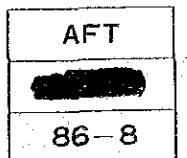
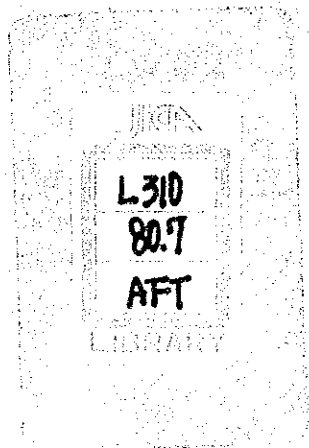


THE SULTANATE OF OMAN  
THE DETAILED DESIGN REPORT  
ON  
THE WADI JIZZI  
AGRICULTURAL DEVELOPMENT PROJECT  
TENDER DRAWINGS

JUNE 1986

JAPAN INTERNATIONAL COOPERATION AGENCY



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THE SULTANATE OF OMAN  
THE DETAILED DESIGN REPORT  
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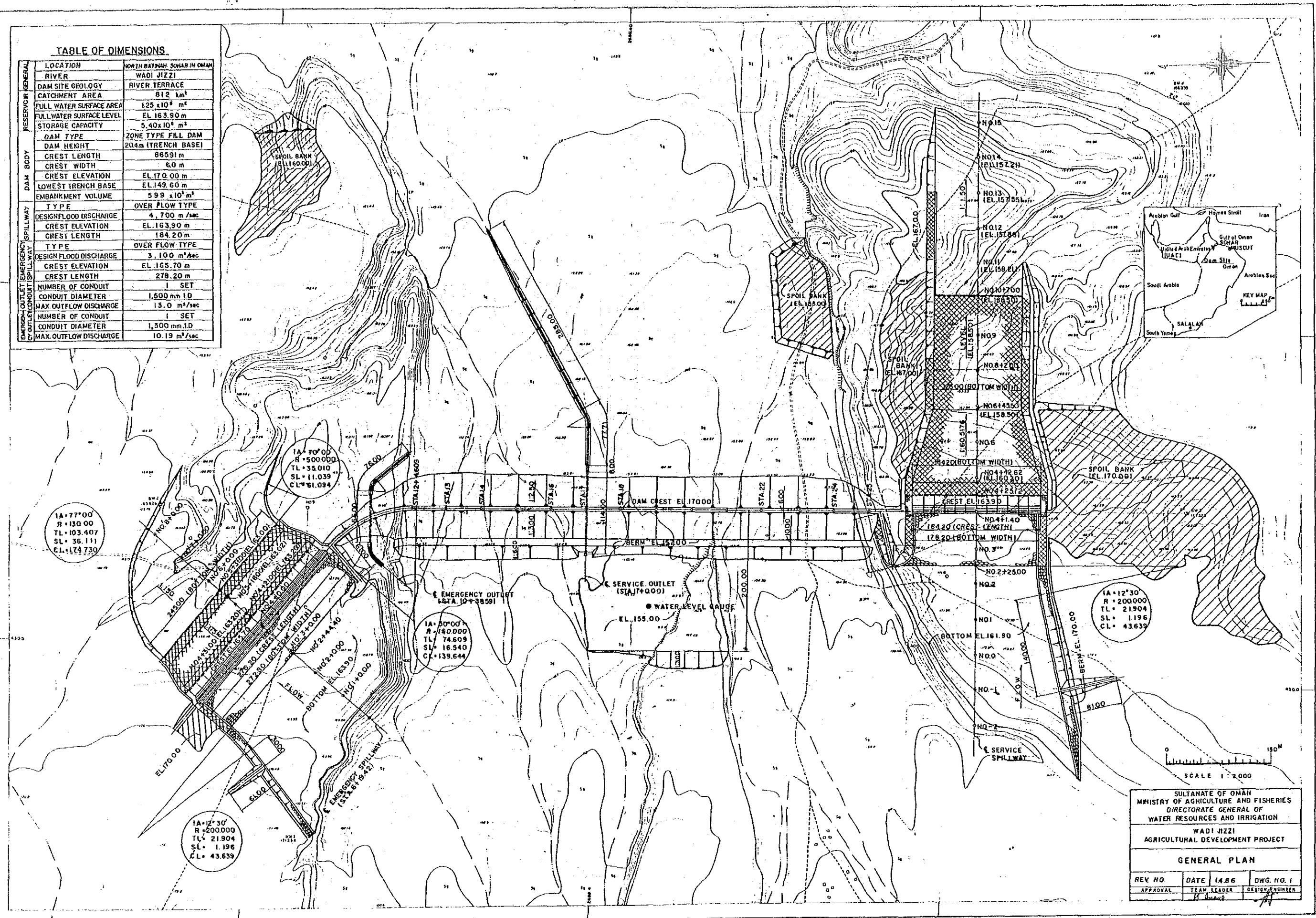
国際協力事業団	
受入 月日 '86.8.4-	L310
登録No. 15045	80.7 AFT

TENDER DRAWINGS

Dwg. No.1.	General Plan			Dwg. No.20.	Service Outlet	(5)	(Tailrace)
"	2.	Detention Dam	(1)	(Typical Section and Profile)	"	21.	Emergency Outlet (1) (Plan and Profile)
"	3.	"	(2)	(Cross Section)	"	22.	" (2) (Detail of Conduit Entrance)
"	4.	"	(3)	(Corss Section)	"	23.	" (3) (Trash Rack)
"	5.	Service Spillway	(1)	(Profile & Plan)	"	24.	" (4) (Steel Roller Gate)
"	6.	"	(2)	(Detail of Cross Section, Access Road)	"	25.	" (5) (Detail of Roller Gate Portion)
"	7.	"	(3)	(Typical Section of Weir)	"	26.	" (6) (Typical Section and Exist Section)
"	8.	"	(4)	(Detail of Staff Gauge)	"	27.	" (7) (Tailrace)
"	9.	"	(5)	(Detail of Weir)	"	28.	Dispersion Facilities (1) Location Map, Longitudinal Profile Typical Section, Connection Channel
"	10.	"	(6)	(Detail of Cross Section)	"	29.	" (2) Detail
"	11.	"	(7)	(Detail of Cross Section)	"	30.	" (3) Connection Channel
"	12.	Emergency Spillway	(1)	(Plan & Profile)	"	31.	Water Level Gauge
"	13.	"	(2)	(Detail of Weir and Typical Section)	"	32.	Observation Well
"	14.	"	(3)	(Typical Cross Section)	"	33.	Debris Deflectors
"	15.	"	(4)	(Weir and Staff Gauge)	"	34.	Associated Facilities
"	16.	Service Outlet	(1)	(Plan and Profile)	"	35.	Map of Water Surface
"	17.	"	(2)	(Drop Inlet and Trash Rack)	"	36.	Location Geometrics
"	18.	"	(3)	(Under Drain)	"	37.	Coffer Dam
"	19.	"	(4)	(Typical Section and Detail of Conduit)			

**TABLE OF DIMENSIONS.**

RESERVOIR GENERAL	LOCATION	NORTH BAYRAH, SOHAR IN OMAN
	RIVER	WADI JIZZI
	DAM SITE GEOLOGY	RIVER TERRACE
	CATCHMENT AREA	812 km <sup>2</sup>
	FULL WATER SURFACE AREA	125 x 10 <sup>6</sup> m <sup>2</sup>
DAM BODY	FULL WATER SURFACE LEVEL	EL. 163.90 m
	STORAGE CAPACITY	5.40 x 10 <sup>6</sup> m <sup>3</sup>
	DAM TYPE	ZONE TYPE FILL DAM
	DAM HEIGHT	204m (TRENCH BASE)
	CREST LENGTH	86591 m
DESIGN FLOOD DISCHARGE	CREST WIDTH	6.0 m
	CREST ELEVATION	EL. 170.00 m
	LOWEST TRENCH BASE	EL. 149.60 m
	EMBANKMENT VOLUME	599 x 10 <sup>6</sup> m <sup>3</sup>
	TYPE	OVER FLOW TYPE
DESIGN FLOOD DISCHARGE	DESIGN FLOOD DISCHARGE	4.700 m <sup>3</sup> /sec
	CREST ELEVATION	EL. 163.90 m
	CREST LENGTH	184.20 m
	TYPE	OVER FLOW TYPE
	DESIGN FLOOD DISCHARGE	3.100 m <sup>3</sup> /sec
CONDUIT	CREST ELEVATION	EL. 165.70 m
	CREST LENGTH	278.20 m
	NUMBER OF CONDUIT	1 SET
	CONDUIT DIAMETER	1,500 mm I.D.
	MAX. OUTFLOW DISCHARGE	13.0 m <sup>3</sup> /sec
CONDUIT	NUMBER OF CONDUIT	1 SET
	CONDUIT DIAMETER	1,500 mm I.D.
	MAX. OUTFLOW DISCHARGE	10.19 m <sup>3</sup> /sec

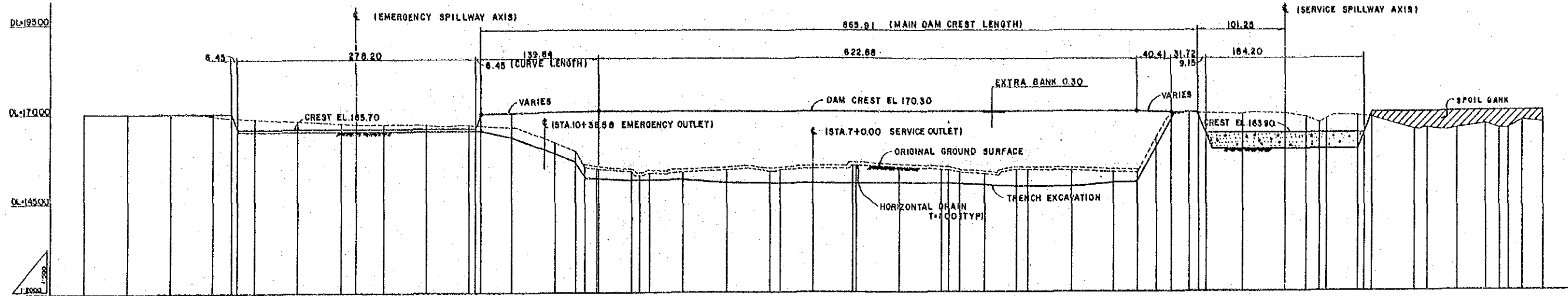


SULTANATE OF OMAN  
 MINISTRY OF AGRICULTURE AND FISHERIES  
 DIRECTORATE GENERAL OF  
 WATER RESOURCES AND IRRIGATION

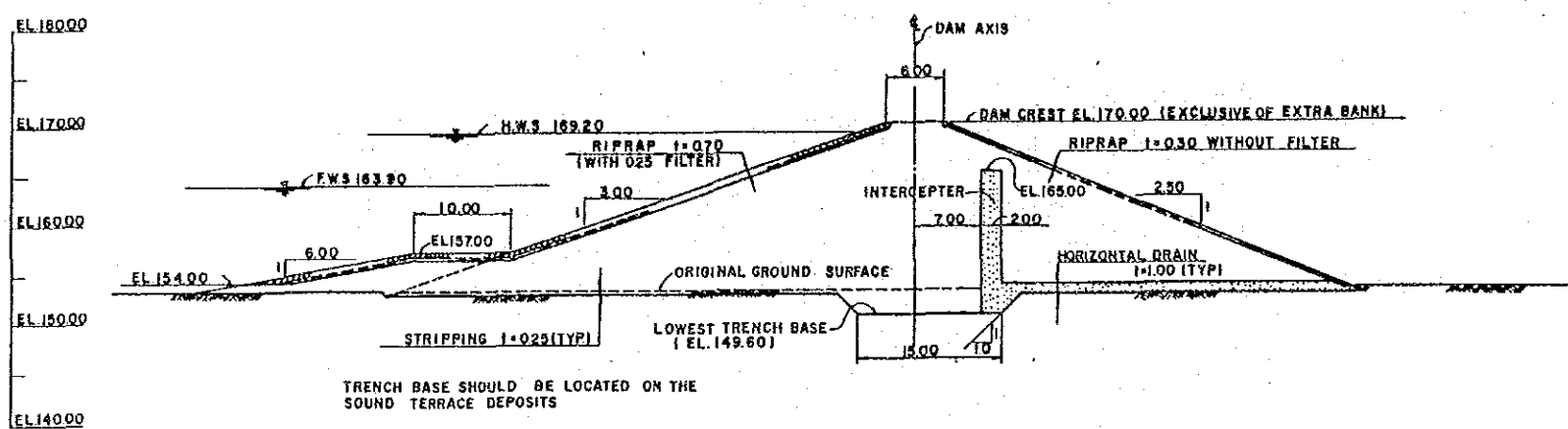
WADI JIZZI  
 AGRICULTURAL DEVELOPMENT PROJECT

**GENERAL PLAN**

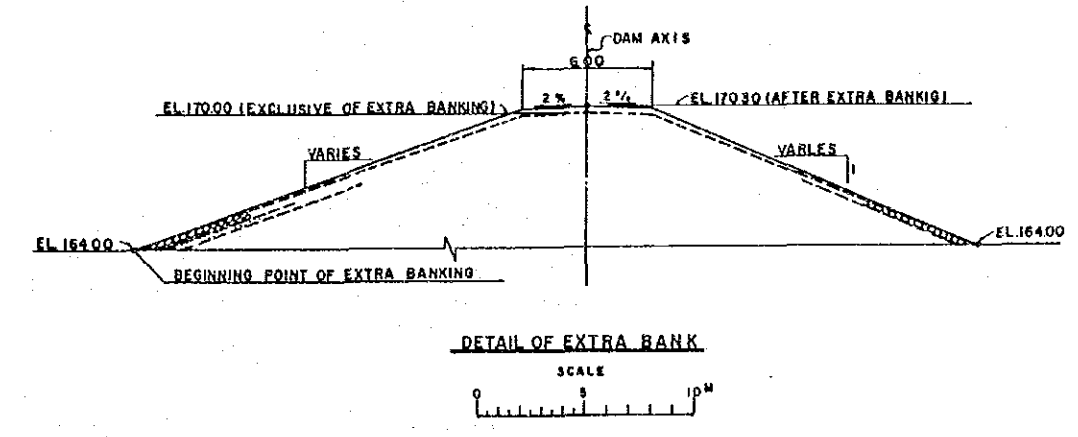
REV. NO.	DATE	14.8.86	DWG. NO. 1
APPROVAL	TEAM LEADER		DESIGN ENGINEER



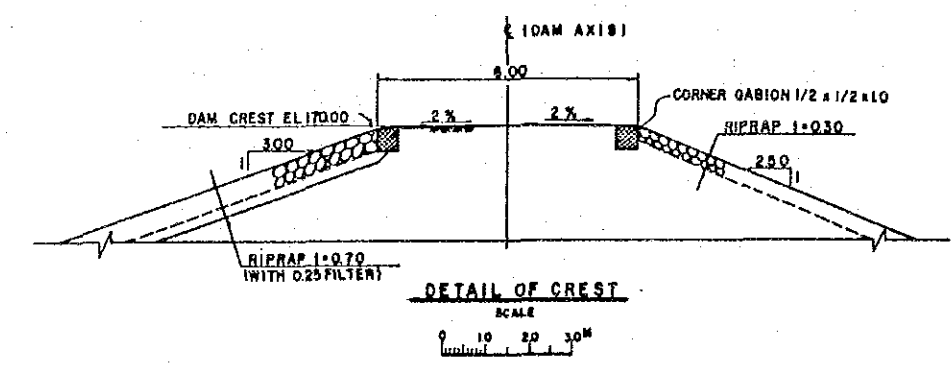
STATION	DISTANCE	TOTAL DISTANCE	GROUND ELEVATION	TRENCH EXCAVATION ELEVATION	DAM CREST ELEVATION
STA. 0	0.00	0.00	170.34		
STA. 1	30.00	30.00	170.00		
STA. 2	50.00	50.00	170.24		
STA. 3	80.00	80.00	168.47		170.00
STA. 4	100.00	100.00	168.88		170.00
STA. 5	150.00	150.00	168.90		168.70
STA. 6	200.00	200.00	167.82		168.70
STA. 7	250.00	250.00	166.89		168.70
STA. 8	300.00	300.00	165.00		168.70
STA. 9	350.00	350.00	165.00		168.70
STA. 10	400.00	400.00	164.03		170.00
STA. 11	450.00	450.00	162.06		170.00
STA. 12	500.00	500.00	160.30		170.00
STA. 13	550.00	550.00	158.50		170.00
STA. 14	600.00	600.00	156.70		170.00
STA. 15	650.00	650.00	154.90		170.00
STA. 16	700.00	700.00	153.10		170.00
STA. 17	750.00	750.00	151.30		170.00
STA. 18	800.00	800.00	149.50		170.00
STA. 19	850.00	850.00	147.70		170.00
STA. 20	900.00	900.00	145.90		170.00
STA. 21	950.00	950.00	144.10		170.00
STA. 22	1000.00	1000.00	142.30		170.00
STA. 23	1050.00	1050.00	140.50		170.00
STA. 24	1100.00	1100.00	138.70		170.00
STA. 25	1150.00	1150.00	136.90		170.00
STA. 26	1200.00	1200.00	135.10		170.00
STA. 27	1250.00	1250.00	133.30		170.00
STA. 28	1300.00	1300.00	131.50		170.00
STA. 29	1350.00	1350.00	129.70		170.00
STA. 30	1400.00	1400.00	127.90		170.00
STA. 31	1450.00	1450.00	126.10		170.00
STA. 32	1500.00	1500.00	124.30		170.00
STA. 33	1550.00	1550.00	122.50		170.00
STA. 34	1600.00	1600.00	120.70		170.00
STA. 35	1650.00	1650.00	118.90		170.00
STA. 36	1700.00	1700.00	117.10		170.00
STA. 37	1750.00	1750.00	115.30		170.00
STA. 38	1800.00	1800.00	113.50		170.00
STA. 39	1850.00	1850.00	111.70		170.00
STA. 40	1900.00	1900.00	109.90		170.00
STA. 41	1950.00	1950.00	108.10		170.00
STA. 42	2000.00	2000.00	106.30		170.00
STA. 43	2050.00	2050.00	104.50		170.00
STA. 44	2100.00	2100.00	102.70		170.00
STA. 45	2150.00	2150.00	100.90		170.00
STA. 46	2200.00	2200.00	99.10		170.00
STA. 47	2250.00	2250.00	97.30		170.00
STA. 48	2300.00	2300.00	95.50		170.00
STA. 49	2350.00	2350.00	93.70		170.00
STA. 50	2400.00	2400.00	91.90		170.00
STA. 51	2450.00	2450.00	90.10		170.00
STA. 52	2500.00	2500.00	88.30		170.00
STA. 53	2550.00	2550.00	86.50		170.00
STA. 54	2600.00	2600.00	84.70		170.00
STA. 55	2650.00	2650.00	82.90		170.00
STA. 56	2700.00	2700.00	81.10		170.00
STA. 57	2750.00	2750.00	79.30		170.00
STA. 58	2800.00	2800.00	77.50		170.00
STA. 59	2850.00	2850.00	75.70		170.00
STA. 60	2900.00	2900.00	73.90		170.00
STA. 61	2950.00	2950.00	72.10		170.00
STA. 62	3000.00	3000.00	70.30		170.00
STA. 63	3050.00	3050.00	68.50		170.00
STA. 64	3100.00	3100.00	66.70		170.00
STA. 65	3150.00	3150.00	64.90		170.00
STA. 66	3200.00	3200.00	63.10		170.00
STA. 67	3250.00	3250.00	61.30		170.00
STA. 68	3300.00	3300.00	59.50		170.00
STA. 69	3350.00	3350.00	57.70		170.00
STA. 70	3400.00	3400.00	55.90		170.00
STA. 71	3450.00	3450.00	54.10		170.00
STA. 72	3500.00	3500.00	52.30		170.00
STA. 73	3550.00	3550.00	50.50		170.00
STA. 74	3600.00	3600.00	48.70		170.00
STA. 75	3650.00	3650.00	46.90		170.00
STA. 76	3700.00	3700.00	45.10		170.00
STA. 77	3750.00	3750.00	43.30		170.00
STA. 78	3800.00	3800.00	41.50		170.00
STA. 79	3850.00	3850.00	39.70		170.00
STA. 80	3900.00	3900.00	37.90		170.00
STA. 81	3950.00	3950.00	36.10		170.00
STA. 82	4000.00	4000.00	34.30		170.00
STA. 83	4050.00	4050.00	32.50		170.00
STA. 84	4100.00	4100.00	30.70		170.00
STA. 85	4150.00	4150.00	28.90		170.00
STA. 86	4200.00	4200.00	27.10		170.00
STA. 87	4250.00	4250.00	25.30		170.00
STA. 88	4300.00	4300.00	23.50		170.00
STA. 89	4350.00	4350.00	21.70		170.00
STA. 90	4400.00	4400.00	19.90		170.00
STA. 91	4450.00	4450.00	18.10		170.00
STA. 92	4500.00	4500.00	16.30		170.00
STA. 93	4550.00	4550.00	14.50		170.00
STA. 94	4600.00	4600.00	12.70		170.00
STA. 95	4650.00	4650.00	10.90		170.00
STA. 96	4700.00	4700.00	9.10		170.00
STA. 97	4750.00	4750.00	7.30		170.00
STA. 98	4800.00	4800.00	5.50		170.00
STA. 99	4850.00	4850.00	3.70		170.00
STA. 100	4900.00	4900.00	1.90		170.00



TYPICAL SECTION  
SCALE 1:300



DETAIL OF EXTRA BANK  
SCALE 1:100

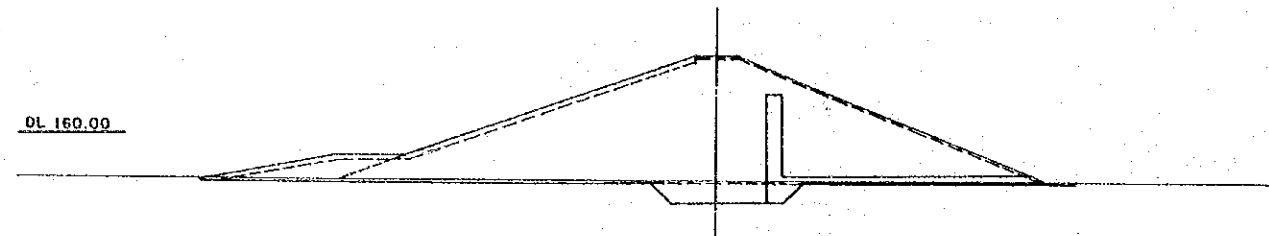


DETAIL OF CREST  
SCALE 1:300

SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
DETENTION DAM (1) (TYPICAL SECTION AND PROFILE)			
REV. NO	DATE	1.4.88	DWG. NO. 2
APPROVAL	TEAM LEADER		DESIGN ENGINEER

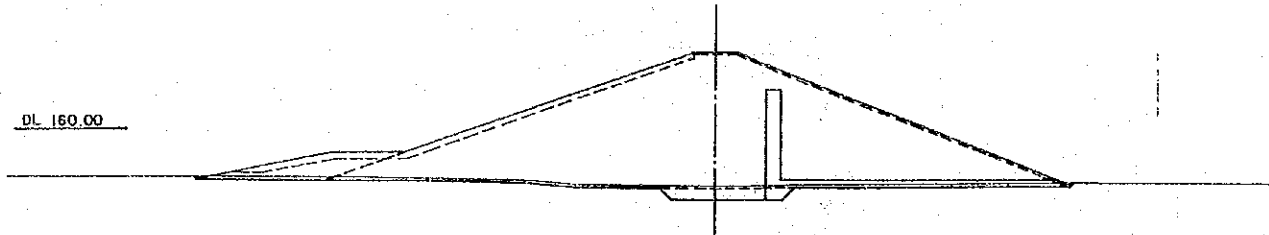
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STA. 14  
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 GH = 153.33



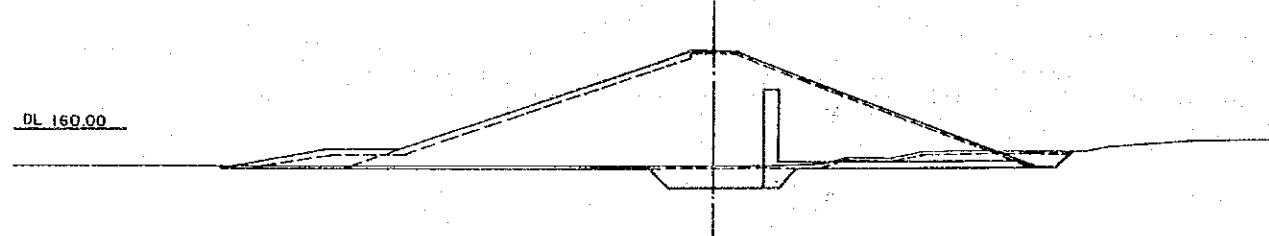
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STA. 13  
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 GH = 152.48



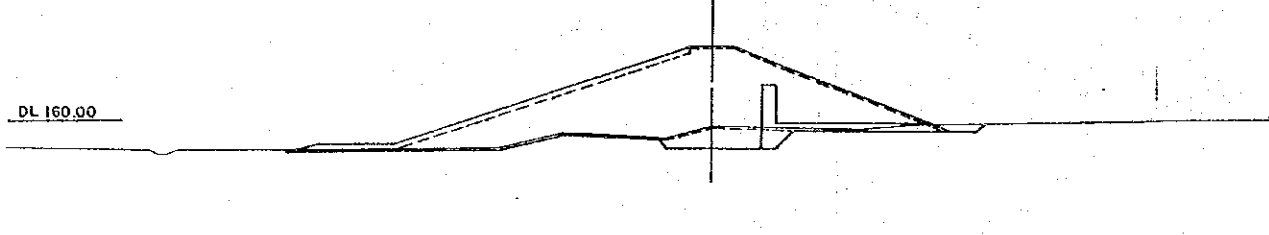
DL 160.00

STA. 11+39.72  
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 GH = 154.51



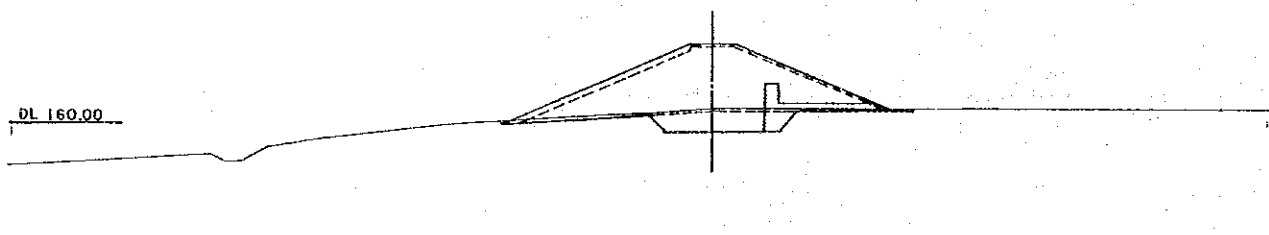
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STA. 11+25.43  
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 GH = 159.55



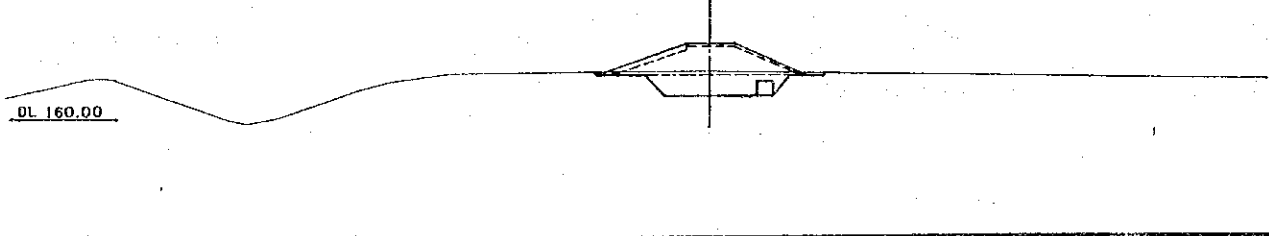
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STA. 11  
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 GH = 161.65



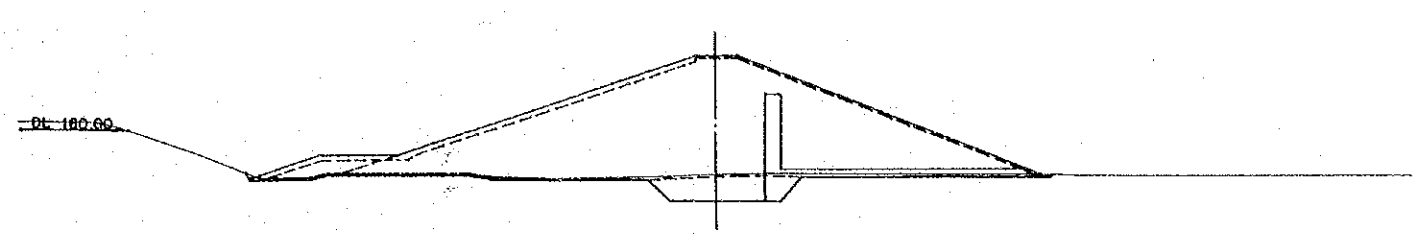
DL 160.00

STA. 9+14.96 (B.P.)  
 TH =  
 GH = 166.58



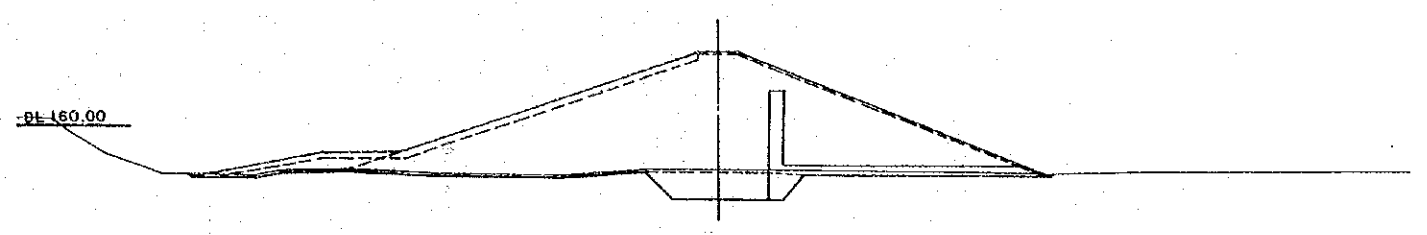
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STA. 20+8.66  
 TH = 154.1401  
 GH = 153.981



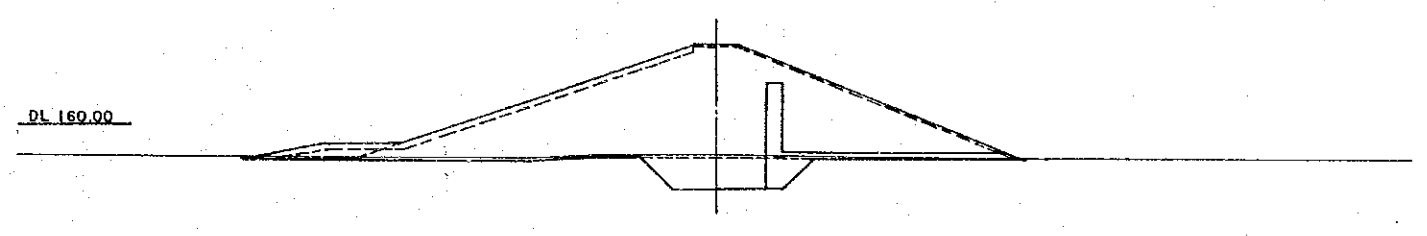
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 GH = 154.23



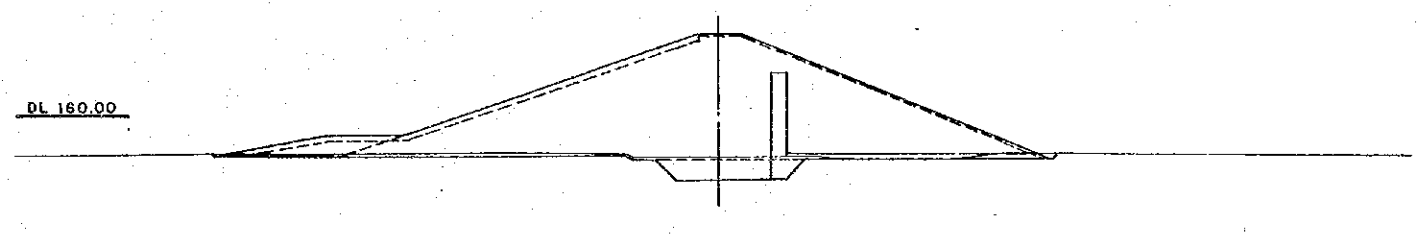
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STA. 18  
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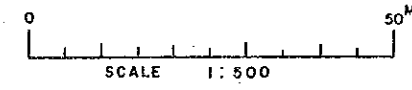
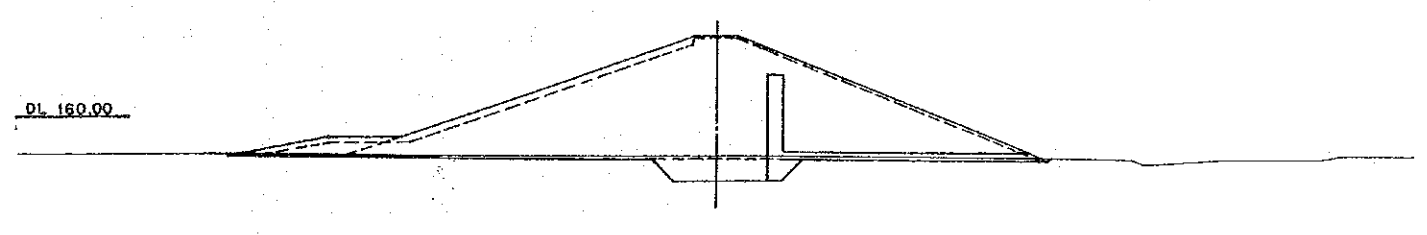
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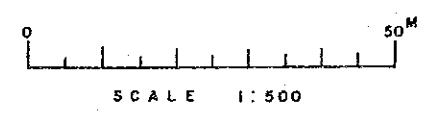
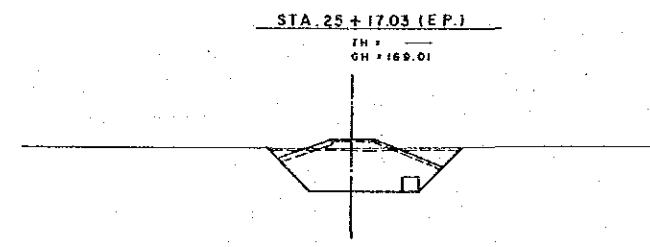
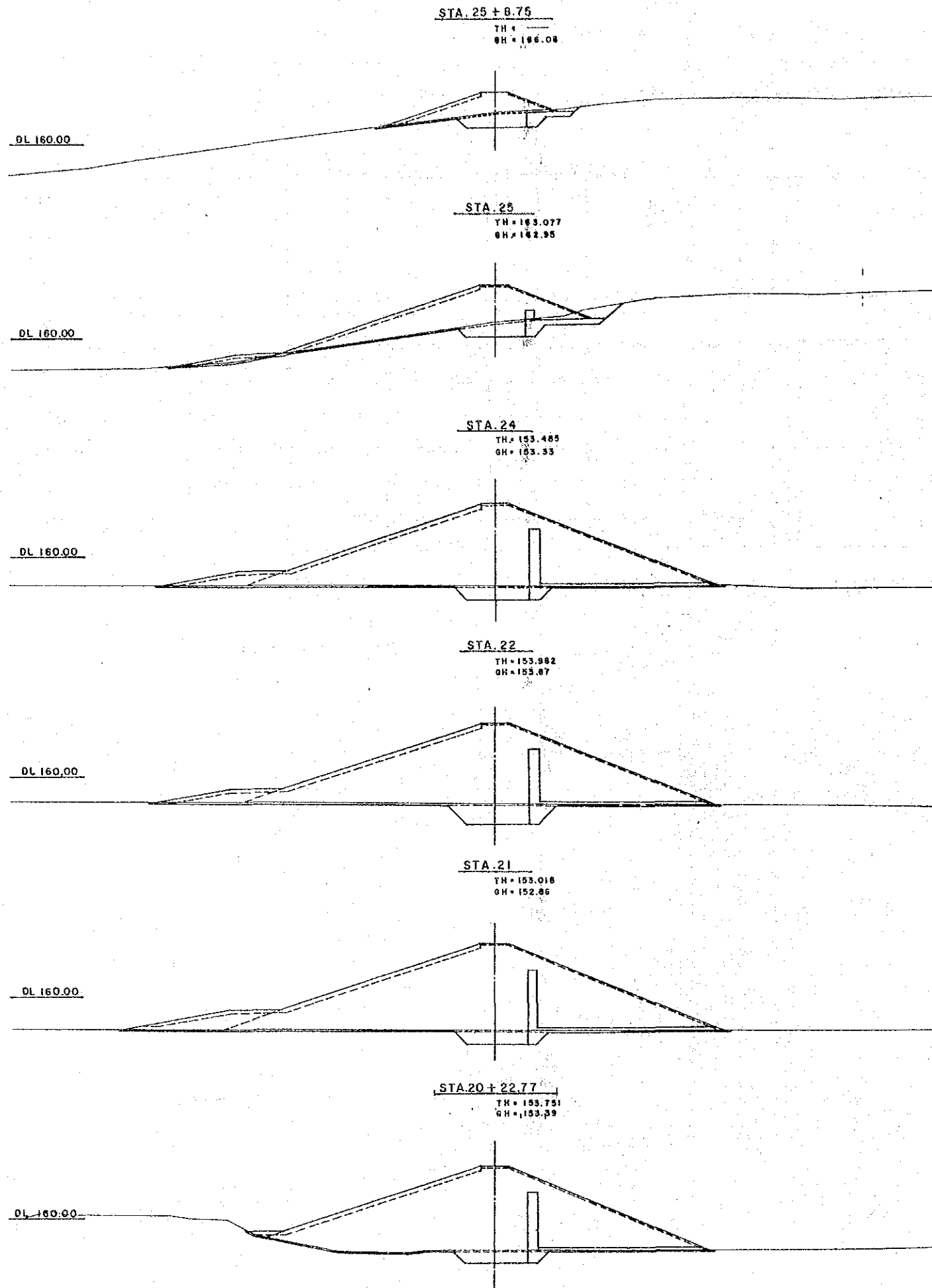
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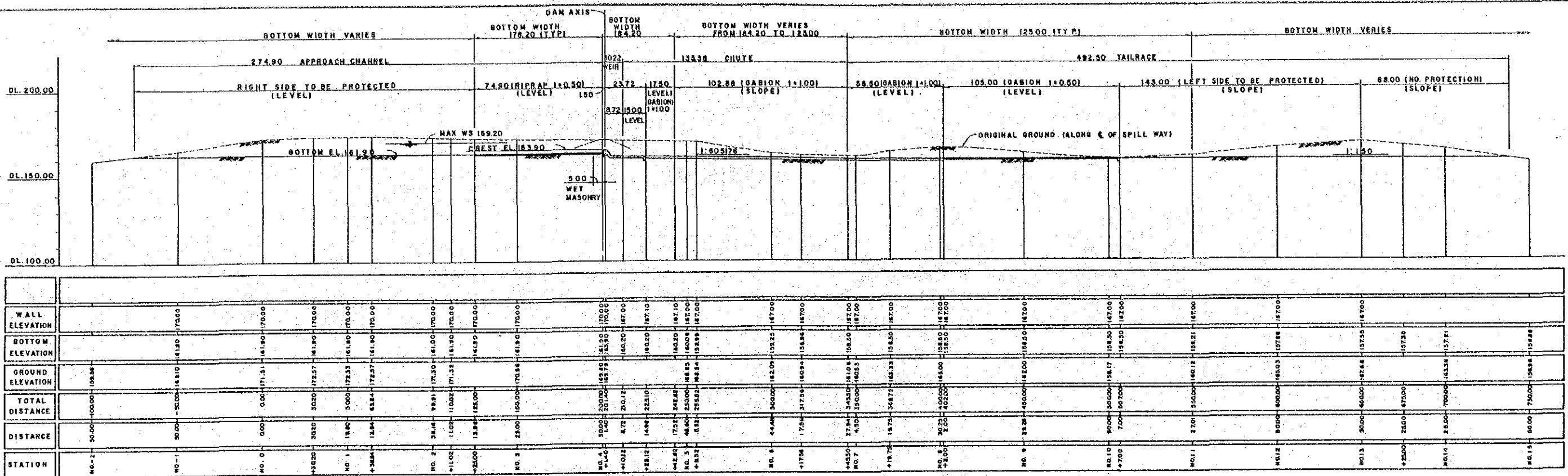


SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
DETENTION DAM (2)			
(CROSS SECTION (1))			
REV. NO.	DATE	1. 4. 86	DWG. NO. 3
APPROVAL	TEAM LEADER	DESIGN ENGINEER	
	<i>K. Anwar</i>	<i>[Signature]</i>	



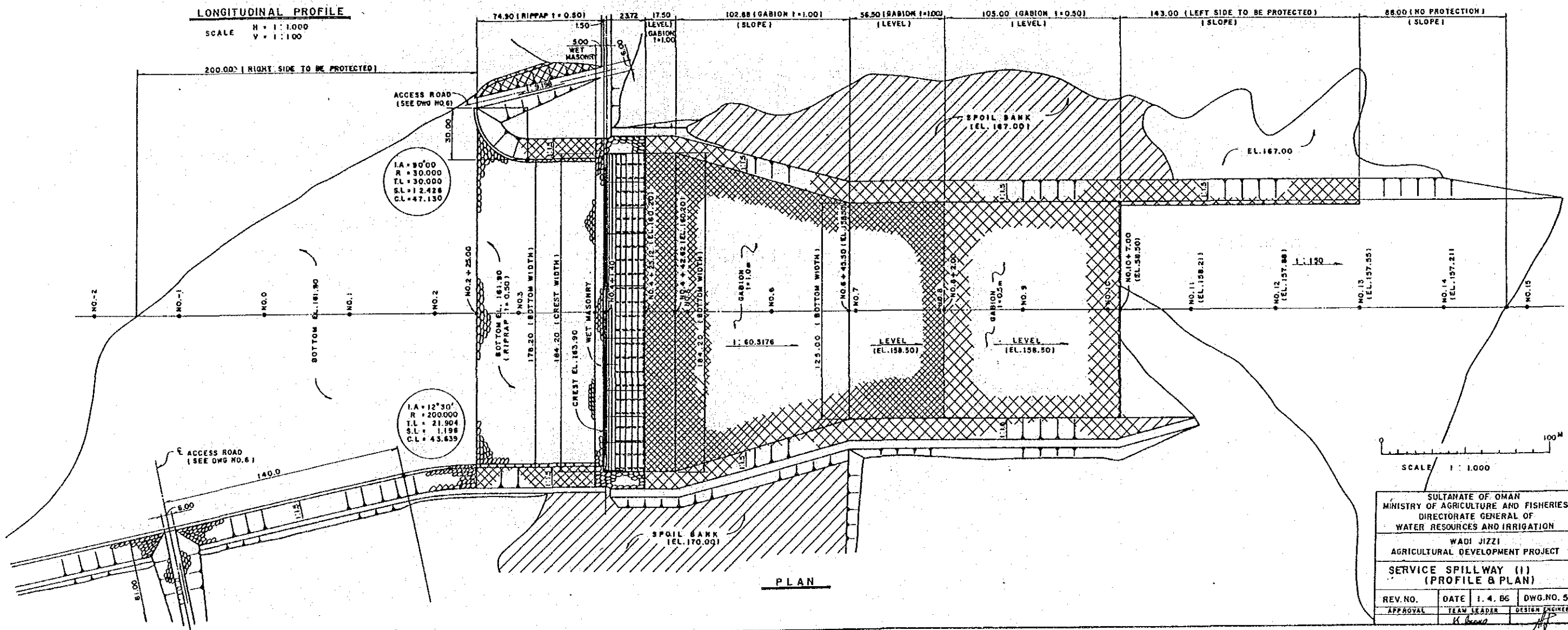


SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
DETENTION DAM (3)			
( CROSS SECTION (2) )			
REV.NO.	DATE	1.4.86	DWG.NO.4
APPROVAL	TEAM LEADER	<i>K. Anwar</i>	DESIGN ENGINEER



