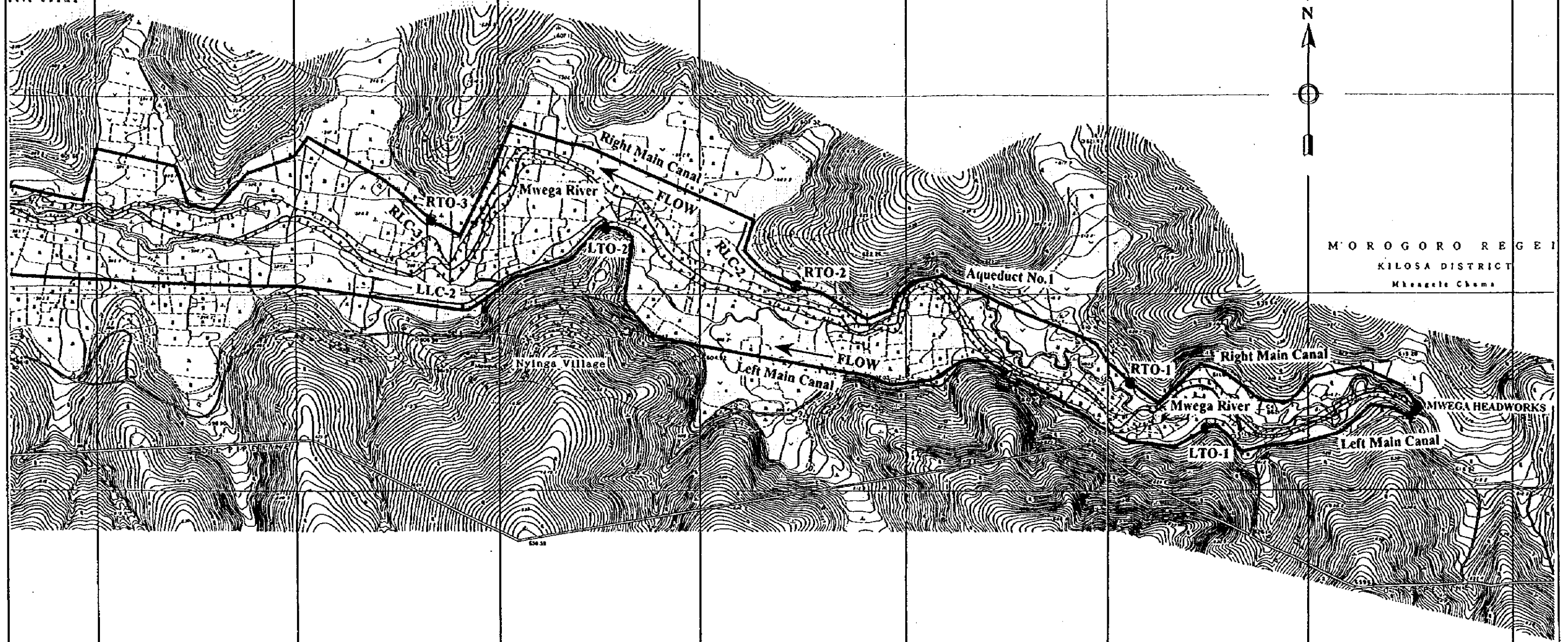
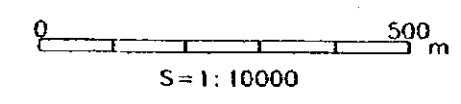


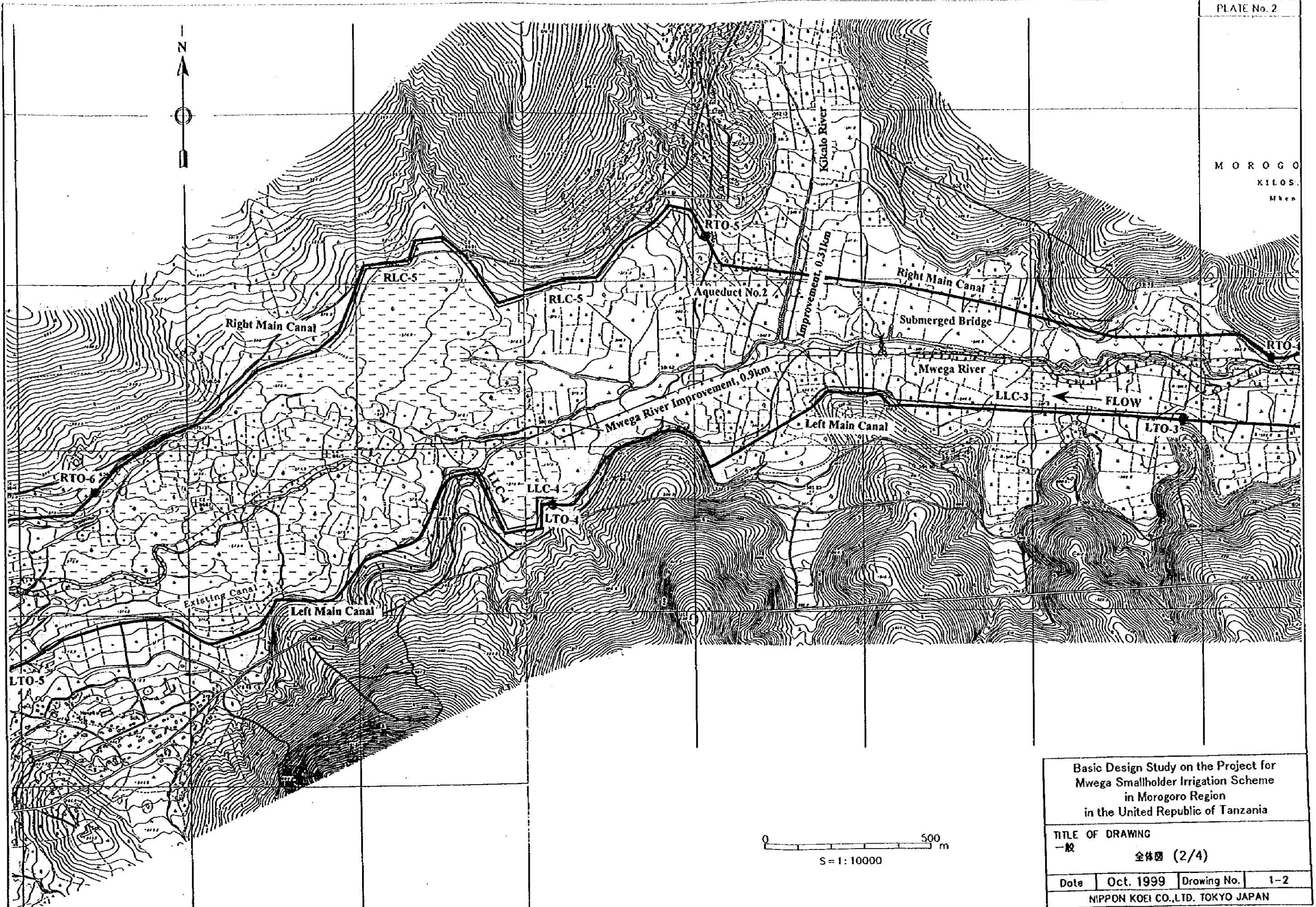
MOROGORO REGION
KILOSA DISTRICT
Mkwinda Chama



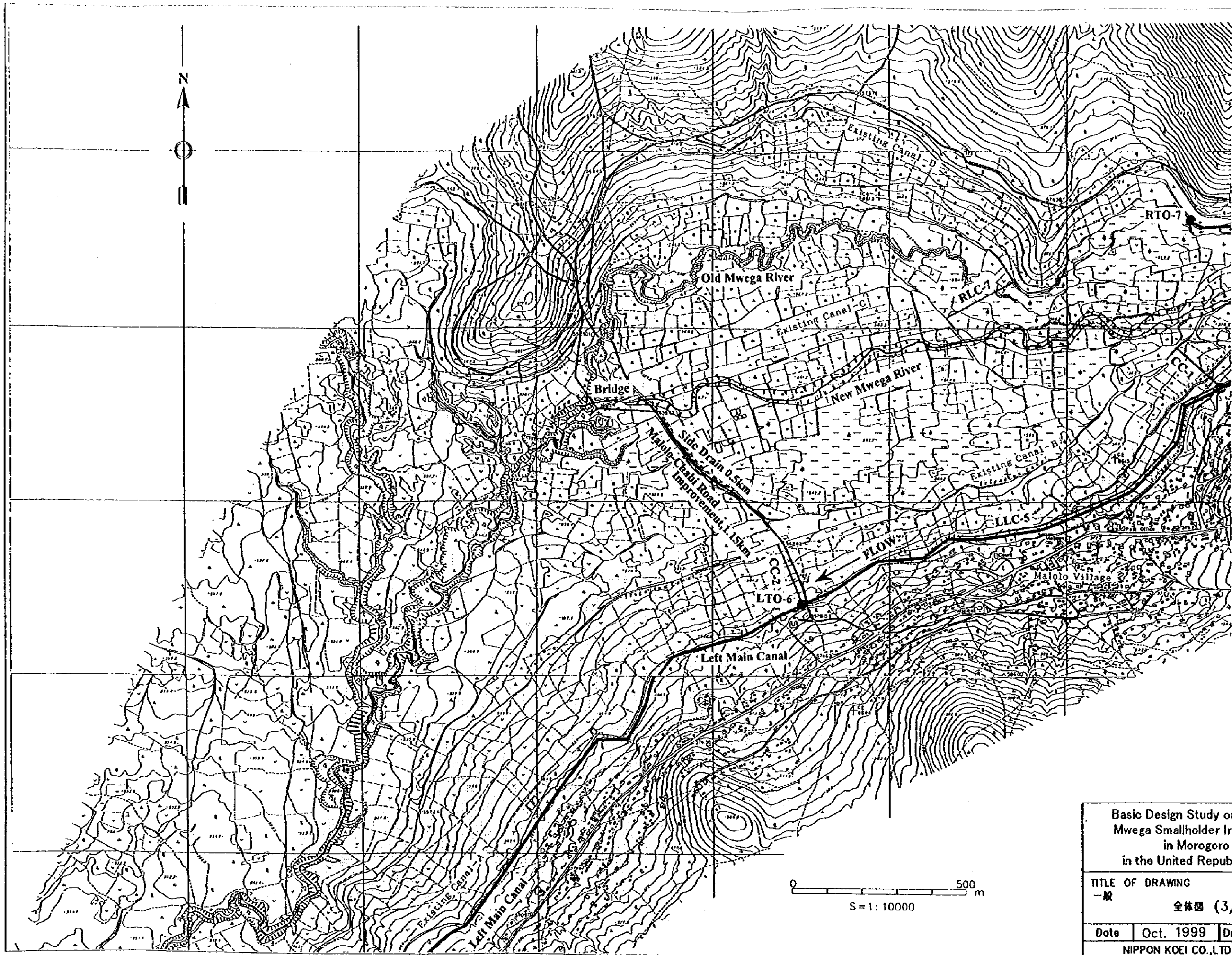
MOROGORO REGION
KILOSA DISTRICT
Mkwinda Chama



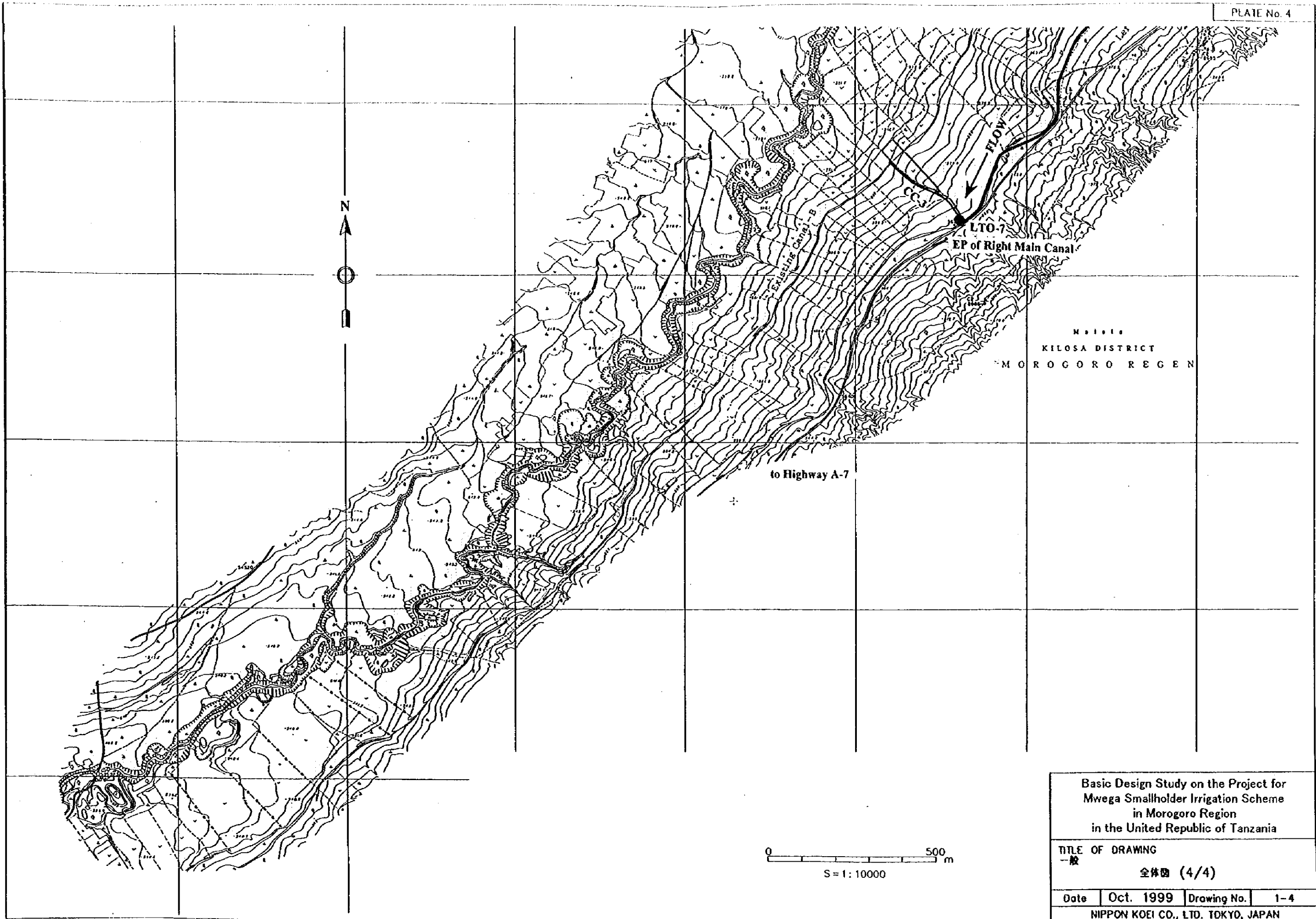
Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING 一般 全体図 (1/4)			
Date	Oct. 1999	Drawing No.	1-1
NIPPON KOEI CO., LTD. TOKYO JAPAN			



Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING 一般 全体圖 (2/4)			
Date	Oct. 1999	Drawing No.	1-2
NIPPON KOEI CO.,LTD. TOKYO JAPAN			



Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING 一般 全体圖 (3/4)			
Date	Oct. 1999	Drawing No.	1-3
NIPPON KOEI CO.,LTD. TOKYO JAPAN			



