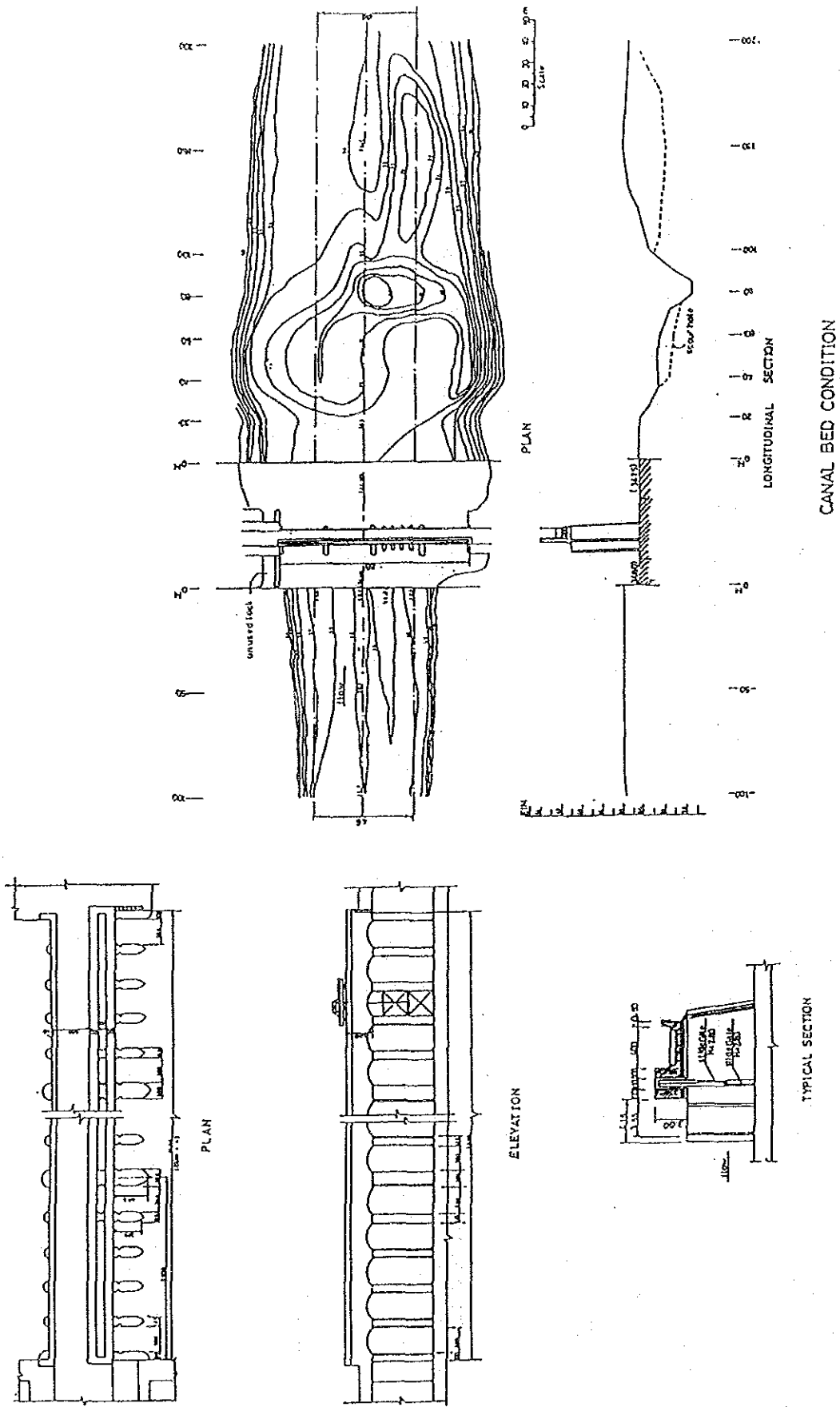


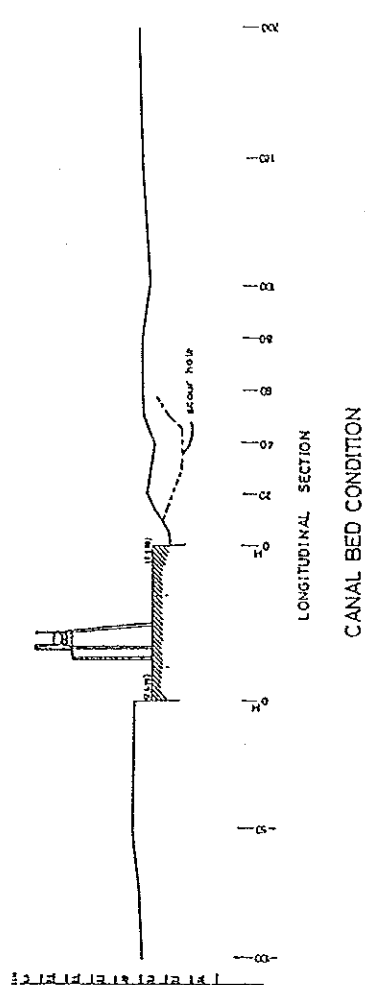
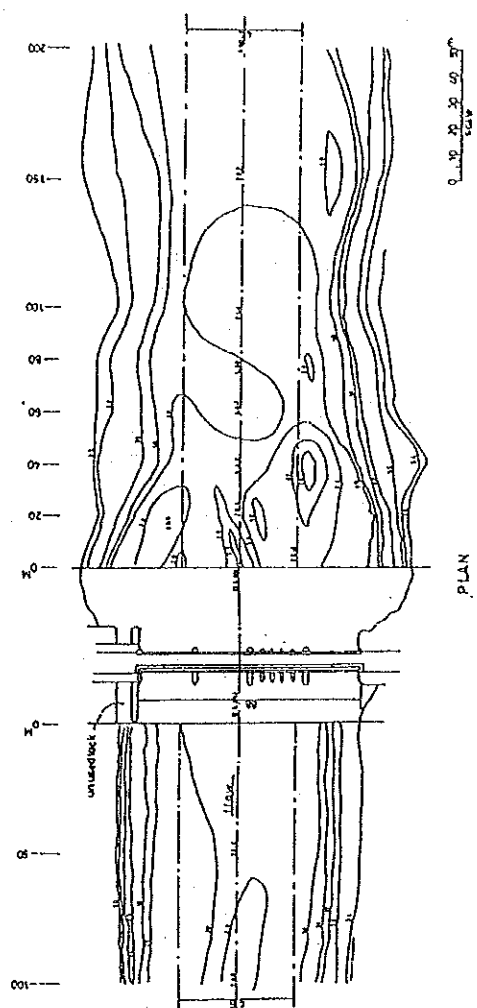
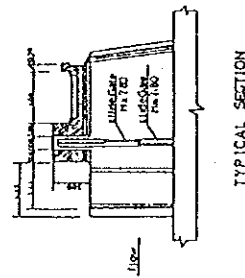
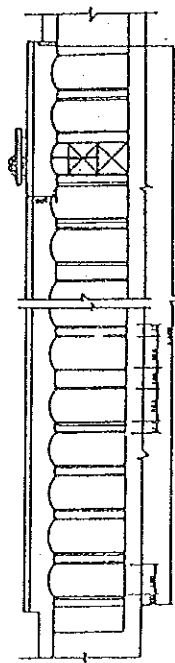
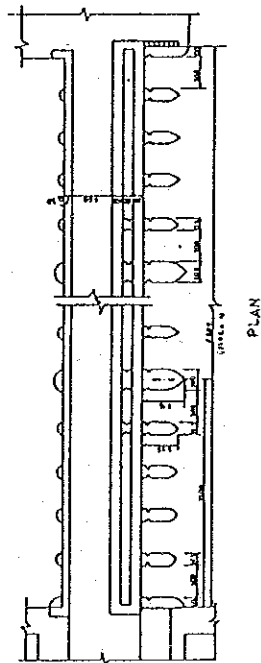