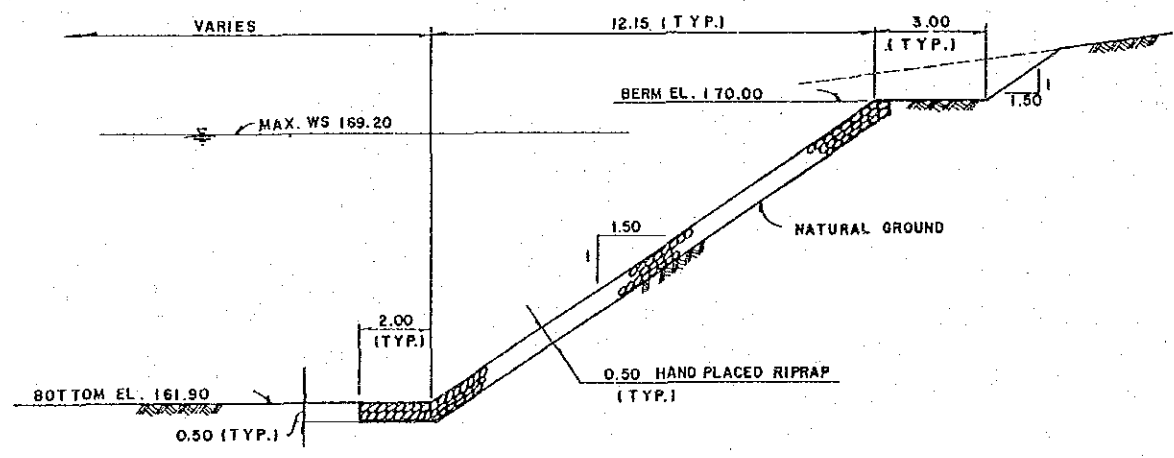
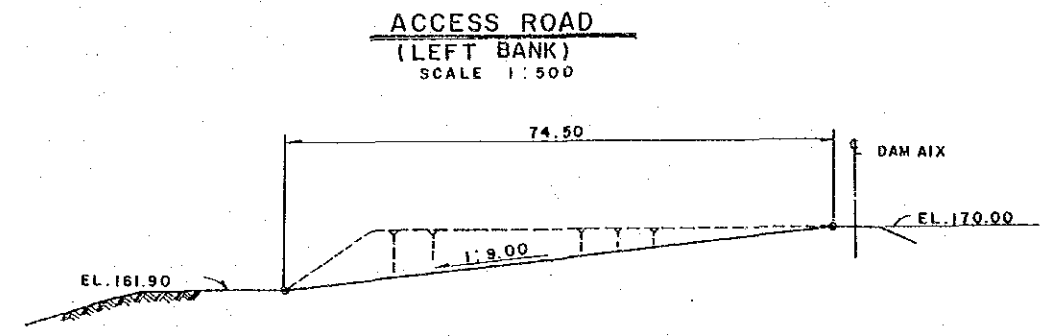
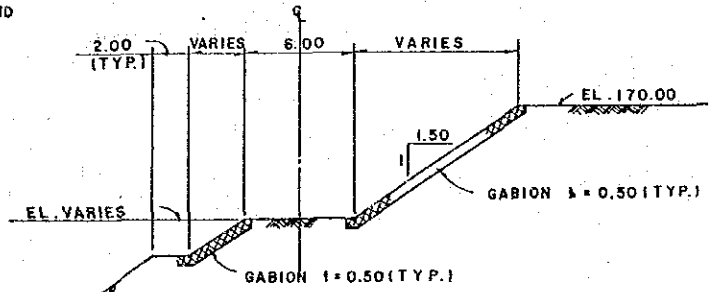
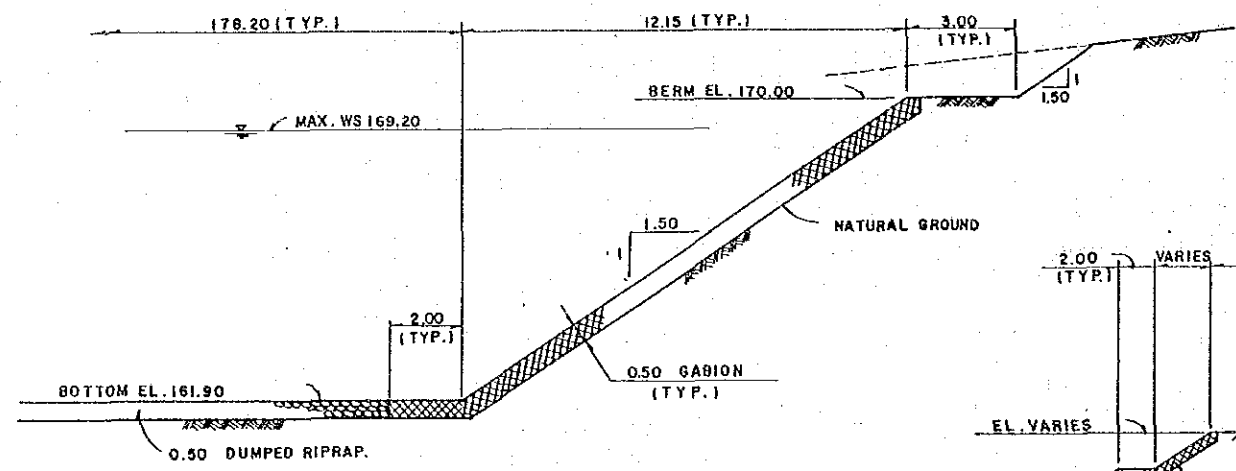
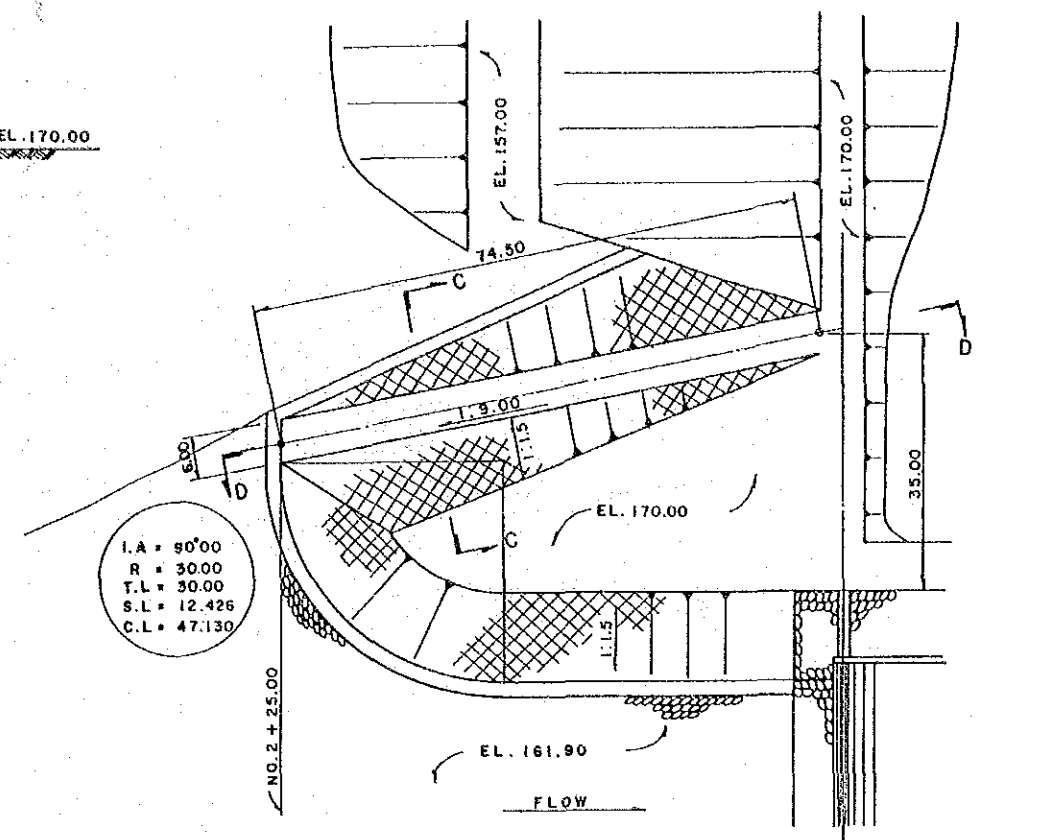
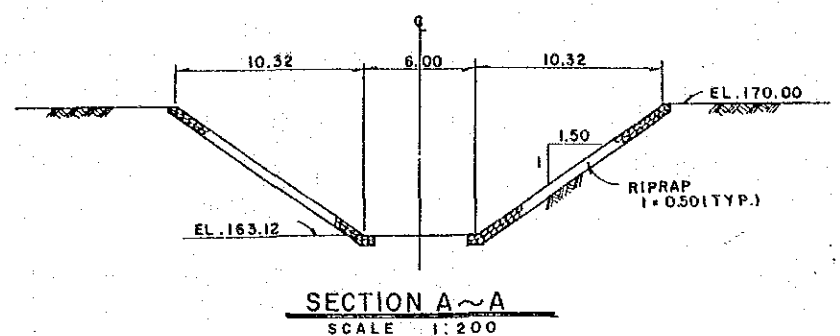
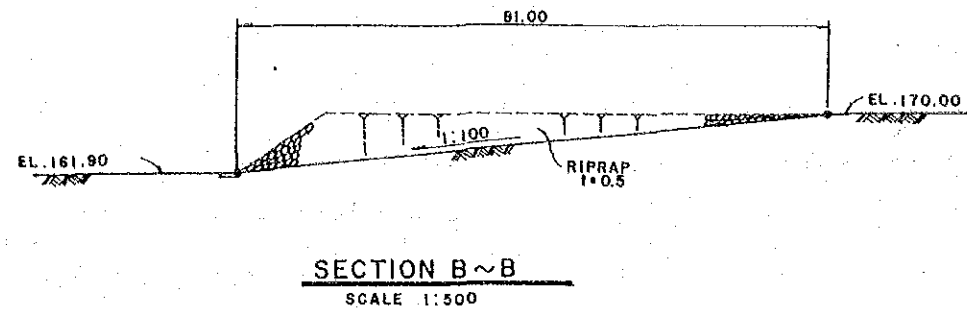
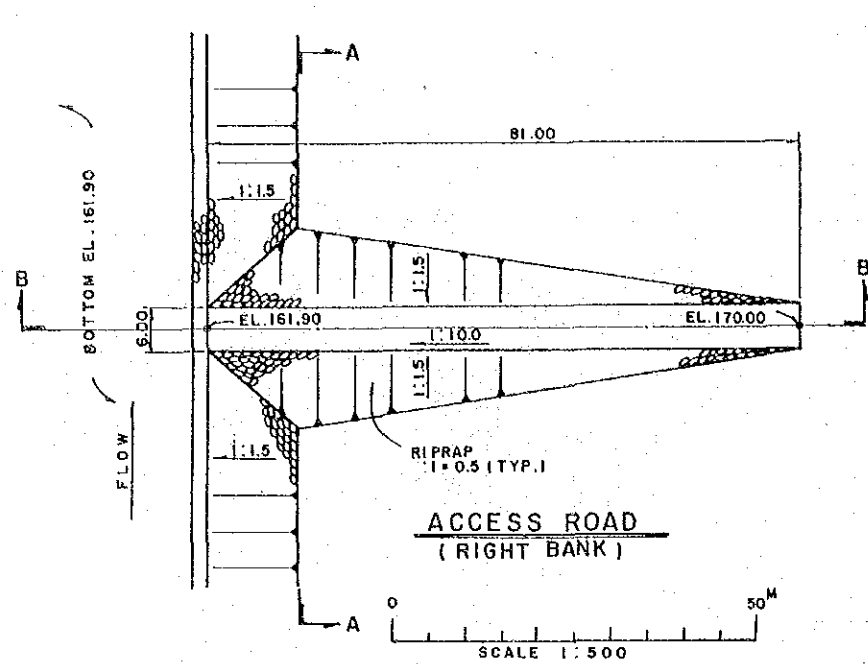
**LONGITUDINAL PROFILE**

SCALE H = 1 : 1,000  
V = 1 : 100

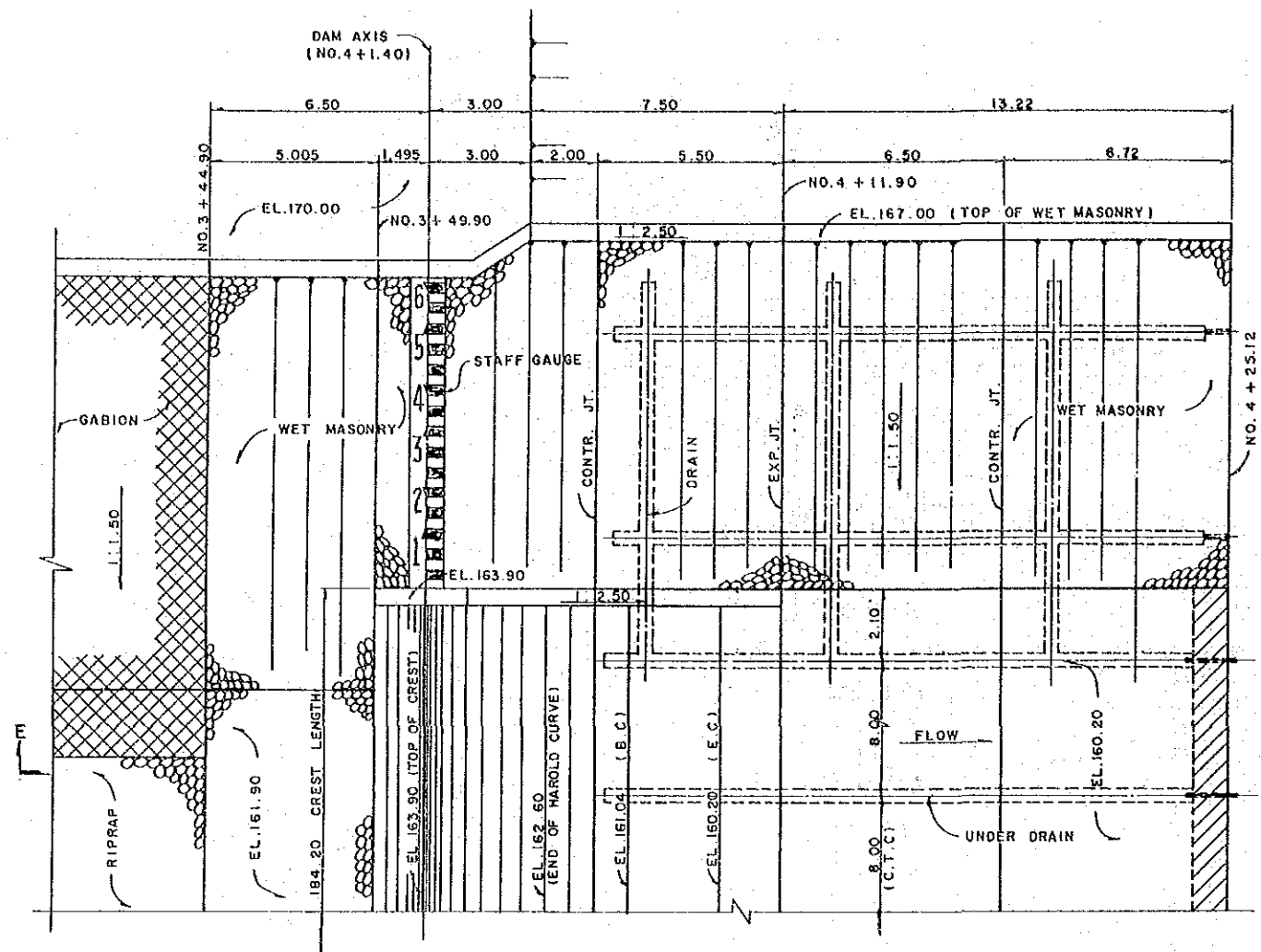


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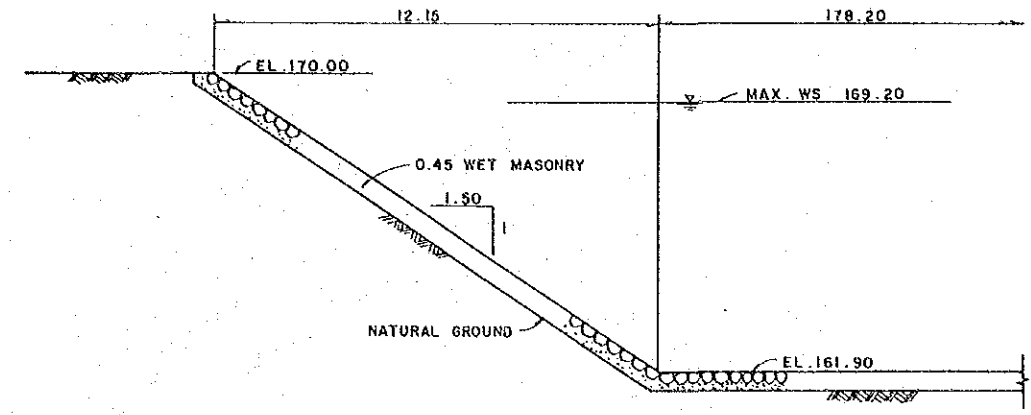
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (I) (PROFILE & PLAN)			
REV. NO.	DATE	1. 4. 86	DWG. NO. 5
APPROVAL	TEAM LEADER		DESIGN ENGINEER



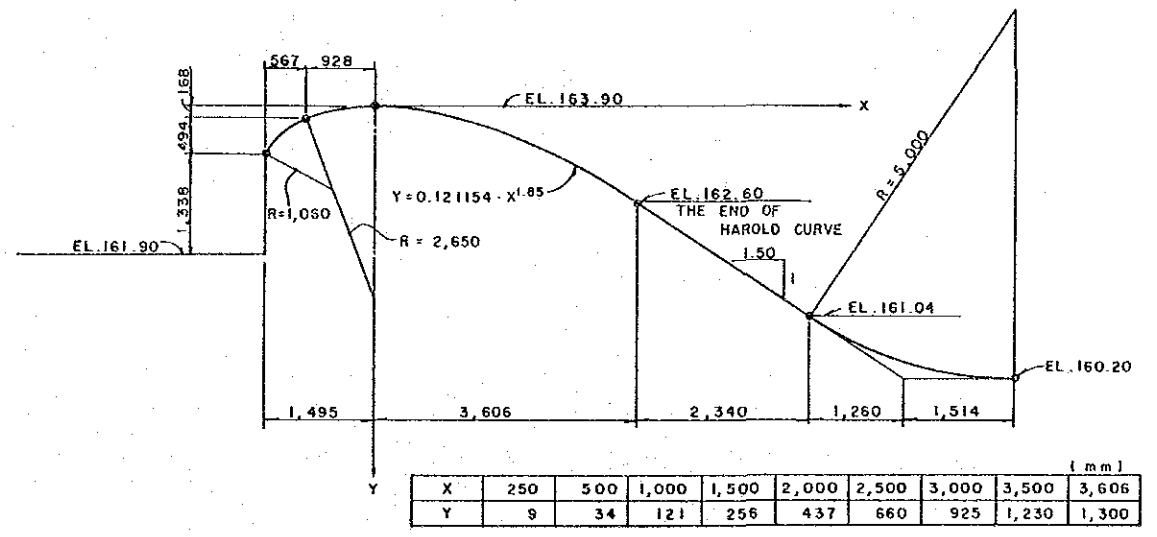
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (2)			
(DETAIL OF CROSS SECTION ACCESS ROAD)			
REV. NO.	DATE	1. 4. 86	DWG. NO. 6
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



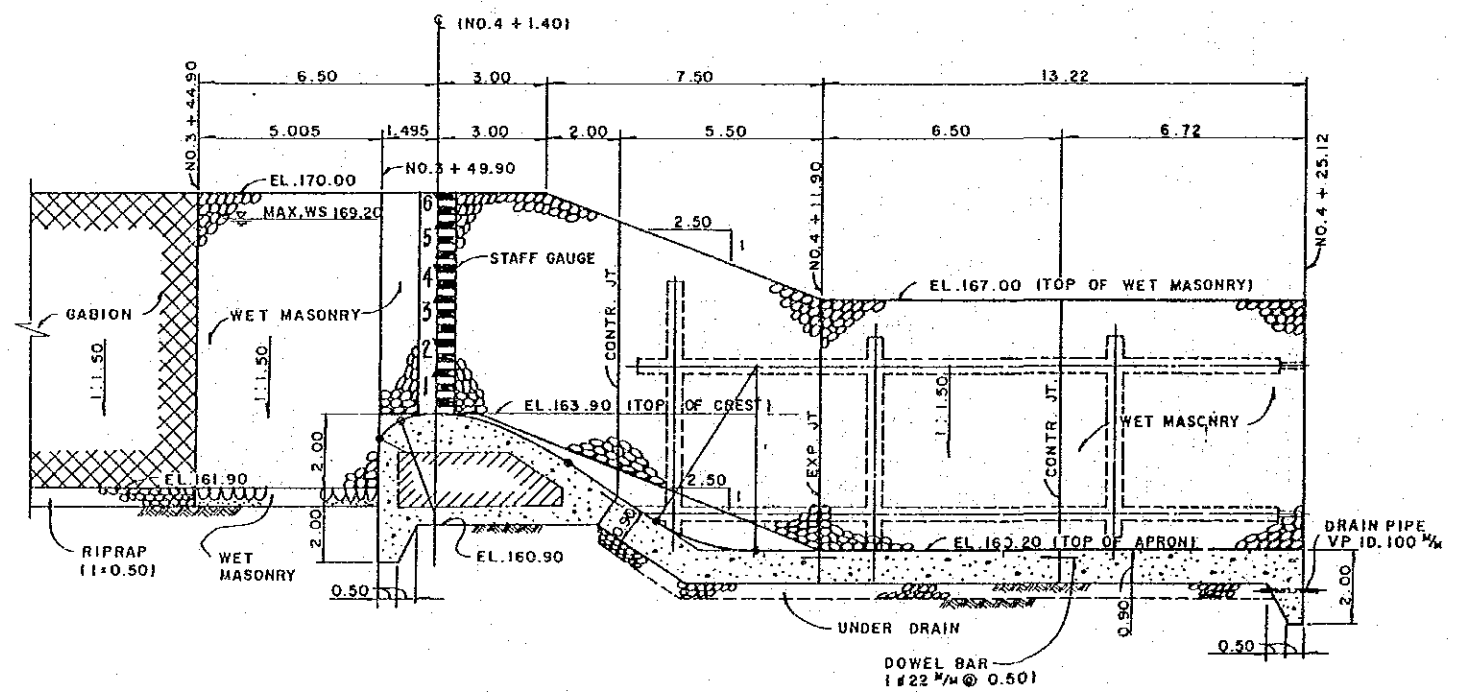
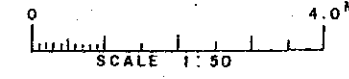
PLAN



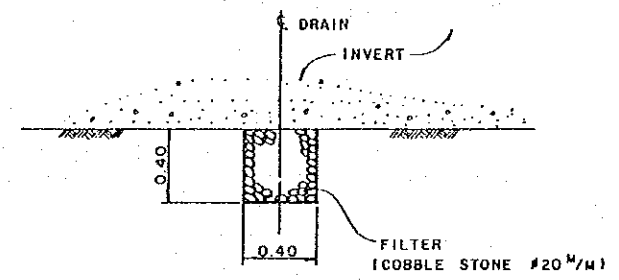
SLOPE PROTECTION (WET MASONRY)  
(NO.3 + 44.90 ~ NO.3 + 49.90)



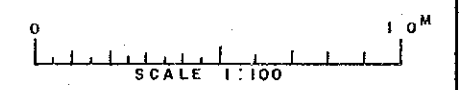
DIMENSION OF HAROLD CURVE



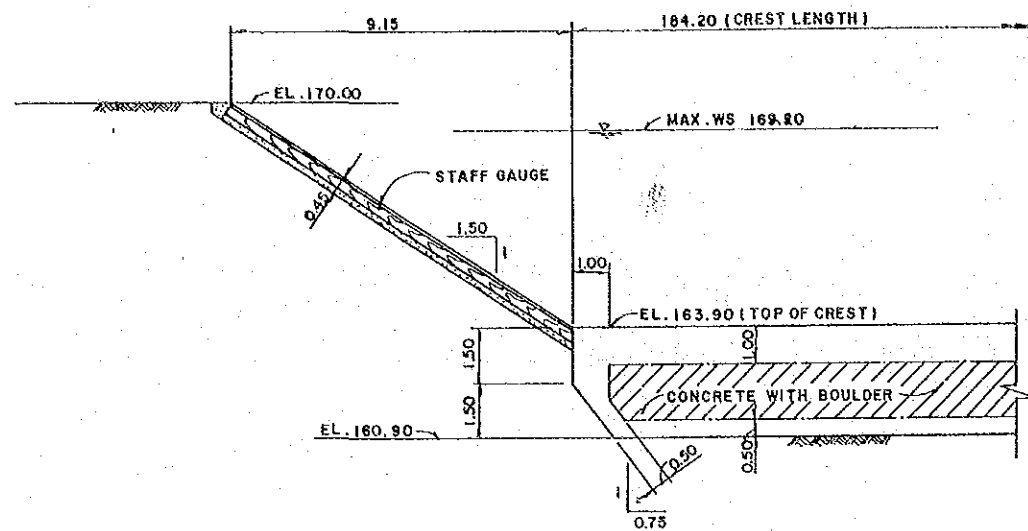
TYPICAL SECTION OF WEIR (SECTION E~E)



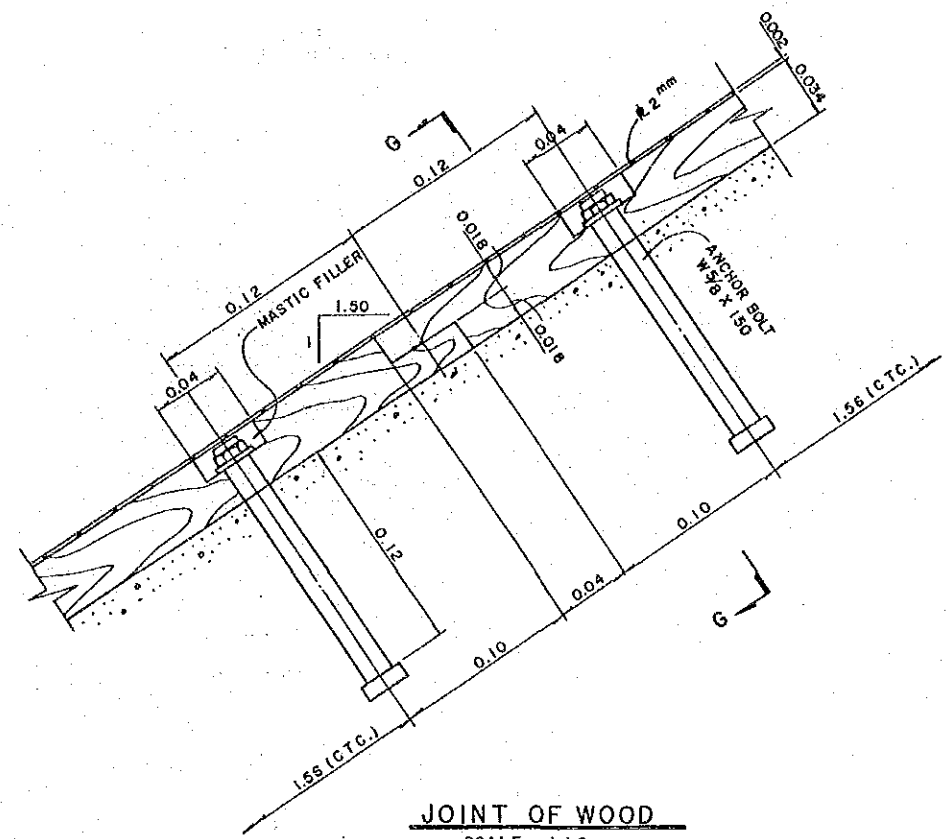
DETAIL OF UNDER DRAIN  
(NOT TO SCALE)



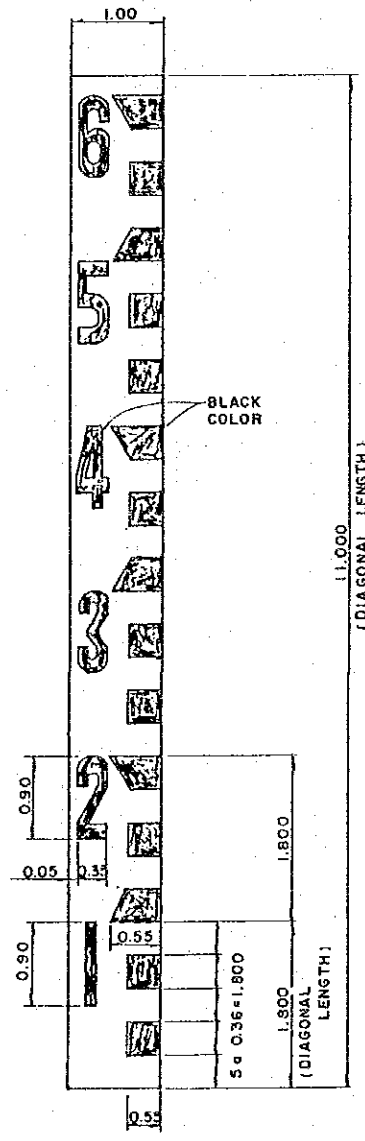
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (3)			
(TYPICAL SECTION OF WEIR)			
REV. NO.	DATE	1.4.86	DWG. NO. 7
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



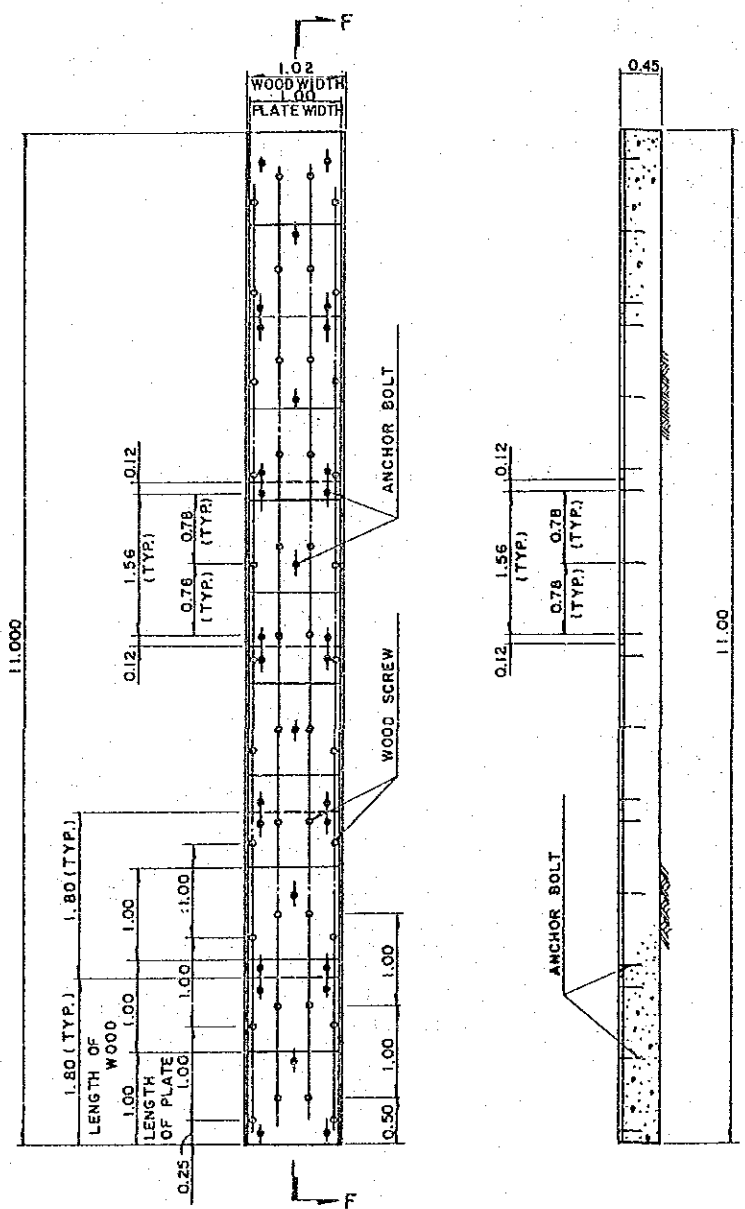
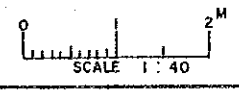
NO. 4 + 1.40  
SCALE 1:100



JOINT OF WOOD  
SCALE 1:2

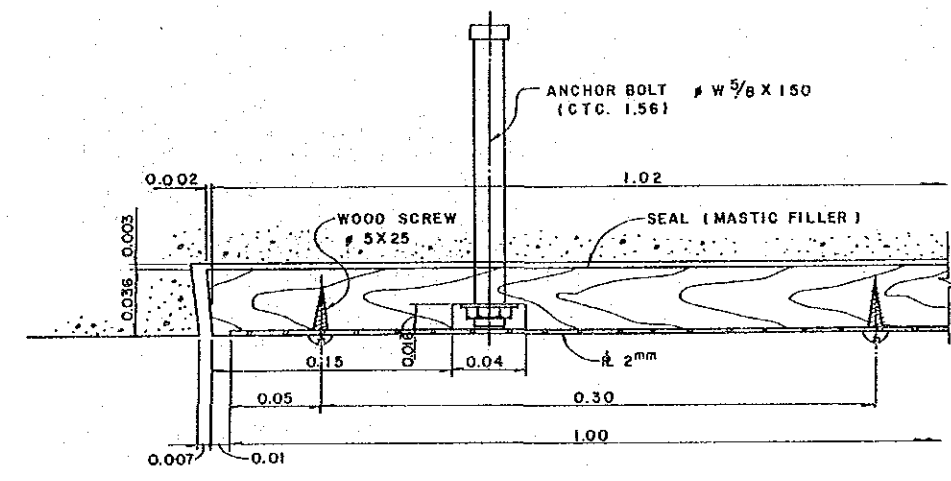


DETAIL OF READINGS

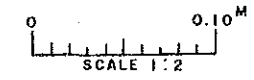


DETAIL OF ANCHORS  
SCALE 1:40

SECTION F~F  
SCALE 1:40

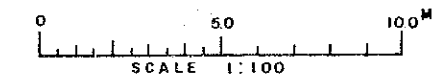
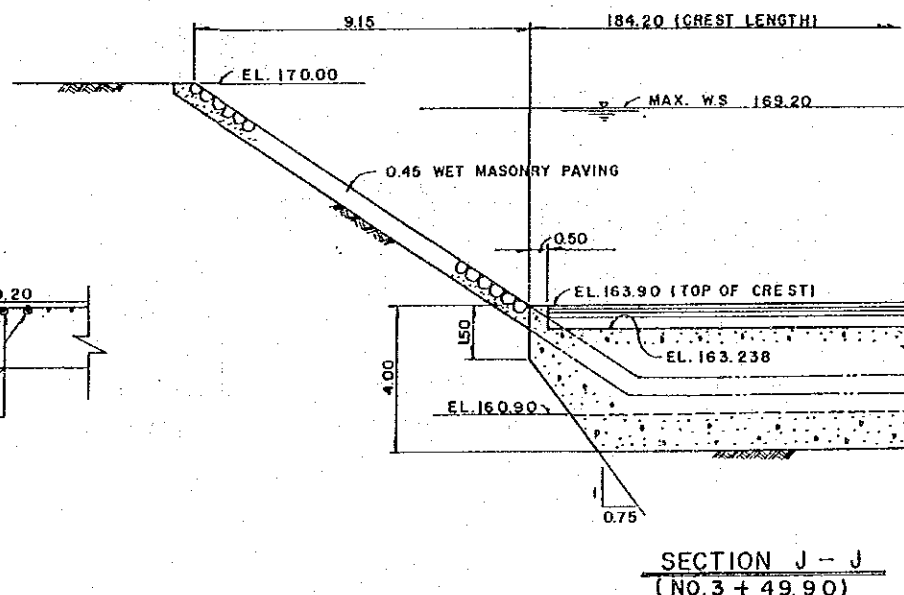
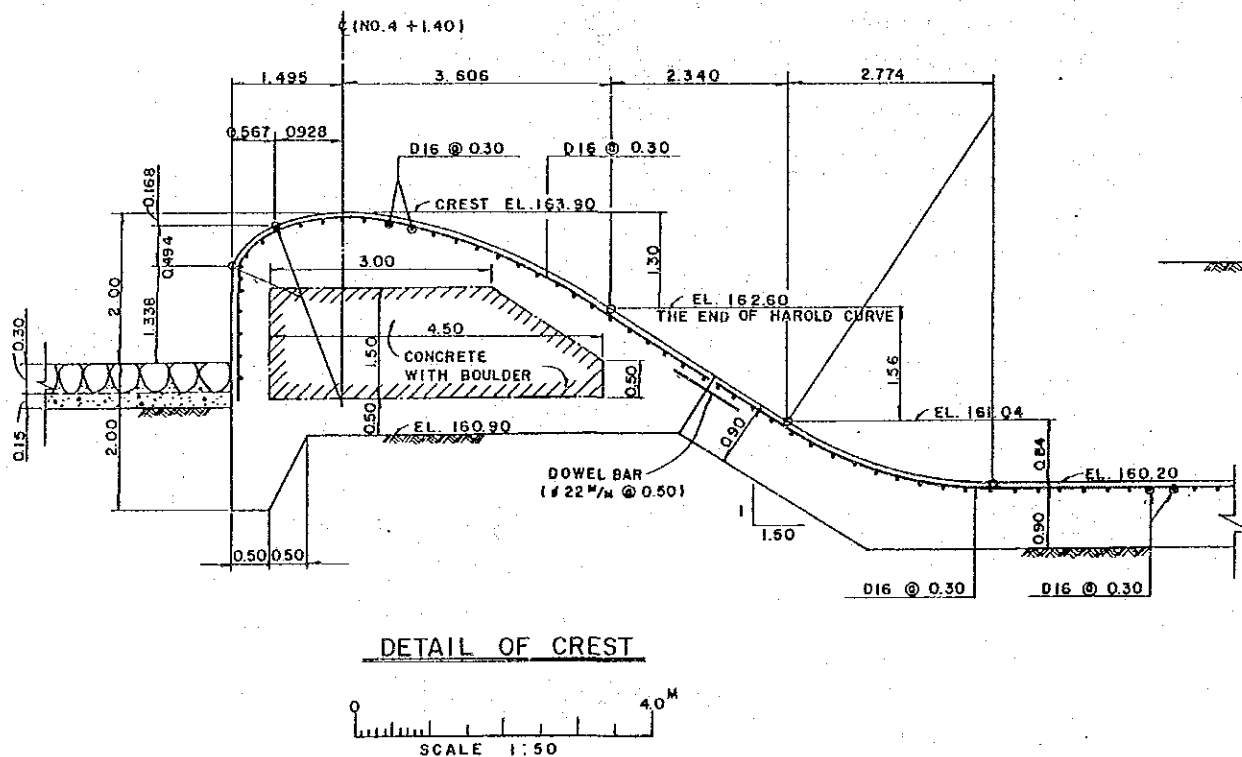
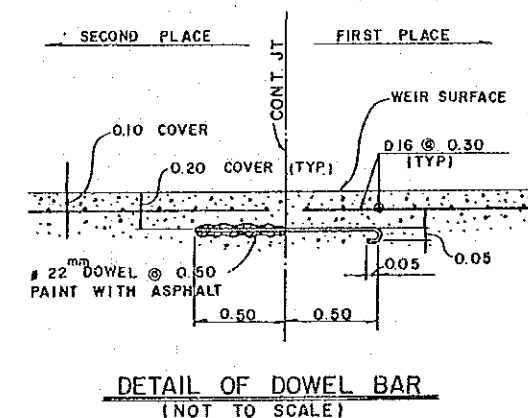
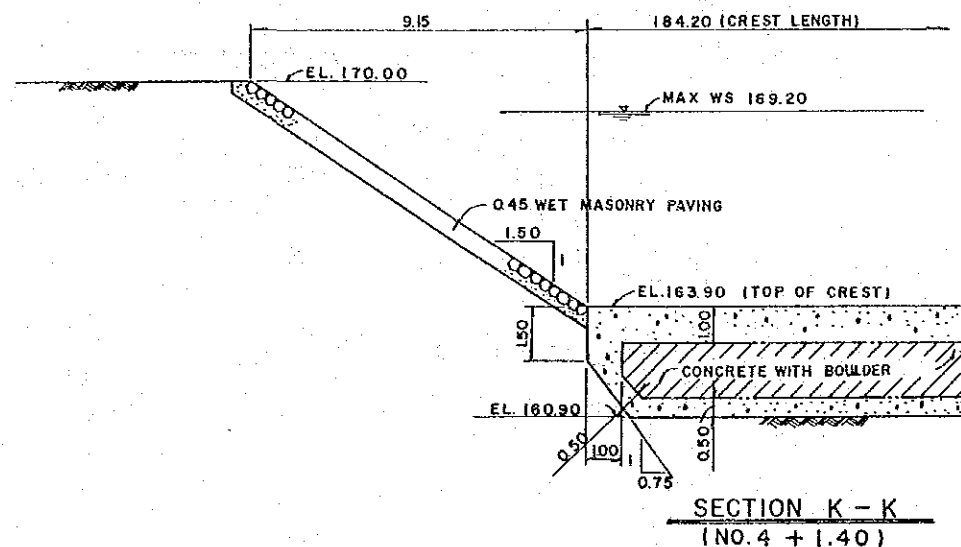
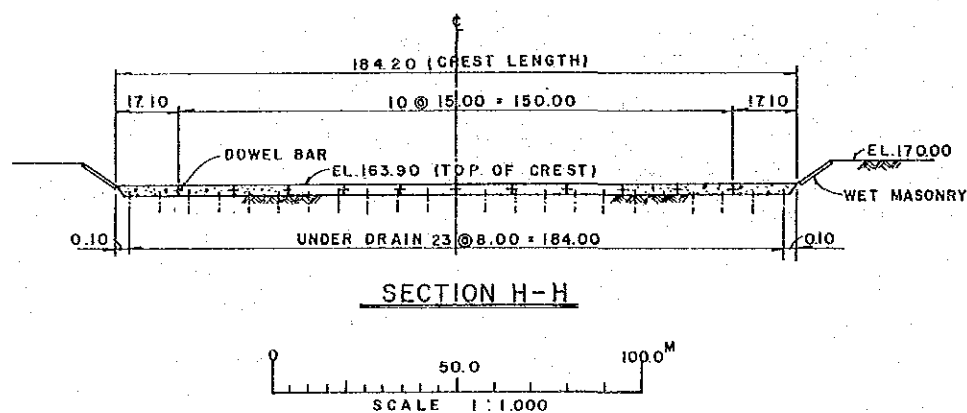
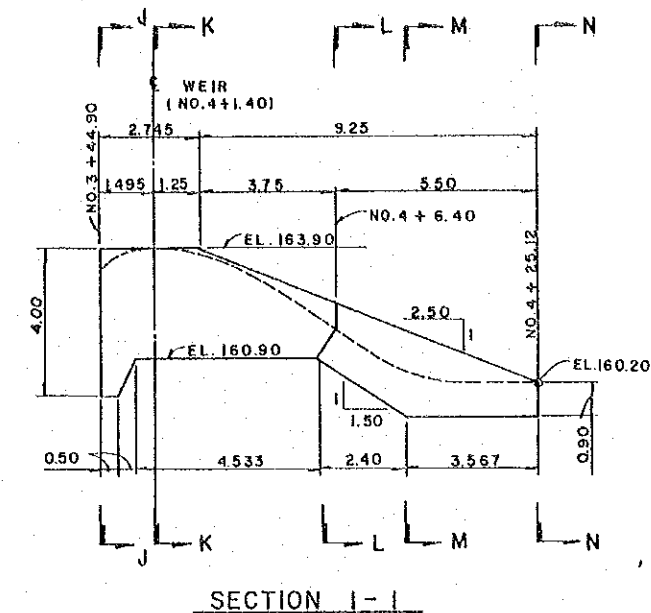
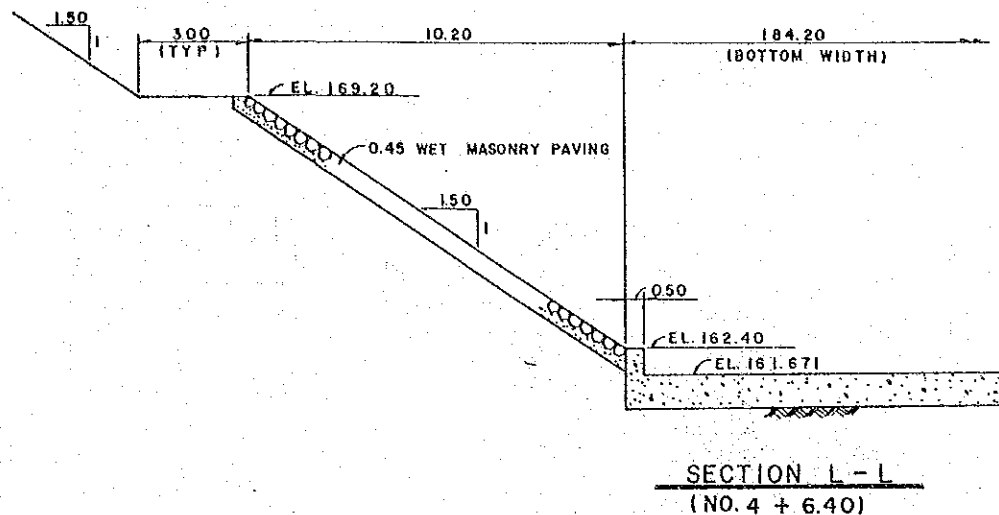
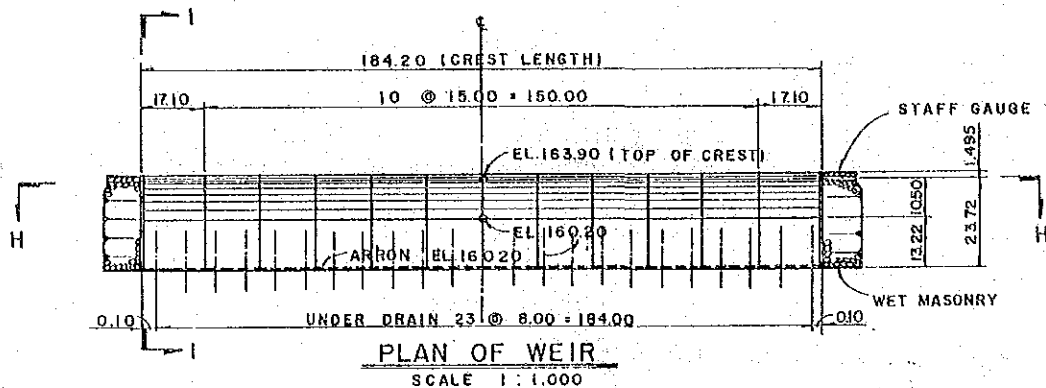


