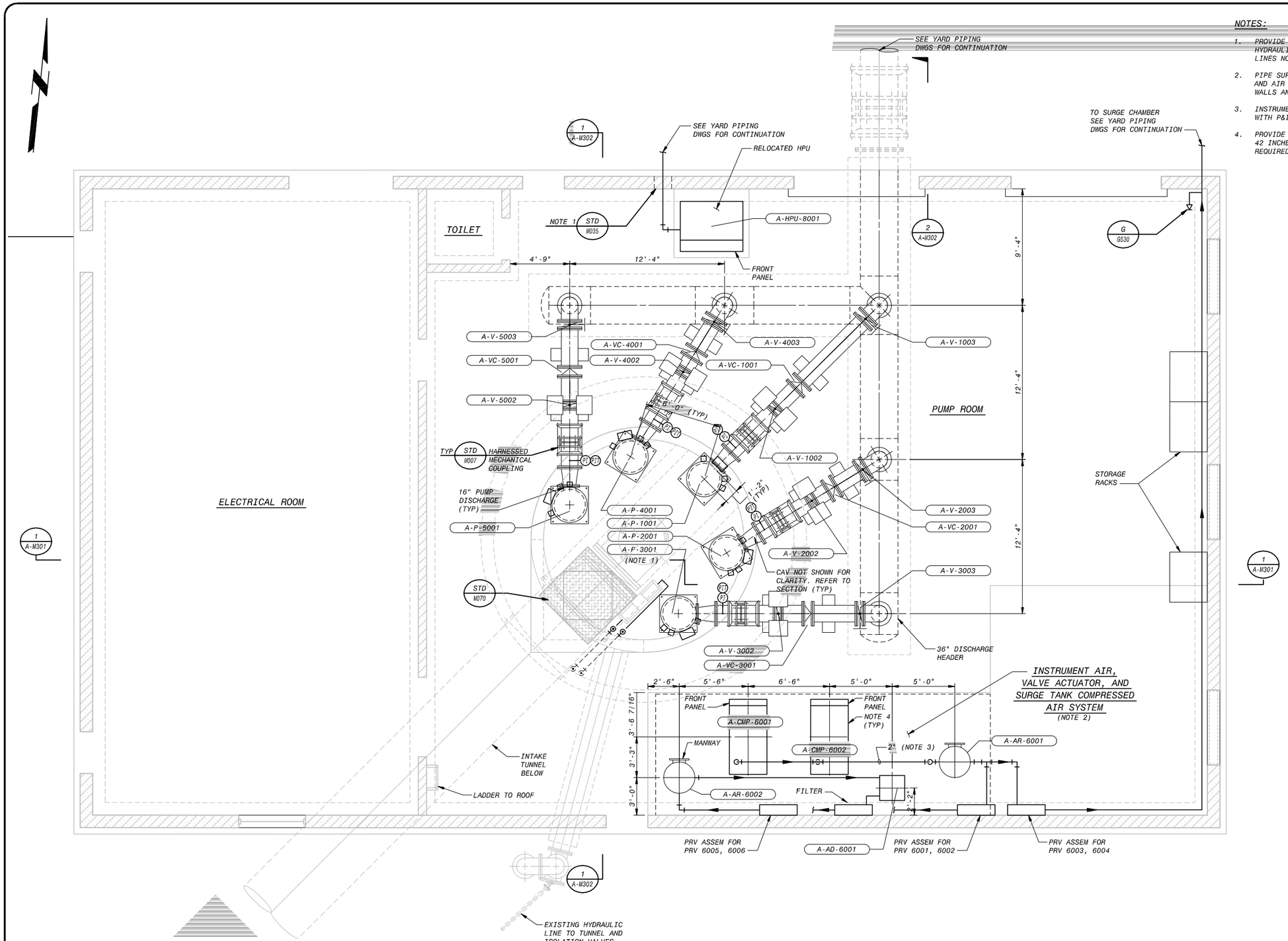
NWP PROJECT NO.
300187.08

SPEC
02

A-A301
SHEET
0F

FD137522
D137522

Date/Time



PLAN
1/4" = 1'-0"

