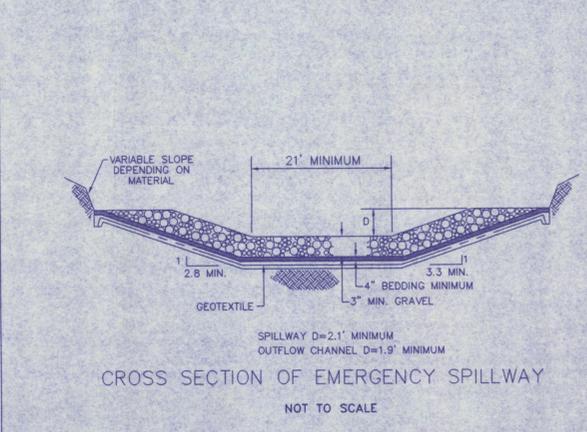
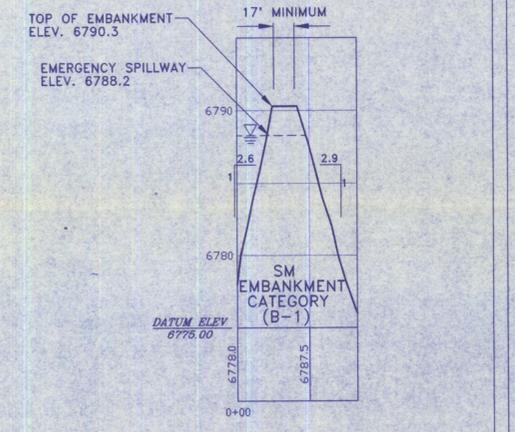
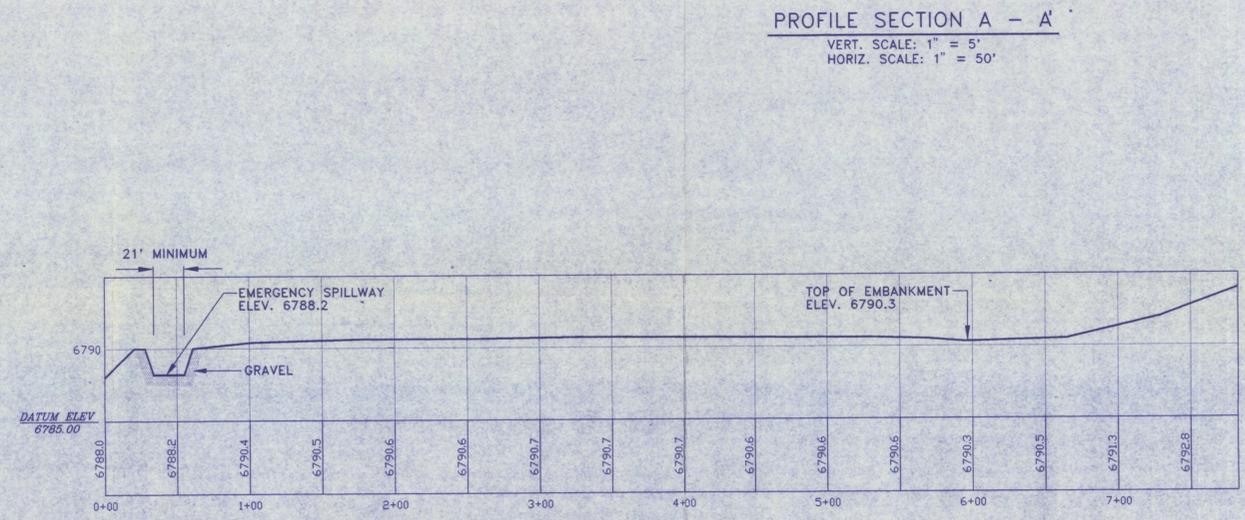
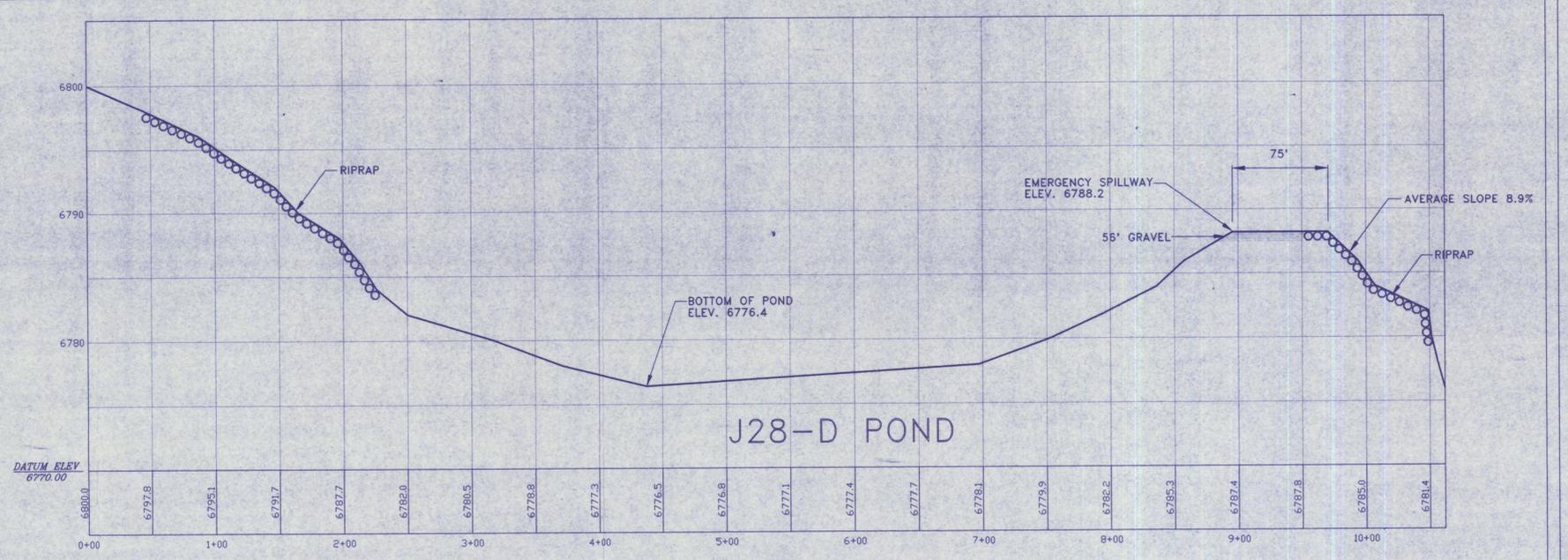
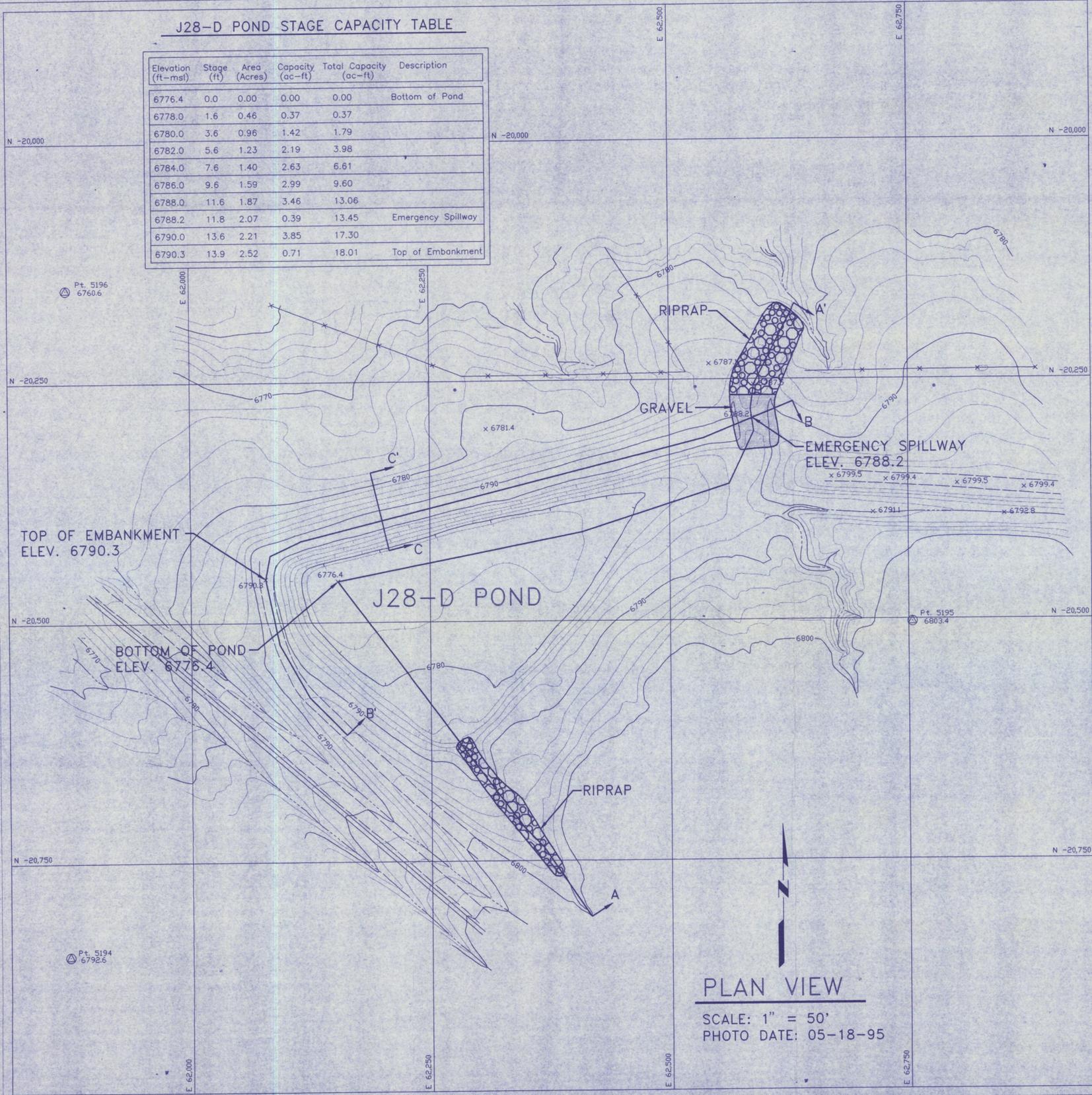