SECTION G~G

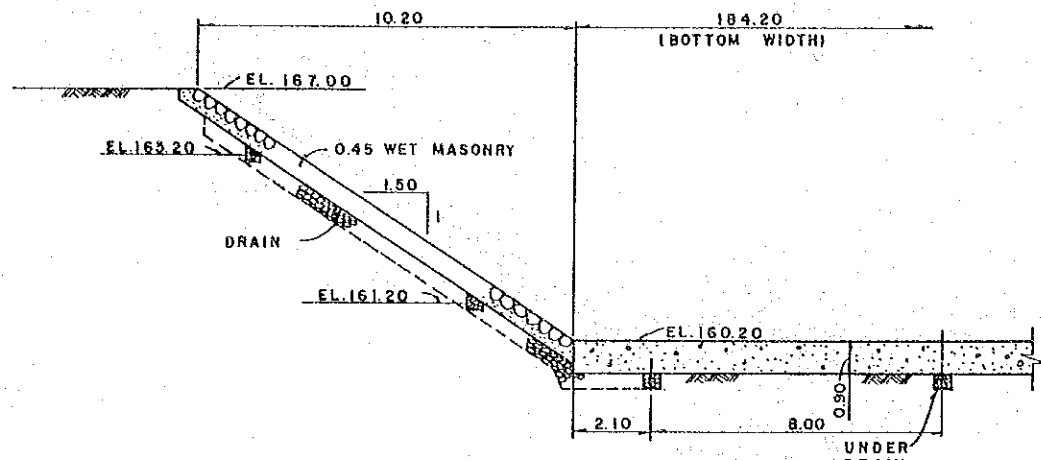


NOTE ;  
 1. PAINTING OF GAUGE  
 PRIME COAT ; ZINK PHOSPHATE EPOXY (RED LEAD)  
 ONE LAYER  
 FIRST COAT ; EPOXY ENAMEL  
 ONE LAYER  
 FINAL COAT ; EPOXY ENAMEL  
 ONE LAYER  
 2. COLOR GAUGE  
 THE FACE AND THE BACK OF GAUGE SHALL BE  
 WHITE AND ALL GRADUATIONS AND NUMERALS  
 SHALL BE BLACK.

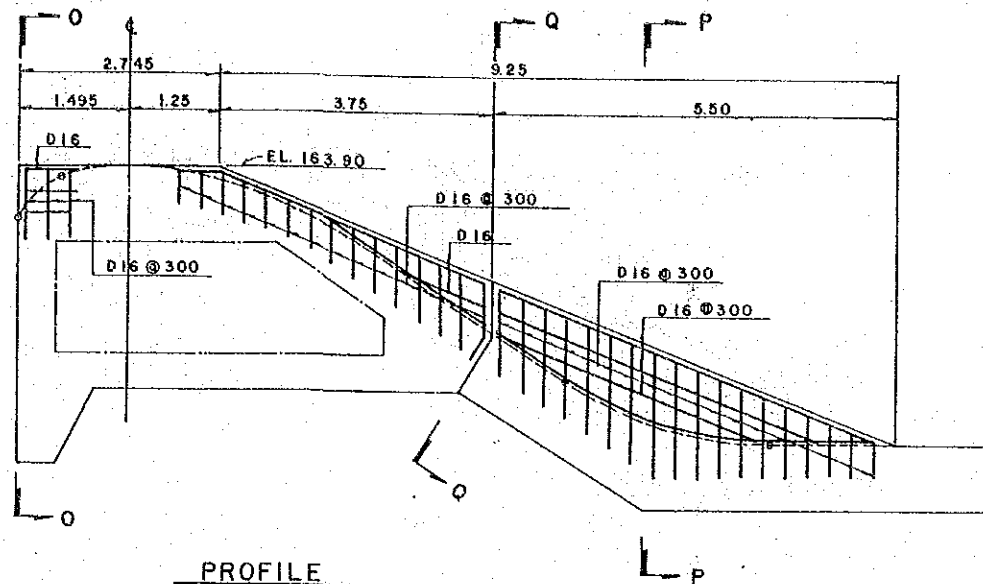
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WAQI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (4) (DETAIL OF STAFF GAUGE)			
REV.NO.	DATE	1.4.86	DWG.NO. 8
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



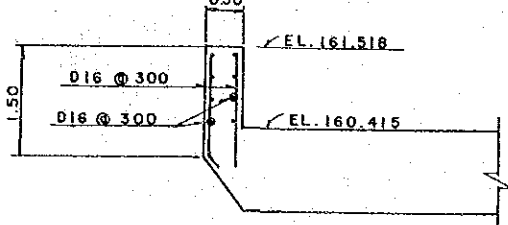
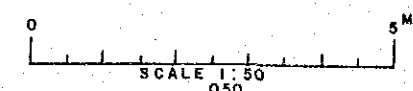
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (5)			
(DETAIL OF WEIR)			
EV. NO.	DATE	1.4.86	DWG. NO. 9
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



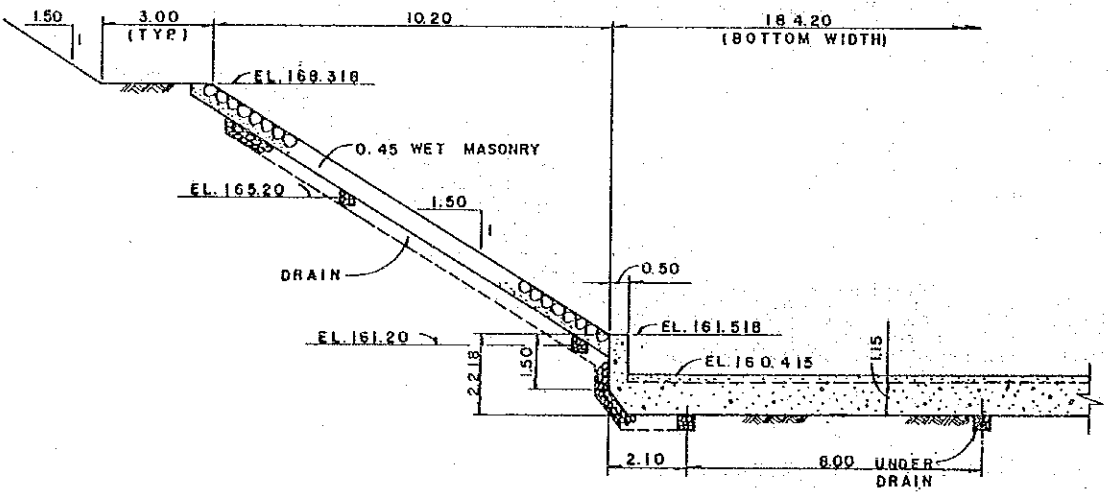
SECTION N-N  
(NO. 4+25.12)



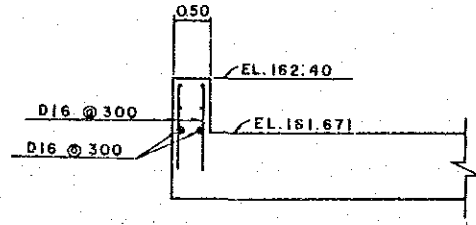
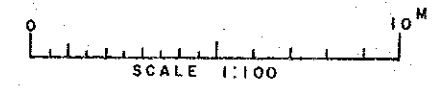
PROFILE



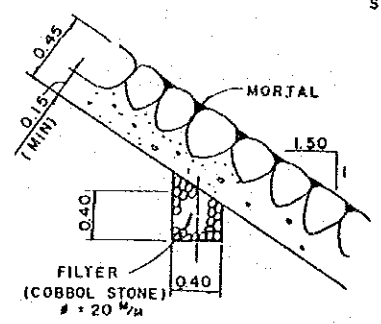
SECTION P-P  
SCALE 1:50



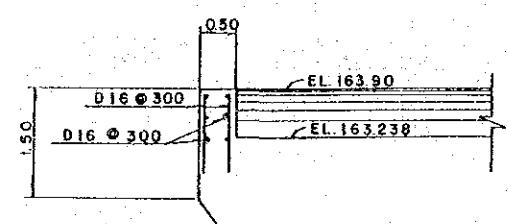
SECTION M-M  
(NO. 4+21.55)



SECTION Q-Q  
SCALE 1:50

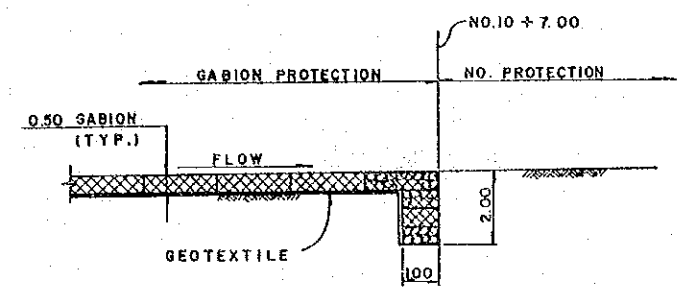
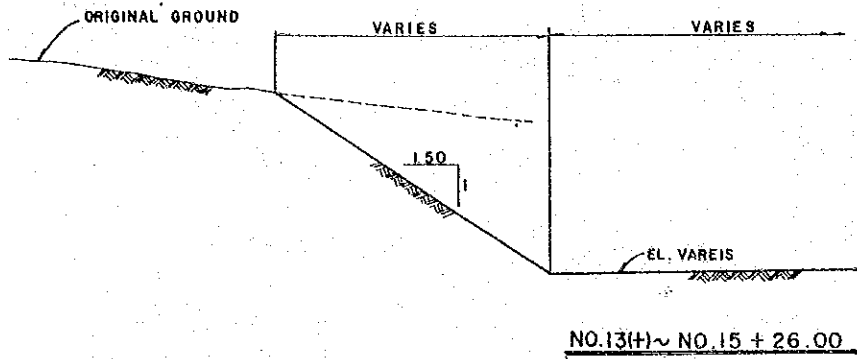
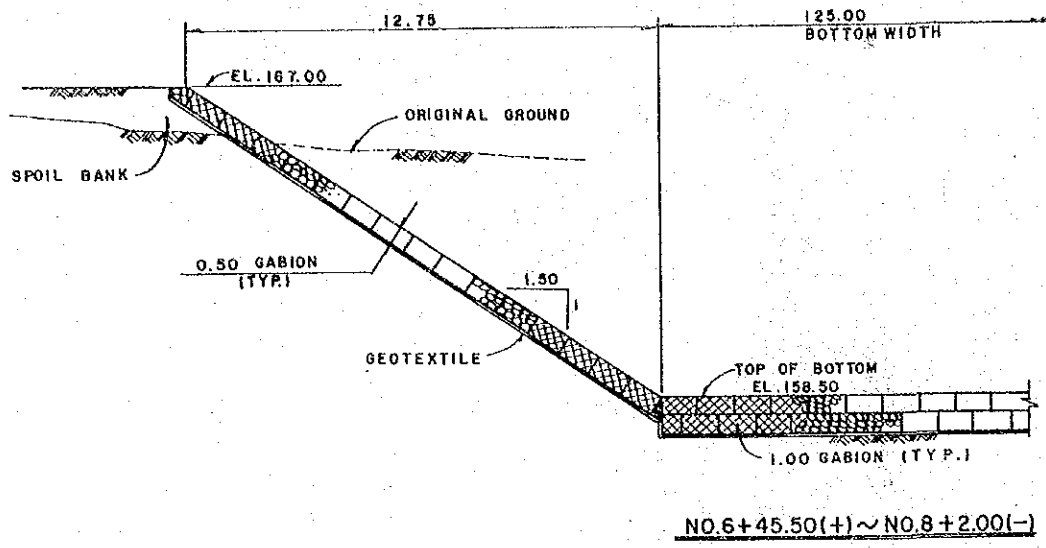


TYPICAL SECTION OF WET MASONRY  
(NOT TO SCALE)

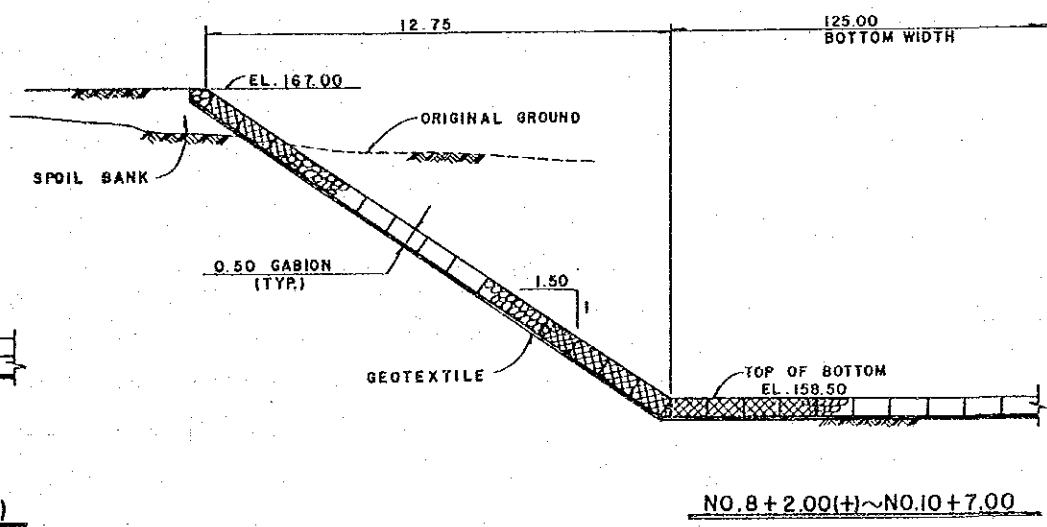
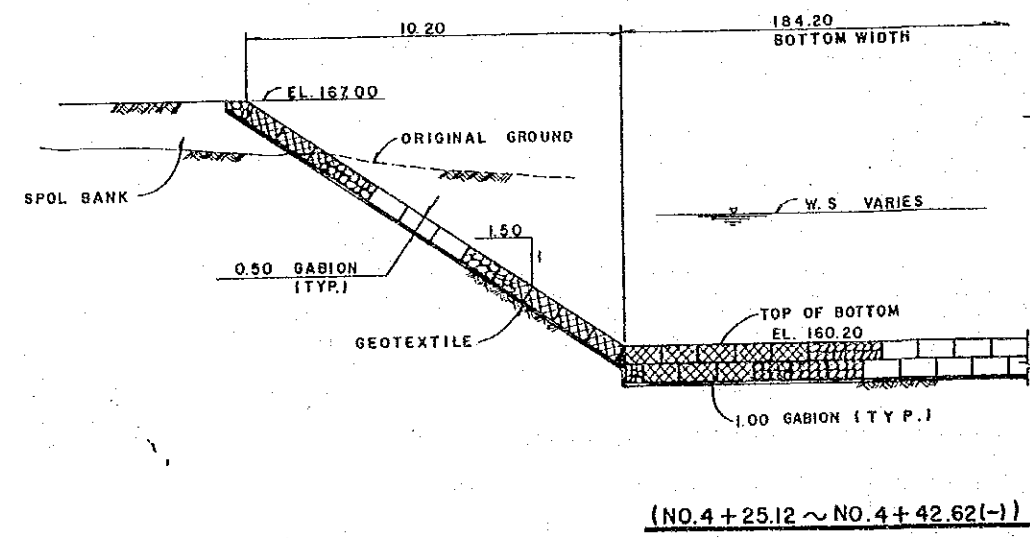
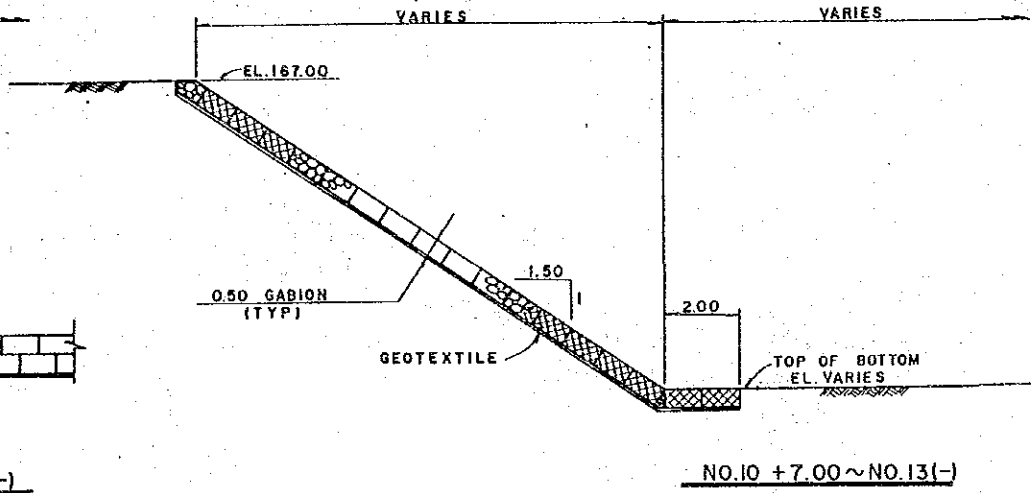
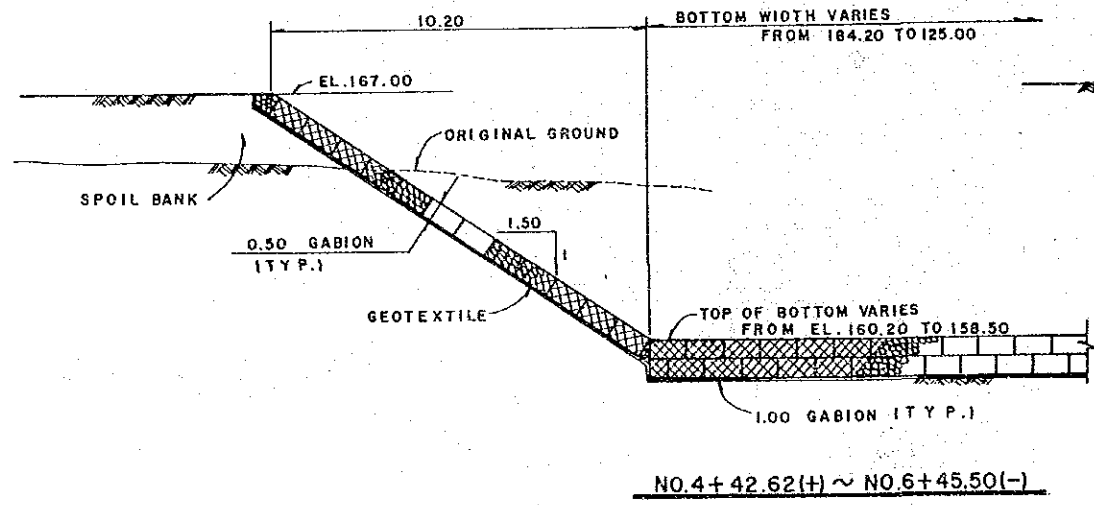


SECTION O-O  
SCALE 1:50

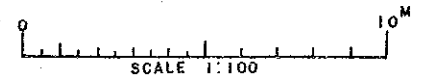
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (6)			
(DETAIL OF CROSS SECTION)			
REV.NO.	DATE	1.4.86	DWG.NO.10
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



DETAIL OF CUTOFF  
(NOT TO SCALE)

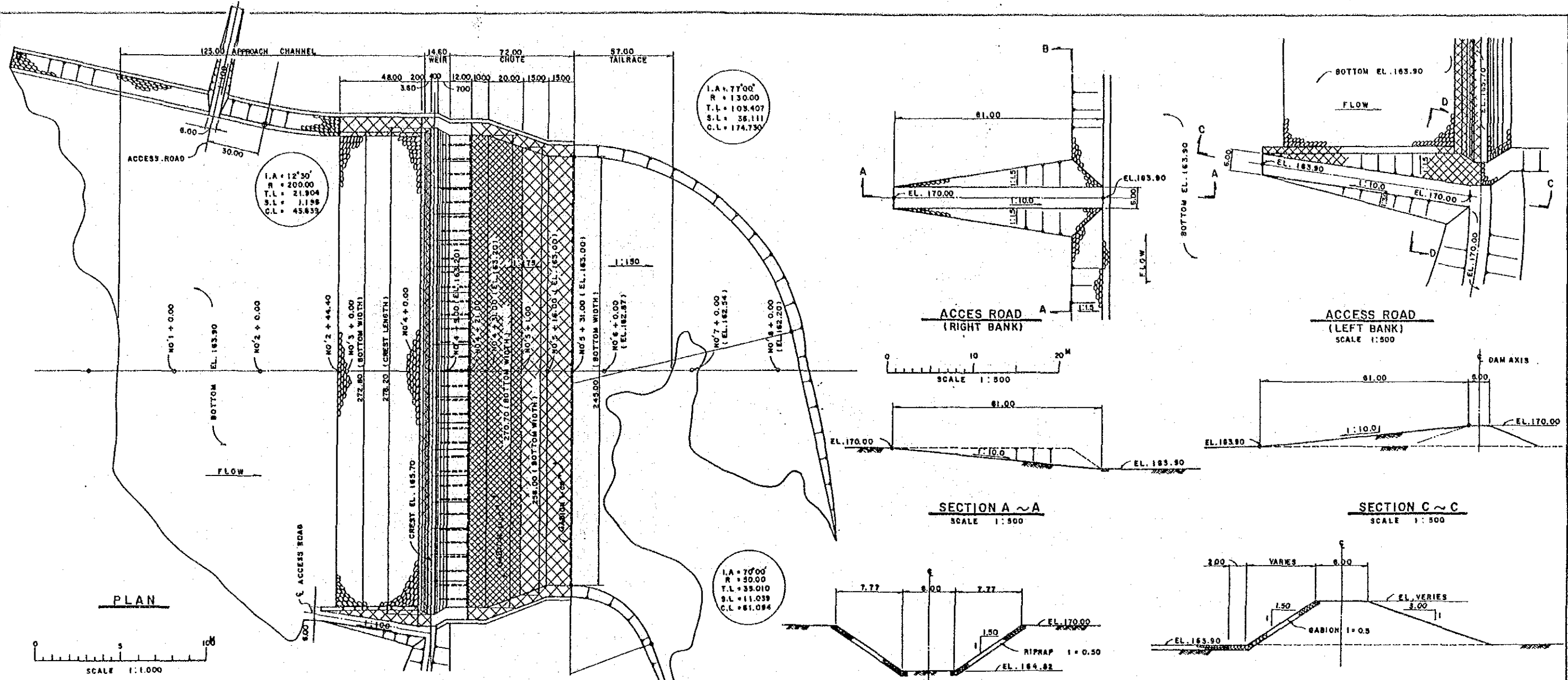


NOTE ;  
TYPICAL PORE SIZE AND WEIGHT OF  
GEOTEXTILE SHALL BE AS FOLLOWS :  
PORE SIZE ; 0.005 ~ 0.075 M/M  
WEIGHT ; 0.304 KG/M<sup>2</sup>

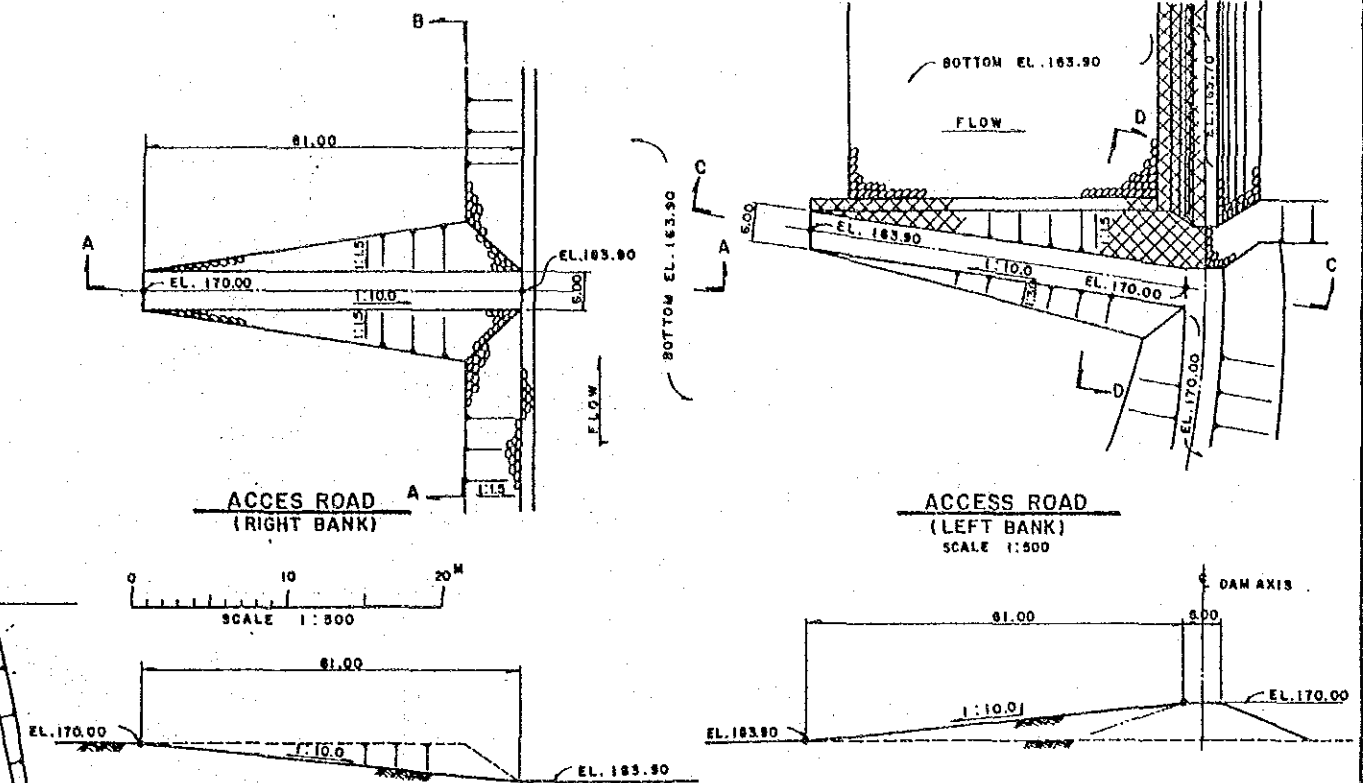


SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE SPILLWAY (7)			
(DETAIL OF CROSS SECTION)			
REV. NO.	DATE	1. 4. 86	DWG. NO. 11
APPROVAL	TEAM LEADER	DESIGN ENGINEER	





PLAN  
SCALE 1:1,000

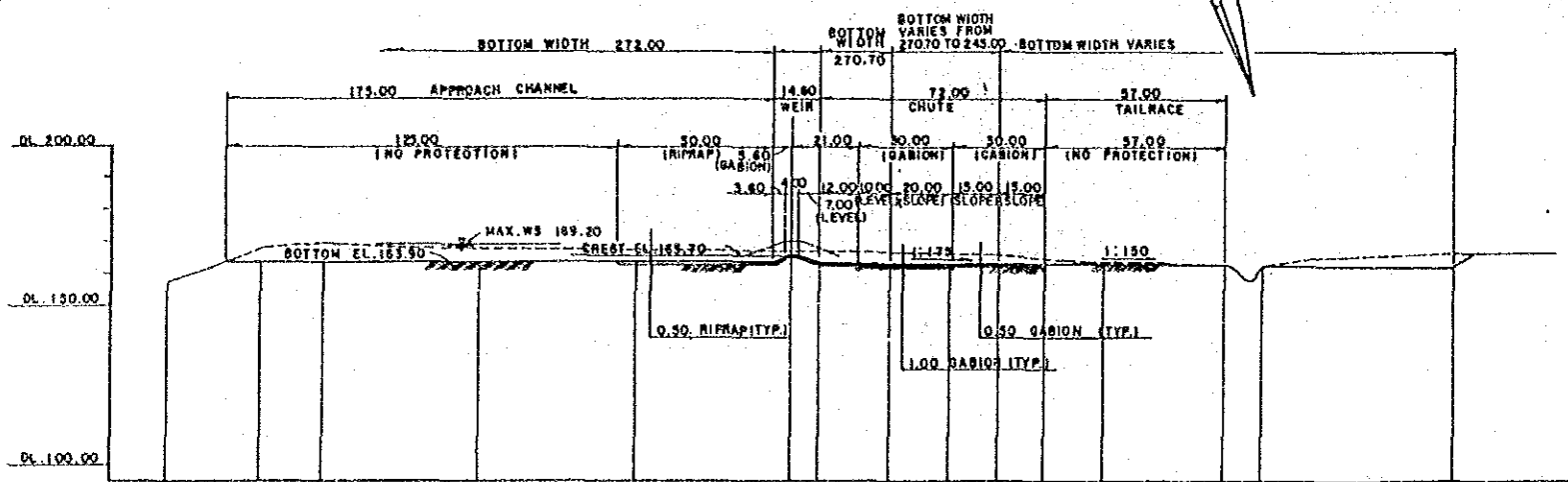


SECTION A ~ A  
SCALE 1:500

SECTION C ~ C  
SCALE 1:500

SECTION B ~ B  
SCALE 1:200

SECTION D ~ D  
SCALE 1:200



LONGITUDINAL PROFILE  
SCALE H = 1:1,000  
SCALE V = 1:1,000

STATION	0+00	0+10	0+20	0+30	0+40	0+50	0+60	0+70	0+80	0+90	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200
BOTTOM ELEVATION	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90
EXCAVATION ELEVATION	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90
GROUND ELEVATION	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90	183.90
TOTAL DISTANCE	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00
DISTANCE	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

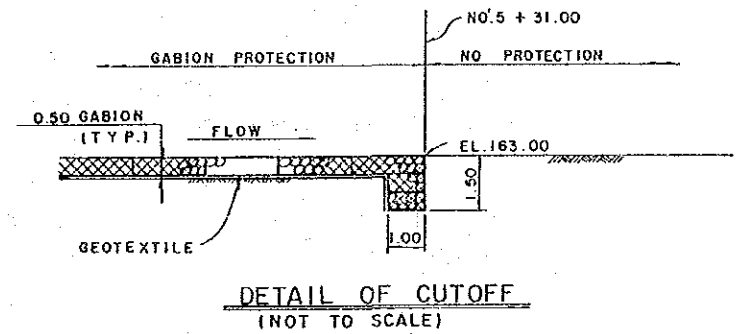
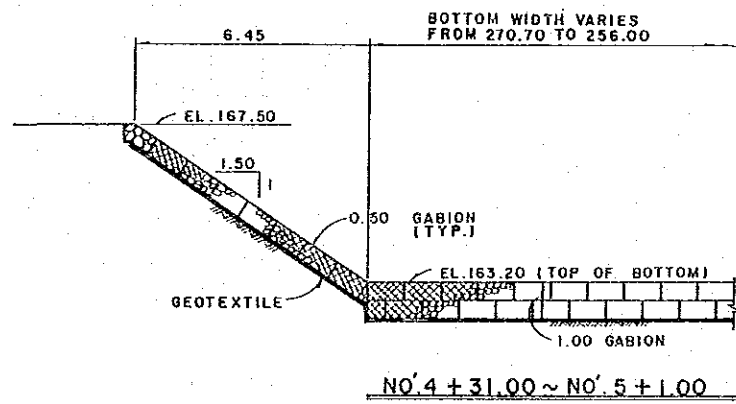
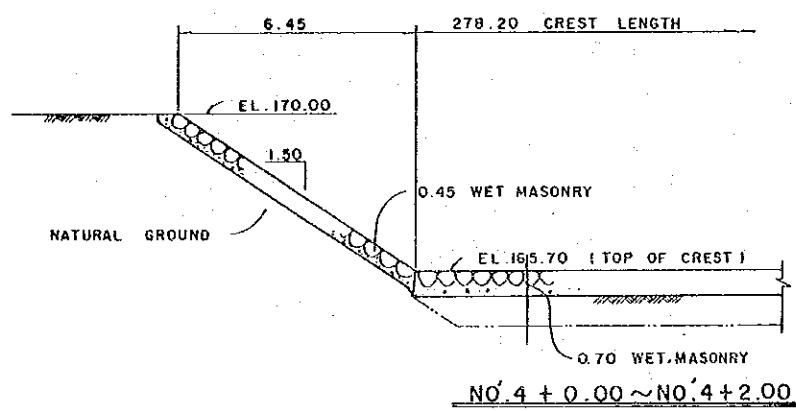
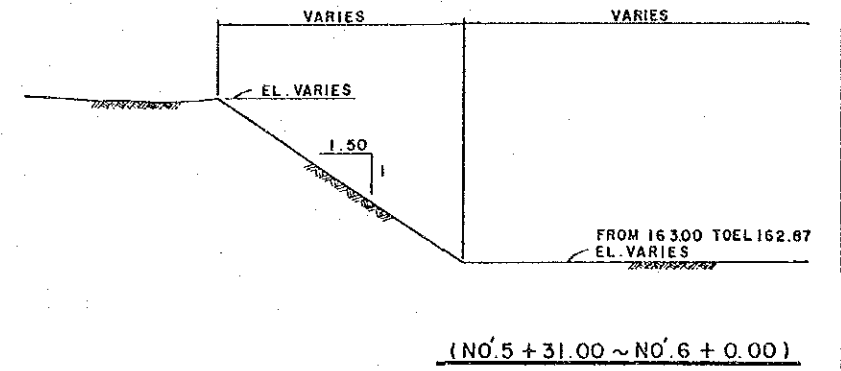
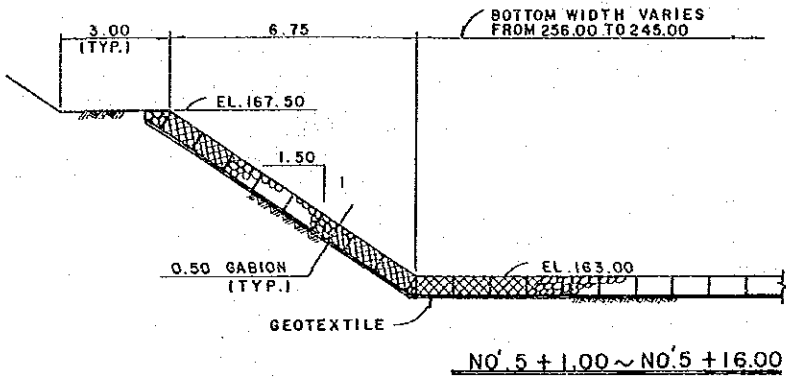
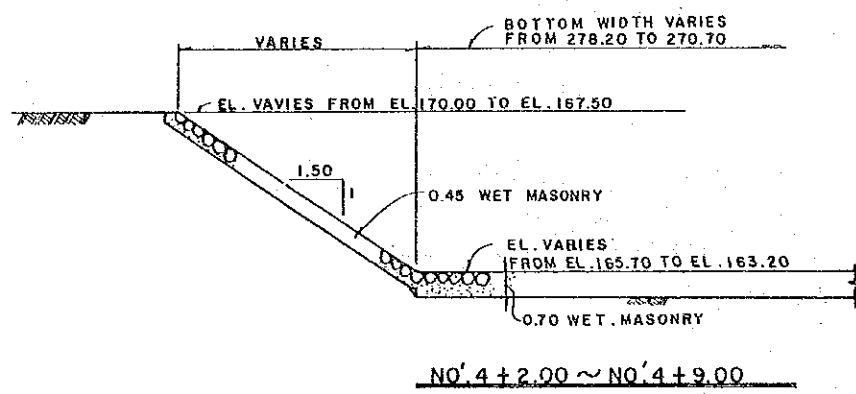
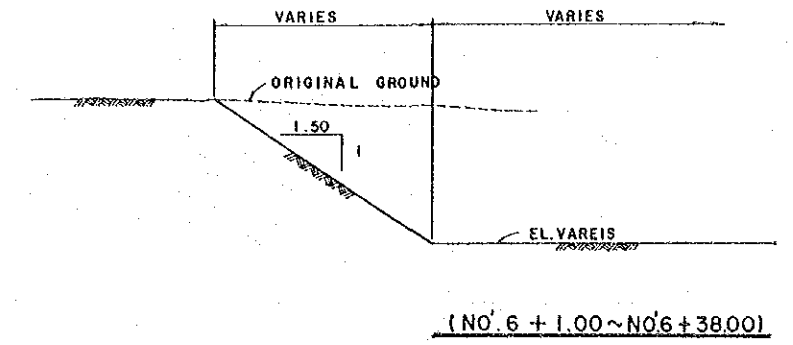
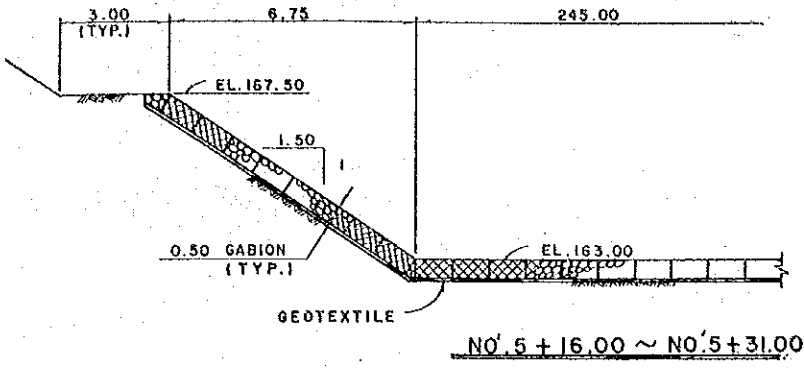
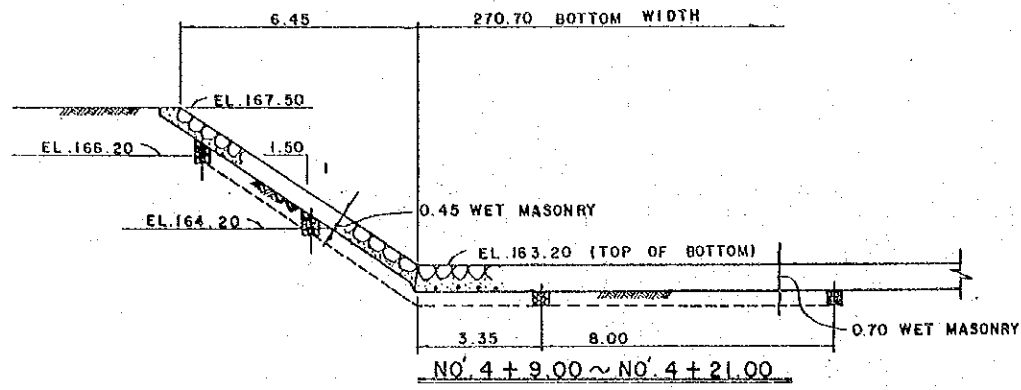
SULTANATE OF OMAN  
 MINISTRY OF AGRICULTURE AND FISHERIES  
 DIRECTORATE GENERAL OF  
 WATER RESOURCES AND IRRIGATION