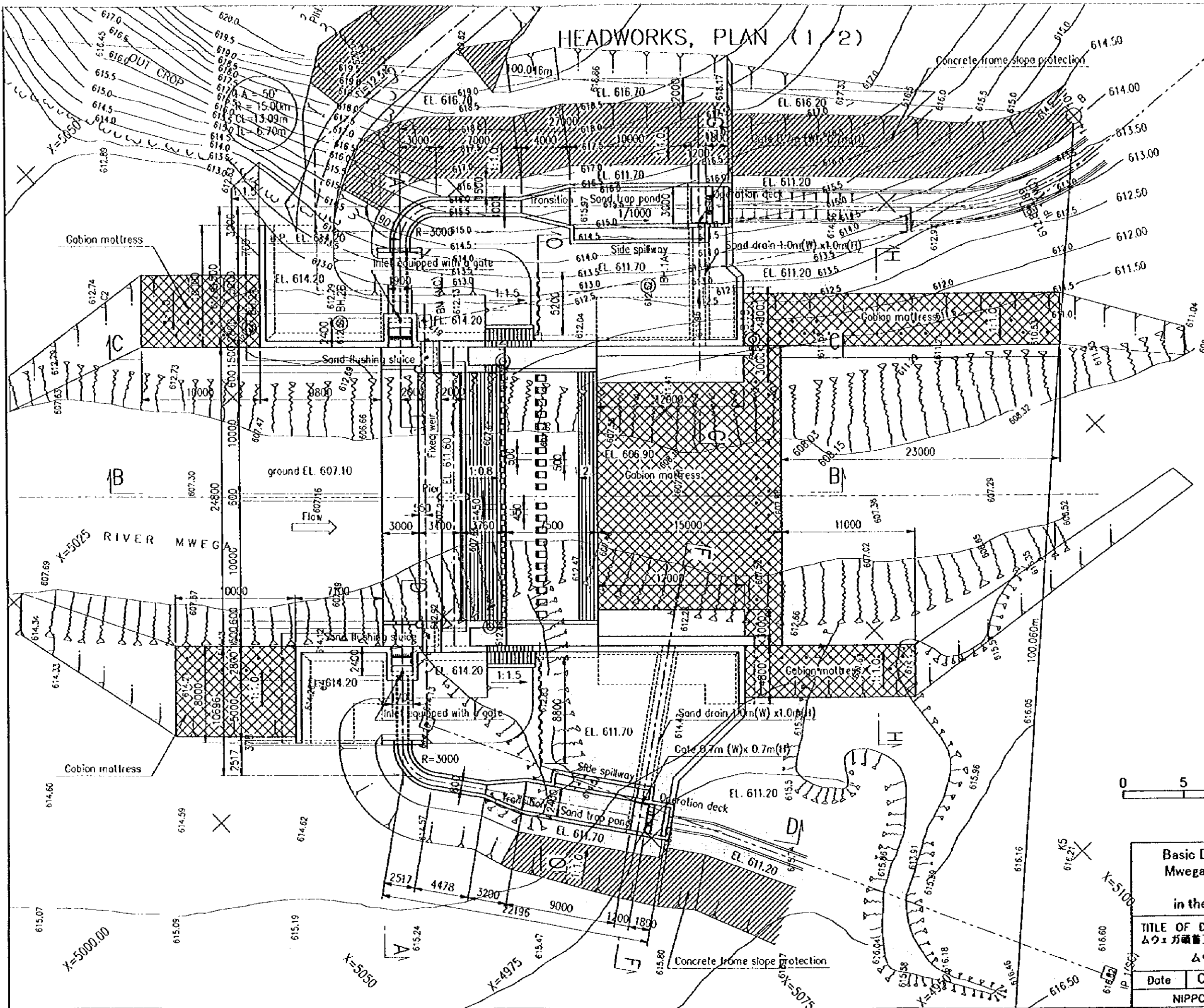
M 11111
KILOSA DISTRICT
MOROGORO REGION

to Highway A-7

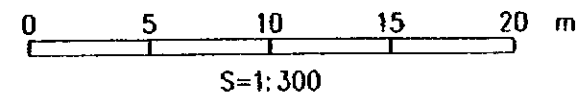
0 500 m
S = 1:10000

Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING 一般 全体図 (4/4)			
Date	Oct. 1999	Drawing No.	1-4
NIPPON KOEI CO., LTD. TOKYO, JAPAN			

HEADWORKS, PLAN (1/2)



Name of Headworks	Mwega Headworks
Type of Weir	Fixed Overflow Weir
Design Flood Discharge	99 m ³ /sec.
Design Flood Water Level	613.37m
Weir Crest Level	611.60m
Weir Height	• 4.7m from the downstream apron silt elevation • 5.7m from foundation surface
Weir Length	24.8m in total length and 20m in the overflow section
Down Stream Energy Dissipater	USBR III type, 7.5m in length
Scouring Sluice	Right: 1no., Left: 1no.
Gate	
River Bed Protection Works	Gabion Works in the downstream of 15m in length
Design Intake Discharge	Right: 0.37m ³ /sec. Left: 0.52m ³ /sec.
Design Intake Water Level	611.50m



Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania

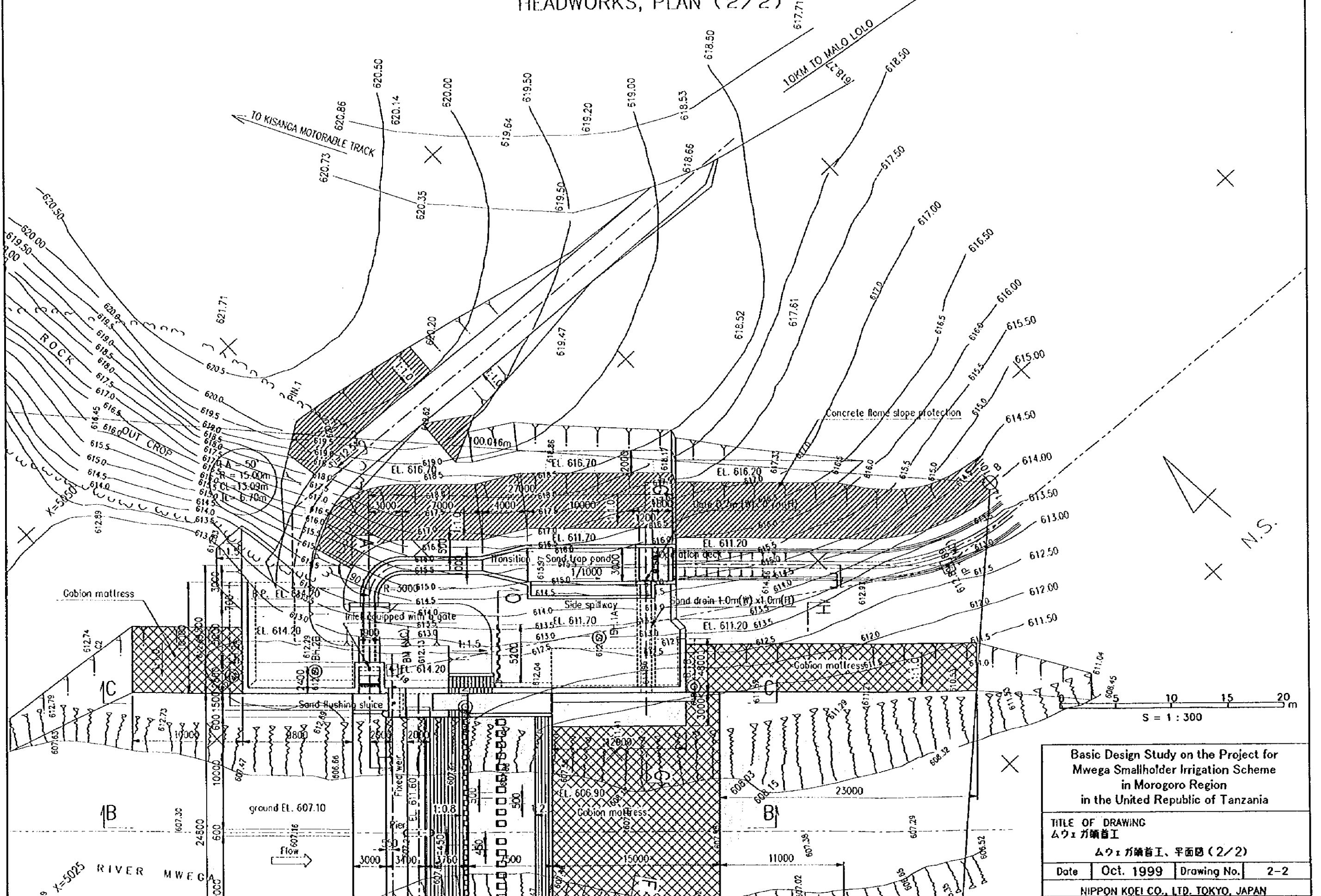
TITLE OF DRAWING
△ウエガ頭首工

△ウエガ頭首工、平面図 (1/2)

Date	Oct. 1999	Drawing No.	2-1
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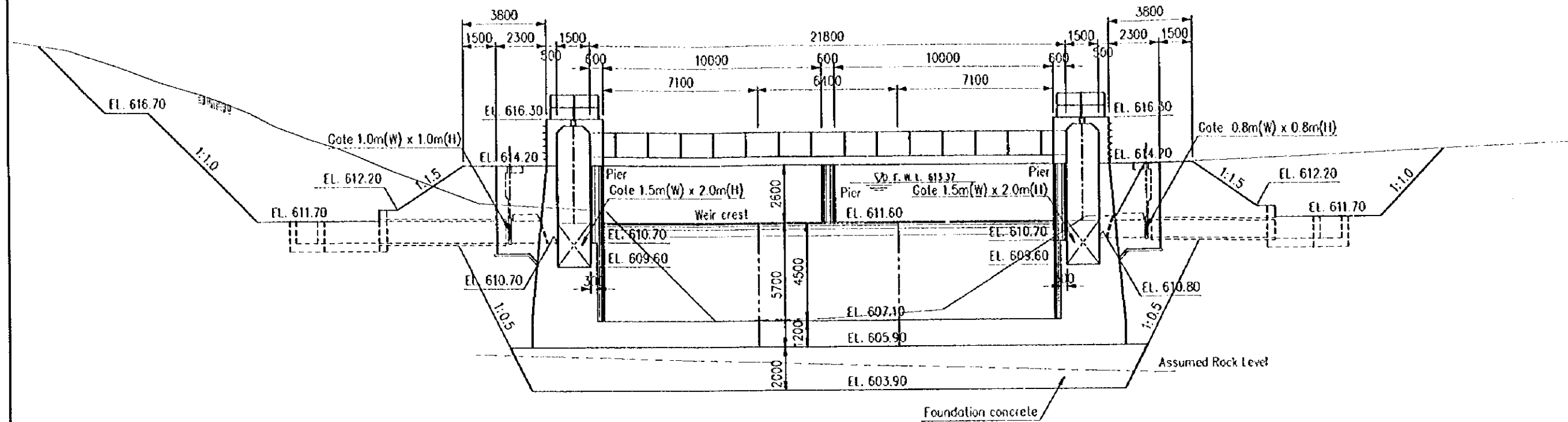
NIPPON KOEI CO., LTD. TOKYO, JAPAN

HEADWORKS, PLAN (2/2)

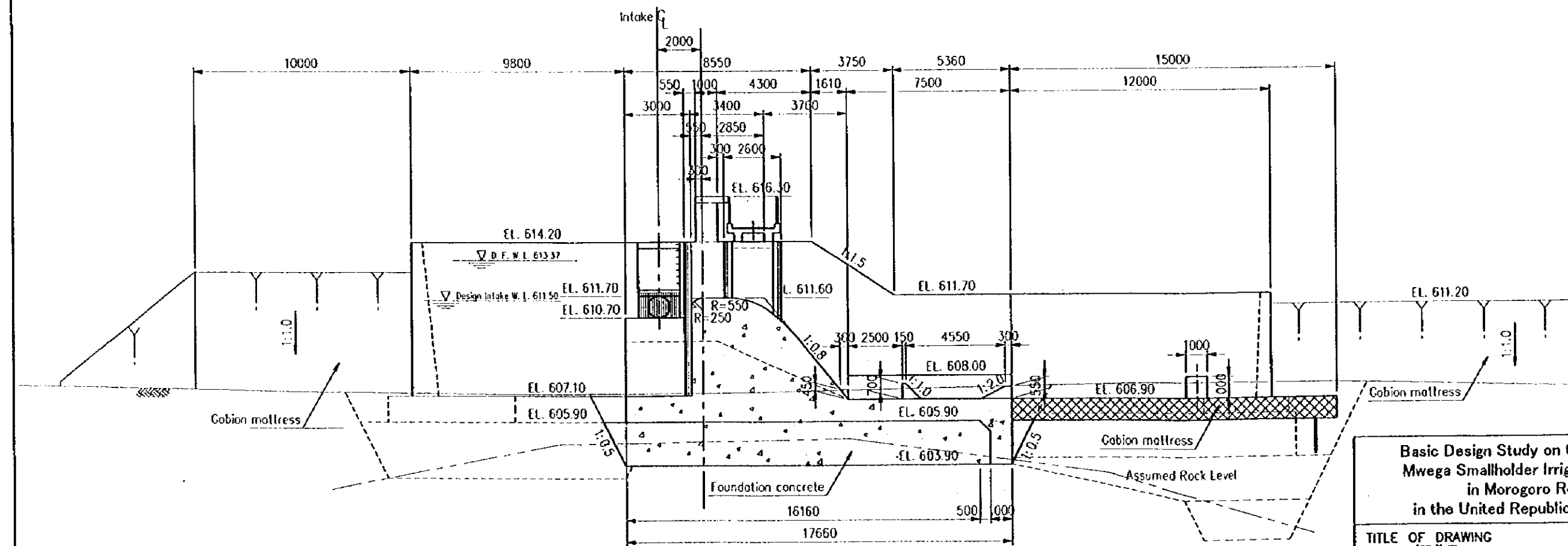


Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING ムウエガ頭首工			
ムウエガ頭首工、平面図(2/2)			
Date	Oct. 1999	Drawing No.	2-2
NIPPON KOEI CO., LTD. TOKYO, JAPAN			

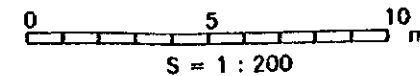
HEADWORKS, SECTION (1/5)



A-A Section

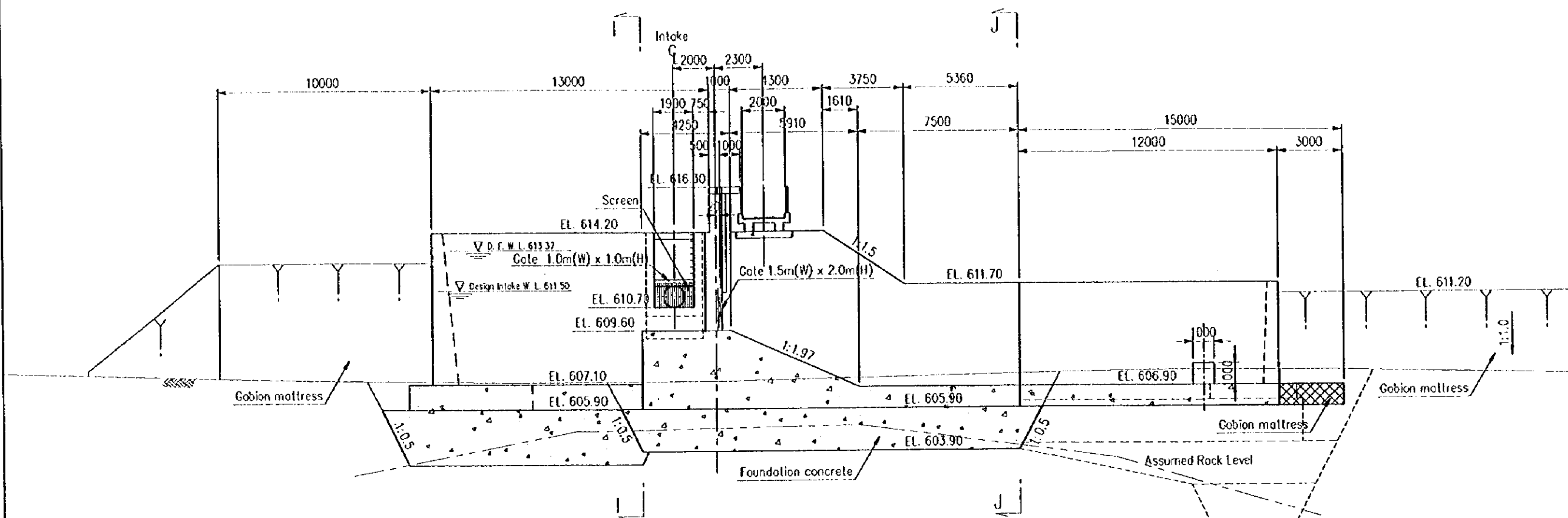


B-B Section

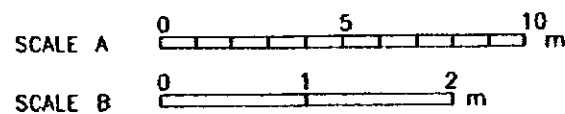
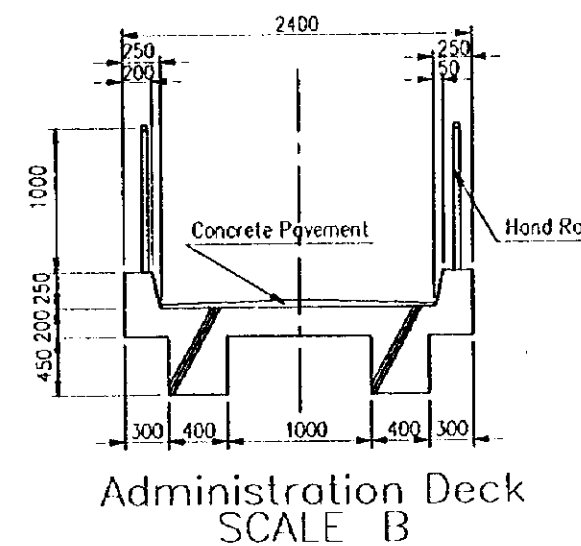
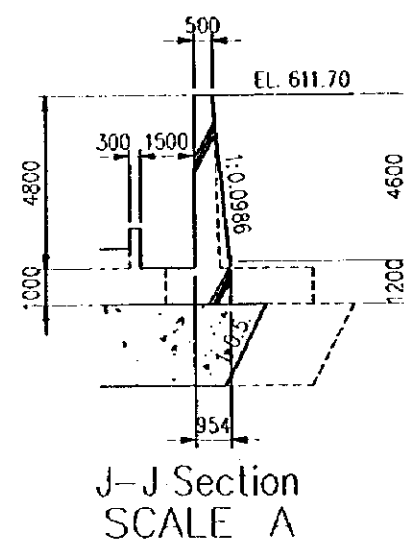
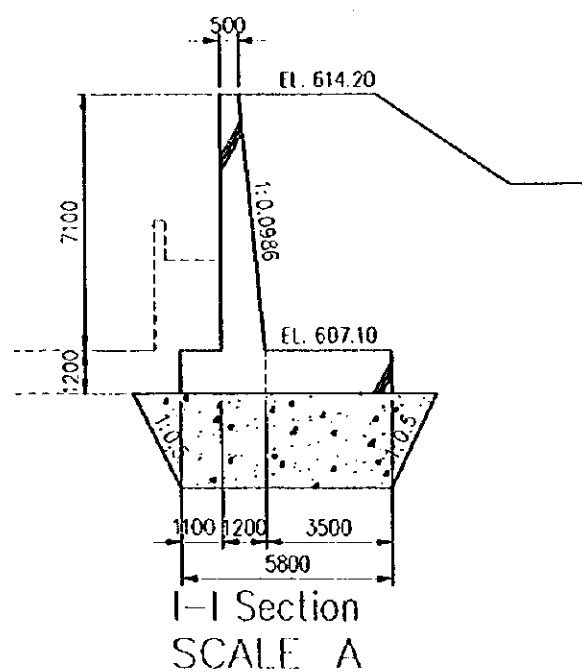