Figure- 2 General Plan of Existing Manshat El Dahab Regulator



note: all dimension by/00

Figure- 3 General Plan of Existing Sakoula Regulator



note: all dimensions typical



Figure- 5 General Plan of Existing Lahoun Regulator

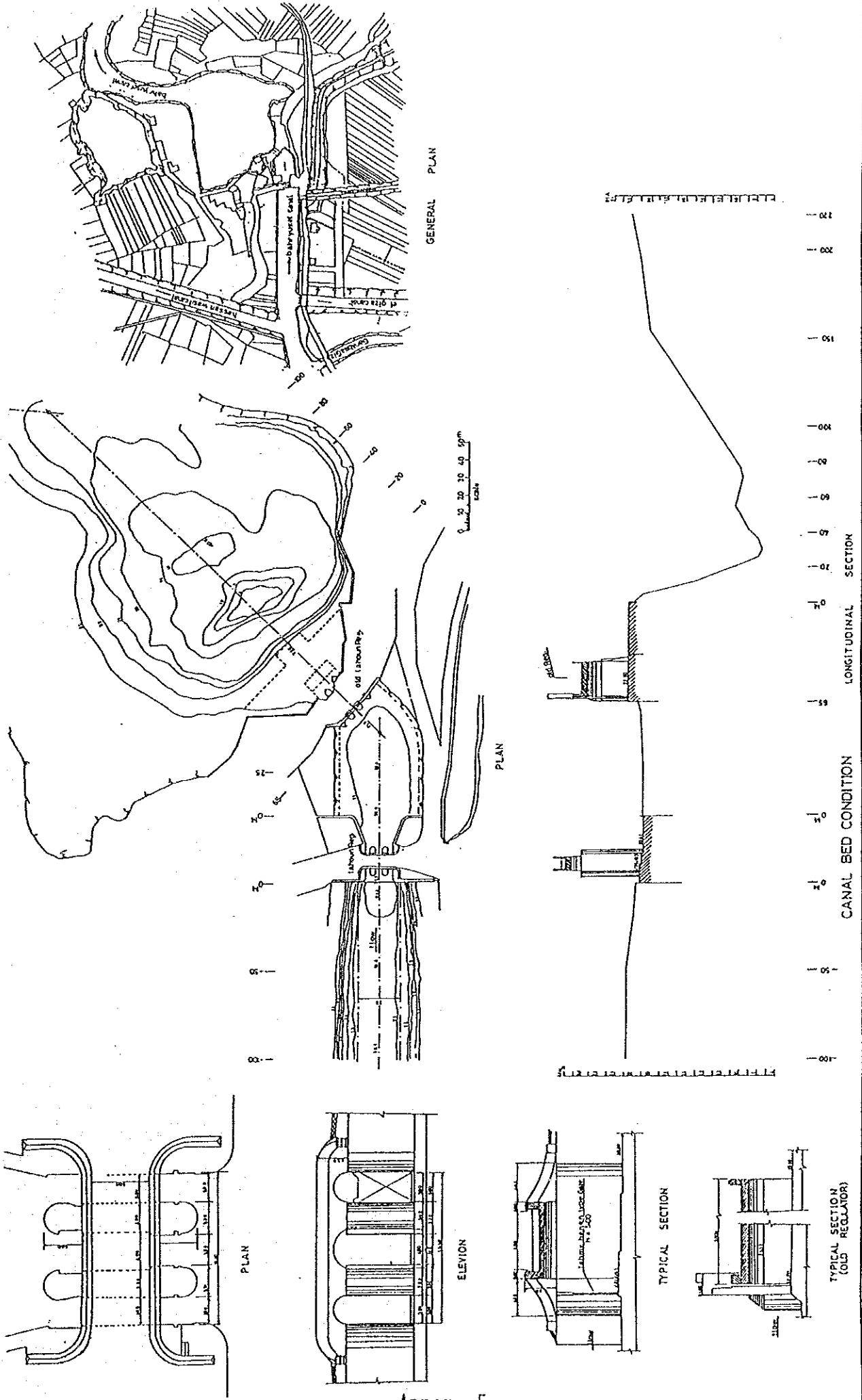
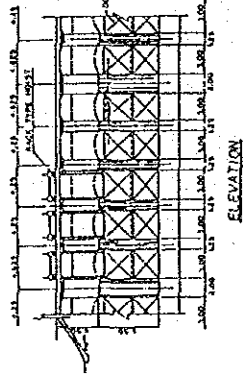
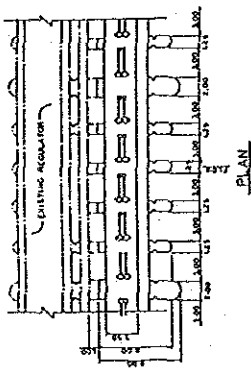
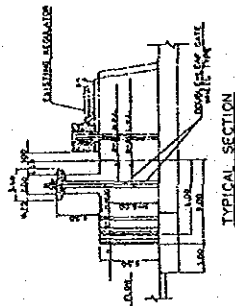
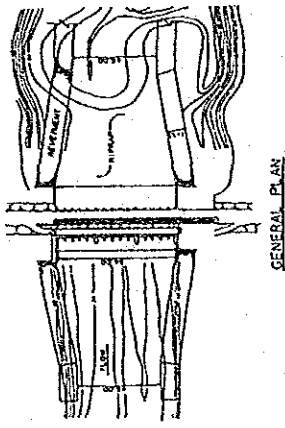
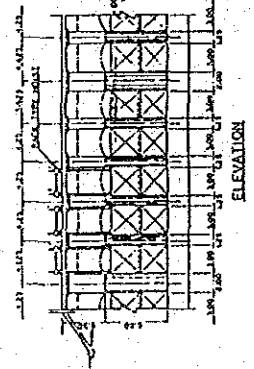
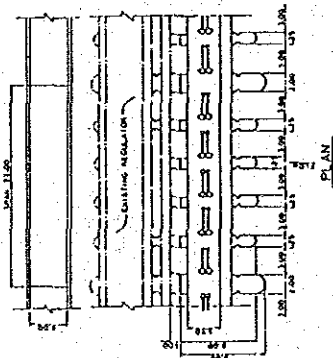
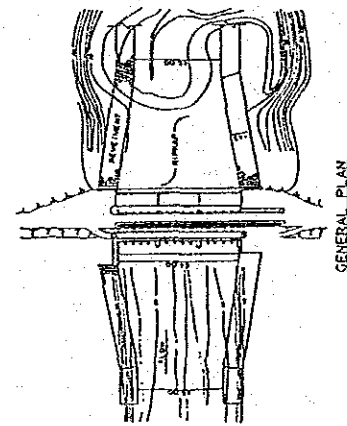
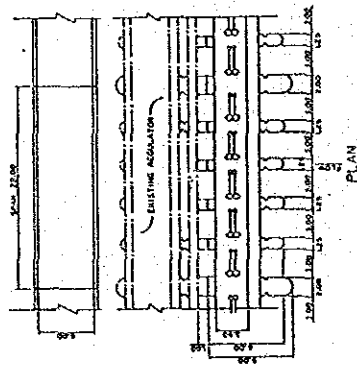


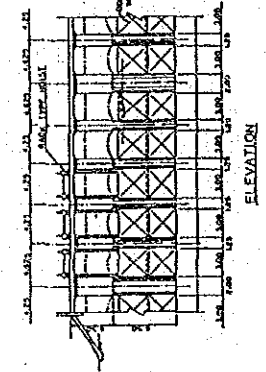
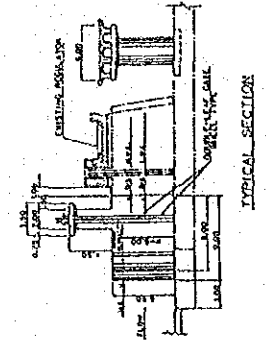
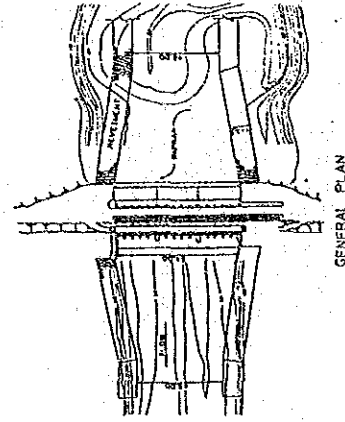
Figure- 6 Alternative Plan A of Improvement of Regulator