WADI JIZZI  
 AGRICULTURAL DEVELOPMENT PROJECT

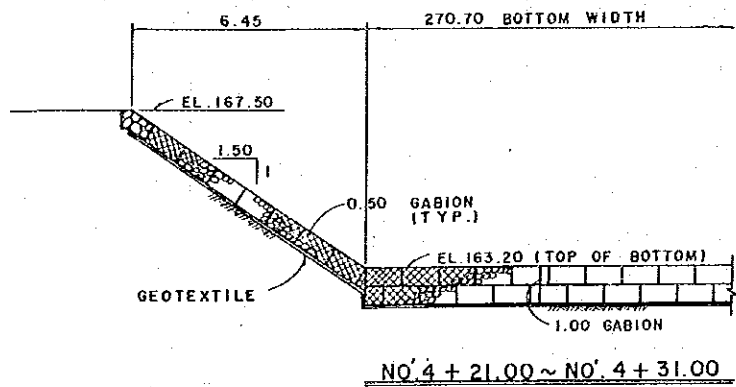
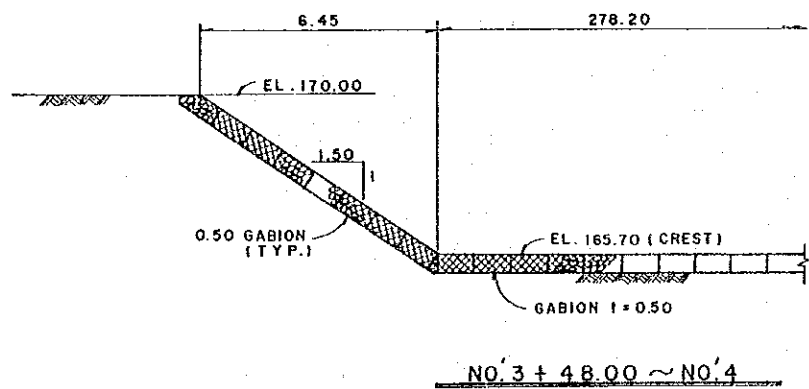
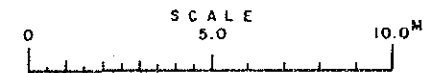
EMERGENCY SPILLWAY (I)  
 (PLAN & PROFILE)

REV. NO.	DATE	1.4.86	DWG. NO. 12
APPROVAL	TEAM LEADER	DESIGN ENGINEER	

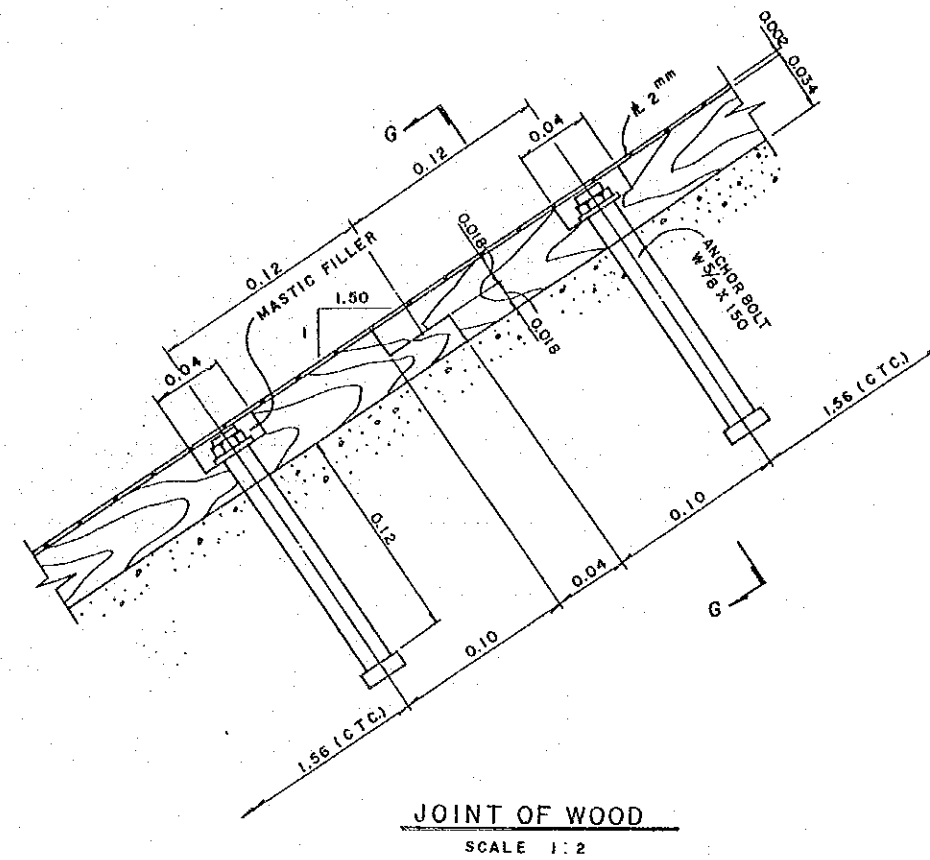
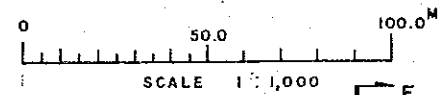
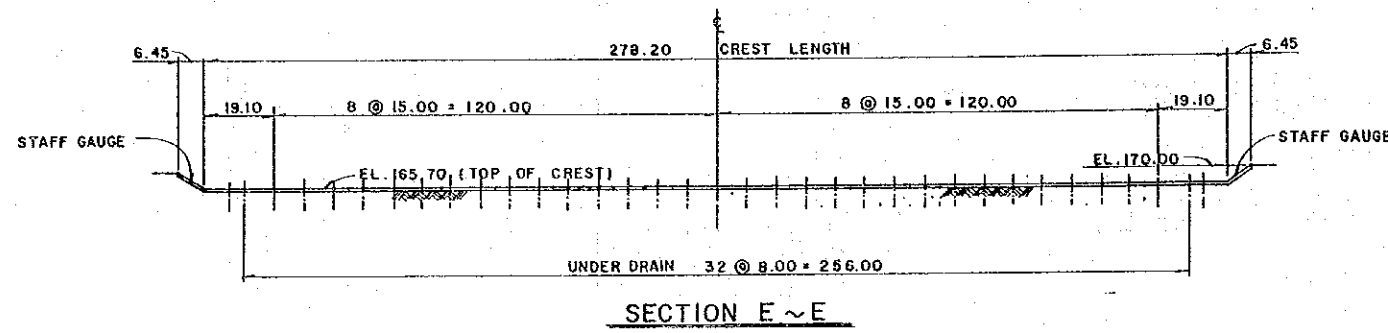
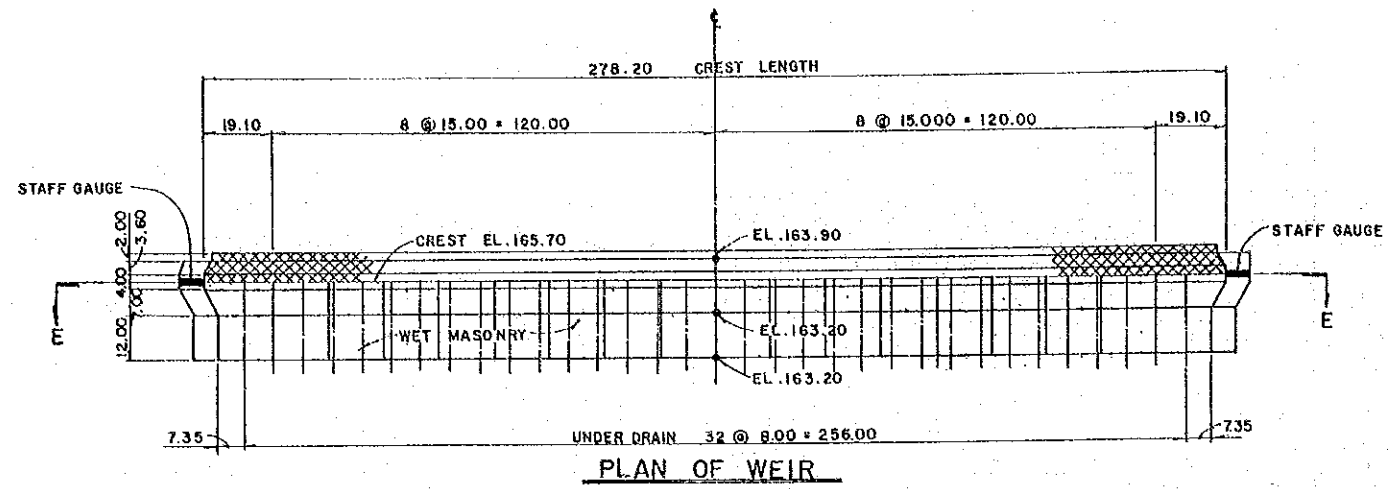




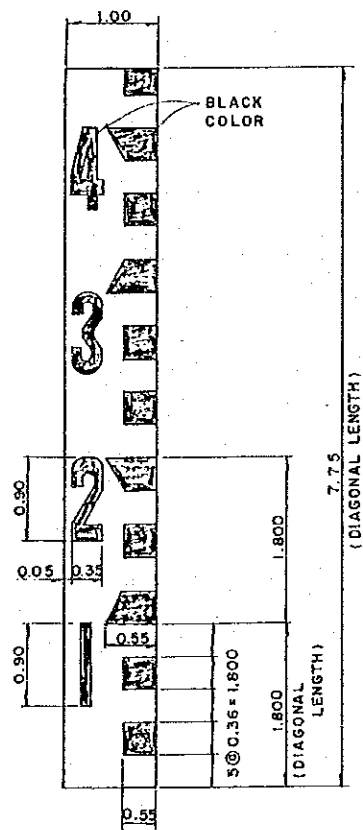
NOTE;  
TYPICAL PORE SIZE AND WEIGHT OF  
GEOTEXTILE SHALL BE AS FOLLOWS:  
PORE SIZE ; 0.005 ~ 0.075 M/M  
WEIGHT ; 0.304 KG/M<sup>2</sup>



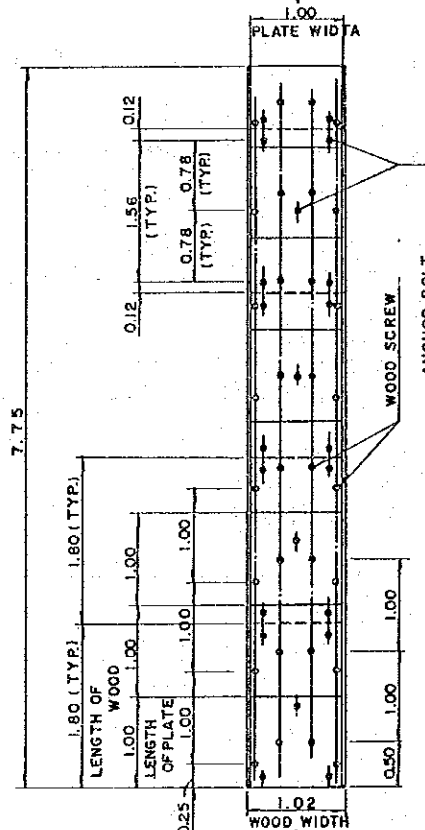
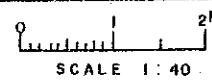
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY SPILLWAY (3)			
(TYPICAL CROSS SECTION)			
DEV.NO.	DATE	1.4.86	DWG.NO.14
APPROVAL	TEAM LEADER		DESIGN ENGINEER



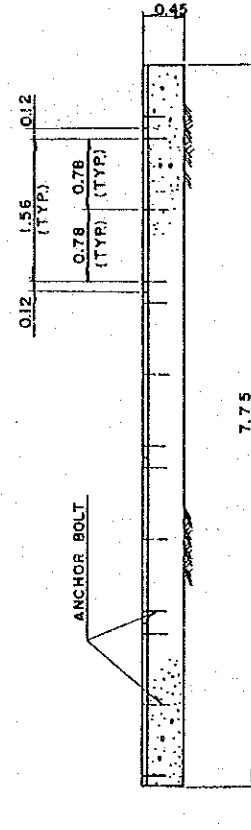
JOINT OF WOOD  
SCALE 1:2



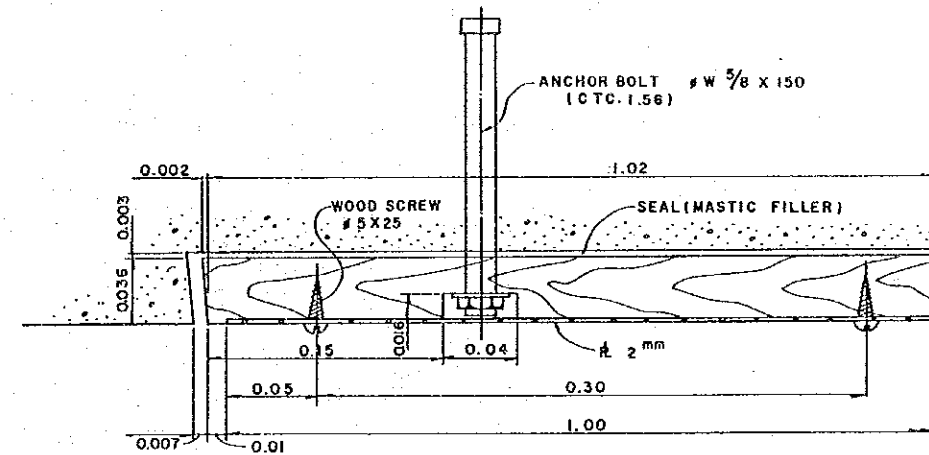
DETAIL OF READINGS



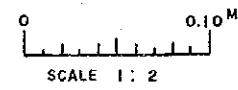
DETAIL OF ANCHORS



SECTION F~F

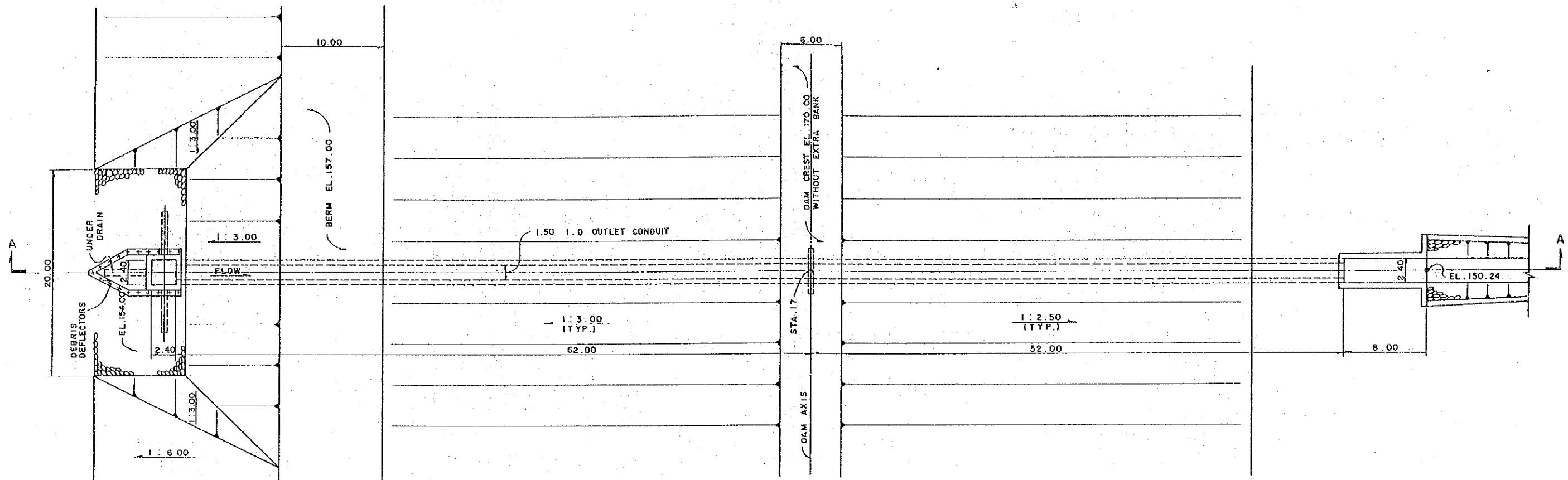


SECTION G~G

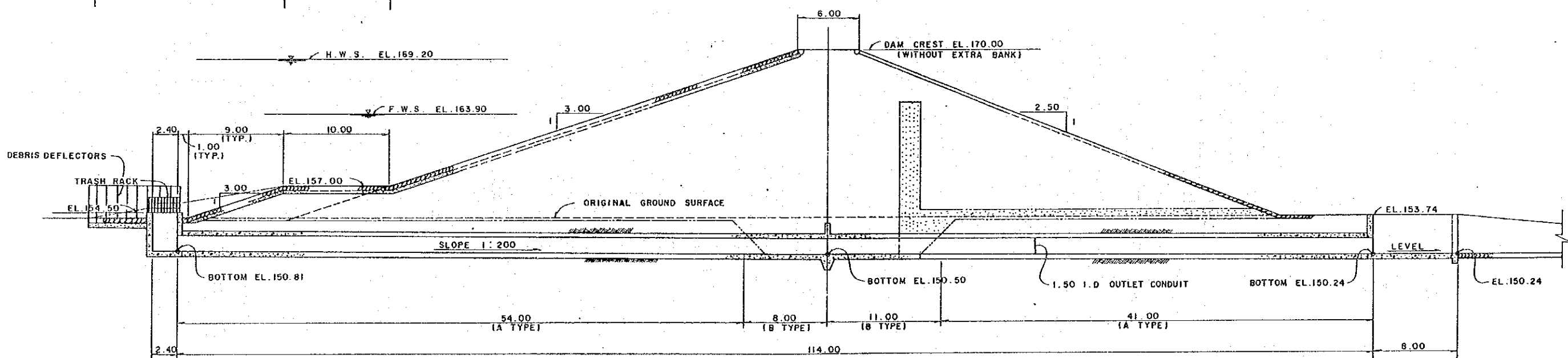


- NOTE ;
- PAINTING OF GAUGE  
PRIME COAT ; ZINK PHATE EPOXY (RED LEAD)  
ONE LAYER  
FIRST COAT ; EPOXY ENAMEL  
ONE LAYER  
FINAL COAT ; EPOXY ENAMEL  
ONE LAYER
  - COLOR GAUGE  
THE FACF AND THE BACK OF GAUGE SHALL BE WHITE AND ALL GRADUATIONS ANS NUMERALS SHALL BE BLACK.

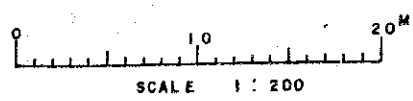
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY SPILLWAY (4) (WEIR AND STAFF GAUGE)			
REV.NO.	DATE	1.4.86	DWG.NO.15
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



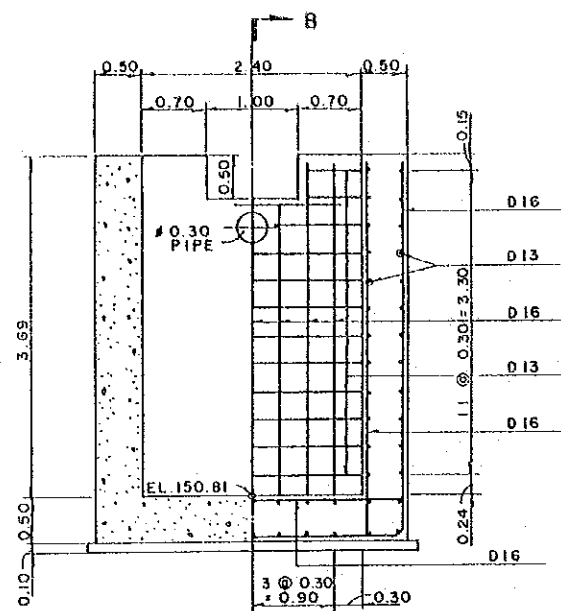
PLAN



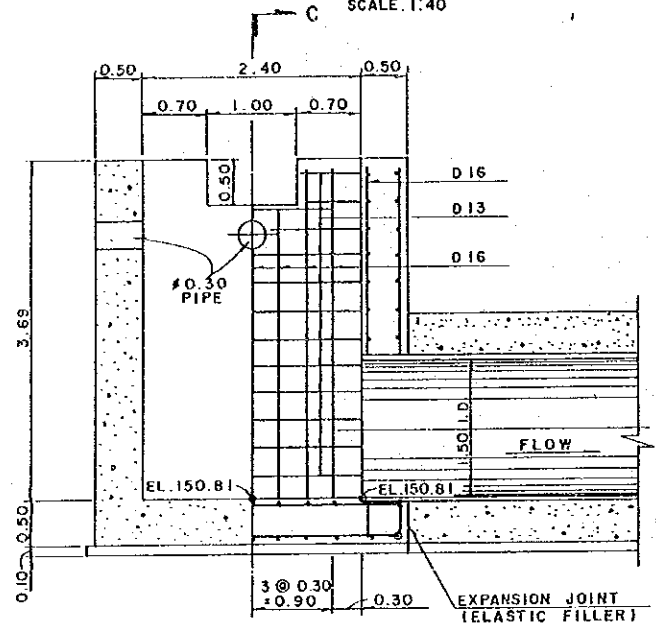
PROFILE (SECTION A-A)



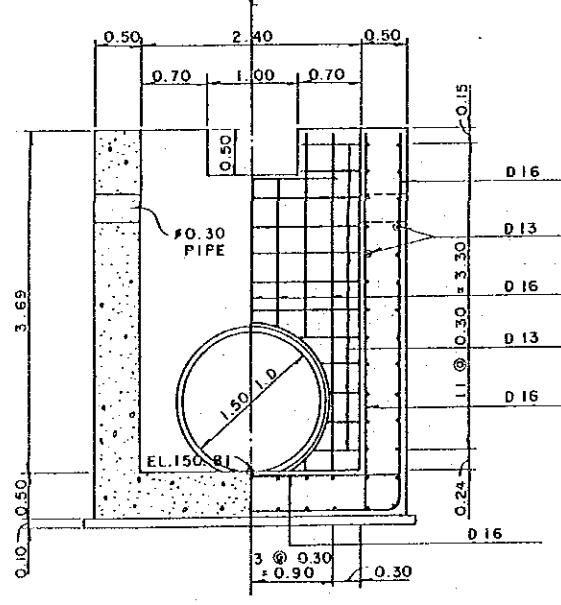
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION		
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT		
SERVICE OUTLET (I) (PLAN AND PROFILE)		
REV. NO.	DATE	DWG. NO. 16
APPROVAL	TEAM LEADER	DESIGN ENGINEER
	<i>A. Issa</i>	<i>[Signature]</i>



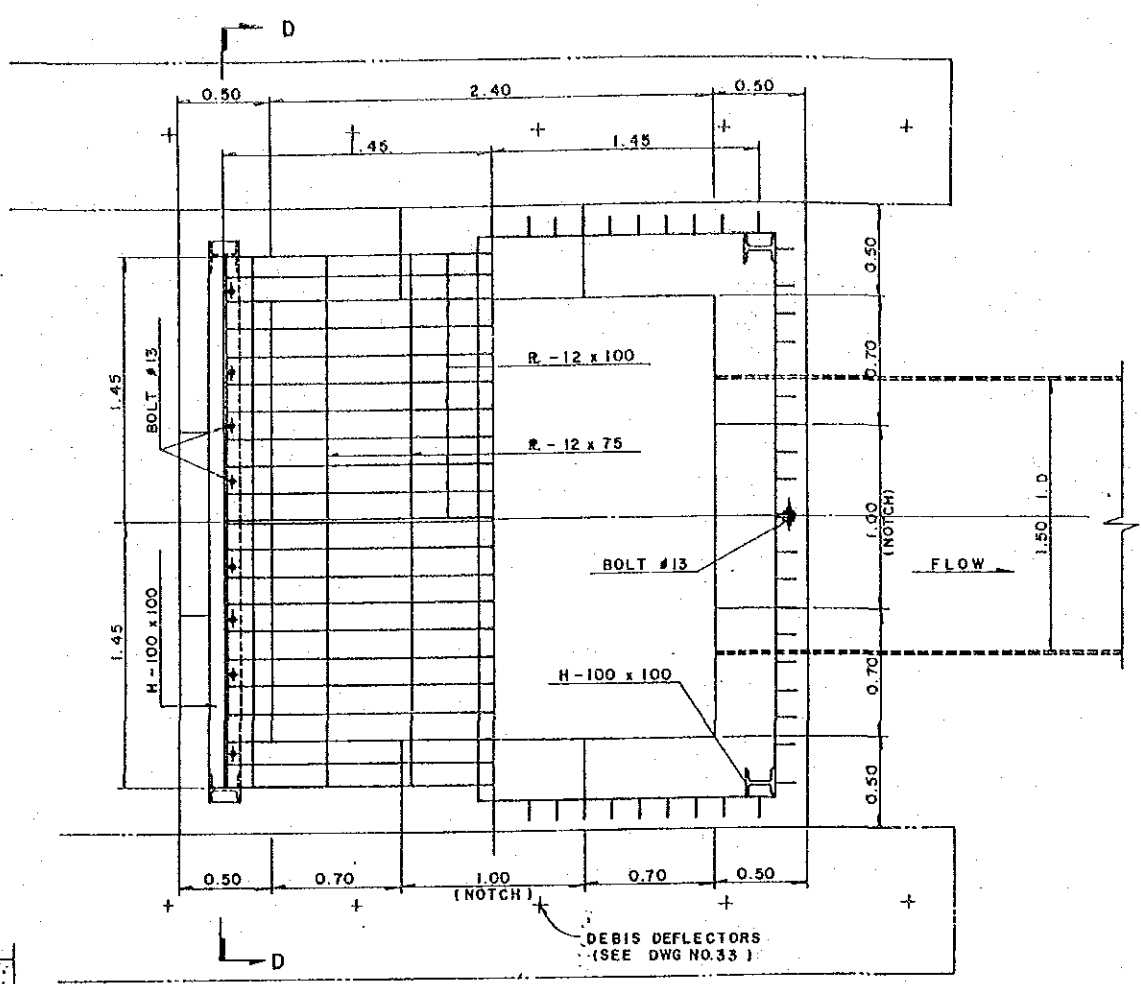
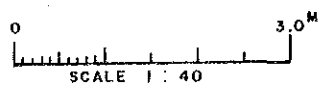
TYPICAL SECTION  
SCALE 1:40



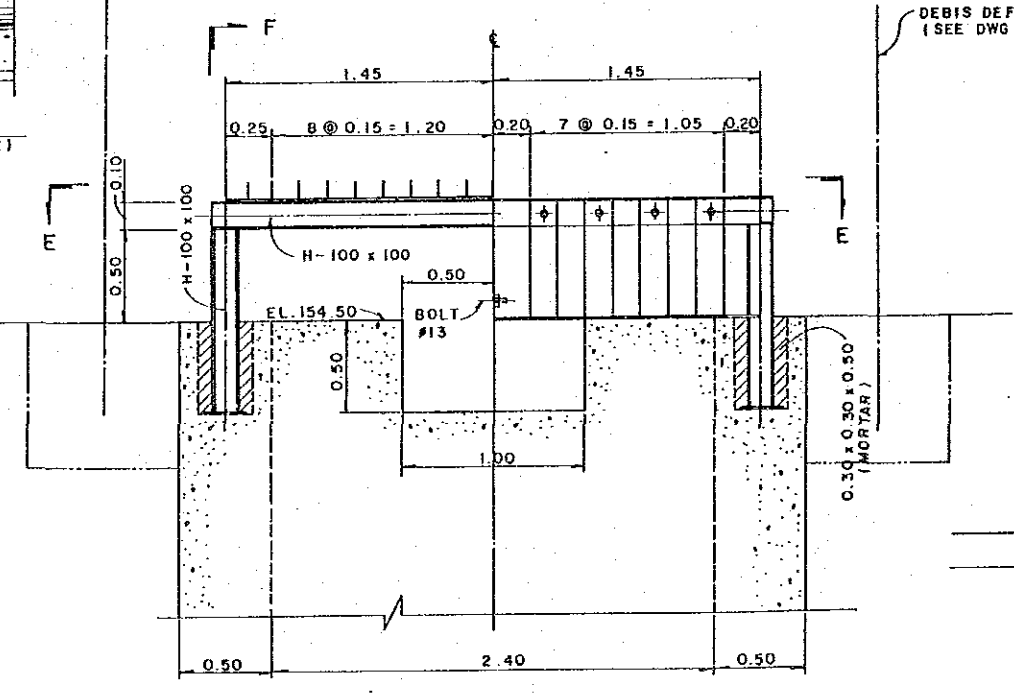
SECTION B-B  
SCALE 1:40



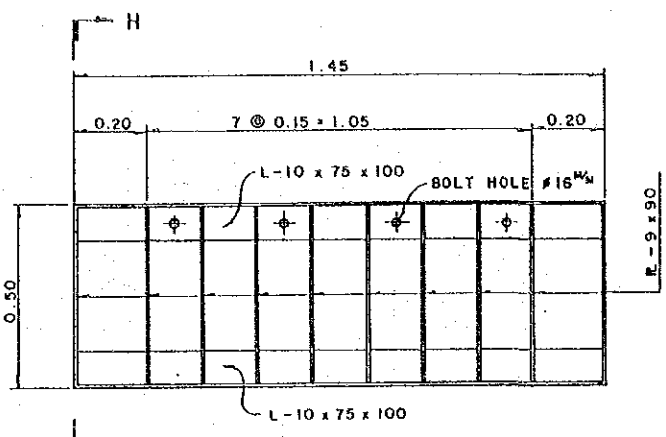
SECTION C-C  
SCALE 1:40



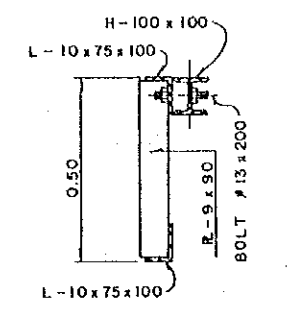
PLAN  
SCALE 1:20



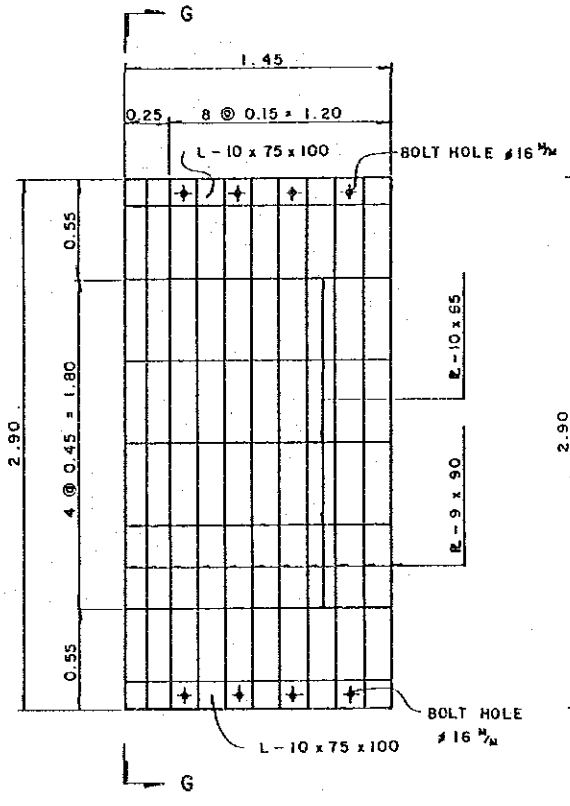
SECTION D-D  
SCALE 1:20



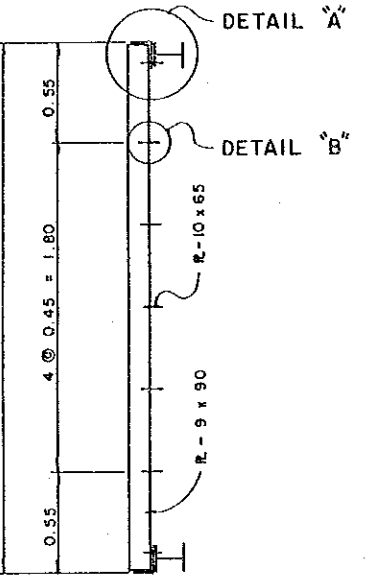
DETAIL OF TRASH RACK  
(SECTION F-F)  
SCALE 1:10



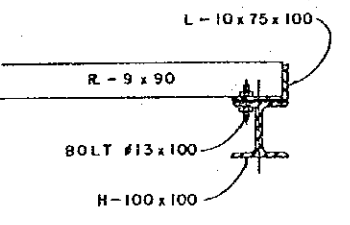
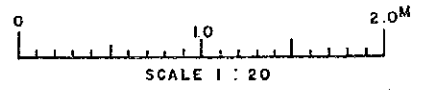
SECTION H-H  
SCALE 1:10



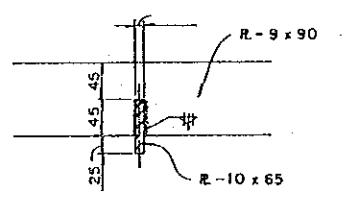
DETAIL OF TRASH RACK  
(SECTION E-E)  
SCALE 1:20



SECTION G-G  
SCALE 1:20

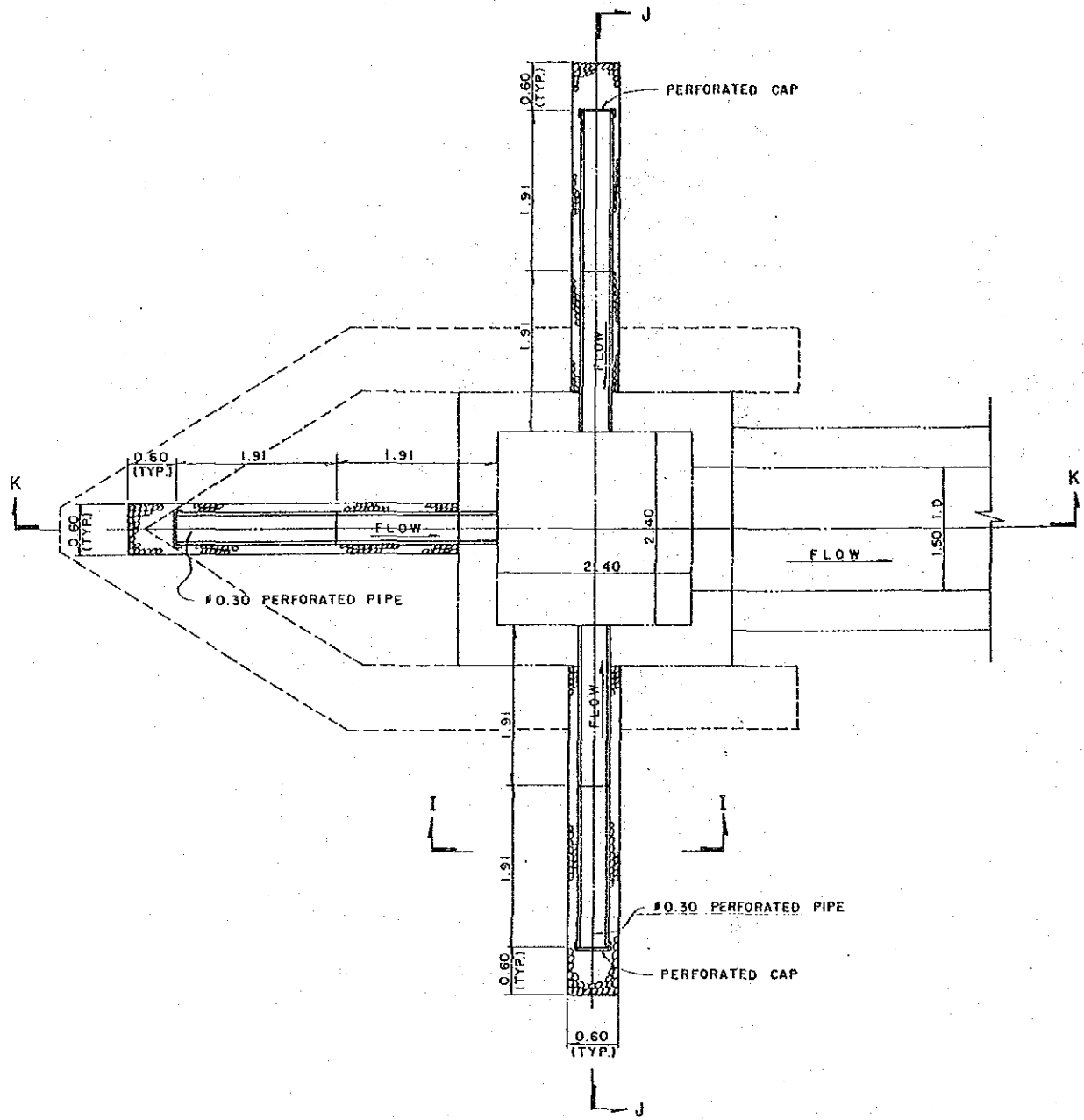


DETAIL "A"  
(NOT TO SCALE)

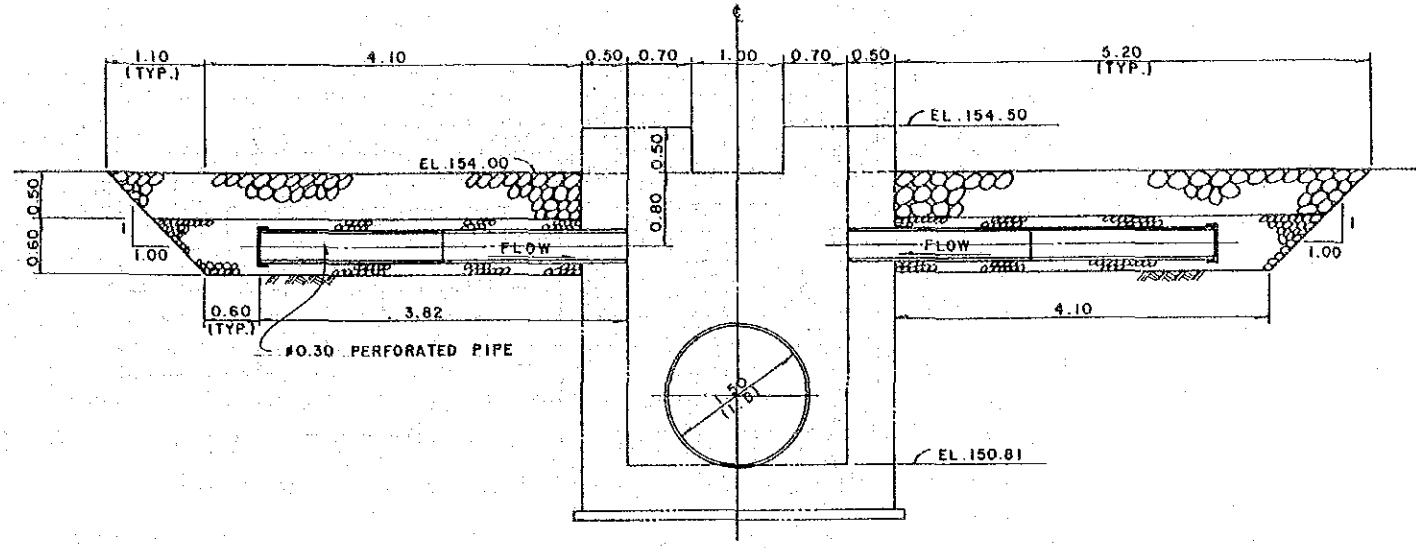


DETAIL "B"  
(NOT TO SCALE)

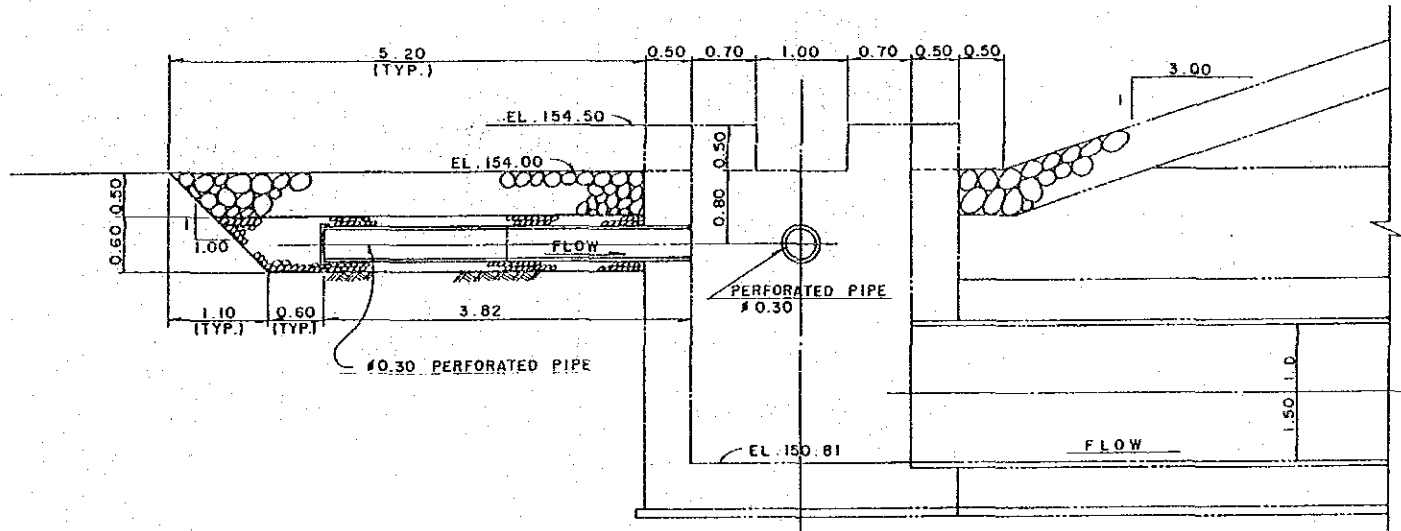
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE OUTLET (2)			
(DROP INLET AND TRASH RACK)			
REV. NO.	DATE	1.4.86	DWG. NO 17
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



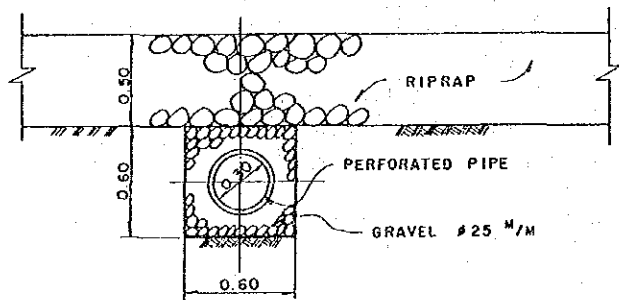
PLAN OF UNDER DRAIN



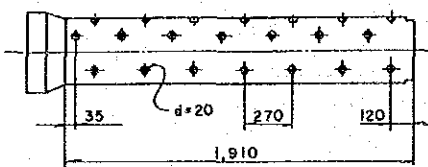
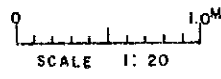
SECTION J - J