NOTES:

1. PROVIDE PENETRATION THROUGH WALL FOR CASING. ROUTE HYDRAULIC LINES TO HPU SYSTEM. ALL HYDRAULIC LINES NOT SHOWN FOR CLARITY.
2. PIPE SUPPORTS NOT SHOWN FOR CLARITY. ALL HYDRAULIC AND AIR LINES SHALL BE SUPPORTED OFF ROOF BEAMS, WALLS AND SLABS.
3. INSTRUMENTS AND VALVES NOT SHOWN FOR CLARITY. COORDINATE WITH P&ID DRAWINGS FOR INSTRUMENTS AND VALVES.
4. PROVIDE A MINIMUM CLEARANCE ON THREE SIDES OF 36 INCHES. 42 INCHES ON FRONT SIDES (CONTROL PANEL) AND AS REQUIRED BY THE LATEST NATIONAL ELECTRICAL CODE.

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

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY	CK	APP
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PLOTTED: GUT45251, 2/17/2006 4:19:47 PM	XREF4:A-M-PIPE.dwg				
USER: WAG13008	DWG VER: 2.6				

REGISTERED PROFESSIONAL ENGINEER RICHARD WALTER TERRAZAS No. C 64267 Exp. 06/30/07 CIVIL STATE OF CALIFORNIA

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ENERGY WATER INFORMATION GOVERNMENT

BOYLE ENGINEERING CORPORATION

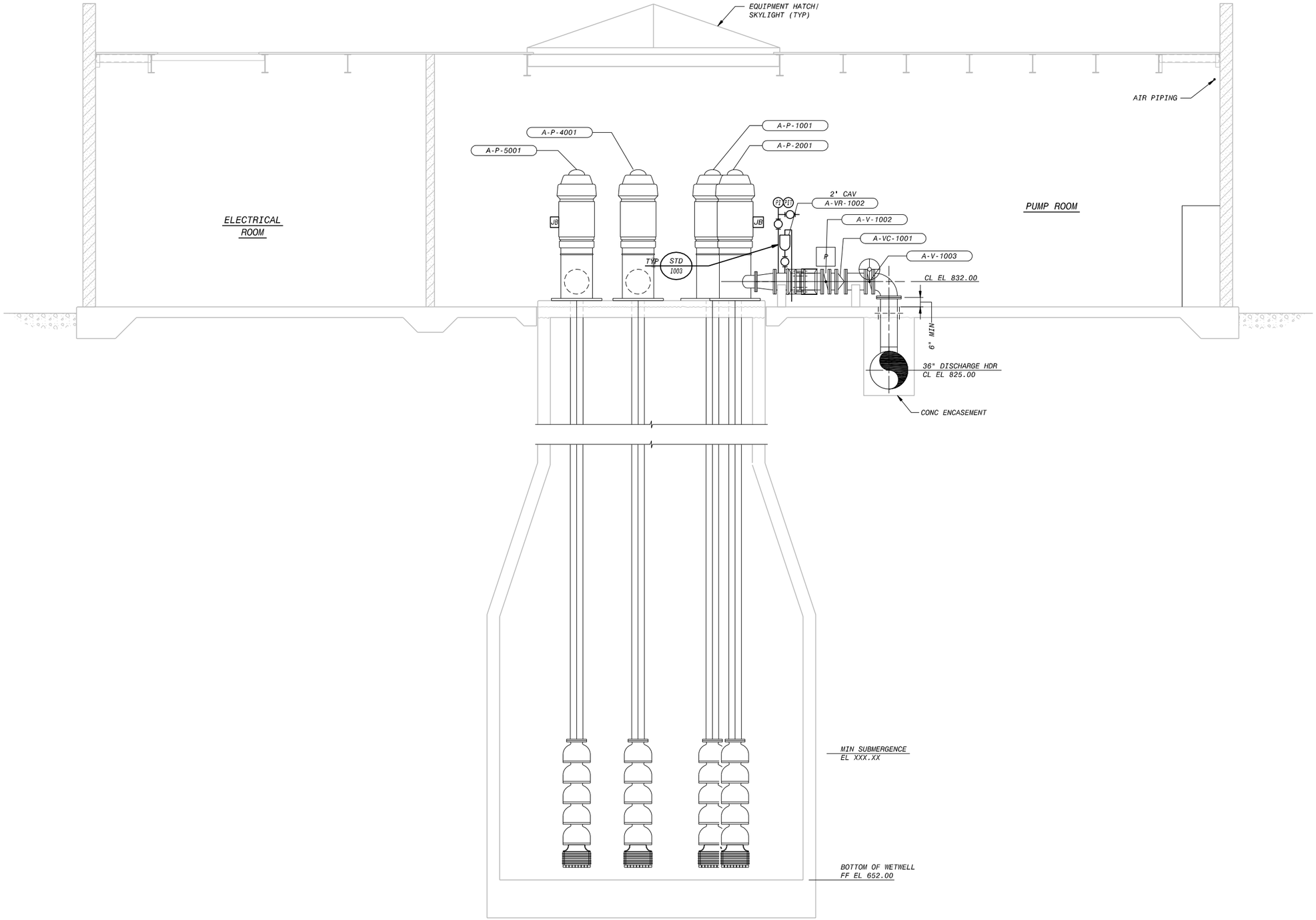
NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT A - INTAKE PUMP STATION MECHANICAL EQUIPMENT AND PIPING PLAN

