CONSTRUCTION CALLOUTS:

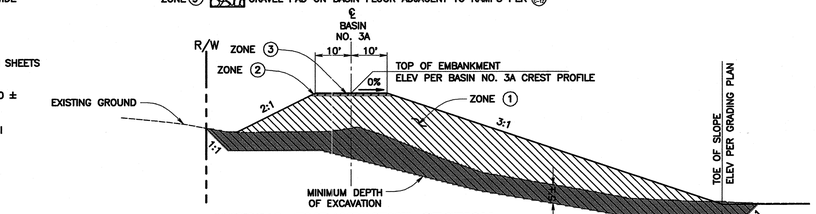
1. INTERCEPTOR V-DITCH PER (STD)
2. 3" AC PVMT ROAD SECTION PER (STD)
3. 10' WIDE CONCRETE SWALE PER (STD)
4. GRAVEL PAD PER (STD)
5. CONCRETED SPLASH PAD PER (STD)
7. BOUNDARY FENCE PER SHT FCD-I
8. CHANNEL FENCE PER SHT FCD-II
9. DOUBLE DRIVE GATE PER SHT FCD-I
10. WALK GATE PER SHT FCD-II
11. SPILLWAY ACCESS LADDER PER SHT S-7
12. HEADWALL WING-TYPE PER SBC STD. DRWG. 209
16. SLOPED PROTECTION BARRIER PER APWA SP 360-0 (STD)
18. 4' WIDE EAST EARTHEN SWALE PER (STD)
21. 36" RCP 'L' HEADWALL PER CALTRANS SP D89

CONSTRUCTION NOTES:

