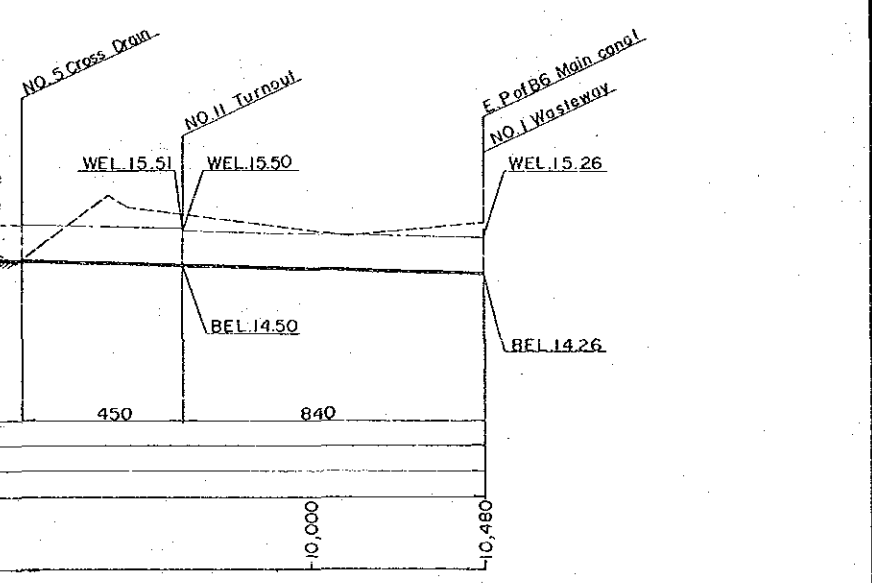
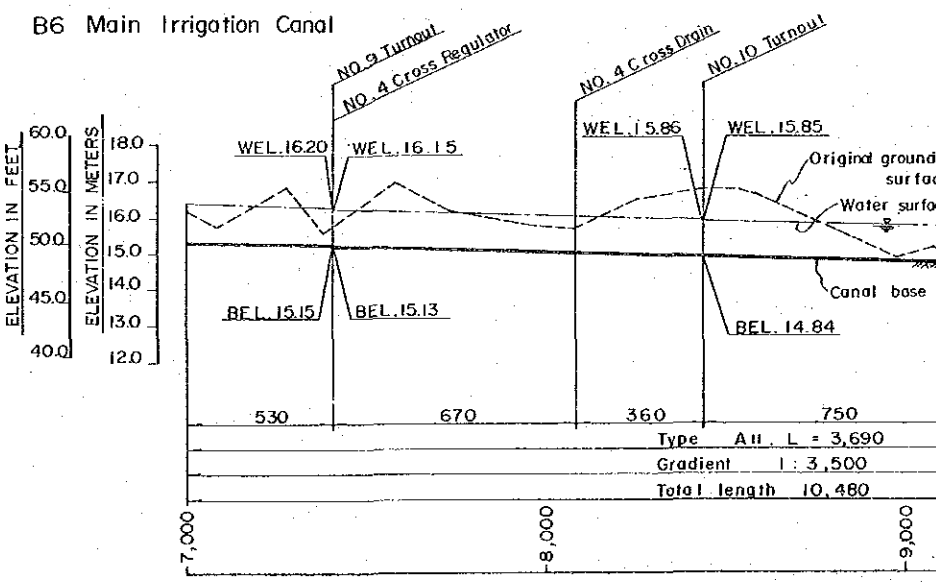
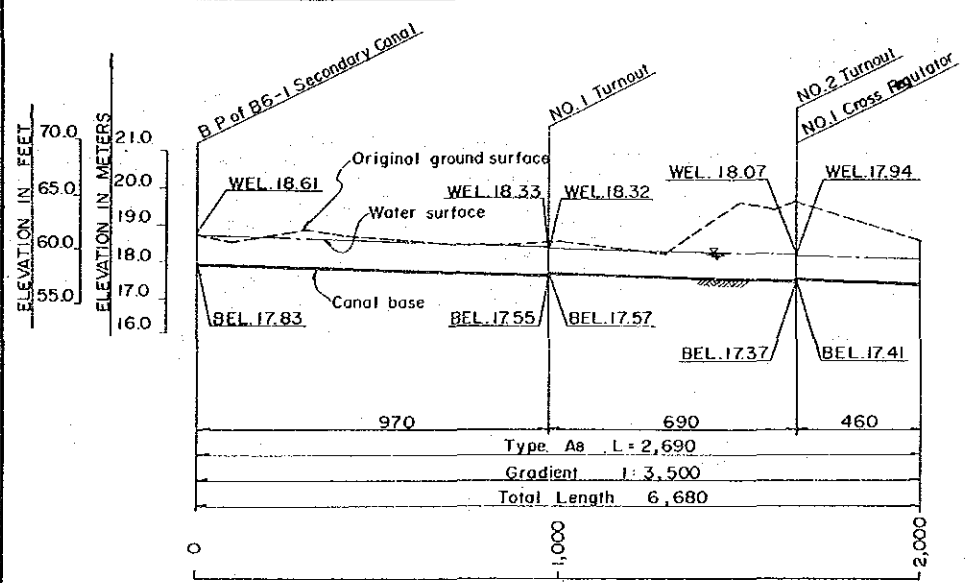
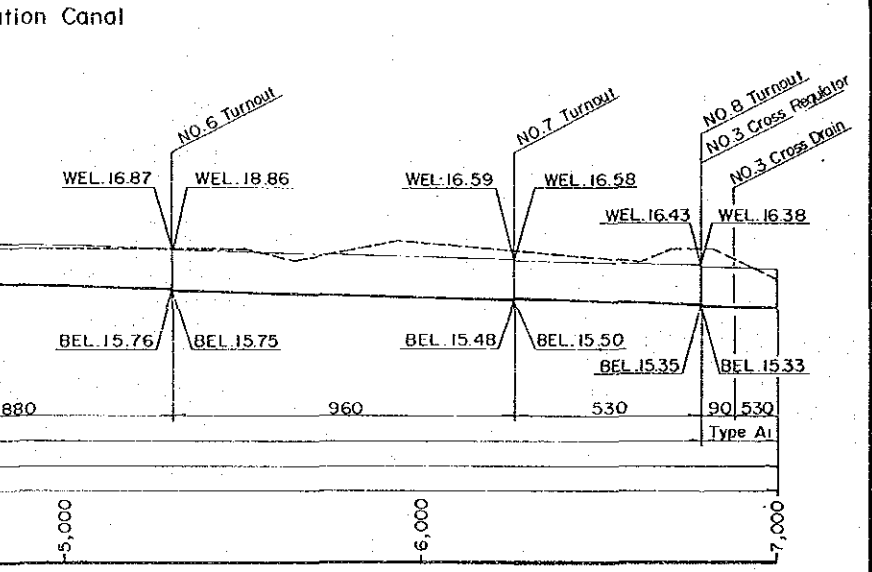
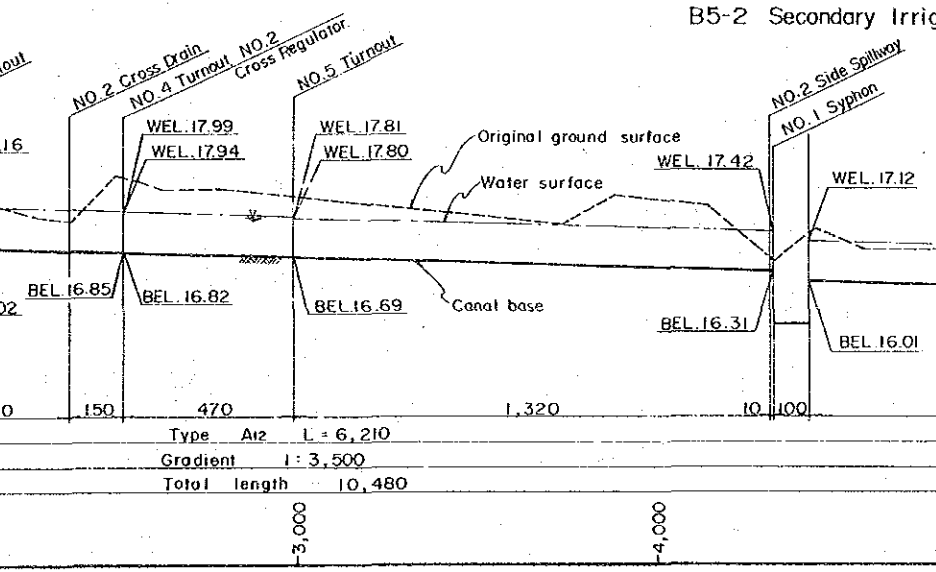
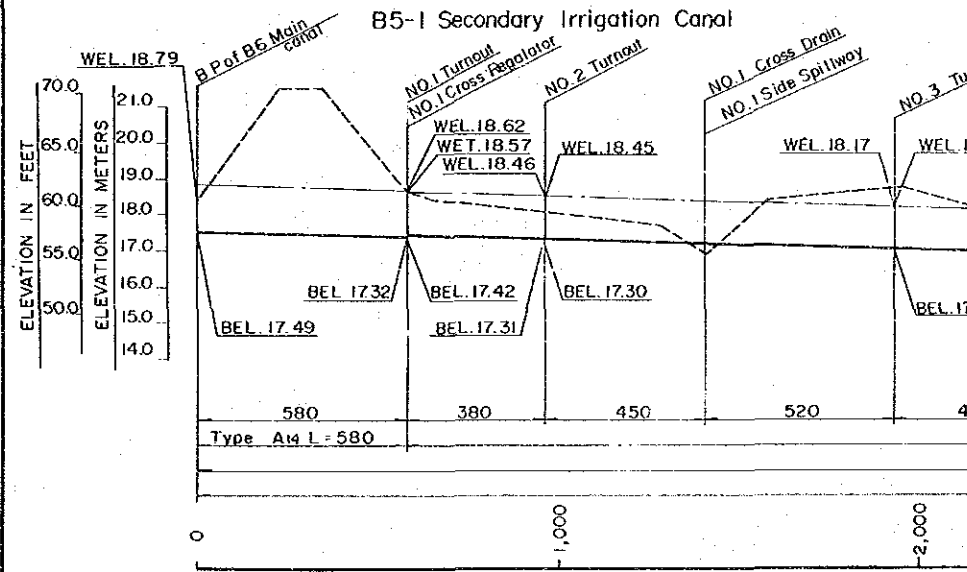
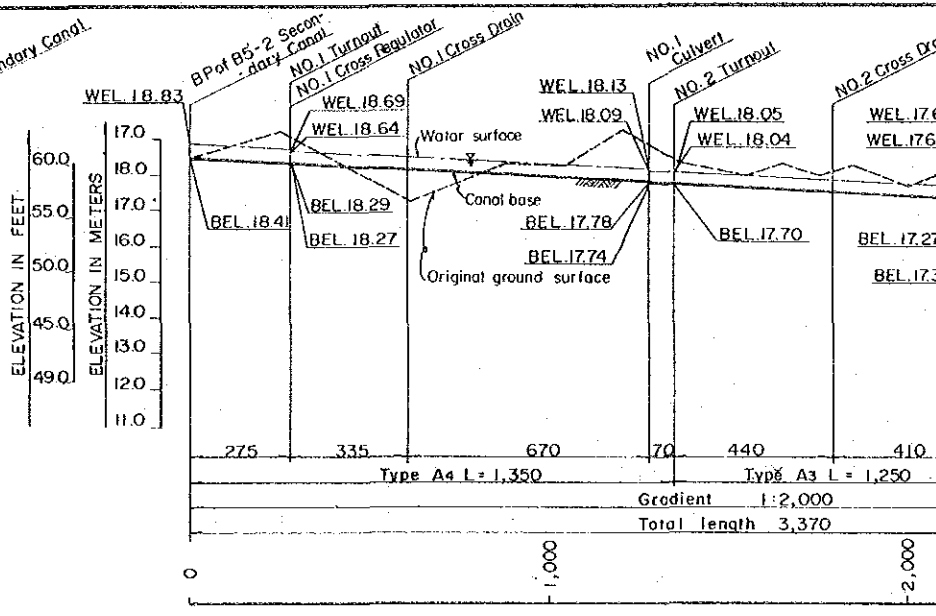
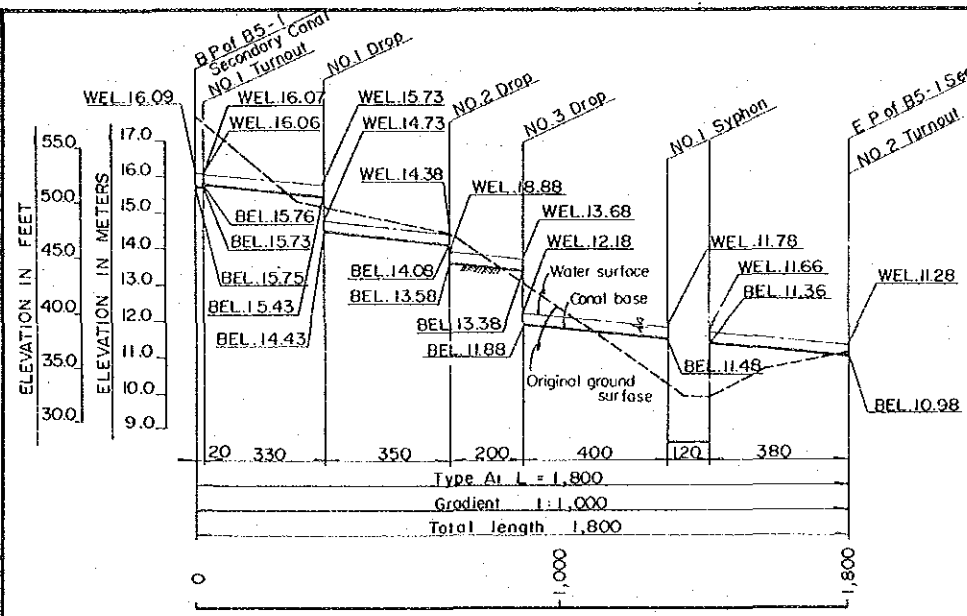


LEGEND
 BP : Beginning point
 EP : End point
 WEL : Water surface elevation
 BEL : Canal base elevation
 Dimension in meters

VERTICAL SCALE 0 1 2 3 4 5M
 HORIZONTAL SCALE 0 250 500M

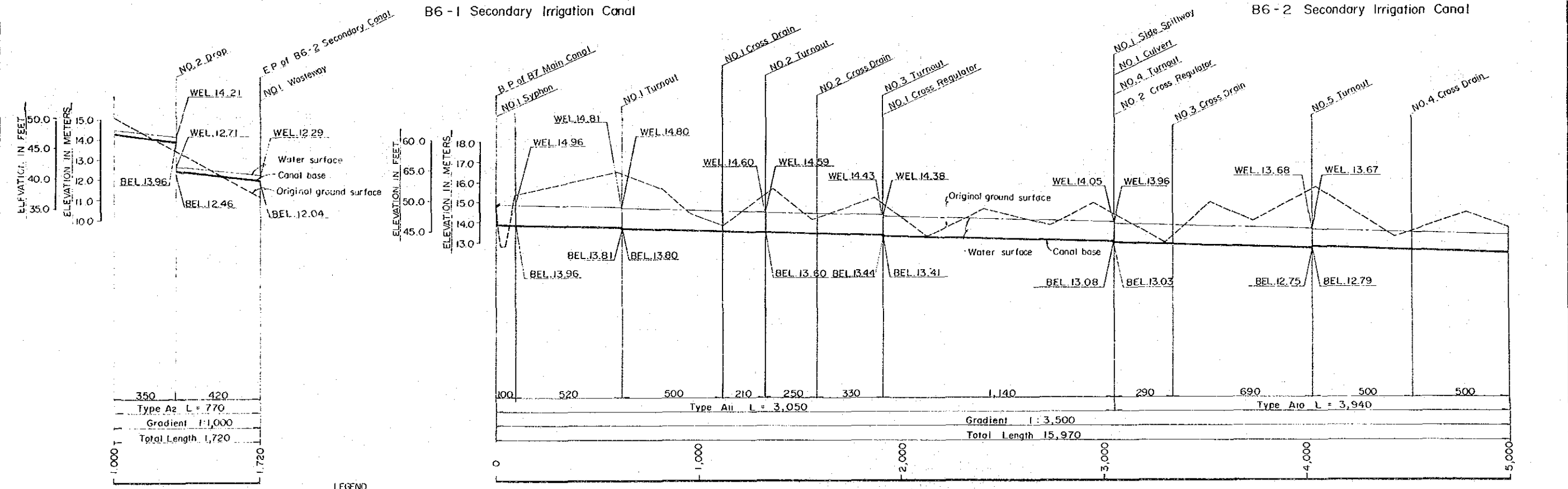
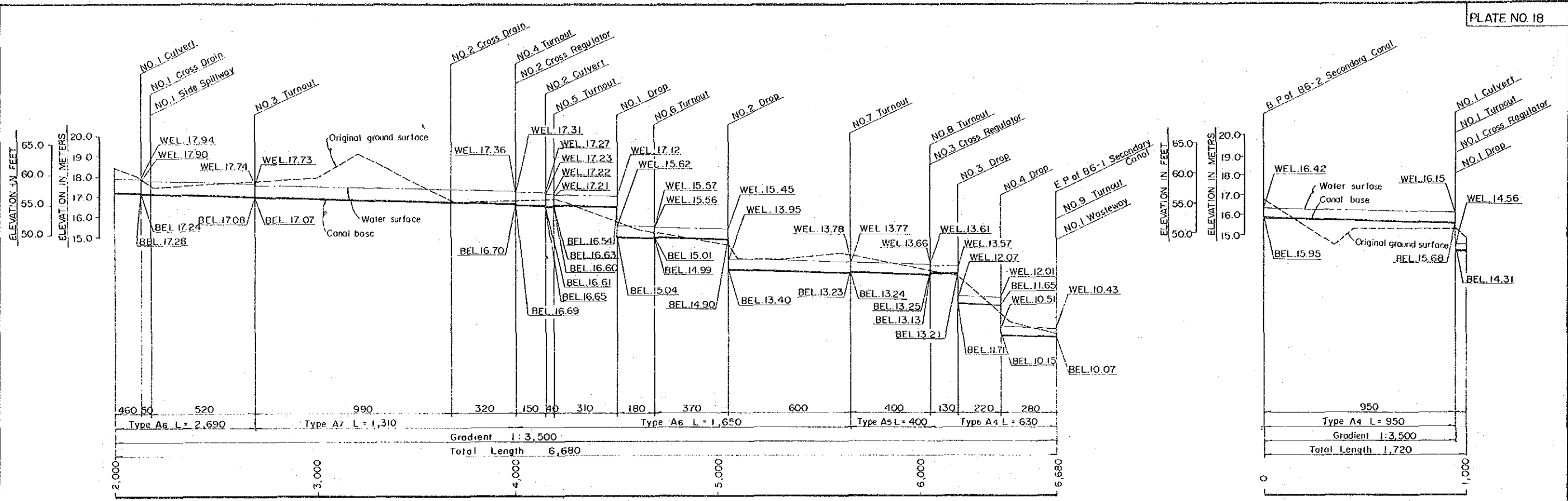
PREPARED: H. Saasi	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING	APPROVED
CHECKED: S. Saha		IRRIGATION CANALS	
SUBMITTED: J. K. K...		PROFILE OF MAIN & SECONDARY IRRIGATION CANALS (3)	DATE
DATE: DEC 1 1975		AVEYIME SUGAR PRODUCTION PROJECT	
		DWG. NO. 100-04	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO



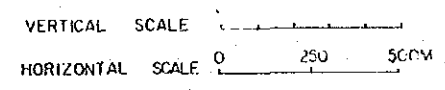
LEGEND
 BP : Beginning point
 EP : END Point
 WEL : Water surface elevation
 BEL : Canal base elevation
 Dimension in meter

VERTICAL SCALE 0 1 2 3 4 5M
 HORIZONTAL SCALE 0 250 500M

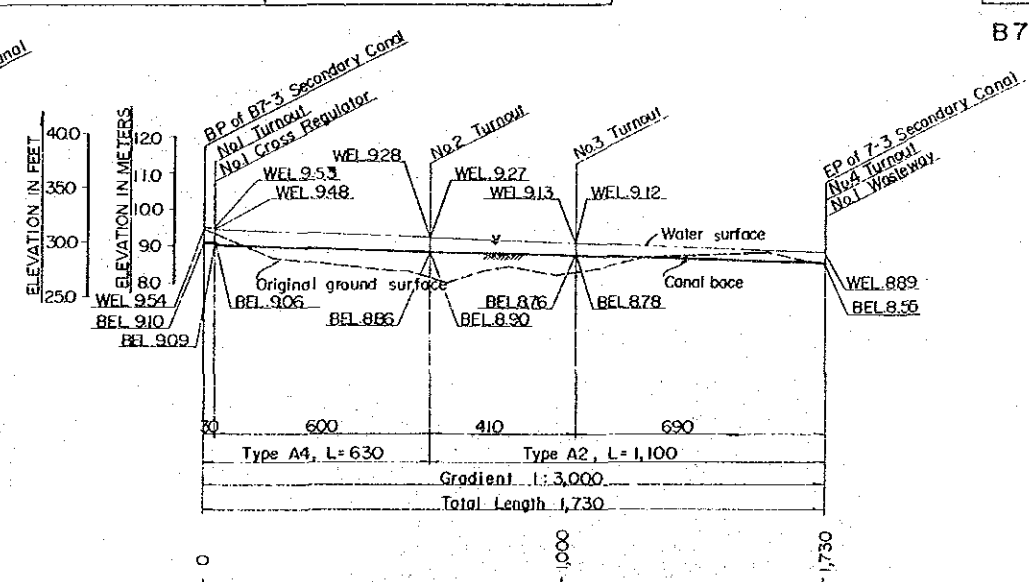
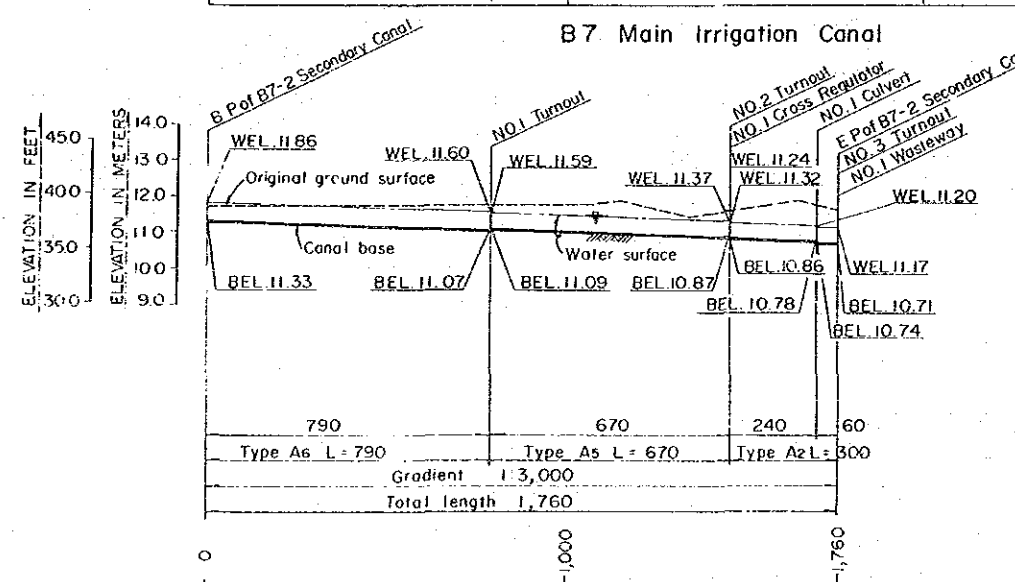
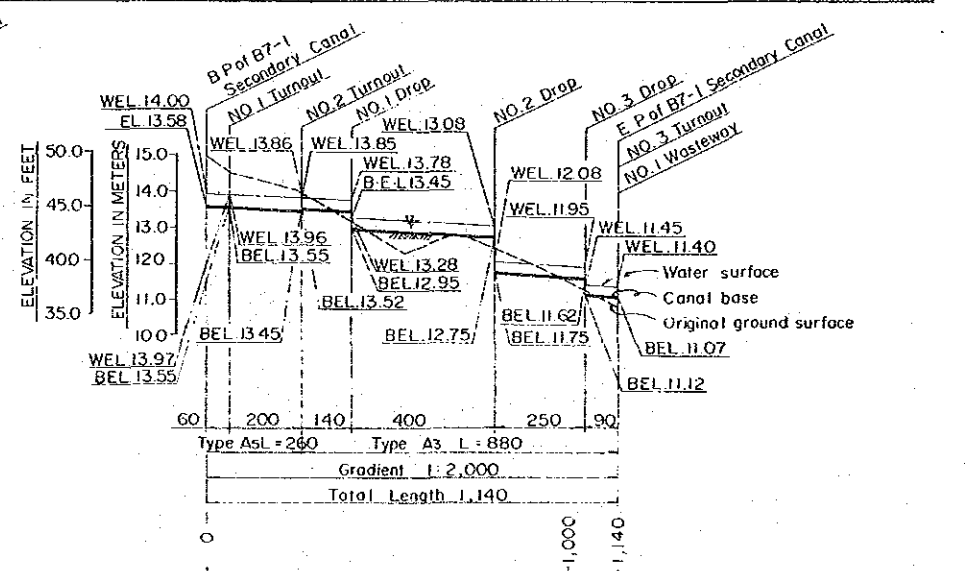
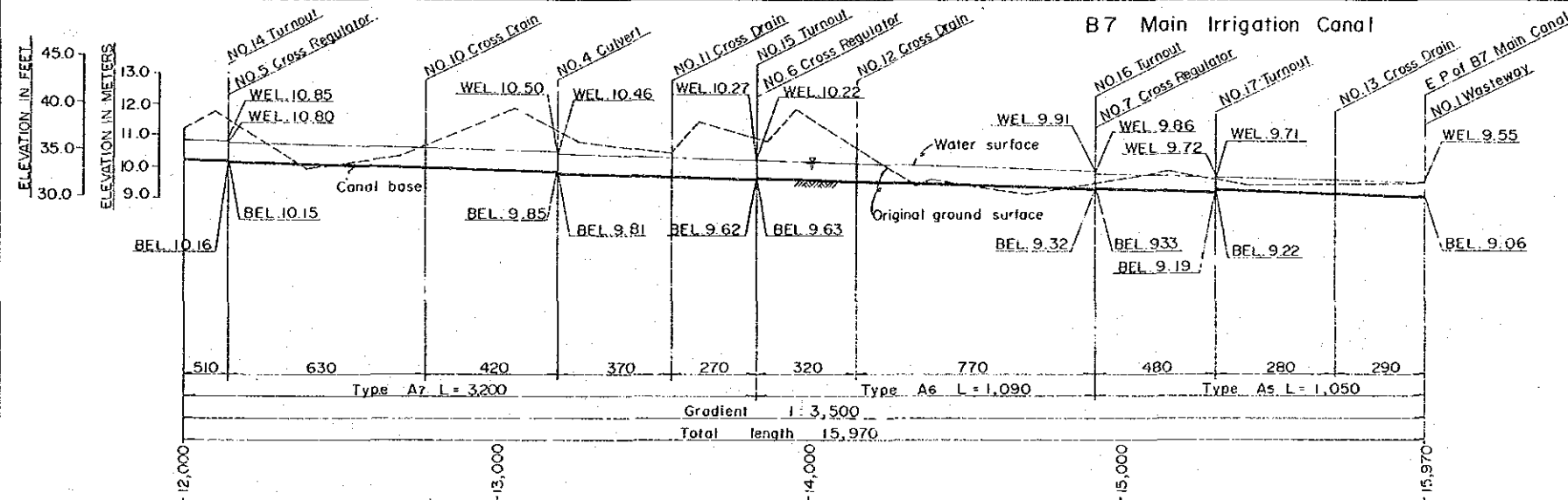
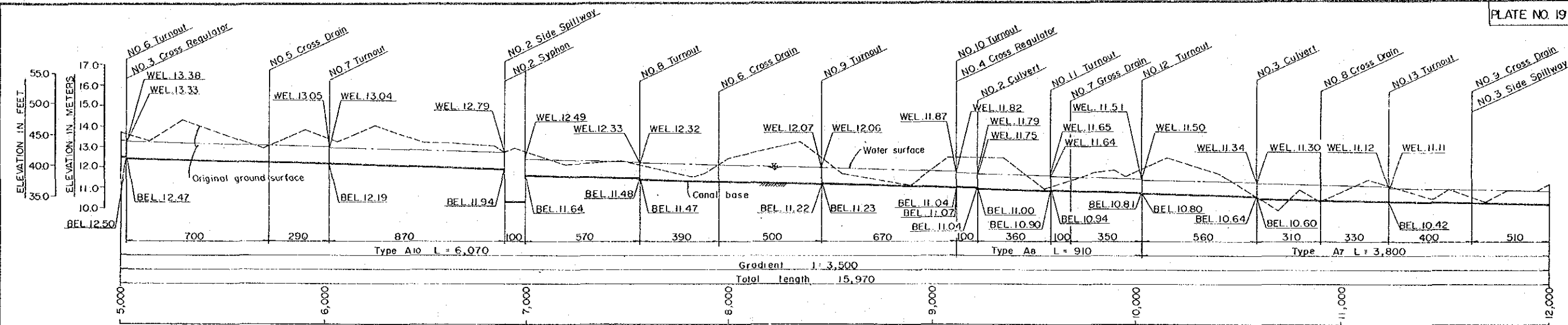
PREPARED <i>H. Sahai</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED	
CHECKED <i>S. Saha</i>		IRRIGATION CANALS PROFILE OF MAIN & SECONDARY IRRIGATION CANALS (4)			
SUBMITTED <i>J. Kumar</i>		DWG NO	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO		DATE
DATE <i>DEC 1 1975</i>		100-05			