DESIGNED: RWT
DETAILED: DSW
CHECKED:
APPROVED:
DATE: 10/20/06

BV PROJECT NO. 137522
NWP PROJECT NO. 300187.08
SPEC 02
A-M101
SHEET OF

FD137522
D137522



SECTION 1 / A-M101
1/4" = 1'-0"

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

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

NO.	BY	CK	APP

DATE | REVISIONS AND RECORD OF ISSUE

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USER: WAG13008
DWG VER: 2.8

XREF1: A-M-SECT.dwg
XREF2: A-S-SECT.dwg
XREF3:
XREF4:
XREF5:

REGISTERED PROFESSIONAL ENGINEER
RICHARD WALTER TERRAZAS
No. C 64267
Exp. 06/30/07
CIVIL
STATE OF CALIFORNIA

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BOYLE
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NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT A - INTAKE PUMP STATION
MECHANICAL
EQUIPMENT AND PIPING SECTION

DESIGNED: RWT
DETAILED: JMM
CHECKED:
APPROVED:
DATE: 10/20/06

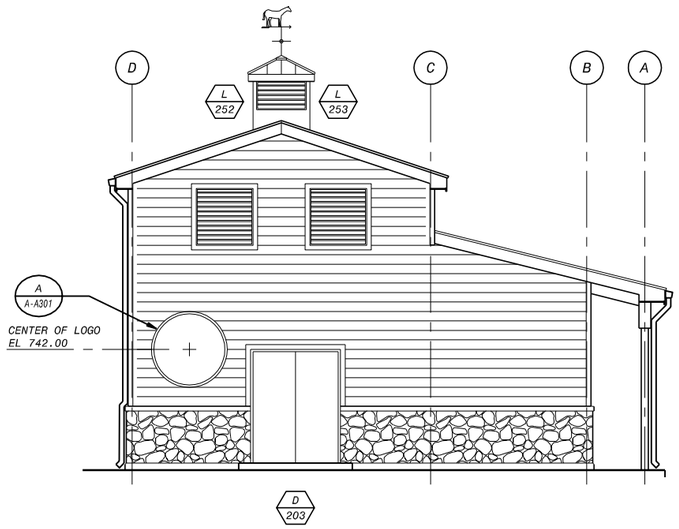
BV PROJECT NO.
137522

NWP PROJECT NO.
300187.08

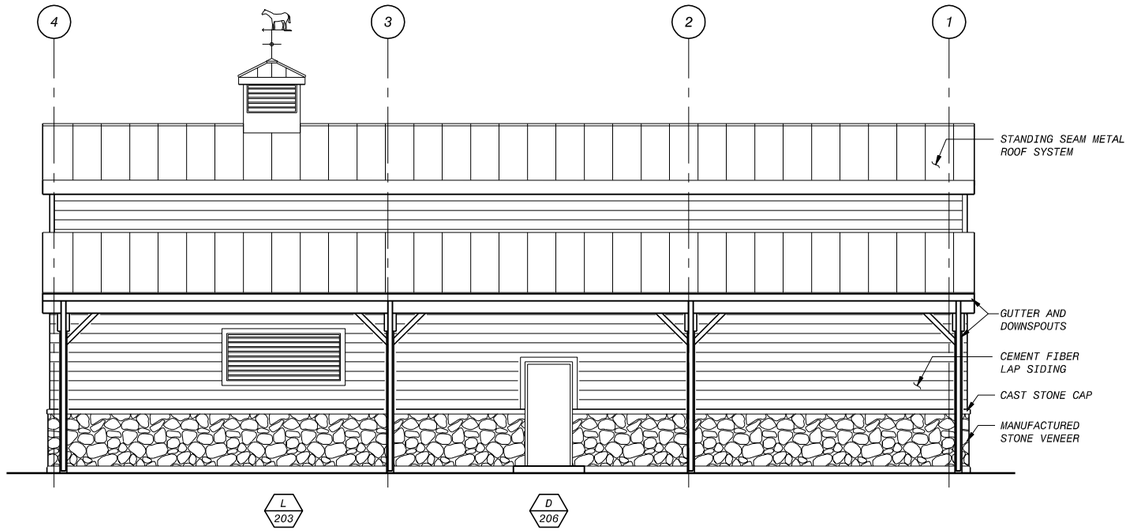
SPEC
02

A-M301
SHEET
OF

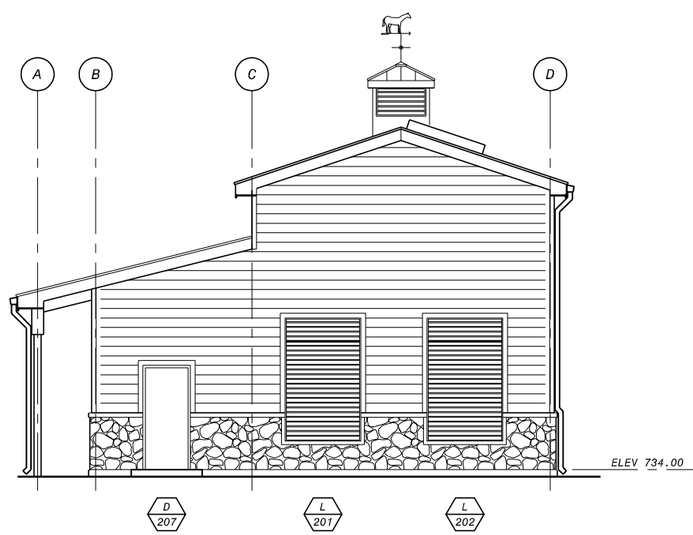
FD137522
D137522



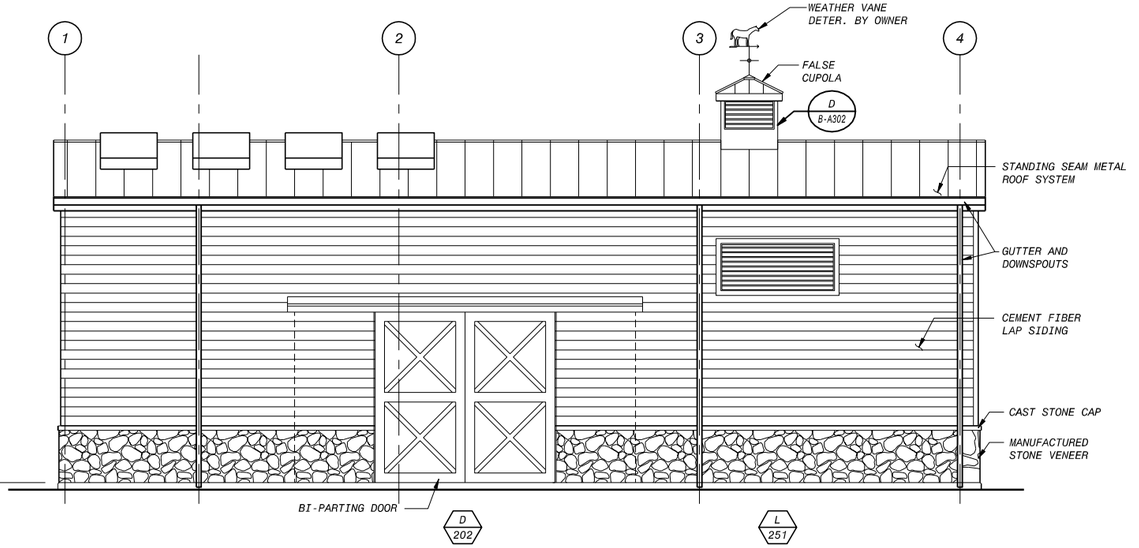
NORTH ELEVATION
3/16" = 1'-0"



WEST ELEVATION
3/16" = 1'-0"



SOUTH ELEVATION
3/16" = 1'-0"



EAST ELEVATION
3/16" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

NO.	BY	CK	APP

DATE | REVISIONS AND RECORD OF ISSUE

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USER: LES38261 | DWG VER: 2.3

XREF1: Ryan_Seal.jpg
XREF2:
XREF3:
XREF4:
XREF5:

LICENSED ARCHITECT
RYAN R. RADER
C - a23531
RENEWAL DATE
STATE OF CALIFORNIA

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ENERGY WATER INFORMATION GOVERNMENT