ALTERNATIVE PLAN A-1



ALTERNATIVE PLAN A-2



ALTERNATIVE PLAN A-3

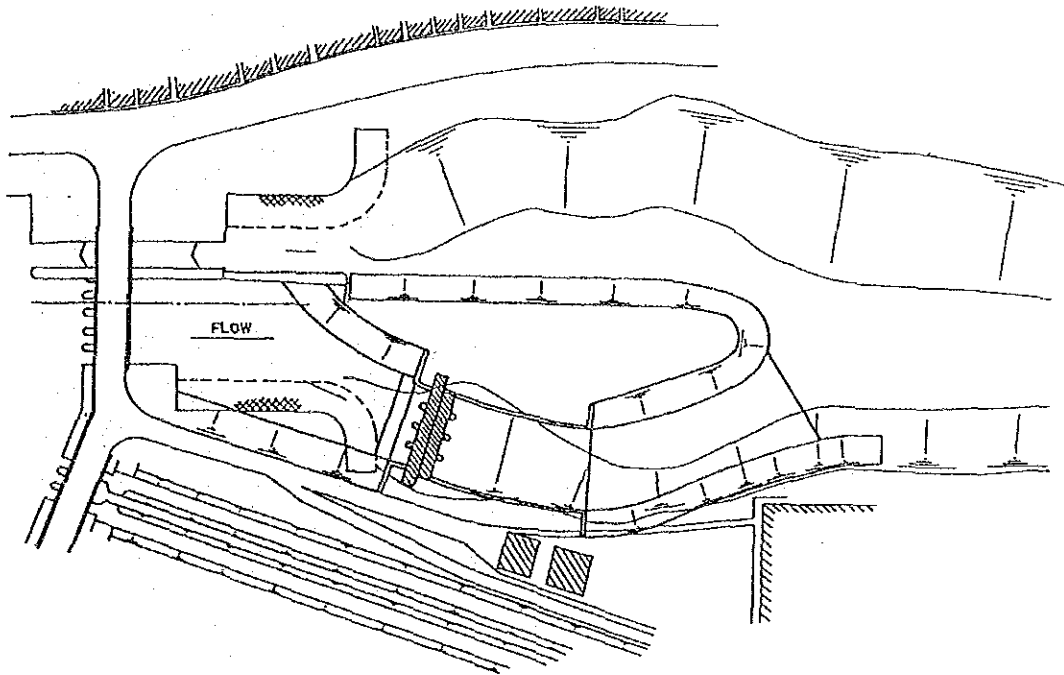




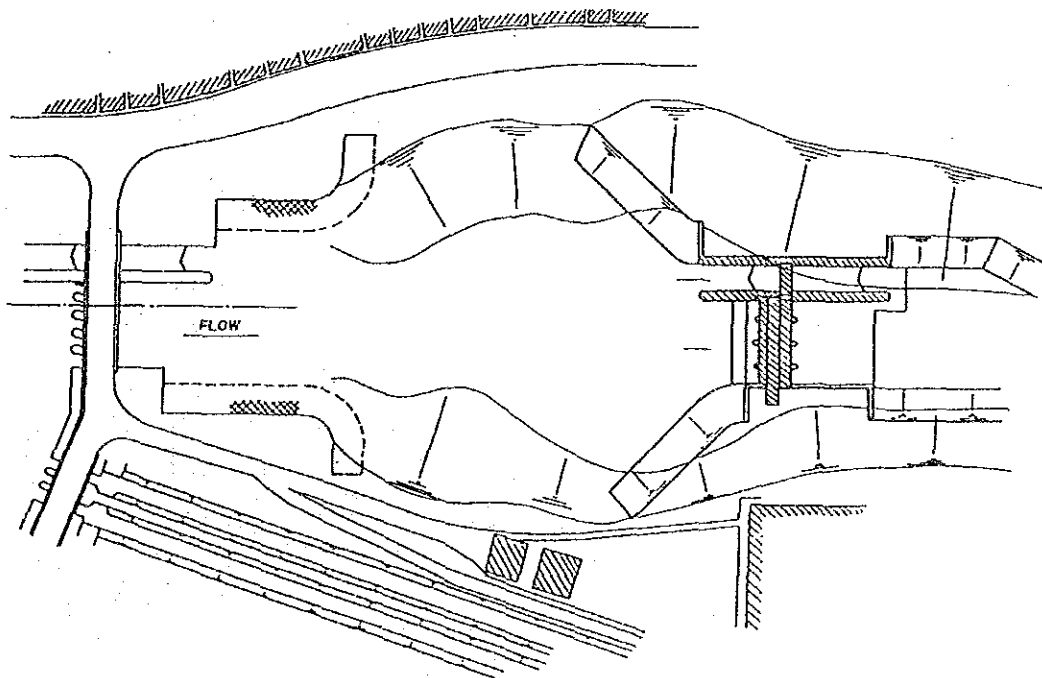


Figure- 9

Alternative Plan of Proposed Site (Dairout Barrage)



ALTERNATIVE PLAN D-1



ALTERNATIVE PLAN D-2

Figure-10  
Alternative Plan of Proposed Site (Manshat El Dahab Regulator)

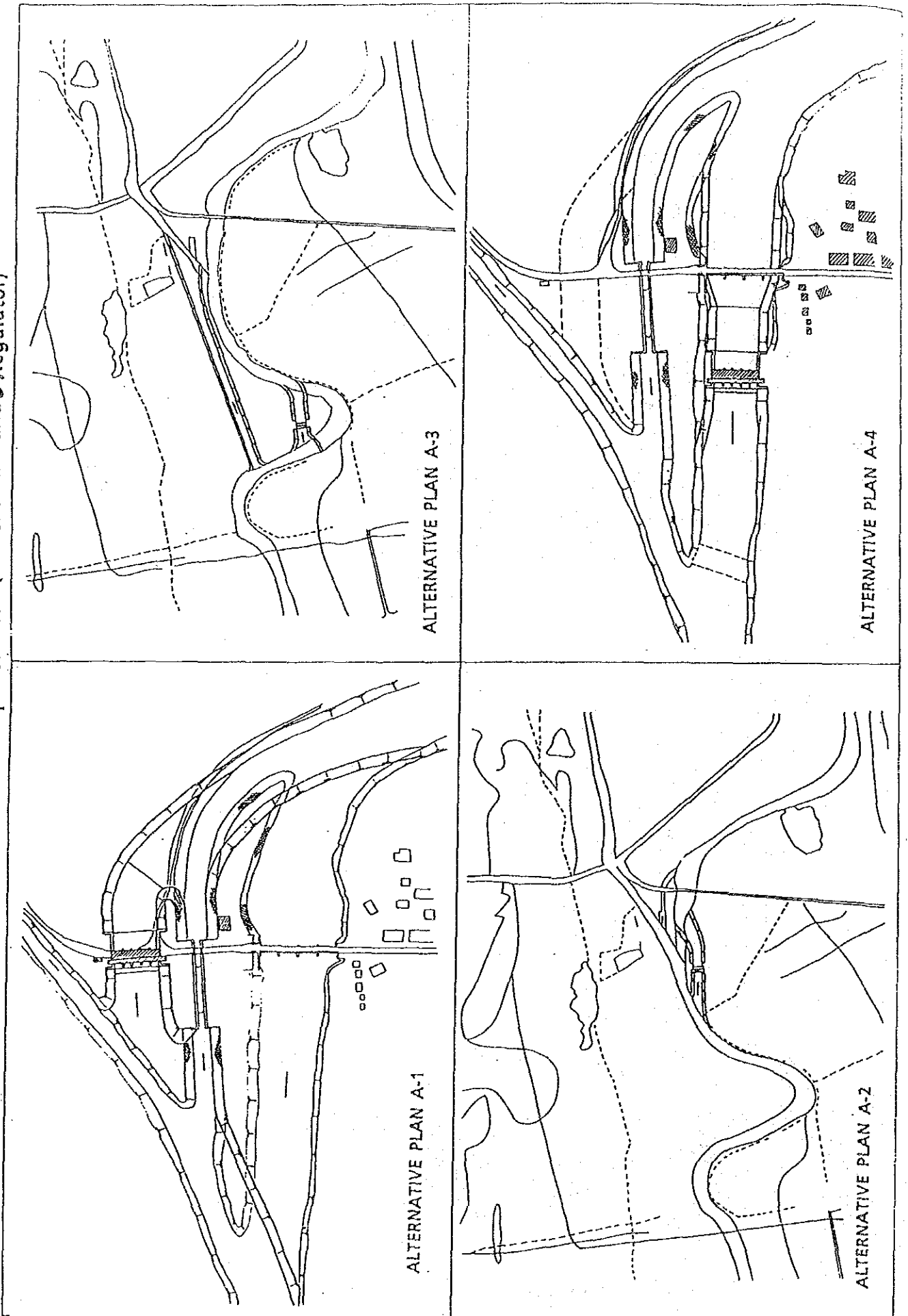


Figure-11 Alternative Plan of Proposed Site (Sakoula Regulator)

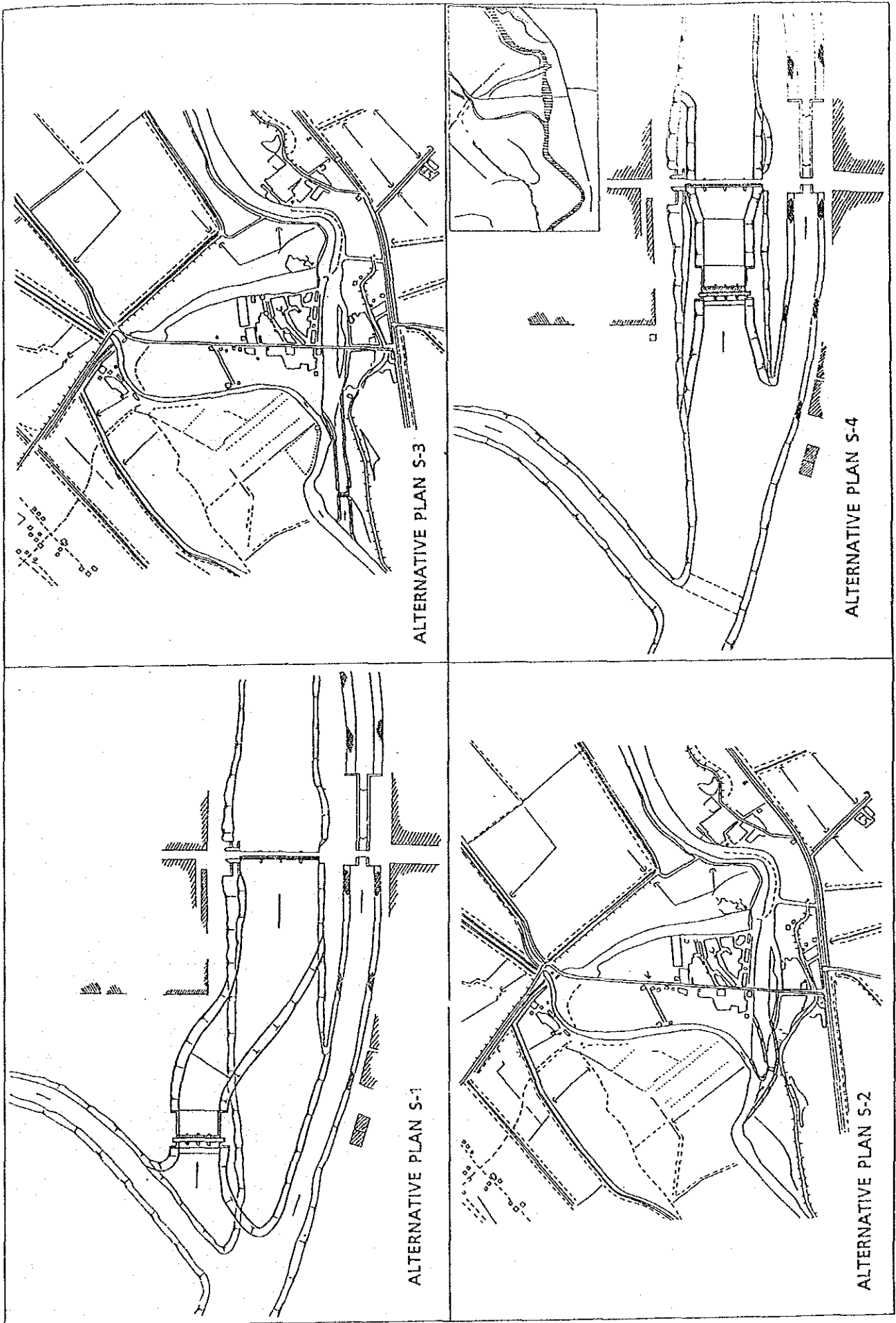


Figure-12 Alternative Plan of Proposed Site (Mazoura Regulator)