LEGEND
 RP : Beginnig point
 EP : End point
 WEL : Water surface elevation
 BEL : Canal base elevation
 Dimension in meter



PREPARED <i>H. Sebi</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING	APPROVED
CHECKED <i>S. Sate</i>		IRRIGATION CANALS PROFILE OF MAIN & SECONDARY IRRIGATION CANALS (5)	DATE
SUBMITTED <i>J. Kuroki</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 100-06	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO
DATE DEC 1 1975			



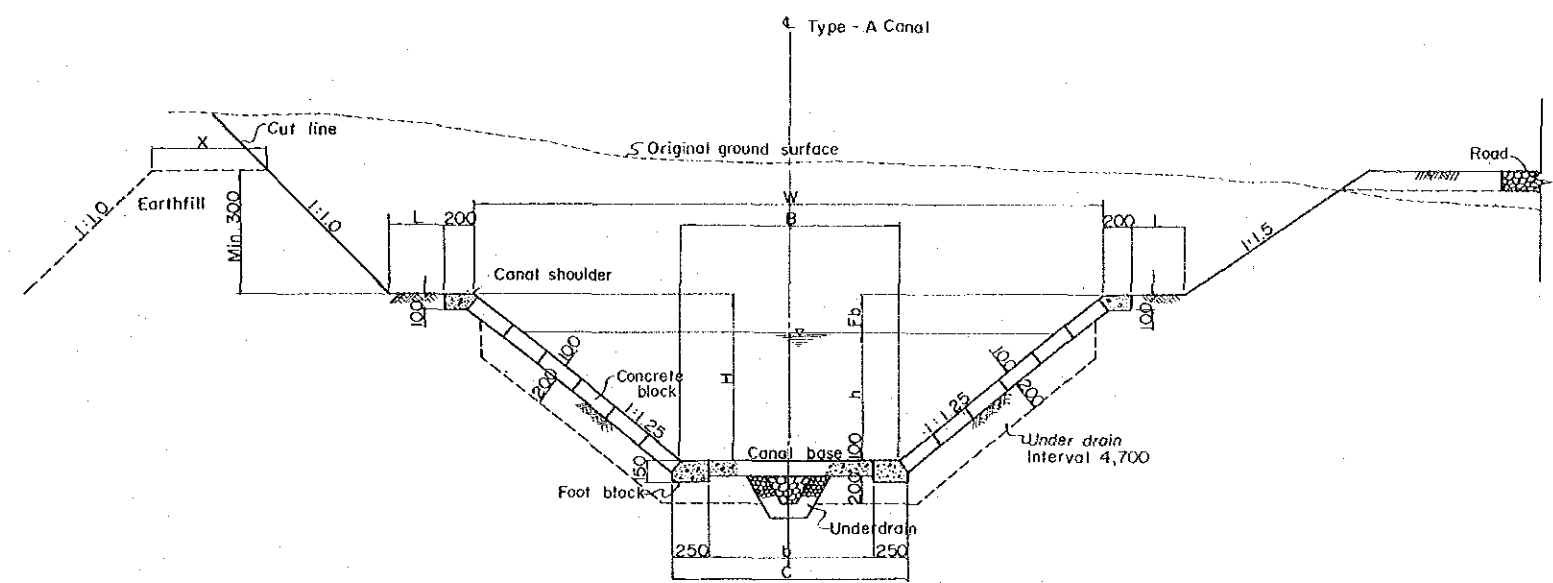
LEGEND

BP : Beginning point
 EP : End point
 WEL : Water surface elevation
 BEL : Canal base elevation
 Dimension in meters

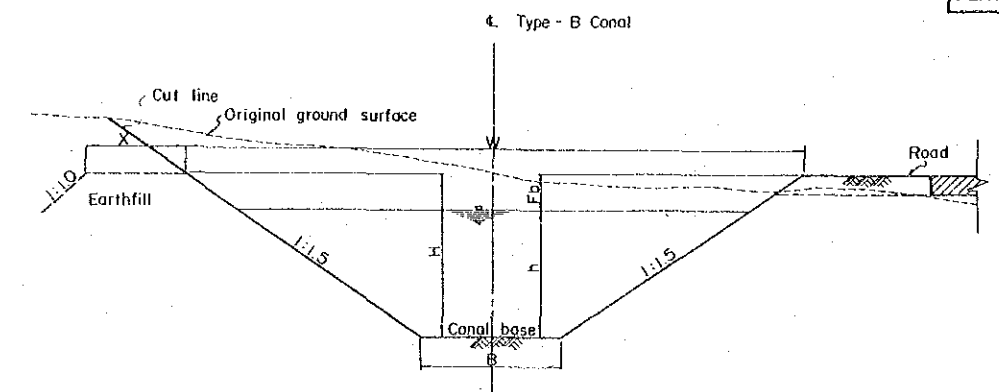
VERTICAL SCALE
 0 1 2 3 4 5 M

HORIZONTAL SCALE
 0 250 500 M

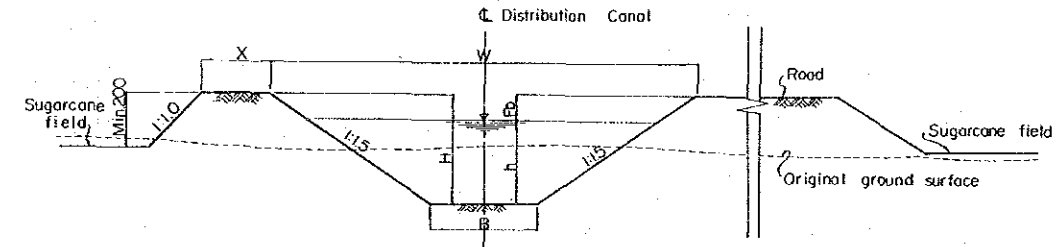
PREPARED: <u>H. Sahai</u>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING: IRRIGATION CANALS	APPROVED:
CHECKED: <u>B. Saha</u>	GOVERNMENT OF THE REPUBLIC OF GHANA	PROFILE OF MAIN & SECONDARY IRRIGATION CANALS (6)	DATE:
SUBMITTED: <u>J. Kumar</u>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO: 100-07	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO
DATE: <u>DEC 1 1961</u>			



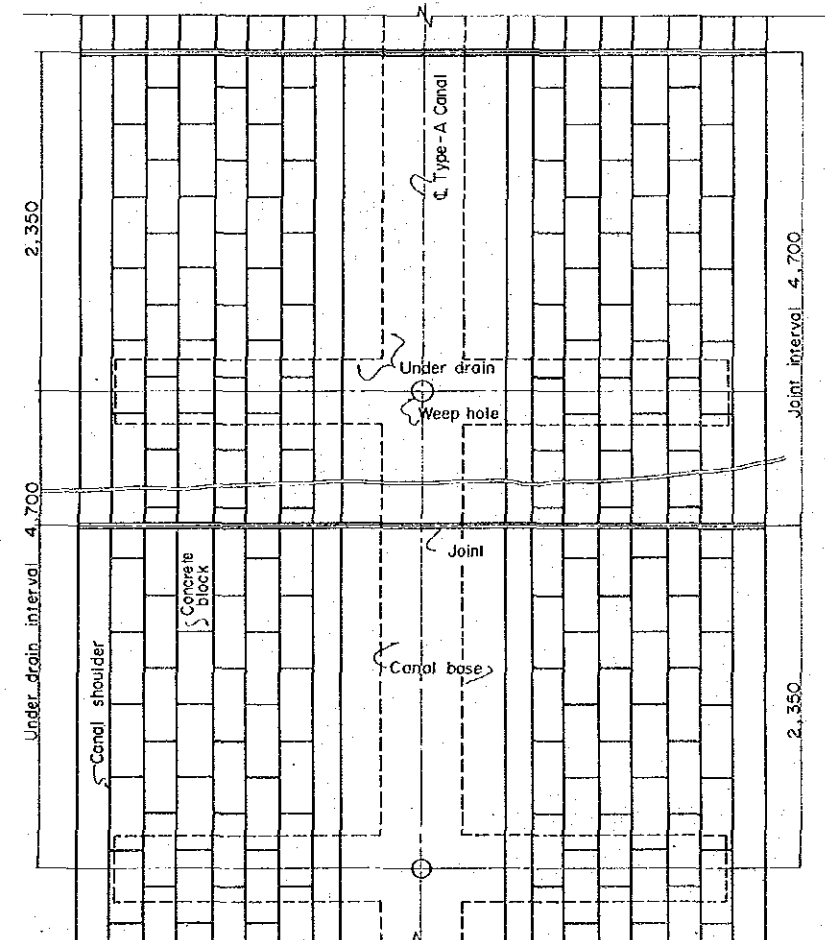
TYPICAL SECTION OF TYPE - A CANAL
(for Main & Secondary Irrigation Canal,
in Block 5, 6 & 7)



TYPICAL SECTION OF TYPE - B CANAL
(for Main & Secondary Irrigation Canal,
in Block 1, 2, 3 & 4)



TYPICAL SECTION OF DISTRIBUTION CANAL



PLAN OF TYPE - A CANAL

DIMENSION TABLE OF TYPE - A CANAL

Type	B	b	C	Max. h	H	Min. Fb	W	L	X	Discharge (m ³ /sec)
A 1	0.400	0.275	0.525	0.290	0.420	0.130	1.450	0.200	1.000	less than 0.072
A 2	0.500	0.375	0.625	0.370	0.600	0.230	2.000			0.073 ~ 0.136
A 3	0.600	0.475	0.725	0.430	0.610	0.180	2.125	0.300		0.137 ~ 0.207
A 4	0.700	0.575	0.825	0.470	0.790	0.320	2.675	0.400		0.208 ~ 0.274
A 5	0.800	0.675	0.925	0.530		0.260	2.775	0.500	1.500	0.275 ~ 0.382
A 6	0.900	0.775	1.025	0.600		0.190	2.863			0.383 ~ 0.529
A 7	1.000	0.875	1.125	0.670	0.980	0.310	3.450			0.530 ~ 0.708
A 8	1.200	1.075	1.325	0.790		0.190	3.650	0.600		0.709 ~ 1.111
A 9	1.400	1.275	1.525	0.810	1.170	0.360	4.325		1.800	1.112 ~ 1.303
A 10	1.500	1.375	1.625	0.930		0.240	4.425			1.304 ~ 1.792
A 11	1.600	1.475	1.725	1.010	1.350	0.340	4.975	0.700		1.793 ~ 2.204
A 12	1.700	1.575	1.825	1.130		0.220	5.075			2.205 ~ 2.868
A 13	1.800	1.675	1.925	1.200	1.540	0.340	5.650		2.000	2.869 ~ 3.359
A 14	1.900	1.775	2.025	1.270		0.270	5.750	0.800		3.360 ~ 3.900
A 15	2.000	1.875	2.125	1.330		0.210	5.850			3.901 ~ 4.427
A 16	2.100	1.975	2.225	1.390	1.730	0.340	6.425			4.428 ~ 4.995
A 17	2.200	2.075	2.325	1.470		0.260	6.525			4.996 ~ 5.762

DIMENSION TABLE OF TYPE - B CANAL

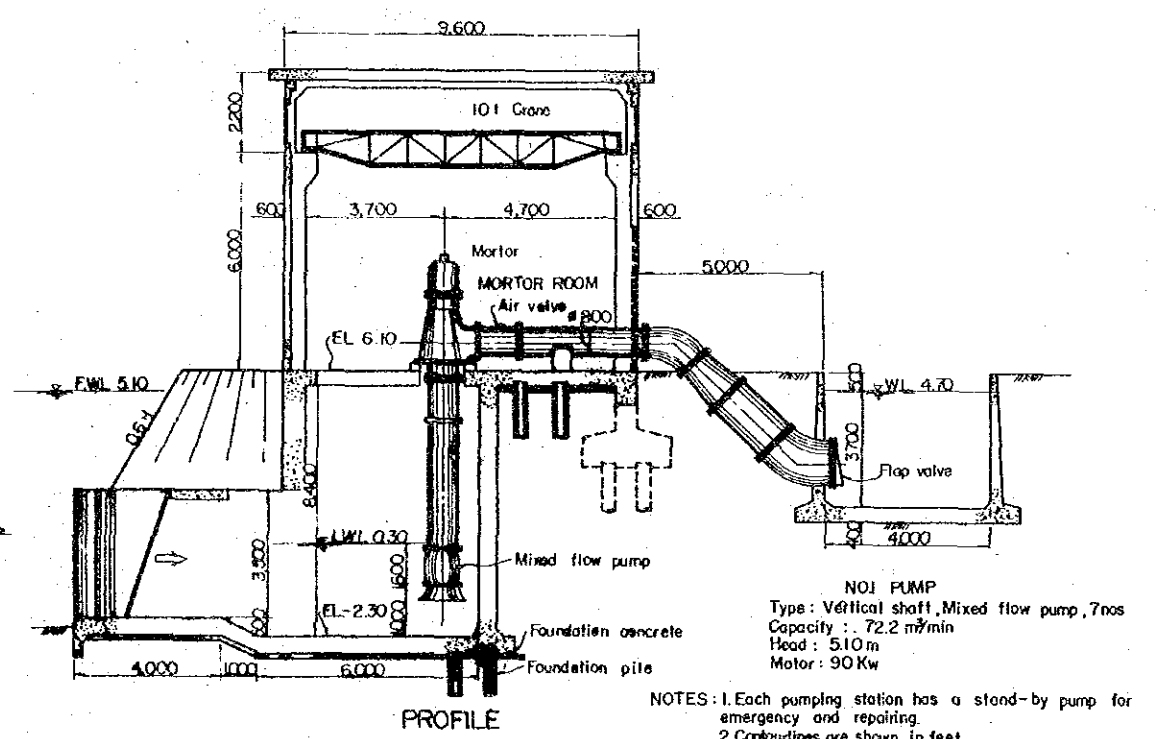
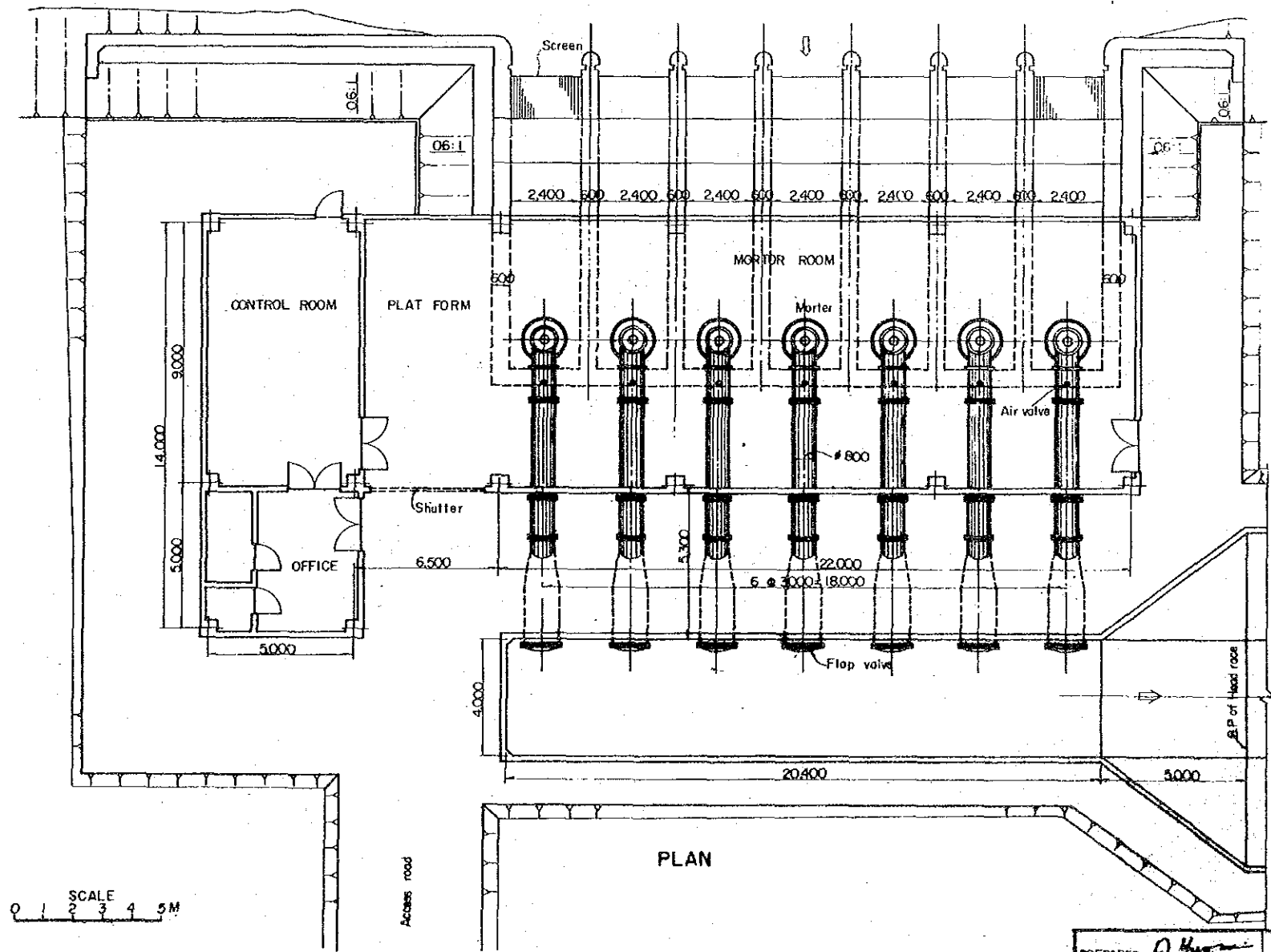
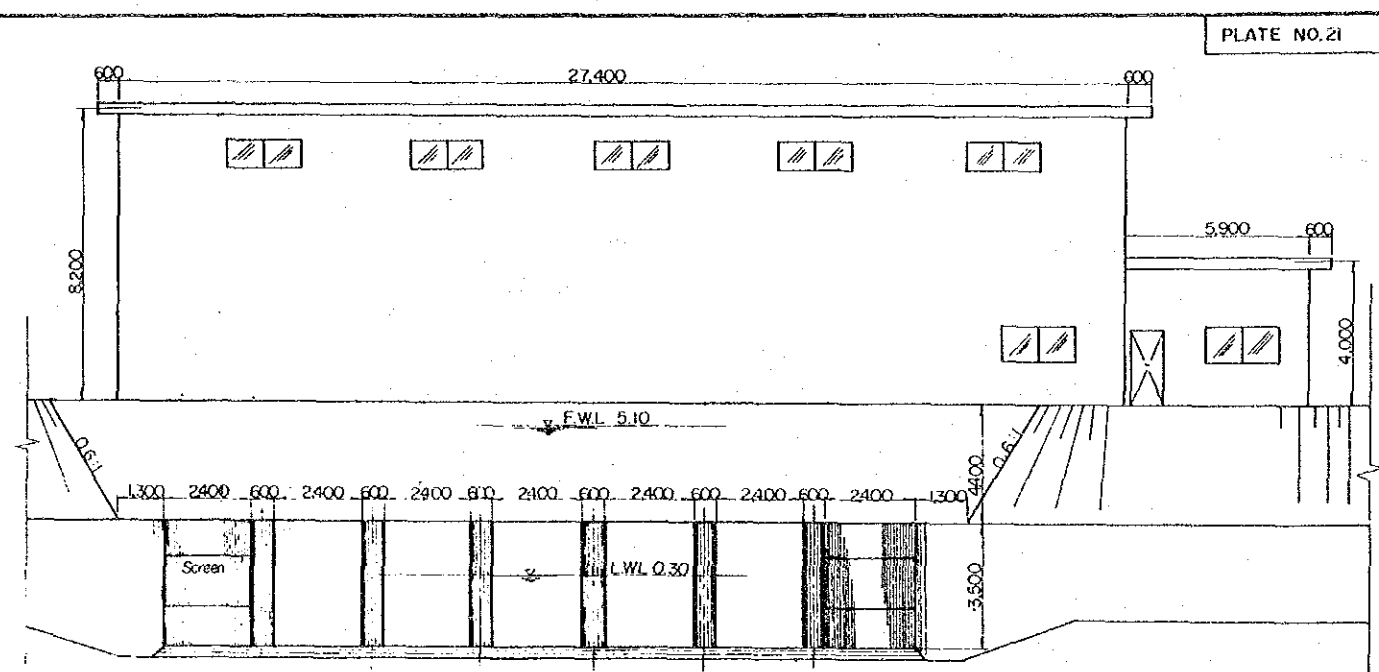
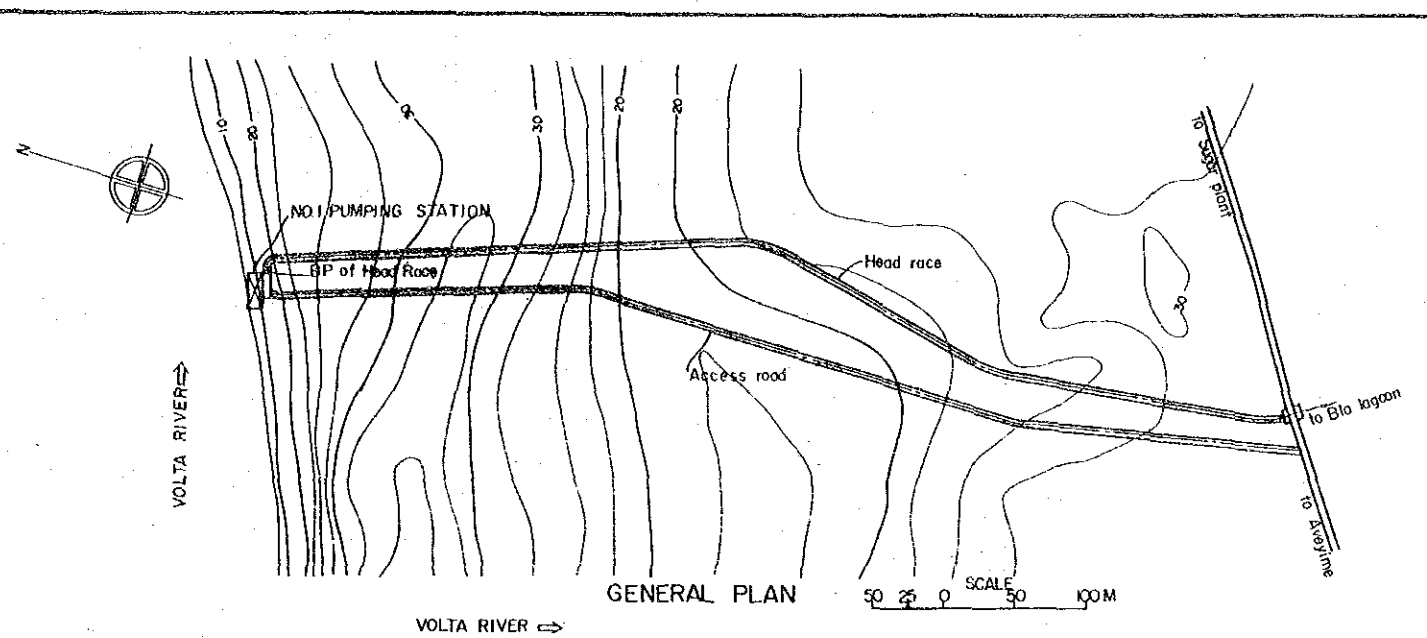
Type	B	W	Max. h	H	Min. Fb	X	Discharge (m ³ /sec)
B 1	0.400	1.900	0.310	0.500	0.190	0.700	less than 0.051
B 2	0.500	2.300	0.370	0.600	0.230		0.052 ~ 0.085
B 3	0.600	2.700	0.460	0.700	0.240	0.800	0.086 ~ 0.148
B 4	0.700	3.100	0.530	0.800	0.270		0.149 ~ 0.218
B 5	0.800	3.500	0.610	0.900	0.290	1.000	0.219 ~ 0.316
B 6	0.900	3.900	0.690	1.000	0.310		0.317 ~ 0.437
B 7	1.000	4.300	0.770	1.100	0.330	1.200	0.438 ~ 0.584
B 8	1.100	4.700	0.870	1.200	0.330		0.585 ~ 0.747

DIMENSION TABLE OF DISTRIBUTION CANAL

Type	B	W	Max. h	H	Min. Fb	X	Discharge (m ³ /sec)
C 1	0.300	1.200	0.200	0.300	0.100	0.500	less than 0.024
C 2	0.300	1.500	0.240	0.400	0.160	0.600	0.025 ~ 0.044
C 3	0.400	1.900	0.310	0.500	0.190	0.700	0.045 ~ 0.089
C 4	0.500	2.300	0.370	0.600	0.230	0.800	0.090 ~ 0.089
C 5	0.600	2.700	0.460	0.700	0.240		0.149 ~ 0.265

SCALE 0 2M

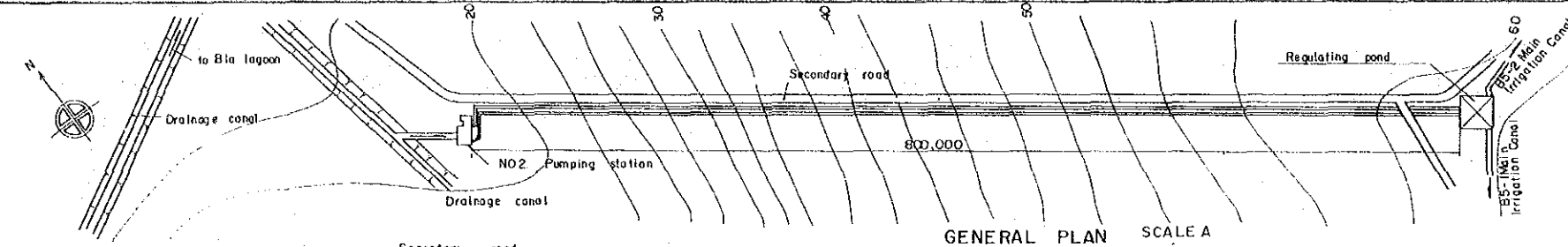
PREPARED <i>D. Y...</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED
CHECKED <i>S. B...</i>		IRRIGATION CANALS TYPICAL SECTIONS OF IRRIGATION CANALS		
SUBMITTED <i>J. K...</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO.	NIPPON KOEI CO., LTD CONSULTING ENGINEERS, TOKYO	DATE
DATE <i>JUL 1 1975</i>		100-08		



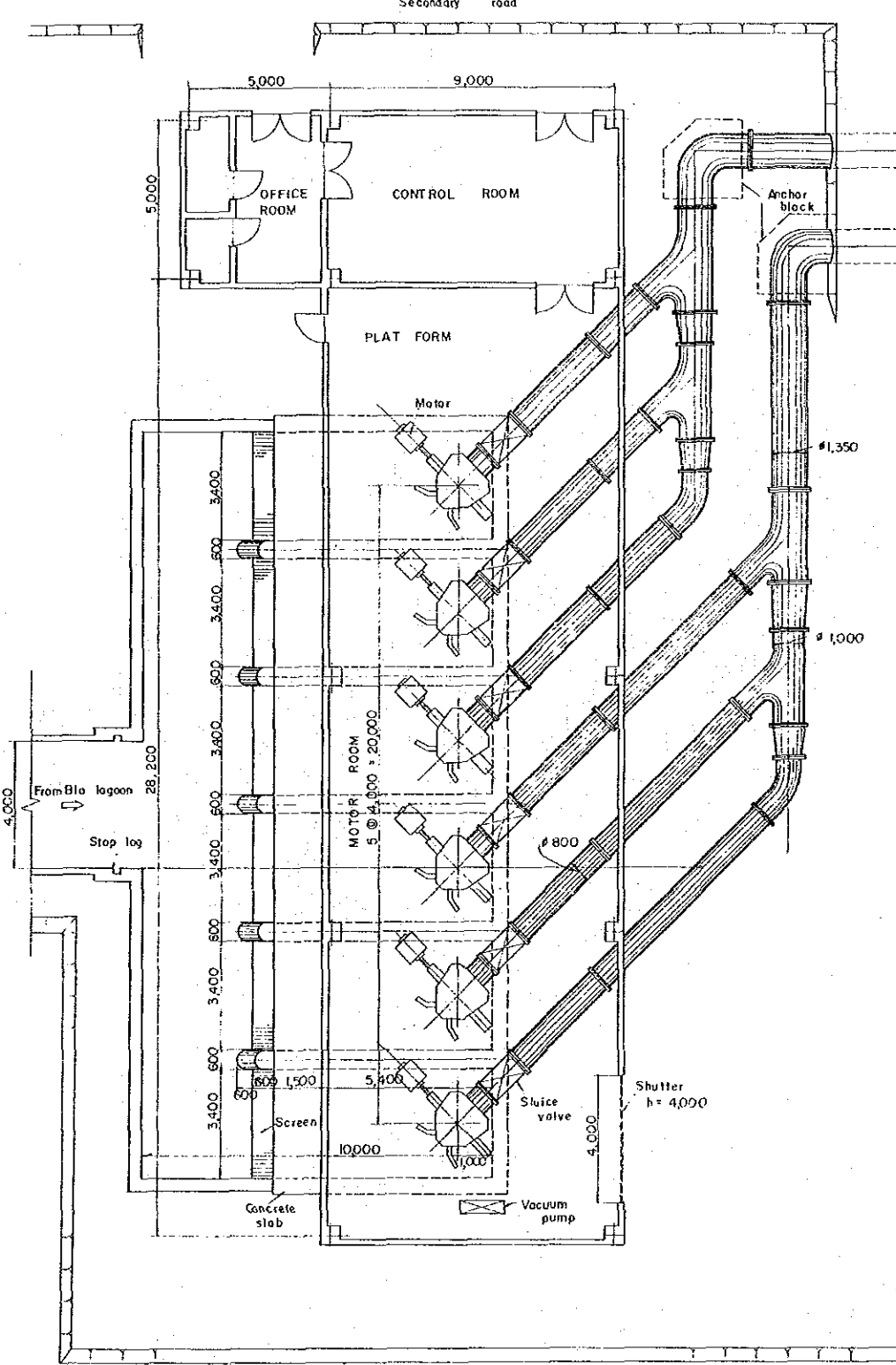
NO.1 PUMP
 Type: Vertical shaft, Mixed flow pump, 7nos
 Capacity: 72.2 m³/min
 Head: 5.10m
 Motor: 90Kw

NOTES: 1. Each pumping station has a stand-by pump for emergency and repairing.
 2. Contourlines are shown in feet.