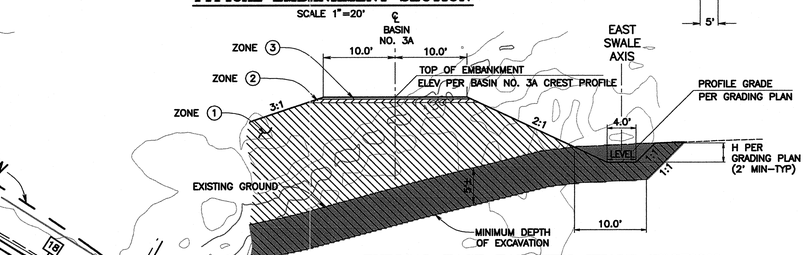
1. CONSTRUCT SOUTH EMBANKMENT FOR BASIN NO. 3 PER PLAN ON SHEETS C-2 & C3 , PROFILE ON SHEETS P-2 & P-4, SECTIONS ON SHEETS X-11 TO X-13 & X-23 TO X-25 AND SURVEY CONTROL DATA ON SHEETS G-2 & G-3
4. CONSTRUCT SOUTH EMBANKMENT FOR BASIN NO. 3A SOUTH OF BASIN NO. 3 PER PLAN ON SHEET C-2, PROFILE ON SHEET P-5, SECTIONS ON SHEETS X-29 TO X-34, AND SURVEY CONTROL DATA ON SHEET G-2.
5. CONSTRUCT EAST AND WEST EMBANKMENTS FOR BASIN NO. 3A AND HABITAT RESTORATION AREA, SOUTH OF BASIN NO. 3 PER PLAN ON SHEET C-2, PROFILE ON SHEETS P4 & P-5, SECTIONS ON SHEETS X-21 TO X-23 & X-26 TO X-30 AND SURVEY CONTROL DATA ON SHEET G-2.
6. CONSTRUCT HABITAT RESTORATION AREA SOUTH EAST OF CACTUS BASIN NO. 3 PER PLAN ON SHEET C-2, PROFILE ON SHEETS P4 & P5, SECTIONS ON SHEET X-25 TO X-32, AND SURVEY CONTROL DATA ON SHEET G-2.
9. CONSTRUCT WEST MAINTENANCE ACCESS RAMP FOR BASIN NO. 3A PER PLAN ON SHEET C-2, PROFILE ON SHEET P-4, TYPICAL SECTION ON SHEET C-2, AND SURVEY CONTROL DATA ON SHEET G-2.
10. CONSTRUCT SOUTH MAINTENANCE ACCESS RAMP FOR HABITAT RESTORATION AREA PER PLAN ON SHEET C-2, PROFILE ON SHEET P-5, TYPICAL SECTION ON SHEET C-2, AND SURVEY CONTROL DATA ON SHEET G-2.
11. CONSTRUCT REINFORCED CONCRETE SPILLWAY PER PLAN ON SHEETS C-2, C-3, C-5 & C-6, PROFILE ON SHEETS C-5, DETAILS ON SHEETS C-6, C-7 & S-5, AND SURVEY CONTROL DATA ON SHEETS G-2, G-3 & G-5.
12. CONSTRUCT APPROX. 197 LINEAR FEET OF 96" RCP OUTLET BASIN DRAIN PER PLAN C-2, C-3, C-5 & S-5, PROFILE ON SHEET S-2 AND DETAILS ON SHEETS S-2 & S-3 (D-LOAD PER PROFILE)
13. CONSTRUCT 96" RCP ENCASEMENT PER DETAIL ON SHEET S-4
14. CONSTRUCT HEADWALL AND WINGWALLS FOR 96" RCP OUTLET PER PLAN ON SHEETS C-2, C-3, C-5 & S-2, PROFILE ON SHEET S-2, DETAILS ON SHEET S-2 & S-3 AND STRUCTURAL DETAILS ON SHEETS S-8 & S-9 PER CALTRANS STD. DETAIL D90A
15. CONSTRUCT WEST AND EAST ACCESS ROAD PER PLAN, TYPICAL SECTIONS ON SHEETS C-2 TO C-4, AND SURVEY CONTROL DATA ON SHEETS G-2 TO G-4.
16. CONSTRUCT APPROX. 76 LINEAR FEET OF 36" RCP PER PLAN AND DETAILS ON SHEET SD-1 (D-LOAD PER PROFILE)
18. REMOVE AND REPLACE ROCK SLOPE PROTECTION AFTER FINISH GRADING 2.0' THICK RSP, CLASS 'LIGHT' USING METHOD "A" PLACEMENT TO ELEVATION = 1348'
19. REMOVE AND REPLACE ROCK PROTECTION AFTER FINISH GRADING CHECK DAM IN BASIN NO. 3A
20. PROTECT IN PLACE EXISTING RCB OUTLET STRUCTURE IN BASIN NO. 3A
21. PROTECT IN PLACE EXISTING HEADWALL AND WINGWALL FOR RCB
22. PROTECT IN PLACE EXISTING BOUNDARY CHAIN LINK FENCE
24. PROTECT IN PLACE THE EXISTING TREE(S) IN THE HABITAT RESTORATION AREA
25. PROTECT IN PLACE THE EXISTING STAFF GAUGE IN THE HABITAT RESTORATION AREA
26. PROTECT IN PLACE EXISTING 36" CMP
27. REMOVE AND DISPOSE EXISTING 36" CMP
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 SHEETS C-2, C-3, C-5 & C-6 AND DETAILS ON SHEET S-3 & S-6
30. CONSTRUCT SPILLWAY SUBDRAIN SYSTEM PER PLAN ON SHEET C-6, SECTIONS & DETAILS ON SHEETS C-6 & C-7.
31. REMOVE EXISTING BOUNDARY FENCE AND GATES FROM BASELINE RD. AT APPROX. STA 114+00 ± TO EAST END AND REPLACE FENCE PER FCD-I TO STA 113+06.81 TO STA 114+00 ±
32. MOVE BOUNDARY FENCE FROM STA 113+06.81 TO THE EAST 25'± TO THE SOUTH PER FCD-I
33. REMOVE EXISTING 20' DOUBLE DRIVE GATE AND RE-INSTALL 20' DOUBLE DRIVE GATE AT STA 113+94± TO STA 112+86.81 AND AT LOCATION SHOWN HEREON AND PER DETAIL SHOWN ON FCD-I
34. CONSTRUCT 20' CONCRETE DRIVEWAY PER SAN BERNARDINO COUNTY STD. 128
36. REMOVE AND DISPOSE EXISTING DOUBLE DRIVE GATE
37. REMOVE AND RE-INSTALL BOUNDARY FENCE AFTER EXCAVATION PER SHEET FCD I

MATERIAL ZONES:

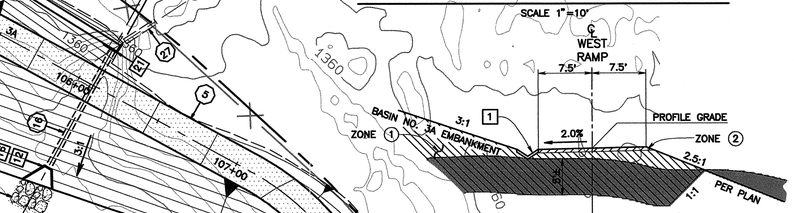
- ZONE 1 — MIXED, BORROW FROM BASIN EXCAVATION
- ZONE 2 — CLASS 2 AGGREGATE BASE, 6" DEEP
- ZONE 3 — 3" AC PAVEMENT (ON 6" OF ZONE 2, 95% RELATIVE COMPACTION)
- ZONE 4 — CONCRETED ROCK SLOPE PROTECTION (RSP). 1/4 TON, METHOD 'A' PLACEMENT
- ZONE 5 — CONCRETED ROCK SPLASH PAD, FACING CLASS, METHOD 'A' PLACEMENT
- 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
- ZONE 9 — GRAVEL PAD ON BASIN FLOOR ADJACENT TO RAMPS PER (STD)



