

SOCIALIST REPUBLIC OF VIET NAM
 THE STUDY ON URBAN DRAINAGE AND WASTEWATER
 DISPOSAL SYSTEM IN HANOI CITY
 JAPAN INTERNATIONAL COOPERATION AGENCY

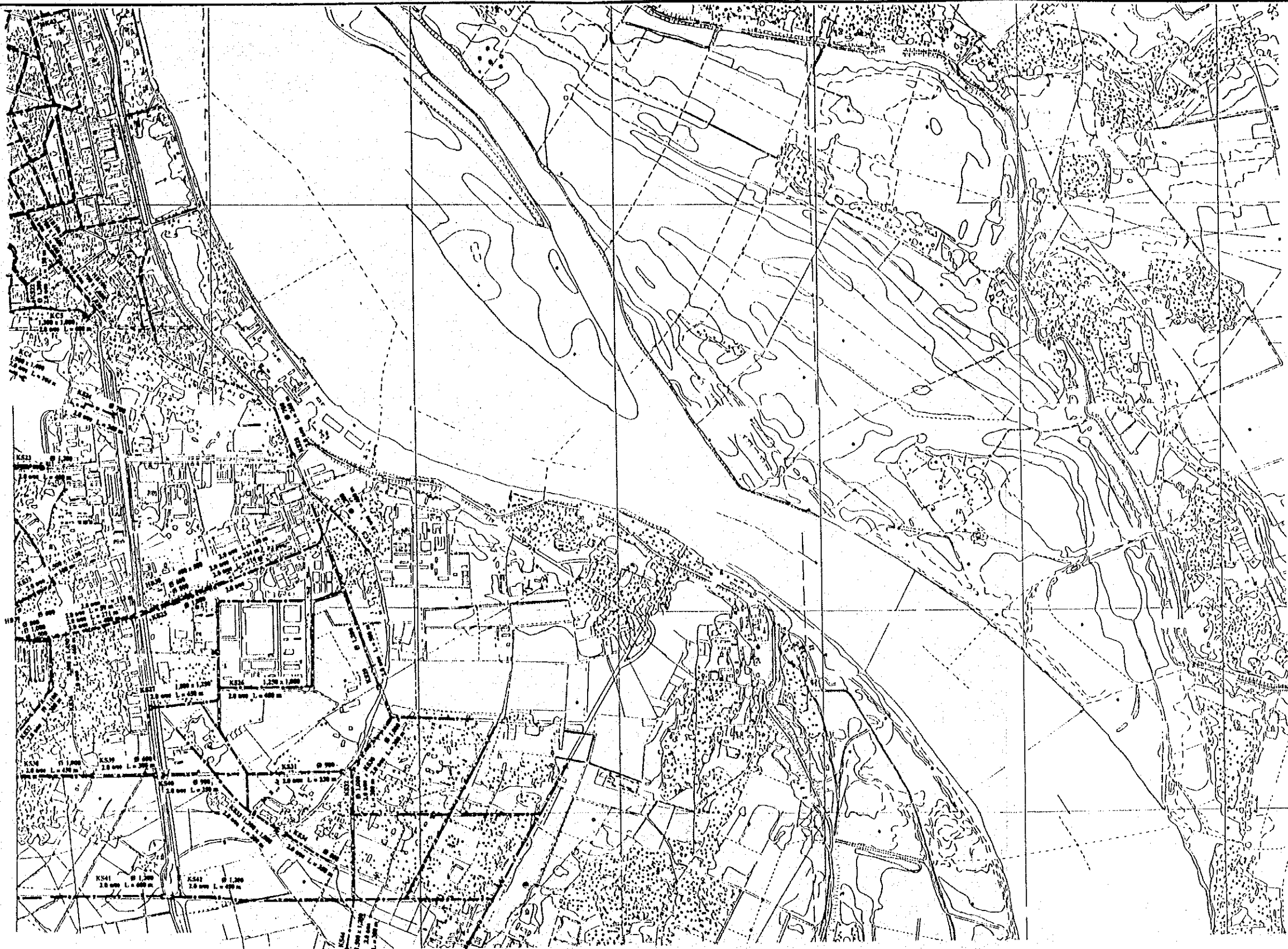
Fig. D4.13 (2/5)