PREPARED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> SUBMITTED: <i>[Signature]</i> DATE: <i>[Date]</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA AVEYIME SUGAR PRODUCTION PROJECT	TITLE OF DRAWING PUMPING STATIONS NO.1 PUMPING STATION DWG. NO. 200 - 01	APPROVED DATE NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO
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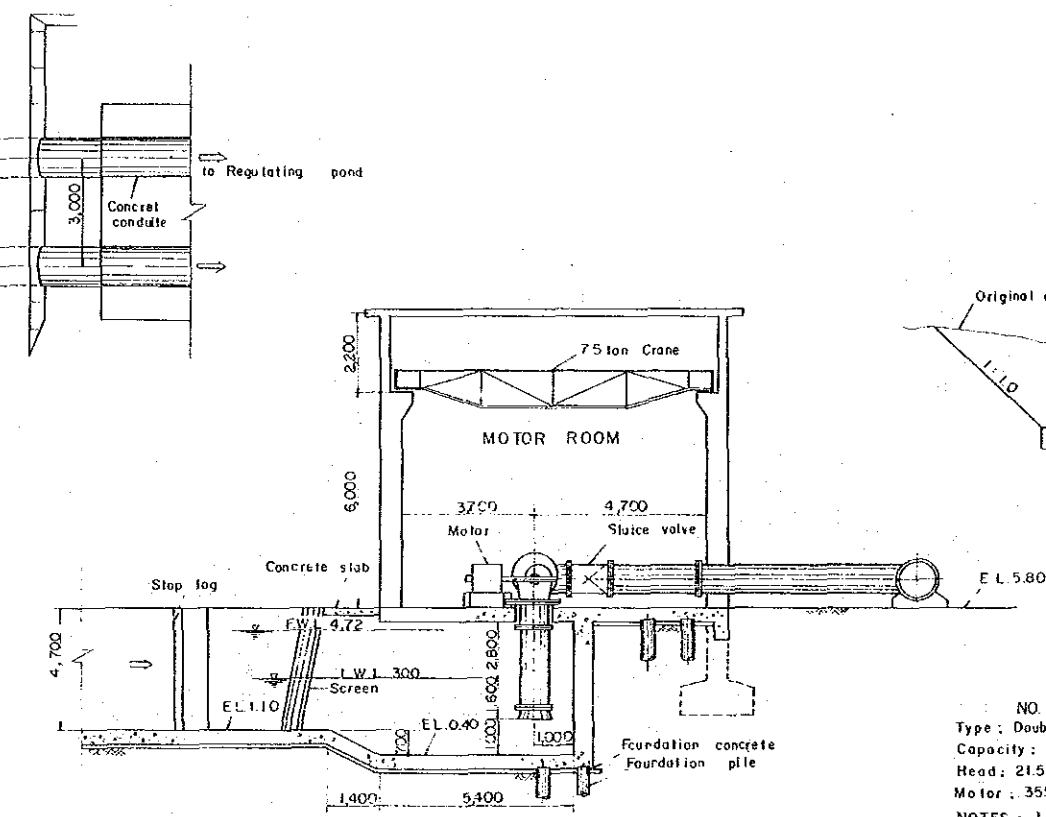


GENERAL PLAN SCALE A

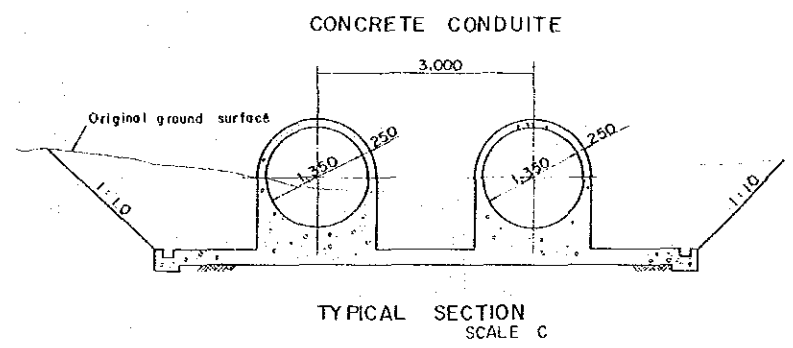


PLAN SCALE B

SCALE A 0 50 100M
 SCALE B 0 1 2 3 4 5 M
 SCALE C 0 1 2 3 M

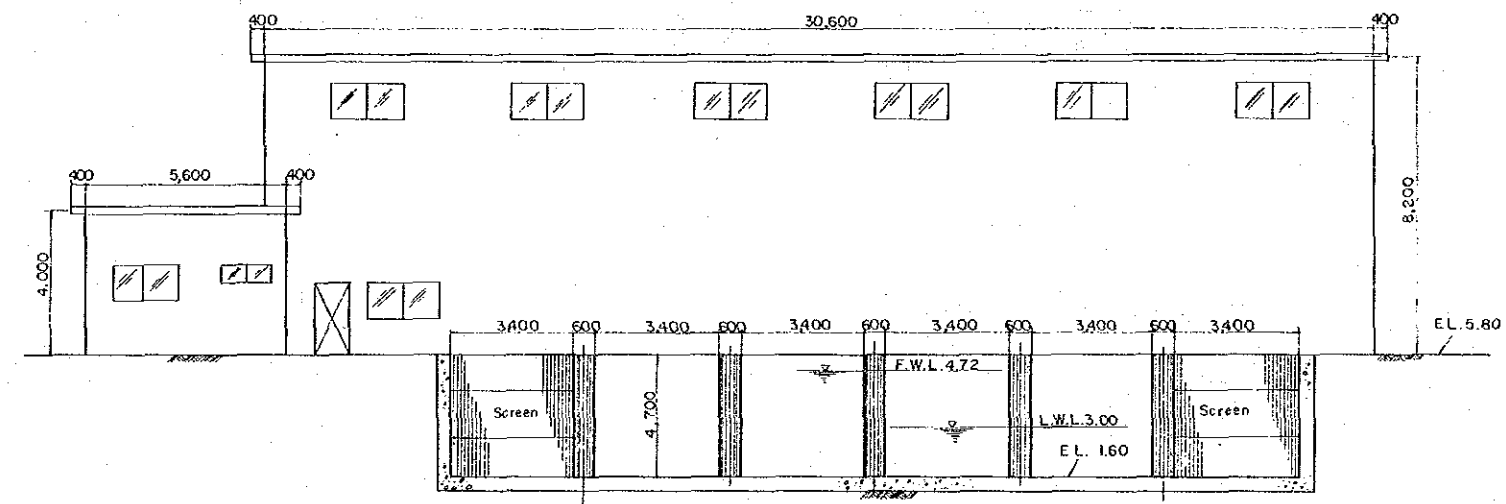


PROFILE SCALE B



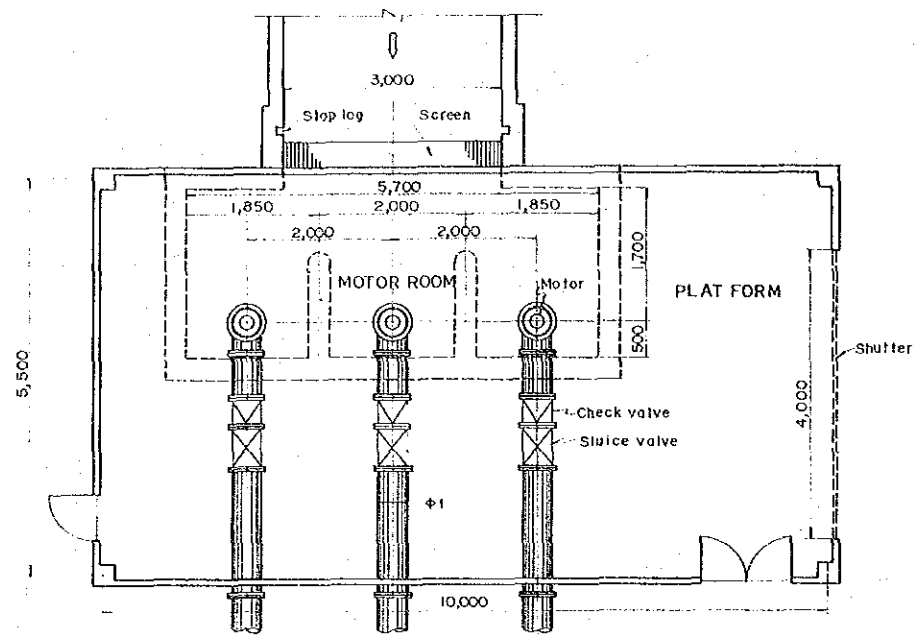
TYPICAL SECTION SCALE C

NO. 2 PUMP
 Type: Double suction volute pump, 6 NOS
 Capacity: 71.6 m³/min
 Head: 21.5m
 Motor: 355 KW
 NOTES: 1. This pumping station has a stand-by pump for emergency and repairing.
 2. Contour lines are shown in feet.

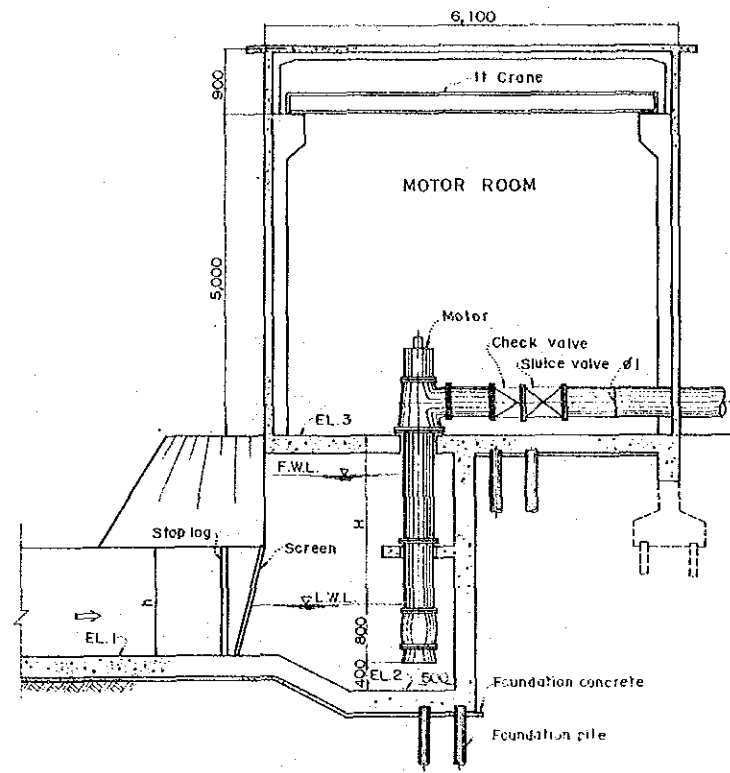


FRONT ELEVATION SCALE B

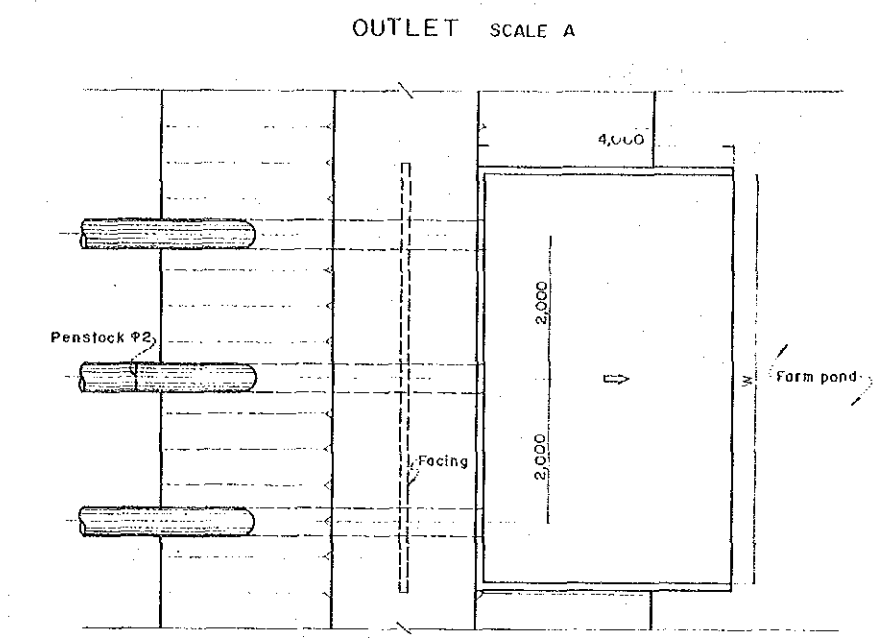
PREPARED <i>S. J. Jones</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED
CHECKED <i>S. J. Jones</i>		PUMPING STATIONS NO. 2 PUMPING STATION		
SUBMITTED <i>J. K. Kuroki</i>	AVEYIME SUGAR PRODUCTION PROJECT	ORG. NO.	NIPPON KOEI CO. LTD.	DATE
DATE DEC 1 1975		200 - 02	CONSULTING ENGINEERS, TOKYO	



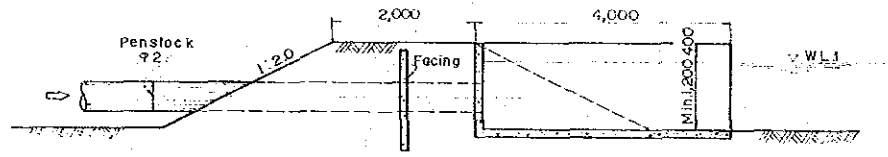
NO. 3, 6 & 7 PUMPING STATION



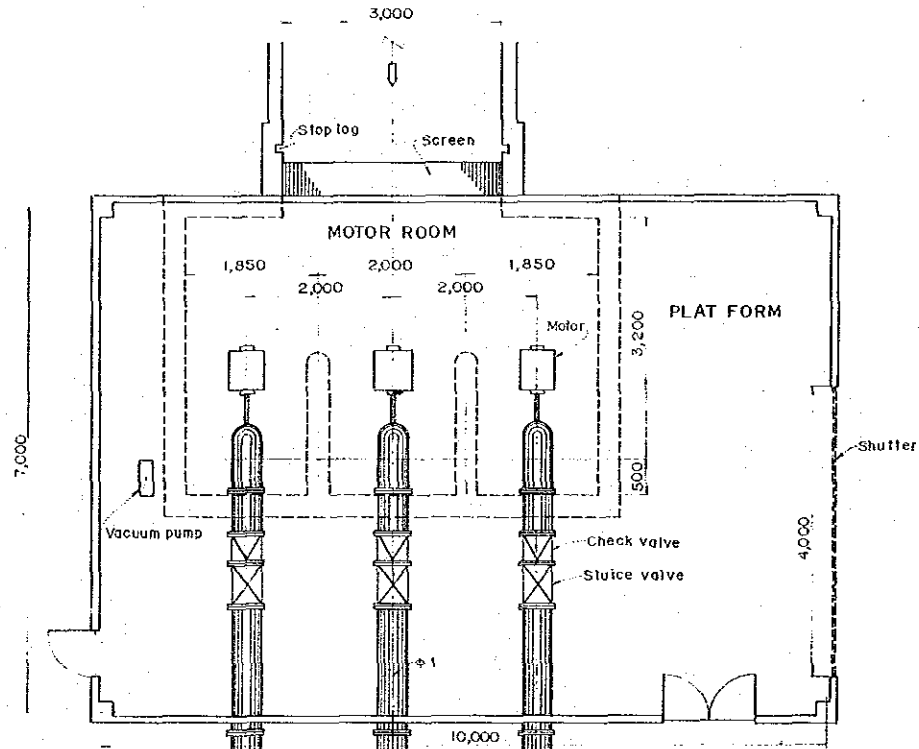
NO. 3, 6 & 7 PUMPING STATION



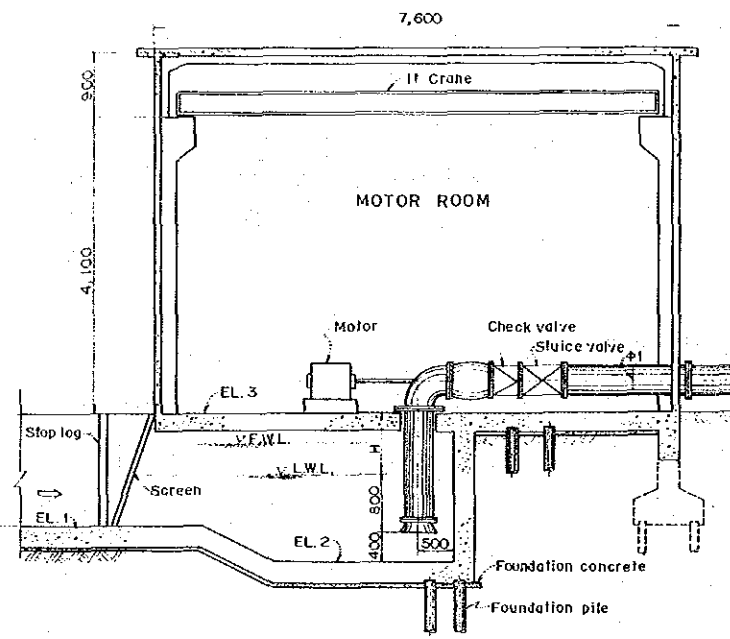
PLAN



PROFILE



NO. 4, 5 & 8 PUMPING STATION
PLAN SCALE A



NO. 4, 5 & 8 PUMPING STATION
PROFILE SCALE A

TABLE OF ELEVATION (Elevation in Meters)

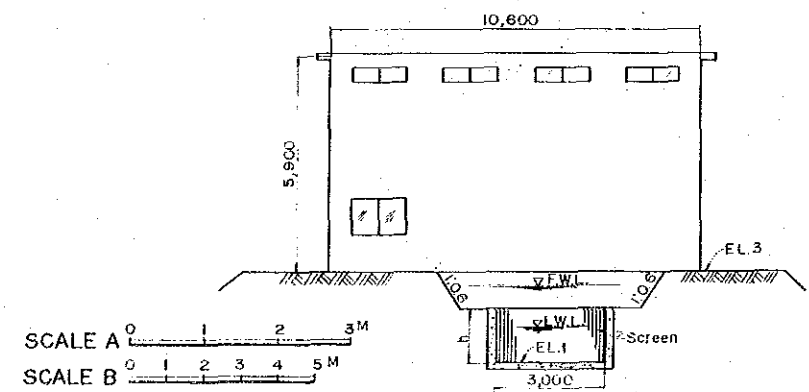
Pumping Station	EL. 1	EL. 2	EL. 3	LWL	F.W.L	WL. 1
3	-0.30	-0.90	7.00	0.30	5.10	8.93
4	2.80	2.30	6.20	3.50	4.72	10.14
5	5.30	4.80	8.20	6.00	6.28	8.77
6	-0.60	-1.20	6.10	0.00	3.40	7.41
7	-0.60	-1.20	6.20	0.00	3.30	6.95
8	4.30	3.80	7.20	5.00	6.12	7.56

DIMENSION TABLE (Dimension in Millimeters)

Pumping Station	h	H	φ 1	φ 2	W
3	1,000		300	300	5,700
4		3,400	350	600	3,100
5		2,900	300	500	
6	1,200		350	600	
7	1,100		350		5,700
8		2,900	350	350	

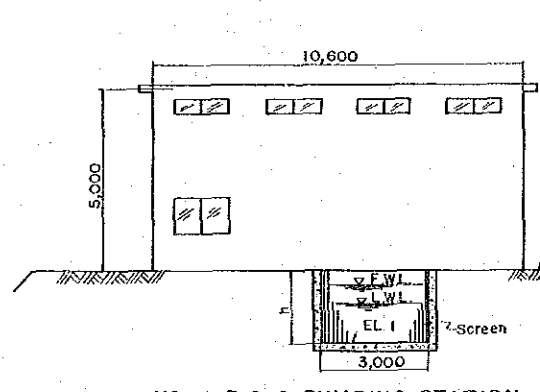
TABLE OF PRINCIPAL FEATURES

Pumping Station	Location	Comanded Area of Pumps	Number of Pumps	Capacity (M ³ /Min)	Head (M)	Motor (KW)	Type of Pumps
3	Volta River	Block 1	3	10.3	8.63	30	Vertical shaft mixed flow pump
4	Bla Lagoon	Block 2	1	16.8	6.64	37	Horizontal shaft mixed flow pump
5	Volta River	Block 2	1	8.2	2.77	7.5	
6	Volta River	Block 3	1	16.8	7.41	55	Vertical shaft mixed flow pump
7	Volta River	Block 4	1	15.5	8.95	45	
8	Block 4	Block 5	1	10.6	2.56	11	Horizontal shaft mixed flow pump

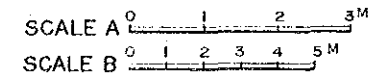


NO. 3, 6 & 7 PUMPING STATION

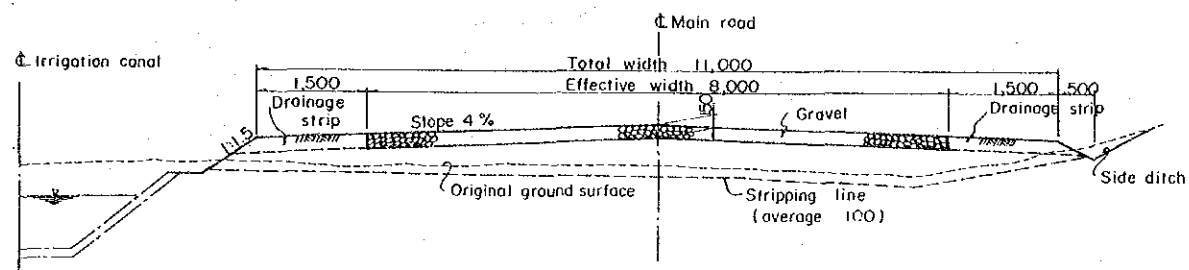
FRONT ELEVATION
SCALE B



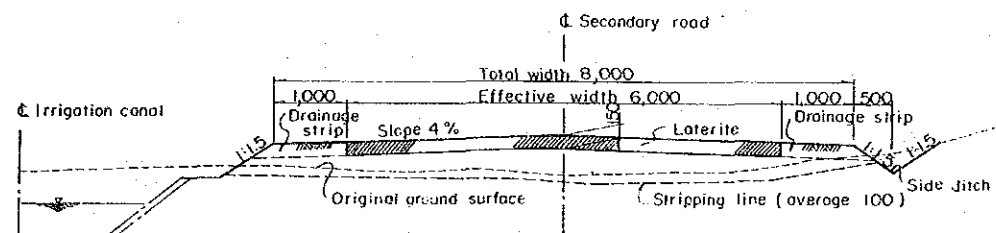
NO. 4, 5 & 8 PUMPING STATION



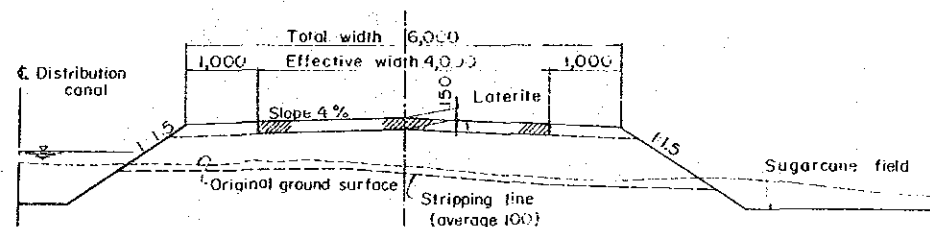
PREPARED: <i>[Signature]</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING	APPROVED
CHECKED: <i>[Signature]</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	PUMPING STATIONS	
SUBMITTED: <i>[Signature]</i>		NO. 3, 4, 5, 6, 7 & 8 PUMPING STATIONS	DATE
DATE: DEC 1982	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 200-03	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO



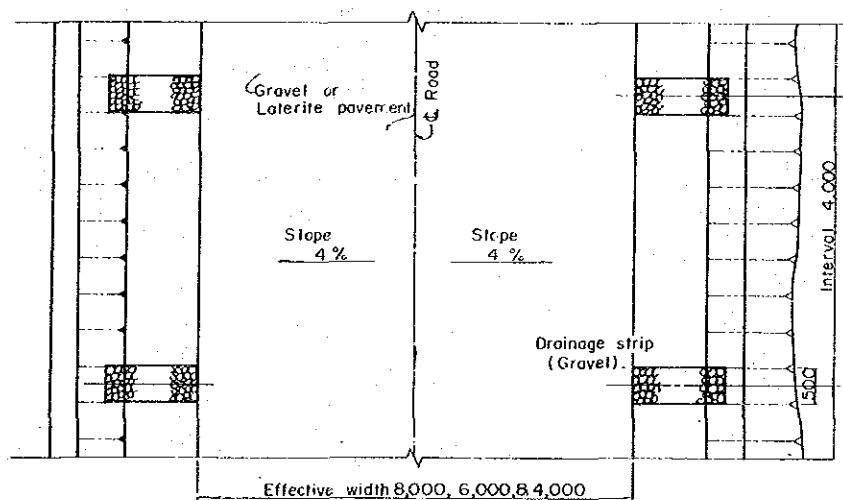
TYPICAL SECTION OF MAIN ROAD



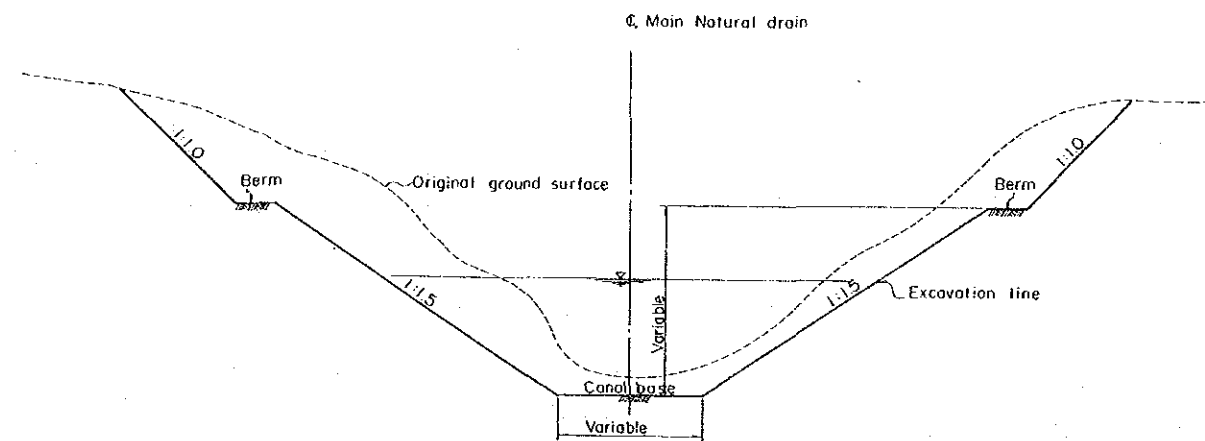
TYPICAL SECTION OF SECONDARY ROAD



TYPICAL SECTION OF TERTIARY ROAD

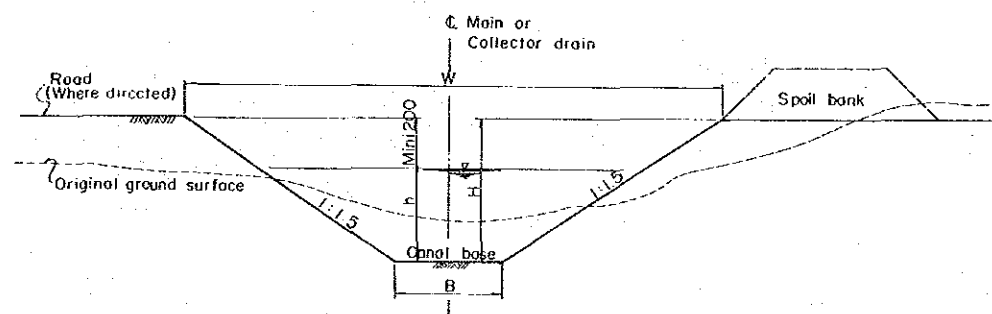


PLAN



TYPICAL SECTION OF MAIN NATURAL DRAIN
(River Improvement)

Note: Dimensions are variable.