J28-D POND STAGE CAPACITY TABLE

Elevation (ft-msl)	Stage (ft)	Area (Acres)	Capacity (ac-ft)	Total Capacity (ac-ft)	Description
6776.4	0.0	0.00	0.00	0.00	Bottom of Pond
6778.0	1.6	0.46	0.37	0.37	
6780.0	3.6	0.96	1.42	1.79	
6782.0	5.6	1.23	2.19	3.98	
6784.0	7.6	1.40	2.63	6.61	
6786.0	9.6	1.59	2.99	9.60	
6788.0	11.6	1.87	3.46	13.06	
6788.2	11.8	2.07	0.39	13.45	Emergency Spillway
6790.0	13.6	2.21	3.85	17.30	
6790.3	13.9	2.52	0.71	18.01	Top of Embankment



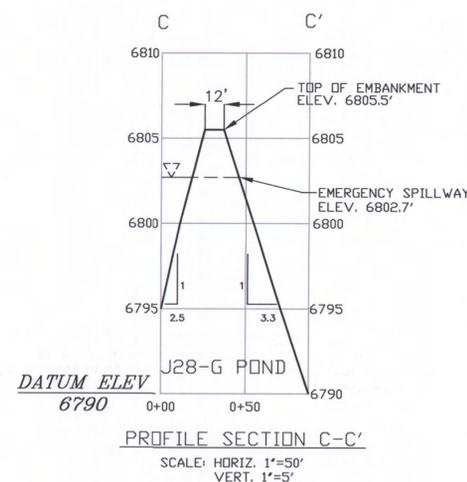
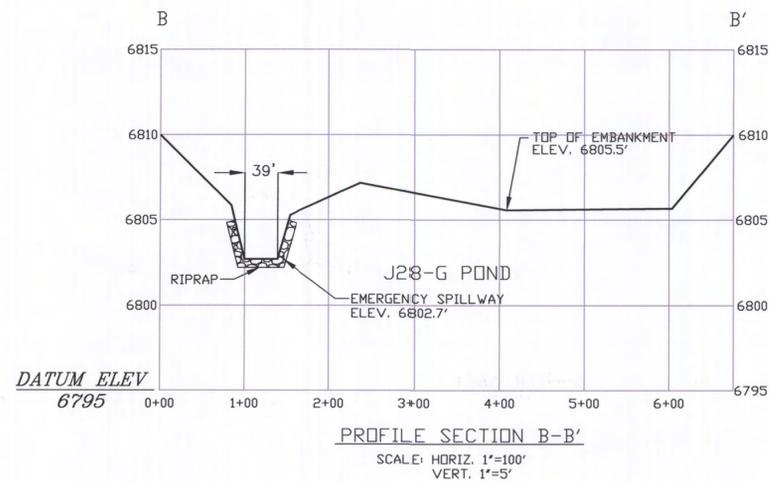
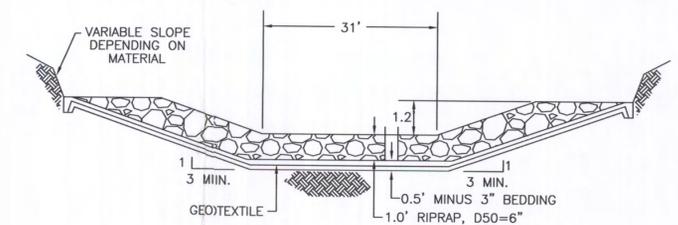
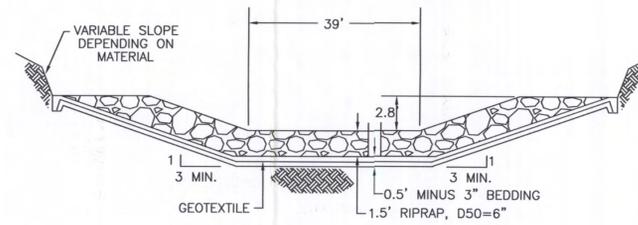
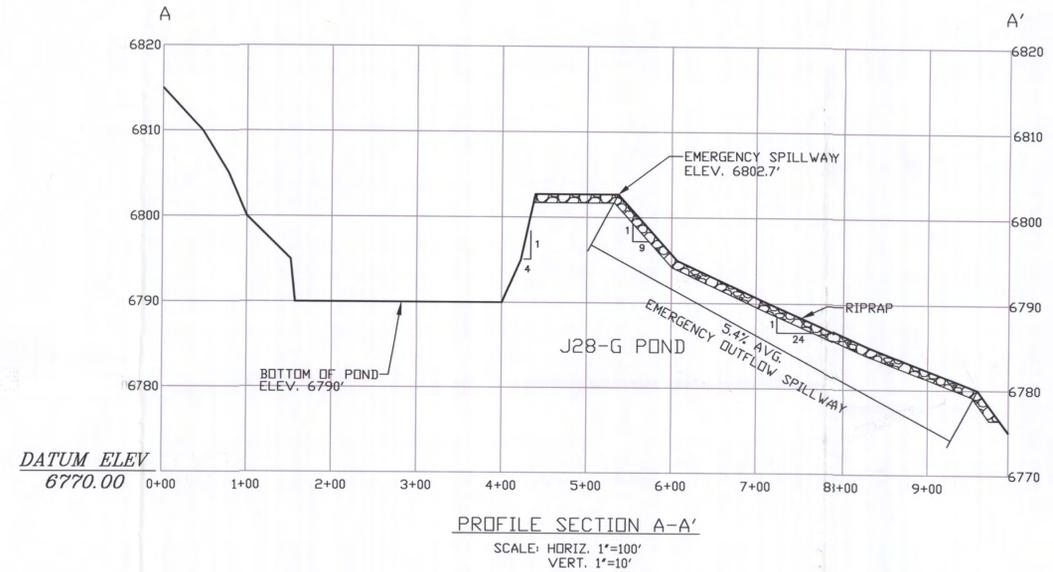
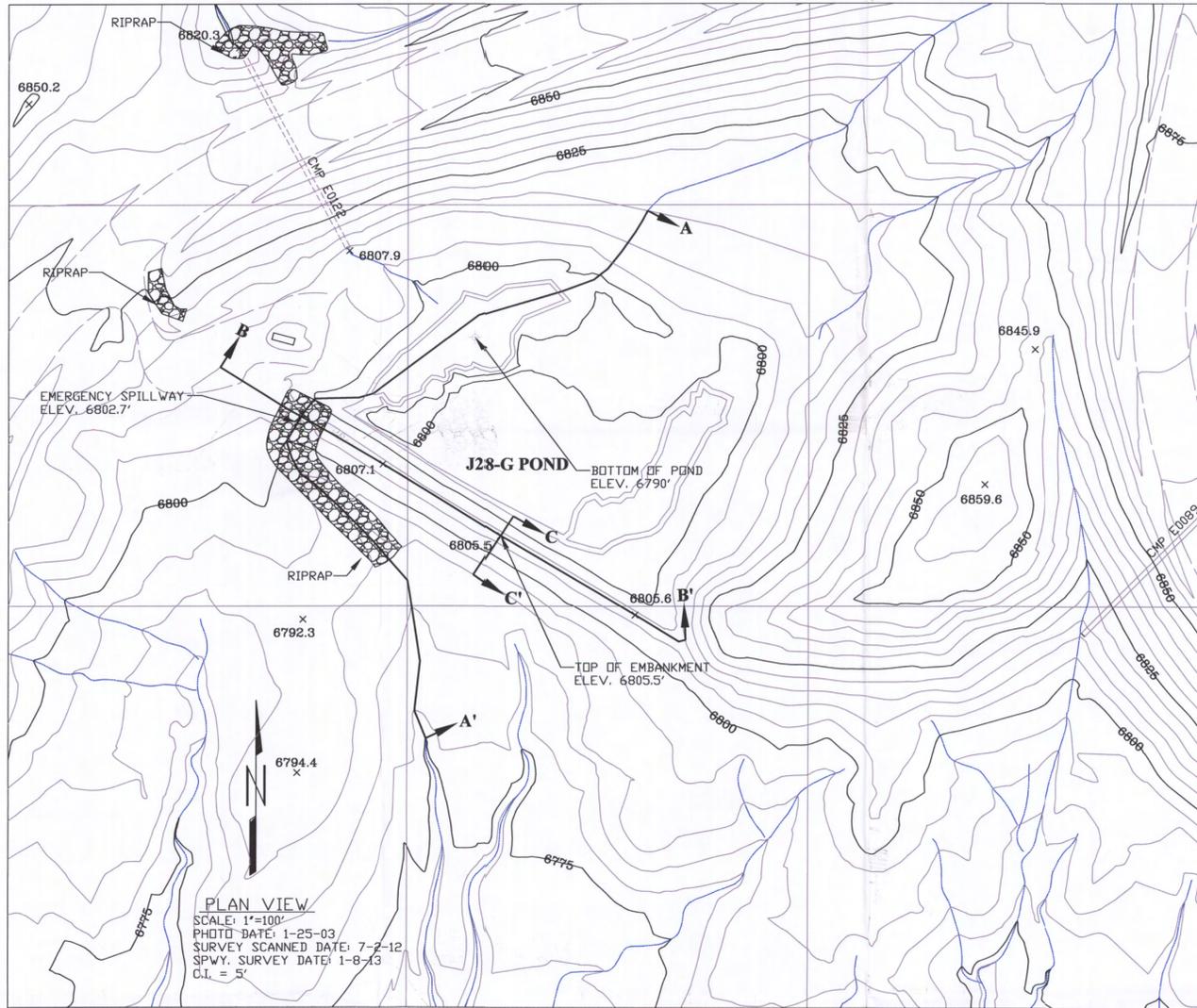
I certify that this Sitation Structure was constructed in accordance with the approved mining permit and that the information contained herein accurately describes the constructed structure to the best of my knowledge and belief.