<p>Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania</p>			
<p>TITLE OF DRAWING ムウエガ頭首工</p>			
<p>ムウエガ頭首工、構造図(1/5)</p>			
Date	Oct. 1999	Drawing No.	2-4
<p>NIPPON KOEI CO., LTD. TOKYO, JAPAN</p>			

HEADWORKS, SECTION (2/5)



C-C Section
SCALE A



Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

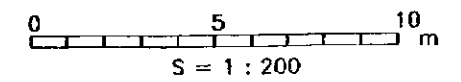
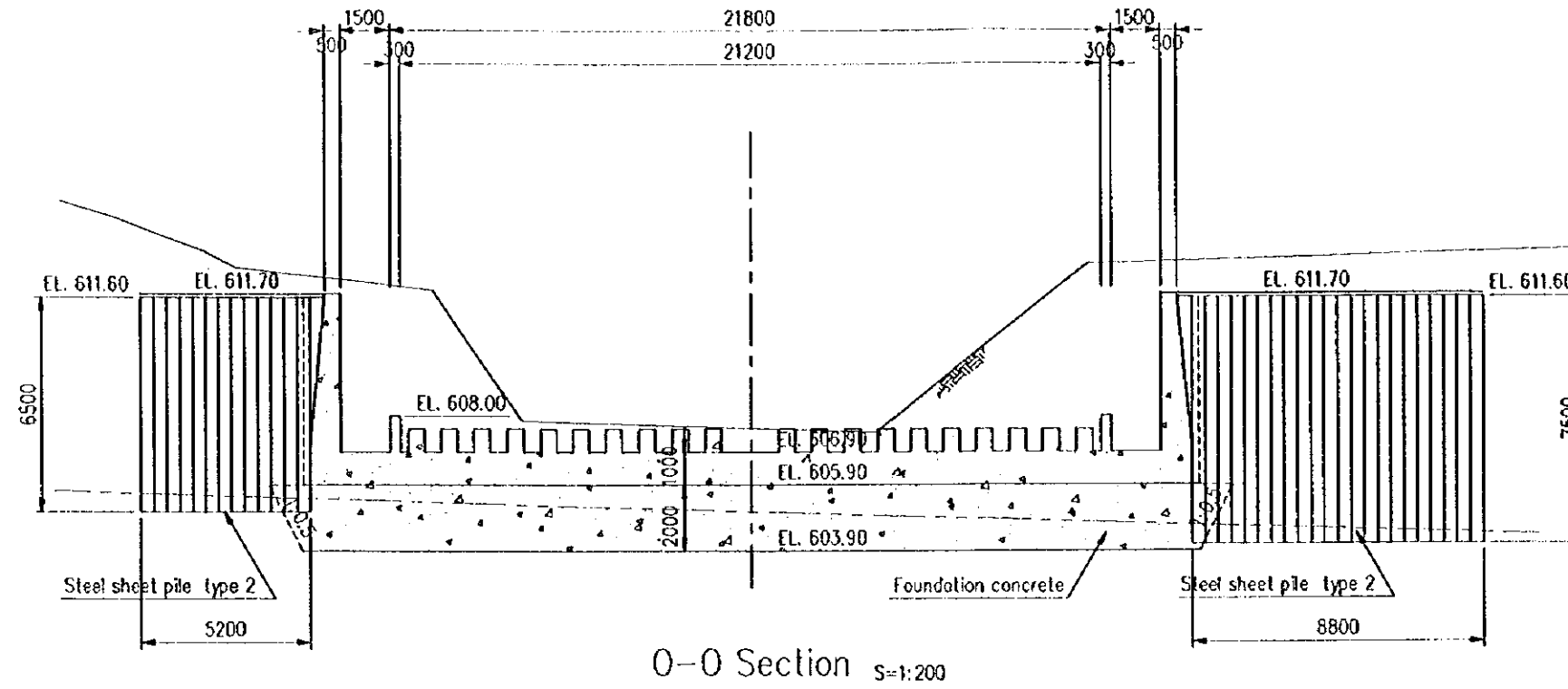
TITLE OF DRAWING
ムウェガ灌漑工

ムウェガ灌漑工、構造図 (2/5)

Date Oct. 1999 Drawing No. 2-5

NIPPON KOEI CO., LTD. TOKYO, JAPAN

HEADWORKS, SECTION (5/5)



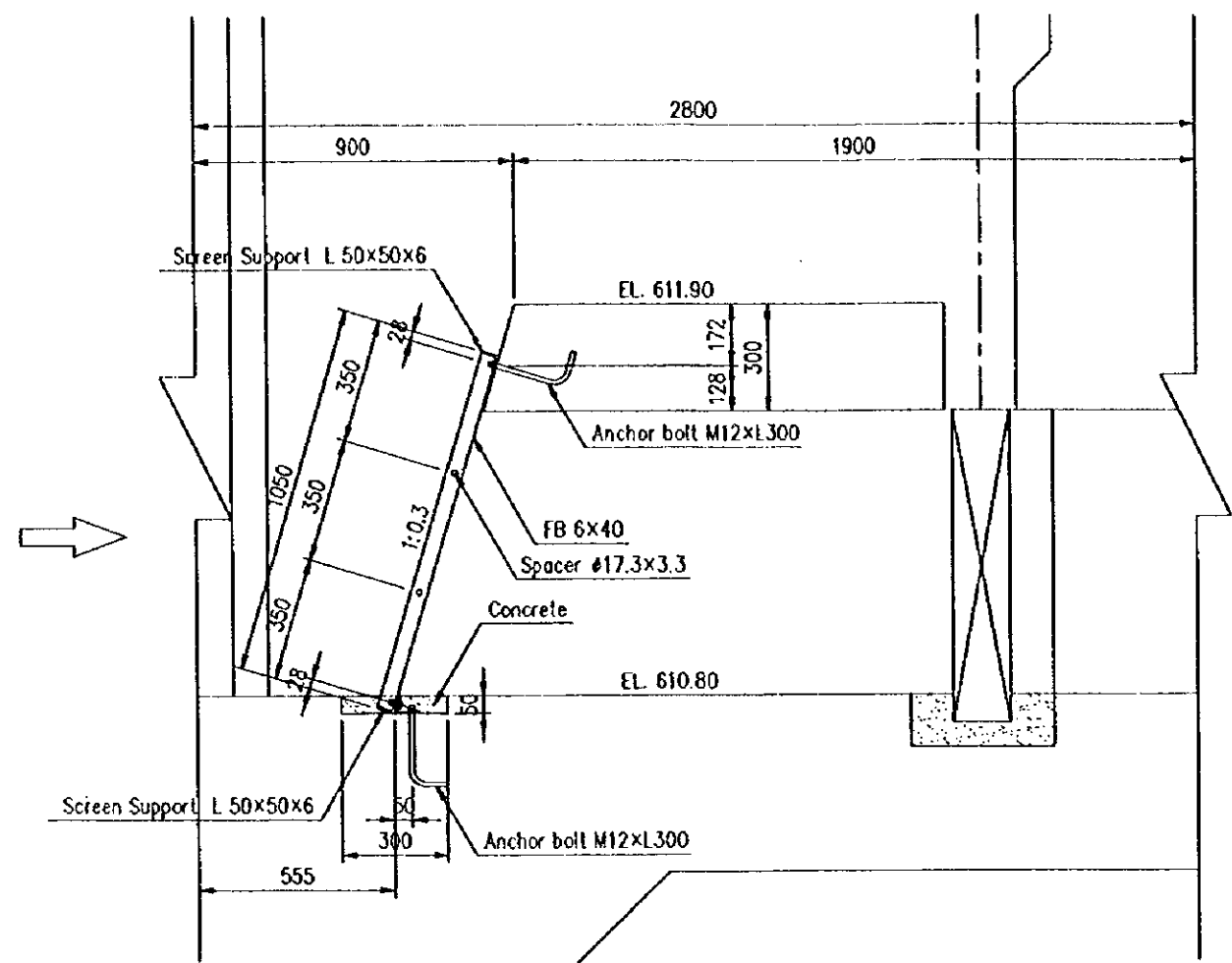
Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

TITLE OF DRAWING
ムウエガ頭首工
ムウエガ頭首工、構造図(5/5)