TYPICAL SECTION OF MAIN & COLLECTOR DRAINS

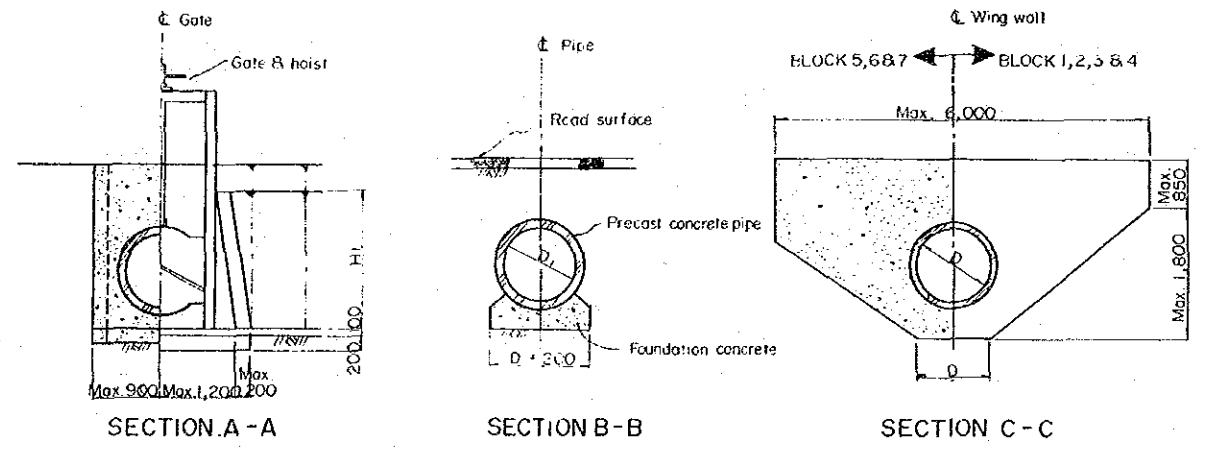
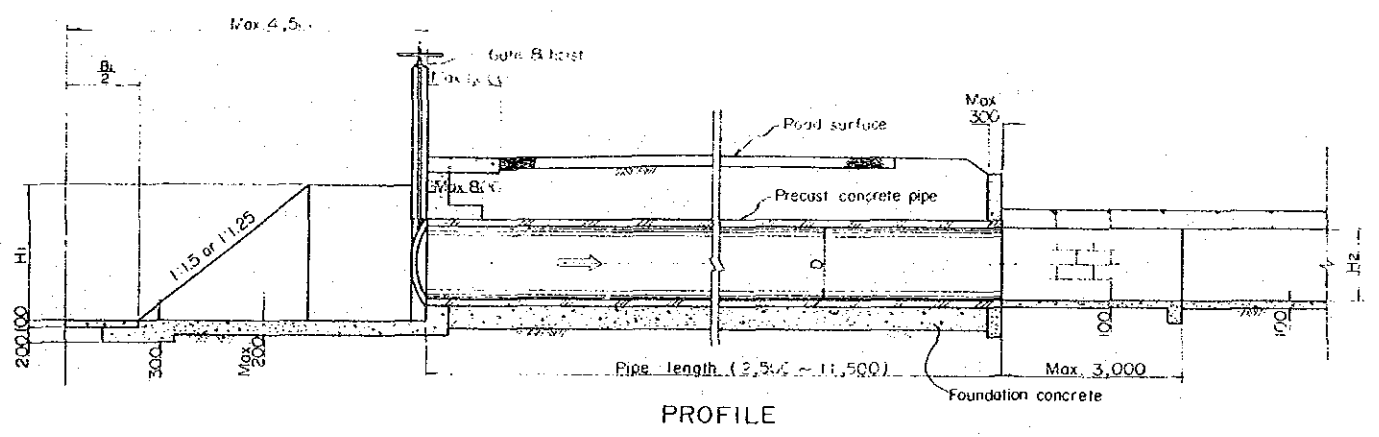
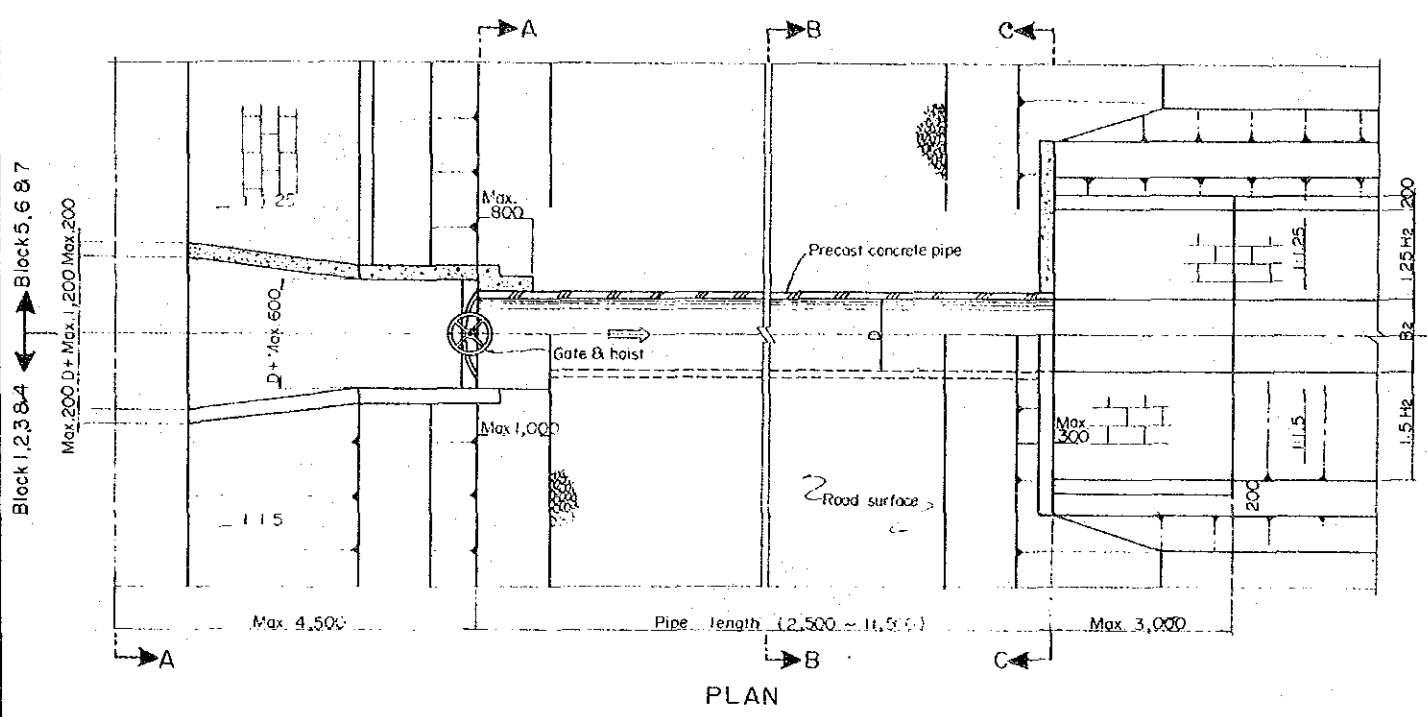
DIMENSION TABLE OF MAIN & COLLECTOR DRAINS

(Unit: meter)

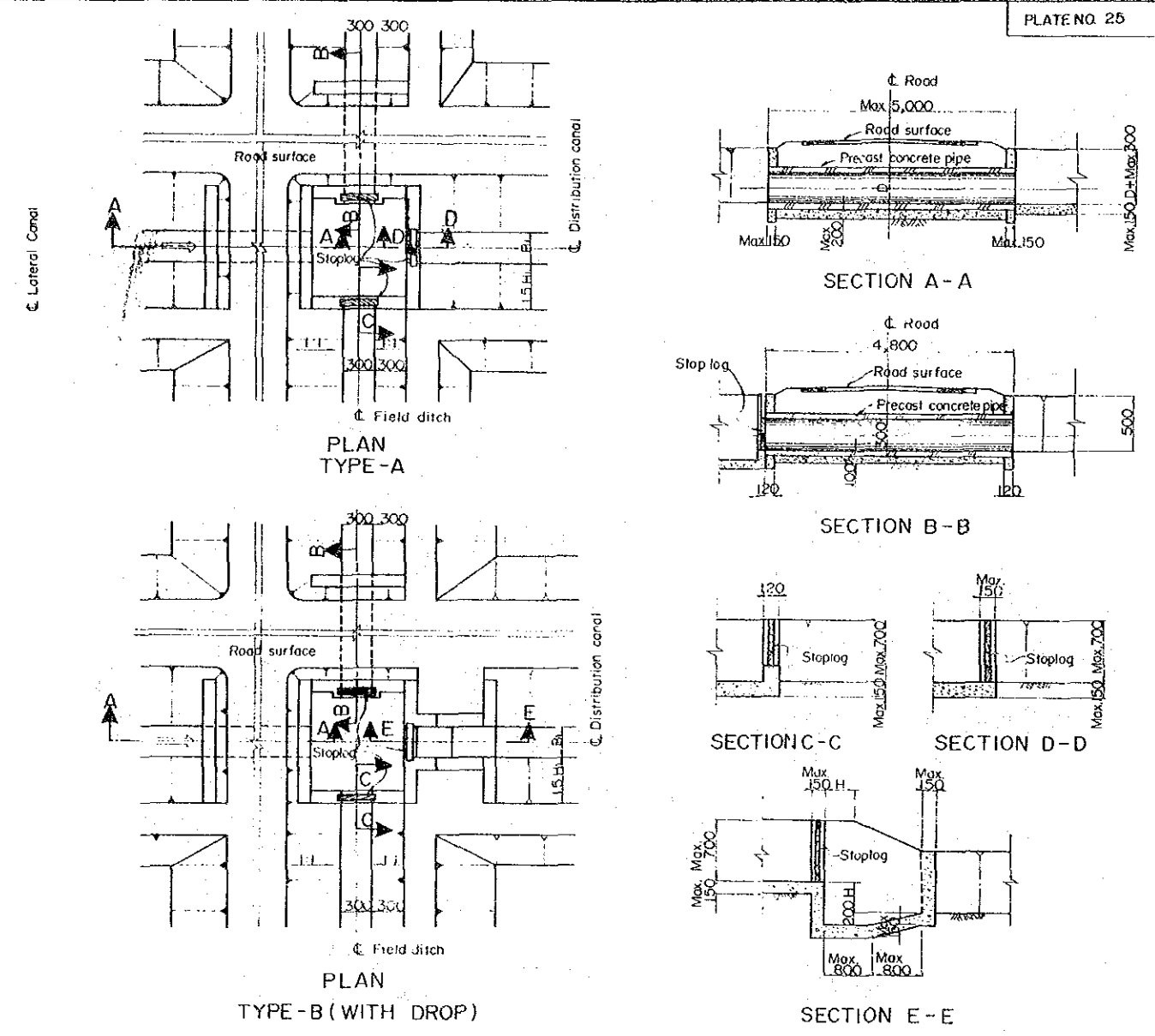
Type	B	W	h	H	Discharge (m ³ /s)
D1	0.300	1.500	0.200	0.400	less than 0.068
D2	0.400	1.900	0.260	0.500	0.069 - 0.139
D3	0.500	2.150	0.330	0.550	0.140 - 0.269
D4	0.700	2.800	0.460	0.700	0.270 - 0.516
D5	0.900	3.300	0.500	0.800	0.517 - 1.002
D6	1.200	4.200	0.790	1.000	1.003 - 1.687
D7	1.500	5.250	0.980	1.250	1.688 - 3.011
D8	2.100	7.200	1.410	1.700	3.012 - 5.521
D9	2.500	8.500	1.670	2.000	5.522 - 8.698
D10	2.900	9.650	1.930	2.250	8.699 - 12.824
D11	3.500	11.450	2.330	2.650	12.825 - 17.299
D12	3.900	12.600	2.590	2.900	17.300 - 22.972
D13	4.500	14.400	2.980	3.300	22.973 - 28.973
D14	4.900	15.700	3.270	3.600	28.974 - 36.930

SCALE 0 1 2 3 4 5 M

PREPARED <i>B. Sato</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED
CHECKED <i>B. Sato</i>		ROADS & DRAINAGE CANALS TYPICAL SECTIONS OF ROADS & DRAINAGE CANALS		
SUBMITTED <i>S. Kuroki</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO.	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	DATE
DATE DEC 1 1975		300-01		



TYPICAL TURNOUTS OF MAIN & SECONDARY IRRIGATION CANALS



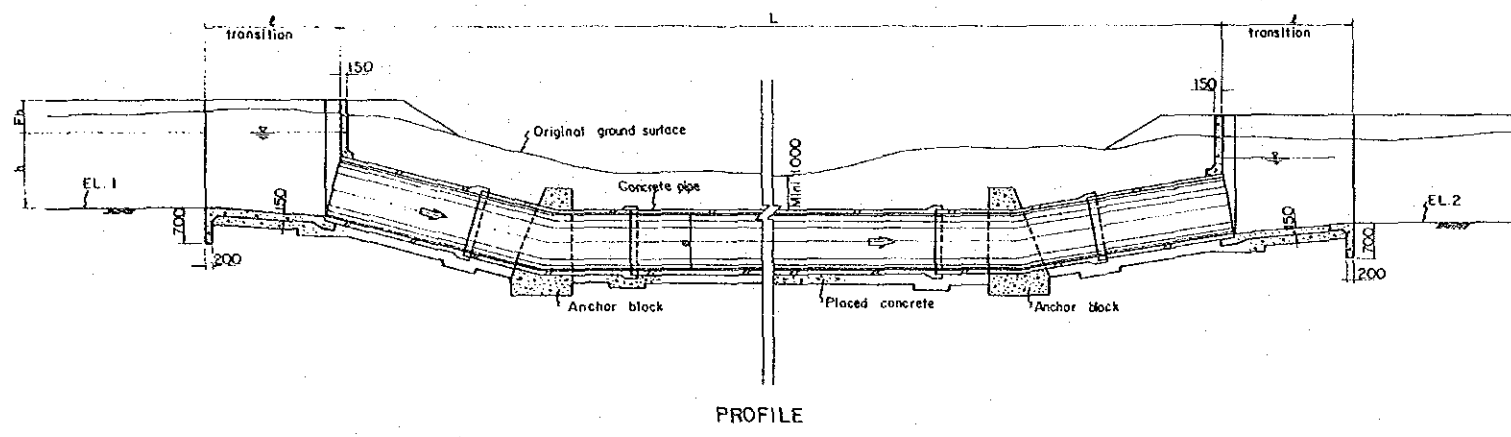
TYPICAL TURNOUTS OF DISTRIBUTION CANAL

Note : D : Radius of pipe
(300 ~ 600)
H : Height of drop
(average : 500)

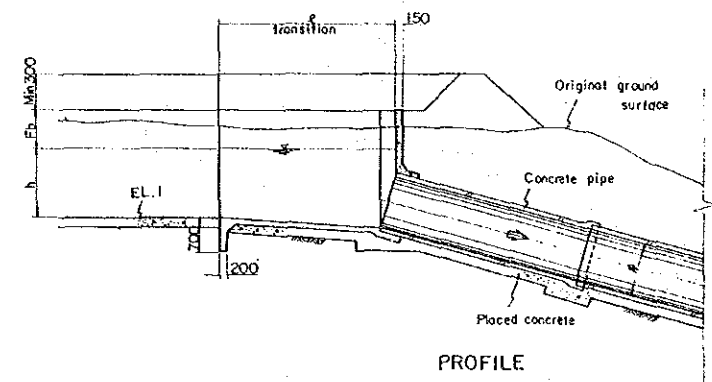
TABLE OF TURNOUTS

TYPE	D(mm)	Discharge (m ³ /sec)	Nos.	
Turnout to secondary Irrigation canal (Block 5, 6 & 7)	A1	1,200	0.966	1
	A2	800	0.407	1
	A3		0.291	1
	A4	600	0.236 ~ 0.260	4
Block 1, 2, 3 & 4	A5	600	0.221 ~ 0.232	3
	A6	500	0.177	1
Turnout to Distribution canal	A7	600	0.149 ~ 0.265	6
	A8	500	0.090 ~ 0.148	22
	A9	400	0.045 ~ 0.089	50
	A10	300	0.025 ~ 0.049	36
	A11		less than 0.024	27

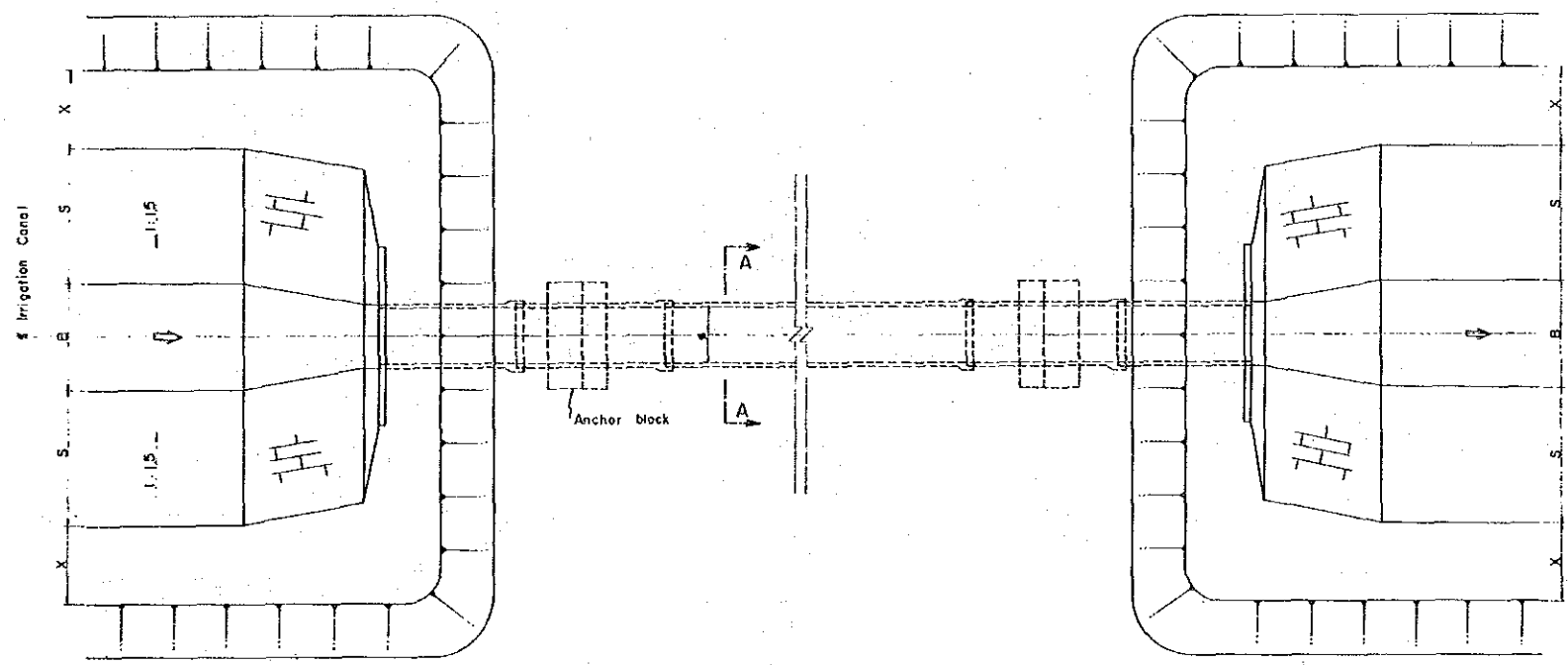
PREPARED <i>A. Sekine</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING	APPROVED
CHECKED <i>S. Sato</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	RELATED STRUCTURES	
SUBMITTED <i>J. Kumano</i>		TYPICAL TURNOUTS	
DATE DEC 1 1975	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 400-01	DATE
		NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	



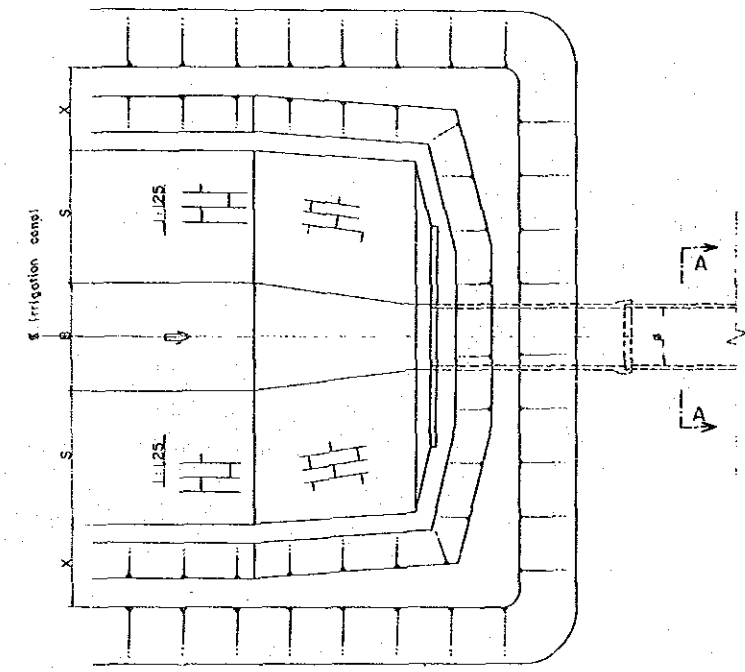
PROFILE



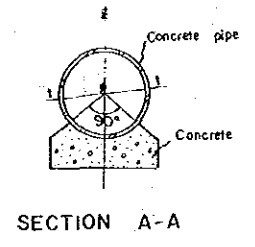
PROFILE



PLAN
(for Block 1, 2, 3 & 4)



PLAN
(for Block 5, 6 & 7)



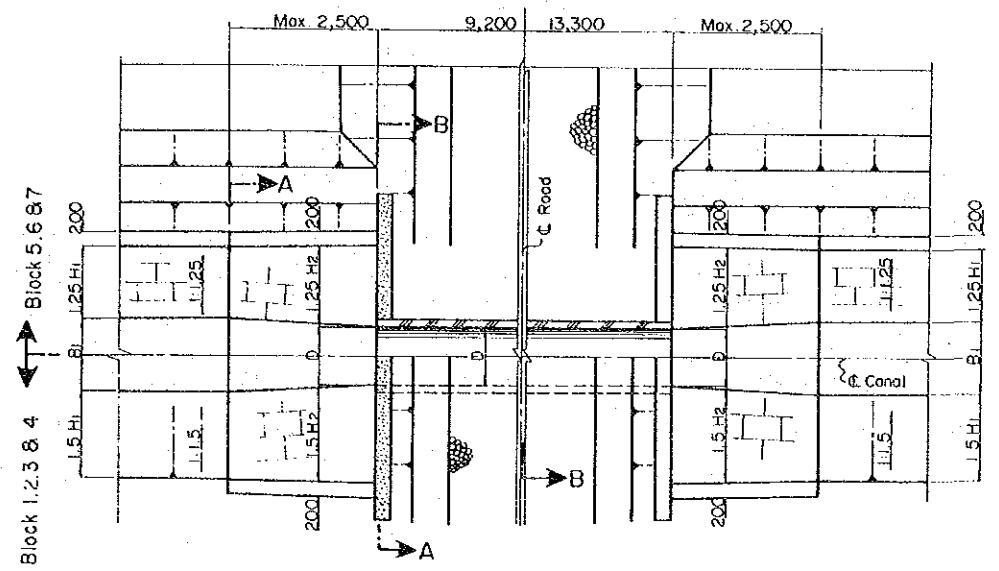
SECTION A-A

DIMENSION TABLE (Dimension in Meters)

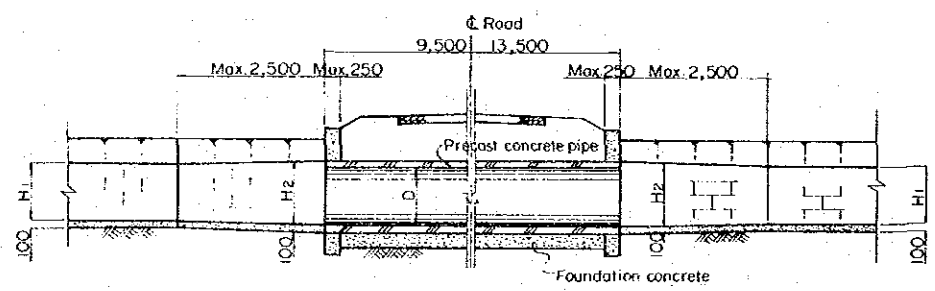
Block	No	φ	L	EL. 1	EL. 2
B3-1	1	0.60	50	5.67	5.37
Secondary					
B4-1	1	1.00	220	17.15	16.55
Main					
B5-1	1	0.80	120	11.48	11.36
Secondary					
B6	1	1.56	100	16.31	16.01
Main					
B7	1	1.35	100	14.26	13.96
Main					
Σ	2	1.20	100	11.94	11.64

NOTE: Dimensions are variable with discharge.

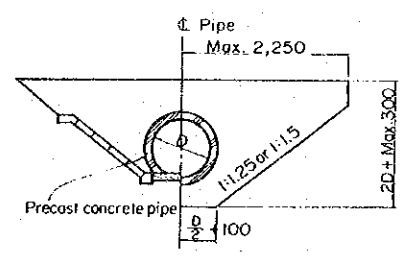
PREPARED <i>B. Jones</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED
CHECKED <i>S. Sato</i>		RELATED STRUCTURES TYPICAL SYPHONS		
SUBMITTED <i>J. Kumar</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO.	NIPPON KOEI CO, LTD CONSULTING ENGINEERS, TOKYO	DATE
DATE <i>Feb 1971</i>		400-02		



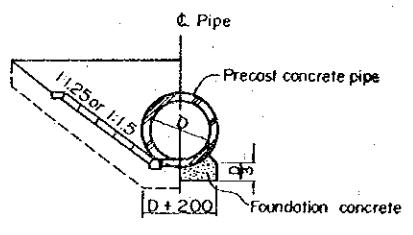
PLAN



PROFILE



SECTION A - A



SECTION B - B

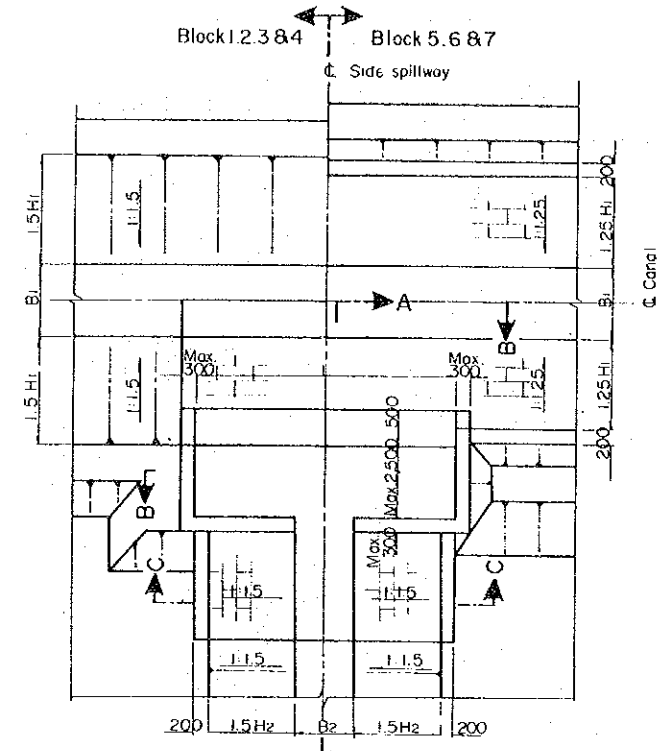
TYPICAL CULVERTS

TABLE FOR BLOCK 5, 6 & 7

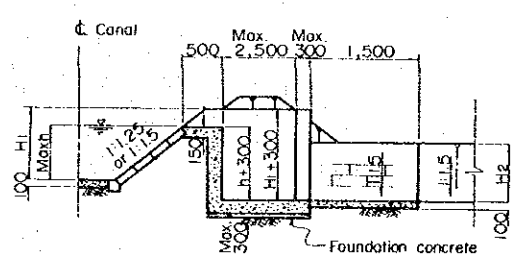
Name	D (mm)	Discharge (m ³ /sec)
B5-2S, NO.1	600	0.185
B6-1S, NO.1	1,100	0.721
" , NO.2	900	0.523
B6-2S, NO.1	600	0.251
B7M , NO.1	1,200	0.928
" , NO.2	1,000	0.705
" , NO.3	900	0.604

TABLE FOR BLOCK 1, 2, 3 & 4

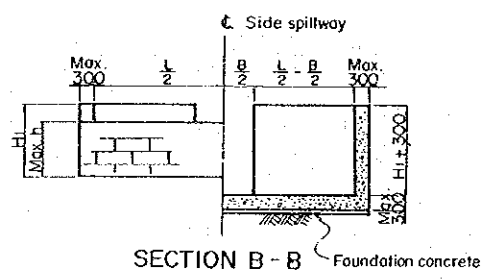
Name	D (mm)	Discharge (m ³ /sec)
B1M , NO.1	800	0.283
B1S , NO.1	600	0.177
B2-1M, NO.1	1,000	0.516
B4-2M, NO.1	900	0.471



PLAN



SECTION A - A



SECTION B - B

TYPICAL SIDE SPILLWAYS

TABLE FOR BLOCK 5, 6 & 7

Type	L (mm)	Discharge (m ³ /sec)	Nos.
A1	5,500	4,046	1
A2	4,500	2,553-2,720	2
A3	4,000	1.884	1
A4	3,500	1,322-1,380	2
A5	3,000	0.721-1.110	2
A6	2,500	0.683	1
A7	2,000	0.512	1