RAYMOND G. GIBBNEY
PEABODY WESTERN COAL COMPANY

ARIZONA P.E. 15264
8/10/95
DATE

REVISIONS		J28-D POND (AS - BUILT)	
CHK'D	DATE	DESCRIPTION	

KAYENTA MINE
 PEABODY WESTERN COAL CO. 1300 S. VALE FLAGSTAFF, AZ. 86001
 DESIGNED BY: PMCC SCALE: AS SHOWN
 DRAWN BY: EFD DRAWING DATE: 08-08-95
 CHECKED BY: RAB PHOTO DATE: 05-18-95
 CONTOUR INTERVAL: 2.0'



J28-G POND STAGE CAPACITY					
ELEV. (FT.-MSL)	STAGE (FT.)	AREA (ACRES)	CAPACITY (AC.-FT.)	TOTAL CAPACITY (AC.-FT.)	DESCRIPTION
6790.0	0.00	0.54	0.00	0.00	BOTTOM OF POND
6795.0	5.0	0.77	3.28	3.28	
6800.0	10.0	2.52	8.23	11.50	
6802.7	12.7	3.32	7.88	19.38	EMERGENCY SPILLWAY
6805.0	15.0	4.00	15.01	27.81	
6805.5	15.5	4.13	2.03	29.84	TOP OF EMBANKMENT

ENGINEER'S CERTIFICATION
 I certify that this Siltation Structure was constructed in accordance with the approved mining permit and that the information contained herein accurately describes the constructed structure to the best of my knowledge and belief.



Gary Altsisi
 Reclamation Supervisor
 Peabody Western Coal Company
 ARIZONA P.E. 37842

REVISIONS		EXHIBIT #1 J28-G POND (AS-BUILT)
CHK'D	DATE DESCRIPTION	
		KAYENTA MINE PEABODY WESTERN COAL CO. P.O. BOX 650 KAYENTA, AZ 86033 DESIGNED BY: G.A. SCALE: AS SHOWN DRAWN BY: G.A. DRAWING DATE: 07-10-13 CHECKED BY: G.A. PHOTO DATE: 1-25-03 CONTOUR INTERVAL: 5' DWG FILE: J28-G AS-BUILT JULY 2013.dwg

J28-G POND 31-FT OUTFLOW SPILLWAY (25YR-6HR)

Material: Riprap

Trapezoidal Channel

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)
31.00	3.0:1	3.0:1	5.4	1.00		

PADER Method - Steep Slope Design

	w/o Freeboard	w/ Freeboard
Design Discharge:	111.00 cfs	
Depth:	0.60 ft	1.60 ft
Top Width:	34.60 ft	40.60 ft
Velocity:	5.64 fps	
X-Section Area:	19.68 sq ft	
Hydraulic Radius:	0.566 ft	
Froude Number:	1.32	
Manning's n:	0.0420	
Dmin:	2.00 in	
D50:	3.00 in	
Dmax:	4.50 in	



J28-G POND 39-FT SPILLWAY (25YR-6HR)