**LAYOUT PLAN FOR SEWER
 REHABILITATION AND
 CONSTRUCTION (2/5)**



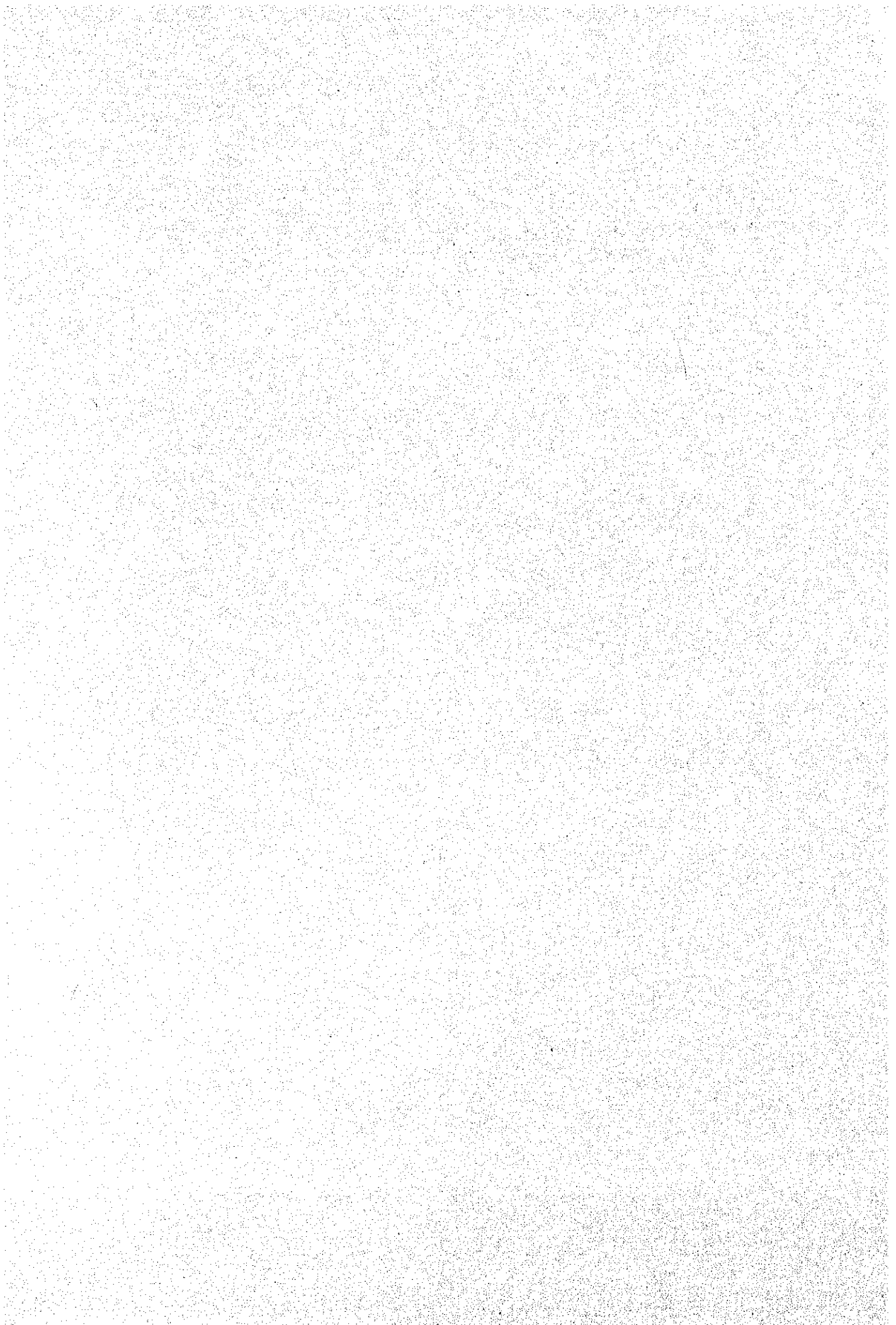
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