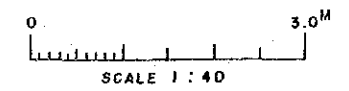
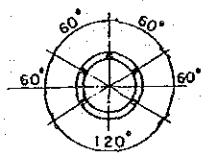
SECTION K - K



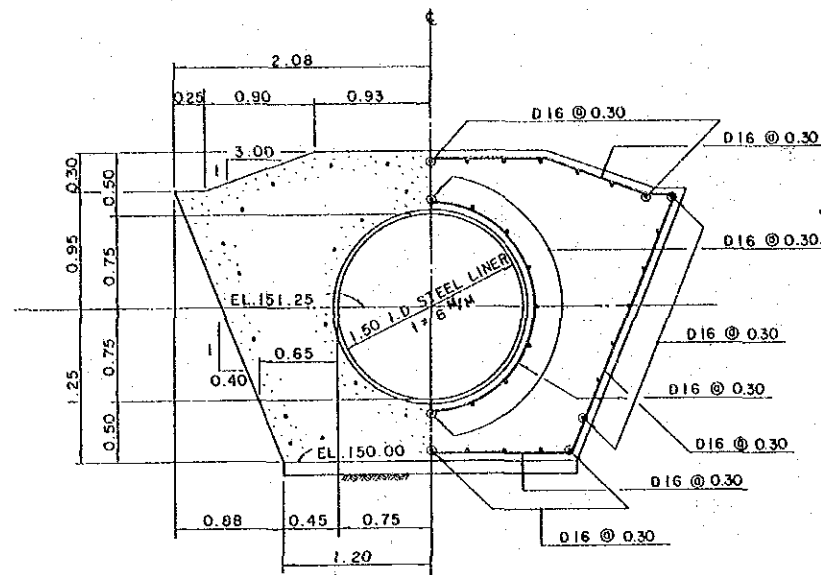
TYPICAL SECTION OF UNDER DRAIN  
(SECTION I - I)



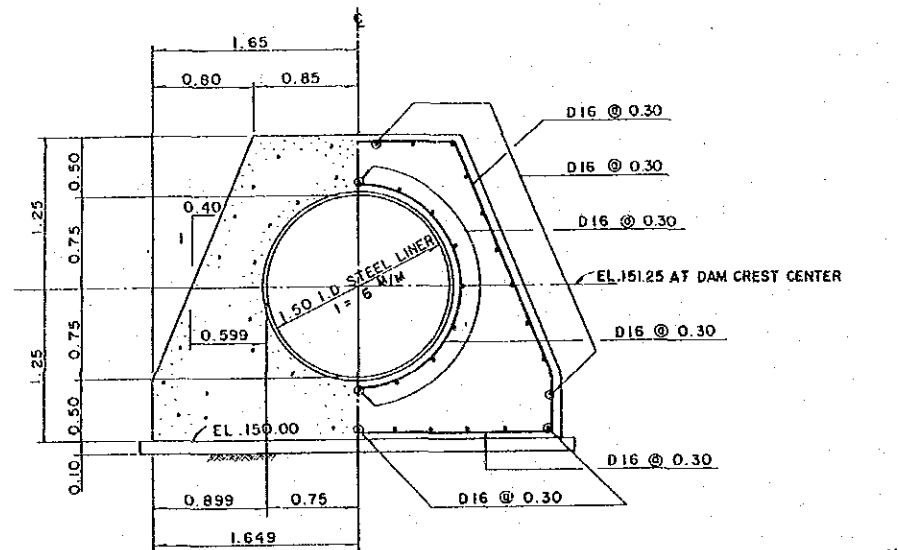
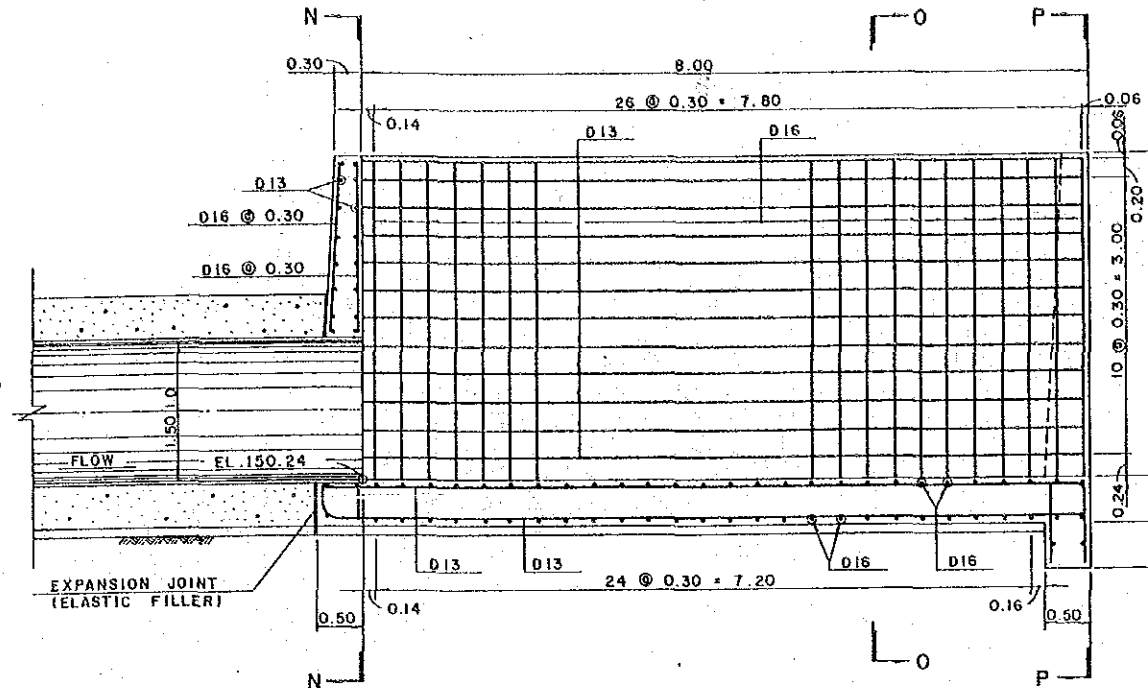
#300 PERFORATED PIPE  
(NOT TO SCALE)



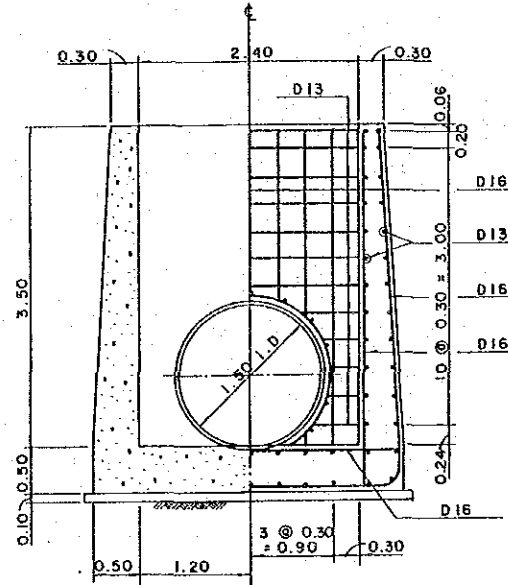
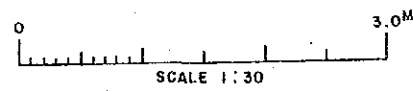
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE OUTLET (3) (UNDER DRAIN)			
REV. NO.	DATE	1.4.86	DWG. NO. 18
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



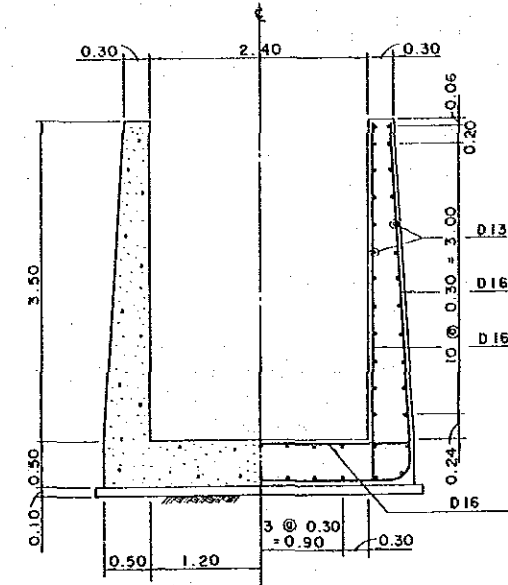
**TYPE A**  
SCALE 1:30



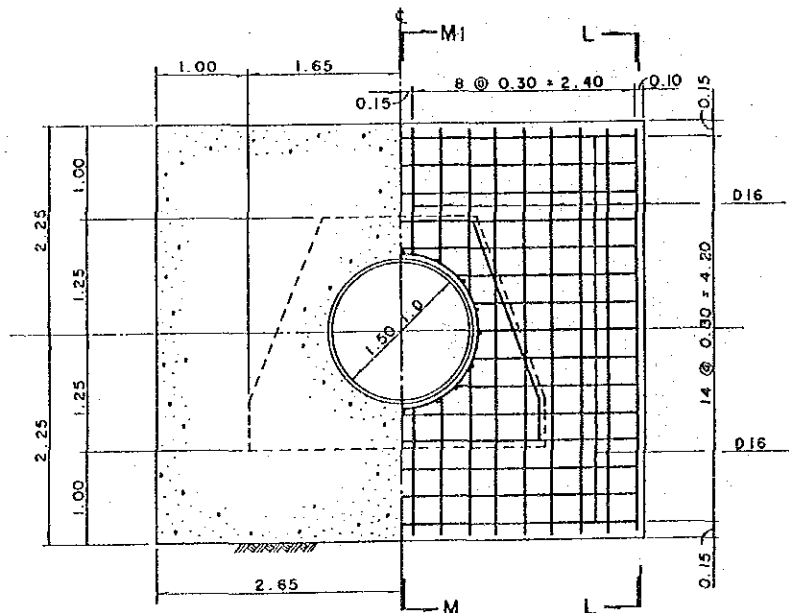
**TYPE B**



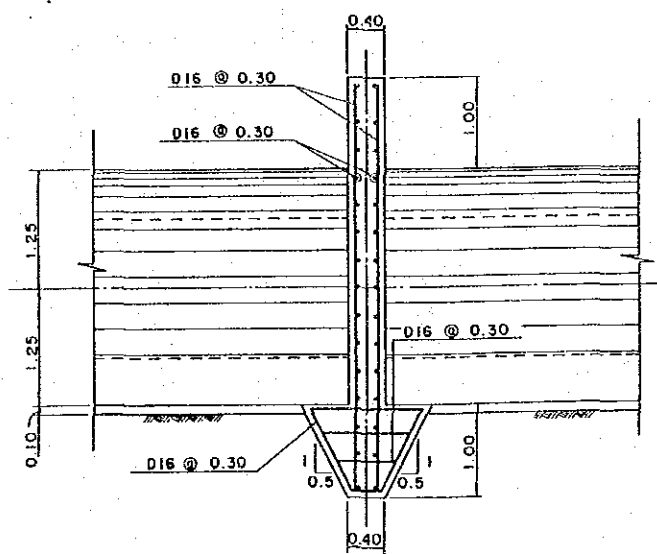
**SECTION N-N**



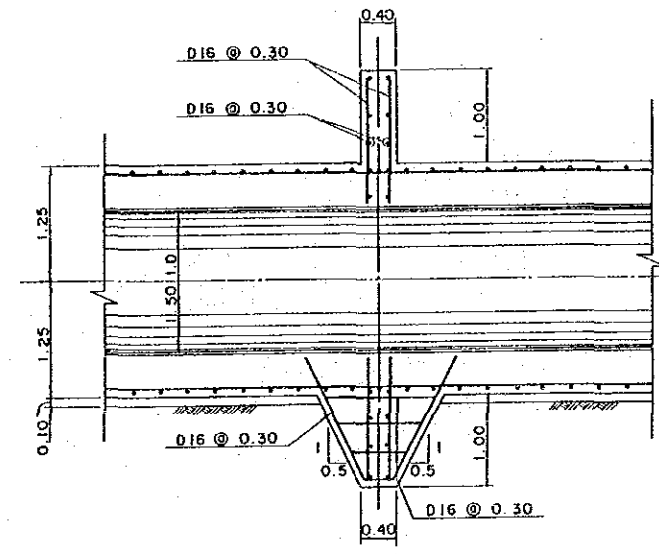
**SECTION O-O**



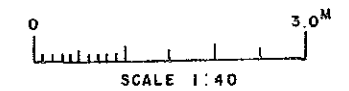
**CUTOFF**



**SECTION L-L**



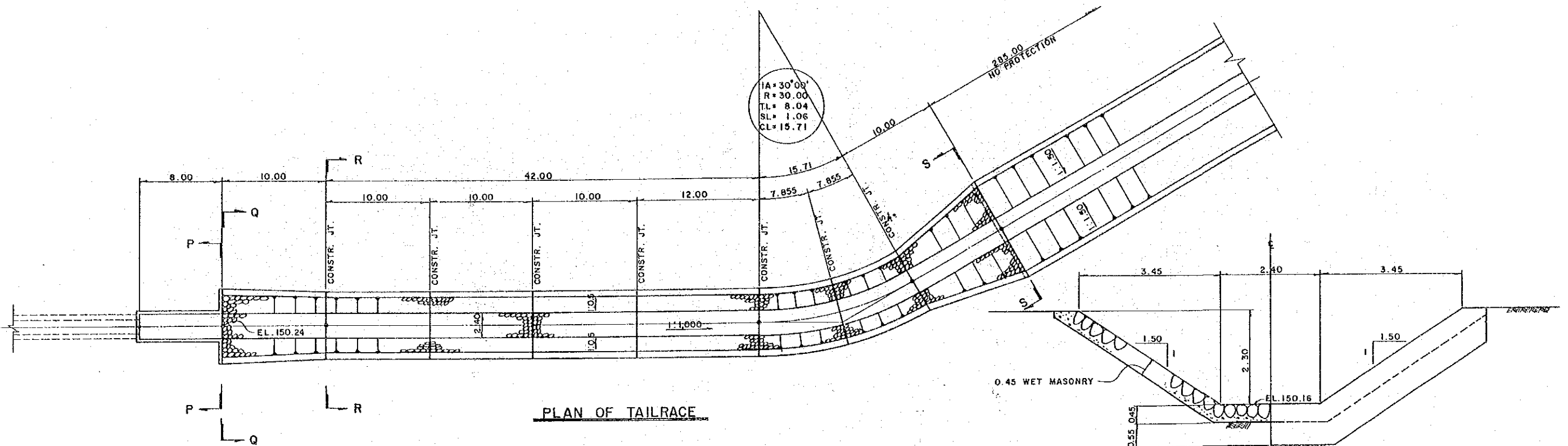
**SECTION M-M**



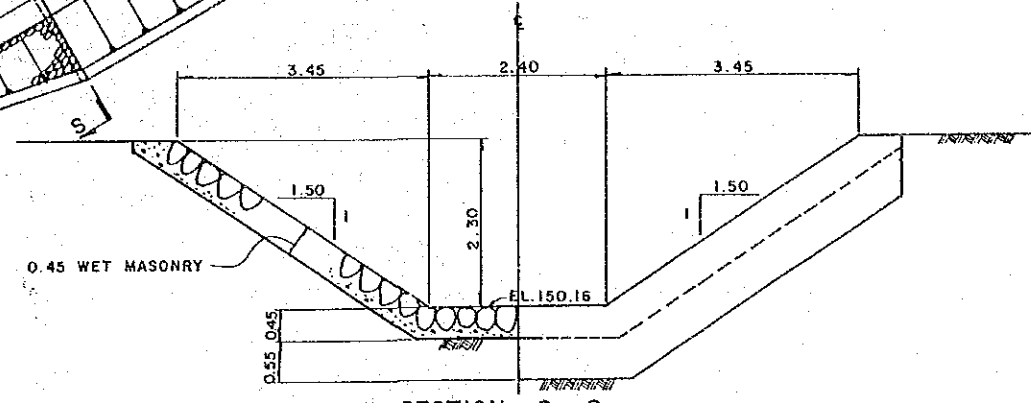
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
SERVICE OUTLET (4)			
(TYPICAL SECTION AND DETAIL OF CONDUIT)			
REV. NO	DATE	1.4.86	DWG. NO.19
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



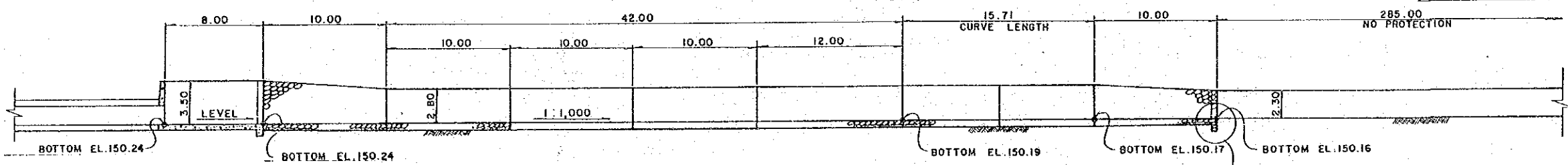
IA = 30'00"  
 R = 30.00  
 TL = 8.04  
 SL = 1.06  
 CL = 15.71



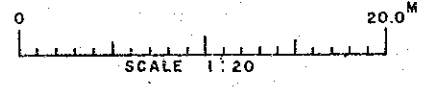
PLAN OF TAILRACE



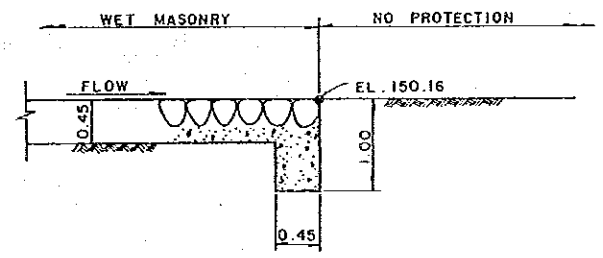
SECTION S-S



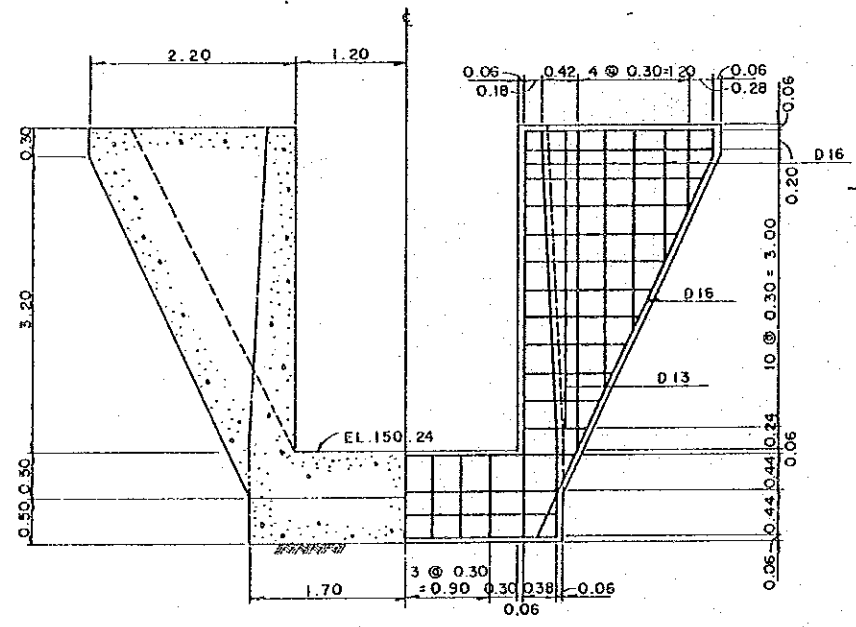
LONGTUDINAL SECTION



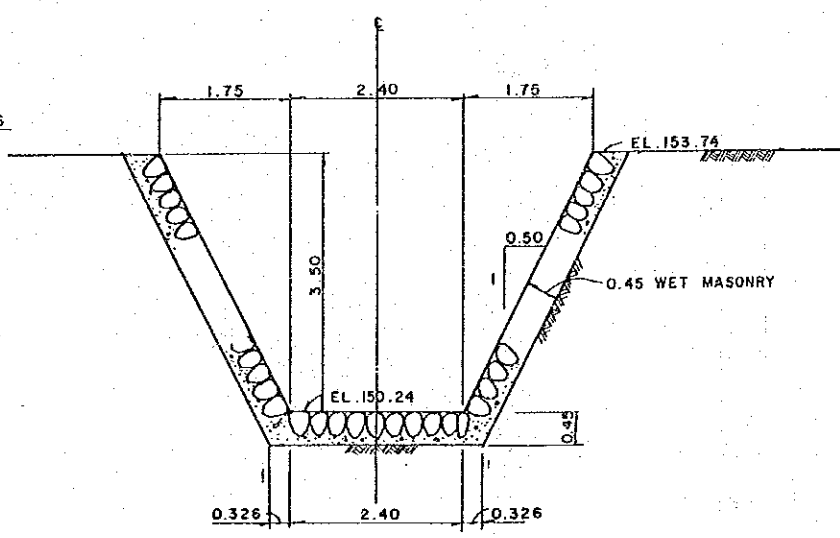
DETAIL "A"



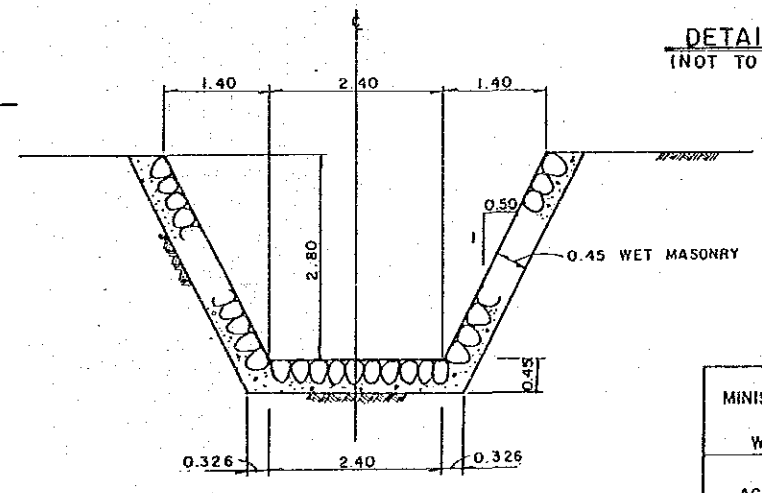
DETAIL "A"  
(NOT TO SCALE)



SECTION P-P

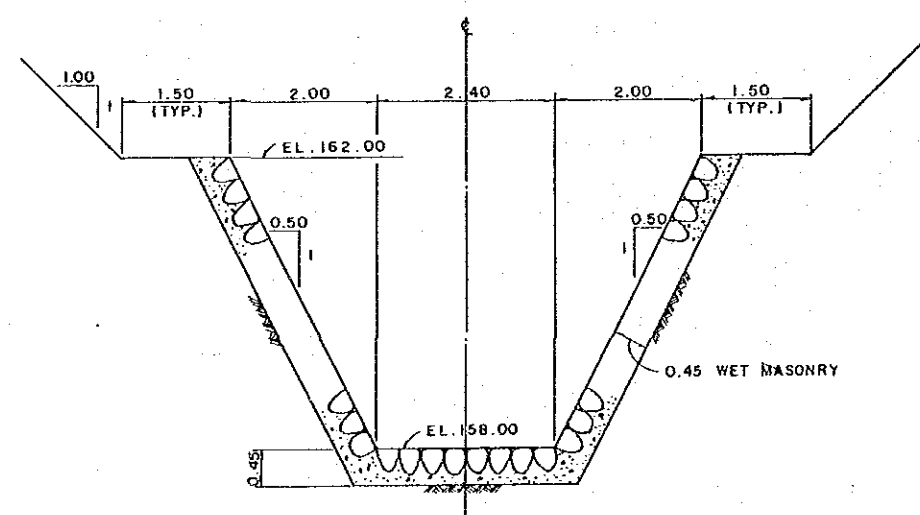
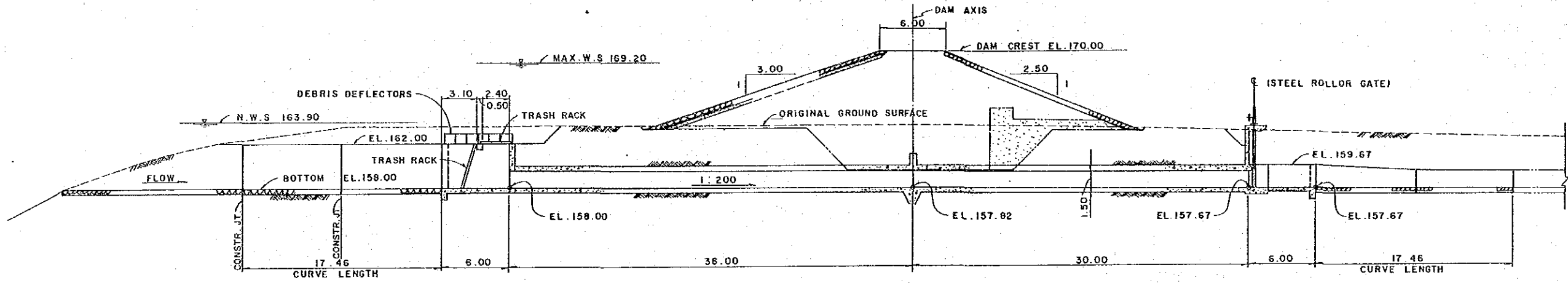
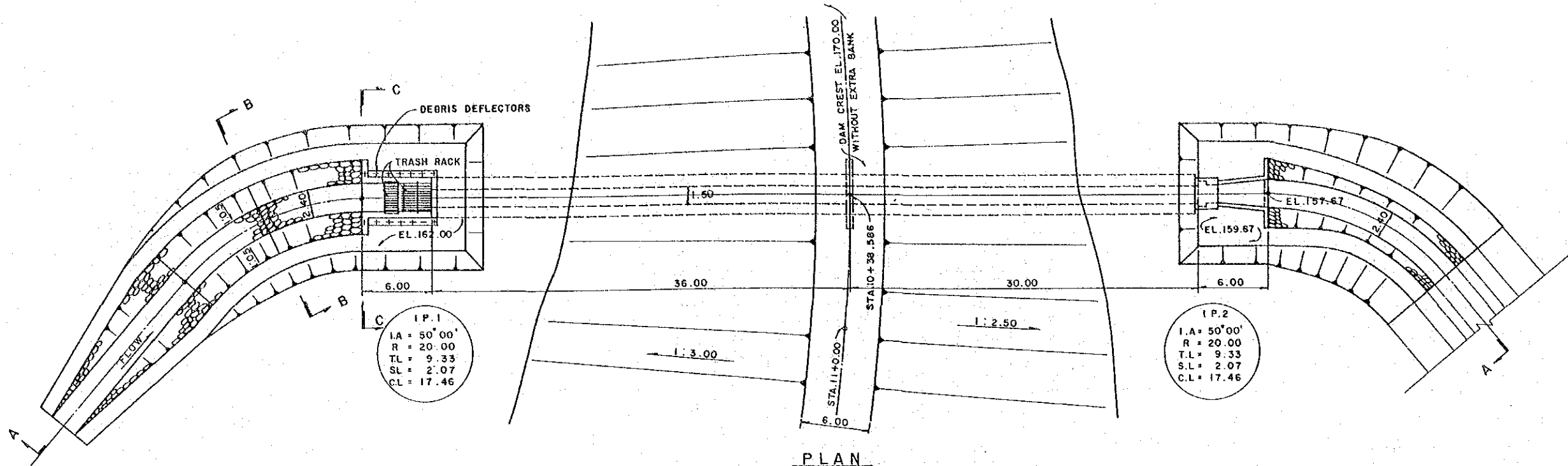


SECTION Q-Q

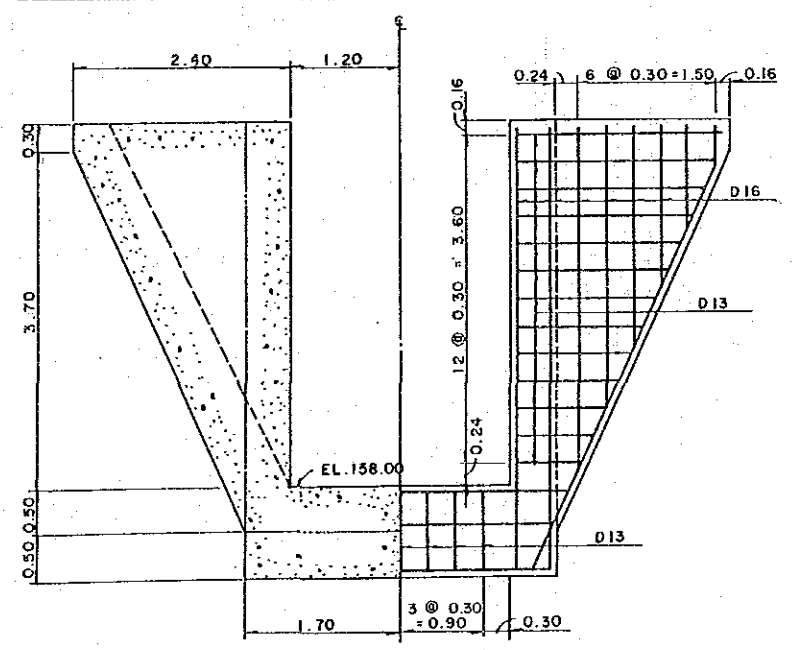


SECTION R-R

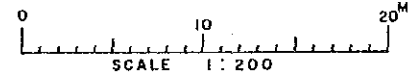
SULTANATE OF OMAN		
MINISTRY OF AGRICULTURE AND FISHERIES		
DIRECTORATE GENERAL OF		
WATER RESOURCES AND IRRIGATION		
WADI JIZZI		
AGRICULTURAL DEVELOPMENT PROJECT		
SERVICE OUTLET (5)		
(TAILRACE)		
REV. NO.	DATE	DWG. NO. 20
APPROVAL	TEAM LEADER	DESIGN ENGINEER
	<i>K. Inoue</i>	<i>[Signature]</i>



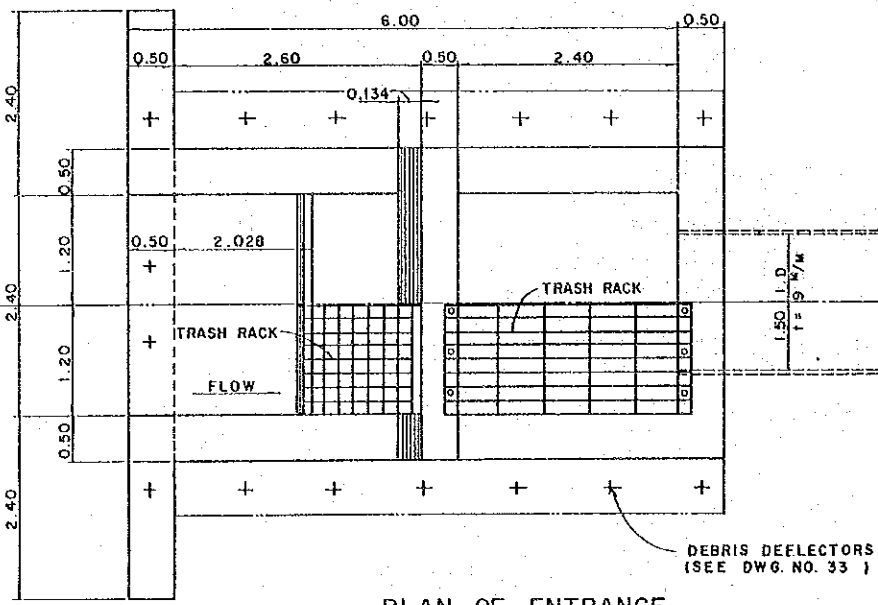
**SECTION B-B**  
SCALE 1:50



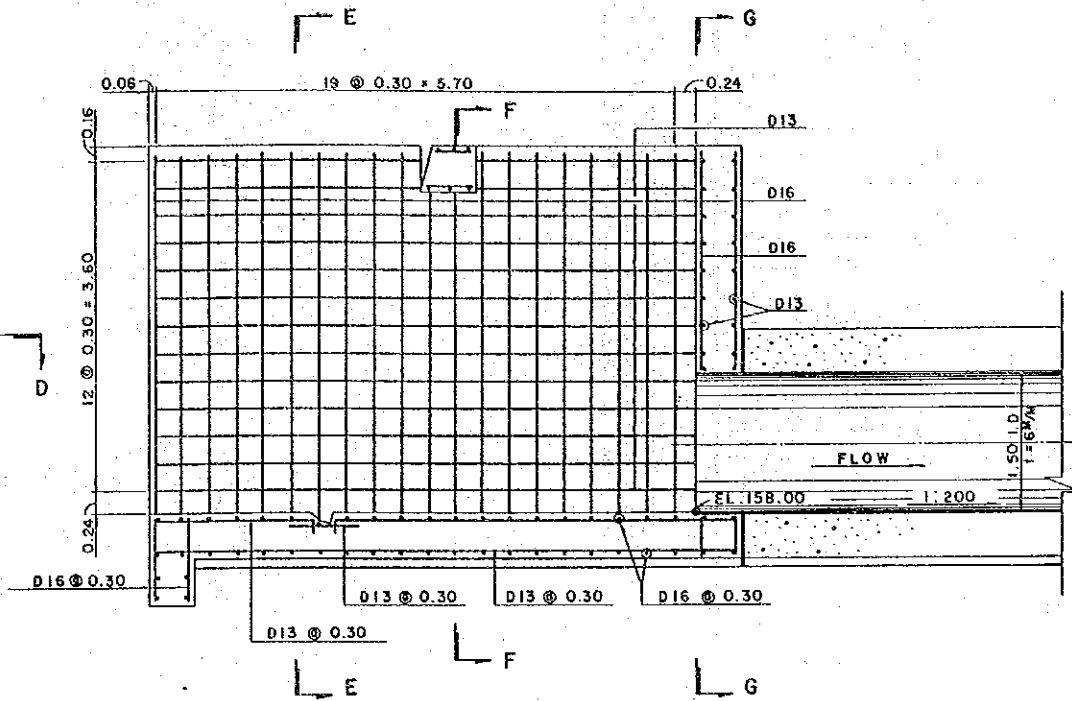
**SECTION C-C**  
SCALE 1:40



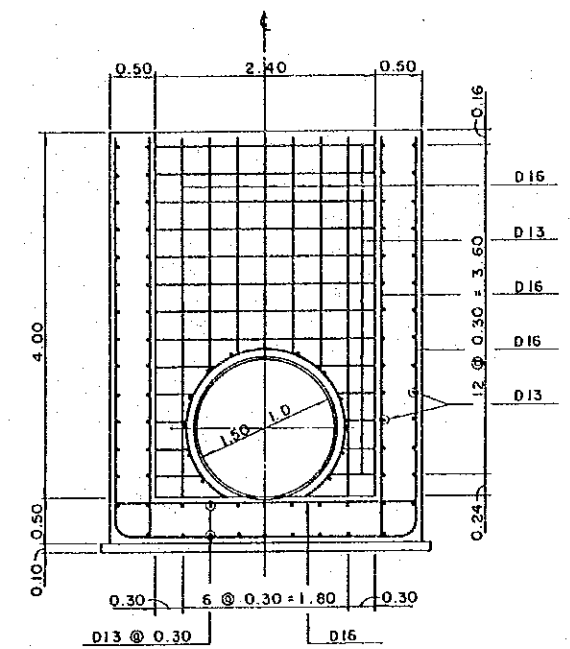
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY OUTLET (I)			
(PLAN AND PROFILE)			
REV. NO.	DATE	1.4.86	DWG. NO. 21
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



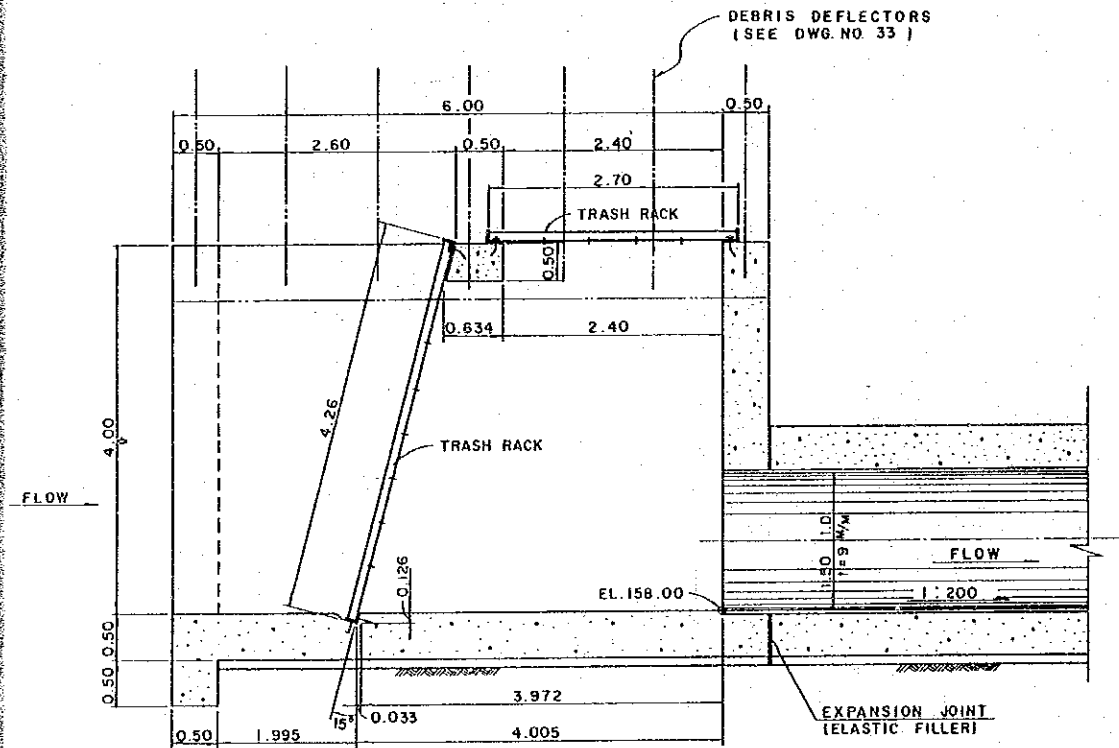
PLAN OF ENTRANCE



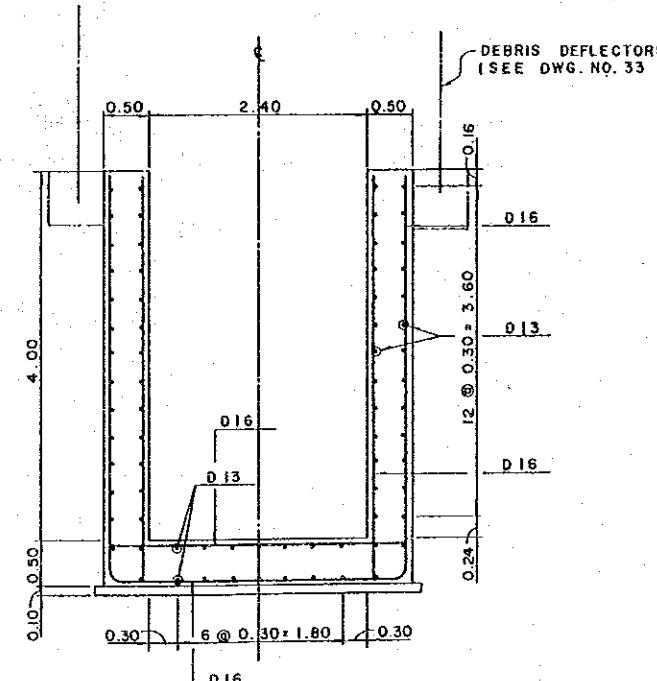
SECTION D-D



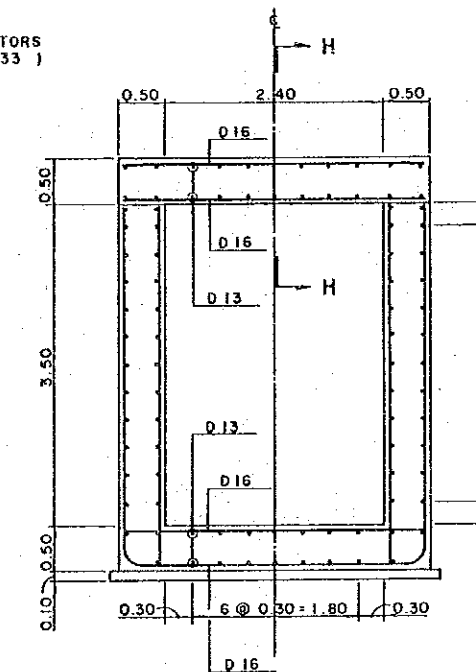
SECTION G-G



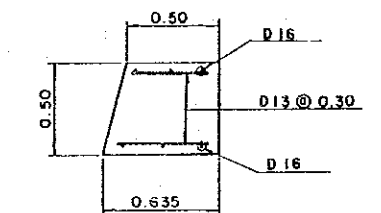
SECTION D-D



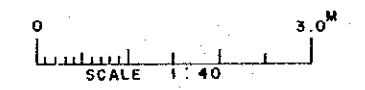
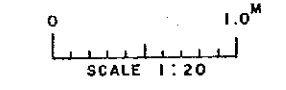
SECTION E-E