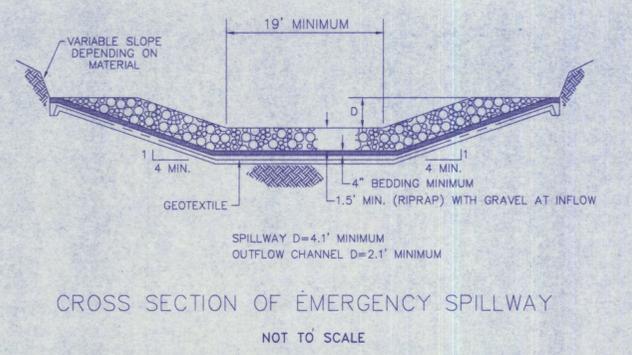
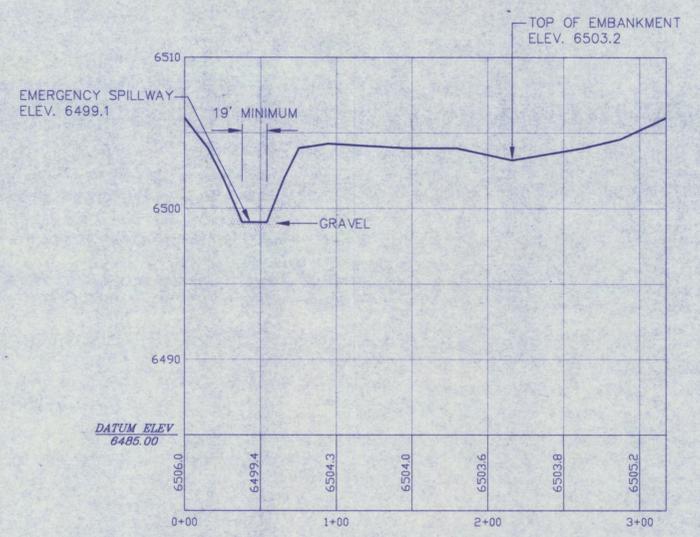
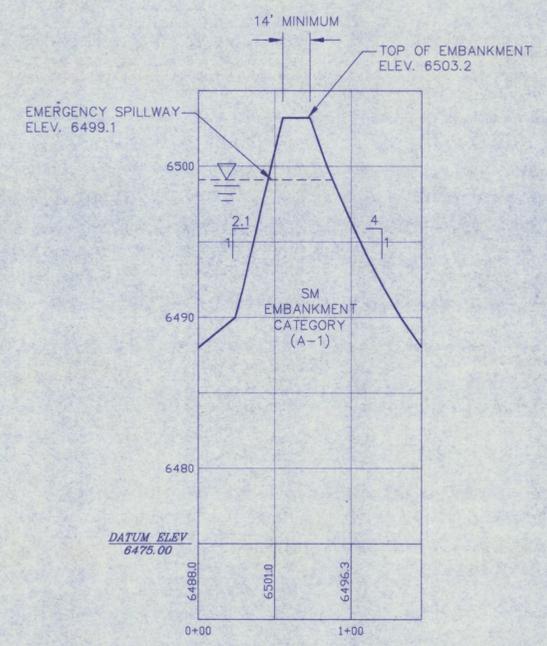