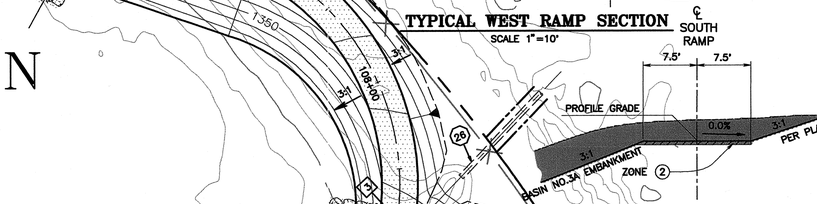
TYPICAL EMBANKMENT SECTION
SCALE 1"=20'



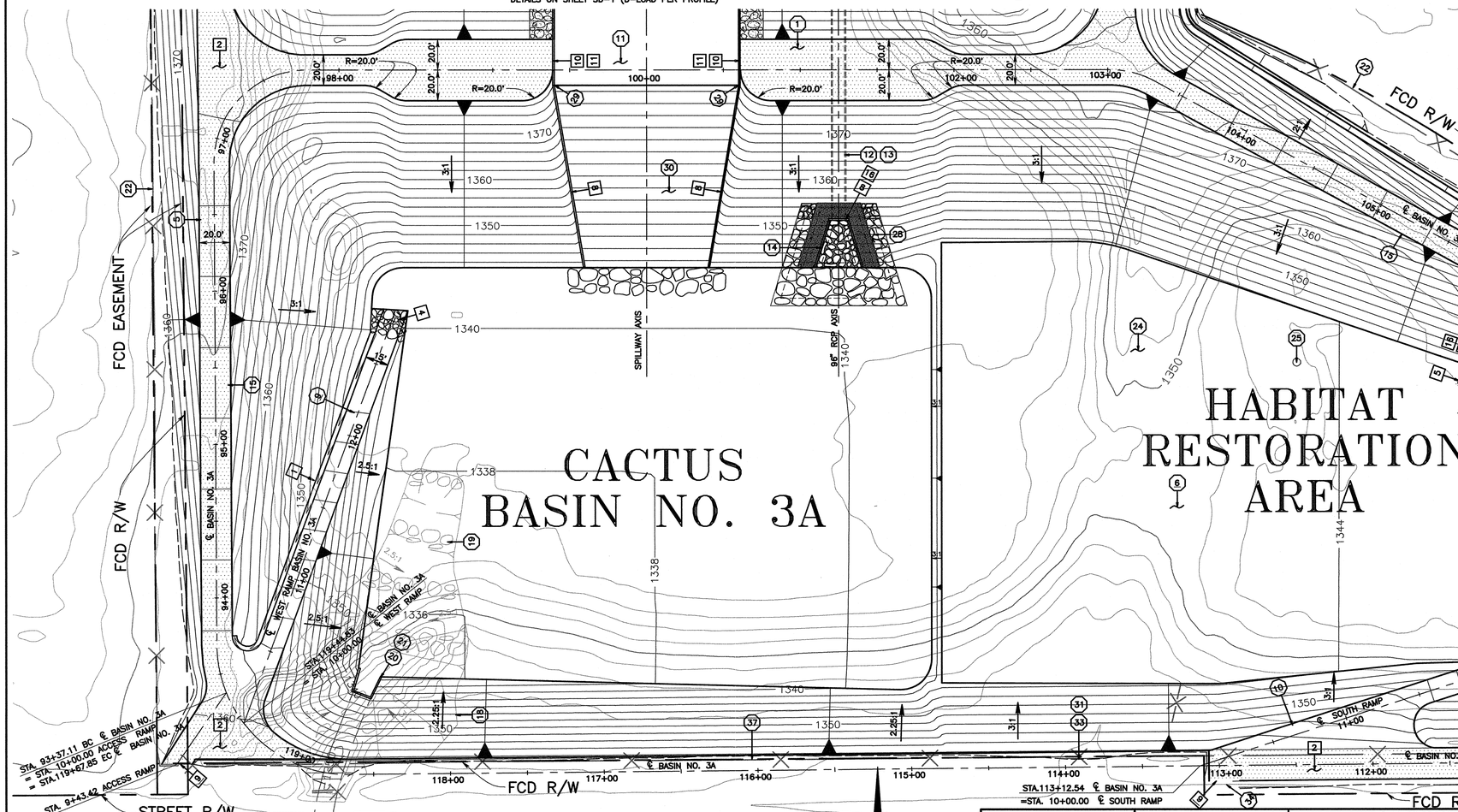
TYPICAL EAST EARTHEN SWALE SECTION
SCALE 1"=10'



TYPICAL WEST RAMP SECTION
SCALE 1"=10'



TYPICAL SOUTH RAMP SECTION
SCALE 1"=10'



REGISTERED PROFESSIONAL ENGINEER JAMES PATRICK BORCUK 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

GRADING PLAN
BASIN NO. 3A AND
HABITAT RESTORATION AREA

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