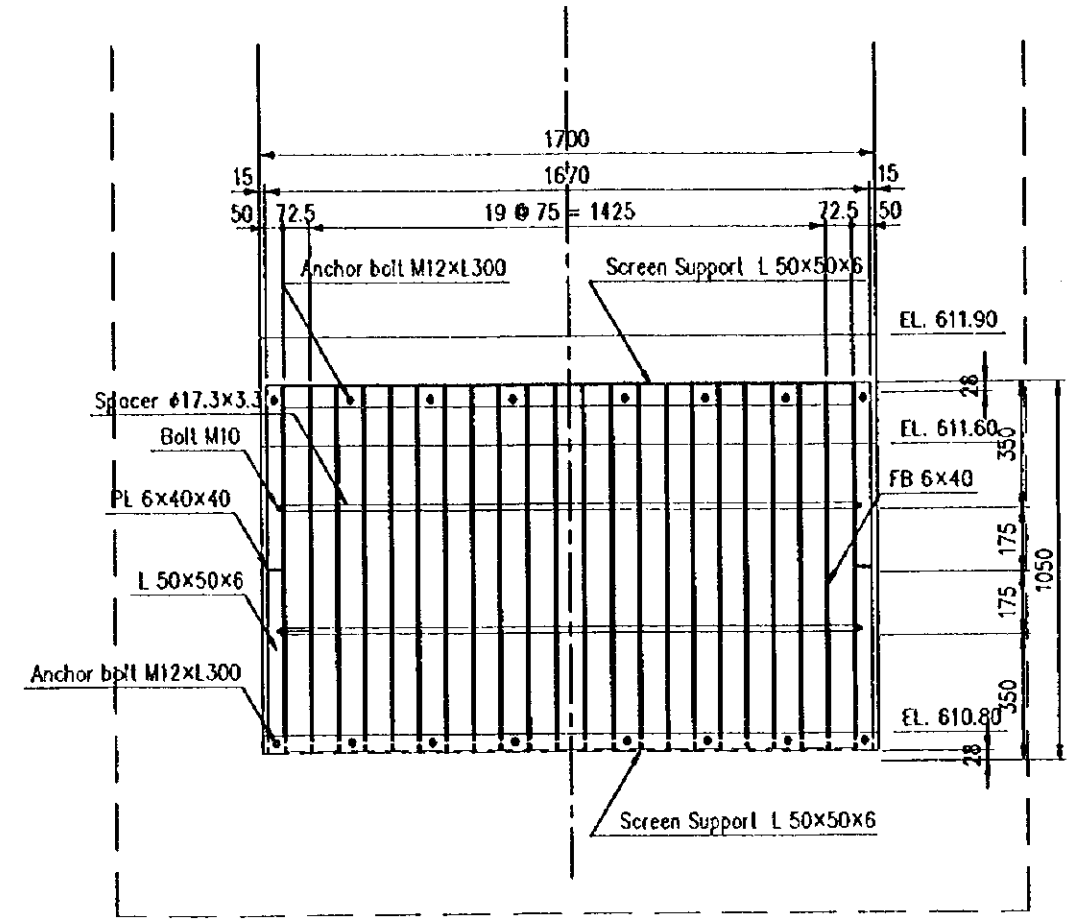
Date Oct. 1999 Drawing No. 2-8

NIPPON KOEI CO., LTD. TOKYO, JAPAN

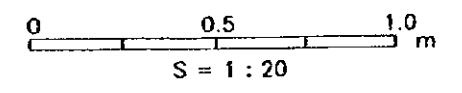
HEADWORKS, SCREEN FOR RIGHT INTAKE



Cross Section

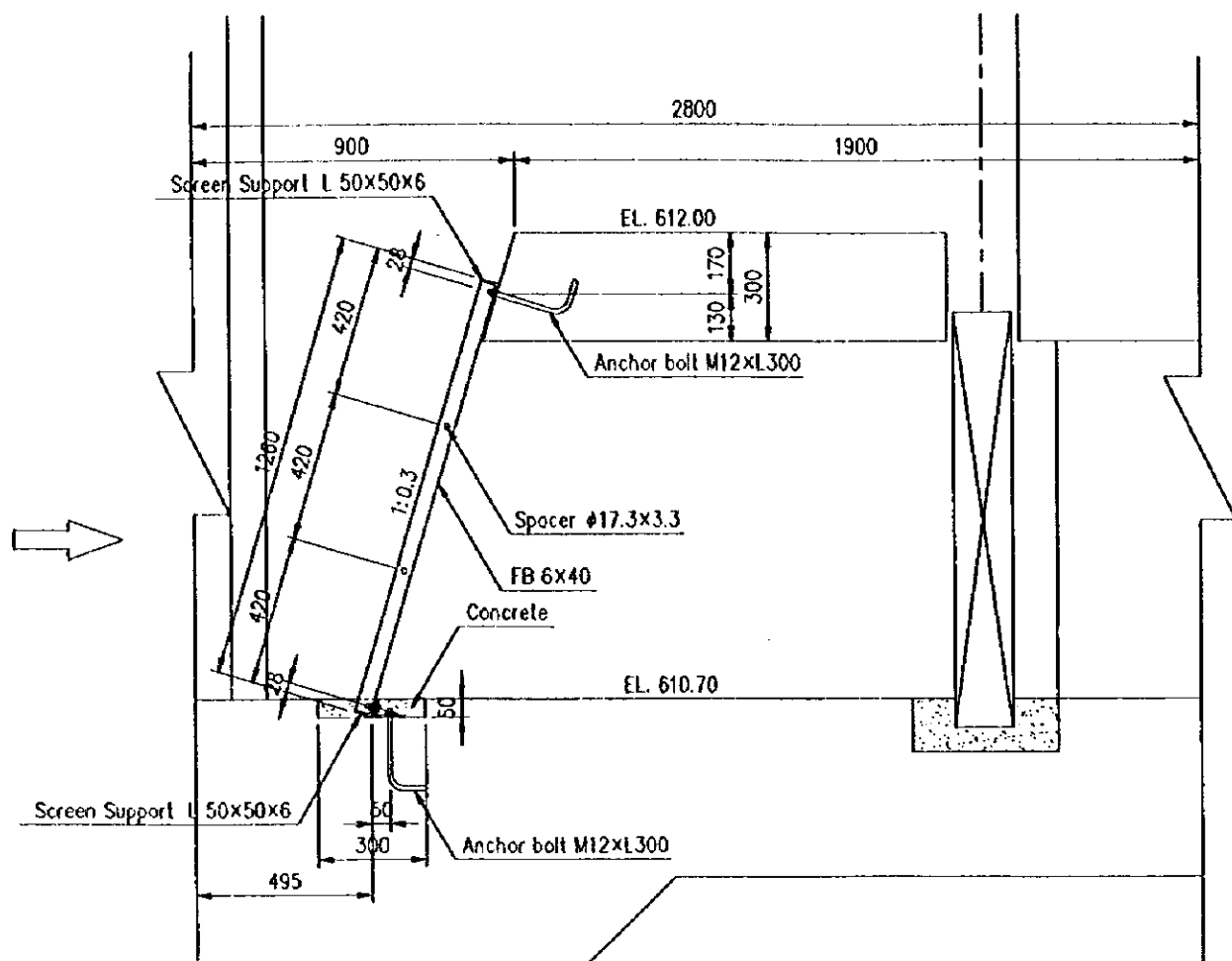


Front view

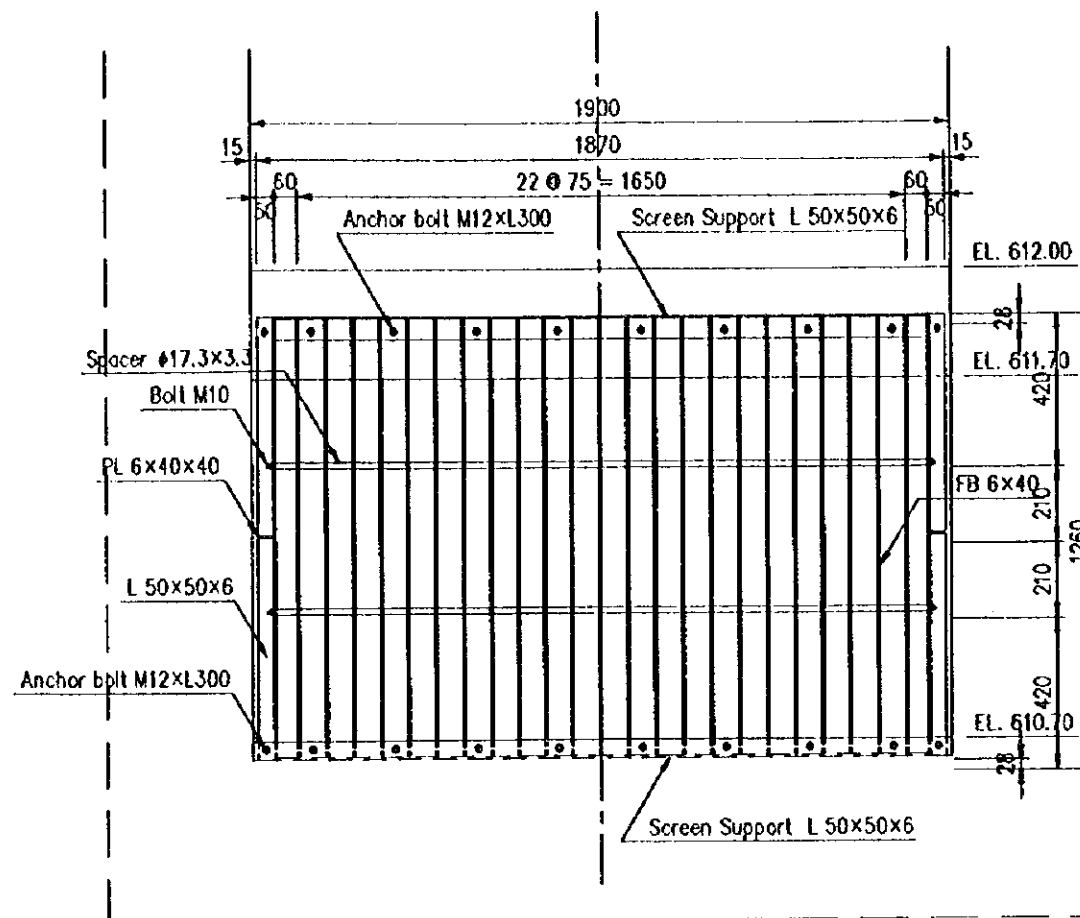


<p>Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania</p>			
<p>TITLE OF DRAWING ムウエガ頭首工</p>			
<p>ムウエガ頭首工、右岸取水口スクリーン</p>			
Date	Oct. 1999	Drawing No.	2-9
<p>NIPPON KOEI CO., LTD. TOKYO, JAPAN</p>			

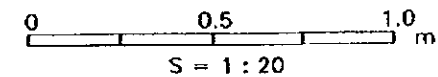
HEADWORKS, SCREEN FOR LEFT INTAKE



Cross Section



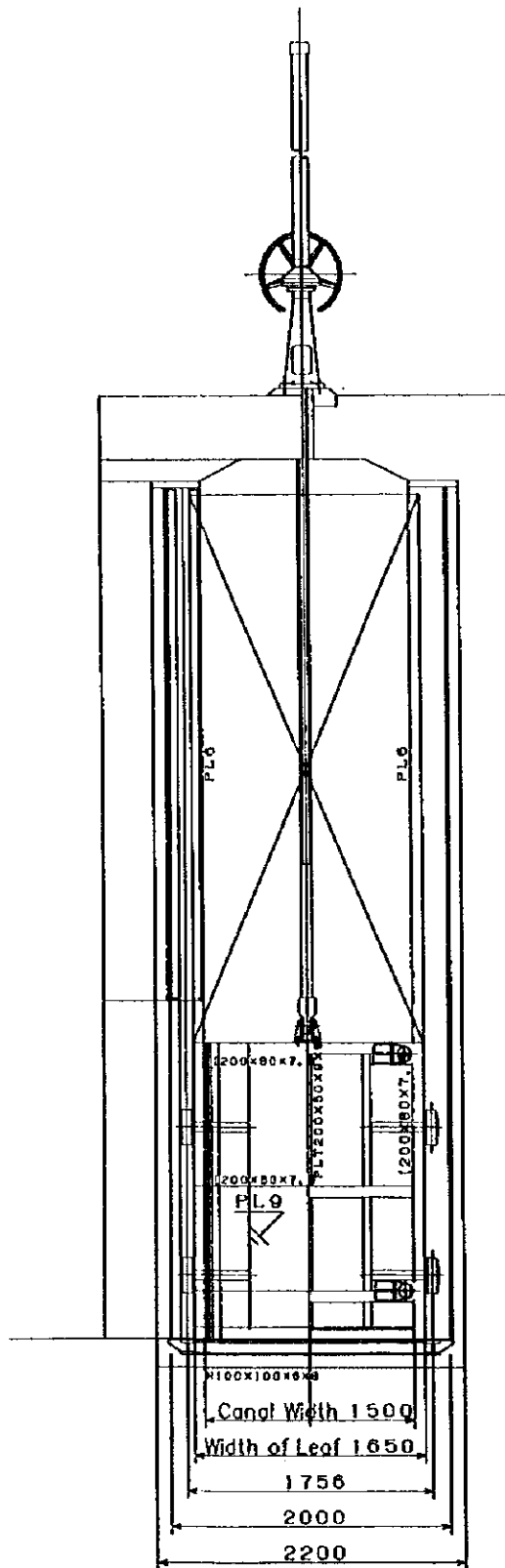
Front view



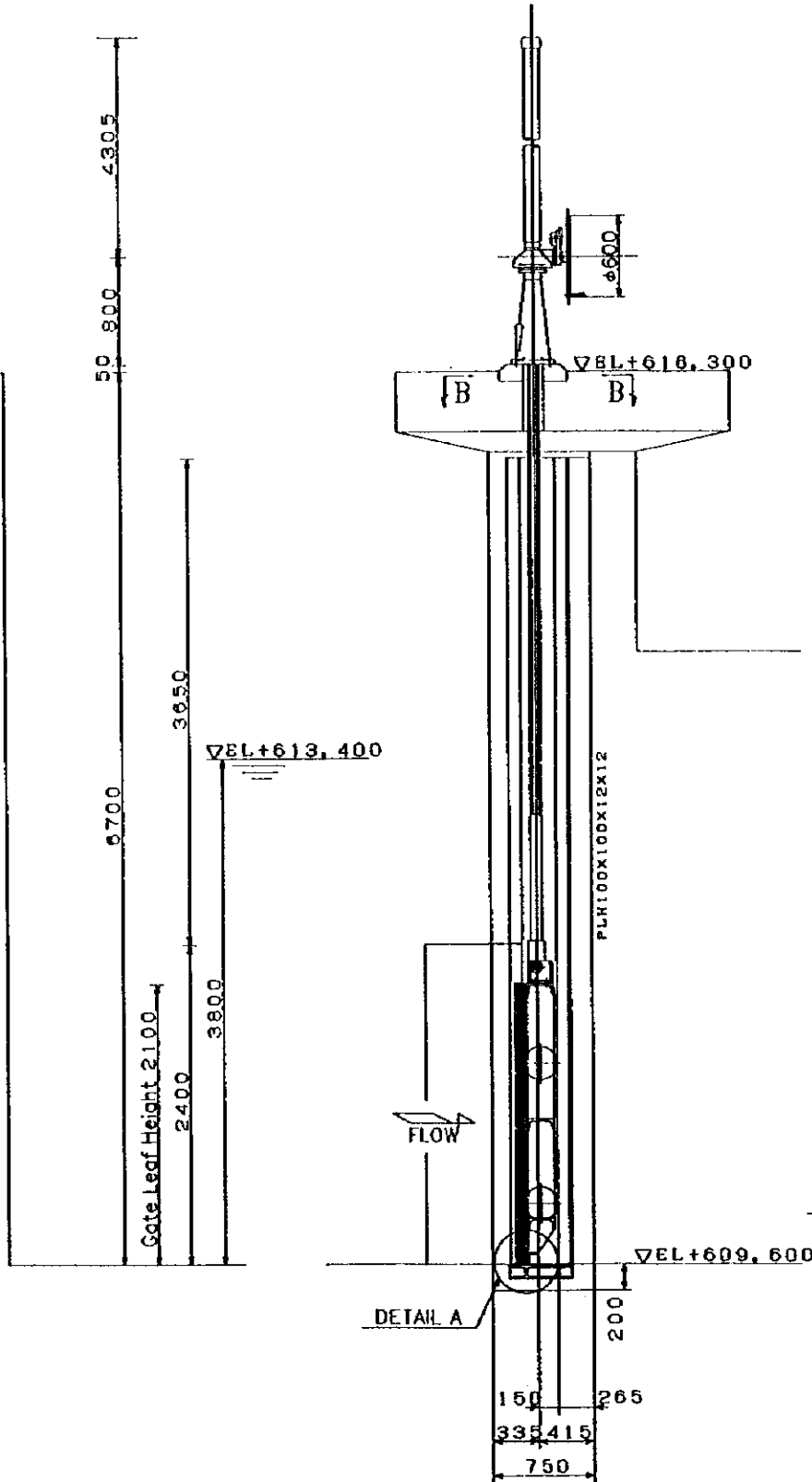
<p>Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania</p>			
<p>TITLE OF DRAWING ムウェガ頭首工</p>			
<p>ムウェガ頭首工、左岸取水口スクリーン</p>			
Date	Oct. 1999	Drawing No.	2-10
<p>NIPPON KOEI CO., LTD. TOKYO, JAPAN</p>			