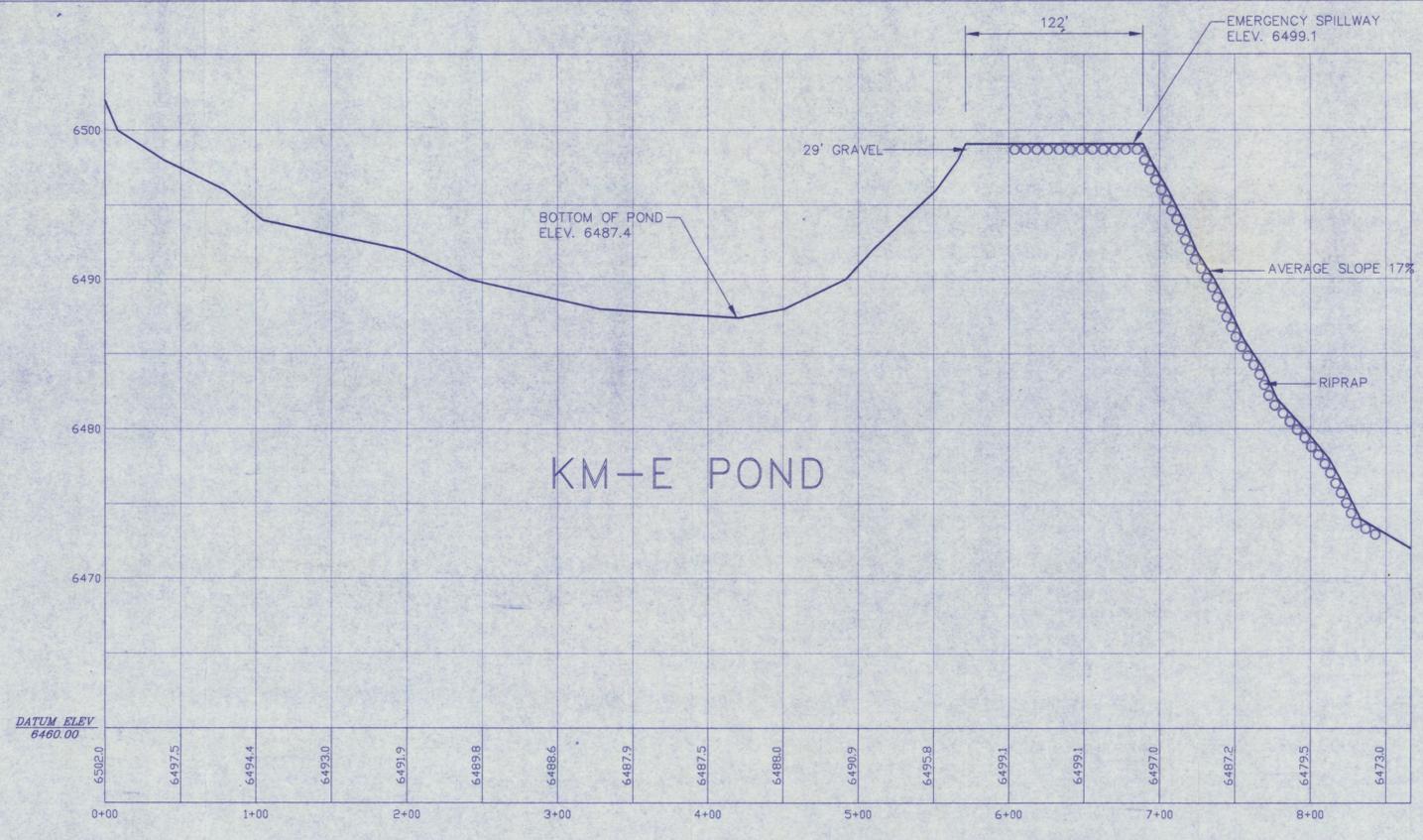
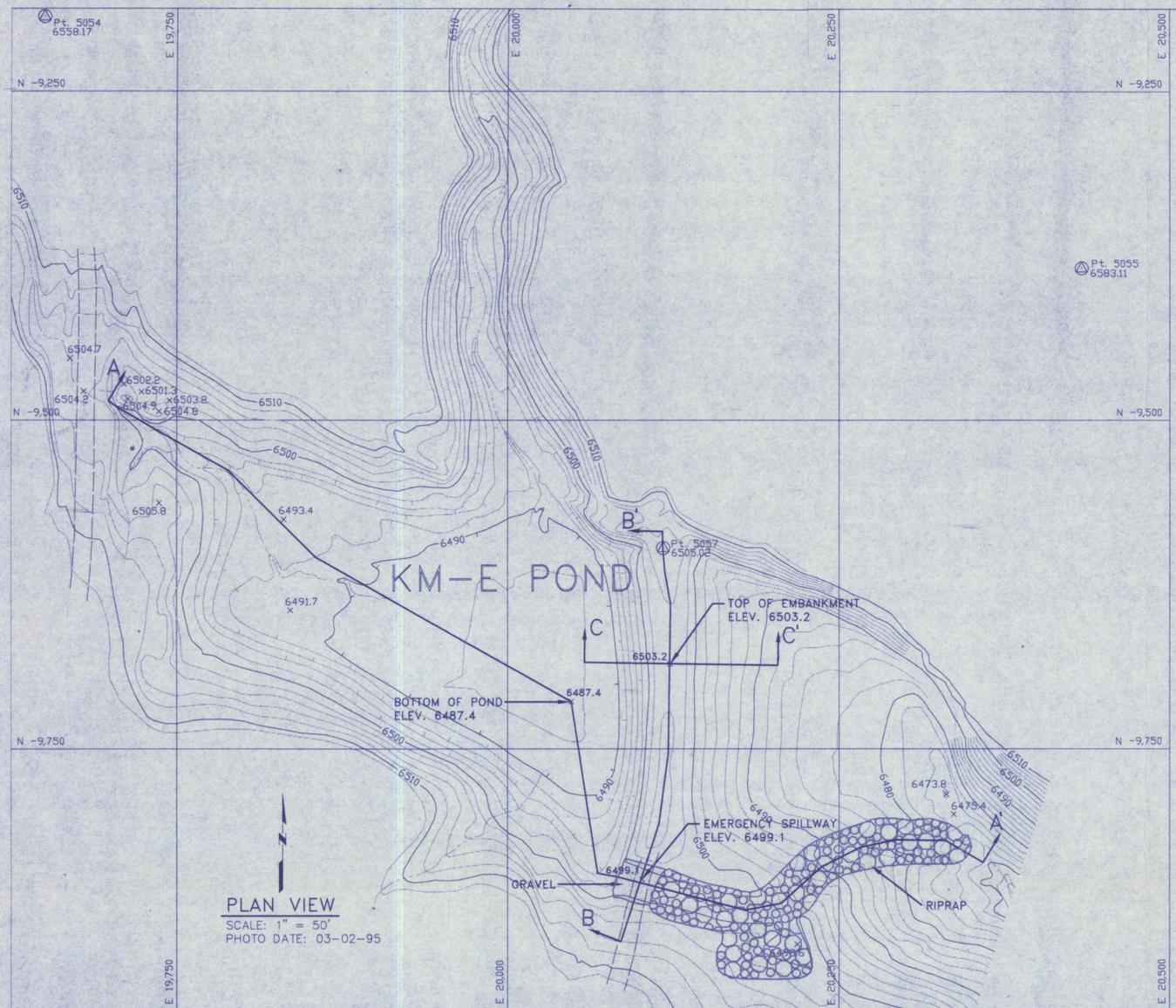
Material: Gravel