TABLE FOR BLOCK 1, 2, 3 & 4

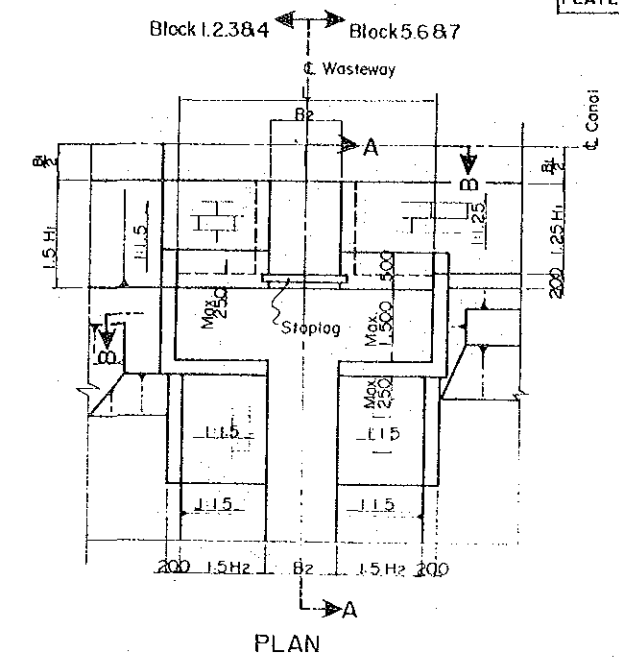
Type	L (mm)	Discharge (m ³ /sec)	Nos.
A8	2,500	0.471-0.516	2
A9	2,000	0.365	1
A10	1,700	0.221	1
A11	1,500	0.213	1

TABLE FOR BLOCK 5, 6 & 7

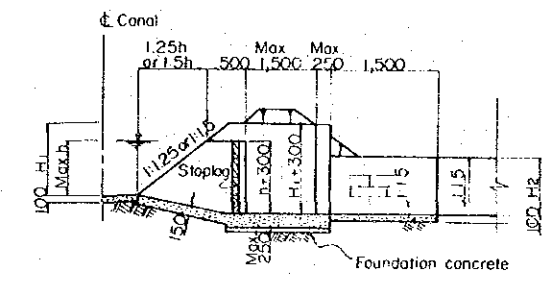
Type	L (mm)	Discharge (m ³ /sec)	Nos.
A1	3,500	1.989	1
A2	1,300	0.300	1
A3	1,200	0.145-0.195	4
A4	1,000	0.106-0.123	3
A5	"	0.045	1

TABLE FOR BLOCK 1, 2, 3 & 4

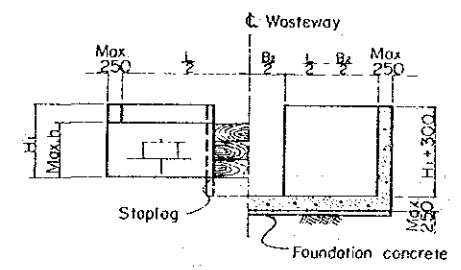
Type	L (mm)	Discharge (m ³ /sec)	Nos.
A6	1,000	0.192-0.203	2
A7	"	0.088-0.136	3
A8	800	0.075-0.084	2
A9	"	0.036	1



PLAN



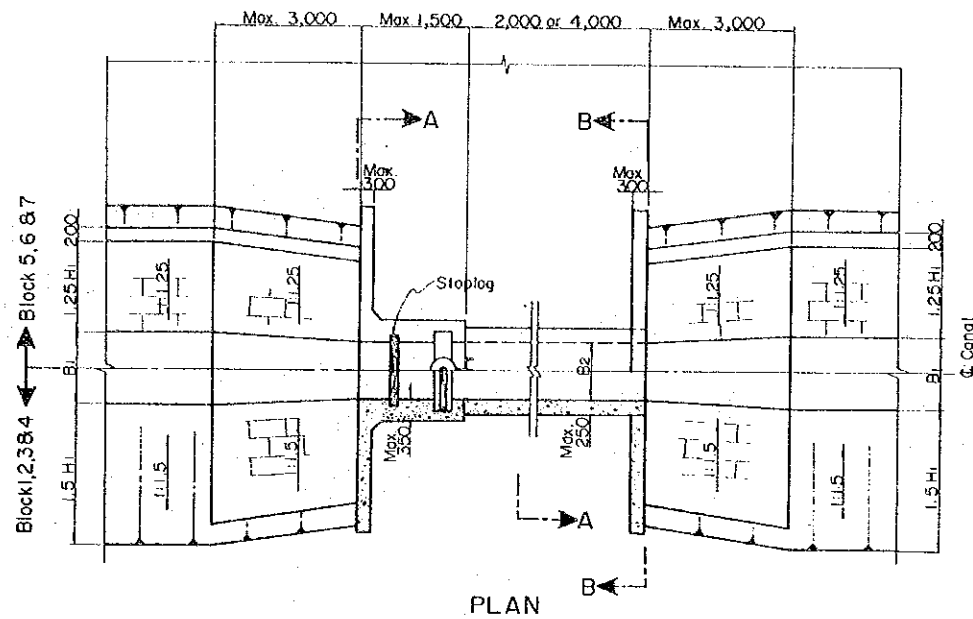
SECTION A - A



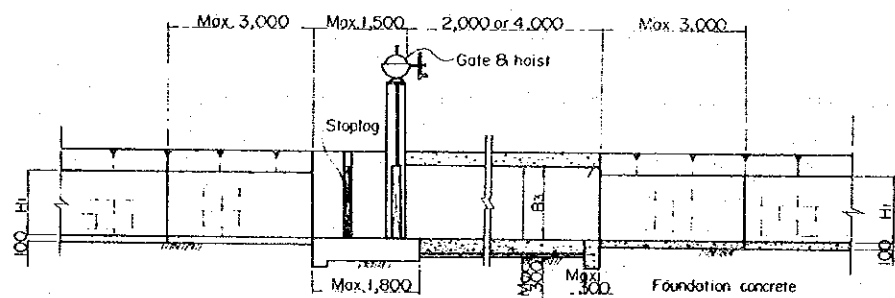
SECTION B - B

TYPICAL WASTEWAYS (WITH SIDE SPILLWAY)

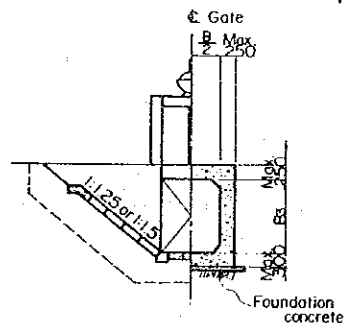
PREPARED <i>H. Sato</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA AVEYIME SUGAR PRODUCTION PROJECT	TITLE OF DRAWING RELATED STRUCTURES TYPICAL CULVERTS, SIDE SPILLWAYS & WASTEWAYS		APPROVED
CHECKED <i>S. Sato</i>		DWG. NO. 400-03	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	DATE
SUBMITTED <i>J. Kuroki</i>				DEC 1
DATE				



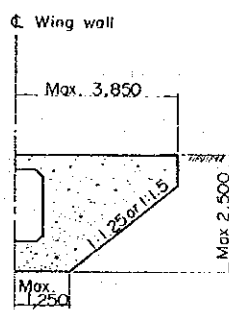
PLAN



PROFILE



SECTION A-A



SECTION B-B

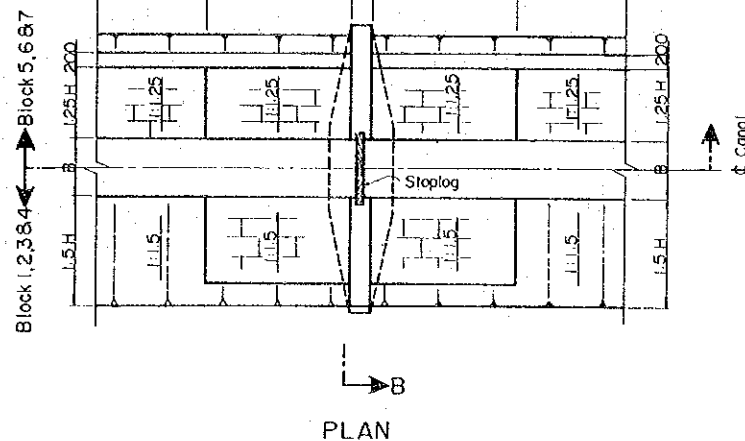
TYPE-A CROSS REGULATORS

TABLE FOR BLOCK 5, 6 & 7

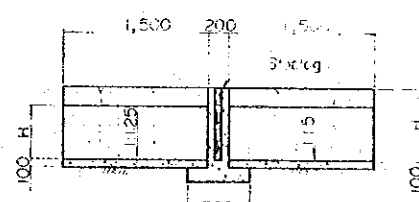
Type	B2(mm)	B3(mm)	Discharge(m ³ /sec)	Nos.
A 1	2,000	1,800	4.005	1
A 2	1,800	1,800	3.744	1
A 3	1,600	1,600	1.884-2.748	5
A 4	1,400	1,400	1.198-1.593	5
A 5	1,000	1,000	0.541-0.978	5
A 6	800	800	0.350-0.523	3
A 7	600	600	0.150-0.236	5

TABLE FOR BLOCK 1, 2, 3 & 4

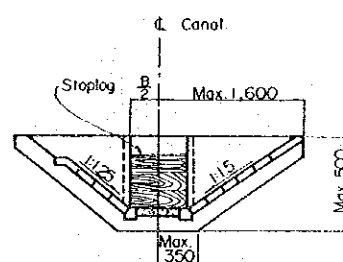
Type	B (mm)	B (mm)	Discharge(m ³ /sec)	Nos.
A 8	900	1,000	0.471-0.516	2
A 9	800	900	0.415-0.419	2
A 10	700	800	0.305	1
A 11	600	700	0.172-0.213	2



PLAN



SECTION A-A

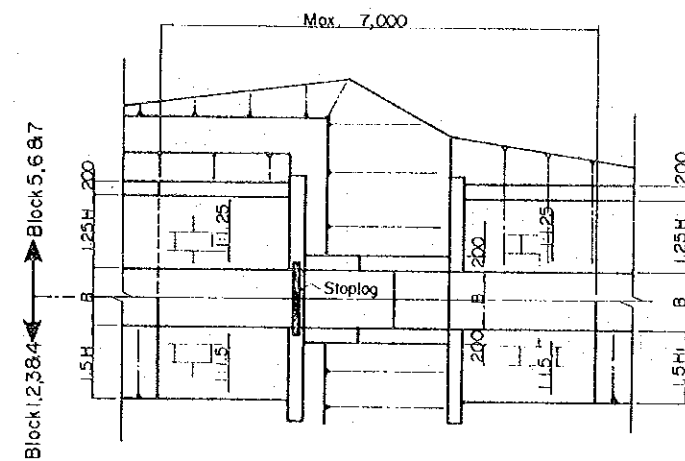


SECTION B-B

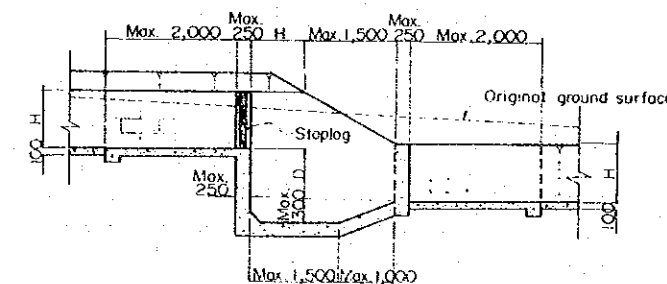
TYPE-B CROSS REGULATORS

TABLE OF TYPE-B CROSS REGULATORS

Type	Discharge (m ³ /sec)	Nos.
B 1	0.106	1
B 2	0.045	1
B 3	0.092-0.136	4
B 4	0.075	1



PLAN



PROFILE

TYPICAL DROPS

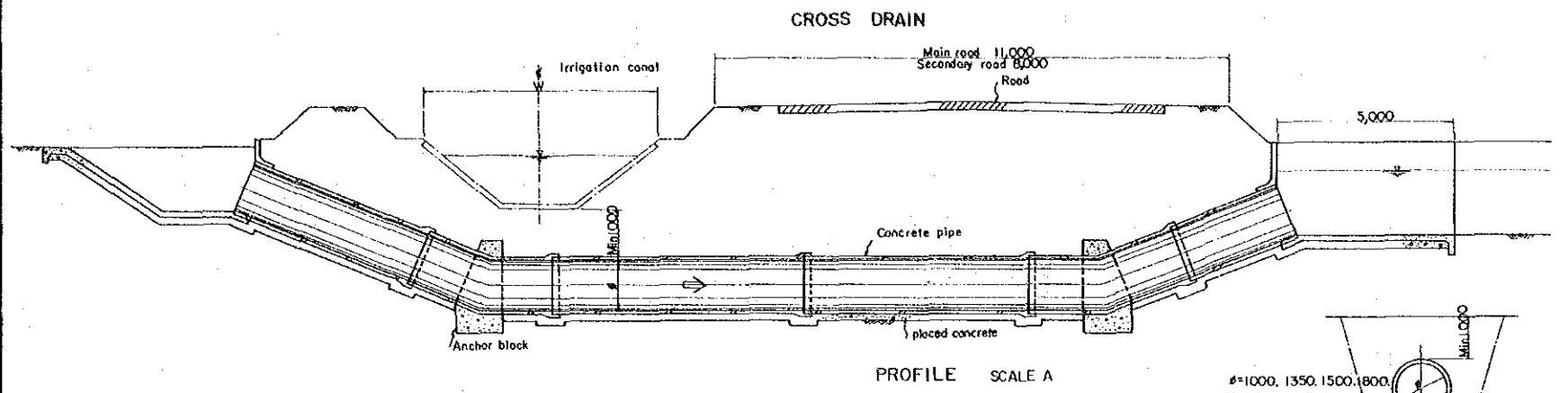
TABLE FOR BLOCK 5, 6 & 7

Type	D (mm)	Discharge(m ³ /sec)	Nos.
A 1	1,500	0.624	1
A 2	1,500	0.404-0.523	3
A 3	500 1,000	0.145-0.195	6
A 4	500 1,500	0.104	2
A 5	1,000 1,500	0.045	2

TABLE FOR BLOCK 1, 2, 3 & 4

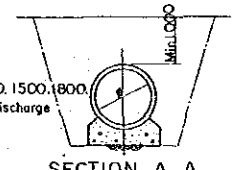
Type	D (mm)	Discharge(m ³ /sec)	Nos.
B 1	500	0.092	1
B 2	1,500	0.084	1

PREPARED <i>M. S. Kumar</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING RELATED STRUCTURES TYPICAL CROSS REGULATORS & DROPS		APPROVED
CHECKED <i>S. Sato</i>		AVEYIME SUGAR PRODUCTION PROJECT	DATE DEC 1 1975	DATE
SUBMITTED <i>O. Kuma</i>		DWG. NO. 400-04	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	

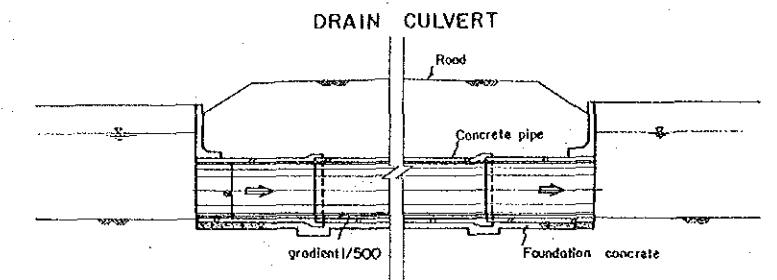


PROFILE SCALE A

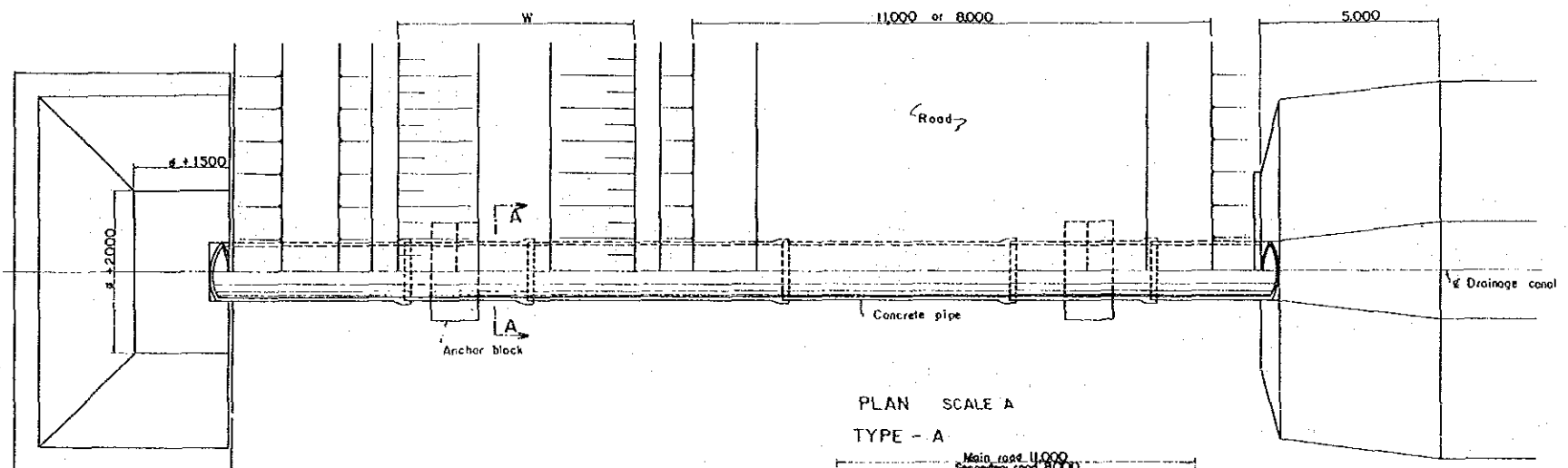
Ø=1000, 1350, 1500, 1800, Variable with discharge



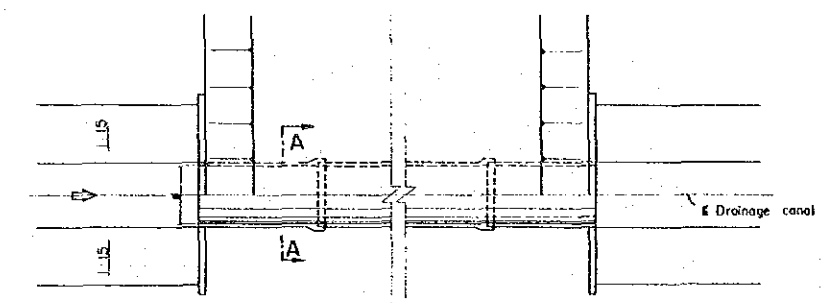
SECTION A-A



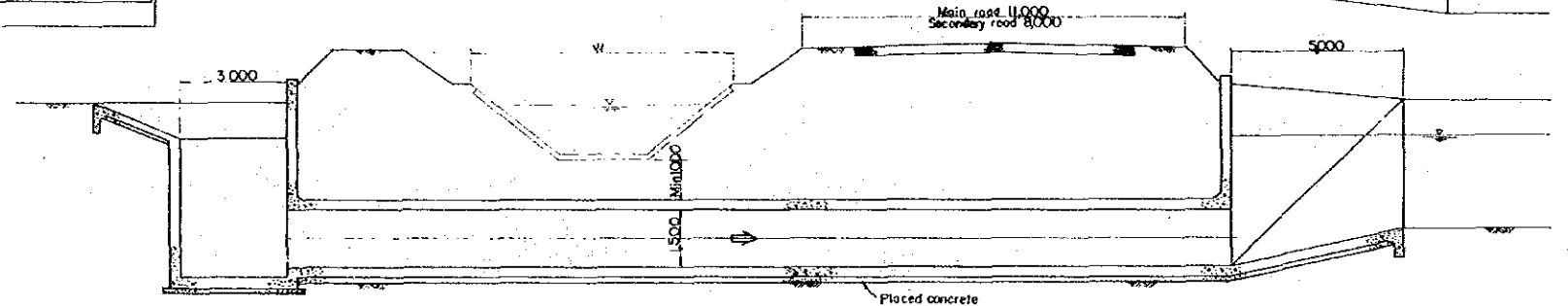
PROFILE SCALE A



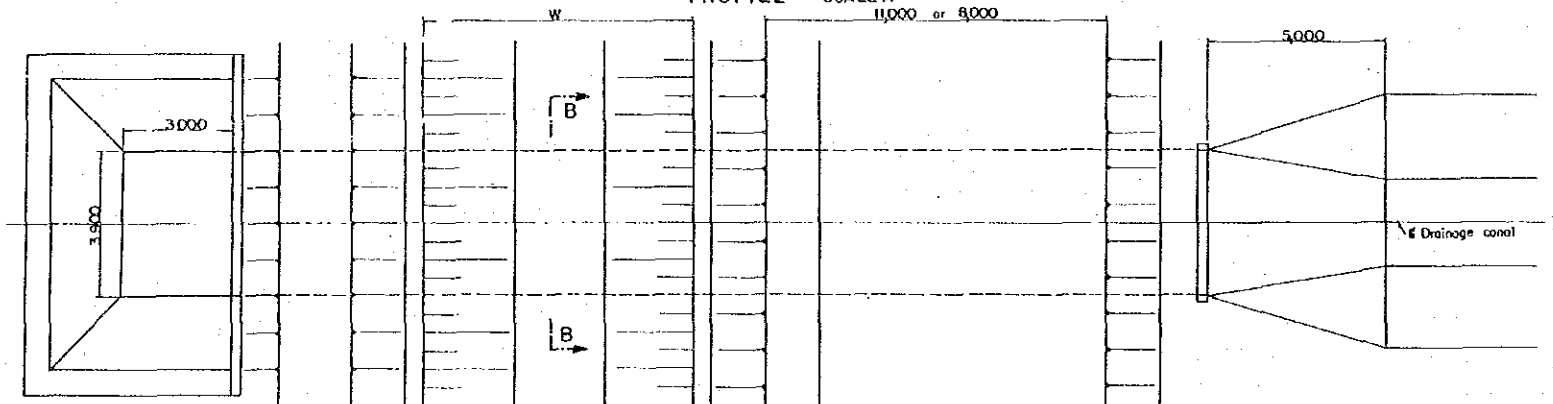
PLAN SCALE A
TYPE - A



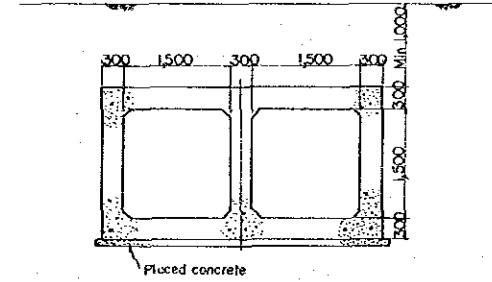
PLAN SCALE A



PROFILE SCALE A



PLAN SCALE A
TYPE - B

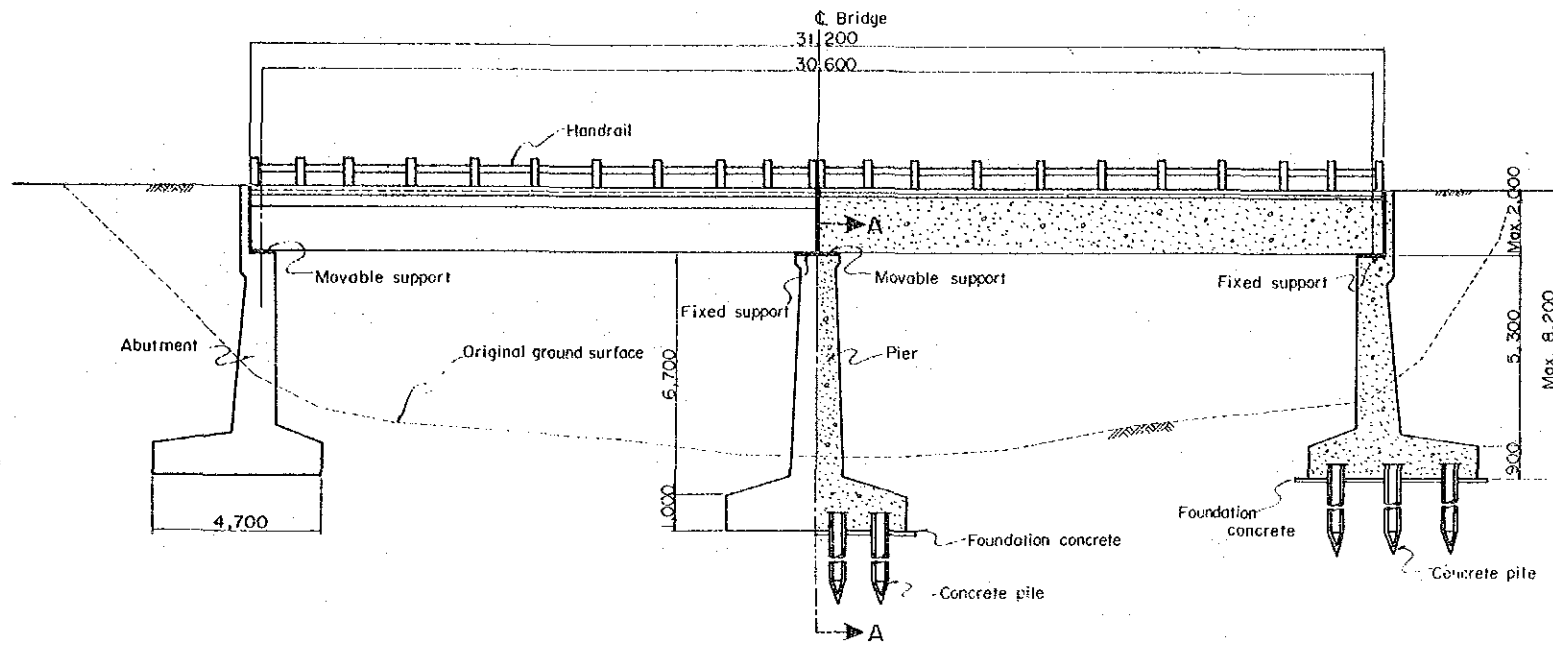


SECTION B-B SCALE B

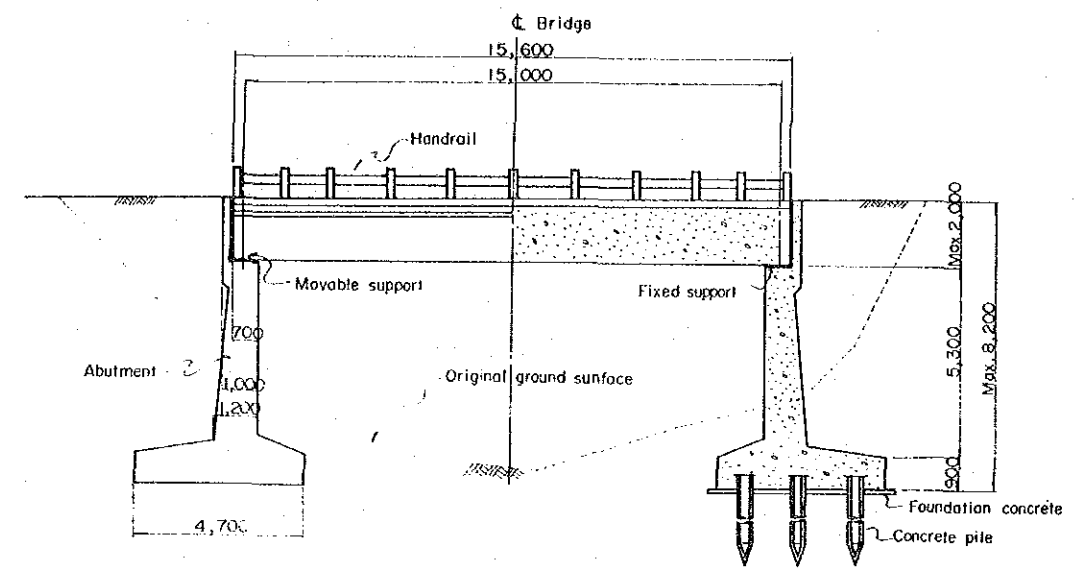
- NOTES:
1. Type-A Cross drain is applied to discharge with less than 8m³/sec
 2. Type-B Cross drain is applied to discharge with more than 8m³/sec

SCALE A 0 1 2 3 4 5M
SCALE B 0 1 2M

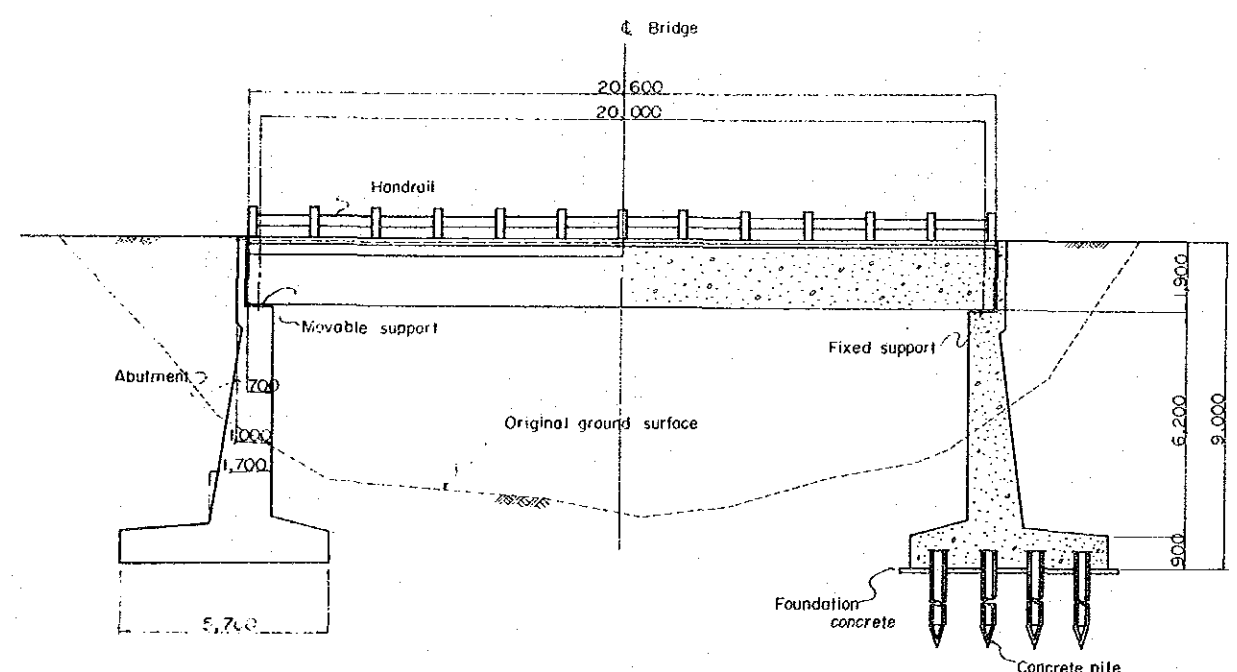
PREPARED <i>D. Yama</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING RELATED STRUCTURES TYPICAL CROSS DRAINS DRAIN CULVERT		APPROVED
CHECKED <i>P. Sato</i>		AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 400-05	NIPPON KOEI CO. LTD CONSULTING ENGINEERS, TOKYO
SUBMITTED <i>J. Kuroki</i>				DATE
DATE DEC 1 1970				