HEADWORKS, SAND-FLUSHING GATE

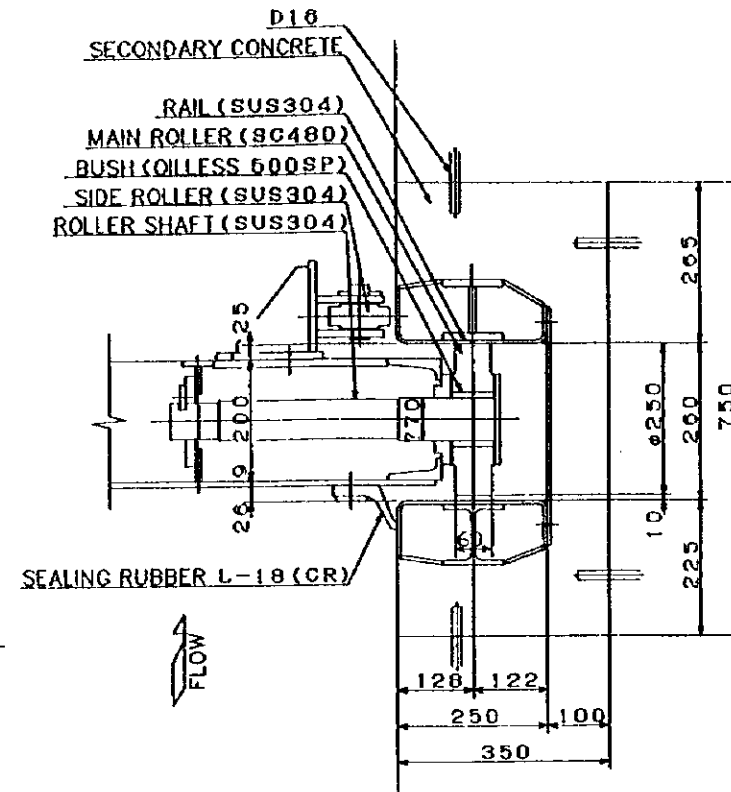
FRONT VIEW
SCALE A



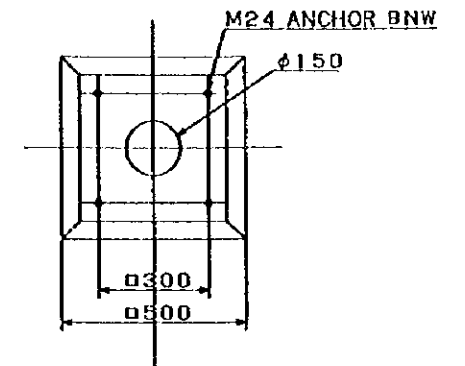
SECTION
SCALE A



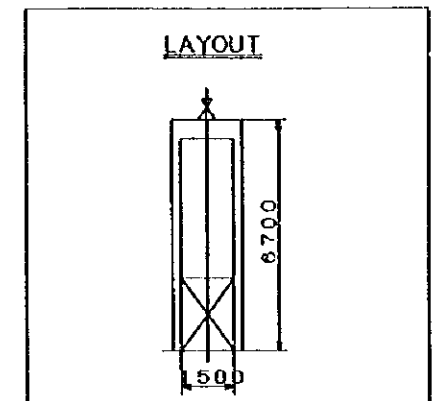
DETAIL OF SIDE WATER SEALING
SCALE C



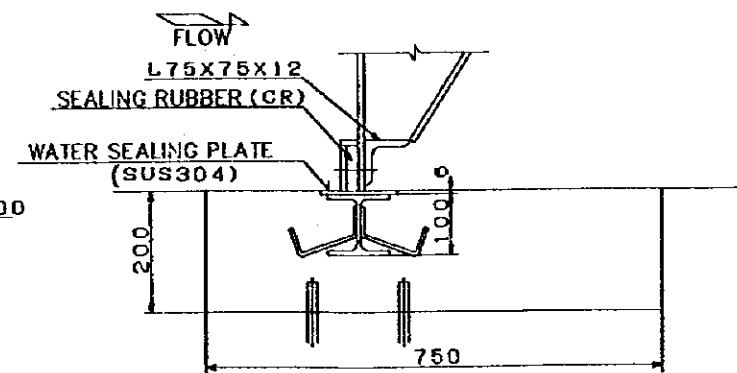
SECTION B-B
SCALE B



LAYOUT



DETAIL A
SCALE C



SCALE A 0 1.0 2.0 m

SCALE B 0 0.5 1.0 m

SCALE C 0 0.5 m

Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

TITLE OF DRAWING
ムウエガ頭首工

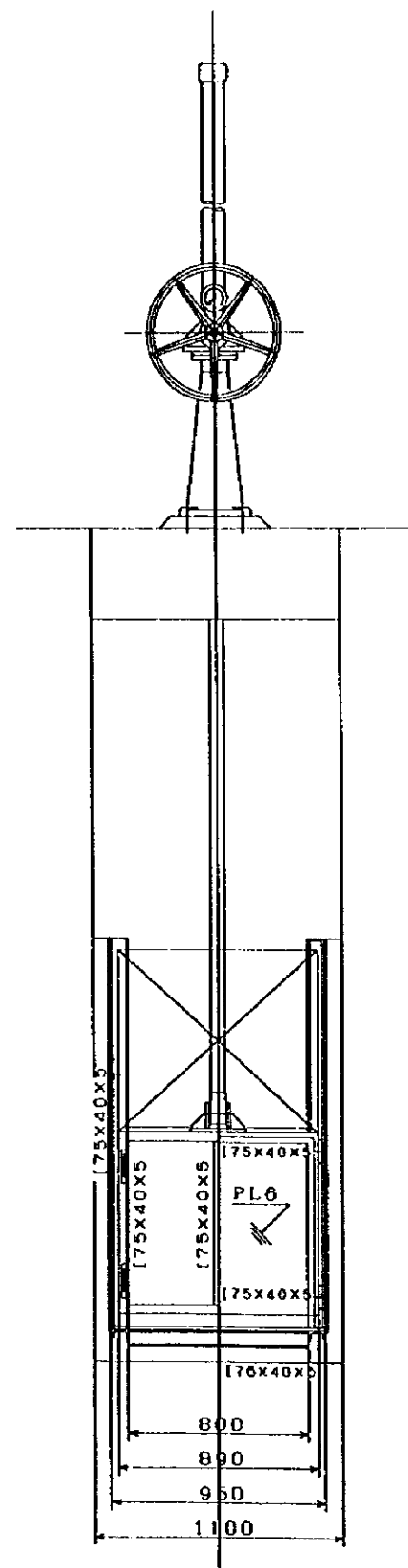
ムウエガ頭首工、土砂吐ゲート

Date Oct. 1999 Drawing No. 2-11

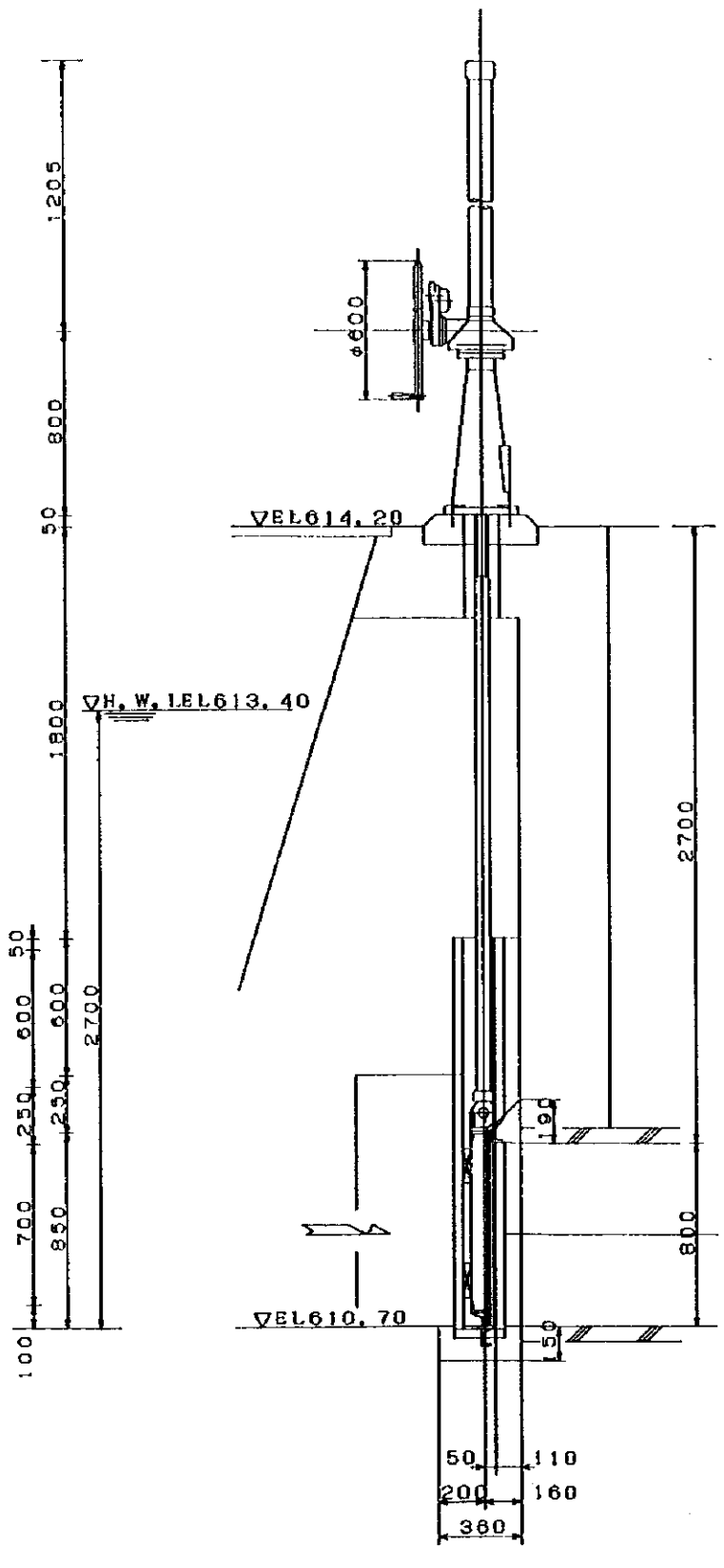
NIPPON KOEI CO., LTD. TOKYO, JAPAN

HEADWORKS, RIGHT INTAKE GATE

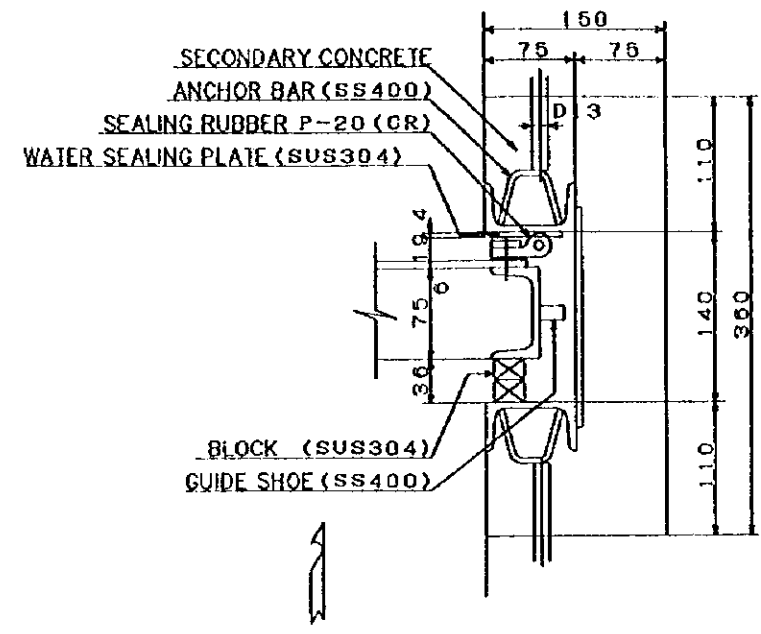
FRONT VIEW
SCALE A



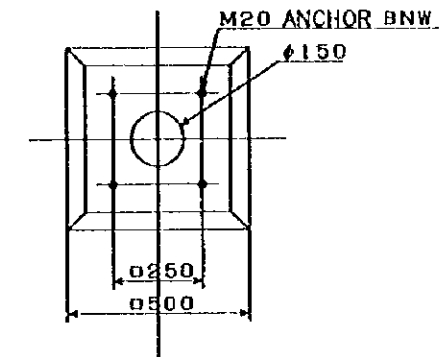
SECTION
SCALE A



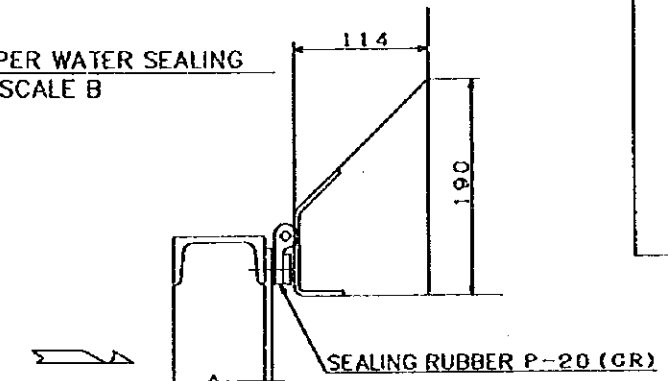
DETAIL OF SIDE WATER SEALING
SCALE B



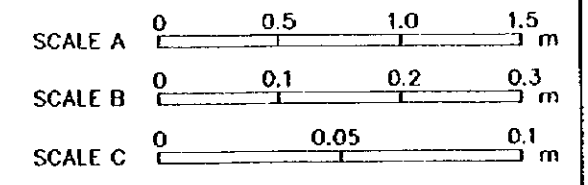
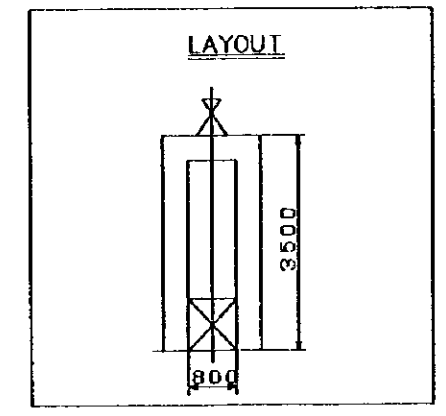
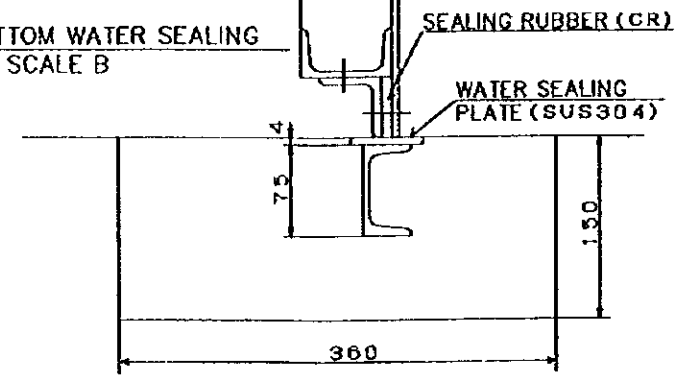
PLAN OF ANCHOR POSITION
SCALE C



DETAIL OF UPPER WATER SEALING
SCALE B



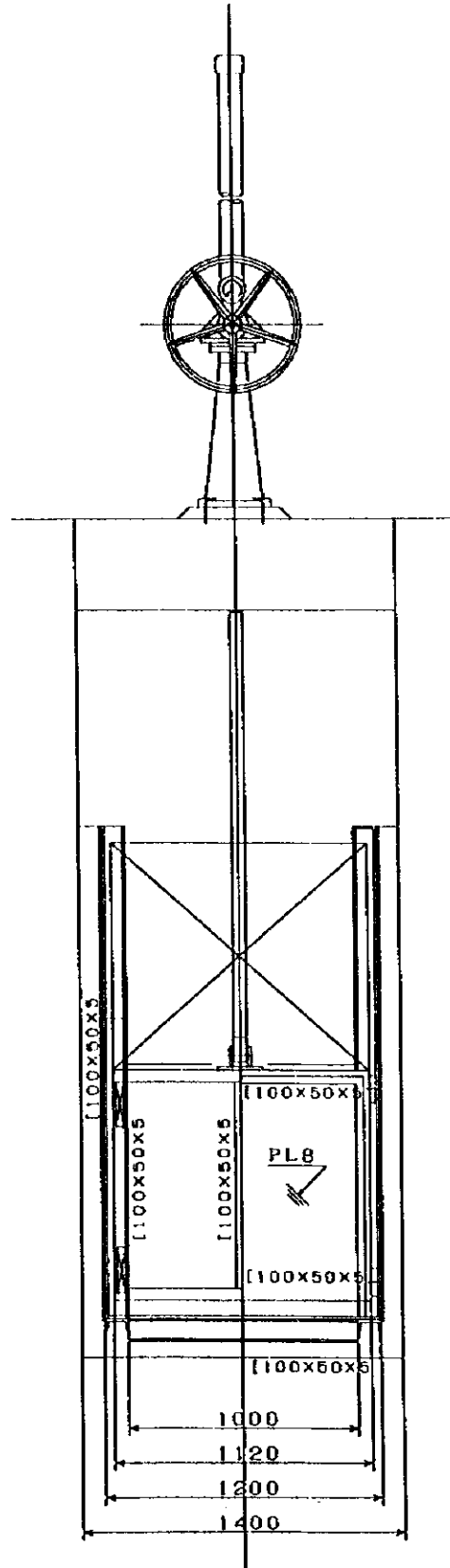
DETAIL OF BOTTOM WATER SEALING
SCALE B



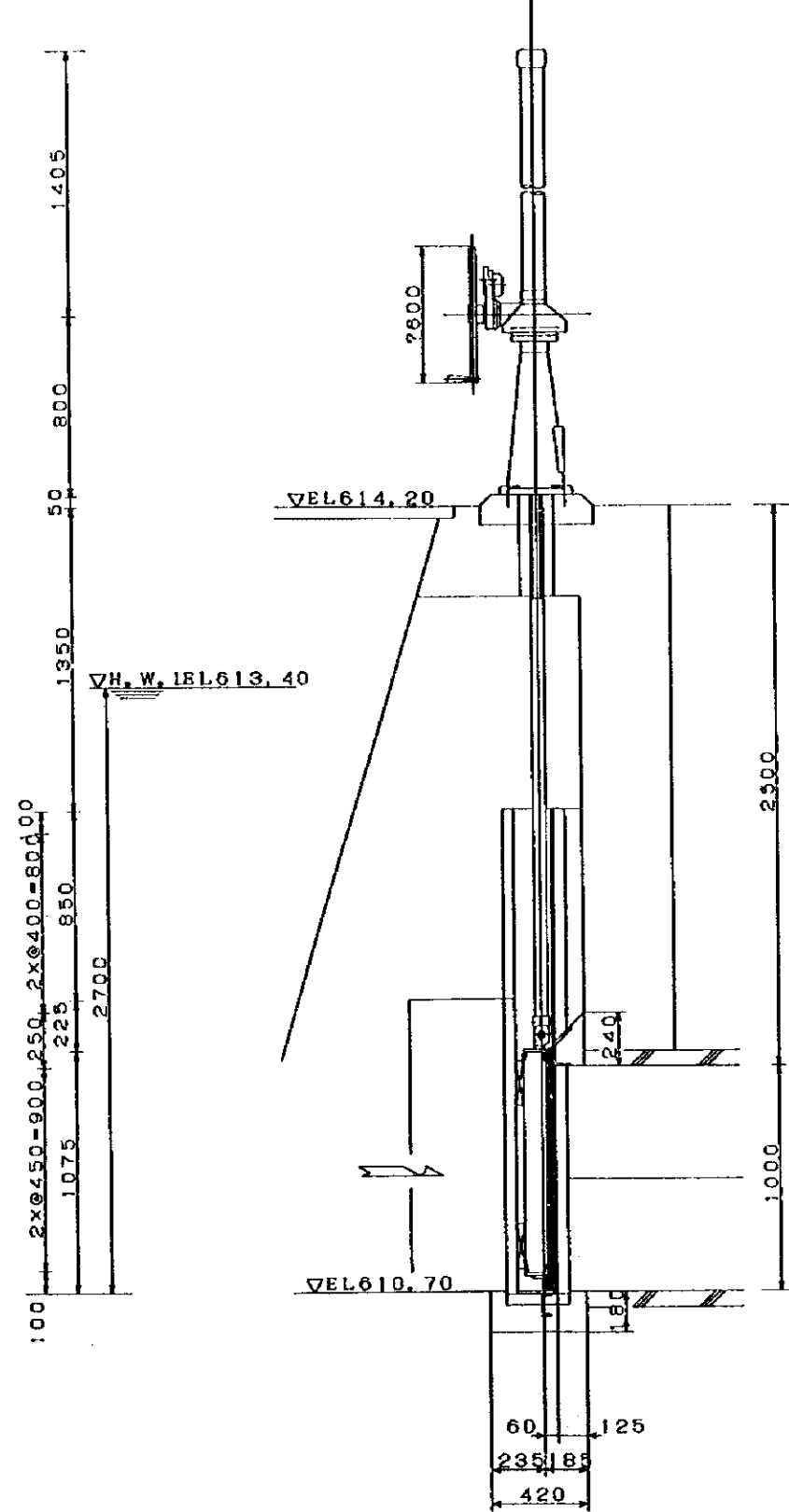
Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania			
TITLE OF DRAWING ムウェガ頭首工			
ムウェガ頭首工、右岸取水ゲート			
Date	Oct. 1999	Drawing No.	2-12
NIPPON KOEI CO., LTD. TOKYO, JAPAN			

HEADWORKS, LEFT INTAKE GATE

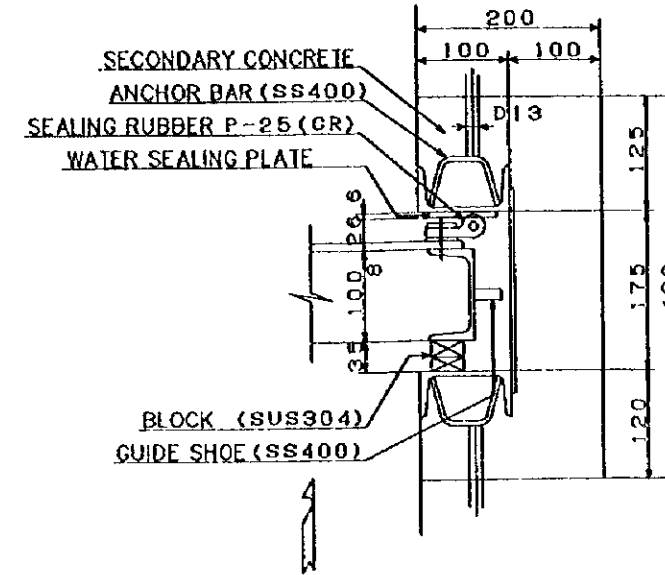
FRONT VIEW
SCALE A



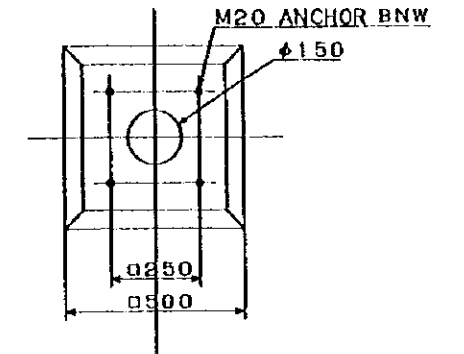
SECTION
SCALE A



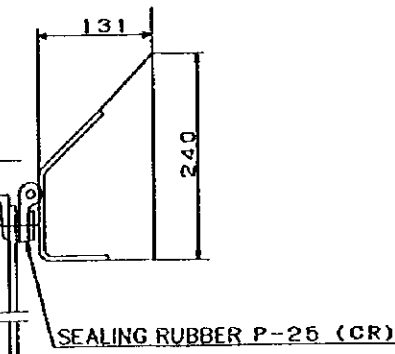
DETAIL OF SIDE WATER SEALING
SCALE B



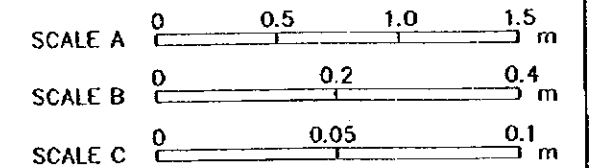
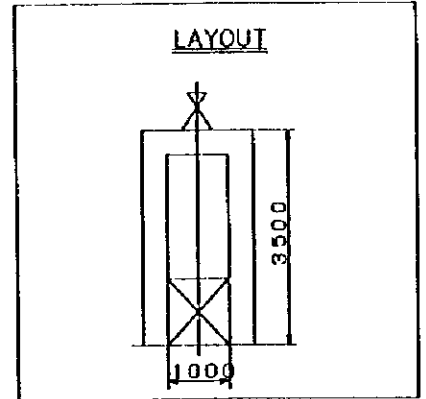
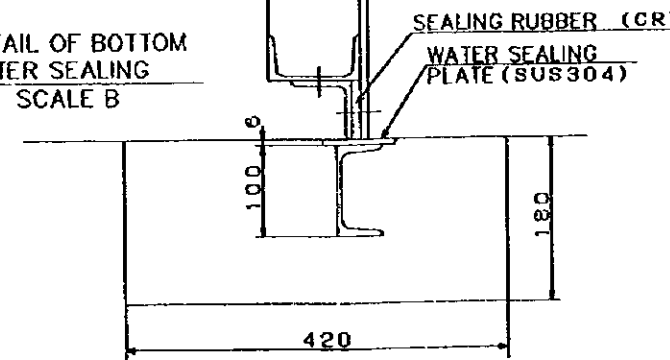
PLAN OF ANCHOR POSITION
SCALE C