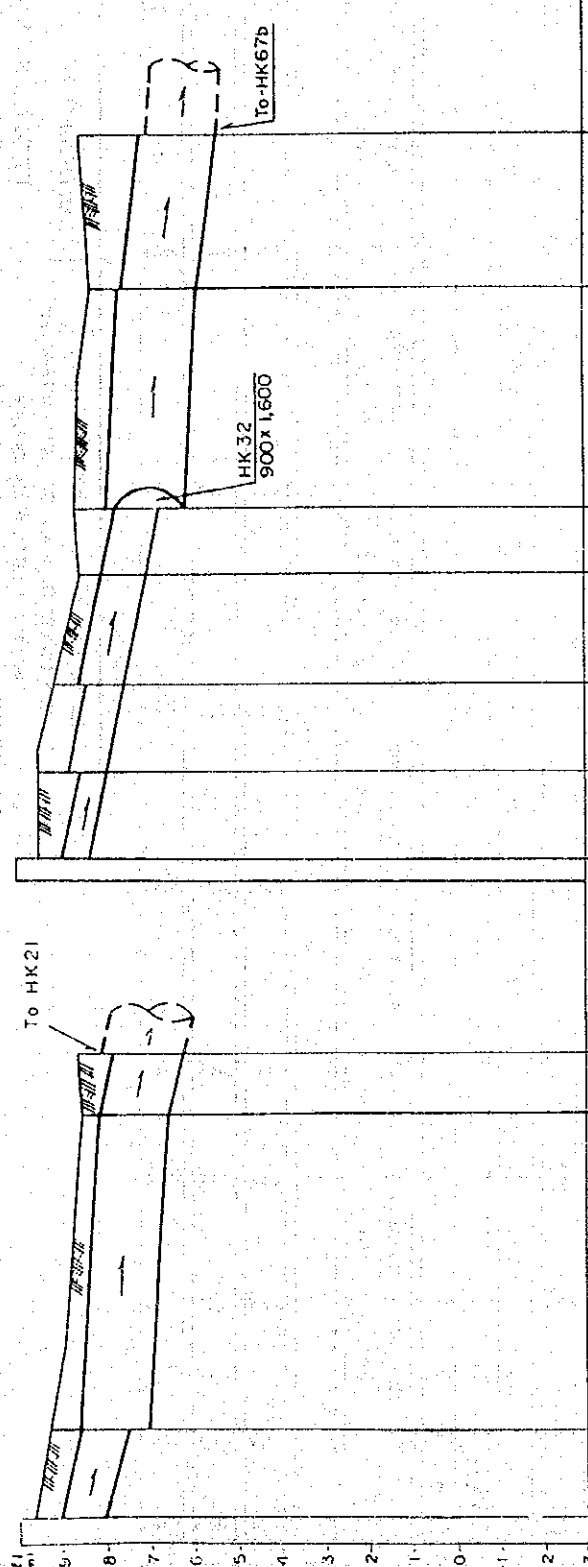
Fig. D4.13 (3/5)
LAYOUT PLAN FOR SEWER
REHABILITATION AND
CONSTRUCTION (3/5)