Trapezoidal Channel

Bottom Width (ft)	Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Manning's n	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)	Limiting Velocity (fps)
39.00	3.0:1	3.0:1	0.5	0.0300	1.00			5.5

	w/o Freeboard	w/ Freeboard
Design Discharge:	111.00 cfs	
Depth:	0.87 ft	1.87 ft
Top Width:	44.23 ft	50.23 ft
Velocity:	3.06 fps	
X-Section Area:	36.24 sq ft	
Hydraulic Radius:	0.814 ft	
Froude Number:	0.60	





KM-E POND STAGE CAPACITY TABLE

Elevation (ft-msl)	Stage (ft)	Area (Acres)	Capacity (ac-ft)	Total Capacity (ac-ft)	Description
6487.4	0.0	0.0	0.0	0.0	BOTTOM OF POND
6488	0.6	0.22	0.07	0.07	
6490	2.6	0.69	0.91	0.98	
6492	4.6	0.95	1.64	2.62	
6494	6.6	1.28	2.23	4.85	
6496	8.6	1.49	2.77	7.62	
6498	10.6	1.71	3.20	10.82	
6499.1	11.7	1.86	1.96	12.78	EMERGENCY SPILLWAY
6500	12.6	1.97	1.72	14.50	
6502	14.6	2.25	4.22	18.72	
6503.2	15.8	2.45	2.82	21.54	TOP OF EMBANKMENT