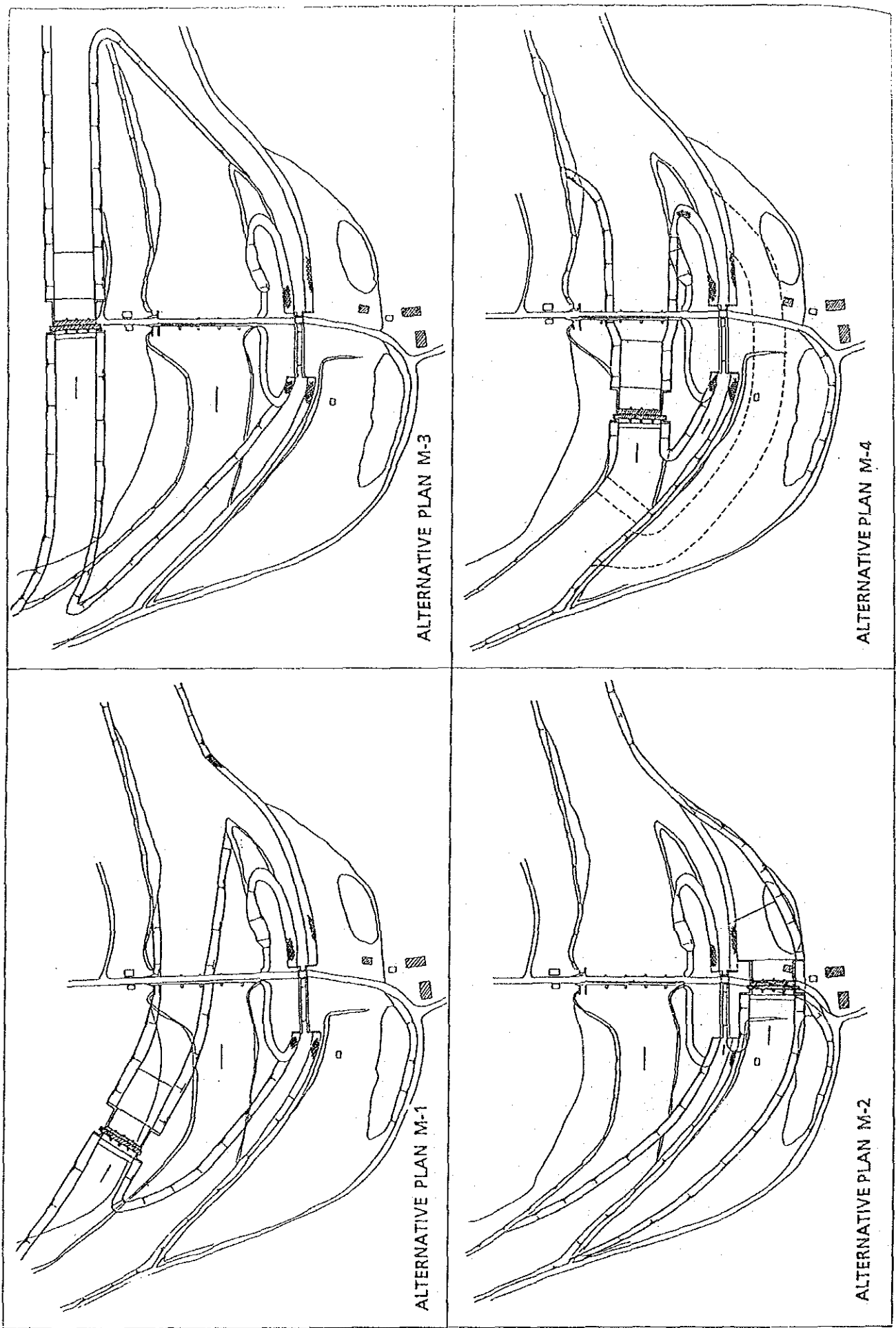


Figure-13 Alternative Plan of Proposed Site (Lahoun Regulator)