BOYLE
ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT B - SANTA YSABEL PUMP STATION
ARCHITECTURAL
ELEVATIONS

DESIGNED: MAJ
DETAILED: DAY, LRL, BMS
CHECKED:
APPROVED:
DATE: 10/20/06

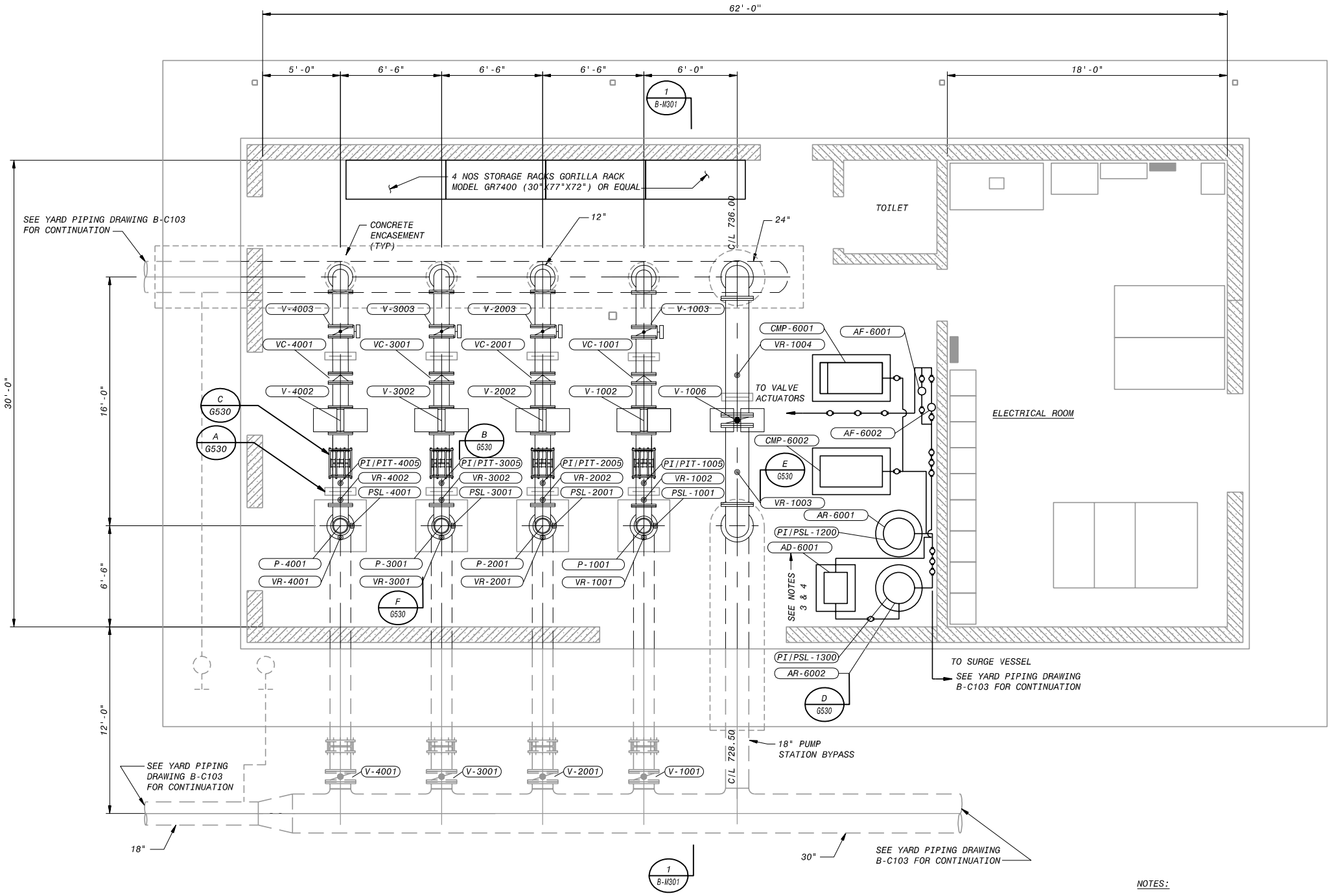
BV PROJECT NO.
137522

NWP PROJECT NO.
300187.08

SPEC
02

B-A301
SHEET
OF

FD137522
D137522



NOTES:

1. REFER STD DRAWINGS GM01 TO GM13 FOR MECHANICAL ABBREVIATIONS, LEGENDS, AND NOTES.
2. ALL TAG NOS TO BE PREFIXED WITH UNIT DESIGNATION 'B'.
3. AIR LINES SHALL BE SUPPORTED OFF ROOF BEAMS, WALLS AND SLABS
4. INSTRUMENTS AND VALVES FOR AIR SYSTEM ARE NOT DETAILED FULLY. COORDINATE WITH P&ID.
5. DETAILS INDICATED ARE TYPICAL FOR SIMILAR ITEMS.

PRELIMINARY - NOT FOR CONSTRUCTION

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

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

NO.	BY	CK	APP	REVISIONS AND RECORD OF ISSUE	DATE
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				USER: HOL45472	DWG VER: 3.0

XREF1: B-C-PIPE.dwg
XREF2: B-E-PWR.dwg
XREF3: B-M-PIPE.dwg
XREF4: B-S-FLOR.dwg
XREF5:

REGISTERED PROFESSIONAL ENGINEER
WALTER TARRAZAS
No. C 64362
Exp. 06/30/07
Civil
STATE OF CALIFORNIA

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ENERGY WATER INFORMATION GOVERNMENT