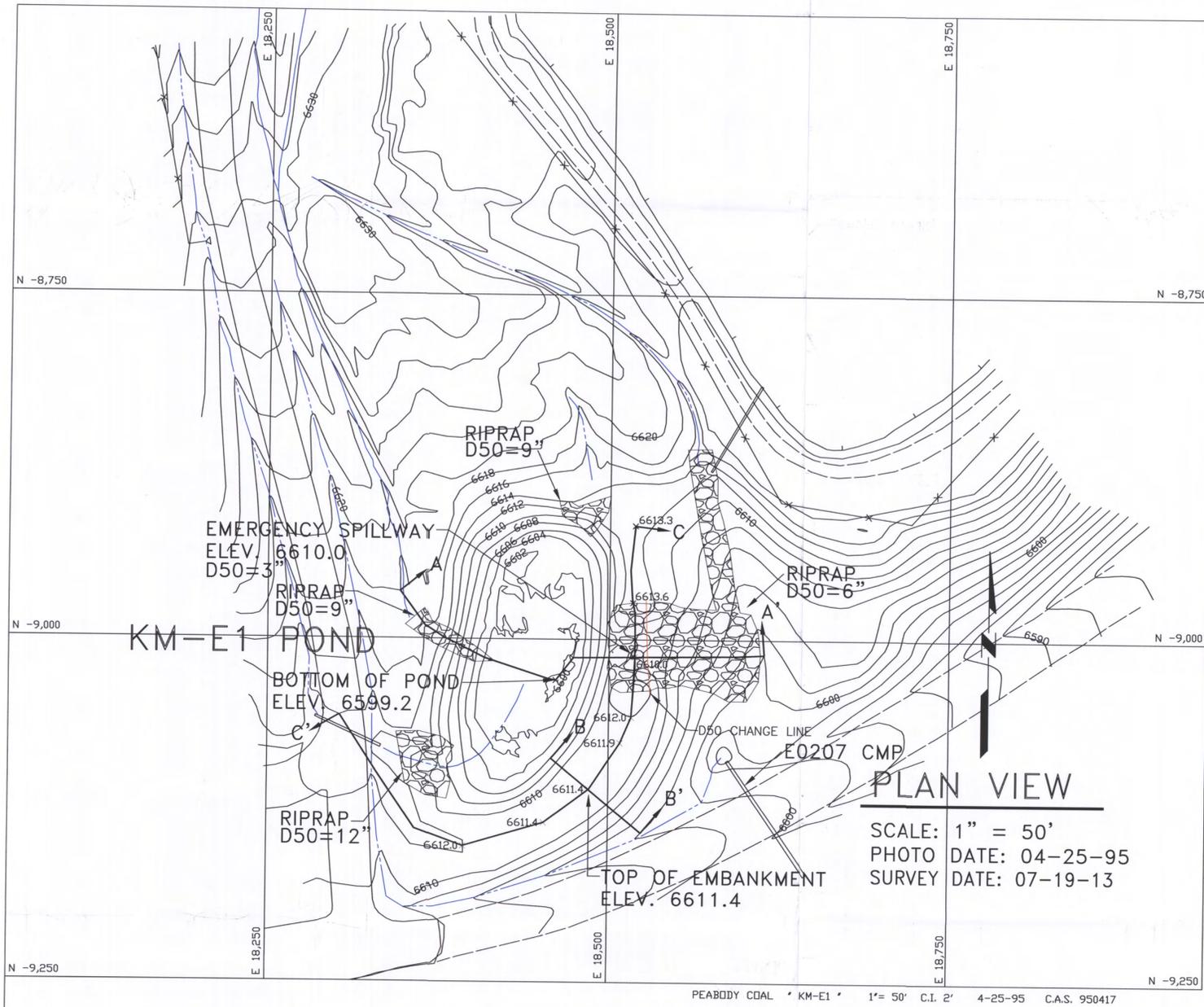
I certify that this Siltation Structure was constructed in accordance with the approved mining permit and that the information contained herein accurately describes the constructed structure to the best of my knowledge and belief.

Raymond A. Peabody
RAYMOND A. PEABODY
PEABODY WESTERN COAL COMPANY

ARIZONA P.E. 15264
4/20/95
DATE

REVISIONS	CHK'D DATE	DESCRIPTION

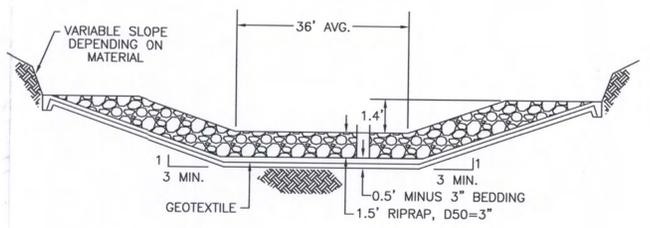
POND KM-E (AS-BUILT)
KAYENTA MINE
PEABODY COAL CO. 1300 S. YALE FLAGSTAFF, AZ 86001
DESIGNED BY: PWCC SCALE: 1"=50'
DRAWN BY: G.A. DRAWING DATE: 04-20-95
CHECKED BY: R.A.B. PHOTO DATE: 03-02-95
CONTOUR INTERVAL: 2'