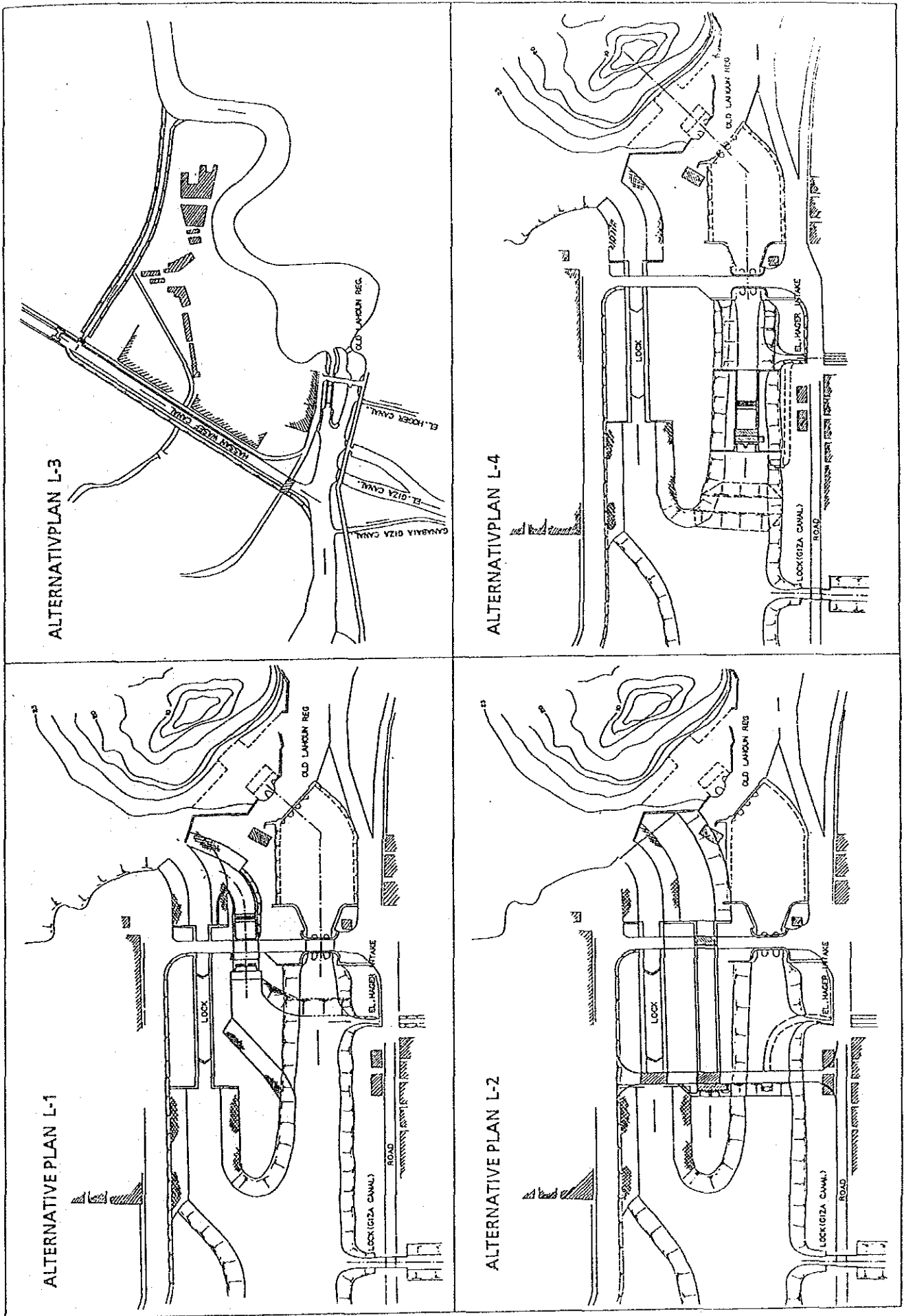






Figure-16 Proposed Plan of Sakoula Regulator

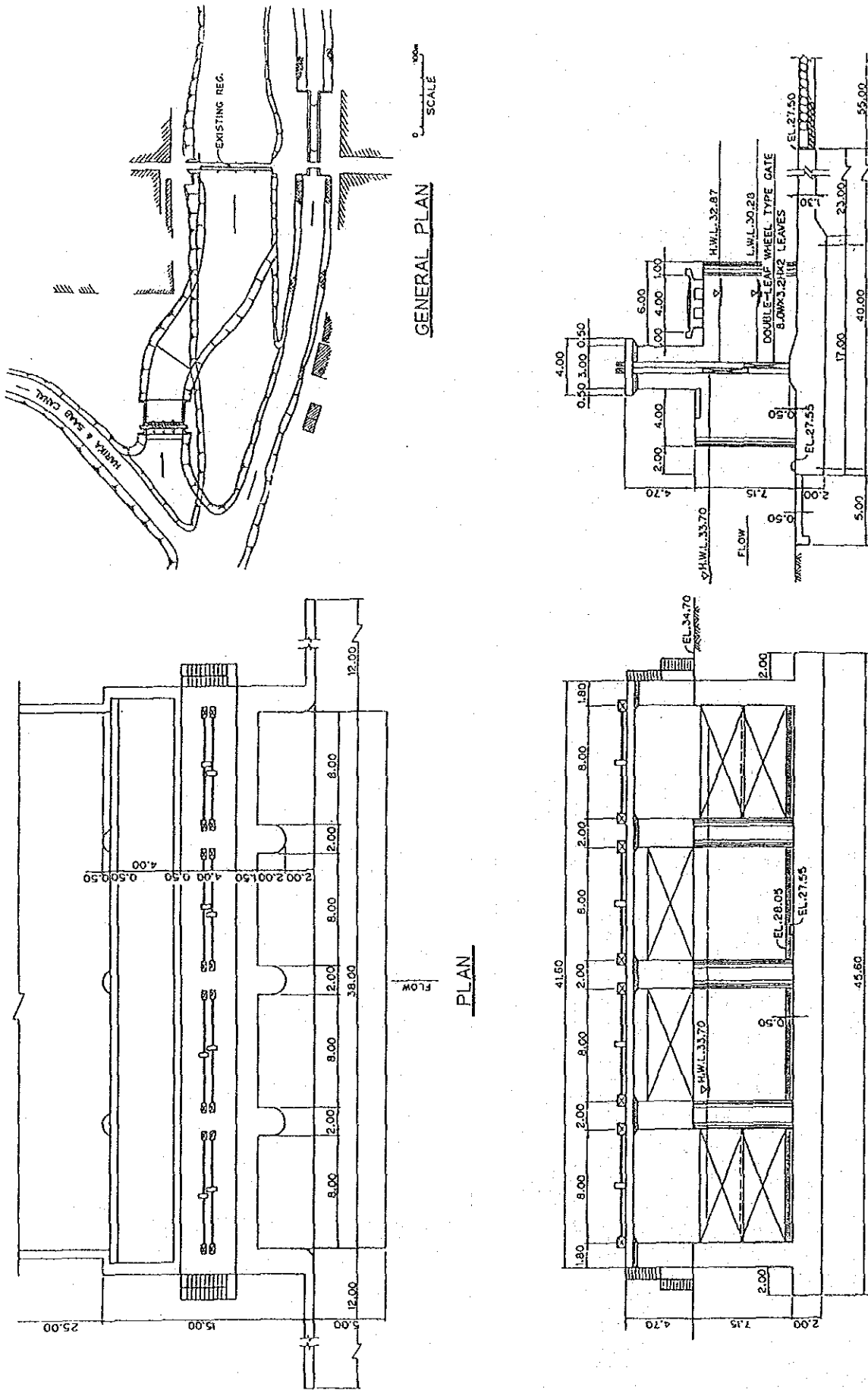
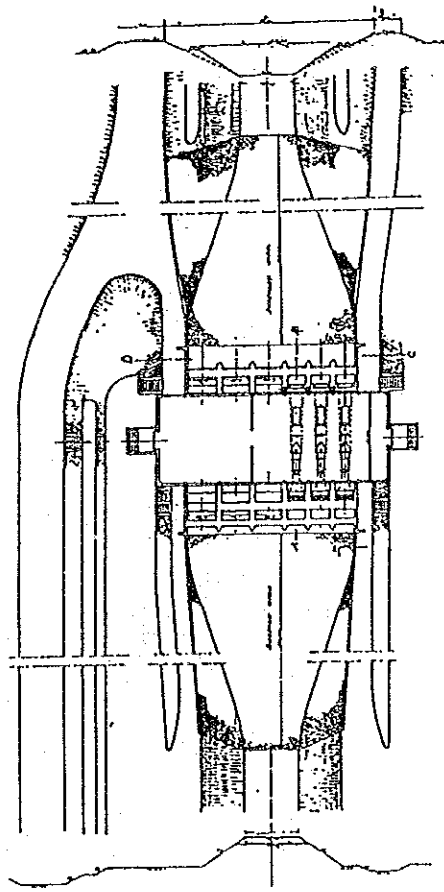




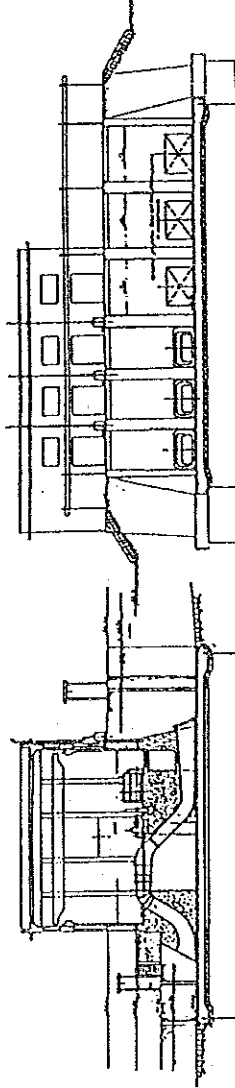




Figure-19 General Plan of Existing Drainage Pump Station

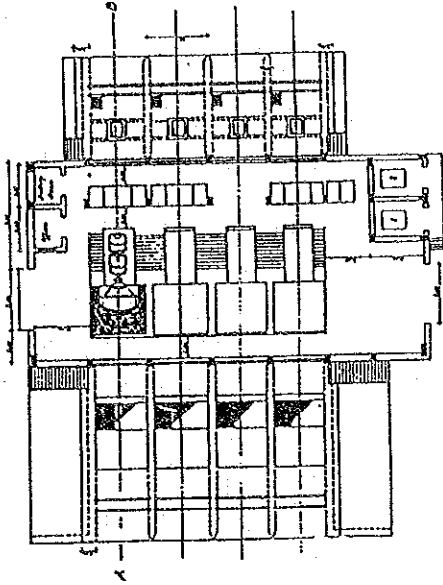


PLAN

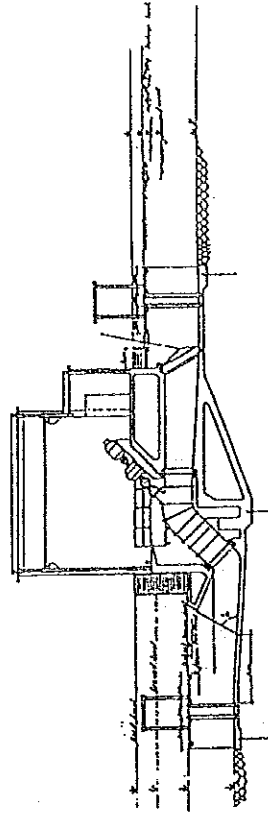


SECTION A-B

SECTION C-D



PLAN

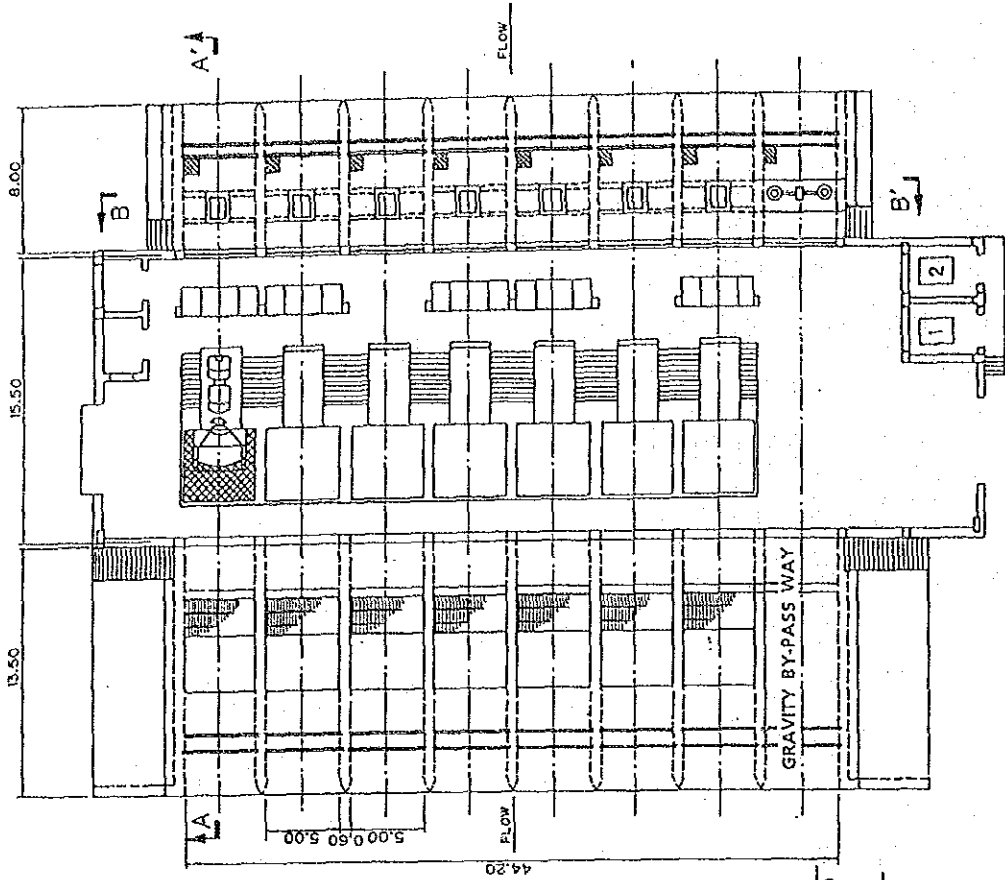


SECTION A-B

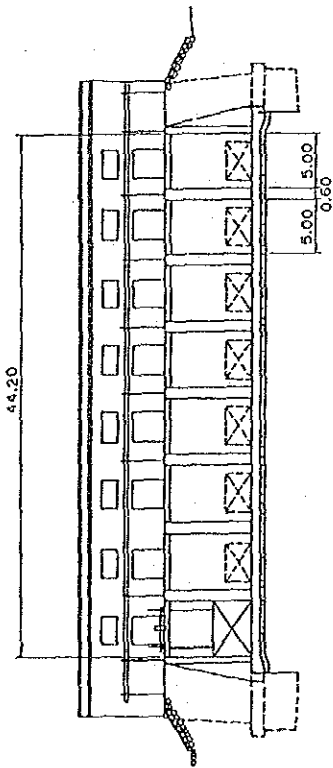
EL BADRAMAN PUMP STATION

DIER EL SANKLRIA PUMP STATION SAKOULA PUMP STATION

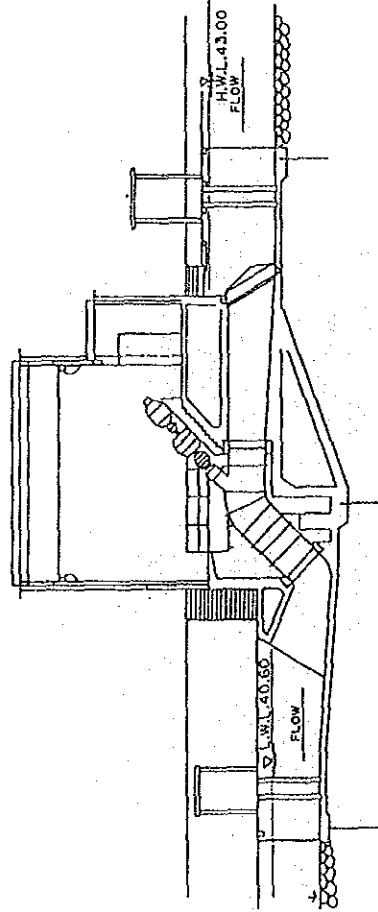
Figure-20 Proposed Plan of El Badraman Drainage Pump Station