DETAIL OF UPPER WATER SEALING
SCALE B



DETAIL OF BOTTOM
WATER SEALING
SCALE B



Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

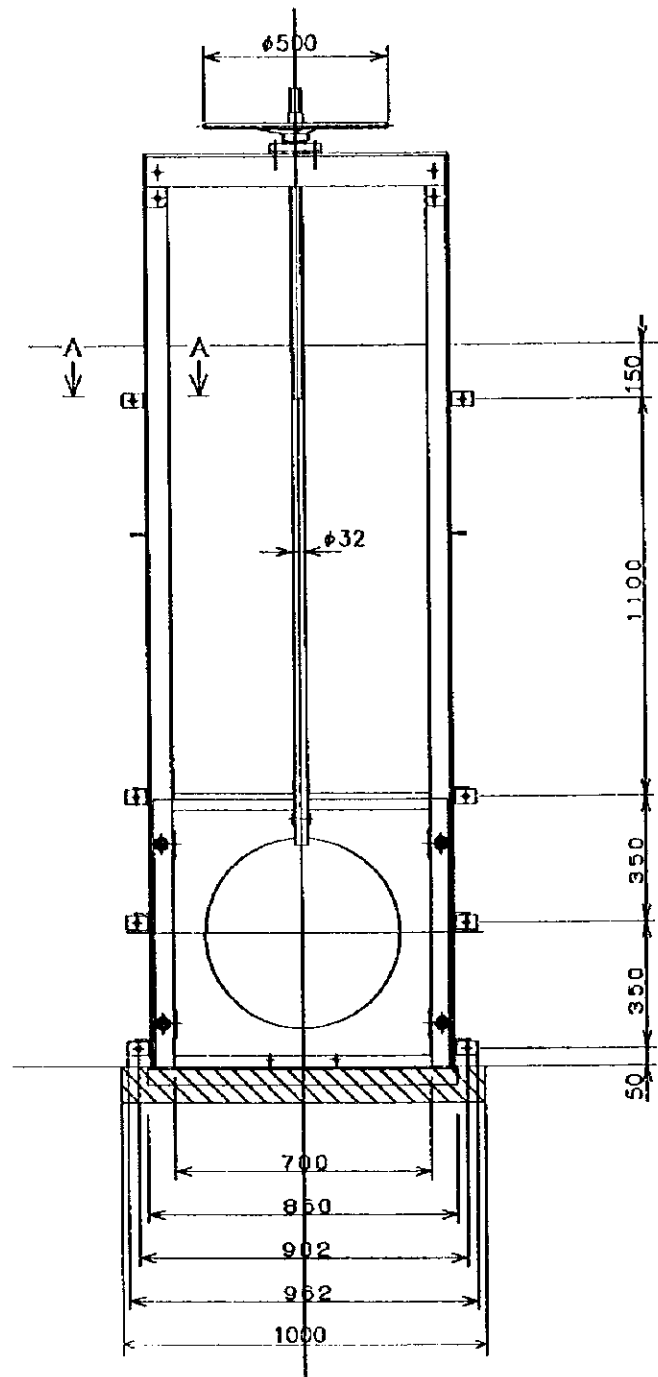
TITLE OF DRAWING
ムウェガ頭首工

ムウェガ頭首工、左岸取水ゲート

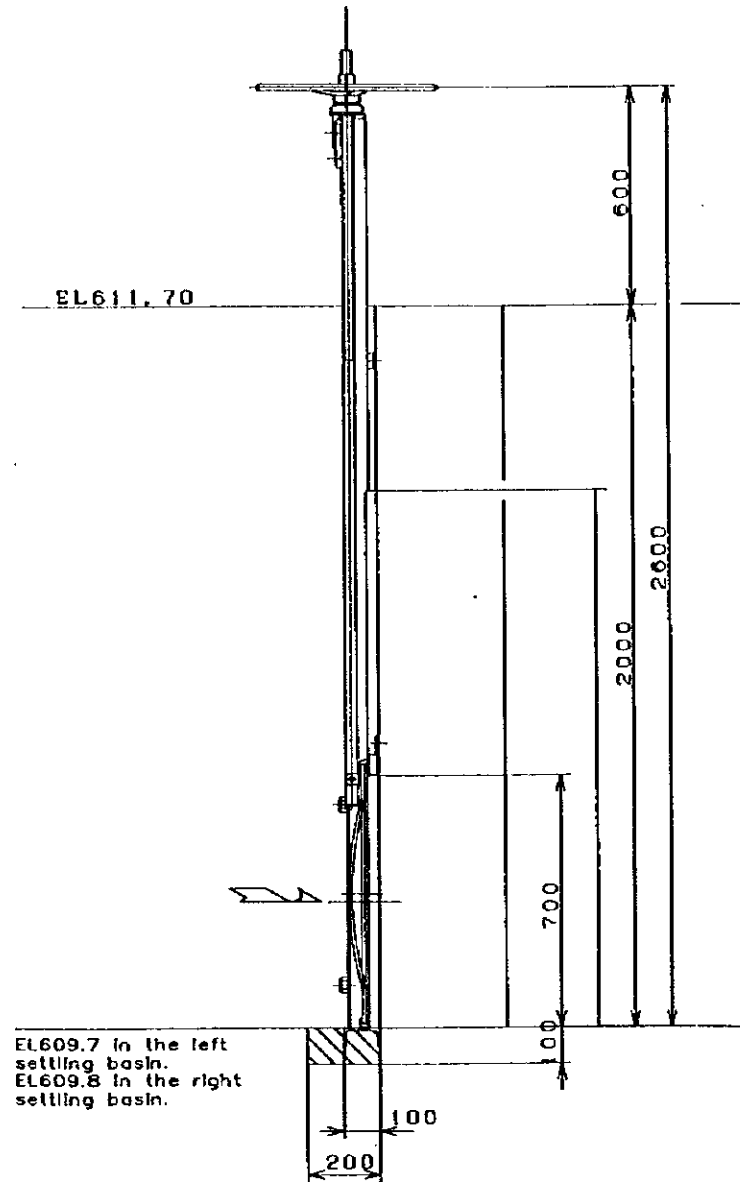
Date | Oct. 1999 | Drawing No. | 2-13

NIPPON KOEI CO., LTD, TOKYO, JAPAN

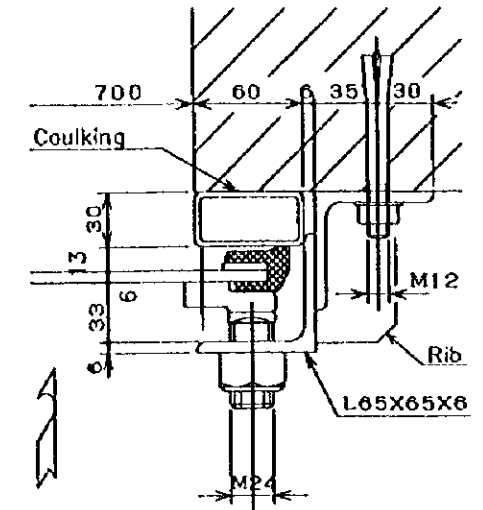
GATE FOR SETTLING BASIN



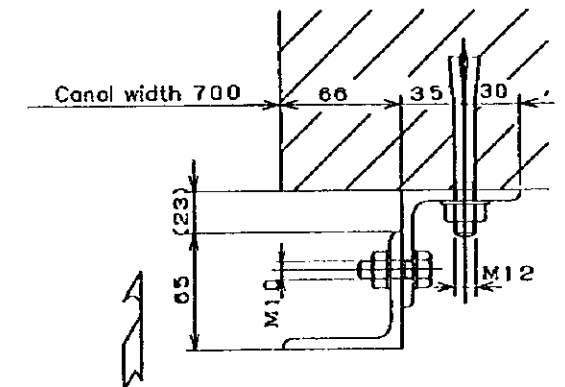
PLAN SCALE A



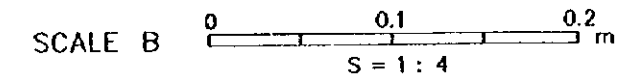
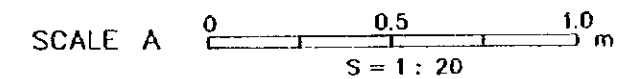
PROFILE SCALE A



Detail of Water Sealing SCALE B



SECTION A-A SCALE B



EL609.7 in the left settling basin.
EL609.8 in the right settling basin.

Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

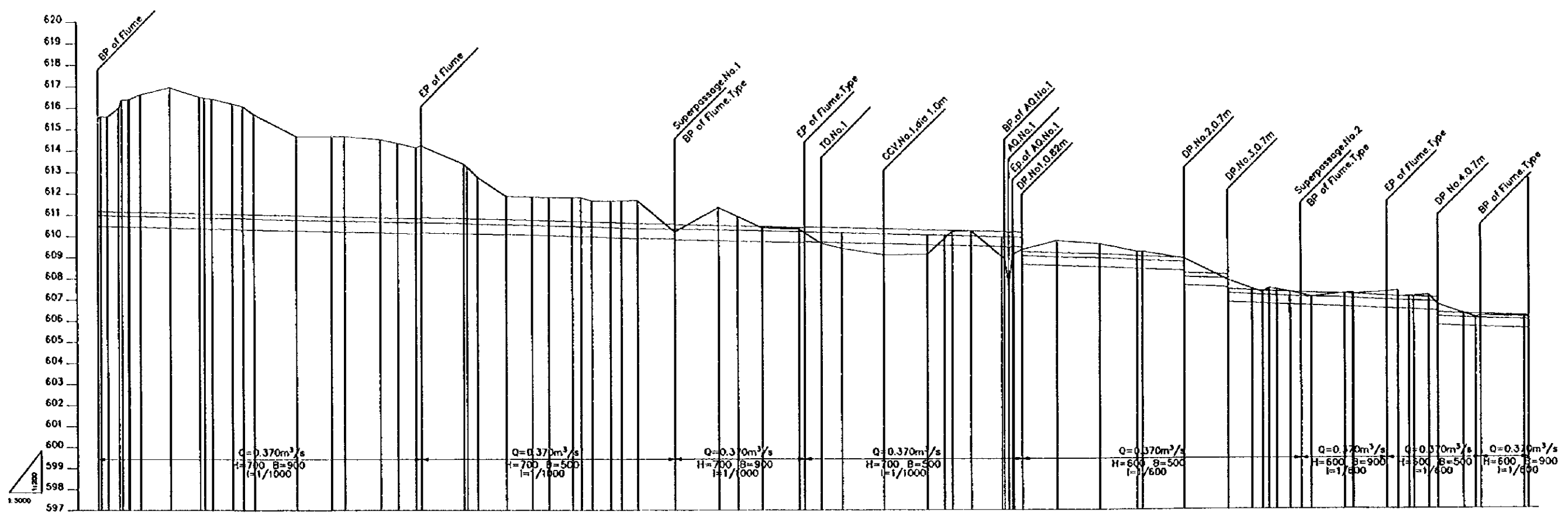
TITLE OF DRAWING
ムウエガ頭首工

ムウエガ頭首工、沈砂池排砂用ゲート

Date Oct. 1999 Drawing No. 2-14

NIPPON KOEI CO., LTD. TOKYO, JAPAN

PROFILE OF RIGHT MAIN CANAL (1/6)



CANAL TYPE	FLUME TYPE-III					CANAL TYPE-V					FLUME TYPE-III					CANAL TYPE-V					CANAL TYPE-IV					FLUME TYPE-II					CANAL TYPE-IV					FLUME TYPE-II									
CANAL BANK ELEVATION	611.96	611.96	611.96	611.96	611.96	610.88	610.88	610.88	610.88	610.88	610.43	610.43	610.43	610.43	610.43	610.23	610.23	610.23	610.23	610.23	610.04	610.04	610.04	610.04	610.04	609.99	609.99	609.99	609.99	609.99	608.87	608.87	608.87	608.87	608.87	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99
WATER SURFACE ELEVATION	610.87	610.87	610.87	610.87	610.87	610.88	610.88	610.88	610.88	610.88	610.43	610.43	610.43	610.43	610.43	610.23	610.23	610.23	610.23	610.23	610.04	610.04	610.04	610.04	610.04	609.99	609.99	609.99	609.99	609.99	608.87	608.87	608.87	608.87	608.87	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99
CANAL BASE ELEVATION	610.46	610.46	610.46	610.46	610.46	610.46	610.46	610.46	610.46	610.46	610.43	610.43	610.43	610.43	610.43	610.23	610.23	610.23	610.23	610.23	610.04	610.04	610.04	610.04	610.04	609.99	609.99	609.99	609.99	609.99	608.87	608.87	608.87	608.87	608.87	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99	608.99
GROUND SURFACE ELEVATION	615.53	615.53	615.53	615.53	615.53	616.83	616.83	616.83	616.83	616.83	614.48	614.48	614.48	614.48	614.48	611.27	611.27	611.27	611.27	611.27	610.85	610.85	610.85	610.85	610.85	610.31	610.31	610.31	610.31	610.31	609.06	609.06	609.06	609.06	609.06	609.18	609.18	609.18	609.18	609.18	608.97	608.97	608.97	608.97	608.97
REDUCED DISTANCE	0.00	11.63	23.26	34.89	46.52	58.15	69.78	81.41	93.04	104.67	116.30	127.93	139.56	151.19	162.82	174.45	186.08	197.71	209.34	220.97	232.60	244.23	255.86	267.49	279.12	290.75	302.38	314.01	325.64	337.27	348.90	360.53	372.16	383.79	395.42	407.05	418.68	430.31	441.94	453.57					
DISTANCE	0.00	11.63	23.26	34.89	46.52	58.15	69.78	81.41	93.04	104.67	116.30	127.93	139.56	151.19	162.82	174.45	186.08	197.71	209.34	220.97	232.60	244.23	255.86	267.49	279.12	290.75	302.38	314.01	325.64	337.27	348.90	360.53	372.16	383.79	395.42	407.05	418.68	430.31	441.94	453.57					
STATION NO.	BP.0	BC.1	EC.1	BC.2	EC.2	BC.3	EC.3	BC.4	EC.4	BC.5	EC.5	BC.6	EC.6	BC.7	EC.7	BC.8	EC.8	IP.9	BC.10	EC.10	IP.11	IP.12	BC.13	EC.13	BC.14	EC.14	BC.15	EC.15	BC.16	EC.16	BC.17	EC.17	BC.18	EC.18	IP.19										

