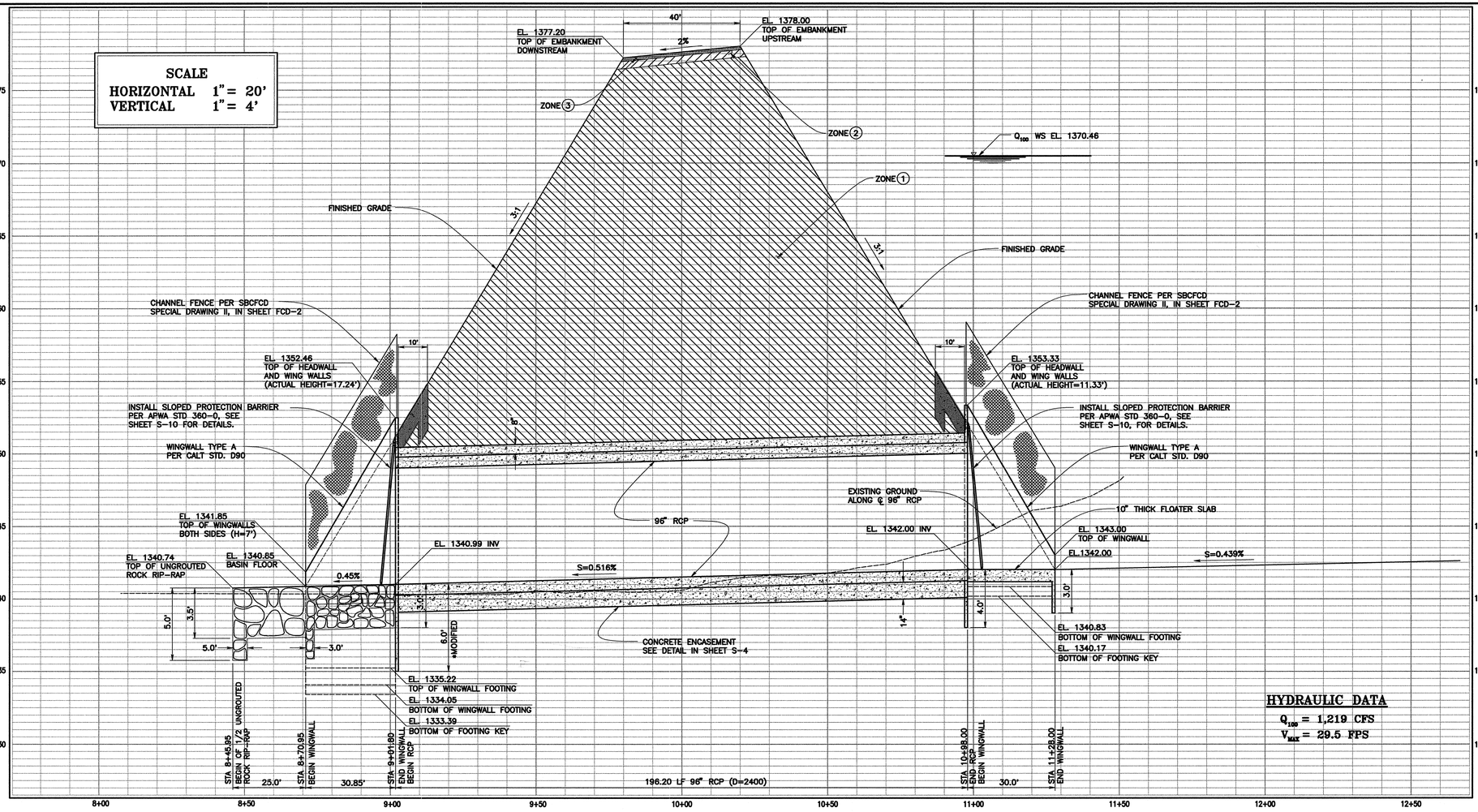
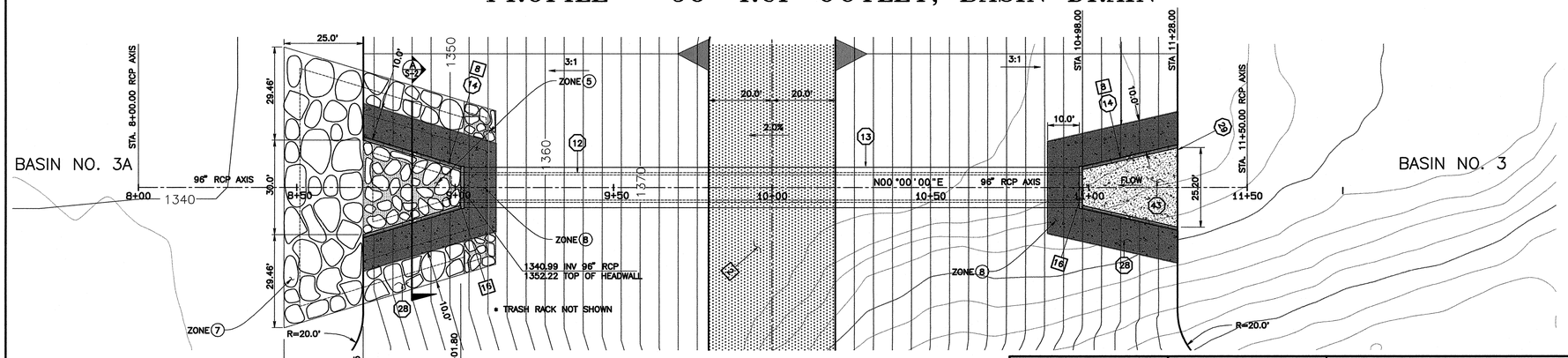
SCALE
HORIZONTAL 1"= 20'
VERTICAL 1"= 4'