PLAN



SECTION B-B'



SECTION A-A'

Figure-21 Proposed Plan of Kamadir No.5 Irrigation Pump Station

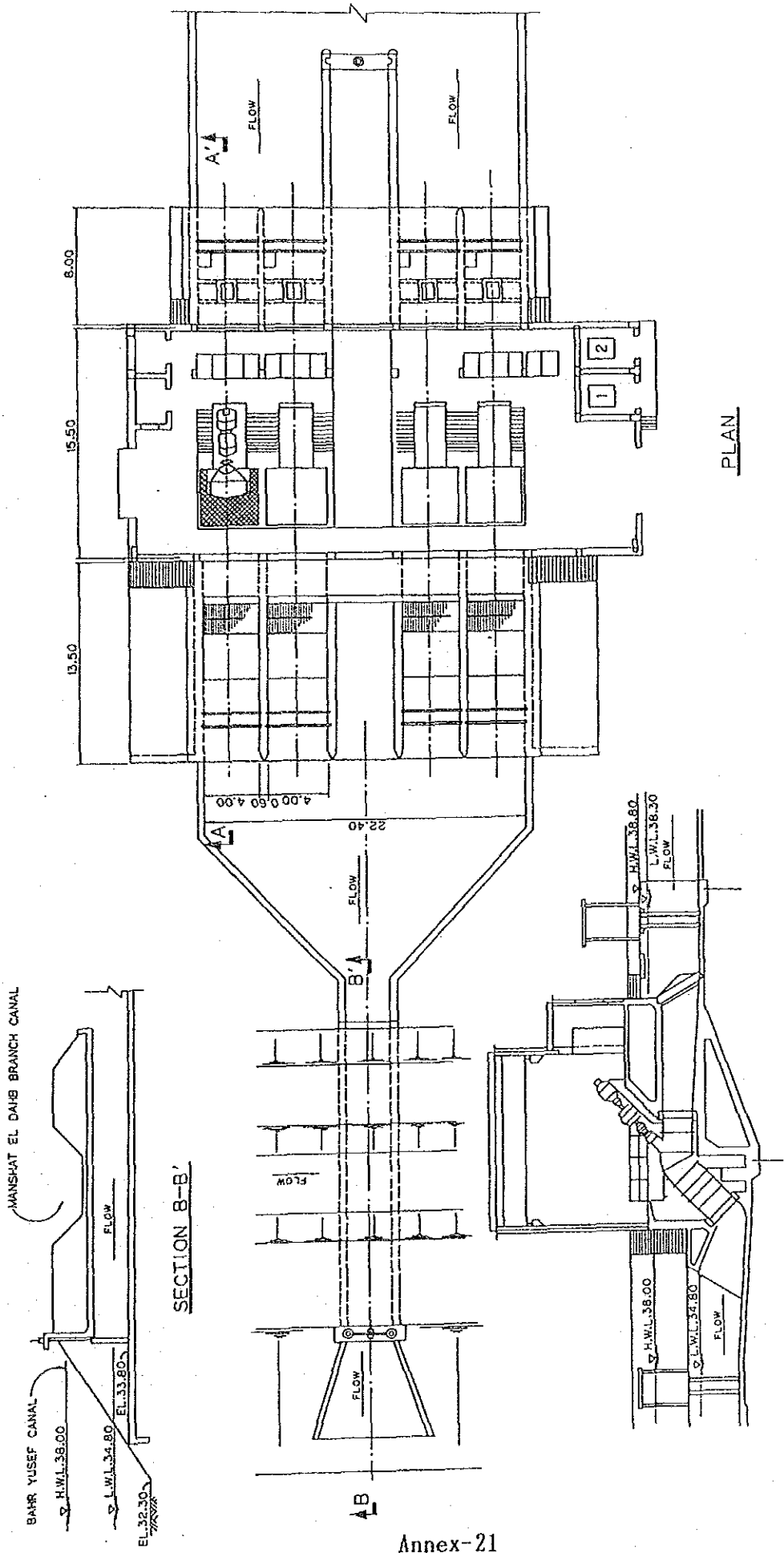
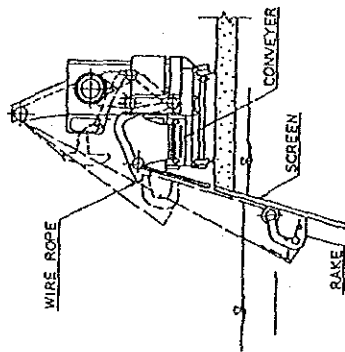
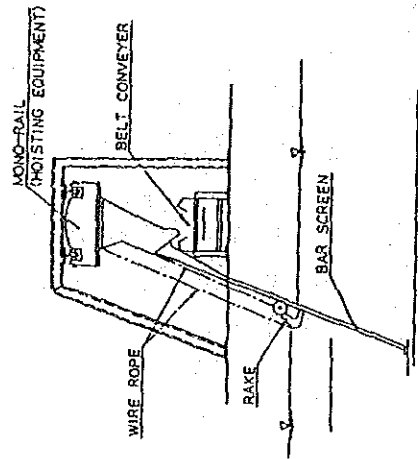