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Fig. D4.13 (4/5)
**LAYOUT PLAN FOR SEWER
 REHABILITATION AND
 CONSTRUCTION (4/5)**



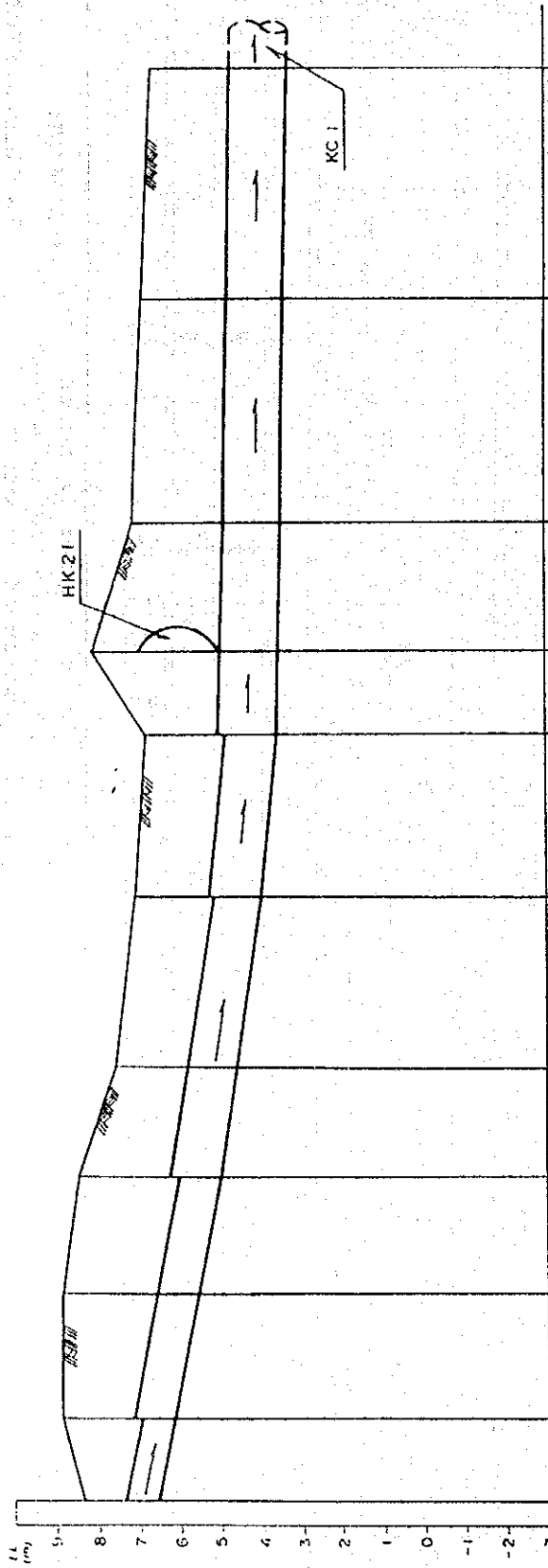


Scale
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 V = 1:100

SEWER NO	MANHOLE NO	DISTANCE	SEWER DIAMETER (mm)	PIPE GRADIENT (%)	BOX CURVATURE (1/m)	GRADIENT (%)	ACCUMULATIVE DISTANCE	ELEVATION OF GROUND	ELEVATION OF INVERT	EARTH COVERING
KS 1	HK 45	726	900 x 1,600	2.5	0.7	0.7	726	0.576	0.576	0.576
HK 32	KS 2.0	141	900 x 1,600	2.0	2.0	2.5	867	0.536	0.536	0.536
KS 2b	KS 4	141	1,900 x 1,800	2.5	2.5	2.5	1008	0.500	0.500	0.500
HK 21	HK 80h	500	1,900 x 1,800	2.2	2.2	1.1	1508	0.460	0.460	0.460