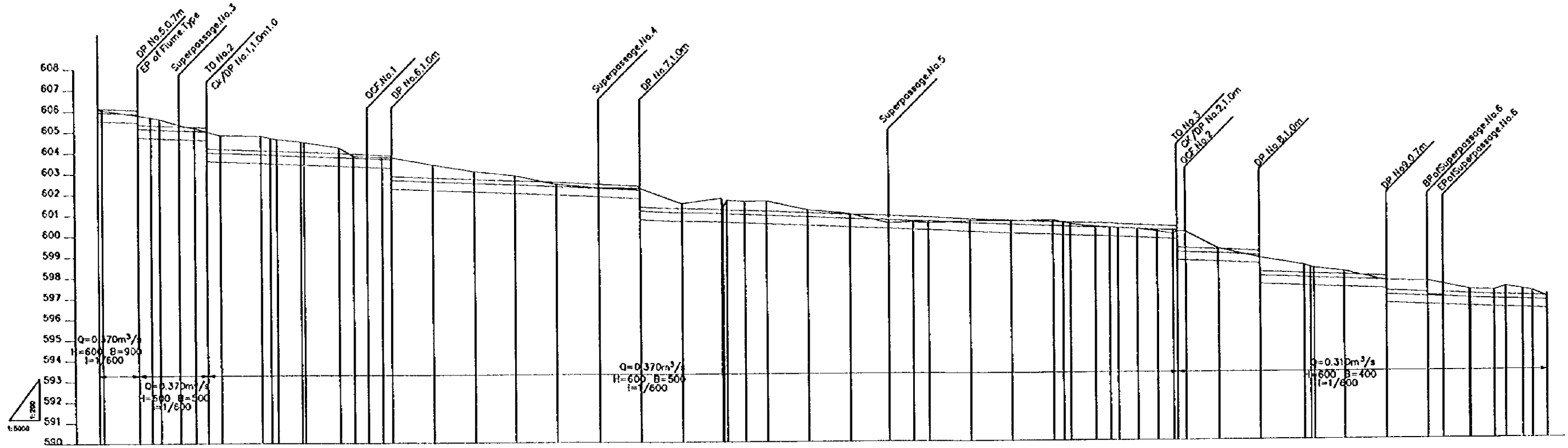
IP.No.	IA	TL	CL	IP.No.	IA	TL	CL	IP.No.	IA	TL	CL
BP.0	0° 0' 0"	-	-	IP.6	-28° 19' 6"	5.05	9.89	IP.13	+34° 16' 54"	6.17	11.97
IP.0	+10° 27' 10"	-	-	IP.7	-55° 14' 42"	10.47	19.28	IP.14	-44° 52' 47"	8.25	15.67
IP.1	-36° 58' 25"	6.69	12.91	IP.8	+81° 52' 40"	17.35	28.58	IP.15	-27° 10' 2"	4.83	9.48
IP.2	-36° 5' 25"	6.52	12.60	IP.9	+9° 58' 10"	-	-	IP.16	-37° 50' 20"	6.85	13.21
IP.3	-43° 3' 58"	7.89	15.03	IP.10	-25° 5' 14"	4.45	8.76	IP.17	+51° 17' 27"	9.60	17.90
IP.4	+60° 43' 53"	11.72	21.20	IP.11	-3° 30' 27"	-	-	IP.18	+40° 6' 37"	7.30	14.00
IP.5	+35° 44' 7"	6.45	12.47	IP.12	-14° 13' 3"	-	-	IP.19	+15° 41' 8"	-	-

Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in the United Republic of Tanzania

TITLE OF DRAWING
用水路
右岸幹線用水路縦断面図 (1/6)

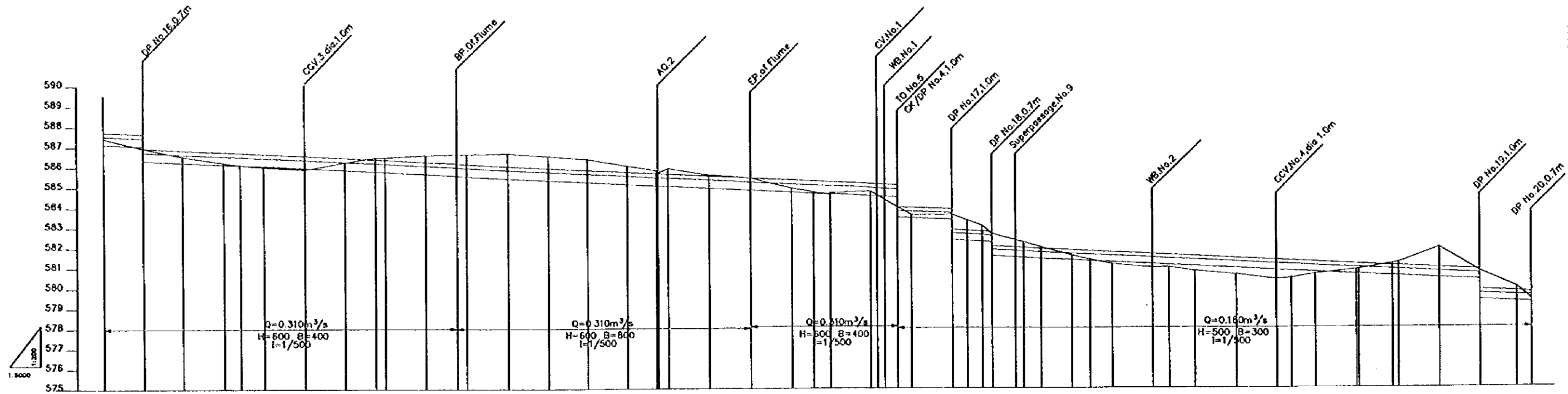
Date Oct. 1999 Drawing No. 3-1
NIPPON KOEI CO., LTD. TOKYO, JAPAN

PROFILE OF RIGHT MAIN CANAL (2/6)



CANAL TYPE	FLUME TYPE	CANAL TYPE-IV	CANAL TYPE-IV										CANAL TYPE-III																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
CANAL BANK ELEVATION	606.13 606.12	605.85 605.84	605.72 605.71	605.68 605.67	605.64 605.63	605.60 605.59	605.56 605.55	605.52 605.51	605.48 605.47	605.44 605.43	605.40 605.39	605.36 605.35	605.32 605.31	605.28 605.27	605.24 605.23	605.20 605.19	605.16 605.15	605.12 605.11	605.08 605.07	605.04 605.03	605.00 604.99	604.96 604.95	604.92 604.91	604.88 604.87	604.84 604.83	604.80 604.79	604.76 604.75	604.72 604.71	604.68 604.67	604.64 604.63	604.60 604.59	604.56 604.55	604.52 604.51	604.48 604.47	604.44 604.43	604.40 604.39	604.36 604.35	604.32 604.31	604.28 604.27	604.24 604.23	604.20 604.19	604.16 604.15	604.12 604.11	604.08 604.07	604.04 604.03	604.00 603.99	603.96 603.95	603.92 603.91	603.88 603.87	603.84 603.83	603.80 603.79	603.76 603.75	603.72 603.71	603.68 603.67	603.64 603.63	603.60 603.59	603.56 603.55	603.52 603.51	603.48 603.47	603.44 603.43	603.40 603.39	603.36 603.35	603.32 603.31	603.28 603.27	603.24 603.23	603.20 603.19	603.16 603.15	603.12 603.11	603.08 603.07	603.04 603.03	603.00 602.99	602.96 602.95	602.92 602.91	602.88 602.87	602.84 602.83	602.80 602.79	602.76 602.75	602.72 602.71	602.68 602.67	602.64 602.63	602.60 602.59	602.56 602.55	602.52 602.51	602.48 602.47	602.44 602.43	602.40 602.39	602.36 602.35	602.32 602.31	602.28 602.27	602.24 602.23	602.20 602.19	602.16 602.15	602.12 602.11	602.08 602.07	602.04 602.03	602.00 601.99	601.96 601.95	601.92 601.91	601.88 601.87	601.84 601.83	601.80 601.79	601.76 601.75	601.72 601.71	601.68 601.67	601.64 601.63	601.60 601.59	601.56 601.55	601.52 601.51	601.48 601.47	601.44 601.43	601.40 601.39	601.36 601.35	601.32 601.31	601.28 601.27	601.24 601.23	601.20 601.19	601.16 601.15	601.12 601.11	601.08 601.07	601.04 601.03	601.00 600.99	600.96 600.95	600.92 600.91	600.88 600.87	600.84 600.83	600.80 600.79	600.76 600.75	600.72 600.71	600.68 600.67	600.64 600.63	600.60 600.59	600.56 600.55	600.52 600.51	600.48 600.47	600.44 600.43	600.40 600.39	600.36 600.35	600.32 600.31	600.28 600.27	600.24 600.23	600.20 600.19	600.16 600.15	600.12 600.11	600.08 600.07	600.04 600.03	600.00 600.00	599.96 599.95	599.92 599.91	599.88 599.87	599.84 599.83	599.80 599.79	599.76 599.75	599.72 599.71	599.68 599.67	599.64 599.63	599.60 599.59	599.56 599.55	599.52 599.51	599.48 599.47	599.44 599.43	599.40 599.39	599.36 599.35	599.32 599.31	599.28 599.27	599.24 599.23	599.20 599.19	599.16 599.15	599.12 599.11	599.08 599.07	599.04 599.03	599.00 599.00	598.96 598.95	598.92 598.91	598.88 598.87	598.84 598.83	598.80 598.79	598.76 598.75	598.72 598.71	598.68 598.67	598.64 598.63	598.60 598.59	598.56 598.55	598.52 598.51	598.48 598.47	598.44 598.43	598.40 598.39	598.36 598.35	598.32 598.31	598.28 598.27	598.24 598.23	598.20 598.19	598.16 598.15	598.12 598.11	598.08 598.07	598.04 598.03	598.00 598.00	597.96 597.95	597.92 597.91	597.88 597.87	597.84 597.83	597.80 597.79	597.76 597.75	597.72 597.71	597.68 597.67	597.64 597.63	597.60 597.59	597.56 597.55	597.52 597.51	597.48 597.47	597.44 597.43	597.40 597.39	597.36 597.35	597.32 597.31	597.28 597.27	597.24 597.23	597.20 597.19	597.16 597.15	597.12 597.11	597.08 597.07	597.04 597.03	597.00 597.00	596.96 596.95	596.92 596.91	596.88 596.87	596.84 596.83	596.80 596.79	596.76 596.75	596.72 596.71	596.68 596.67	596.64 596.63	596.60 596.59	596.56 596.55	596.52 596.51	596.48 596.47	596.44 596.43	596.40 596.39	596.36 596.35	596.32 596.31	596.28 596.27	596.24 596.23	596.20 596.19	596.16 596.15	596.12 596.11	596.08 596.07	596.04 596.03	596.00 596.00	595.96 595.95	595.92 595.91	595.88 595.87	595.84 595.83	595.80 595.79	595.76 595.75	595.72 595.71	595.68 595.67	595.64 595.63	595.60 595.59	595.56 595.55	595.52 595.51	595.48 595.47	595.44 595.43	595.40 595.39	595.36 595.35	595.32 595.31	595.28 595.27	595.24 595.23	595.20 595.19	595.16 595.15	595.12 595.11	595.08 595.07	595.04 595.03	595.00 595.00	594.96 594.95	594.92 594.91	594.88 594.87	594.84 594.83	594.80 594.79	594.76 594.75	594.72 594.71	594.68 594.67	594.64 594.63	594.60 594.59	594.56 594.55	594.52 594.51	594.48 594.47	594.44 594.43	594.40 594.39	594.36 594.35	594.32 594.31	594.28 594.27	594.24 594.23	594.20 594.19	594.16 594.15	594.12 594.11	594.08 594.07	594.04 594.03	594.00 594.00	593.96 593.95	593.92 593.91	593.88 593.87	593.84 593.83	593.80 593.79	593.76 593.75	593.72 593.71	593.68 593.67	593.64 593.63	593.60 593.59	593.56 593.55	593.52 593.51	593.48 593.47	593.44 593.43	593.40 593.39	593.36 593.35	593.32 593.31	593.28 593.27	593.24 593.23	593.20 593.19	593.16 593.15	593.12 593.11	593.08 593.07	593.04 593.03	593.00 593.00	592.96 592.95	592.92 592.91	592.88 592.87	592.84 592.83	592.80 592.79	592.76 592.75	592.72 592.71	592.68 592.67	592.64 592.63	592.60 592.59	592.56 592.55	592.52 592.51	592.48 592.47	592.44 592.43	592.40 592.39	592.36 592.35	592.32 592.31	592.28 592.27	592.24 592.23	592.20 592.19	592.16 592.15	592.12 592.11	592.08 592.07	592.04 592.03	592.00 592.00	591.96 591.95	591.92 591.91	591.88 591.87	591.84 591.83	591.80 591.79	591.76 591.75	591.72 591.71	591.68 591.67	591.64 591.63	591.60 591.59	591.56 591.55	591.52 591.51	591.48 591.47	591.44 591.43	591.40 591.39	591.36 591.35	591.32 591.31	591.28 591.27	591.24 591.23	591.20 591.19	591.16 591.15	591.12 591.11	591.08 591.07	591.04 591.03	591.00 591.00	590.96 590.95	590.92 590.91	590.88 590.87	590.84 590.83	590.80 590.79	590.76 590.75	590.72 590.71	590.68 590.67	590.64 590.63	590.60 590.59	590.56 590.55	590.52 590.51	590.48 590.47	590.44 590.43	590.40 590.39	590.36 590.35	590.32 590.31	590.28 590.27	590.24 590.23	590.20 590.19	590.16 590.15	590.12 590.11	590.08 590.07	590.04 590.03	590.00 590.00	589.96 589.95	589.92 589.91	589.88 589.87	589.84 589.83	589.80 589.79	589.76 589.75	589.72 589.71	589.68 589.67	589.64 589.63	589.60 589.59	589.56 589.55	589.52 589.51	589.48 589.47	589.44 589.43	589.40 589.39	589.36 589.35	589.32 589.31	589.28 589.27	589.24 589.23	589.20 589.19	589.16 589.15	589.12 589.11	589.08 589.07	589.04 589.03	589.00 589.00	588.96 588.95	588.92 588.91	588.88 588.87	588.84 588.83	588.80 588.79	588.76 588.75	588.72 588.71	588.68 588.67	588.64 588.63	588.60 588.59	588.56 588.55	588.52 588.51	588.48 588.47	588.44 588.43	588.40 588.39	588.36 588.35	588.32 588.31	588.28 588.27	588.24 588.23	588.20 588.19	588.16 588.15	588.12 588.11	588.08 588.07	588.04 588.03	588.00 588.00	587.96 587.95	587.92 587.91	587.88 587.87	587.84 587.83	587.80 587.79	587.76 587.75	587.72 587.71	587.68 587.67	587.64 587.63	587.60 587.59	587.56 587.55	587.52 587.51	587.48 587.47	587.44 587.43	587.40 587.39	587.36 587.35	587.32 587.31	587.28 587.27	587.24 587.23	587.20 587.19	587.16 587.15	587.12 587.11	587.08 587.07	587.04 587.03	587.00 587.00	586.96 586.95	586.92 586.91	586.88 586.87	586.84 586.83	586.80 586.79	586.76 586.75	586.72 586.71	586.68 586.67	586.64 586.63	586.60 586.59	586.56 586.55	586.52 586.51	586.48 586.47	586.44 586.43	586.40 586.39	586.36 586.35	586.32 586.31	586.28 586.27	586.24 586.23	586.20 586.19	586.16 586.15	586.12 586.11	586.08 586.07	586.04 586.03	586.00 586.00	585.96 585.95	585.92 585.91	585.88 585.87	585.84 585.83	585.80 585.79	585.76 585.75	585.72 585.71	585.68 585.67	585.64 585.63	585.60 585.59	585.56 585.55	585.52 585.51	585.48 585.47	585.44 585.43	585.40 585.39	585.36 585.35	585.32 585.31	585.28 585.27	585.24 585.23	585.20 585.19	585.16 585.15	585.12 585.11	585.08 585.07	585.04 585.03	585.00 585.00	584.96 584.95	584.92 584.91	584.88 584.87	584.84 584.83	584.80 584.79	584.76 584.75	584.72 584.71	584.68 584.67	584.64 584.63	584.60 584.59	584.56 584.55	584.52 584.51	584.48 584.47	584.44 584.43	584.40 584.39	584.36 584.35	584.32 584.31	584.28 584.27	584.24 584.23	584.20 584.19	584.16 584.15	584.12 584.11	584.08 584.07	584.04 584.03	584.00 584.00	583.96 583.95	583.92 583.91	583.88 583.87	583.84 583.83	583.80 583.79	583.76 583.75	583.72 583.71	583.68 583.67	583.64 583.63	583.60 583.59	583.56 583.55	583.52 583.51	583.48 583.47	583.44 583.43	583.40 583.39	583.36 583.35	583.32 583.31	583.28 583.27	583.24 583.23	583.20 583.19	583.16 583.15	583.12 583.11	583.08 583.07	583.04 583.03	583.00 583.00	582.96 582.95	582.92 582.91	582.88 582.87	582.84 582.83	582.80 582.79	582.76 582.75	582.72 582.71	582.68 582.67	582.64 582.63	582.60 582.59	582.56 582.55	582.52 582.51	582.48 582.47	582.44 5

PROFILE OF RIGHT MAIN CANAL (4/6)



CANAL TYPE	CANAL TYPE-III				FLUME TYPE-I				CANAL TYPE-III				CANAL TYPE-I											
CANAL BANK ELEVATION	587.73	587.53	587.53	587.73	586.66	586.42	586.63	586.02	584.92	584.73	585.13	585.33	581.56	581.34	581.66	581.64	580.85	580.84	580.96	581.14	580.76	580.76	580.76	580.94
WATER SURFACE ELEVATION	587.53	587.53	587.53	587.53	586.42	586.42	586.42	586.42	584.92	584.92	585.13	585.33	581.56	581.34	581.66	581.64	580.85	580.84	580.96	581.14	580.76	580.76	580.76	580.94
CANAL BASE ELEVATION	587.53	587.53	587.53	587.53	586.42	586.42	586.42	586.42	584.92	584.92	585.13	585.33	581.56	581.34	581.66	581.64	580.85	580.84	580.96	581.14	580.76	580.76	580.76	580.94
GROUND SURFACE ELEVATION	587.43	586.84	586.23	586.63	586.66	586.42	586.63	586.02	584.92	584.73	585.13	585.33	581.56	581.34	581.66	581.64	580.85	580.84	580.96	581.14	580.76	580.76	580.76	580.94
REDUCED DISTANCE	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30	5332.30
DISTANCE	0.00	10.00	20.87	29.13	36.01	44.16	50.00	56.32	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
STATION NO.		IP.46			IP.47								IP.48	IP.49	IP.50		IP.51				IP.52			