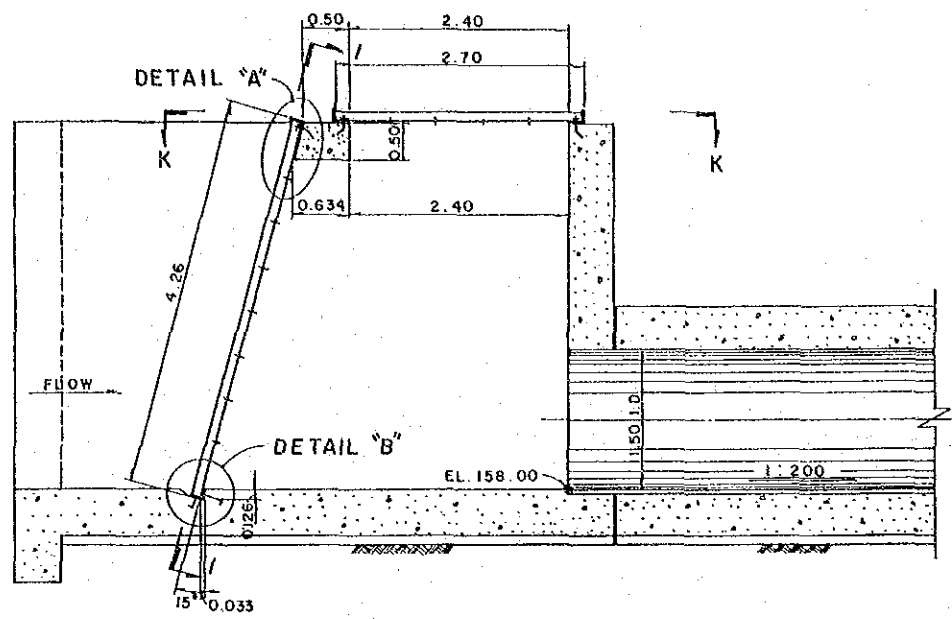
SECTION F-F



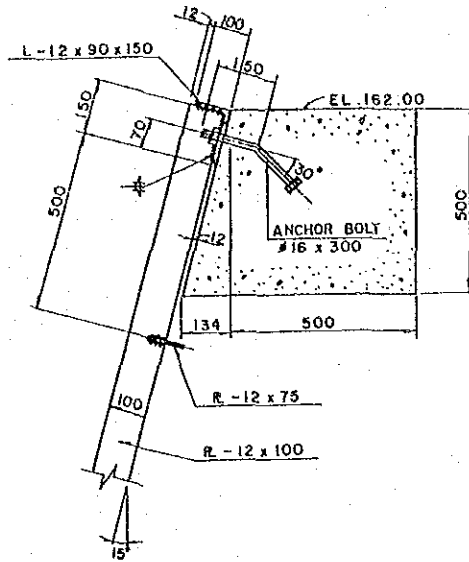
SECTION H-H



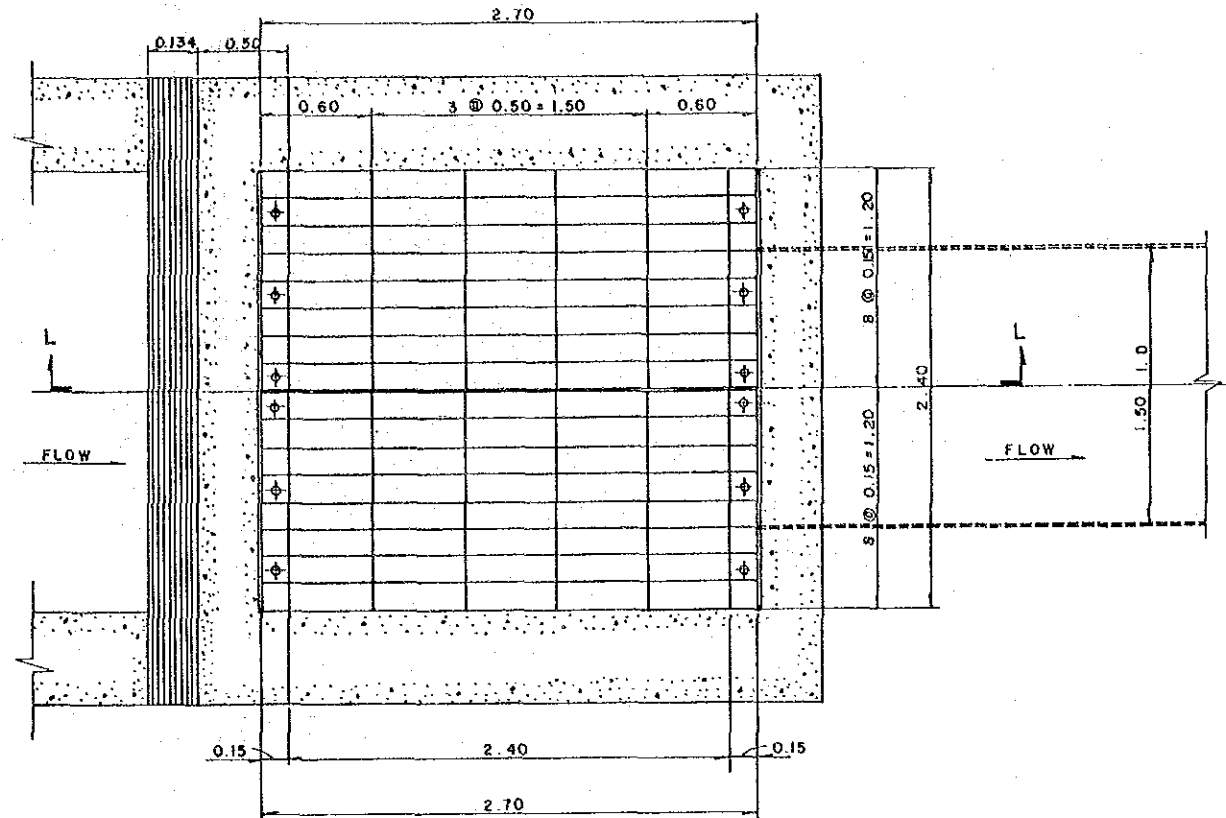
SULTANATE OF OMAN		
MINISTRY OF AGRICULTURE AND FISHERIES		
DIRECTORATE GENERAL OF		
WATER RESOURCES AND IRRIGATION		
WADI JIZZI		
AGRICULTURAL DEVELOPMENT PROJECT		
EMERGENCY OUTLET (2)		
DETAIL OF CONDUIT ENTRANCE		
REV. NO.	DATE	DWG. NO. 22
APPROVAL	TEAM LEADER	DESIGN ENGINEER
	<i>K. Anwar</i>	<i>Alf</i>



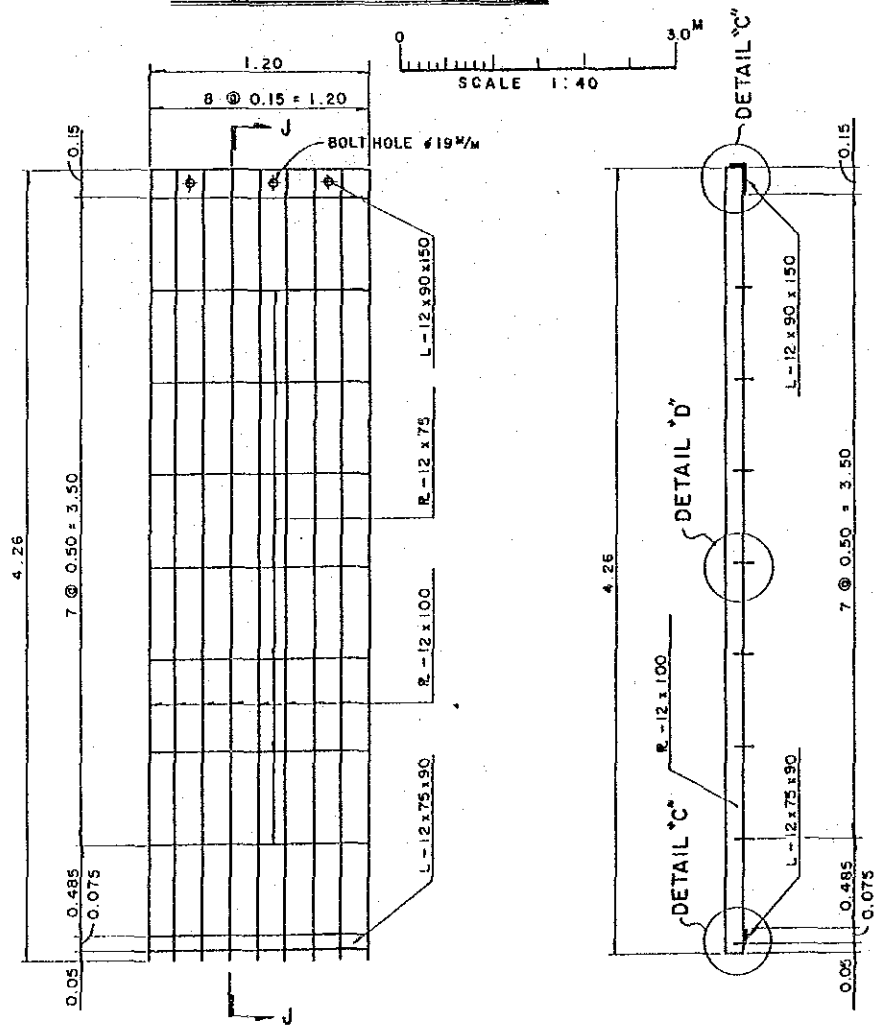
PROFILE OF ENTRANCE



DETAIL "A"  
SCALE 1:10

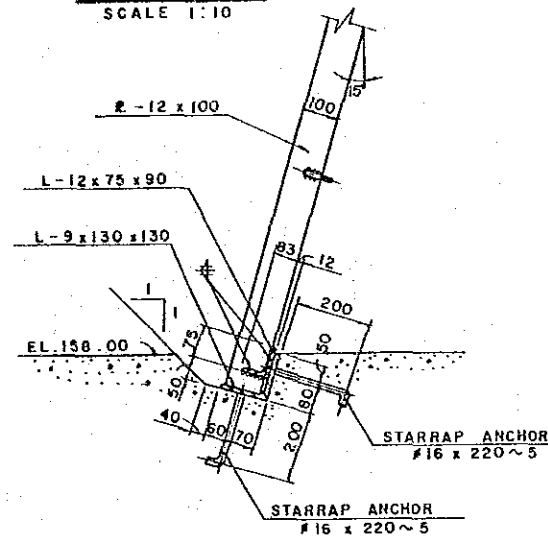


SECTION K-K  
SCALE 1:20



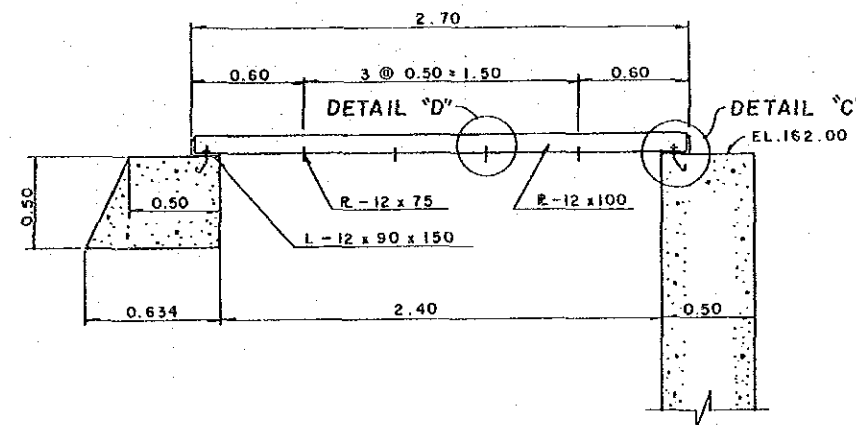
SECTION I-I  
SCALE 1:20

SECTION J-J  
SCALE 1:20

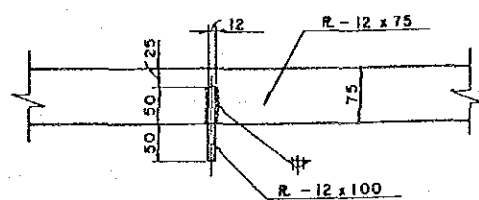


DETAIL "B"

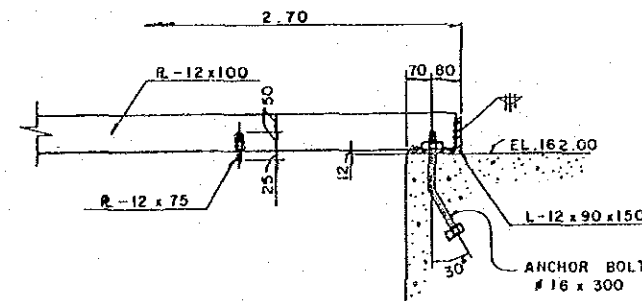
SCALE 1:10



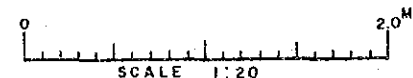
SECTION L-L  
SCALE 1:20



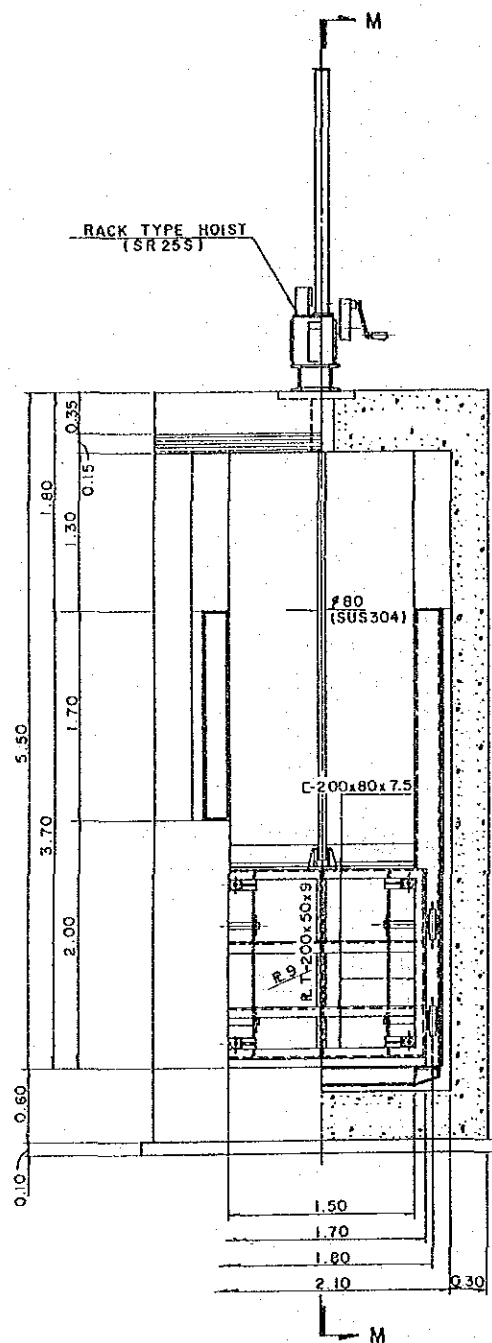
DETAIL "D"  
(NOT TO SCALE)



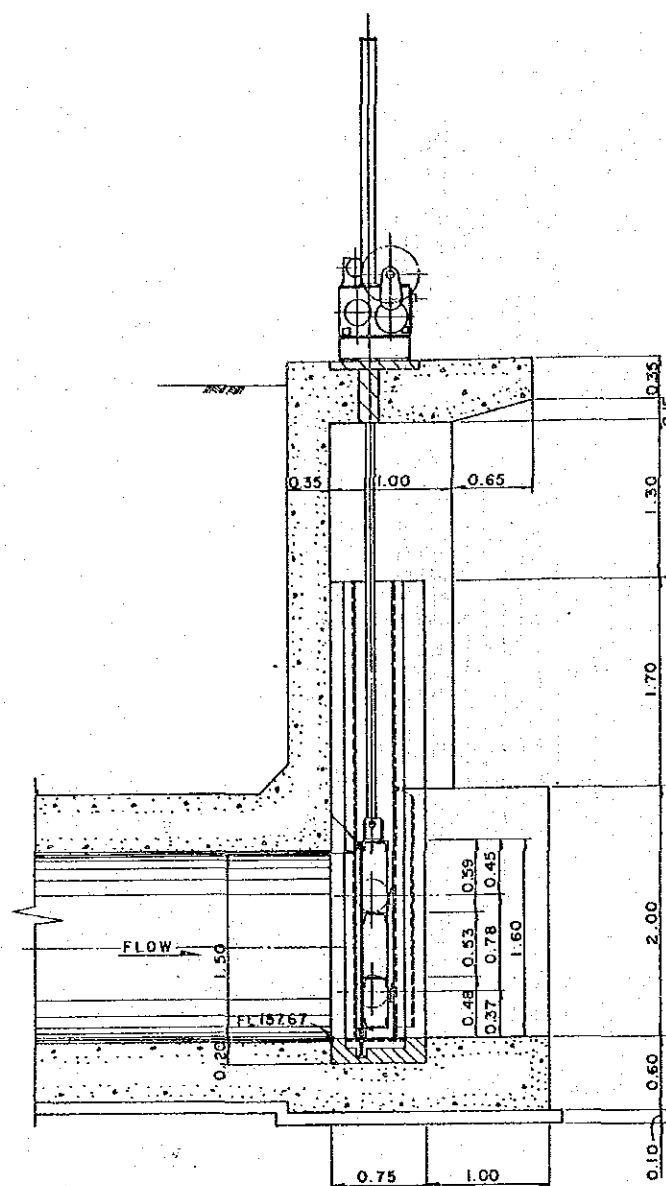
DETAIL "C"  
(NOT TO SCALE)



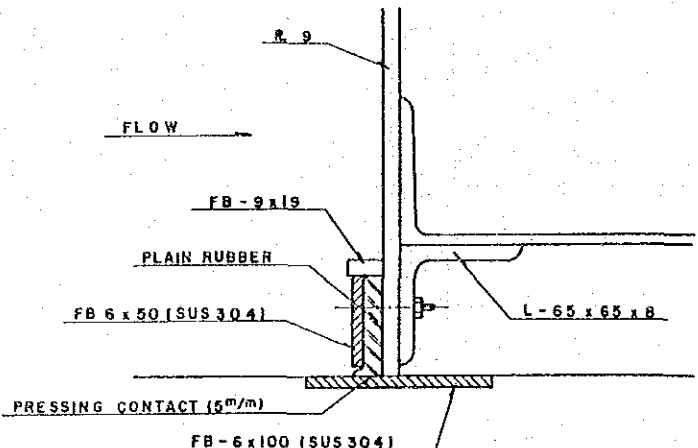
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY OUTLET (3)			
(TRASH RACK)			
REV. NO.	DATE	1.4.86	DWG. NO. 23
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



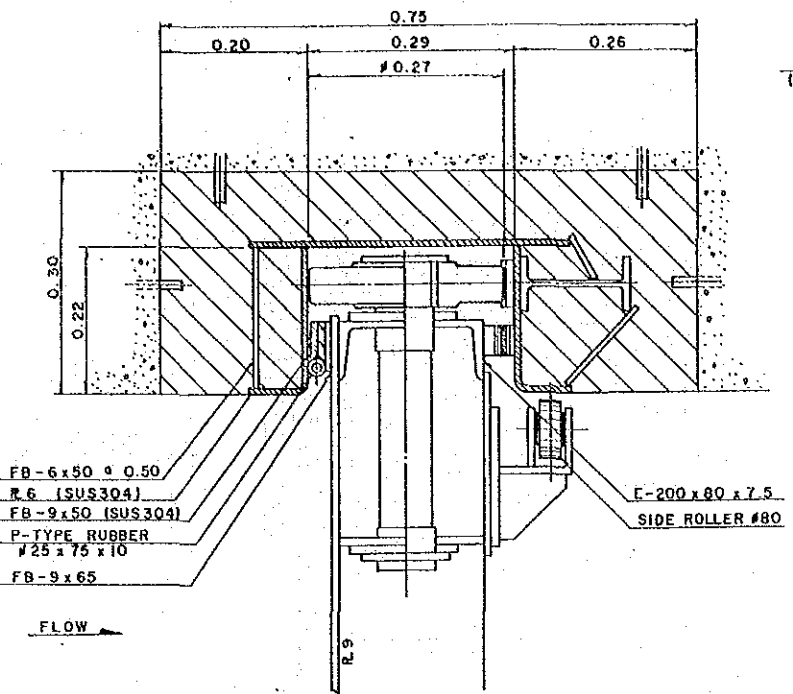
**FRONT VIEW**  
SCALE 1:30



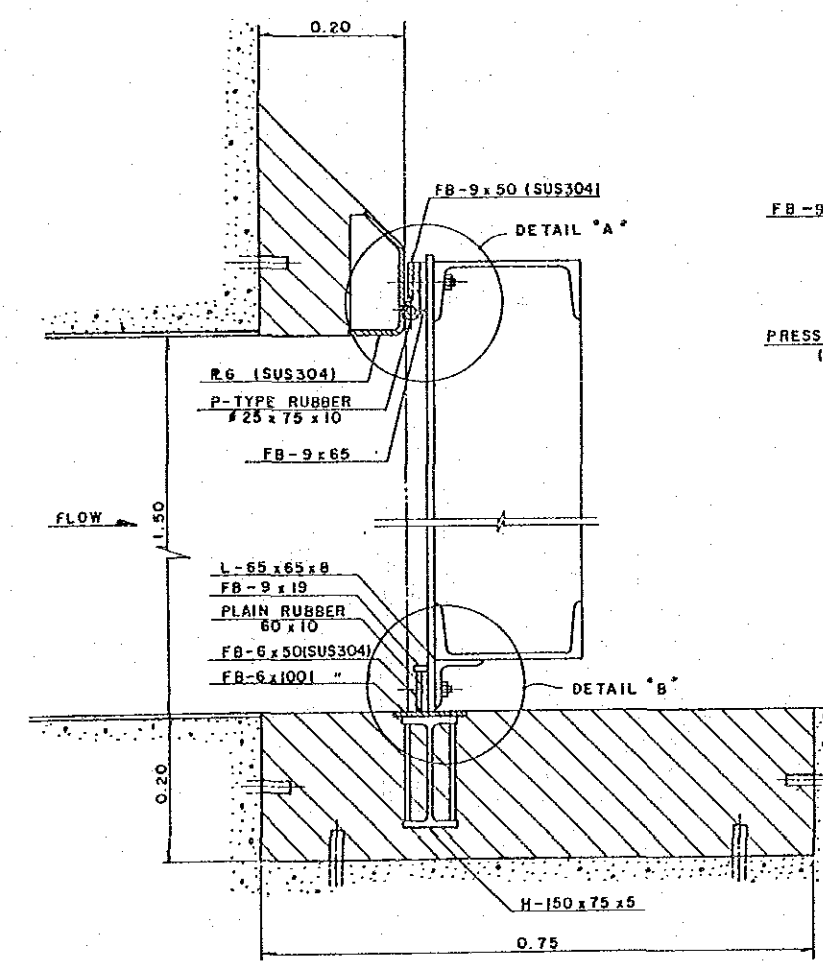
**ELEVATION (SECTION M-M)**  
SCALE 1:30



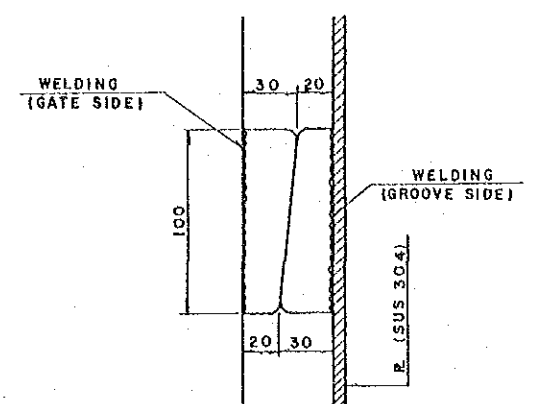
**DETAIL 'B'**  
(NOT TO SCALE)



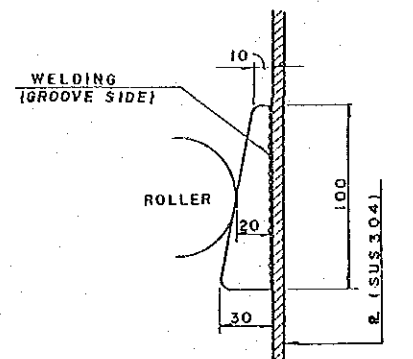
**DETAIL OF SIDE WALL**  
SCALE 1:5



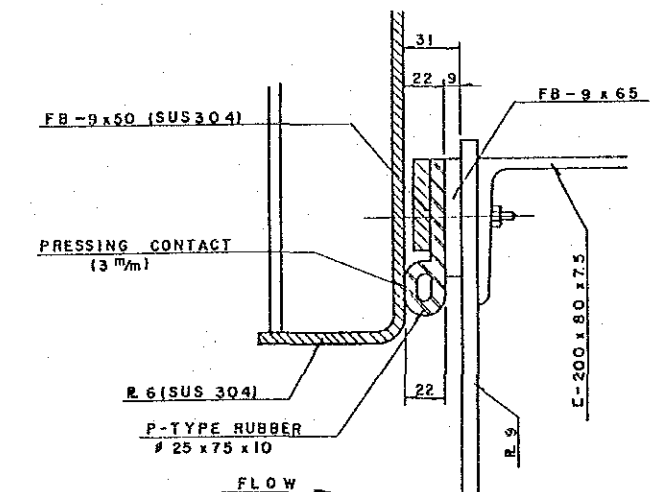
**DETAIL OF OUTLET**  
SCALE 1:5



**WEDGE OF UPPER SIDE**  
(NOT TO SCALE)



**WEDGE OF LOWER SIDE**  
(NOT TO SCALE)

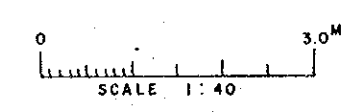
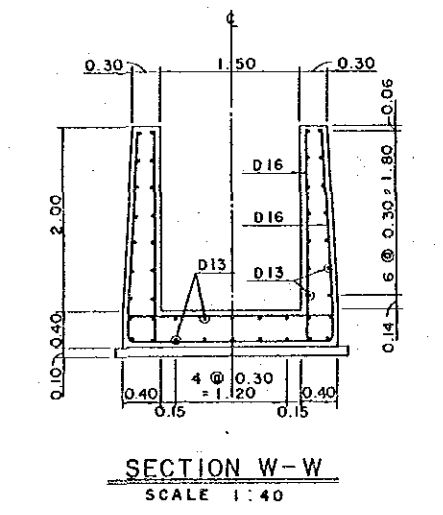
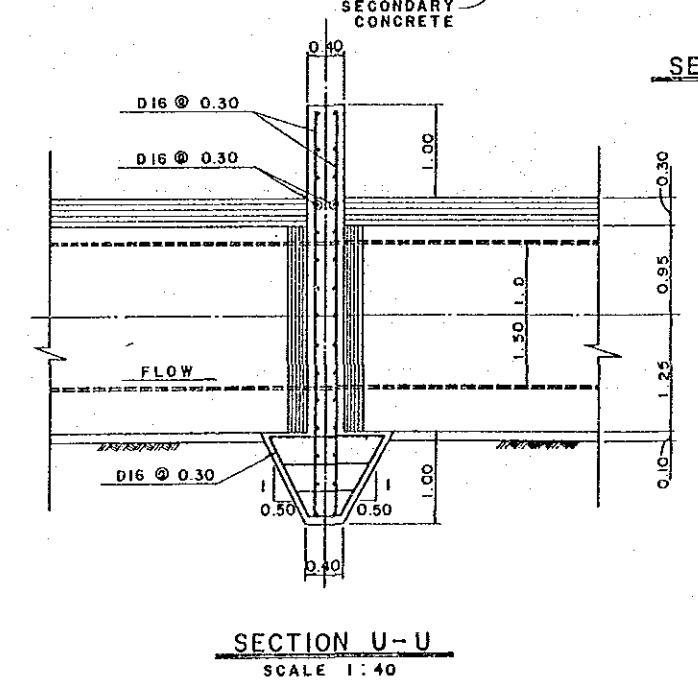
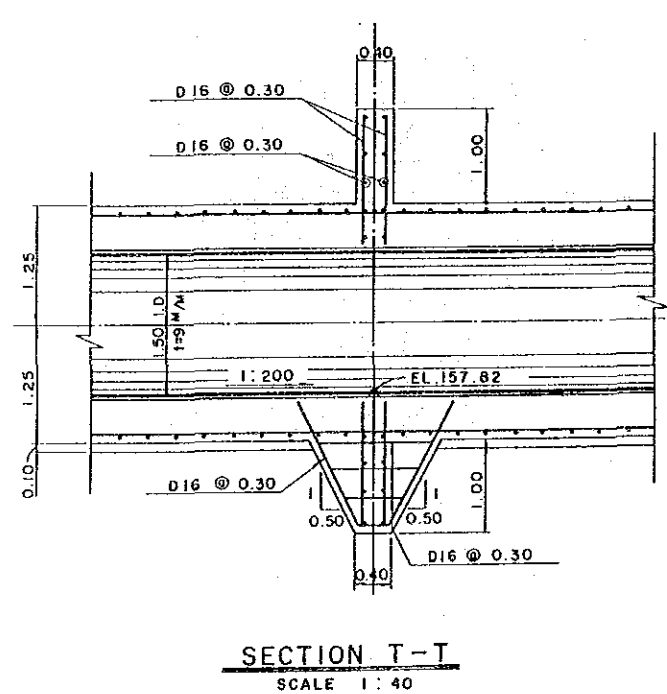
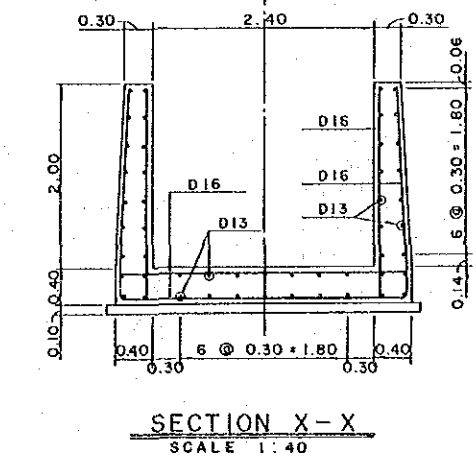
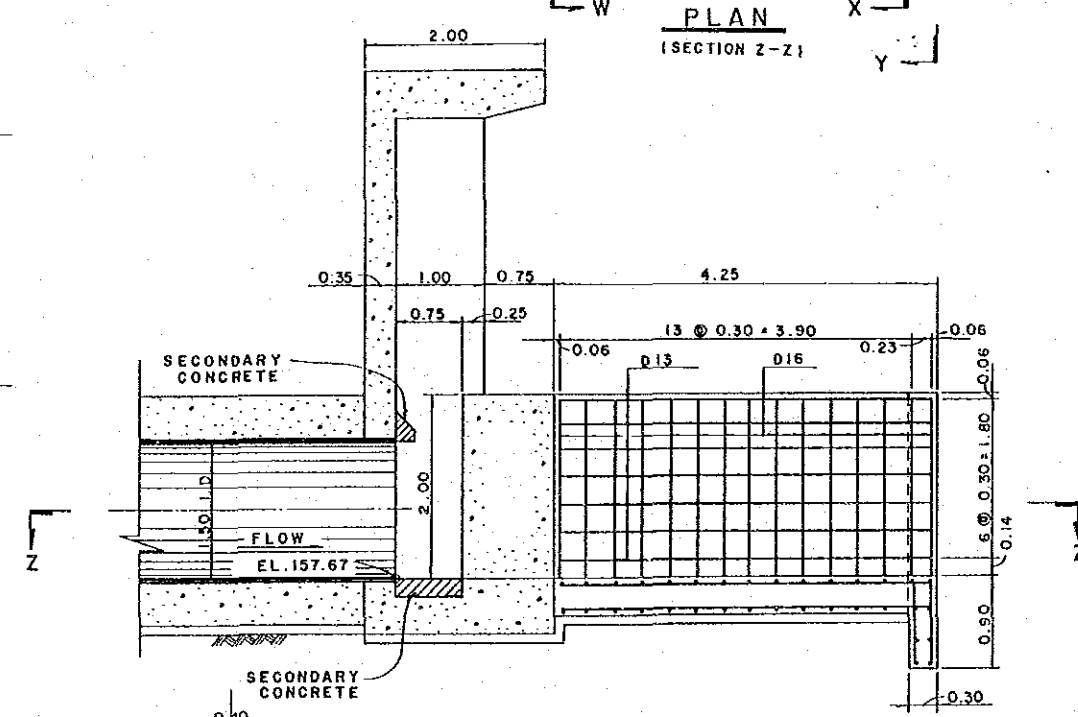
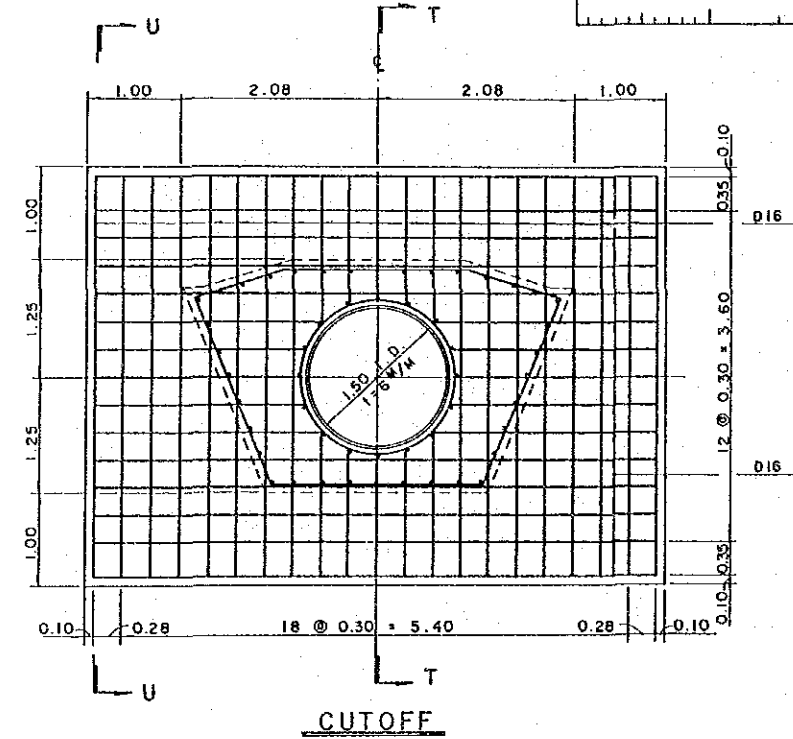
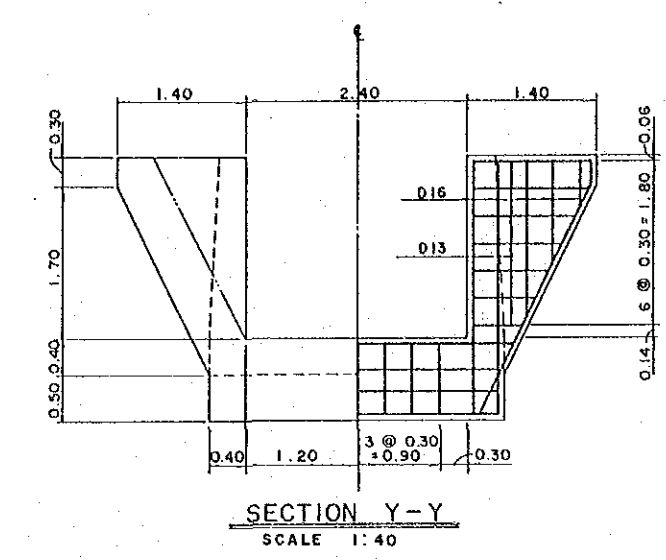
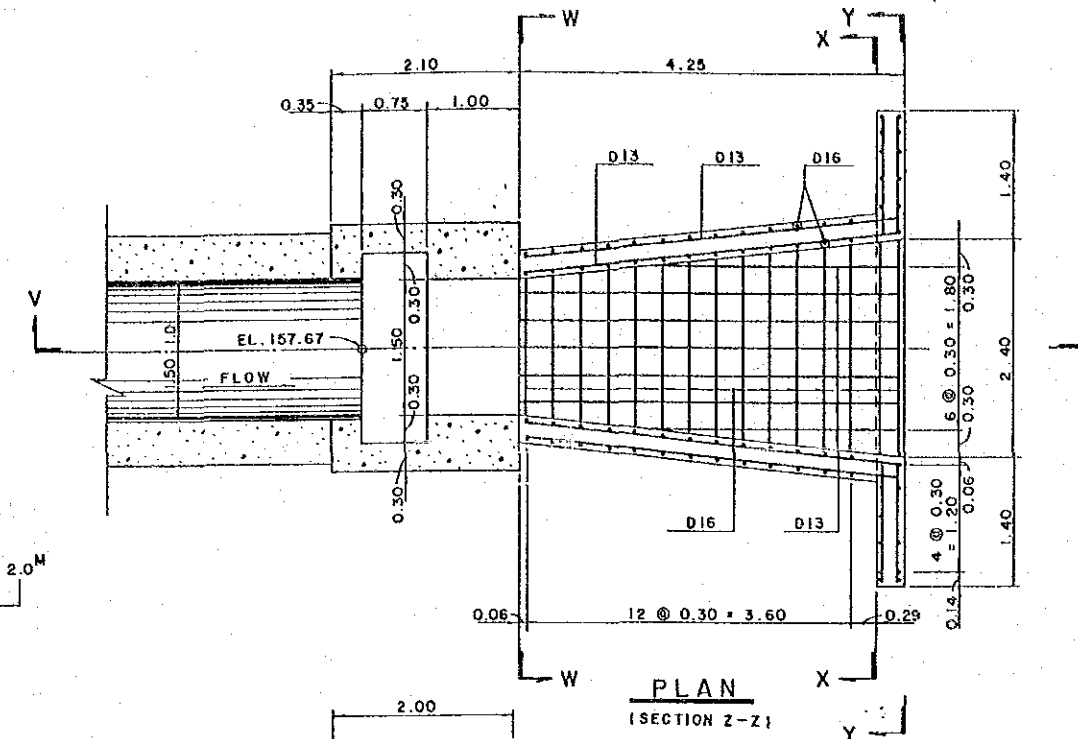
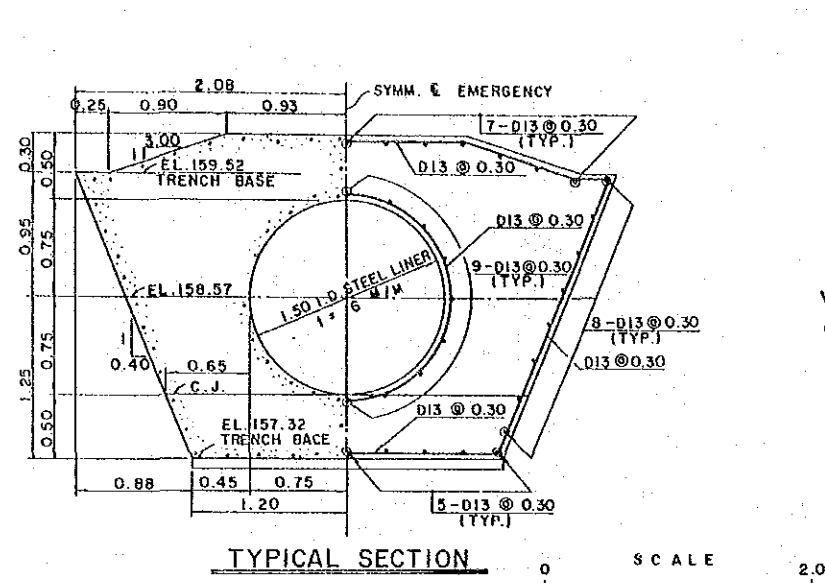


**DETAIL 'A'**  
(NOT TO SCALE)

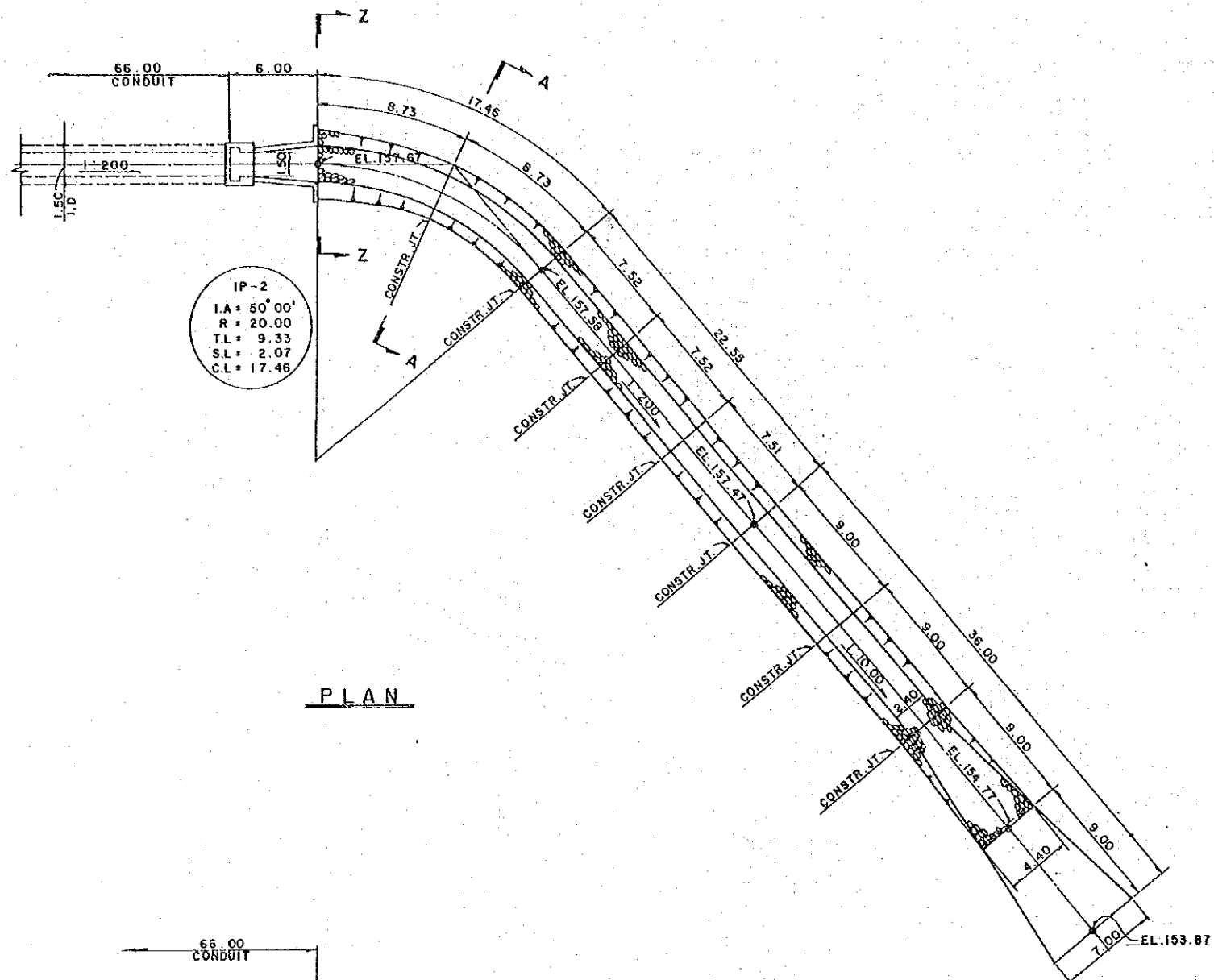
SCALE 1:5

SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY OUTLET (4) (STEEL ROLLER GATE)			
REV.NO.	DATE	1.4.86	DWG.NO.24
APPROVAL	TEAM LEADER	DESIGN ENGINEER	