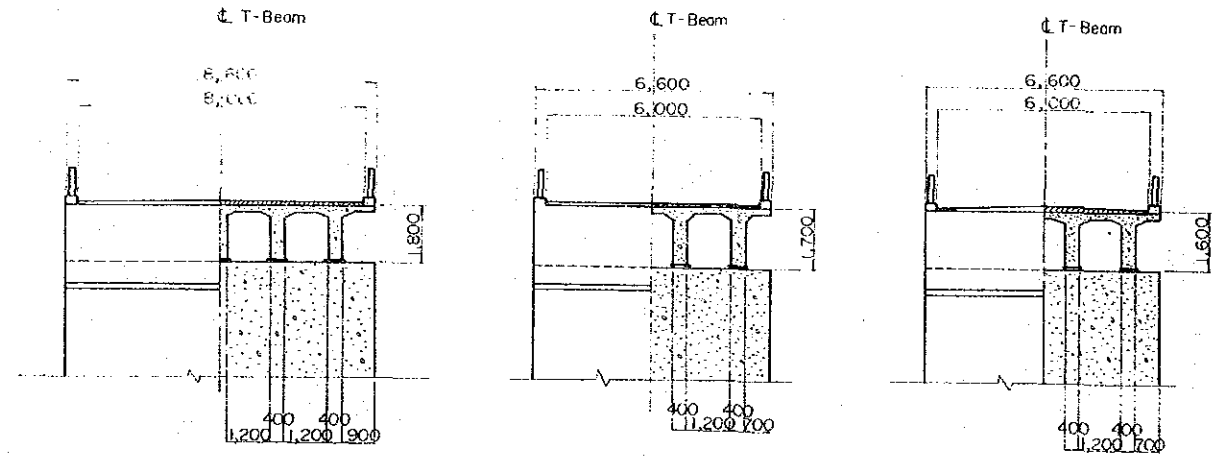
TYPE - A



TYPE - C



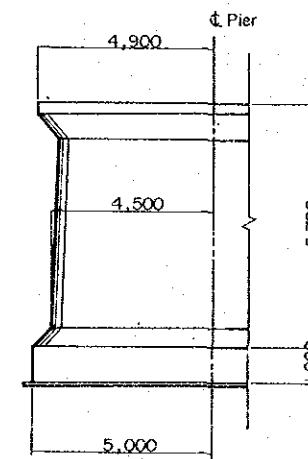
TYPE - B



T-BEAM TYPE-A

T-BEAM TYPE-B

T-BEAM TYPE-C



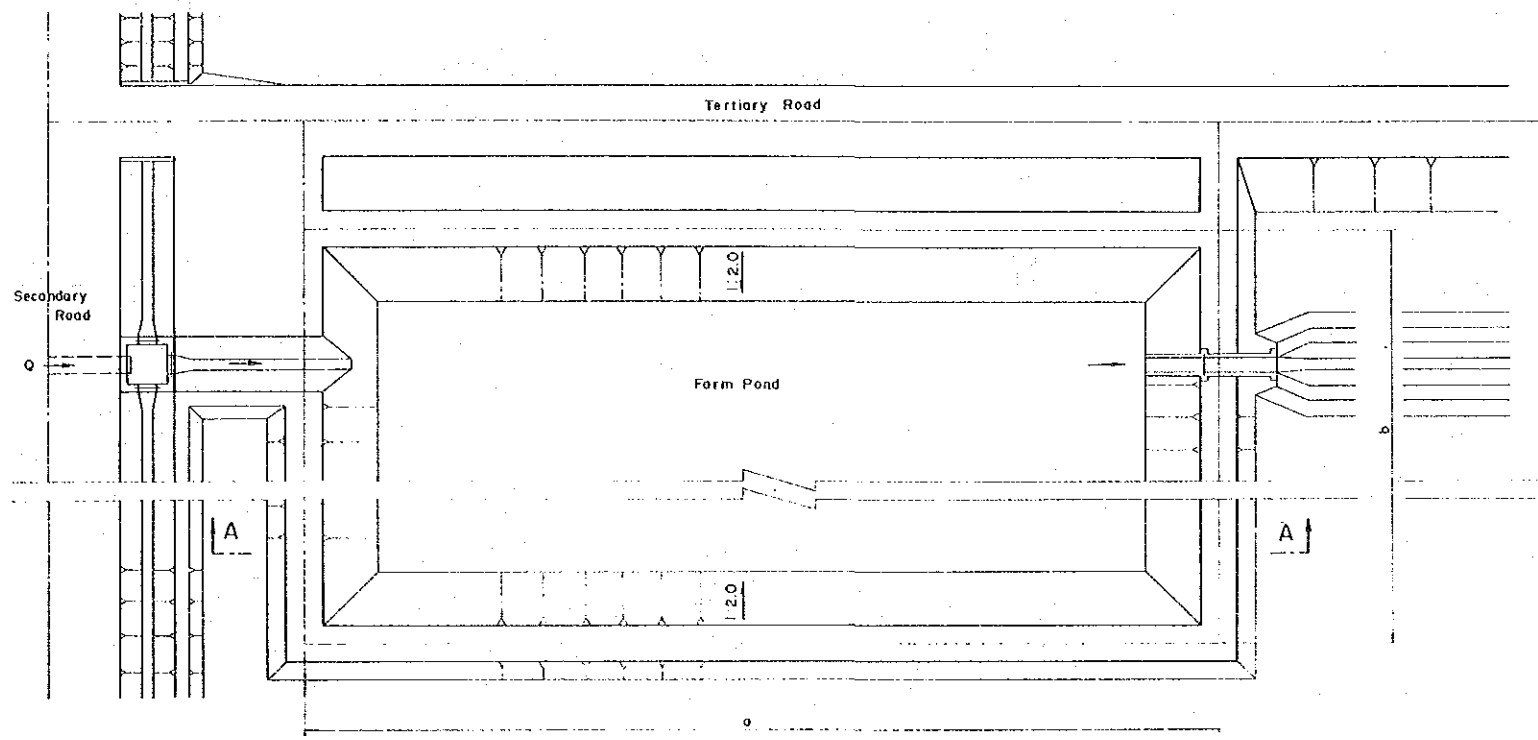
SECTION A-A

TABLE

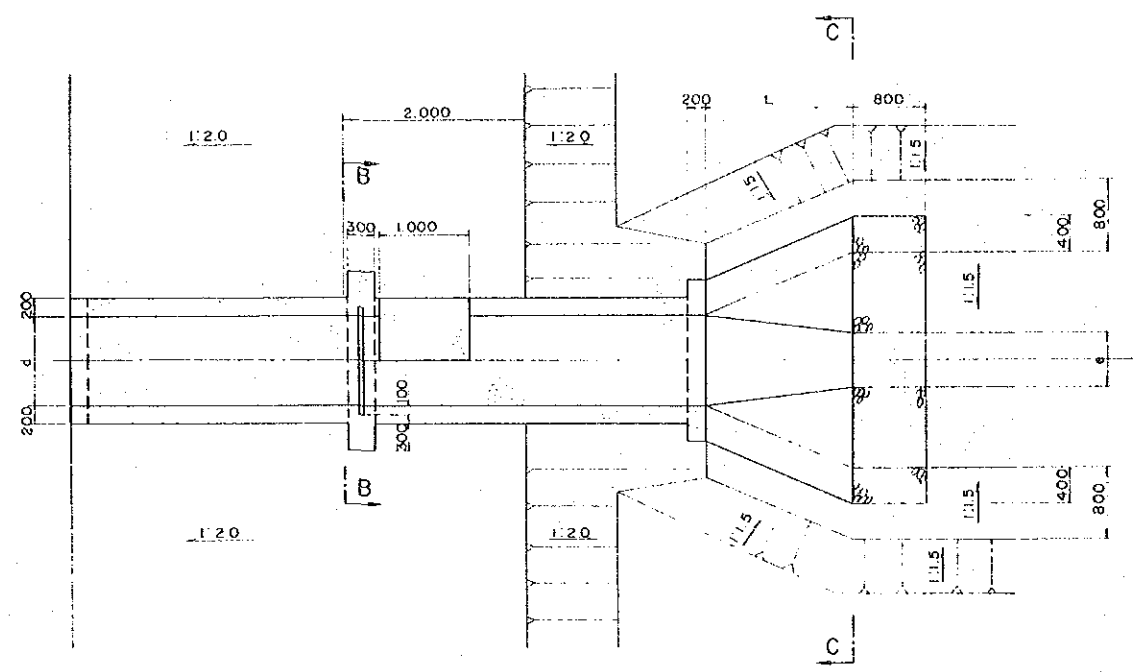
Name of Bridge	Bridge Type	T-Beam Type
BM - 1	A	A
BM - 2	A	A
BM - 3	C	A
BM - 4	A	A
BM - 5	A	A
BM - 6	A	A
BS - 1	B	B
BS - 2	A	C
BS - 3	A	C
BS - 4	A	C
BS - 5	A	C
BS - 6	A	C
BS - 7	C	C

SCALE 0 5 10M

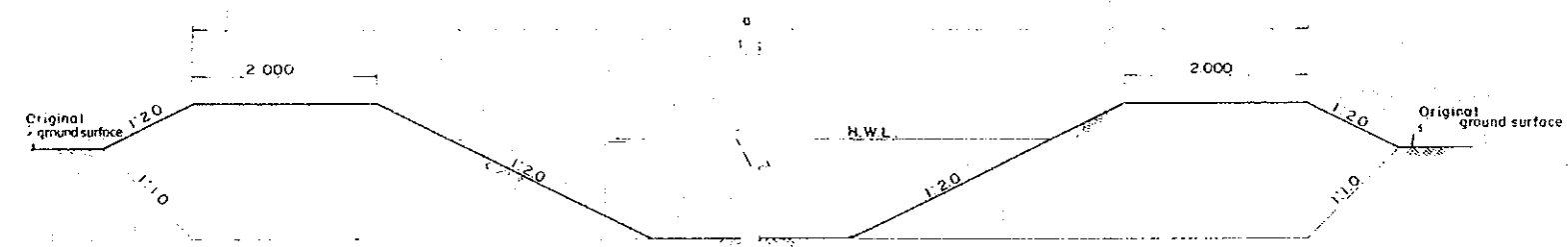
PREPARED <i>H. S. Saeed</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING	APPROVED
CHECKED <i>S. Saeed</i>		RELATED STRUCTURES TYPICAL BRIDGES	
SUBMITTED <i>J. Saeed</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO.	DATE
DATE <i>DEC 1 1975</i>		400-06	



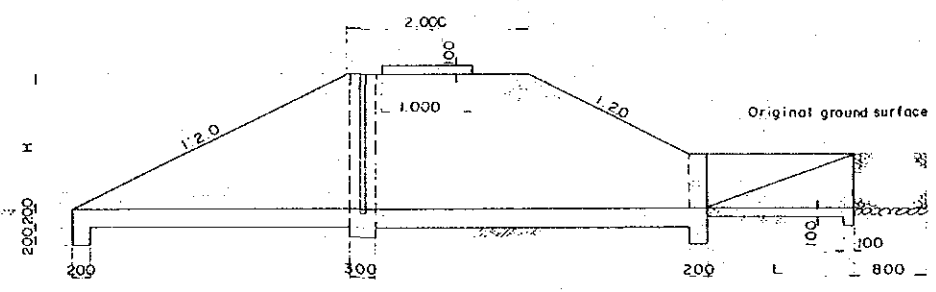
PLAN OF TYPICAL FARM POND SCALE A



PLAN



SECTION A-A SCALE B



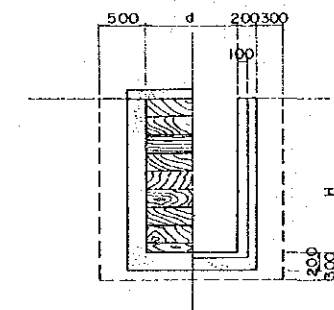
PROFILE

Q (m ³ /s)	H (m)	a (m)	b (m)	Q (m ³ /s)	H (m)	a (m)	b (m)
0.010 ~ 0.020	1.2	14.0	14.0	0.131 ~ 0.140	1.5	50.0	66.0
0.021 ~ 0.030	1.2	24.0	24.0	0.141 ~ 0.150	1.6	50.0	66.0
0.031 ~ 0.040	1.2	34.0	34.0	0.151 ~ 0.160	1.6	50.0	70.0
0.041 ~ 0.050	1.2	34.0	34.0	0.161 ~ 0.170	1.6	50.0	74.0
0.051 ~ 0.060	1.3	38.0	38.0	0.171 ~ 0.180	1.6	50.0	78.0
0.061 ~ 0.070	1.3	40.0	40.0	0.181 ~ 0.190	1.7	50.0	77.0
0.071 ~ 0.080	1.3	43.0	43.0	0.191 ~ 0.200	1.7	50.0	80.0
0.081 ~ 0.090	1.3	46.0	46.0	0.201 ~ 0.210	1.7	55.0	77.0
0.091 ~ 0.100	1.5	48.0	48.0	0.211 ~ 0.220	1.7	55.0	80.0
0.101 ~ 0.110	1.5	49.0	49.0	0.221 ~ 0.230	1.7	55.0	83.0
0.111 ~ 0.120	1.5	50.0	53.0				
0.121 ~ 0.130	1.5	50.0	57.0				
		50.0	62.0				

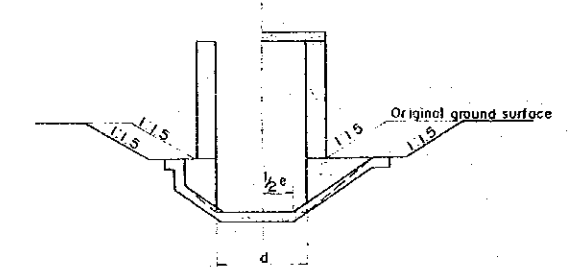
DIMENSION TABLE-1

L (m)	e (m)	d (m)
1.0	0.15	0.50
1.0	0.20	0.55
1.0	0.30	0.65
1.5	0.40	0.90
1.5	0.50	1.00
2.0	0.60	1.30
2.0	0.70	1.40

DIMENSION TABLE-2



SECTION B-B

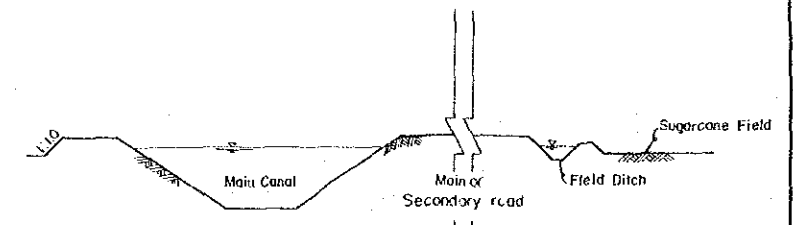
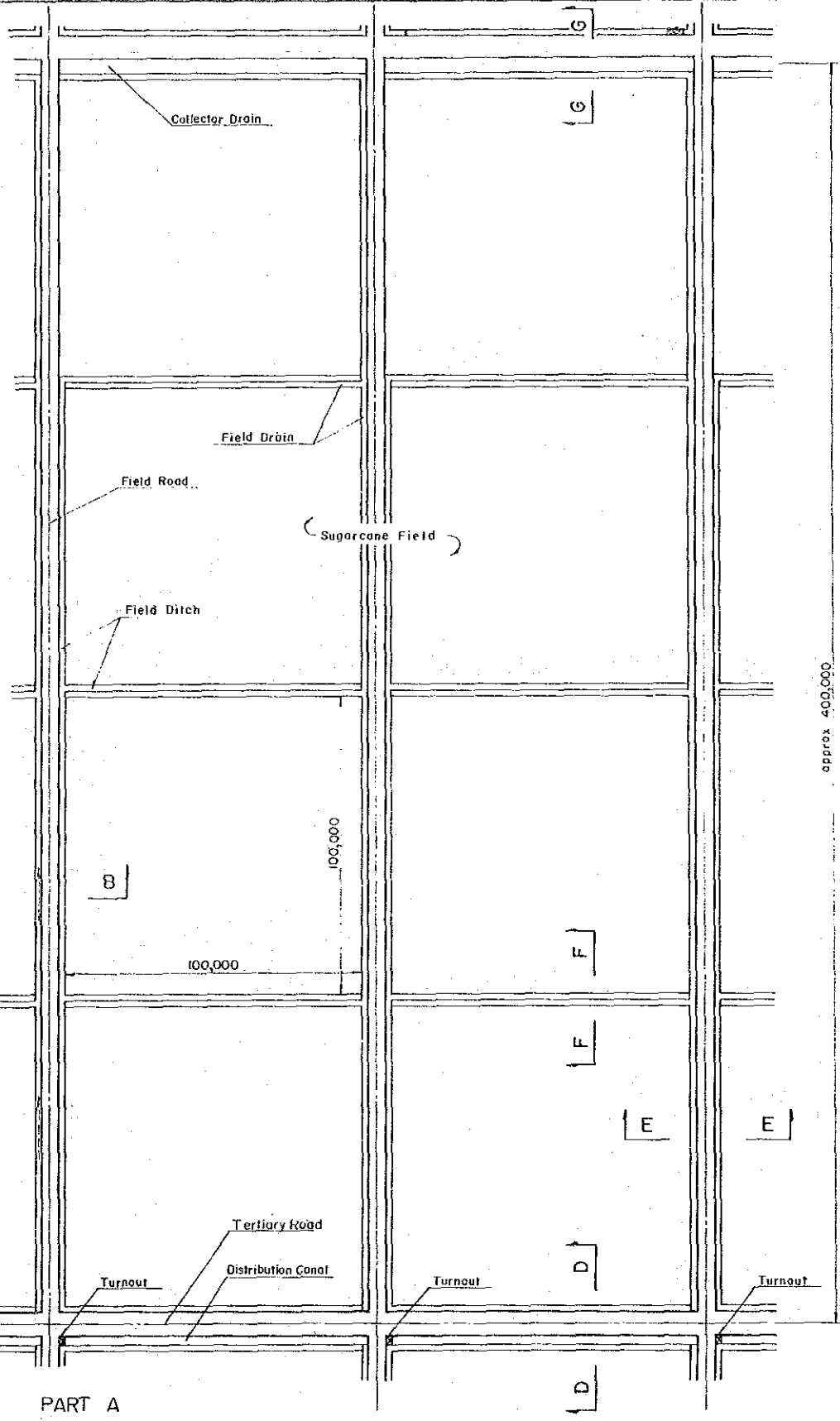
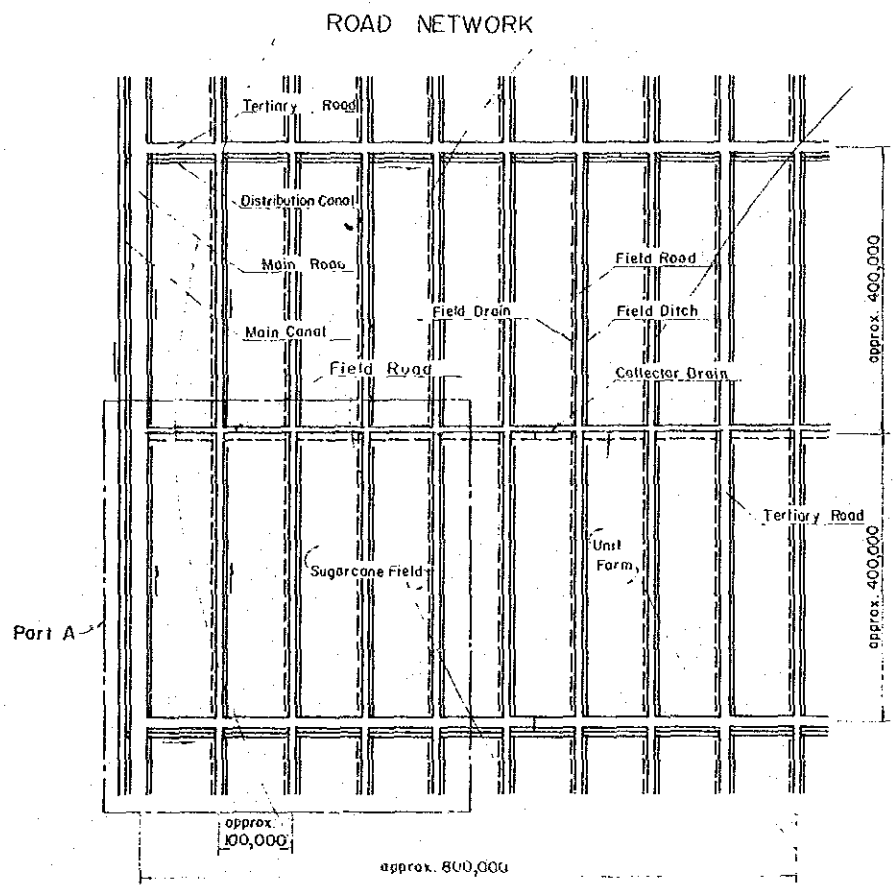


SECTION C-C

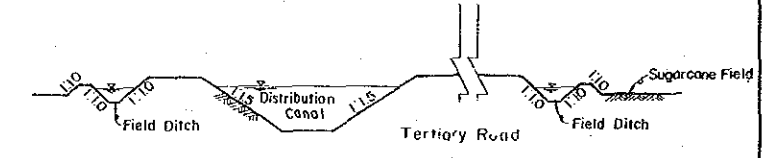
DETAIL OF INTAKE STRUCTURE SCALE B

SCALE A 0 2 4 6 8 10 M
SCALE B 0 1 2 M

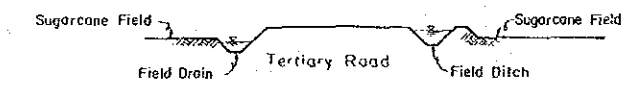
PREPARED <i>H. Sakai</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING RELATED STRUCTURES TYPICAL FARM POND	
CHECKED <i>S. Sato</i>		DWG. NO. 400-07	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO
SUBMITTED <i>J. Kuroki</i>	AVEYIME SUGAR PRODUCTION PROJECT		
DATE DEC '975			