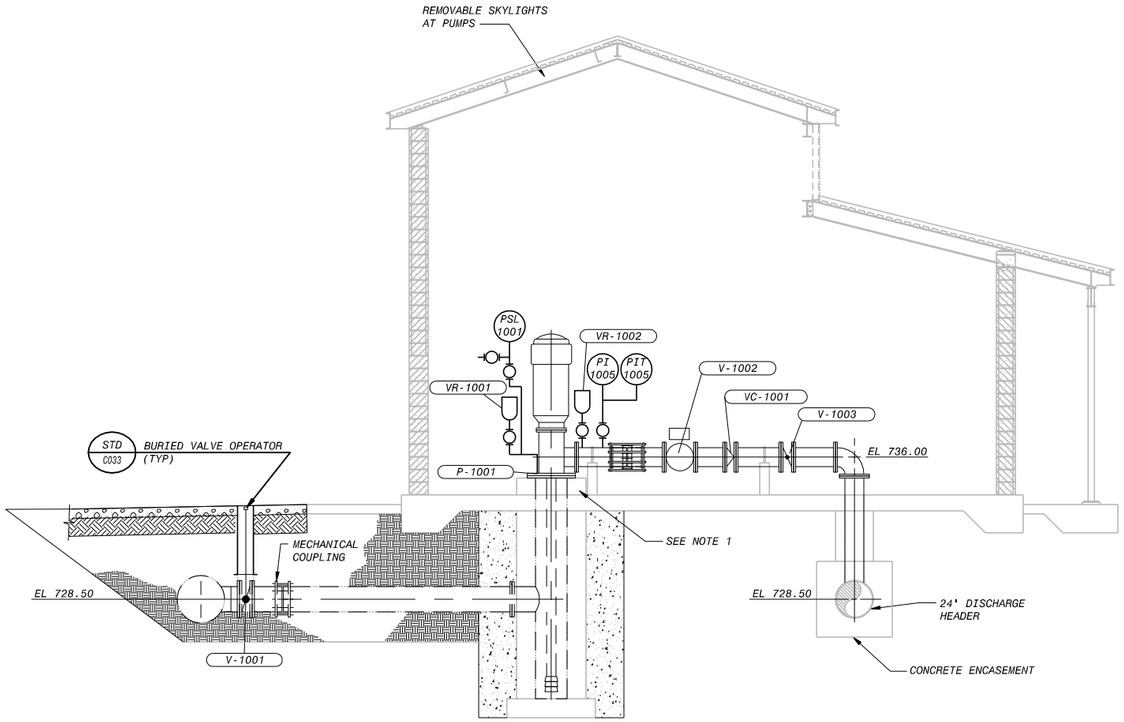
BOYLE
ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT B - SANTA YSABEL PUMP STATION
MECHANICAL
EQUIPMENT AND PIPING PLAN

DESIGNED:	MKJ
DETAILED:	SMM
CHECKED:	
APPROVED:	
DATE:	8/2/06
BV PROJECT NO.	137522
NWP PROJECT NO.	300187.08
SPEC	02
	B-M101
SHEET	OF

FD137522
D137522



SECTION 1/4" = 1'-0" (1 / B-M101)

NOTES:

1. CONTRACTOR TO DECIDE PAD HEIGHT BASED ON PUMP PROVIDED, TO MAINTAIN A PUMP DISCHARGE CENTERLINE AS MARKED. REFER FOR DETAILS. (STD M065), (STD M066) & (STD M067)
2. ALL TAG NOS TO BE PREFIXED WITH UNIT DESIGNATION 'B'.

PRELIMINARY - NOT FOR CONSTRUCTION

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

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

FD137522
D137522

NO.	BY	CK	APP	DATE	REVISIONS AND RECORD OF ISSUE

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REGISTERED PROFESSIONAL ENGINEER RICHARD WALTER TERRAZAS No. C 64267 Exp. 06/30/07 CIVIL STATE OF CALIFORNIA

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ENERGY WATER INFORMATION GOVERNMENT

BOYLE ENGINEERING CORPORATION

NWP NACIMIENTO WATER PROJECT
San Luis Obispo County Flood Control & Water Conservation District

UNIT B - SANTA YSABEL PUMP STATION
MECHANICAL EQUIPMENT AND PIPING SECTIONS

DESIGNED:	MKJ
DETAILED:	SMM
CHECKED:	
APPROVED:	
DATE:	8/2/06
BV PROJECT NO.	137522
NWP PROJECT NO.	300187.08
SPEC	02
	B-M301
SHEET	OF