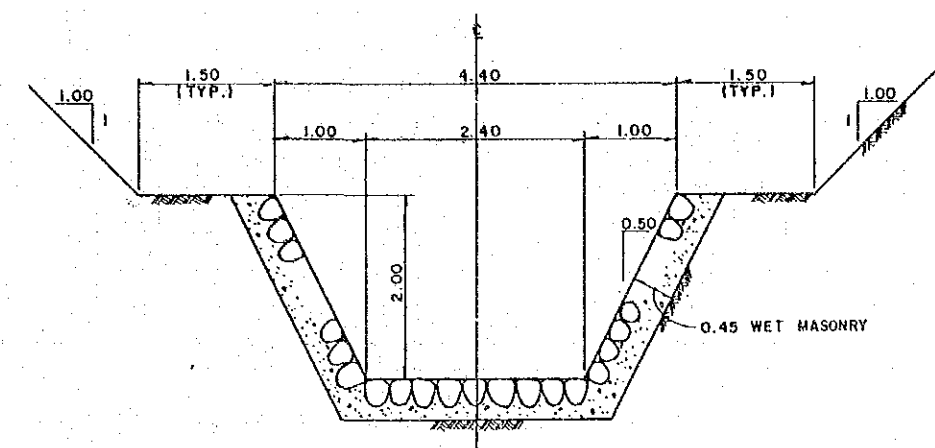




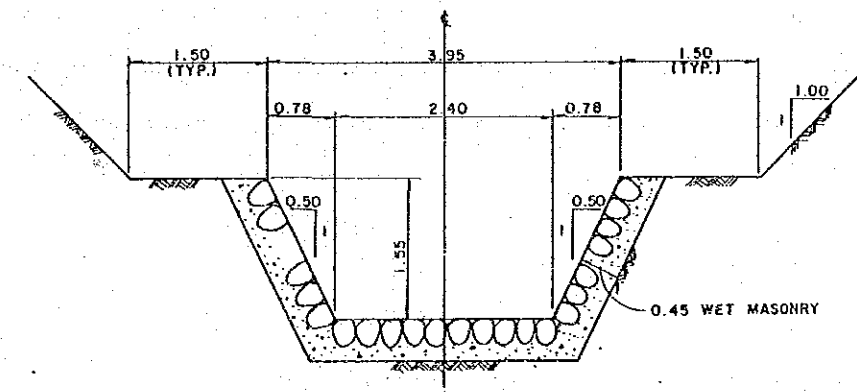
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY OUTLET (6) TYPICAL SECTION AND EXIST SECTION			
REV. NO.	DATE	1.4.86	DWG. NO. 26
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



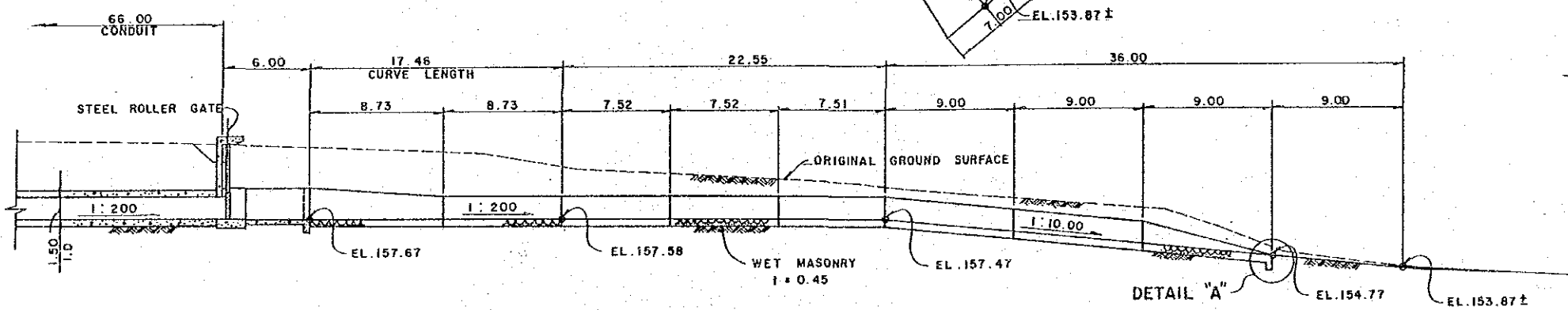
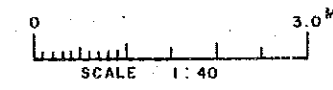
PLAN



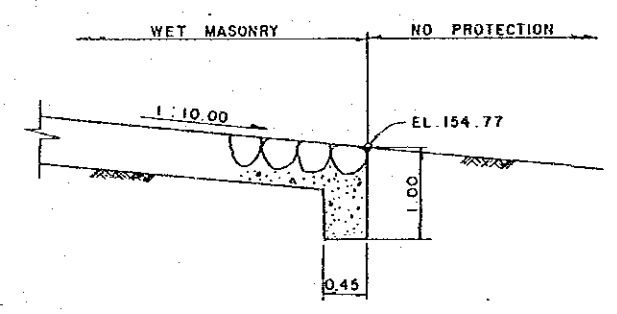
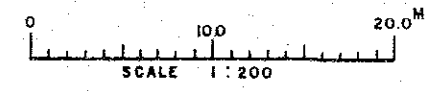
SECTION Z-Z  
 SCALE 1:40



SECTION A-A



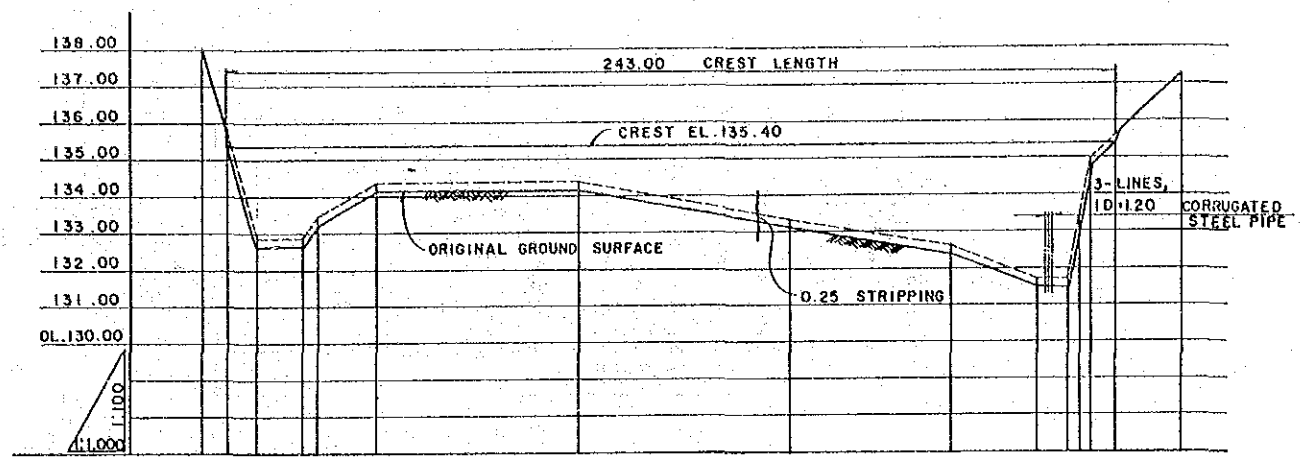
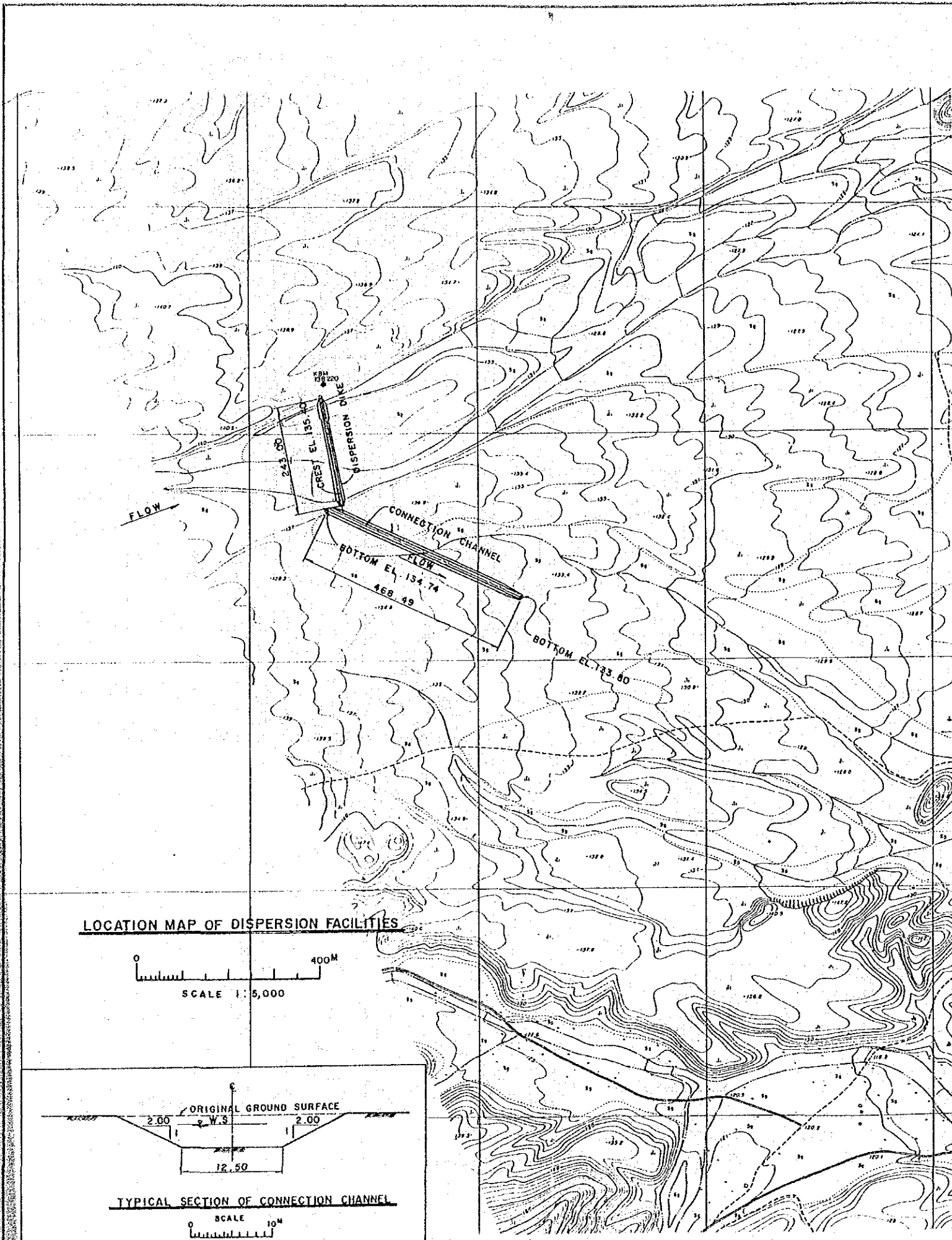
LONGTUDINAL PROFILE



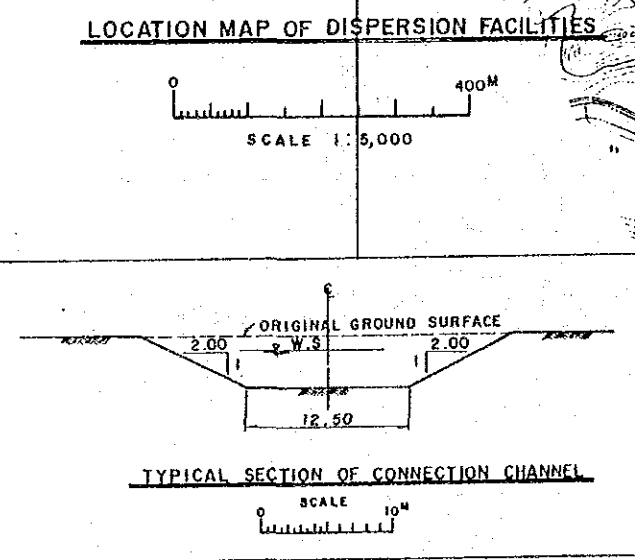
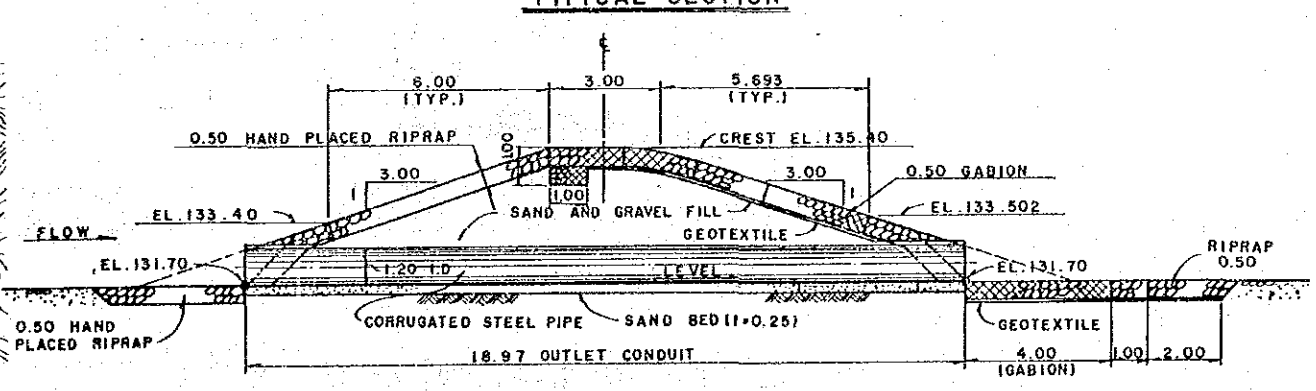
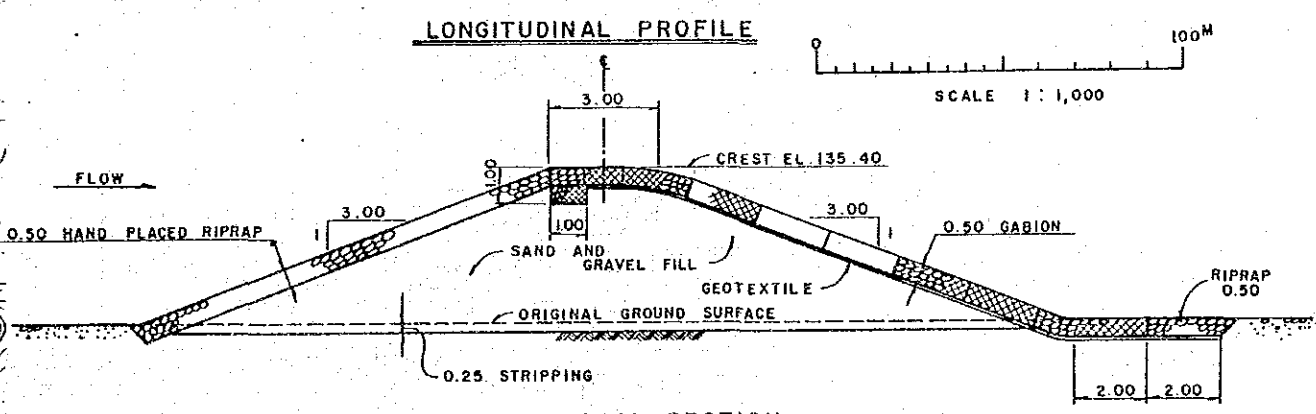
DETAIL "A"  
 (NOT TO SCALE)

SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
EMERGENCY OUTLET (7) (TAILRACE)			
REV. NO.	DATE	1.4.86	DWG. NO. 27
APPROVAL	TEAM LEADER	DESIGN ENGINEER	





DAM CREST ELEVATION	135.40														
EXCAVATION ELEVATION	135.65	135.40	132.87	132.62	135.40	134.10	135.40	134.05	135.40	135.40	131.46	135.40	131.70	135.40	135.40
GROUND ELEVATION	137.99	137.99	132.87	132.62	135.40	134.10	135.40	134.05	135.40	135.40	131.46	135.40	131.70	135.40	135.40
TOTAL DISTANCE	0.00	7.00	14.85	27.25	31.25	46.83	103.11	160.53	203.75	227.52	239.51	242.52	250.00	267.53	287.23
DISTANCE	0.00	7.00	7.85	12.50	3.98	15.50	56.28	57.42	43.22	23.77	4.00	3.01	7.48	17.53	17.53
STATION	NO.0	NO.1	NO.2	NO.3	NO.4	NO.5	NO.6	NO.7	NO.8	NO.9	NO.10	NO.11	NO.12	NO.13	NO.14



**OUTLET CONDUIT SECTION**

SCALE 1:10

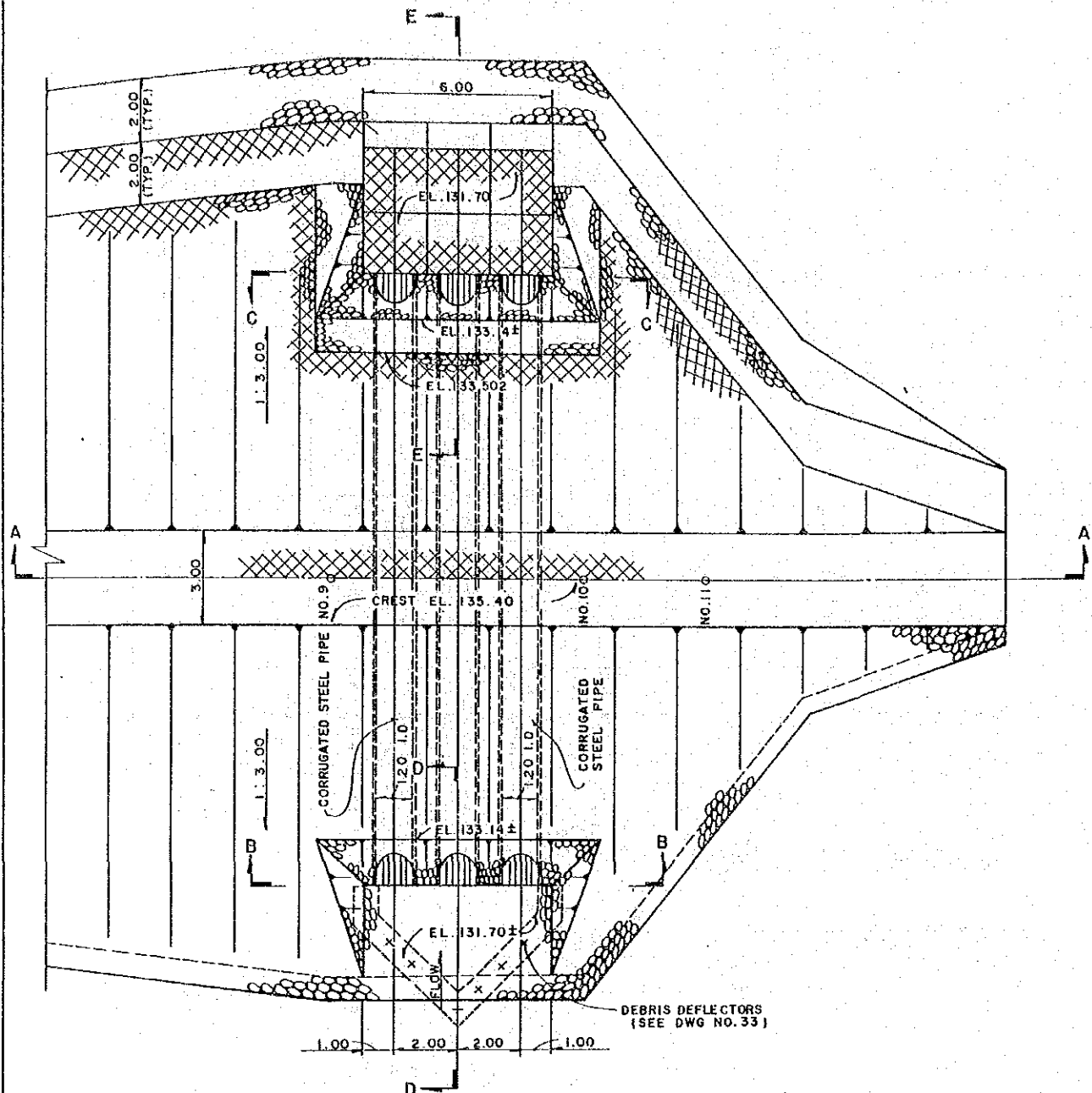
NOTE;  
TYPICAL PORE SIZE AND WEIGHT OF  
GEOTEXTILE SHALL BE AS FOLLOWS  
PORE SIZE ; 0.005 ~ 0.075 M/M  
WEIGHT ; 0.304 KG/M<sup>2</sup>

SULTANATE OF OMAN  
MINISTRY OF AGRICULTURE AND FISHERIES  
DIRECTORATE GENERAL OF  
WATER RESOURCES AND IRRIGATION

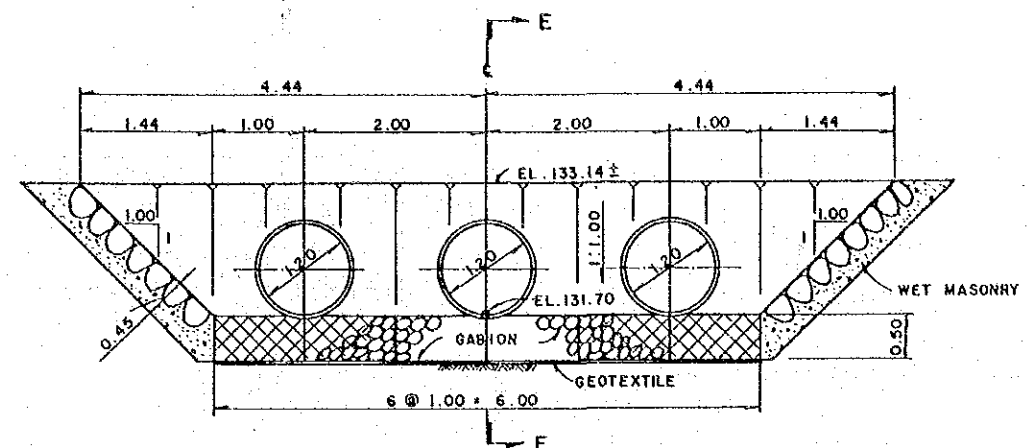
WADI JIZZI  
AGRICULTURAL DEVELOPMENT PROJECT

DISPERSION FACILITIES (I)  
LOCATION MAP, LONGITUDINAL PROFILE,  
TYPICAL SECTION, CONNECTION CHANNEL

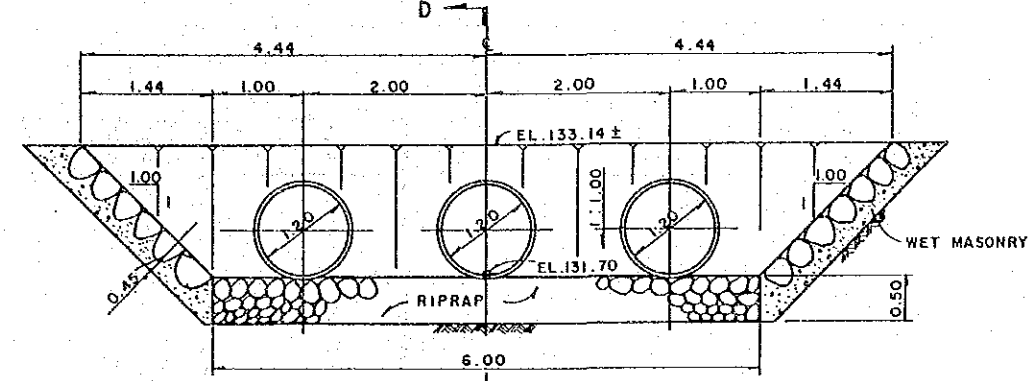
REV. NO	DATE	1.4.86	DWG. NO. 28
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



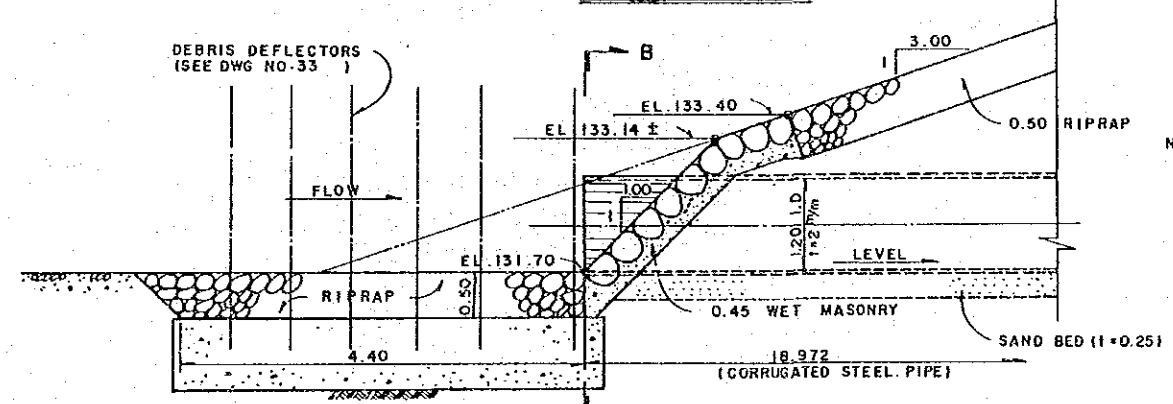
**PLAN**  
SCALE 1:100



**SECTION C-C**

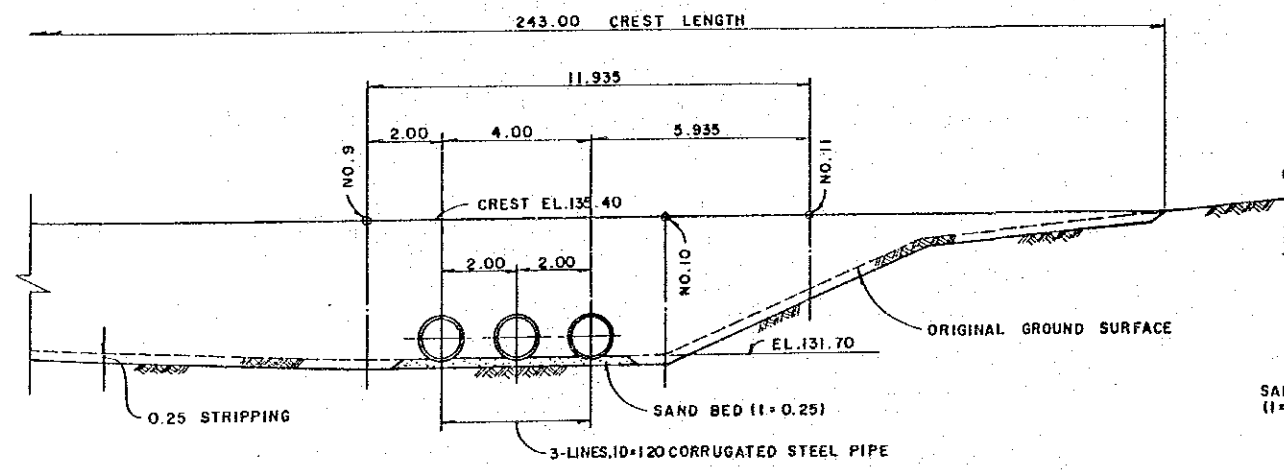


**SECTION B-B**



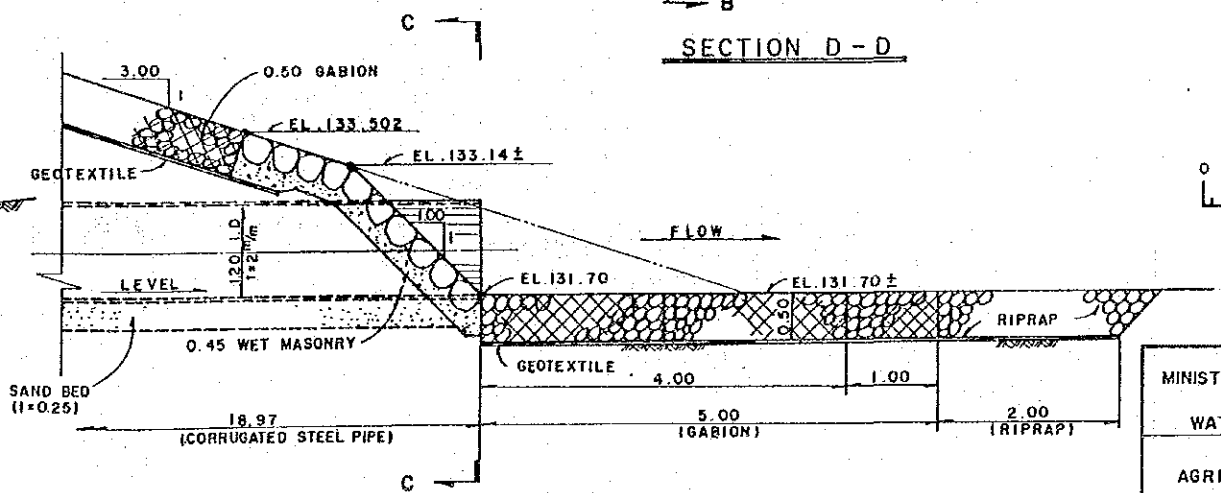
**SECTION D-D**

NOTE ;  
TYPICAL PORE SIZE AND  
WEIGHT OF GEOTEXTILE  
SHALL BE AS FOLLOWS  
PORE SIZE ; 0.005~0.074 M/M  
WEIGHT ; 0.340 KG/M<sup>2</sup>



**SECTION A-A**

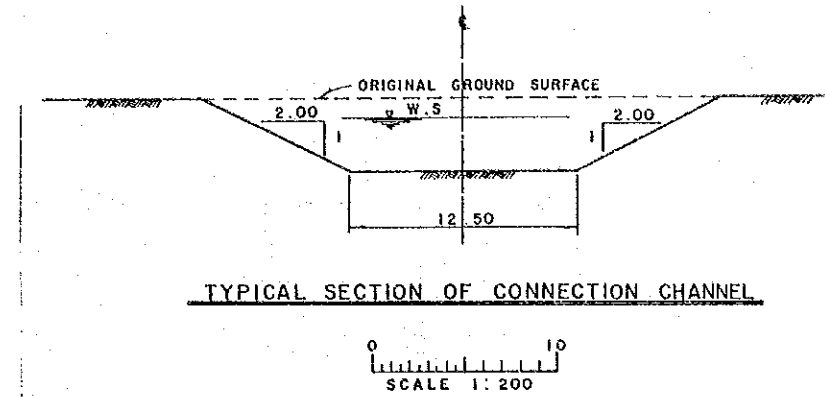
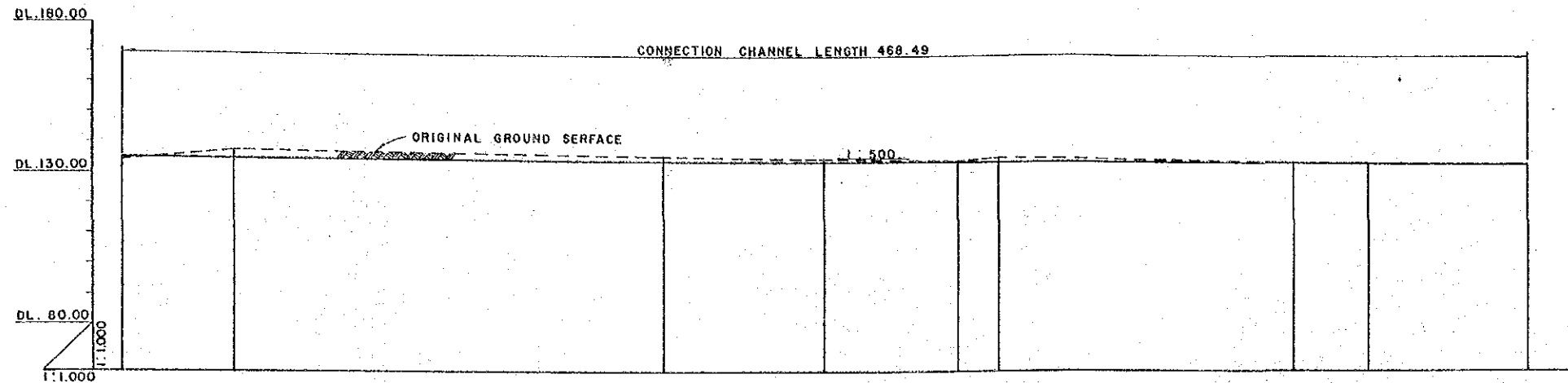
SCALE 5.0  
SCALE 1:100



**SECTION E-E**

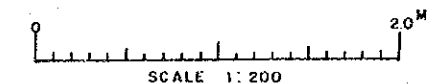
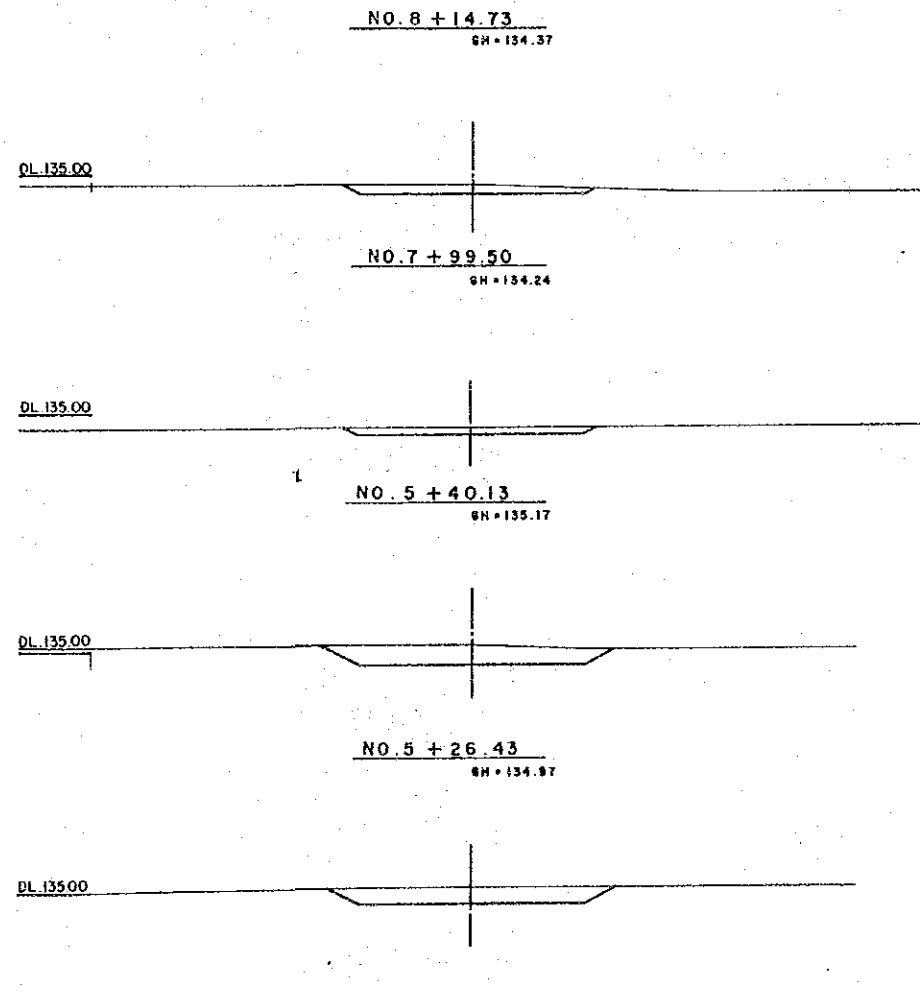
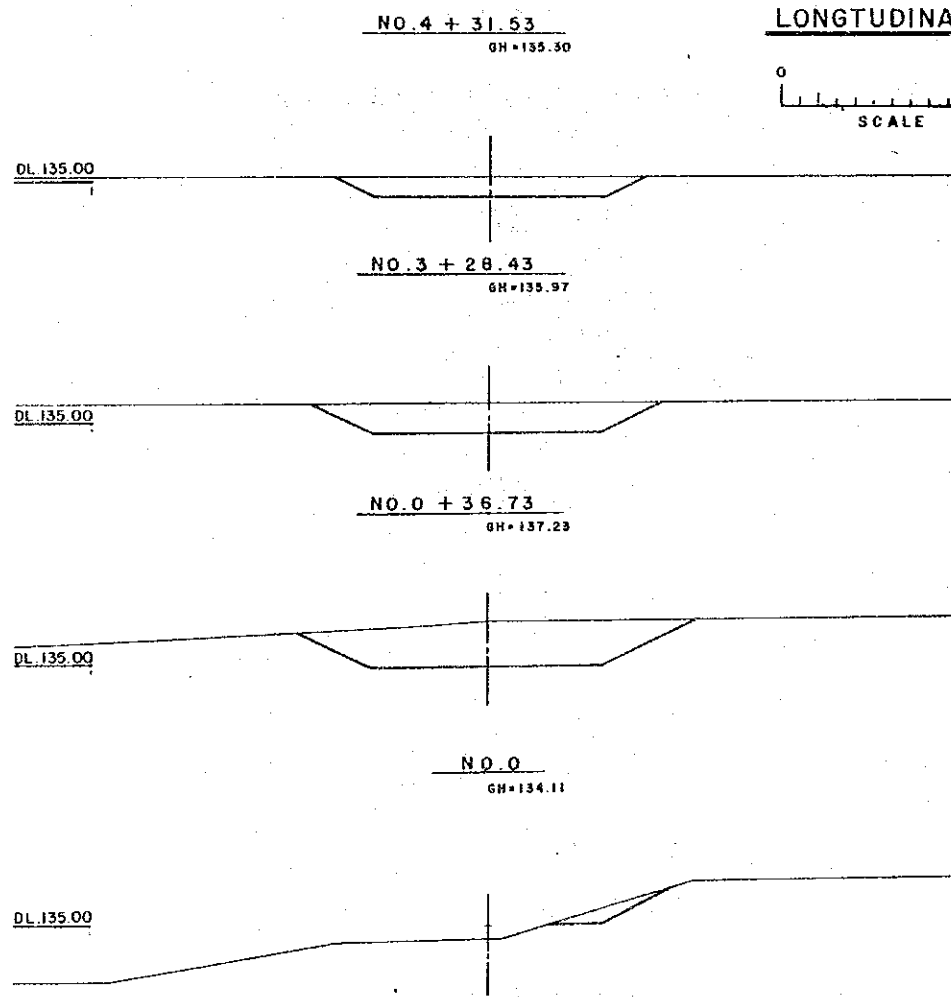
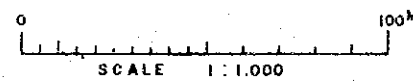
0 3.0M  
SCALE 1:40

SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
DISPERSION FACILITIES (2)			
(DETAIL)			
REV. NO	DATE	1.4.86	DWG. NO. 29
APPROVAL	TEAM LEADER	DESIGN ENGINEER	

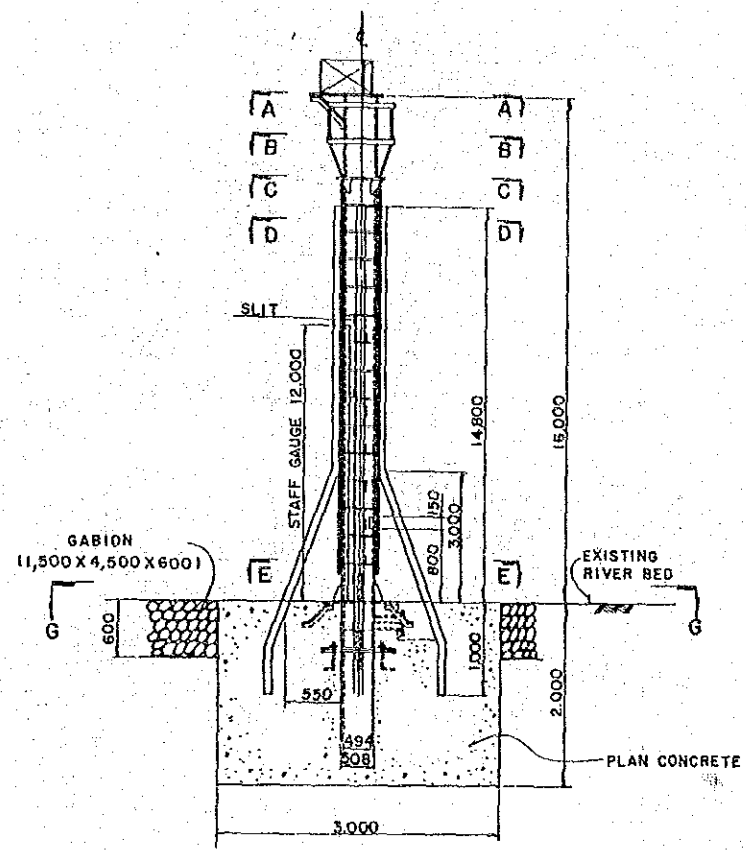


STATION	DISTANCE	TOTAL DISTANCE	GROUND ELEVATION	BOTTOM ELEVATION
NO. 0	0.00	0.00	134.11	134.74
NO. 1	36.73	36.73	137.23	134.67
NO. 2	73.46	73.46	134.64	134.64
NO. 3	110.19	110.19	134.44	134.44
NO. 4	146.92	146.92	134.36	134.36
NO. 5	183.65	183.65	134.24	134.24
NO. 6	220.38	220.38	134.16	134.16
NO. 7	257.11	257.11	134.04	134.04
NO. 8	293.84	293.84	133.96	133.96
NO. 9	330.57	330.57	133.84	133.84
NO. 10	367.30	367.30	133.80	133.80

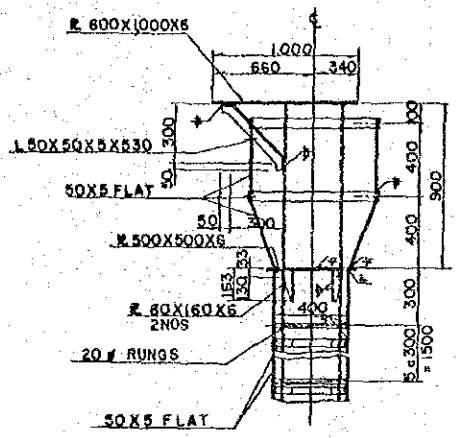
LONGTUDINAL PROFILE



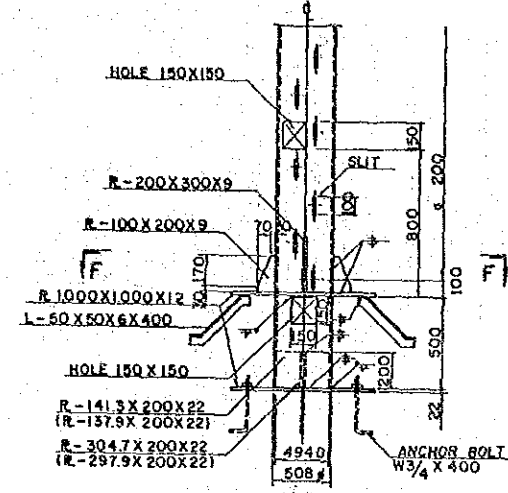
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
DISPERSION FACILITIES (3) (CONNECTION CHANNEL)			
REV. NO	DATE	1.4.86	DWG. NO. 30
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



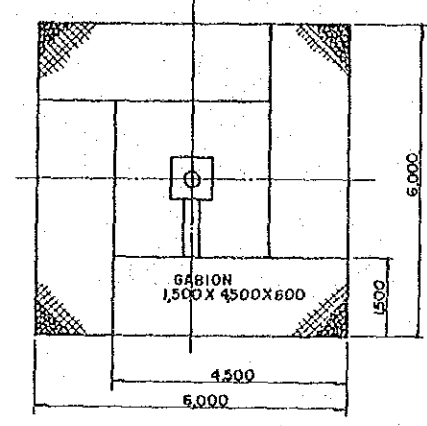
**ELEVATION OF WATER LEVEL GAUGE**  
(NOT TO SCALE)