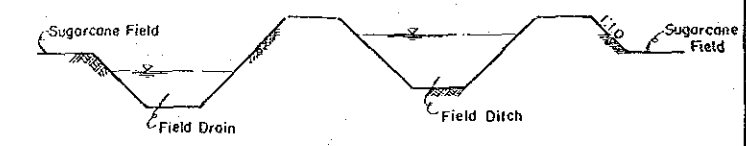
SECTION C-C



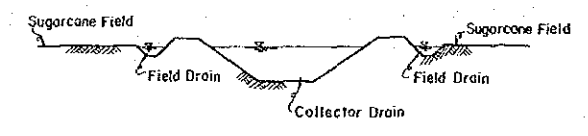
SECTION D-D



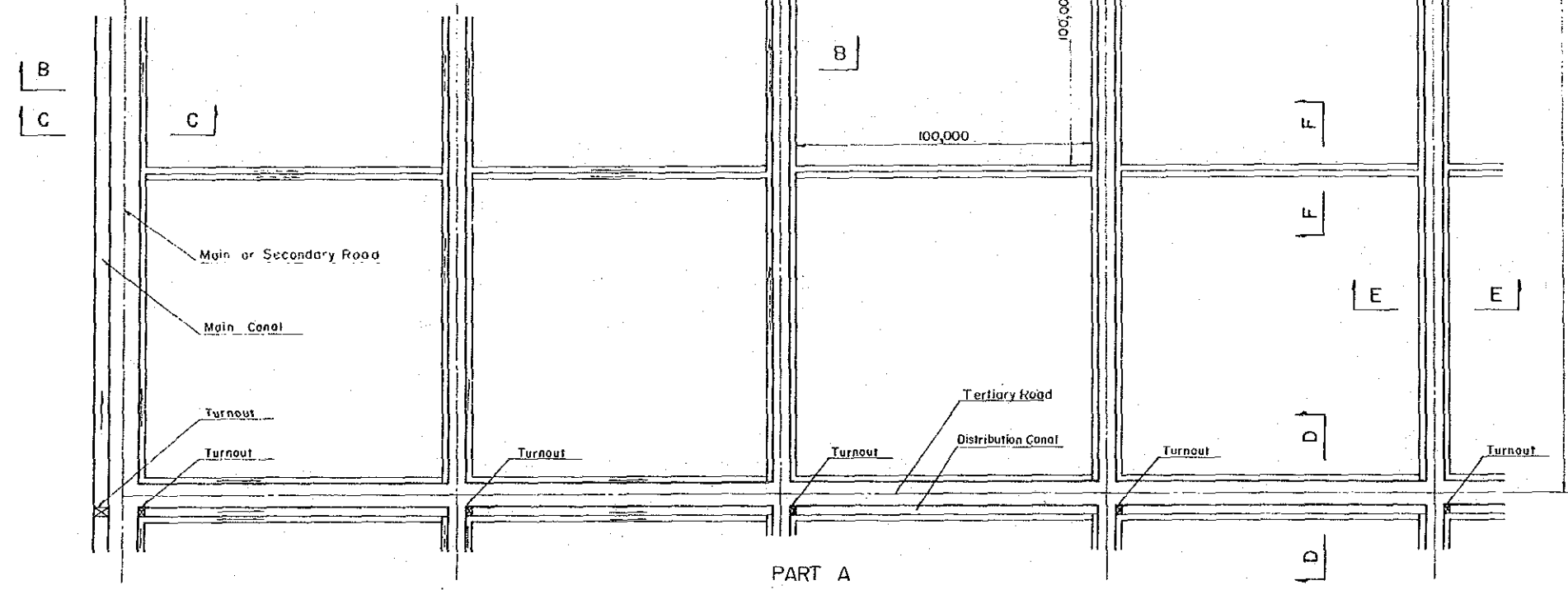
SECTION E-E



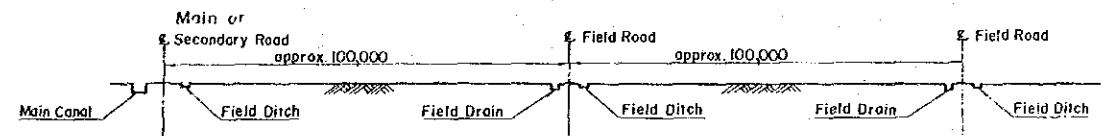
SECTION F-F



SECTION G-G



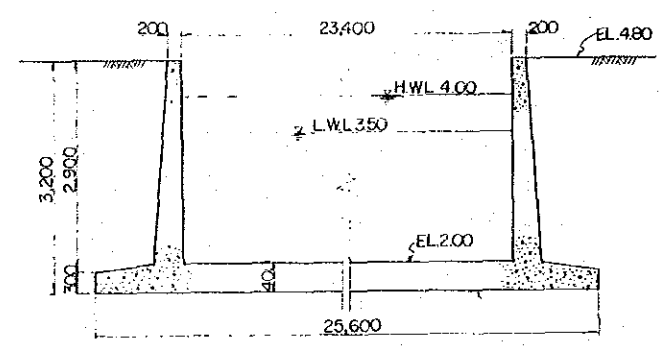
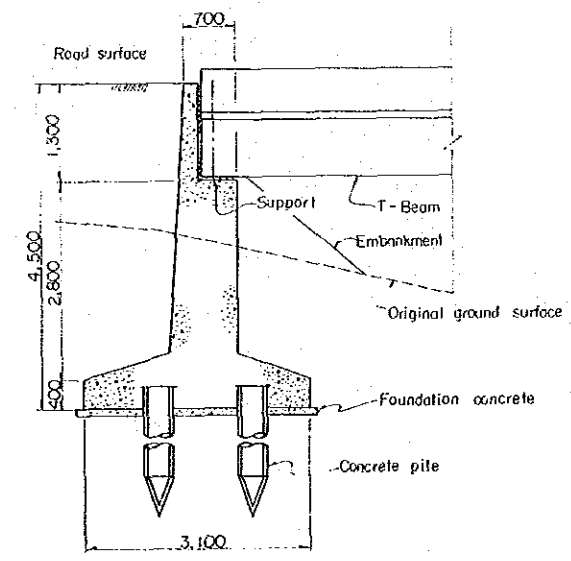
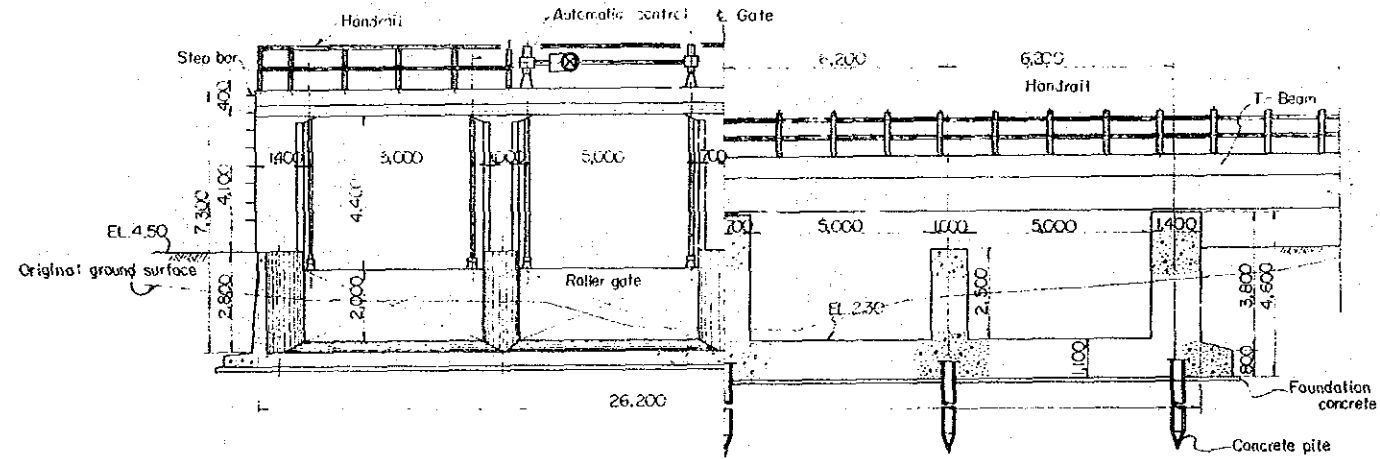
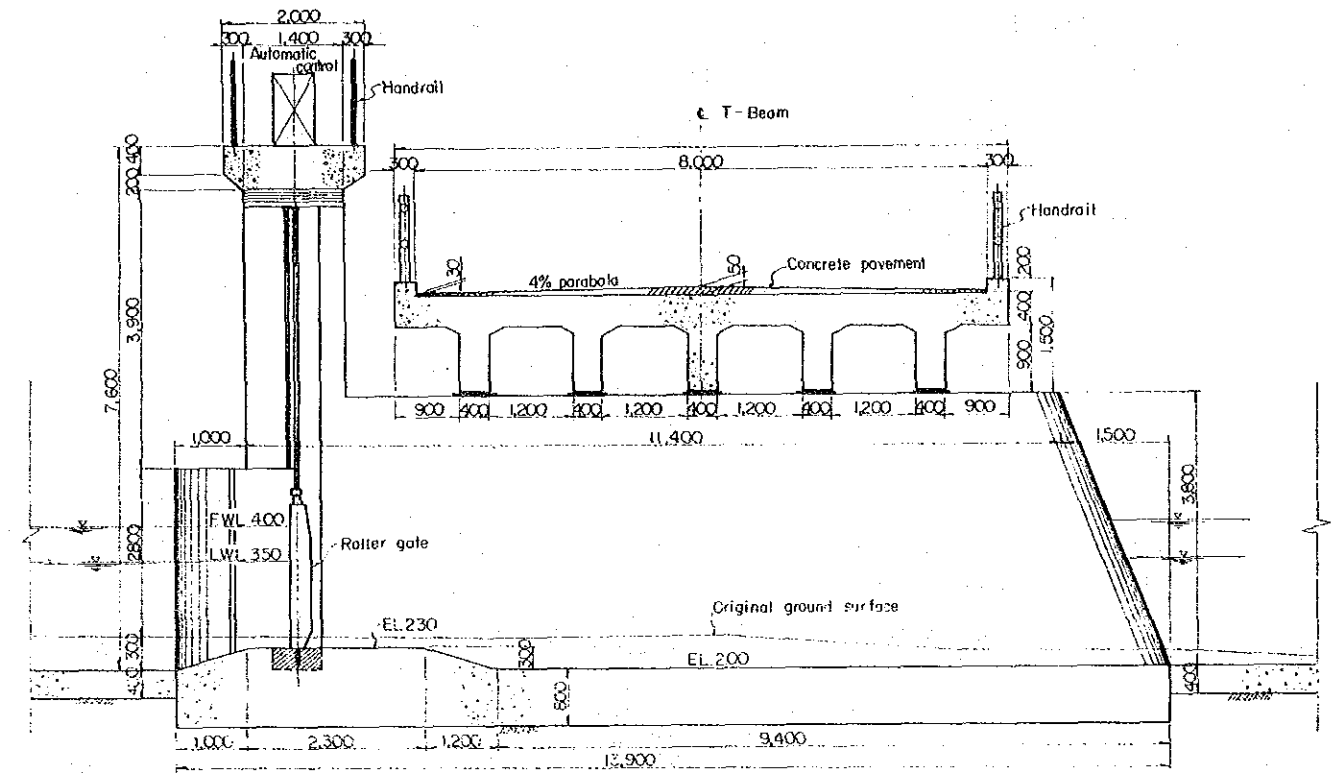
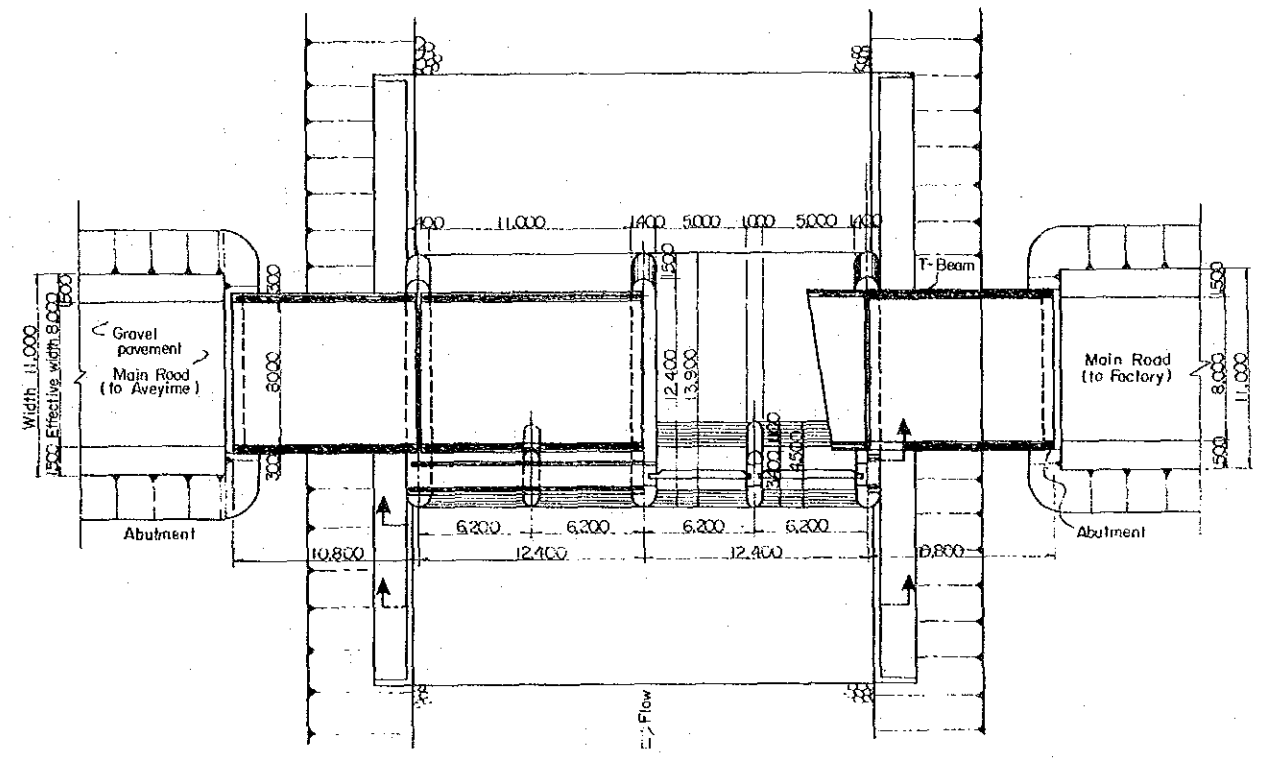
PART A



SECTION B-B

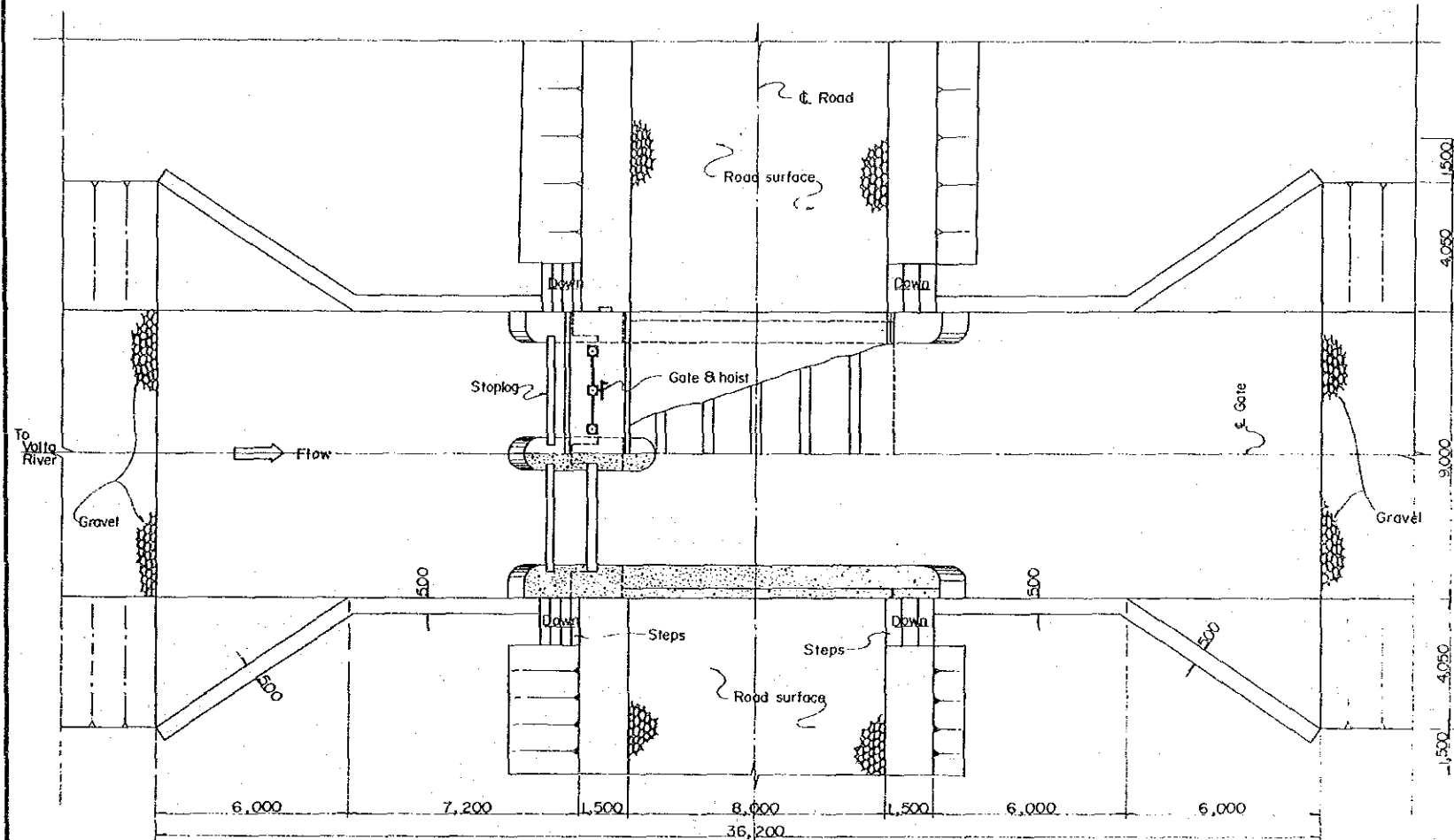


PREPARED: <i>H. Mignani</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING	APPROVED
CHECKED: <i>B. Saha</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	RELATED STRUCTURES	
SUBMITTED: <i>J. Kumar</i>		TYPICAL LAYOUT FOR STANDARD FARM	DATE
DATE: <i>15/1/68</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 40-08	
		NIPPON KOEI CO., LTD.	
		CONSULTING ENGINEERS, TOKYO	

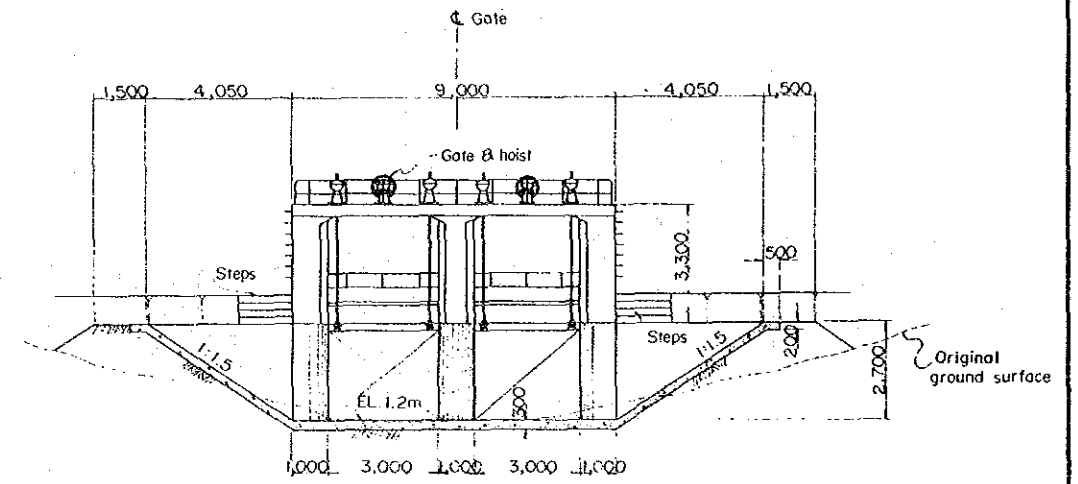


SCALE A 0 5 10 M
SCALE B 0 1 2 3 4 5 M
SCALE C 0 10 20 30 M

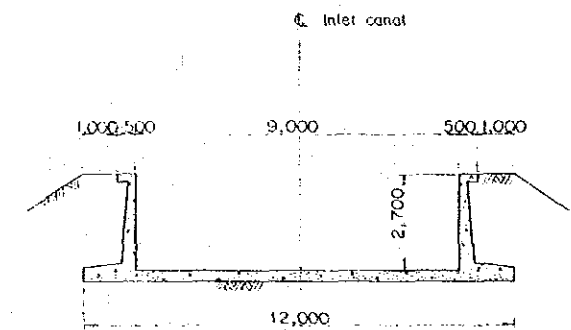
PREPARED <i>H. J.</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING		APPROVED
CHECKED <i>B. Sater</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	GATE STRUCTURES NO. 1 GATE		DATE
SUBMITTED <i>J. K.</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 500-01	NIPPON KOGYO CO., LTD. CONSULTING ENGINEERS, TOKYO	
DATE DEC 1 1975				



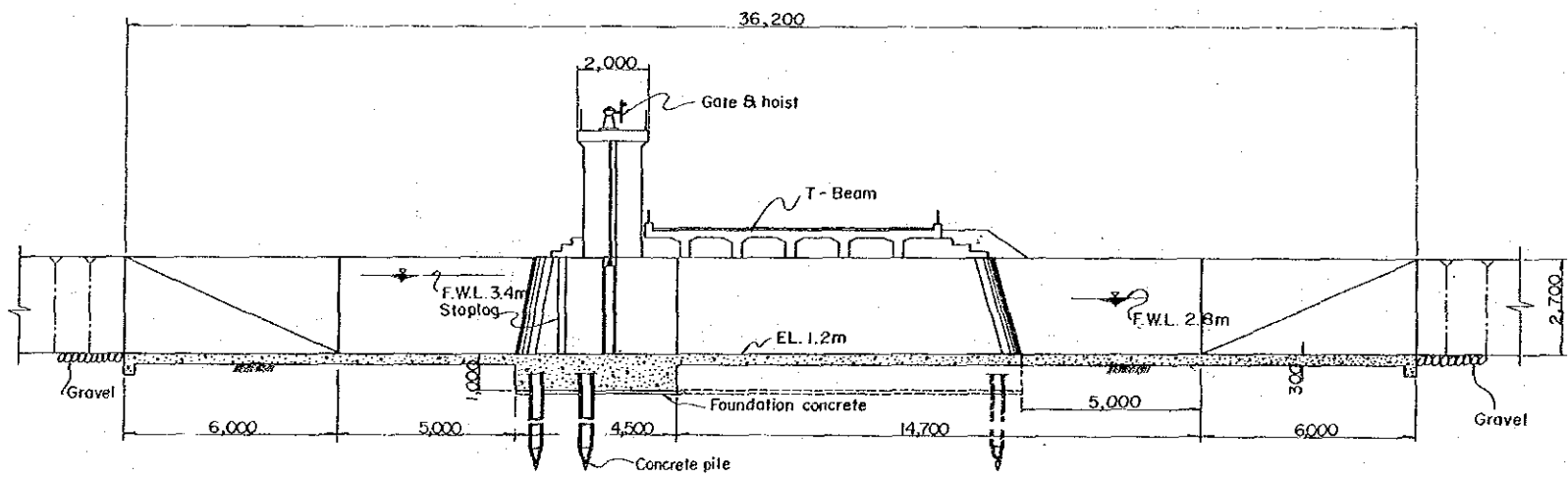
PLAN



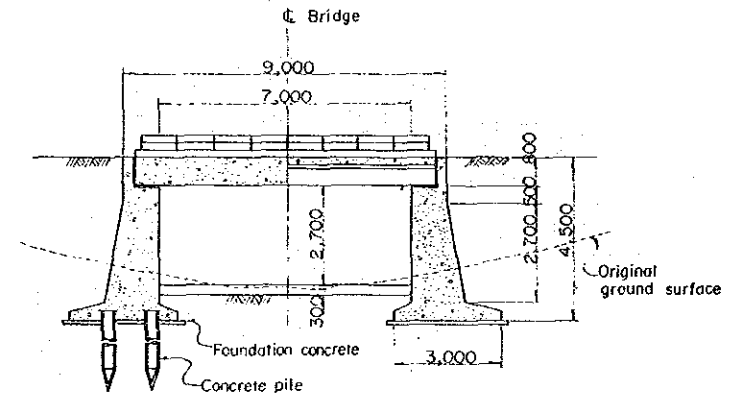
SECTION A-A



SECTION B-B



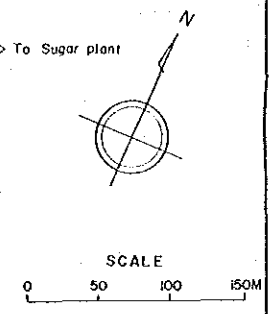
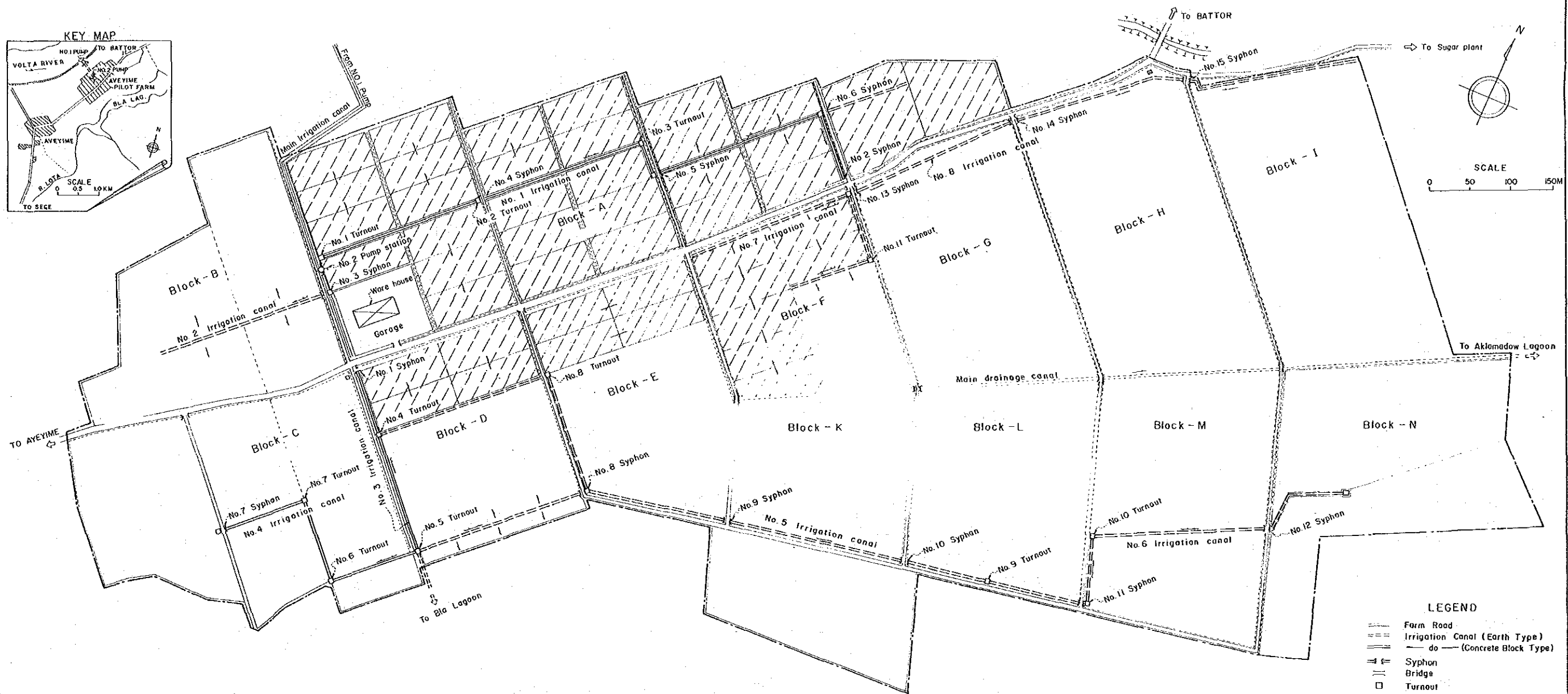
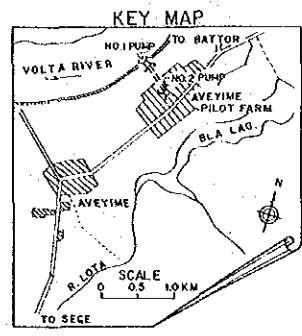
PROFILE



SECTION C-C

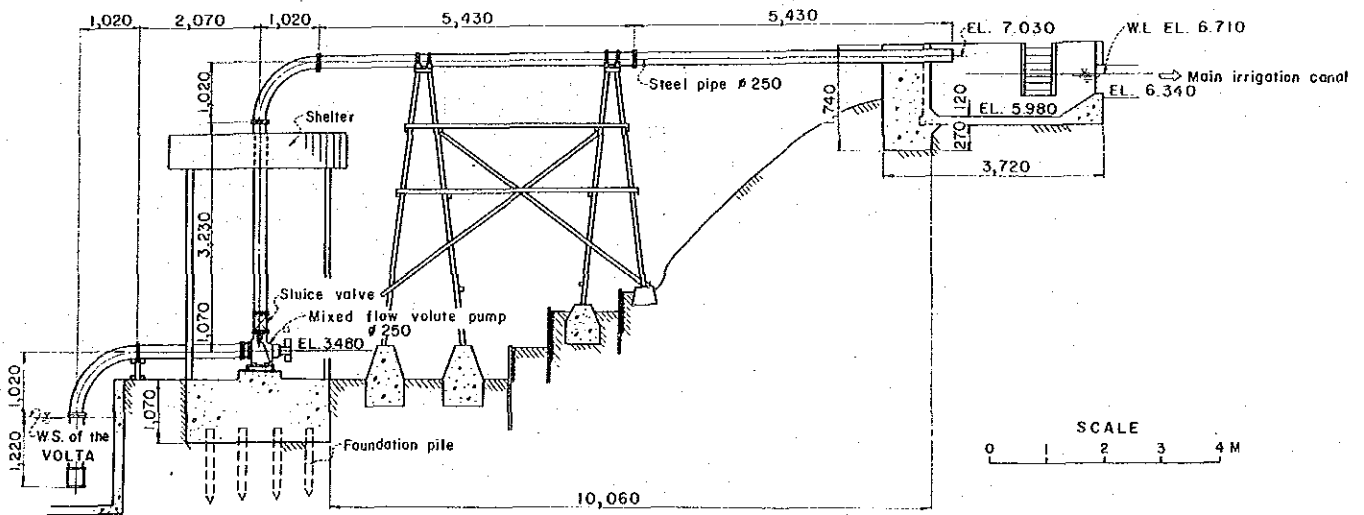
SCALE 0 5 10M

PREPARED <i>M. S. S.</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING GATE STRUCTURES NO. 2 GATE		APPROVED
CHECKED <i>S. S. S.</i>		AVEYIME SUGAR PRODUCTION PROJECT		DATE
SUBMITTED <i>J. K. S.</i>		DWG. NO. 500-02	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	
DATE DEC 11 1961				

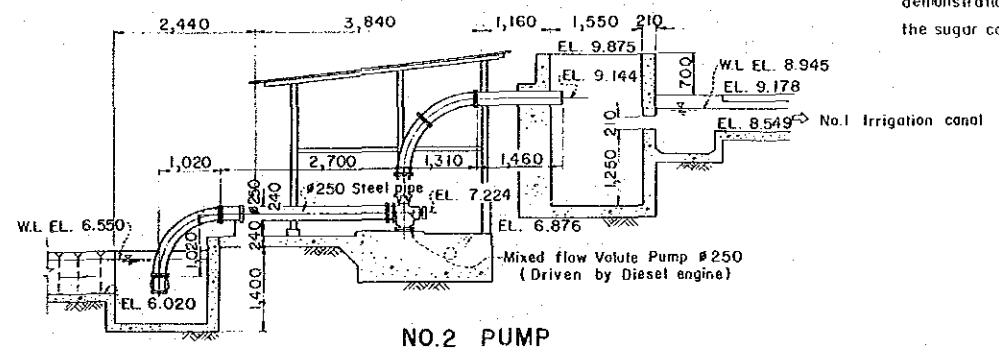


- LEGEND**
- Farm Road
 - Irrigation Canal (Earth Type)
 - do --- (Concrete Block Type)
 - Syphon
 - Bridge
 - Turnout
 - Drop
 - Drain Canal
 - Collector Drain
 - Boundary of Pilot Farm
 - ▨ Rice Demonstration Farm

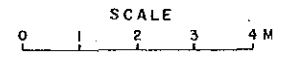
The entire area except the rice demonstration farm is proposed for the sugar cane pilot cultivation.