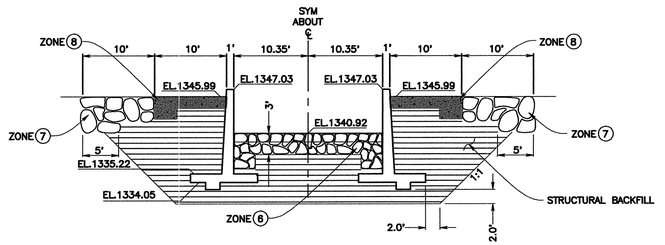
HYDRAULIC DATA
Q_{100} = 1,219 CFS
V_{MAX} = 29.5 FPS

PROFILE – 96" RCP OUTLET, BASIN DRAIN



PLAN – 96" RCP OUTLET, BASIN DRAIN

GRAPHIC SCALE 1"=20'
0 20 40 60



A SECTION @ STA 8+86.37
SCALE 1" = 10'

WINGWALL AND HEADWALL MODIFICATIONS:

STRUCTURAL DIMENSIONS FOR WINGWALLS SHOWN ON THE PLAN & PROFILE VIEWS HEREON, FOR THE 96" OUTLET STRUCTURE SHALL BE AS PER CALTRANS STD. NO. D-90 EXCEPT AS NOTED HEREON.

1. ACTUAL WALL HEIGHTS ARE AS SHOWN ON THE PROFILE VIEW, THE STRUCTURAL SECTION SHALL BE AS PER THE STANDARD DETAIL WITH (DESIGN H=+1') ADJUST STEEL AT THE TOP OF THE WALL FOR 1'-0", DIFFERENCE BETWEEN THE ACTUAL HEIGHT AND THE DESIGN HEIGHT.
2. LONGITUDINAL STEEL SHALL BE #5 @ 12" OC IN PLACE OF WHAT IS SHOWN IN THE STANDARD DETAIL.
3. HEADWALL FOOTING FOR OUTLET STRUCTURE SHALL BE MODIFIED SO THAT THE DEPTH IS EQUAL TO 6' IN PLACE OF THE 4' SHOWN IN THE STANDARD DETAIL . ADD AND ADJUST BARS SHOWN AS REQUIRED TO MAINTAIN STRUCTURAL LISTING SHOWN IN THE STANDARD PLAN DETAIL.
4. CONSTRUCT WEEPHOLES PER DETAILS SHOWN ON STD. D-90.