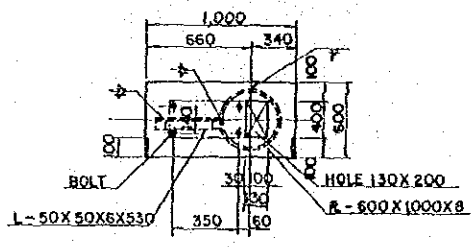
**DETAILED UPPER PART OF THE GAUGE**  
(NOT TO SCALE)



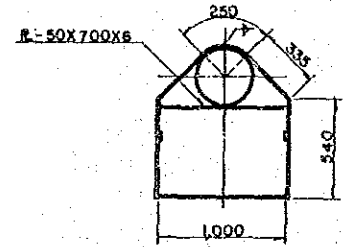
**DETAILED LOWER PART OF THE GAUGE**  
(NOT TO SCALE)



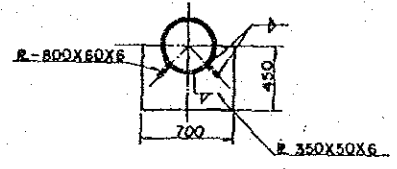
**SECTION G - G**  
(NOT TO SCALE)



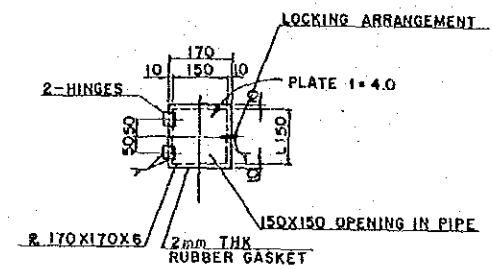
**SECTION A - A**  
(NOT TO SCALE)



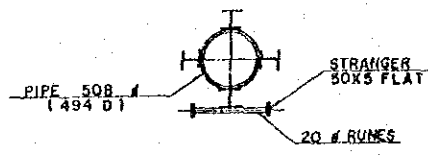
**SECTION B - B**  
(NOT TO SCALE)



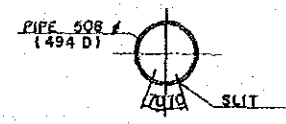
**SECTION C - C**  
(NOT TO SCALE)



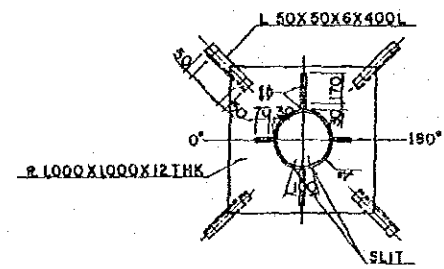
**DRAINAGE COVER**  
(NOT TO SCALE)



**SECTION D - D**  
(NOT TO SCALE)



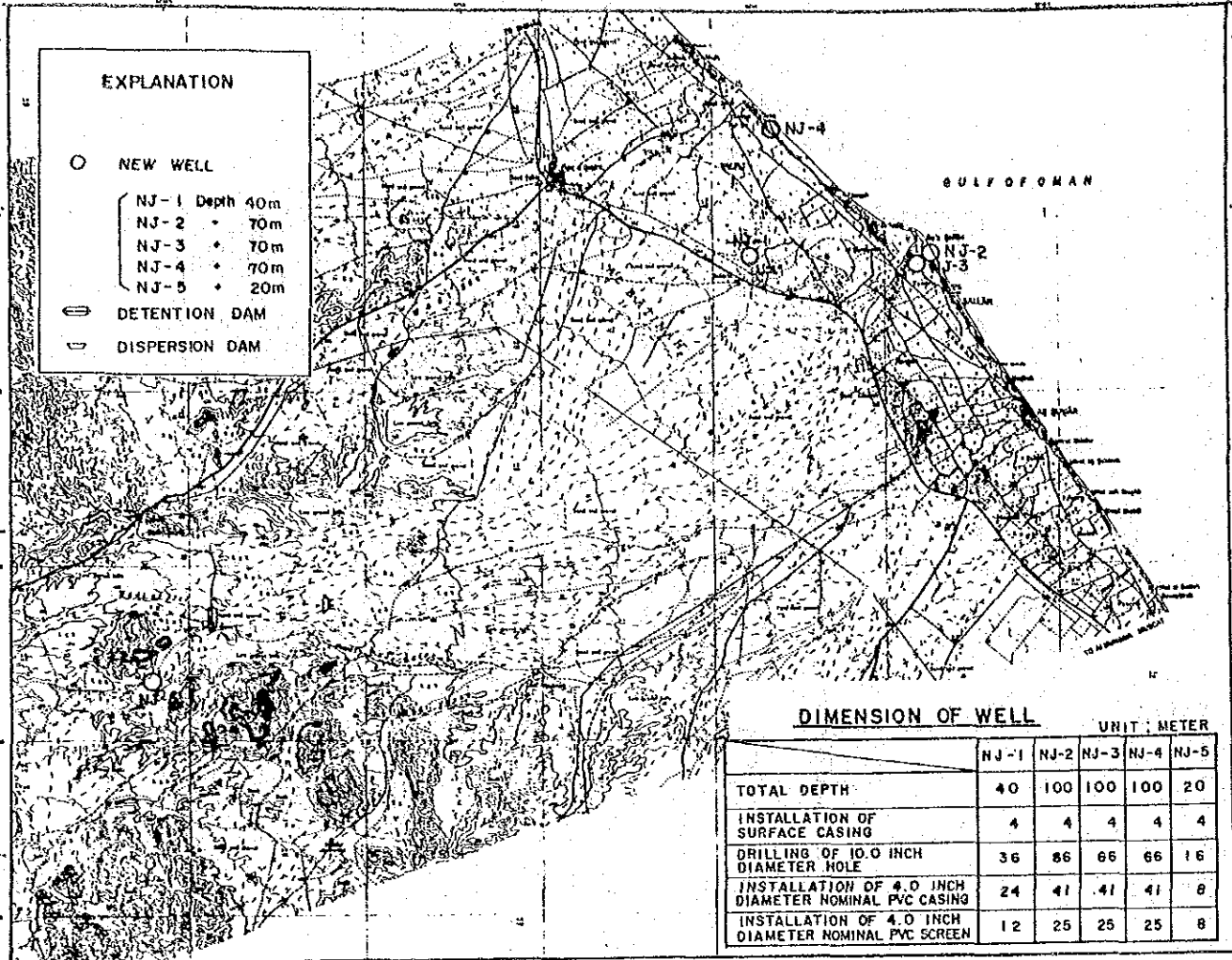
**SECTION E - E**  
(NOT TO SCALE)



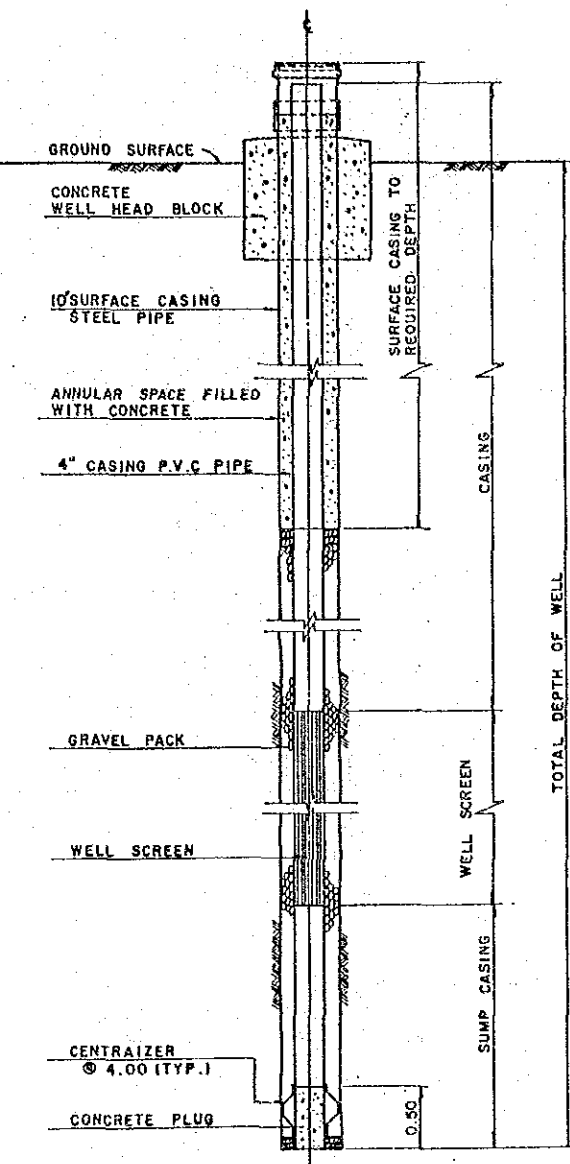
**SECTION F - F**  
(NOT TO SCALE)

NOTE  
1. ALL DIMENSIONS ARE SHOWN IN MILLIMETER.

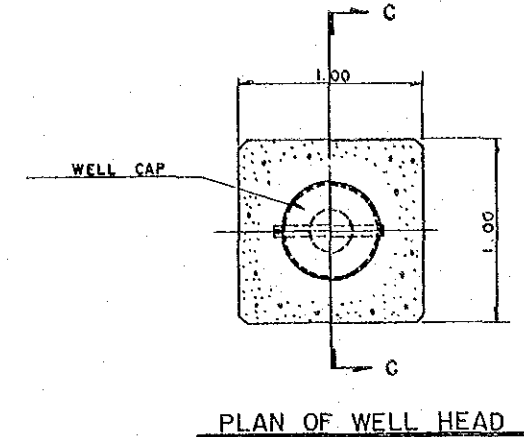
SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
WATER LEVEL GAUGE			
REV. NO.	DATE	1.4.86	DWG. NO. 31
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



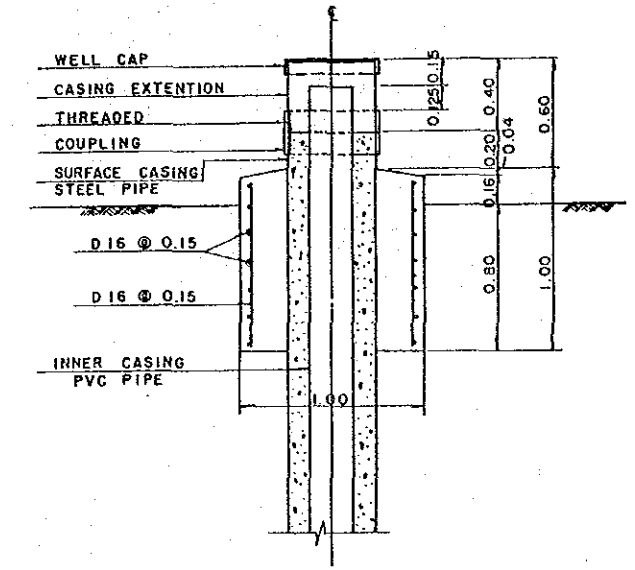
LOCATION OF OBSERVATION WELL  
SCALE 1:10,000



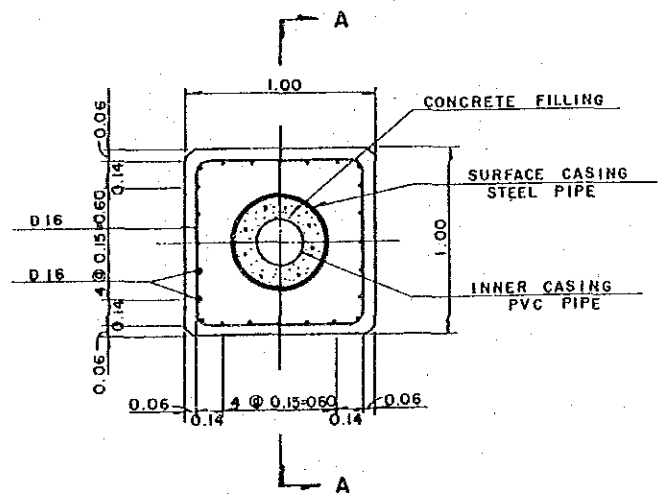
TYPICAL WELL CONFIGURATION  
(NOT TO SCALE)



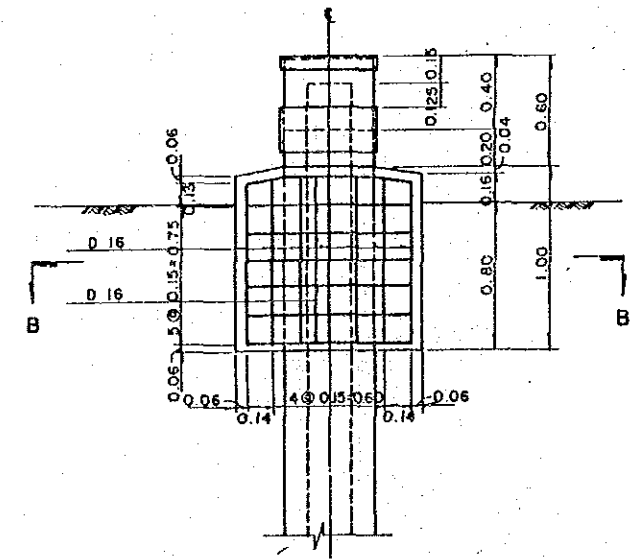
PLAN OF WELL HEAD



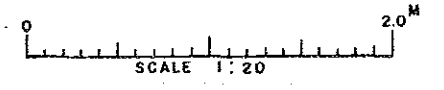
SECTION C-C



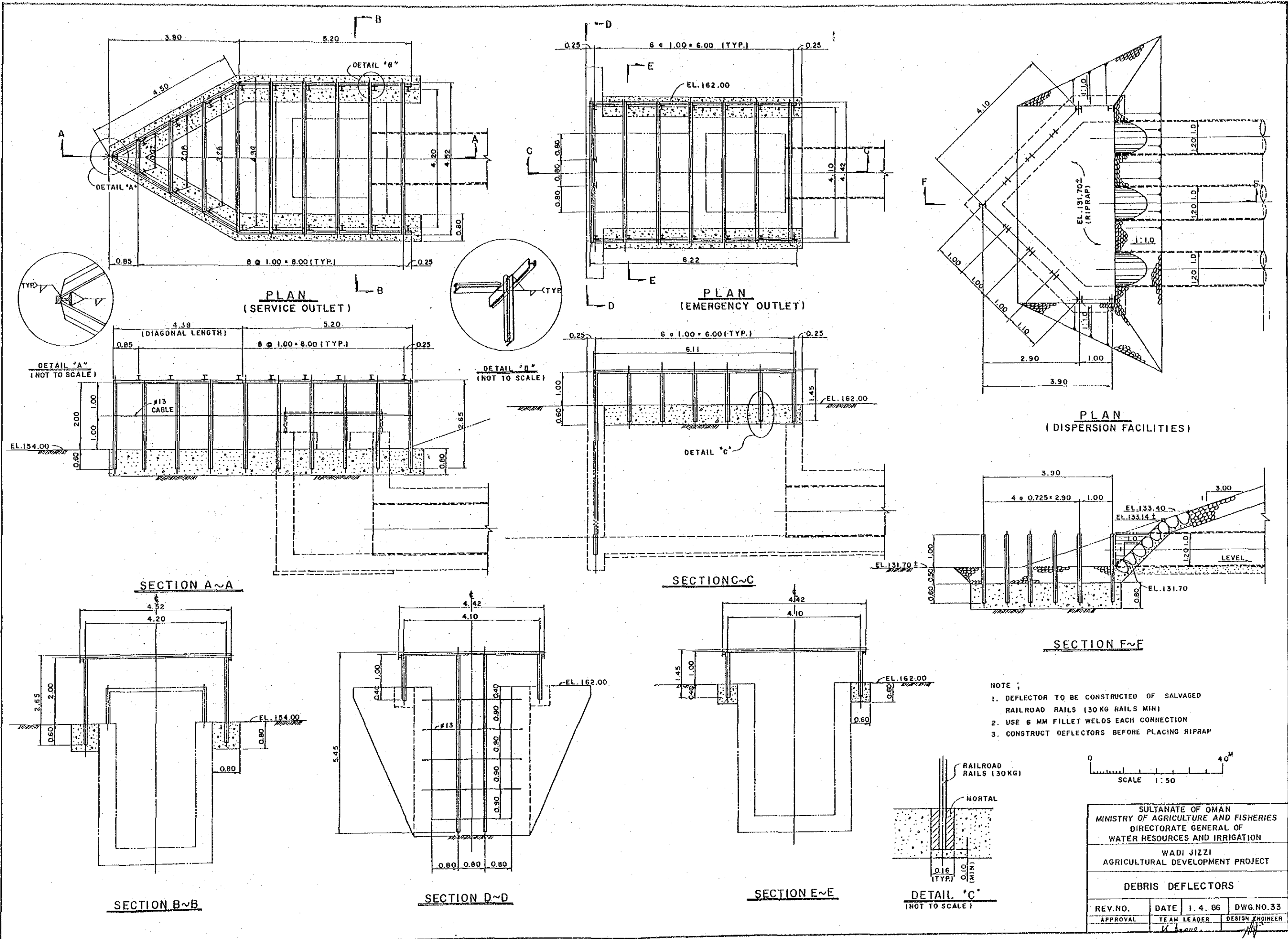
PLAN  
(SECTION B-B)



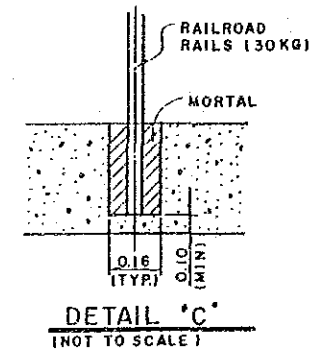
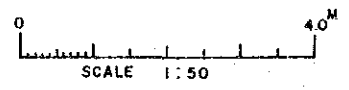
SECTION A-A



SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
OBSERVATION WELL			
REV. NO.	DATE	1.4.86	DWG. NO. 32
APPROVAL	TEAM LEADER	DESIGN ENGINEER	

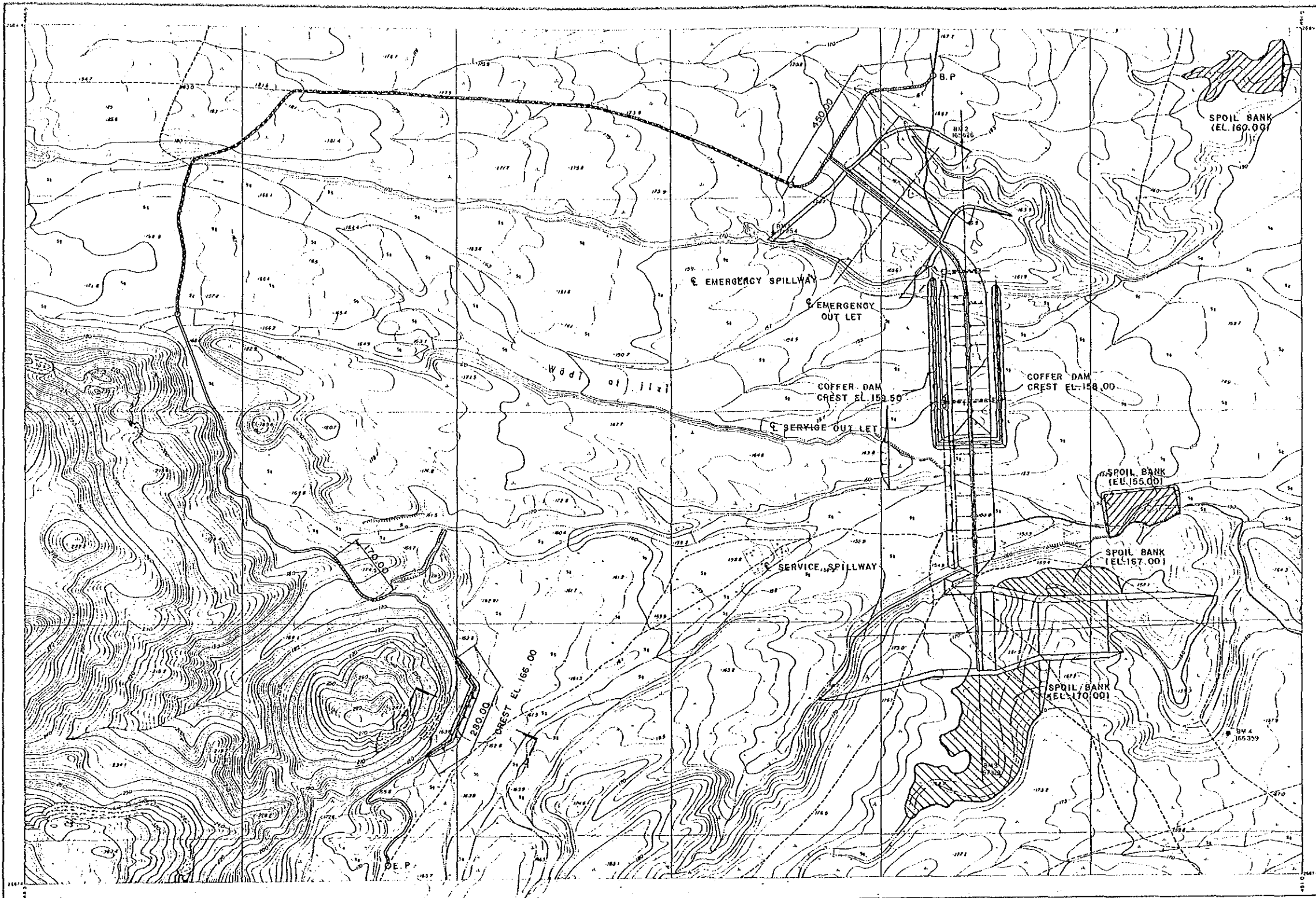


- NOTE :
1. DEFLECTOR TO BE CONSTRUCTED OF SALVAGED RAILROAD RAILS (30KG RAILS MIN)
  2. USE 6 MM FILLET WELDS EACH CONNECTION
  3. CONSTRUCT DEFLECTORS BEFORE PLACING RIPRAP



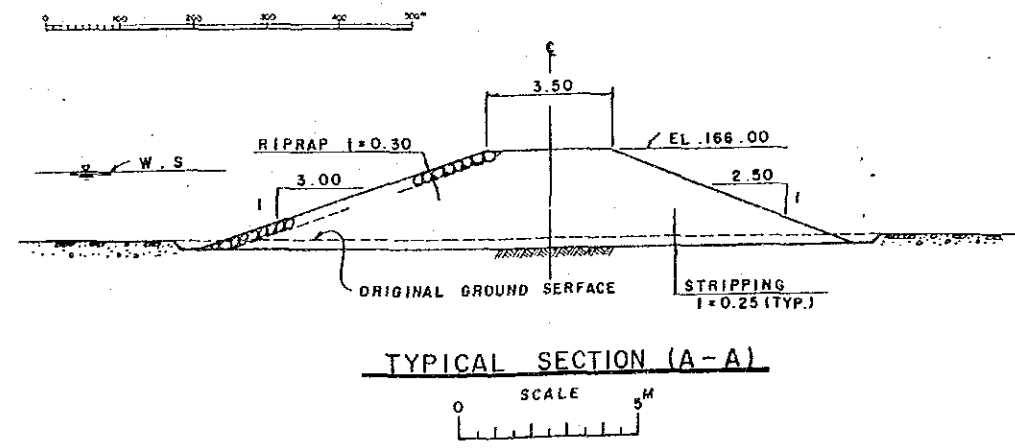
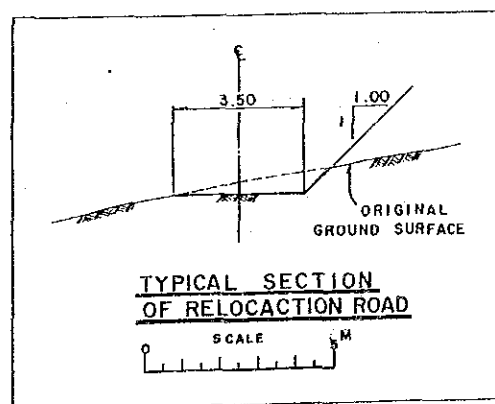
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
DEBRIS DEFLECTORS			
REV.NO.	DATE	1. 4. 86	DWG.NO.33
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



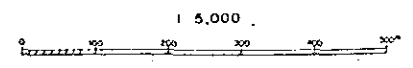
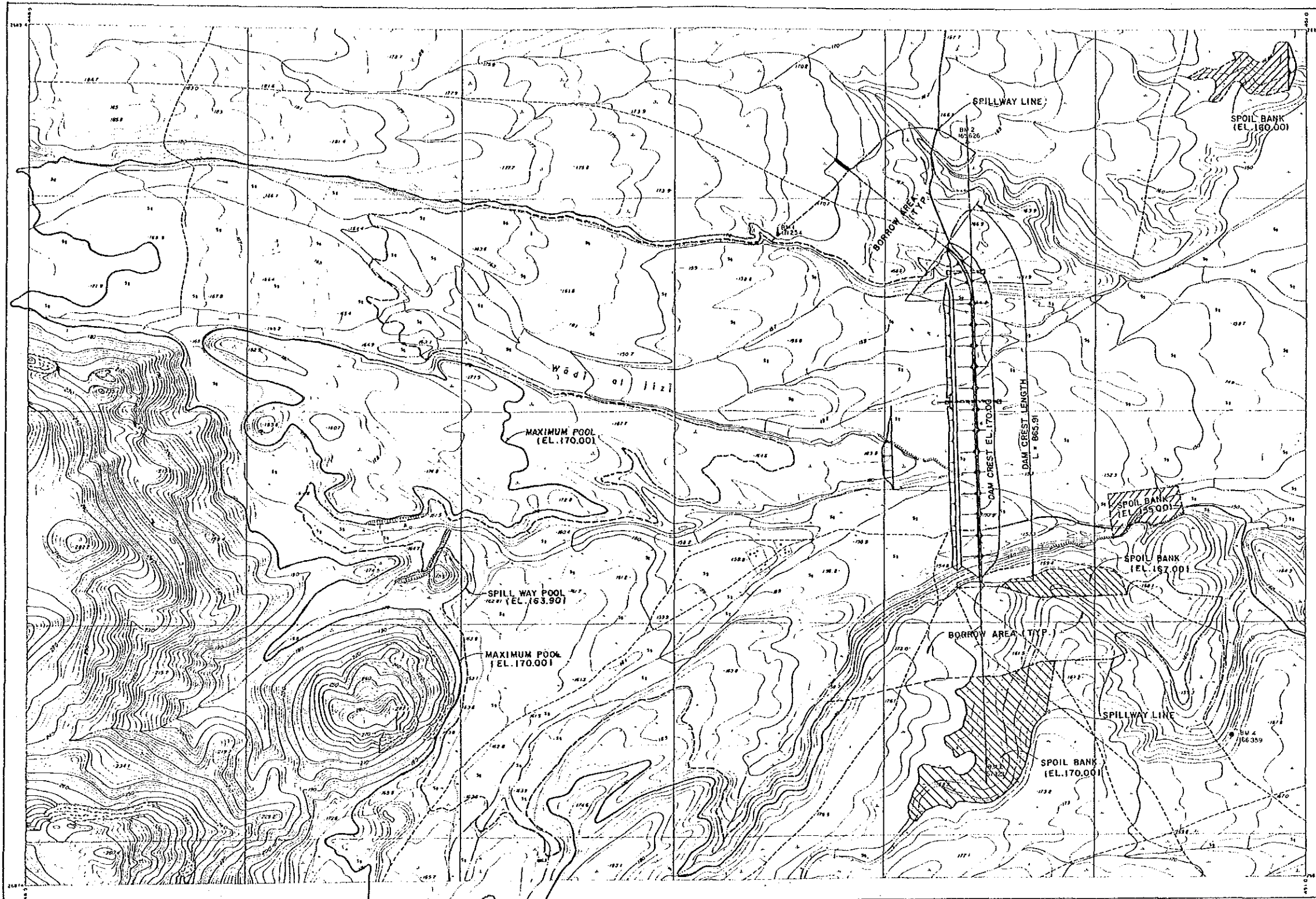


UNIT : METER

DISCRIPTION OF RELOCATION ROAD	
TOTAL LENGTH	5,000
IMPROVEMENT ROAD	2,200
CUT AND BANK	620
GRADING	1,900
PROTECTION OF HISTICAL FACILITY	280

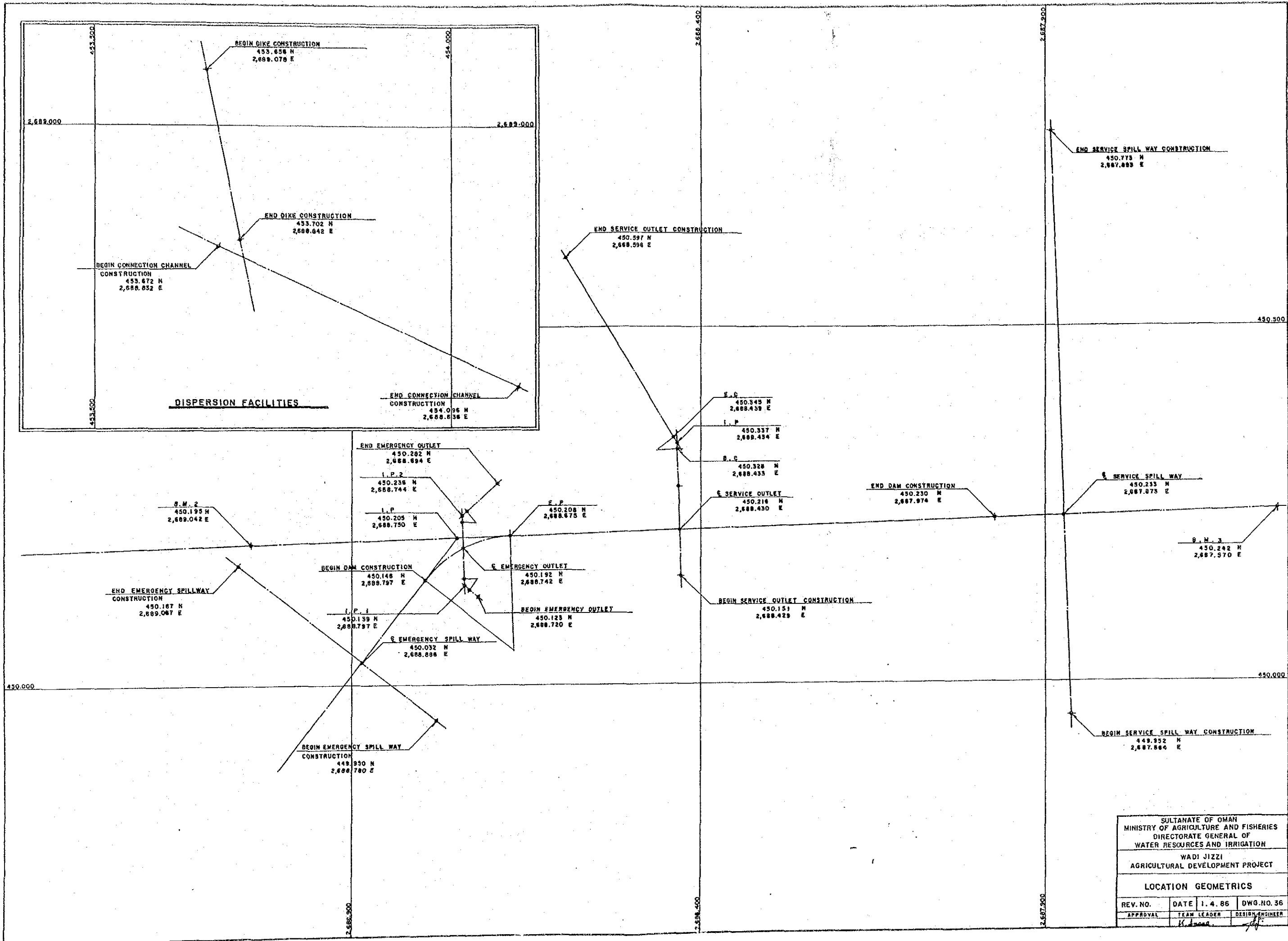


SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
ASSOCIATED FACILITIES (RELOCATION ROAD AND PROTECTION OF) HISTORICAL FACILITY			
REV. NO.	DATE	1.4.86	DWG. NO. 34
APPROVAL	TEAM LEADER	DESIGN ENGINEER	

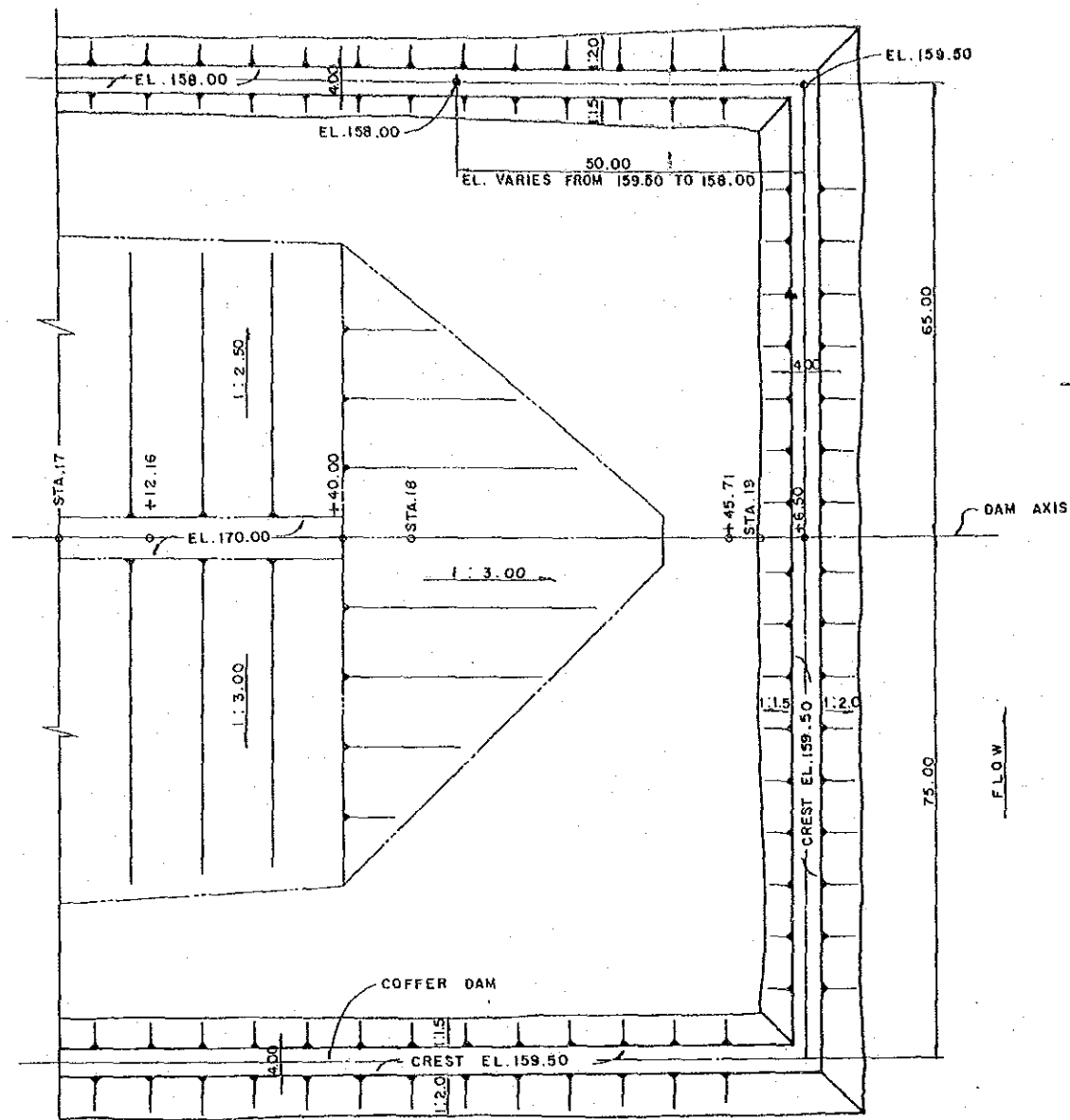


SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
MAP OF WATER SURFACE			
REV. NO.	DATE	1. 4. 86	DWG. NO. 35
APPROVAL	TEAM LEADER	DESIGN ENGINEER	
	<i>K. Saad</i>	<i>[Signature]</i>	

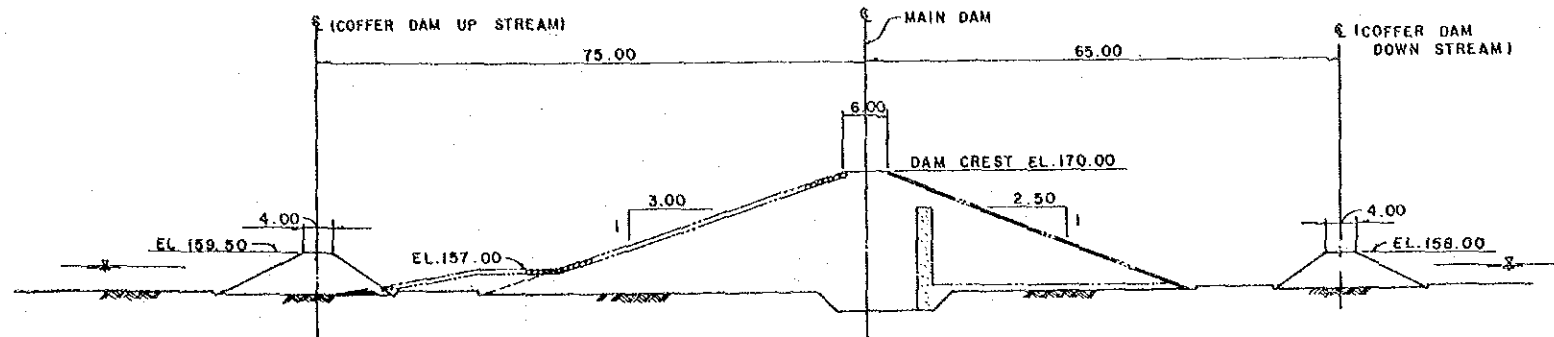




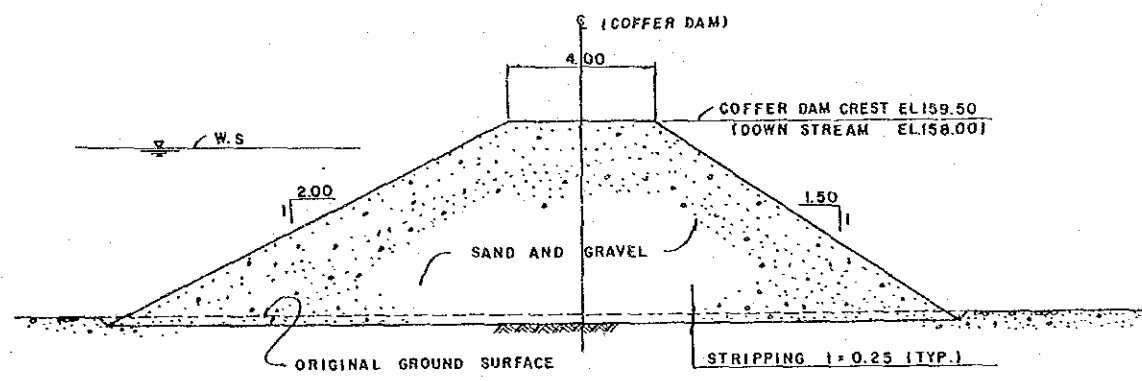
SULTANATE OF OMAN			
MINISTRY OF AGRICULTURE AND FISHERIES			
DIRECTORATE GENERAL OF			
WATER RESOURCES AND IRRIGATION			
WADI JIZZI			
AGRICULTURAL DEVELOPMENT PROJECT			
LOCATION GEOMETRICS			
REV. NO.	DATE	1. 4. 86	DWG. NO. 36
APPROVAL	TEAM LEADER	DESIGN ENGINEER	
	<i>[Signature]</i>	<i>[Signature]</i>	



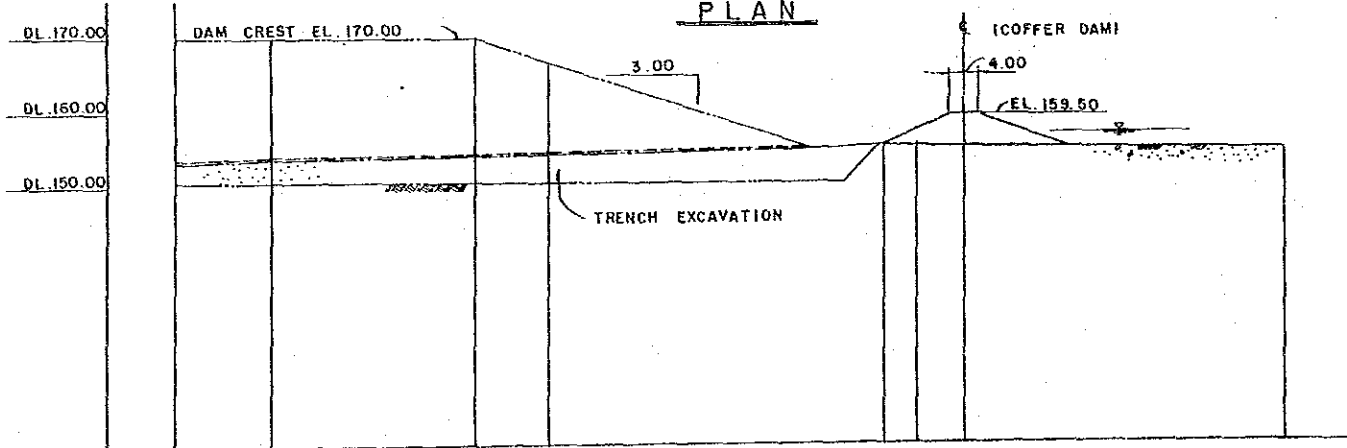
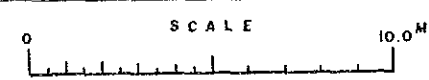
PLAN



LOCATION OF COFFER DAM



TYPICAL SECTION OF COFFER DAM



LONGTUDINAL PROFILE

DAM CREST ELEVATION	170.00	170.00	170.00	170.00	159.50	159.50
GROUND ELEVATION	154.40	154.30	155.22	154.70	154.60	154.23
TOTAL DISTANCE	0.00	12.16	27.84	10.00	10.00	1000.00
DISTANCE		12.16	27.84	10.00	10.00	1000.00
STATION	STA. 17	12.16	27.84	37.84	47.84	57.84



SULTANATE OF OMAN MINISTRY OF AGRICULTURE AND FISHERIES DIRECTORATE GENERAL OF WATER RESOURCES AND IRRIGATION			
WADI JIZZI AGRICULTURAL DEVELOPMENT PROJECT			
COFFER DAM			
REV. NO.	DATE	1.4.86	DWG. NO. 37
APPROVAL	TEAM LEADER	DESIGN ENGINEER	