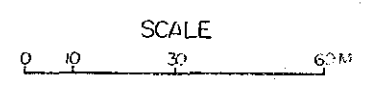
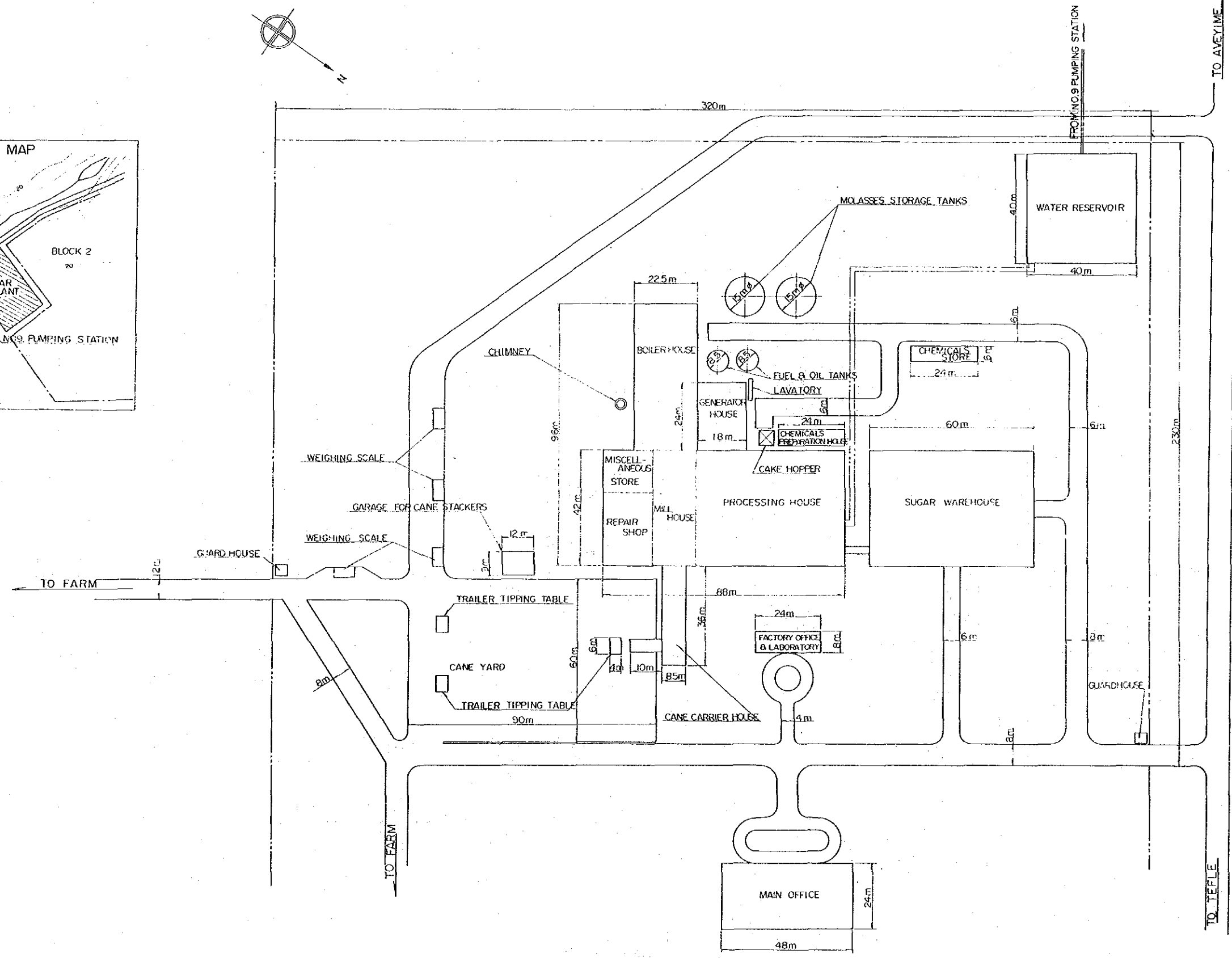
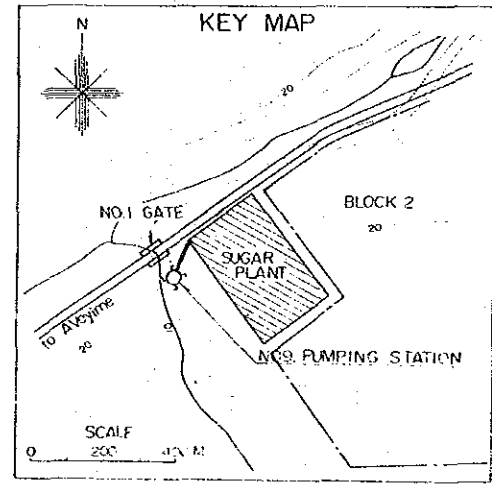
NO. 1 PUMP



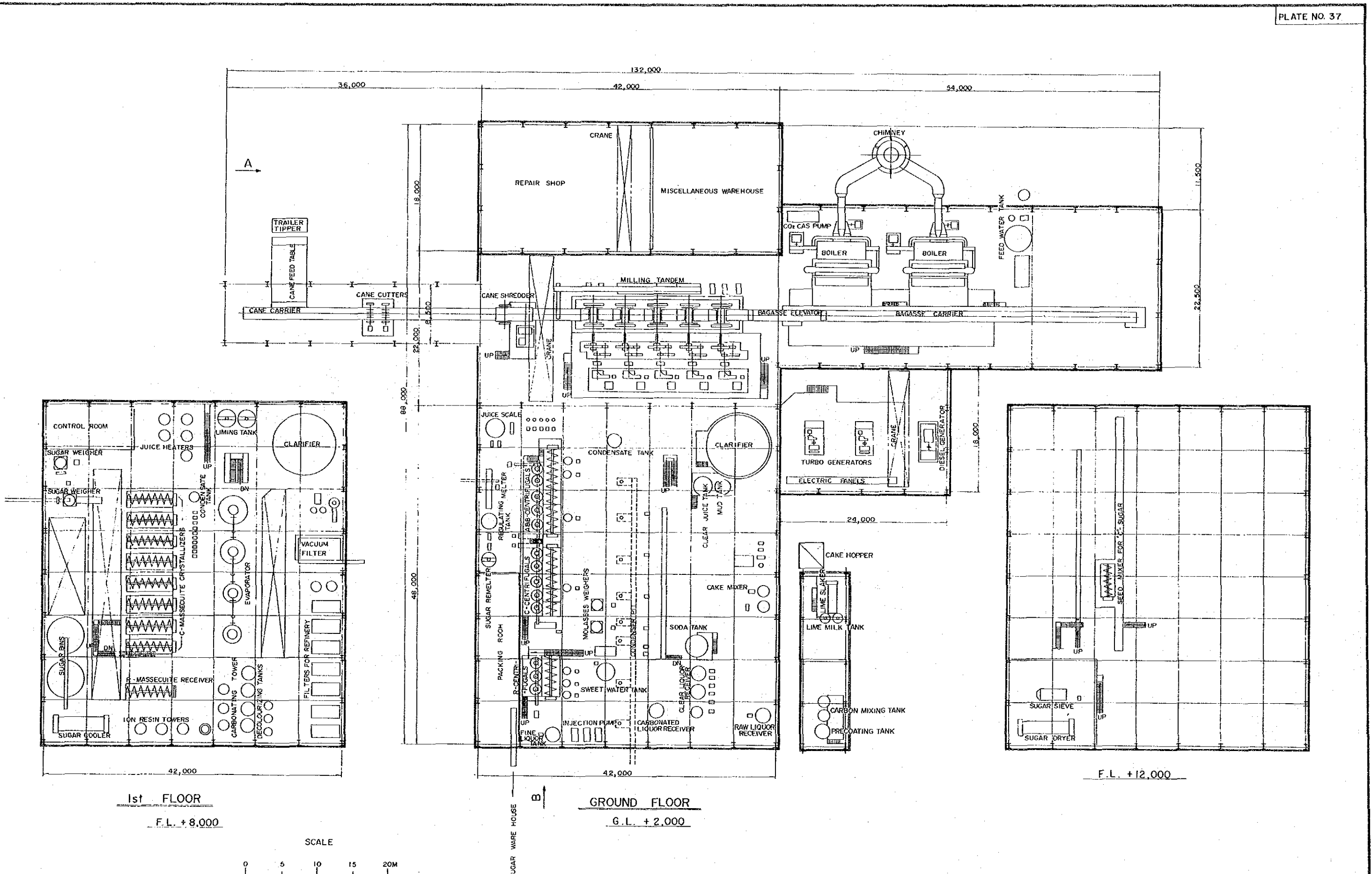
NO. 2 PUMP



PREPARED <i>D. Yama</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA AVEYIME SUGAR PRODUCTION PROJECT	TITLE OF DRAWING		APPROVED
CHECKED <i>S. Saha</i>		PILOT FARM GENERAL PLAN OF PILOT FARM		
SUBMITTED <i>J. Kuroki</i>		DWG. NO.	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	
DATE DEC 1 1960		600-01	DATE	

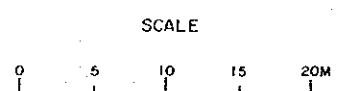


PREPARED <i>D. Y. Y. Y.</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING	APPROVED
CHECKED <i>L. T. T. T.</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	SUGAR PLANT	
SUBMITTED <i>L. K. K. K.</i>		GENERAL PLAN OF SUGAR PLANT	DATE
DATE DEC. 1 1975	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 700-G1	
		NIFFON KOEI CO., LTD CONSULTING ENGINEERS, TOKYO	

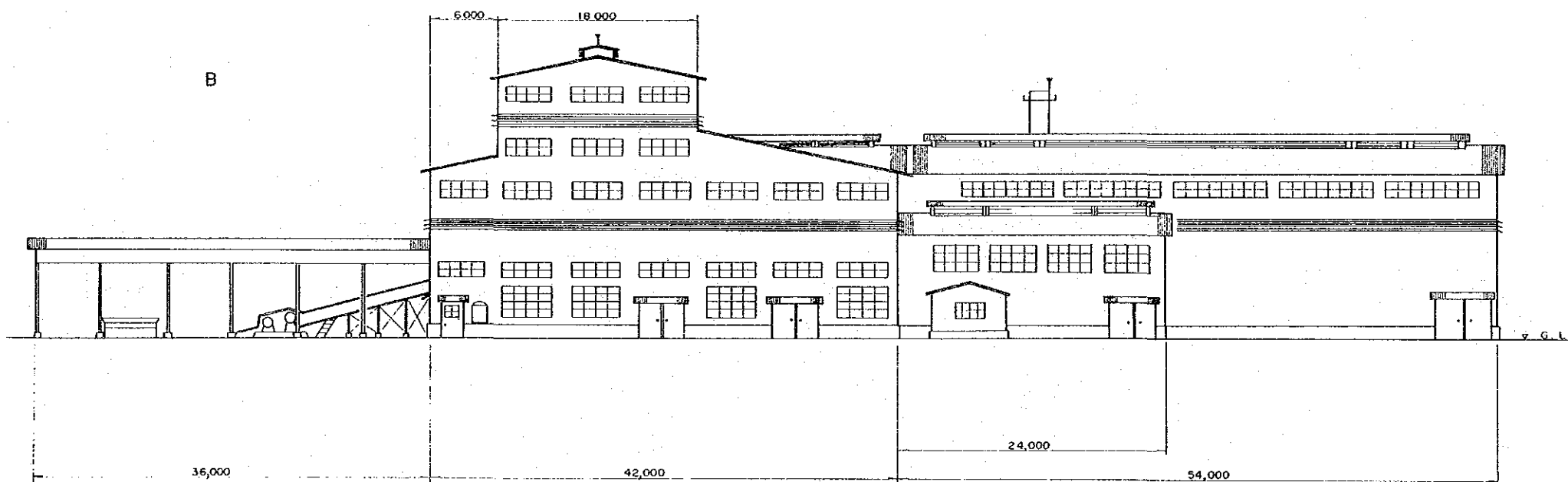
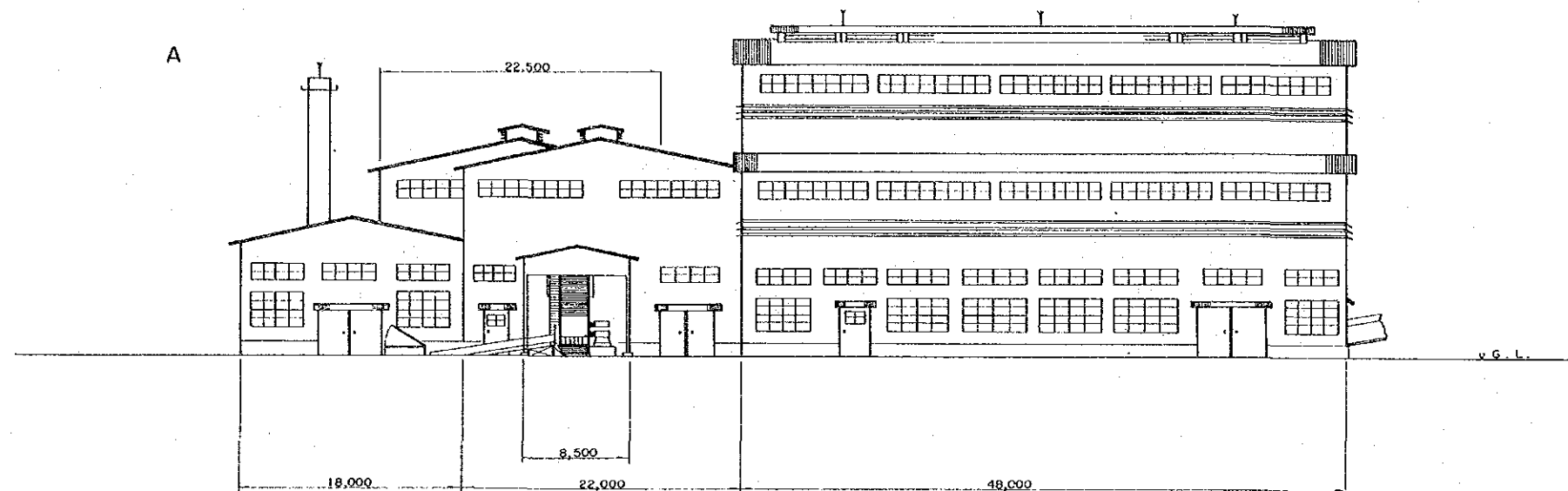


1st FLOOR
F.L. + 8,000

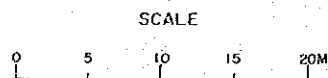
GROUND FLOOR
G.L. + 2,000



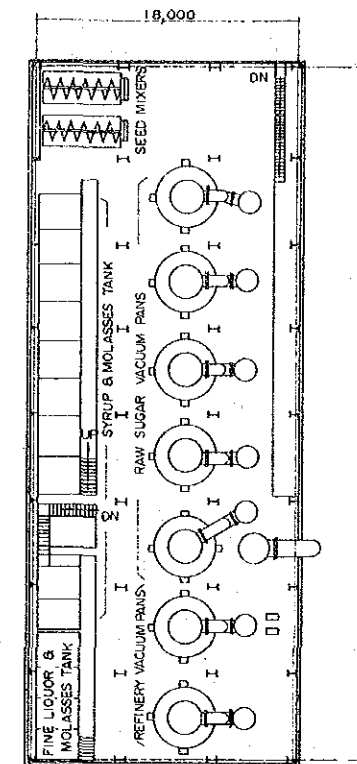
PREPARED <i>B. J. ...</i>	MINISTRY OF ECONOMIC PLANNING	TITLE OF DRAWING		APPROVED
CHECKED <i>L. ...</i>	GOVERNMENT OF THE REPUBLIC OF GHANA	SUGAR PLANT		
SUBMITTED <i>L. ...</i>		GENERAL LAYOUT OF SUGAR PLANT(I)		DATE
DATE <i>Feb 11</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO. 700-02	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	



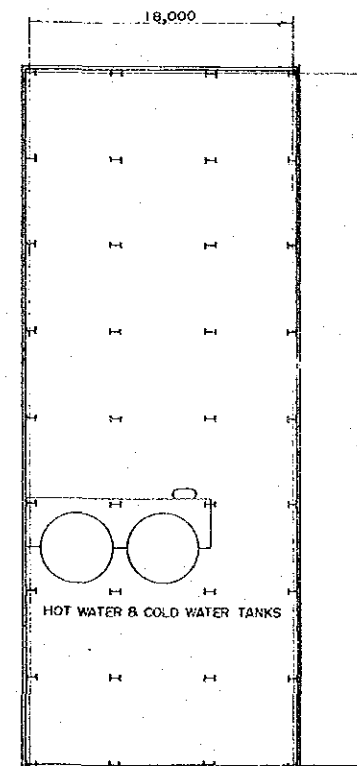
OUTSIDE VIEW OF FACTORY BUILDING



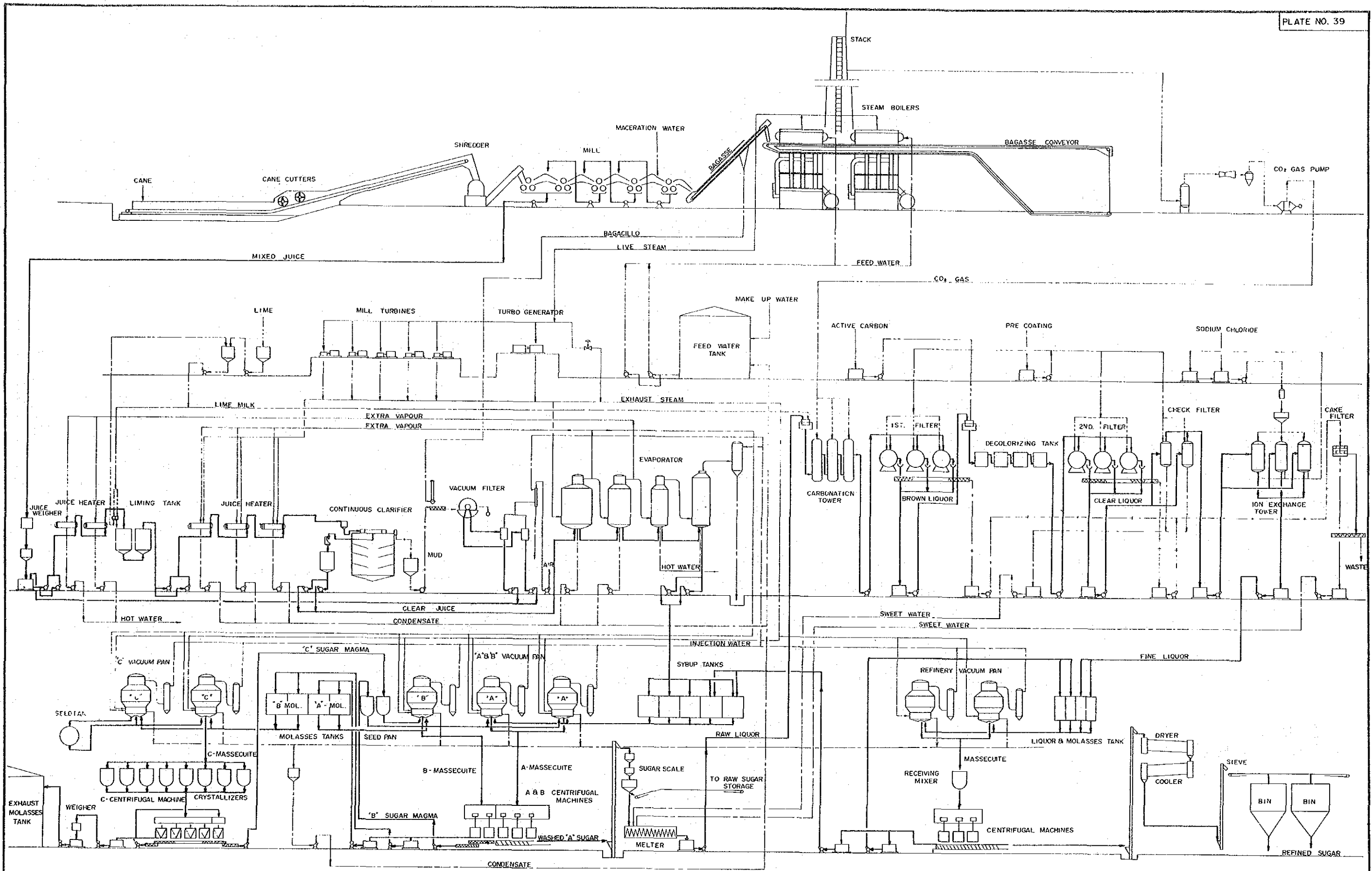
2nd FLOOR
FL. + 15,000



FL. + 21,000



PREPARED <i>B. G...</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING SUGAR PLANT GENERAL LAYOUT OF SUGAR PLANT(2)	APPROVED
CHECKED <i>A. T...</i>		DWG. NO 700-03	DATE
SUBMITTED <i>J. K...</i>	AVEYIME SUGAR PRODUCTION PROJECT	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO	
DATE DEC 1 1975			



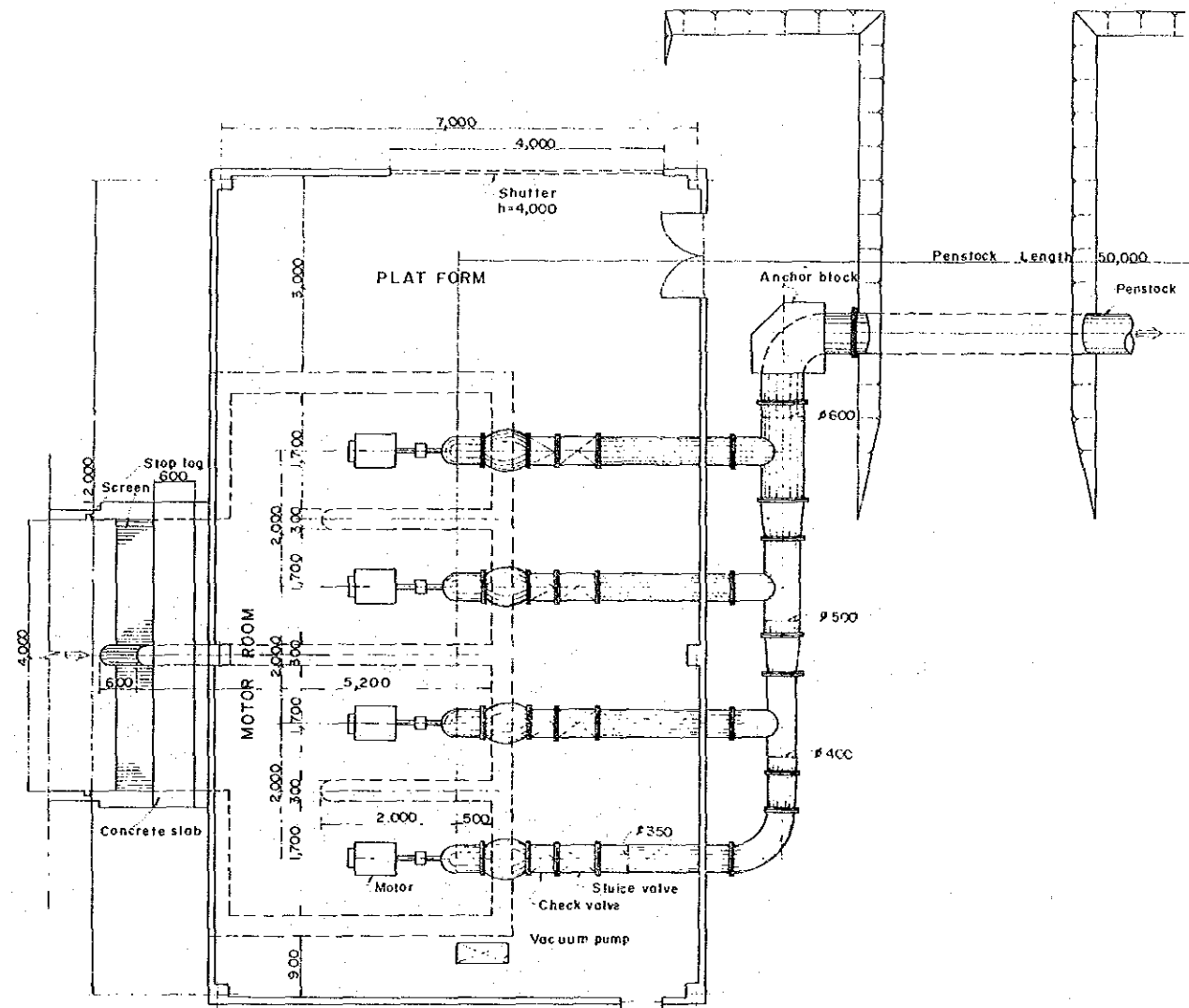
LEGEND

- JUICE, SYRUP, MOLASSES AND SUGAR LINE
- STEAM LINE
- WATER AND CONDENSATE LINE
- CHEMICALS LINE
- CAKE LINE

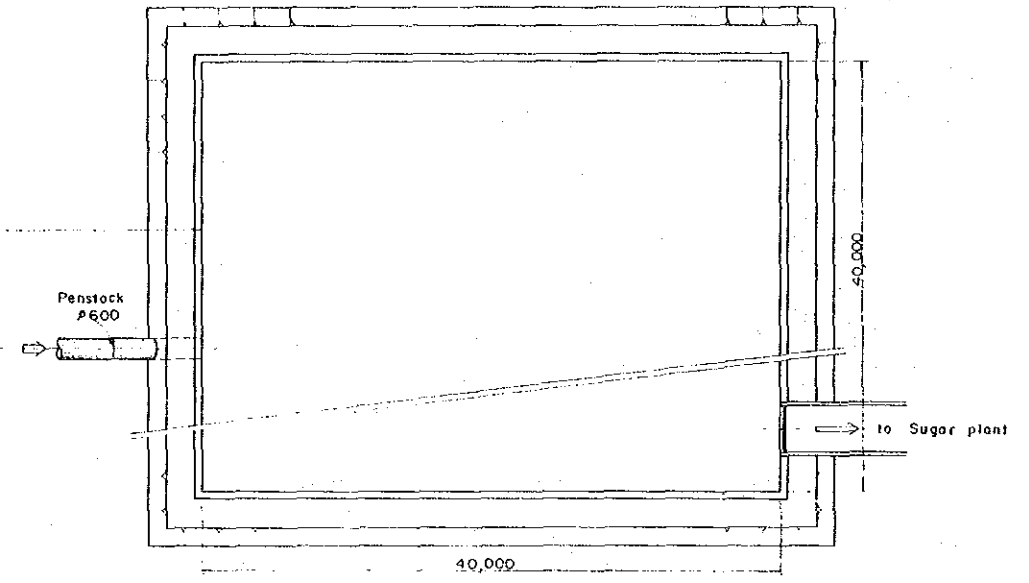
PREPARED <i>B. J. Jones</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA AVEYIME SUGAR PRODUCTION PROJECT	TITLE OF DRAWING		APPROVED	
CHECKED <i>A. T. T. T.</i>		SUGAR PLANT OUTLINE OF PROCESS			
SUBMITTED <i>J. K. K.</i>		DWG. NO 700-04	NIPPON KOEI CO., LTD. CONSULTING ENGINEERS, TOKYO		
DATE DEC 11/60		DATE			

NO.9 PUMPING STATION

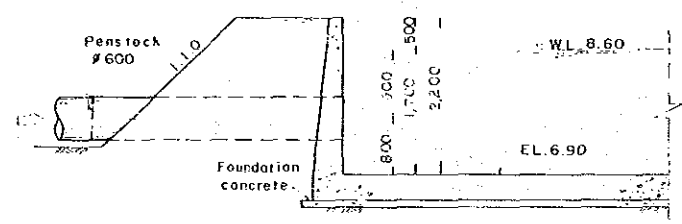
WATER RESERVOIR



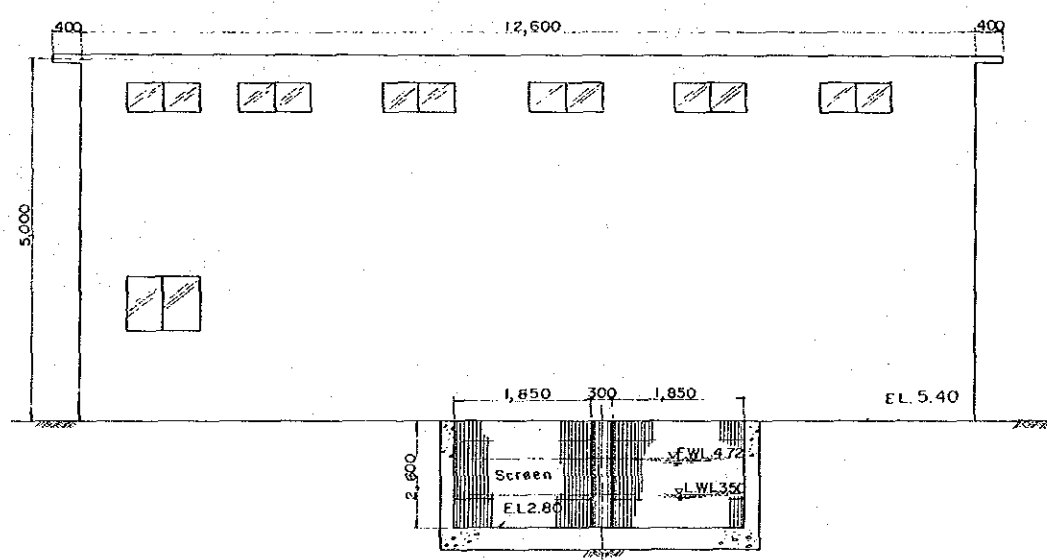
PLAN SCALE A



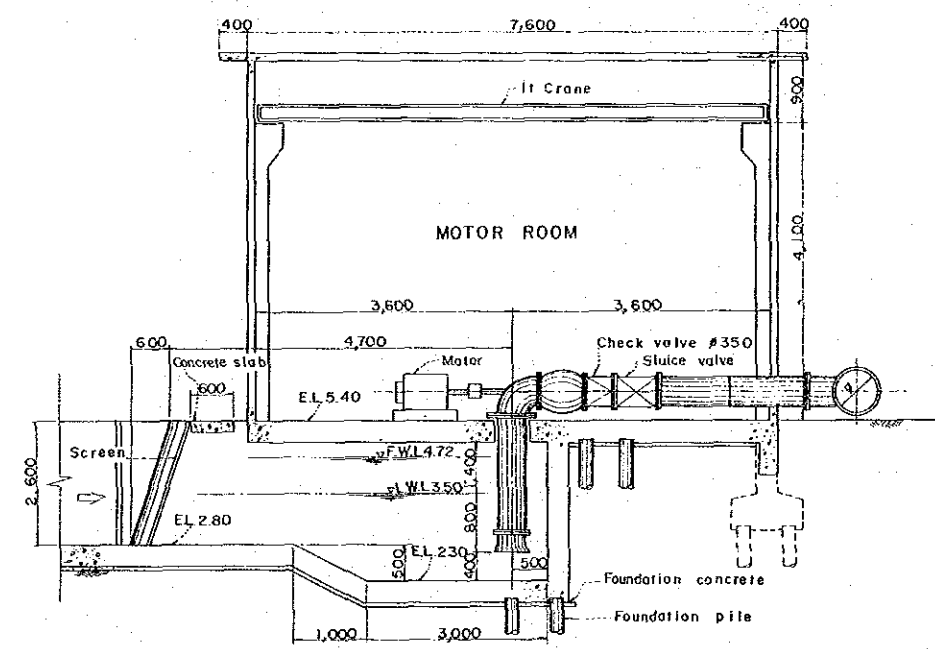
PLAN SCALE B



PROFILE SCALE A



FRONT ELEVATION SCALE A



PROFILE SCALE A

NO.9 PUMP
 Type : Horizontal shaft. Mixed flow pump, 4nos
 Capacity : 13.9 m³/min.
 Head : 5.10 m
 Motor : 18.5 KW

NOTE : Each pumping station has a stand-by pump for emergency and repairing.

SCALE A 0 0.5 1.0 2.0 3.0 (M)
 SCALE B 0 5 10 15 (M)

PREPARED <i>A. J.</i>	MINISTRY OF ECONOMIC PLANNING GOVERNMENT OF THE REPUBLIC OF GHANA	TITLE OF DRAWING		APPROVED
CHECKED <i>B. R.</i>		SUGAR PLANT NO.9 PUMPING STATION		
SUBMITTED <i>J. K.</i>	AVEYIME SUGAR PRODUCTION PROJECT	DWG. NO.	NIPPON KCEI CO., LTD. CONSULTING ENGINEERS, TOKYO	GATE
DATE <i>DEC. 1966</i>		700-C-5		

JICA