IP.No.	IA	TL	CL	IP.No.	IA	TL	CL
IP.46	+5° 35' 23"	-	-	IP.51	+11° 48' 59"	-	-
IP.47	-14° 46' 54"	-	-	IP.52	-16° 0' 49"	-	-
IP.48	+58° 37' 20"	11.23	20.46	IP.53	+53° 8' 35"	10.00	18.55
IP.49	-52° 0' 44"	9.76	18.16	IP.54	-8° 18' 14"	-	-
IP.50	-60° 15' 23"	11.61	21.03	IP.55	+50° 11' 11"	9.37	17.52

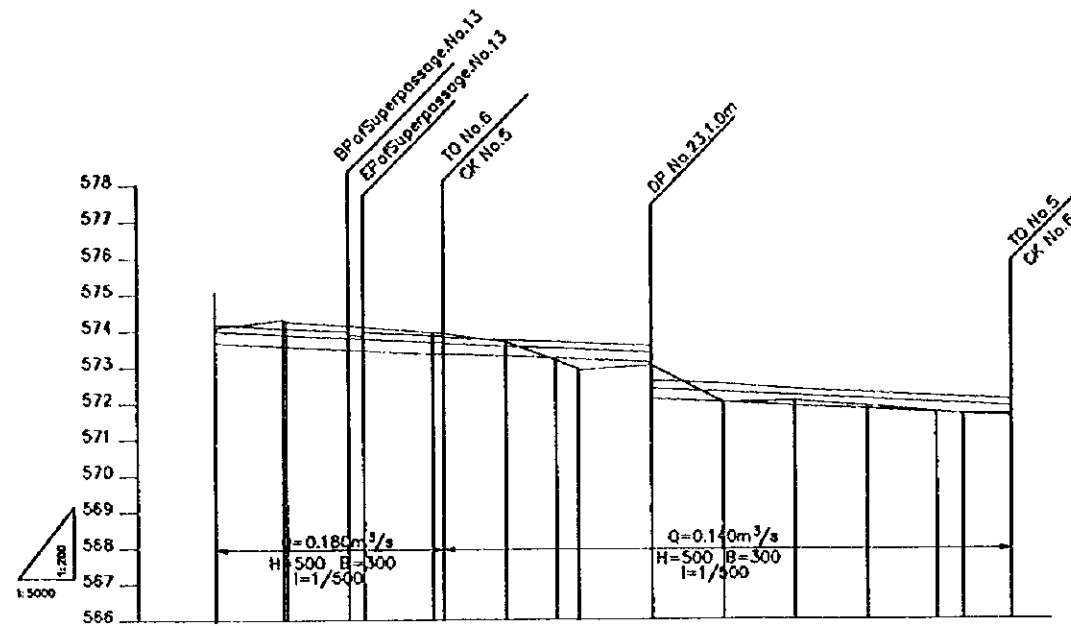
Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

TITLE OF DRAWING
用水路
右岸幹線用水路縦断面図(4/6)

Date	Oct. 1999	Drawing No.	3-4
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NIPPON KOEI CO., LTD. TOKYO, JAPAN

PROFILE OF RIGHT MAIN CANAL (6/6)



CANAL TYPE	CANAL TYPE-I											
CANAL BANK ELEVATION	574.16	574.02	573.88	573.74	573.60	573.46	573.32	573.18	573.04	572.90		
WATER SURFACE ELEVATION	573.98	573.84	573.70	573.56	573.42	573.28	573.14	573.00	572.86	572.72		
CANAL BASE ELEVATION	573.66	573.52	573.38	573.24	573.10	572.96	572.82	572.68	572.54	572.40		
GROUND SURFACE ELEVATION	574.08	573.94	573.80	573.66	573.52	573.38	573.24	573.10	572.96	572.82		
REDUCED DISTANCE	8416.37	8432.69	8507.65	8517.65	8522.65	8527.65	8615.37	8619.35	8624.35	8629.35		
DISTANCE	50.00	17.32	6.66	10.00	5.34	4.68	87.63	4.02	5.00	5.00		
STATION NO.	ARI						BC.66	CC.66		BC.67	EC.67	E.P.

IP.No.	IA	TL	OL
ARI-IP15	-15' 21' 4"	-	-
IP.66	+43' 24' 38"	7.96	15.15
IP.67	+51' 26' 47"	9.64	17.96
E.P.	-	-	-

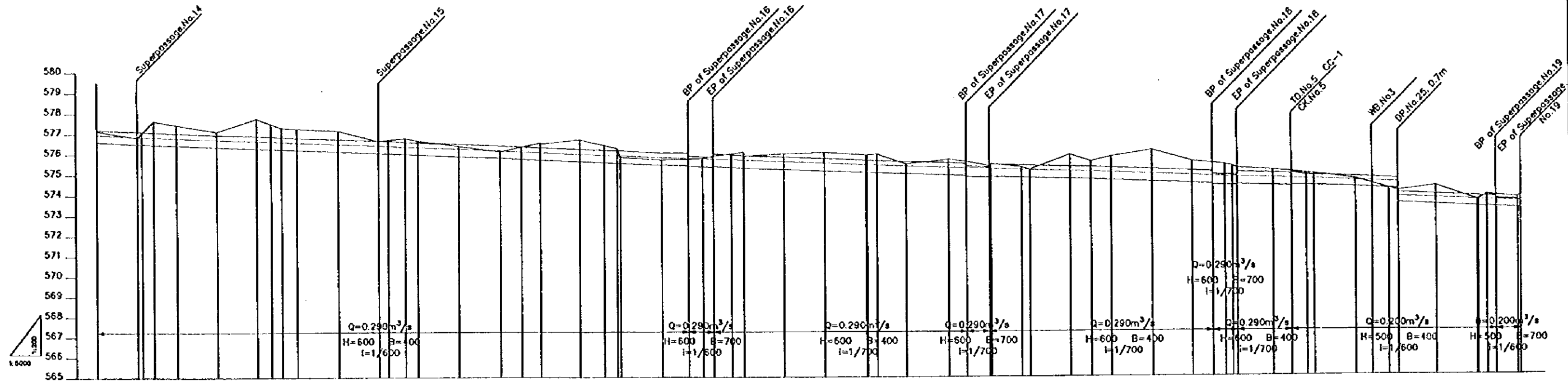
Basic Design Study on the Project for
Mwega Smallholder Irrigation Scheme
in Morogoro Region
in the United Republic of Tanzania

TITLE OF DRAWING
用水路
右岸幹線用水路縦断面 (6/6)

Date	Oct. 1999	Drawing No.	3-6
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NIPPON KOEI CO., LTD. TOKYO, JAPAN

PROFILE OF LEFT MAIN CANAL (5 / 7)



CANAL TYPE	CANAL TYPE-III										CANAL TYPE-III										CANAL TYPE-III										CANAL TYPE-II																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
CANAL BANK ELEVATION	577.21	577.18	577.15	577.12	577.09	577.06	577.03	577.00	576.97	576.94	576.91	576.88	576.85	576.82	576.79	576.76	576.73	576.70	576.67	576.64	576.61	576.58	576.55	576.52	576.49	576.46	576.43	576.40	576.37	576.34	576.31	576.28	576.25	576.22	576.19	576.16	576.13	576.10	576.07	576.04	576.01	575.98	575.95	575.92	575.89	575.86	575.83	575.80	575.77	575.74	575.71	575.68	575.65	575.62	575.59	575.56	575.53	575.50	575.47	575.44	575.41	575.38	575.35	575.32	575.29	575.26	575.23	575.20	575.17	575.14	575.11	575.08	575.05	575.02	574.99	574.96	574.93	574.90	574.87	574.84	574.81	574.78	574.75	574.72	574.69	574.66	574.63	574.60	574.57	574.54	574.51	574.48	574.45	574.42	574.39	574.36	574.33	574.30	574.27	574.24	574.21	574.18	574.15	574.12	574.09	574.06	574.03	574.00	573.97	573.94	573.91	573.88	573.85	573.82	573.79	573.76	573.73	573.70	573.67	573.64	573.61	573.58	573.55	573.52	573.49	573.46	573.43	573.40	573.37	573.34	573.31	573.28	573.25	573.22	573.19	573.16	573.13	573.10	573.07	573.04	573.01	572.98	572.95	572.92	572.89	572.86	572.83	572.80	572.77	572.74	572.71	572.68	572.65	572.62	572.59	572.56	572.53	572.50	572.47	572.44	572.41	572.38	572.35	572.32	572.29	572.26	572.23	572.20	572.17	572.14	572.11	572.08	572.05	572.02	571.99	571.96	571.93	571.90	571.87	571.84	571.81	571.78	571.75	571.72	571.69	571.66	571.63	571.60	571.57	571.54	571.51	571.48	571.45	571.42	571.39	571.36	571.33	571.30	571.27	571.24	571.21	571.18	571.15	571.12	571.09	571.06	571.03	571.00	570.97	570.94	570.91	570.88	570.85	570.82	570.79	570.76	570.73	570.70	570.67	570.64	570.61	570.58	570.55	570.52	570.49	570.46	570.43	570.40	570.37	570.34	570.31	570.28	570.25	570.22	570.19	570.16	570.13	570.10	570.07	570.04	570.01	569.98	569.95	569.92	569.89	569.86	569.83	569.80	569.77	569.74	569.71	569.68	569.65	569.62	569.59	569.56	569.53	569.50	569.47	569.44	569.41	569.38	569.35	569.32	569.29	569.26	569.23	569.20	569.17	569.14	569.11	569.08	569.05	569.02	568.99	568.96	568.93	568.90	568.87	568.84	568.81	568.78	568.75	568.72	568.69	568.66	568.63	568.60	568.57	568.54	568.51	568.48	568.45	568.42	568.39	568.36	568.33	568.30	568.27	568.24	568.21	568.18	568.15	568.12	568.09	568.06	568.03	568.00	567.97	567.94	567.91	567.88	567.85	567.82	567.79	567.76	567.73	567.70	567.67	567.64	567.61	567.58	567.55	567.52	567.49	567.46	567.43	567.40	567.37	567.34	567.31	567.28	567.25	567.22	567.19	567.16	567.13	567.10	567.07	567.04	567.01	566.98	566.95	566.92	566.89	566.86	566.83	566.80	566.77	566.74	566.71	566.68	566.65	566.62	566.59	566.56	566.53	566.50	566.47	566.44	566.41	566.38	566.35	566.32	566.29	566.26	566.23	566.20	566.17	566.14	566.11	566.08	566.05	566.02	565.99	565.96	565.93	565.90	565.87	565.84	565.81	565.78	565.75	565.72	565.69	565.66	565.63	565.60	565.57	565.54	565.51	565.48	565.45	565.42	565.39	565.36	565.33	565.30	565.27	565.24	565.21	565.18	565.15	565.12	565.09	565.06	565.03	565.00	564.97	564.94	564.91	564.88	564.85	564.82	564.79	564.76	564.73	564.70	564.67	564.64	564.61	564.58	564.55	564.52	564.49	564.46	564.43	564.40	564.37	564.34	564.31	564.28	564.25	564.22	564.19	564.16	564.13	564.10	564.07	564.04	564.01	563.98	563.95	563.92	563.89	563.86	563.83	563.80	563.77	563.74	563.71	563.68	563.65	563.62	563.59	563.56	563.53	563.50	563.47	563.44	563.41	563.38	563.35	563.32	563.29	563.26	563.23	563.20	563.17	563.14	563.11	563.08	563.05	563.02	562.99	562.96	562.93	562.90	562.87	562.84	562.81	562.78	562.75	562.72	562.69	562.66	562.63	562.60	562.57	562.54	562.51	562.48	562.45	562.42	562.39	562.36	562.33	562.30	562.27	562.24	562.21	562.18	562.15	562.12	562.09	562.06	562.03	562.00	561.97	561.94	561.91	561.88	561.85	561.82	561.79	561.76	561.73	561.70	561.67	561.64	561.61	561.58	561.55	561.52	561.49	561.46	561.43	561.40	561.37	561.34	561.31	561.28	561.25	561.22	561.19	561.16	561.13	561.10	561.07	561.04	561.01	560.98	560.95	560.92	560.89	560.86	560.83	560.80	560.77	560.74	560.71	560.68	560.65	560.62	560.59	560.56	560.53	560.50	560.47	560.44	560.41	560.38	560.35	560.32	560.29	560.26	560.23	560.20	560.17	560.14	560.11	560.08	560.05	560.02	559.99	559.96	559.93	559.90	559.87	559.84	559.81	559.78	559.75	559.72	559.69	559.66	559.63	559.60	559.57	559.54	559.51	559.48	559.45	559.42	559.39	559.36	559.33	559.30	559.27	559.24	559.21	559.18	559.15	559.12	559.09	559.06	559.03	559.00	558.97	558.94	558.91	558.88	558.85	558.82	558.79	558.76	558.73	558.70	558.67	558.64	558.61	558.58	558.55	558.52	558.49	558.46	558.43	558.40	558.37	558.34	558.31	558.28	558.25	558.22	558.19	558.16	558.13	558.10	558.07	558.04	558.01	557.98	557.95	557.92	557.89	557.86	557.83	557.80	557.77	557.74	557.71	557.68	557.65	557.62	557.59	557.56	557.53	557.50	557.47	557.44	557.41	557.38	557.35	557.32	557.29	557.26	557.23	557.20	557.17	557.14	557.11	557.08	557.05	557.02	556.99	556.96	556.93	556.90	556.87	556.84	556.81	556.78	556.75	556.72	556.69	556.66	556.63	556.60	556.57	556.54	556.51	556.48	556.45	556.42	556.39	556.36	556.33	556.30	556.27	556.24	556.21	556.18	556.15	556.12	556.09	556.06	556.03	556.00	555.97	555.94	555.91	555.88	555.85	555.82	555.79	555.76	555.73	555.70	555.67	555.64	555.61	555.58	555.55	555.52	555.49	555.46	555.43	555.40	555.37	555.34	555.31	555.28	555.25	555.22	555.19	555.16	555.13	555.10	555.07	555.04	555.01	554.98	554.95	554.92	554.89	554.86	554.83	554.80	554.77	554.74	554.71	554.68	554.65	554.62	554.59	554.56	554.53	554.50	554.47	554.44	554.41	554.38	554.35	554.32	554.29	554.26	554.23	554.20	554.17	554.14	554.11	554.08	554.05	554.02	553.99	553.96	553.93	553.90	553.87	553.84	553.81	553.78	553.75	553.72	553.69	553.66	553.63	553.60	553.57	553.54	553.51	553.48	553.45	553.42	553.39	553.36	553.33	553.30	553.27	553.24	553.21	553.18	553.15	553.12	553.09	553.06	553.03	553.00	552.97	552.94	552.91	552.88	552.85	552.82	552.79	552.76	552.73	552.70	552.67	552.64	552.61	552.58	552.55	552.52	552.49	552.46	552.43	552.40	552.37	552.34	552.31	552.28	552.25	552.22	552.19	552.16	552.13	552.10	552.07	552.04	552.01	551.98	551.95	551.92	551.89	551.86	551.83	551.80	551.77	551.74	551.71	551.68	551.65	551.62	551.59	551.56	551.53	551.50	551.47	551.44	551.41	551.38	551.35	551.32	551.29	551.26	551.23	551.20	551.17	551.14	551.11	551.08	551.05	551.02	550.99	550.96	550.93	550.90	550.87	550.84	550.81	550.78	550.75	550.72	550.69	550.66	550.63	550.60	550.57	550.54	550.51	550.48	550.45	550.42	550.39	550.36	550.33	550.30	550.27	550.24	550.21	550.18	550.15	550.12	550.09	550.06	550.03	550.00	549.97	549.94	549.91	549.88	549.85	549.82	549.79	549.76	549.73	549.70	549.67	549.64	549.61	549.58	549.55	549.52	549.49	549.46	549.43	549.40	549.37	549.34	549.31	549.28	549.25	549.22	549.19	549.16	549.13	549.10	549.07	549.04	549.01	548.98	548.95	548.92	548.89	548.86	548.83	548.80	548.77	548.74	548.71	548.68	548.65	548.62	548.59	548.56	548.53	548.50	548.47	548.44	548.41	548.38	548.35	548.32	548.29	548.26	548.23	548.20	548.17	548.14	548.11	548.08	548.05	548.02	547.99	547.96	547.93	547.90	547.87	547.84	547.81	547.78	547.75	547.72	547.69	547.66	547.63	547.60	547.57	547.54	547.51	547.48	547.45	547.42	547.39	547.36	547.33	547.30	547.27	547.24	547.21	547.18	547.15	547.12	547.09	547.06	547.03	547.00	546.97	546.94	546.91	546.88	546.85	546.82	546.79	546.76	546.73	546.70	546.67	546.64	546.61	546.58	546.55	546.52	546.49	546.46	546.43	546.40	546.37	546.34	546.31	546.28	546.25	546.22	546.19	546.16	546.13	546.10	546.07	546.04	546.01	545.98	545.95	545.92	545.89	545.86	545.83	545.80	545.77	545.74	545.71	545.68	545.65	545.62	545.59	545.56	545.53	545.50	545.47	545.44	545.41	545.38	545.35	545.32	545.29	545.26	545.23	545.20	545.17	545.14	545.11	545.08	545.05	54