Figure-22 Proposed Plan of Appurtenant Structures for Pump Station

TRASH RAKING SYSTEM

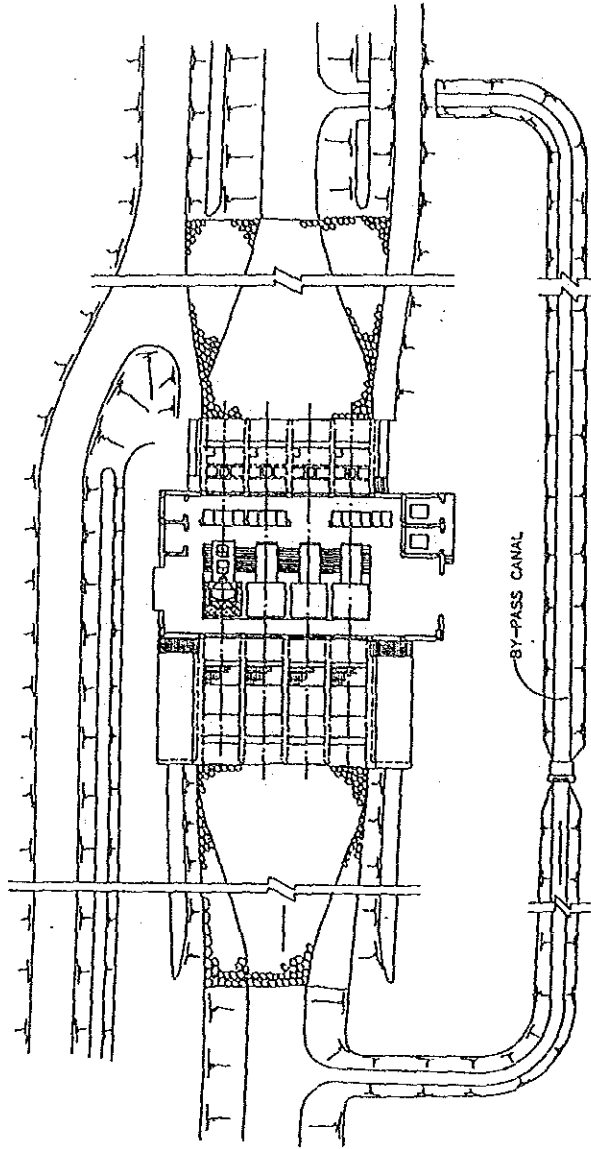


TRASH CAR

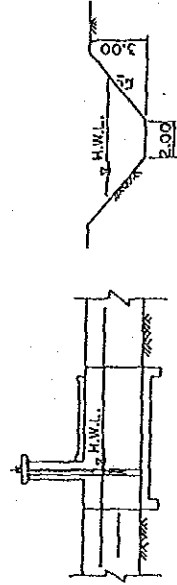


TRASH RAKE

BY-PASS CANAL



PLAN



CHECK GATE

TYPICAL SECTION

Figure-23 Existing major Intake Structures on Bahr Yusef Canal

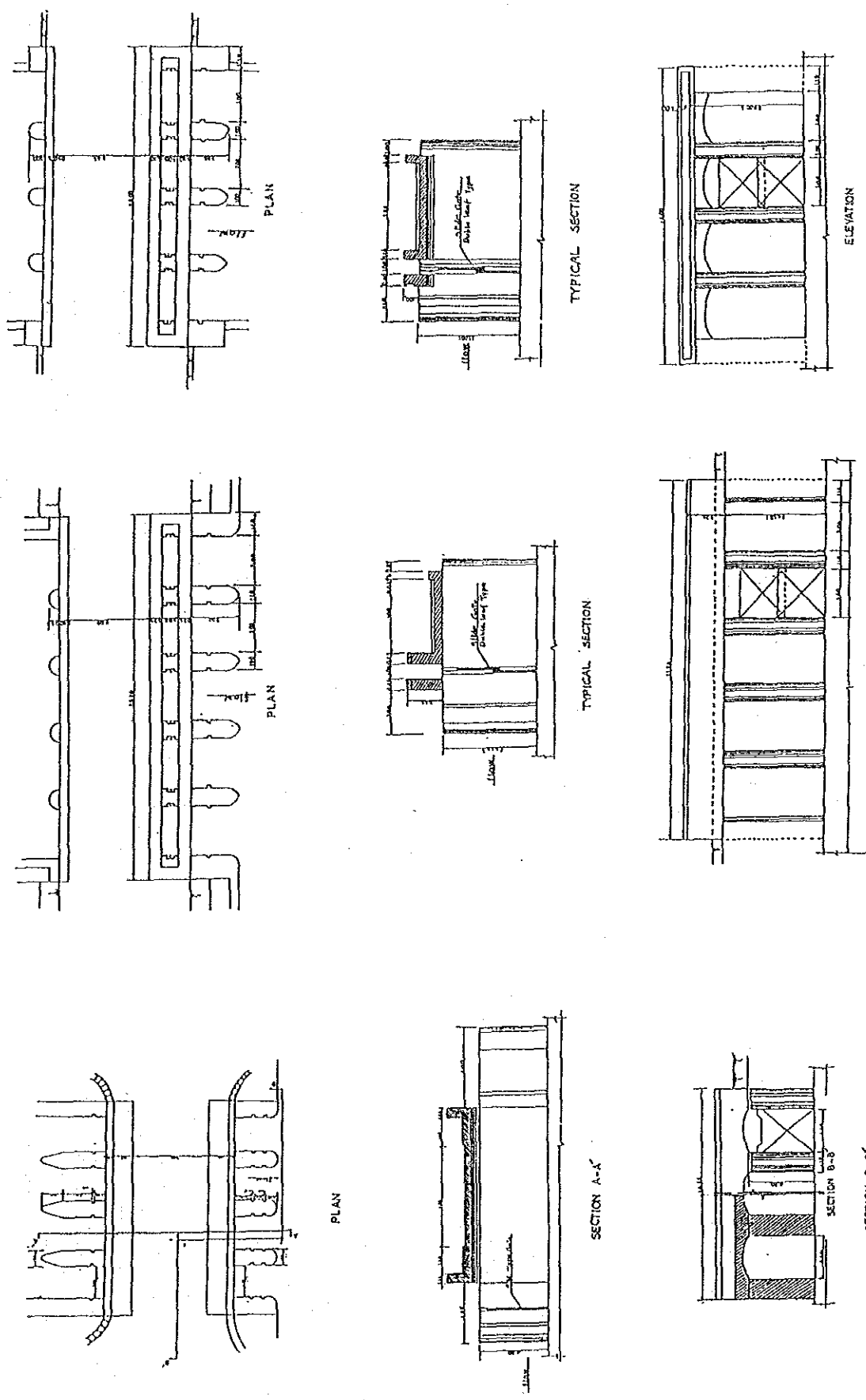


Figure-24 General Plan of Existing Intake and Regulator on Haika Branch Canal

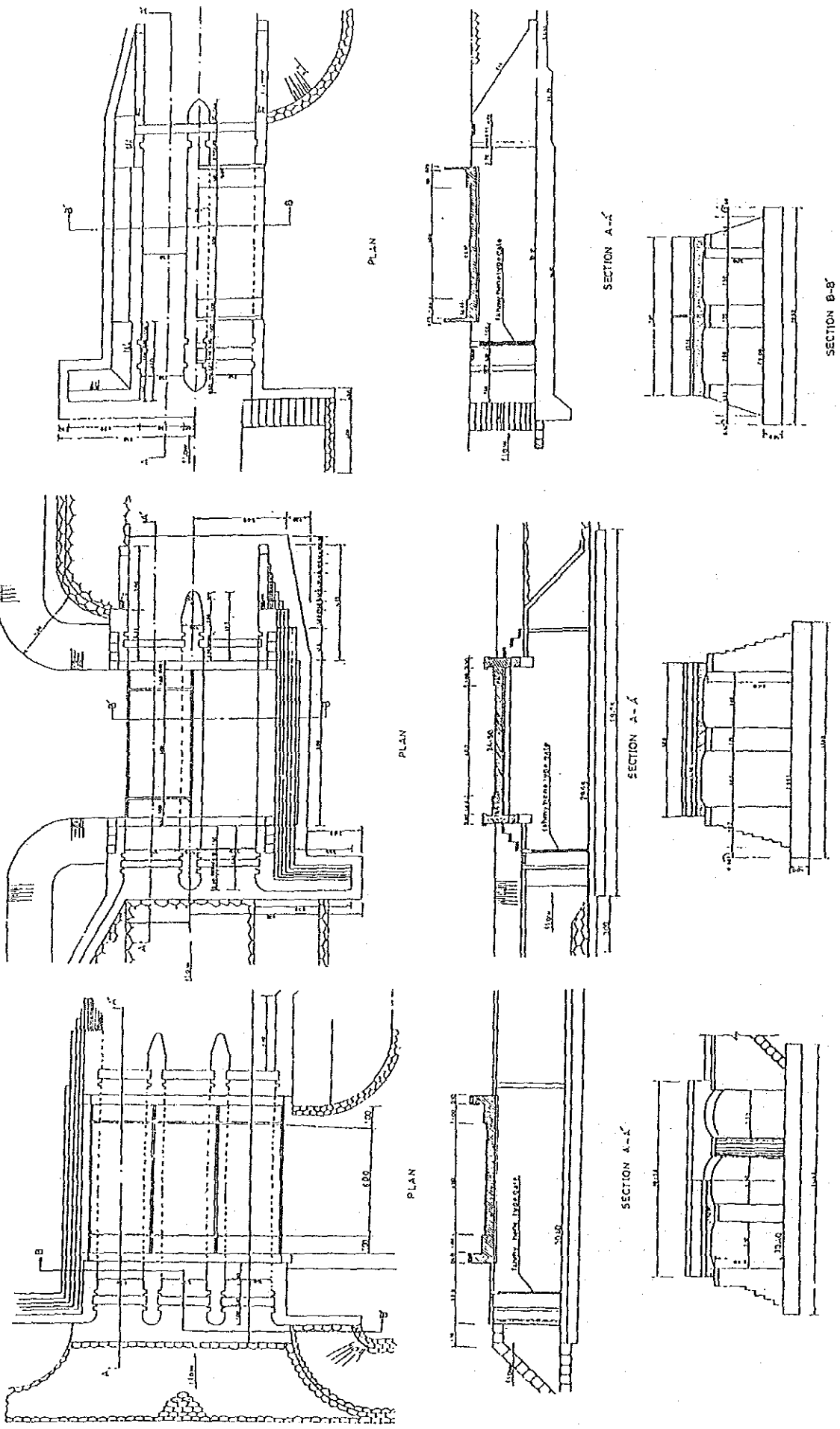
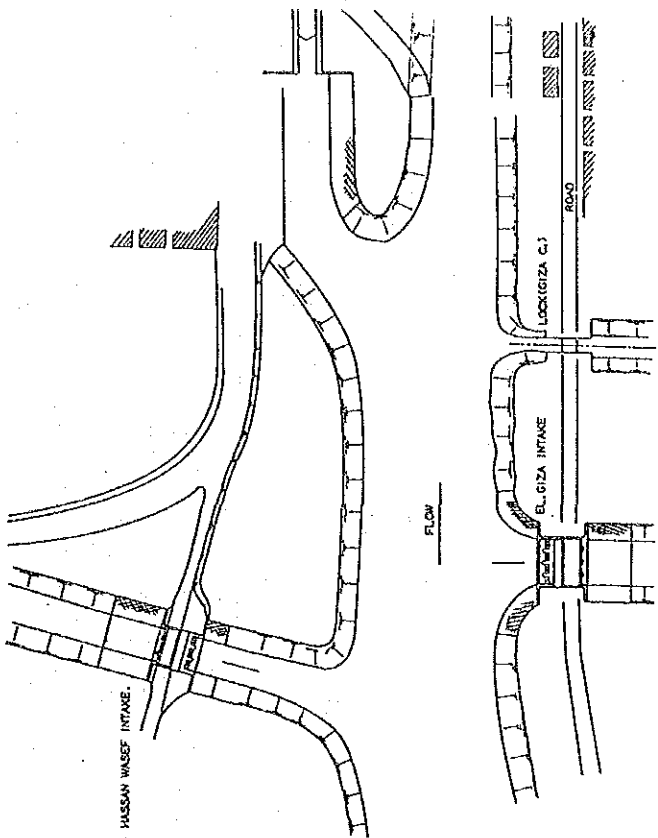




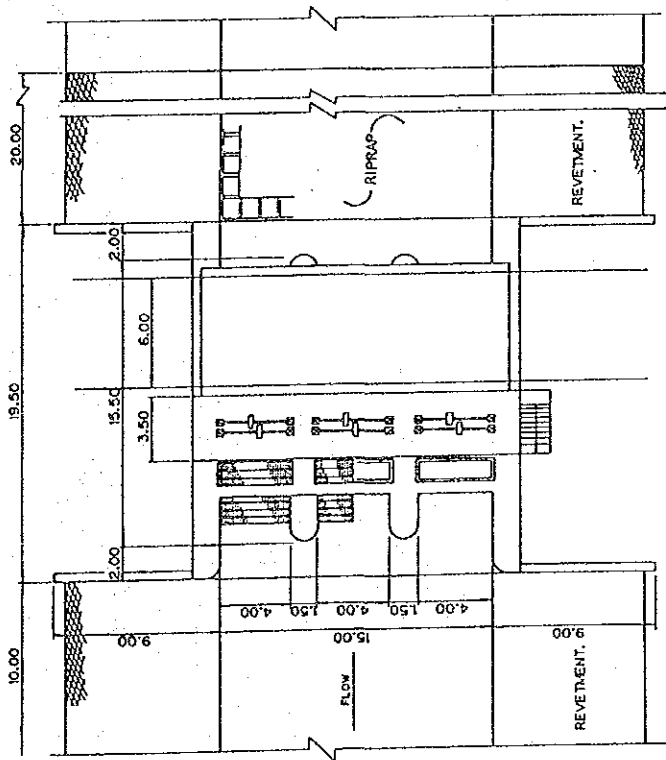




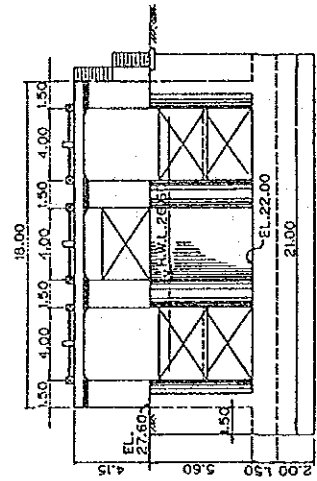
Figure-27 Proposed Plan of Large Scale Intake (Hassan Wasef Intake)