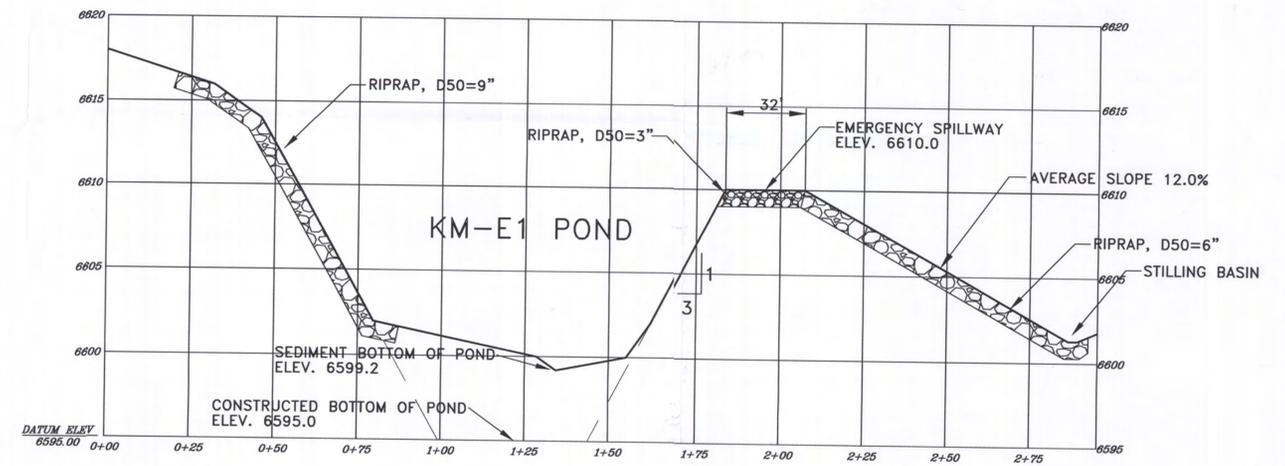
SCALE: 1" = 50'
 PHOTO DATE: 04-25-95
 SURVEY DATE: 07-19-13

KM-E1 POND STAGE CAPACITY TABLE

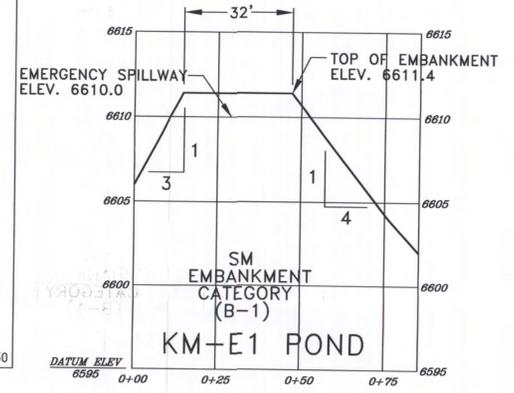
Elevation (ft-msl)	Stage (ft)	Area (Acres)	Capacity (ac-ft)	Total Capacity (ac-ft)	Description
6595.0	0.0	0.00	0.00	0.00	Constructed Bottom of Pond
6599.2	0.0	0.00	0.00	0.00	Sediment Bottom of Pond
6600.0	0.8	0.01	0.00	0.00	
6602.0	2.8	0.17	0.18	0.18	
6604.0	4.8	0.27	0.44	0.62	
6606.0	6.8	0.35	0.62	1.24	
6608.0	8.8	0.42	0.77	2.01	
6610.0	10.8	0.53	0.95	2.96	Emergency Spillway
6611.4	12.2	0.65	0.83	3.79	Top of Embankment



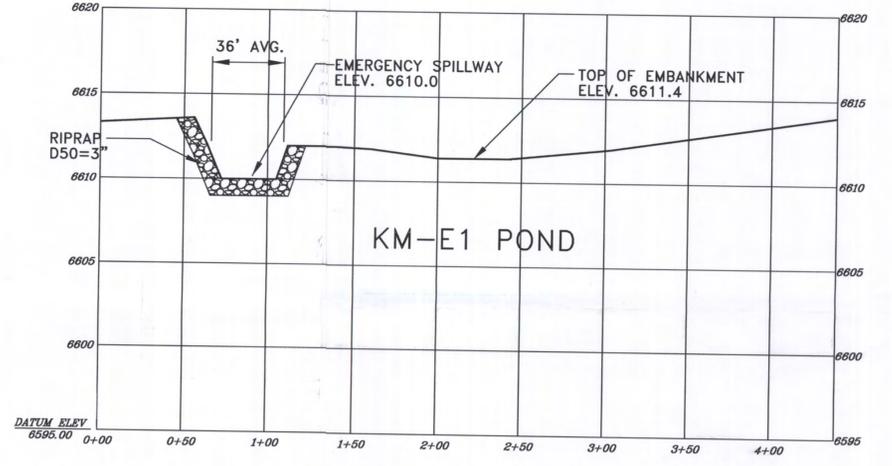
SECTION OF EMERGENCY SPILLWAY
 NOT TO SCALE
 KM-E1 POND



PROFILE SECTION A - A'
 VERT. SCALE: 1" = 5'
 HORIZ. SCALE: 1" = 25'



CROSS SECTION B - B'
 VERT. SCALE: 1" = 5'
 HORIZ. SCALE: 1" = 25'



PROFILE SECTION C - C'
 VERT. SCALE: 1" = 5'
 HORIZ. SCALE: 1" = 50'

ENGINEER'S CERTIFICATION

I certify these facilities were constructed as designed and approved in the mining permit and that the information contained herein is accurate to the best of my knowledge and belief.



REVISIONS			KM-E1 POND (AS-BUILT)	
CHK'D	DATE	DESCRIPTION		
GA	7/25/13	REMEDIAL WORK		
MS	11/15/13	D50 UPDATED		
			KAYENTA MINE	
			PEABODY WESTERN COAL CO. P.O. BOX 650 KAYENTA, AZ. 86033	
			DESIGNED BY: G.A. SCALE: AS SHOWN	
			DRAWN BY: G.A. DRAWING DATE: 11/15/13	
			CHECKED BY: M.S. PHOTO DATE: 04/25/95	
			C.I. : 2' DWG FILE: KM-E1 AS-BUILT Nov 2013.dwg	