CONSTRUCTION CALLOUTS:

2 3" AC PVMT ROAD SECTION PER
8 CHANNEL FENCE PER SHT FCD-II
16 SLOPED PROTECTION BARRIER PER APWA SP 360-0

CONSTRUCTION NOTES:

12 CONSTRUCT 96" RCP OUTLET BASIN DRAIN PER PLAN, PROFILE ON SHEET C-5, AND DETAILS ON SHEET S-3 (D-LOAD PER PROFILE)
13 CONSTRUCT 96" RCP ENCASEMENT PER DETAILS ON SHEET S-4
14 CONSTRUCT HEADWALL AND WINGWALLS FOR 96" RCP OUTLET PER PLAN, PROFILE ON SHEET S-2, DETAILS ON SHEET S-3 AND STRUCTURAL DETAILS ON SHEETS S-8 & S-9 PER CALTRANS STD. DETAIL D90A
28 CONSTRUCT ROCK CUT-OFF WALLS AROUND THE OUTSIDE PERIMETER OF ROCK RIP RAP AREAS AS FOLLOWS:
THE OUTSIDE PERIMETER OF 1/2 TON UNGROUTED ROCK RIP RAP AREAS SHALL BE 5' DEEP AND 5' WIDE
THE OUTSIDE PERIMETER OF 1/4 TON GROUTED ROCK RIP RAP SHALL BE 5' DEEP AND 3' WIDE
THE OUTSIDE PERIMETER OF GROUTED FACING ROCK SHALL BE 3' WIDE AND 3' DEEP
29 CONSTRUCT CONCRETE CUT-OFF WALLS PER PLAN ON SHEET C-6 AND DETAILS ON SHEETS S-3, S-6
43 CONSTRUCT 10" THICK REINFORCED CONCRETE FLOATER SLAB PER PLAN AND DETAILS ON SHEET S-3

MATERIAL ZONES:

ZONE (1) MIXED, BORROW FROM BASIN EXCAVATION

SIZE	PERCENT PASSING
2.0"	100
1.5"	73 – 100
1.0"	65 – 92
# 4	37 – 64
#10	25 – –52
#20	15 – 37
#40	9 – 25
#200	≥ 8

ZONE (2) CLASS 2 AGGREGATE BASE, 6" DEEP
ZONE (3) 3" AC PAVEMENT (ON 6" OF ZONE 2, 95% RELATIVE COMPACTION)
ZONE (6) 1/4 TON GROUTED ROCK RIP-RAP, THICKNESS = 3' MIN., DEPTH OF GROUT PENETRATION =1.25', METHOD 'A' PLACEMENT
ZONE (7) 1/2 TON UNGROUTED ROCK RIP-RAP, THICKNESS = 3.5' MIN., METHOD 'A' PLACEMENT
ZONE (8) CONCRETED FACING ROCK, THICKNESS = 1.5' MIN., DEPTH OF GROUT PENETRATION =.75', METHOD 'A' PLACEMENT

REGISTERED PROFESSIONAL ENGINEER
JAMES PATRICK BORCHUK
No. 41807
Exp. 3/31/08
CIVIL
STATE OF CALIFORNIA

SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT 1939 CALIFORNIA

REVISIONS			
MARK	DATE	DESCRIPTION	BY:

SUBMITTED BY:
CHIEF, ENGINEERING DIVISION DATE
RECOMMENDED BY:
ASSIST. FLOOD CONTROL ENGINEER DATE
APPROVED BY:
FLOOD CONTROL ENGINEER DATE

PROJ. ENGR.	DES. BY:	REV'D BY:	DRAWN BY:
T.R.	S.F.B./D.J.N.	J.B.	S.F.B./D.J.N.

SAN BERNARDINO COUNTY
FLOOD CONTROL DISTRICT
FONTANA-RIALTO DRAINAGE SYSTEM
CACTUS BASIN NO. 3
96" RCP OUTLET BASIN DRAIN
PLAN, PROFILE AND SECTIONS

DATE DEC. ,2007
SCALE AS SHOWN
FILE NO. 2-104-
SHEET NO. S-2