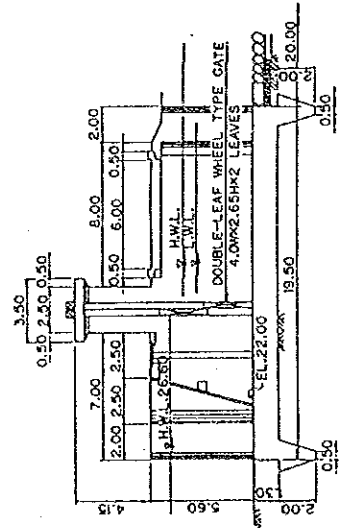
GENERAL PLAN



PLAN



ELEVATION



TYPICAL SECTION

Table- 1 Intake Structures on the Bahr Yusef Canal

Name of Canal	KM	Area Served (feddan)	Intake Structure					Canal				
			No. of Gate	Gate Type	Gate Width	Gate Height	Gate Sill Elevation	Bed Width	Side Slope	Canal Depth	Bed Slope (cm/Km)	Length (m)
Arb Bani Khalid	39.3	2,130	1	FH	2.50	2.10	40.70	2.0	1:1	1.7	6	
Arab Bani Khalid Pump Station		(2,500)										
Bani Khalid	42.6	2,220	1	FH	2.50	2.30	40.20	3.0	1:1	1.7	3	
Bani Khalid P.S		(3,500)										
Mossa	62.36	300	1	Slide	1.10	2.00	39.50	1.5	1:1	1.5	10	2,040
Asment	63.45	400	1	Slide	1.10	2.00	39.00	1.5	1:1	1.5	8	2,450
Balansoura	67.37	330	1	Slide	1.10	2.00	38.75	2.0	3:2	1.5	10	2,760
Soltan Hassan	69.24	200	1	Slide	1.10	2.00	39.00	1.5	1:1	1.5	10	2,040
Ainebt	74.74	200	1	Slide	1.10	2.00	38.70	1.5	1:1	1.7	Horizontal	1,560
Mabrok	75.38	300	1	Slide	1.10	2.00	38.50	1.5	1:1	1.7	5	3,380
Manshat El Dahb	77.3	50,400	4	FH	2.50	3.50	37.00	17.0	1:1	2.7	6	63,000
Ganbid Tokh	77.3	1,600	1	FH	2.00	2.60	38.70	3.5	1:1	1.7	8	14,650
Abo Rahel	77.3	5,620	1	Chain Slide	2.90	2.60	38.50	3.0	3:2	1.9	5	11,940
Kamadir 5 P.S	104.6	(8,720)										
Terfa 1 P.S	143.9	(14,649)										
El Bahnasa	173.4	4,700	1	FH	3.00	2.90	31.00	3.0	1:1	1.3	10	9,900
Saab (Sakola)	177.23	17,000	3	FH	2.50	3.60	30.40	9.0	3:2	1.85	6	23,015
Harika	177.23	18,800	3	FH	2.50	3.60	30.40	8.0	1:1	2.0	6	32,805
Sakoula 4 P.S	184.0	(13,164*)										

Note : FH - Fahmy Henen Gate, Manual - Steel Gate, \* Since the command area of the Sakoula 4 pump station was not available, the total command area of the Sakoula No. 5A (1,216 fed) and 5b (11,948 fed) pump stations is applied.

Source : Minia, Beni Suef and Faiyum Irrigation Directrates

Table- 2 (cont'd)

Name of Canal	KM	Area Served (feddan)	Intake Structure					Canal				
			No. of Gate	Gate Type	Gate Width	Gate Height	Gate Sill Elevation	Bed Width	Side Slope	Canal Depth	Bed Slope (cm/Km)	Length (m)
Mazoura O.P.S	219.5	(10,850)	-	-	-	-	-	10.0	3.2	2.5	10	10,000
Magror El Regha	228.8	200	No intake facility					1.0	3.2	1.0	15	1,110
Oftan	229.0	15,686	3	FH	2.0	4.0	26.80	10.0	1:1	2.0	10	17,460
El Bahsamon	249.0	2,500	1	Slide	1.0	1.2		2.0	1:1	2.0	10	6,500
Wady El Rayan	263.0	2,600	1	FH	2.0	3.7	25.00	4.0	1:1	2.5	10	2,600
El Assra	264.5	2,300	1	FH	2.0	2.5	25.20	3.0	1:1	2.0	10	10,450
Myana	264.8	2,000	1	Slide	1.2	1.3	25.20	2.0	1:1	2.0	10	4,730
Edrasya	269.5	500	1	Slide	1.0	2.5	24.80	1.0	1:1	1.5	10	4,200
Fanos	275.45	600	1	Slide	1.0	2.0	24.50	1.0	1:1	1.5	10	2,200
Waslat Bahabshin	283.7	2,270	1	Slide	1.0	2.5	24.00	2.0	1:1	1.5	5	3,720
Hawara		1,448	1	Slide	1.0	2.0		2.5	1:1	2.0	Horizontal	4,300
Ganabaia Giza	288.31	3,600	1	FH	2.0	3.2	24.90	2.0	1:1	2.0	15	5,500
Hassan Wasef	288.33	118,306	4	CSDL	3.0	5.1	22.00	15.0	1:1	5.0	7.5	13,555
El Giza	288.39	153,117**	5	CSDL	3.0	4.6	22.50	22.0	1:1	3.5	5	
El Hager	288.65	3,600	1	FH	3.0	3.0	25.10	3.5	1:1	2.0	10	15,500
Direct Irri.		10,179										
New Land		6,000										
Sadne by Irri. Pump Station		(6,000)										

Note: FH - Fahmy Hemen Gate, Manual - Steel Gate, \* The command area of the Mazoura 0 pump station is not available, therefore the command area of the Mazoura No.1 is applied. \*\* Including command area of 8,117 feddan in Beni Suef. CSDL : Chain Slide Double Leaf  
The figure in blankets is irrigated by the Bahr Yusef canal in summer season only due to shortage of water in the Ibrahimia cania.  
Source: Minia, Beni Suef, Giza and Faiyum Irrigation Directrates

Table- 3 (cont'd)

Name of Canal	KM	Area Served (feddan)	Intake Structure				Canal						
			No. of Gate	Gate Type	Gate Width	Gate Height	Gate Sill Elevation	Bed Width	Side Slope	Canal Depth	Bed Slope (cm/Km)	Length (m)	
El Agouz	288.70	1,266	1	Woodenstoplog	3.0	2.0	n.a		2.5		1.65		
Wahbi	299.195	71,410	2	FH	3.0	4.0	20.90		14.0	1:1	4.00	5	68,000
Abo Sier	306.23	2,254	1	Slide	1.2	2.3	22.00		2.5	1:1	1.5	5	4,510
Aroos	306.38	10,980	2	FH	1.0	3.0	20.50		6.0	1:1	1.5	5	9,605
El Mahagna	307.48	746	1	Slide	0.8	2.0	21.73		1.5	1:1	1.5	5	3,350
Baga	308.47	538	1	Slide	1.0	2.0	21.62		1.0	1:1	1.5	5	2,642
Solliman Desoki	308.874	2,351	1	Slide	1.0	2.6	21.15		3.0	1:1	1.05	4	7,740
Kohafa	309.184	612	1	Slide	2.0	3.5	20.50		1.0	1:1	2.8	5	2,000
El Ehlam	309.72	10,525	2	Slide	0.7/0.9	2.5/2.5	21.00		6.0	1:1	2.0	5	6,180
Dar El Ramad	310.02	831	1	Slide	0.7	3.0	21.06		2.5	1:1	1.9	5	2,525
Tanhala	311.168	21,169	4	Slide	1.0	2.9	20.65		7.0	1:1	2.12	20	14,900
Senories	311.34	27,963	2	Slide	1.5	2.8	20.72		6.0	1:1	3.7	10	10,500
Desia	312.70	19,193	2	Slide	1.5	2.2	20.80		7.0	1:1	2.6	8	4,750
El Zawia	312.70	10,471	2	Slide	1.5	2.8	20.20		5.0	1:1	2.2	5	8,380
Talat	312.70	12,923	2	Slide	1.5	2.5	20.50		7.0	1:1	2.8	7	3,200
El Gharbia	312.70	20,064	3	Slide	1.5	2.5	20.25		10.0	1:1	2.1	16	7,166
Senero	312.70	10,838	2	Slide	1.5	2.4	20.30		6.0	1:1	2.3	5	3,608
Sanhor	312.70	14,687	2	Slide	2.0	2.5	20.50		6.0	1:1	2.5	5	19,860

Note : FH - Fahmy Henen Gate, Manual - Steel Gate, USL Itk - Upstream left intake, USR Itk - Upstream right intake  
Source : Minia, Beni Suef and Faiyum Irrigation Directrates



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