Fig. D4.14 (1/7)
PROFILES OF SEWERS

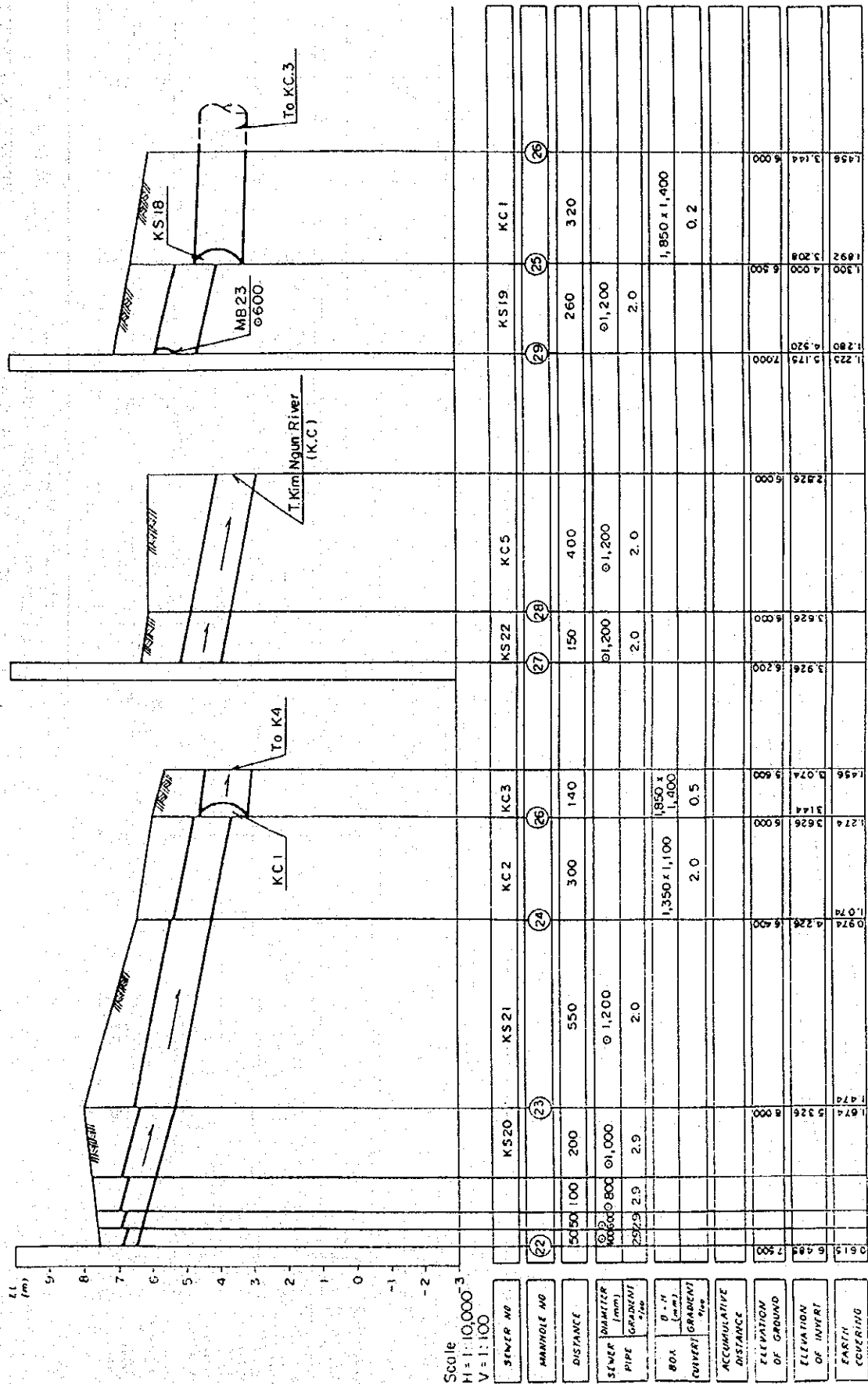
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Stob
 H=1:10,000
 V=1:100

SEWER NO.	MANHOLE NO.	DISTANCE	DIAMETER (mm)	PIPE GRADIENT (%)	B x H (mm)	GRADIENT (%)	ACCUMULATIVE DISTANCE	ELEVATION OF GROUND	ELEVATION OF INVERT	FAIRM COVERING
KS7	KS8	200	800	2.0	1,000 x 1,000	2.0	1,000	8.300	8.300	
	KS9	280	800	2.0	1,350 x 1,000	1.5	1,280	8.400	8.400	
	KS11	260	800	1.5	1,350 x 1,200	1.5	1,540	8.500	8.500	
	KS12	420	800	1.5	1,400 x 1,200	1.5	1,960	8.700	8.700	
	KS14	390	800	1.0	1,800 x 1,250	1.0	2,350	8.900	8.900	
	KS15	210	800	0.2	1,800 x 1,400	0.2	2,560	9.100	9.100	
	KS16	210	800	0.2	1,800 x 1,400	0.2	2,770	9.426	9.426	
	KS17	540	800	0.2	1,800 x 1,400	0.2	3,310	9.800	9.800	
	KS18	550	800	0.2	1,800 x 1,400	0.2	3,860	10.200	10.200	

Fig. D4.14 (2/7)
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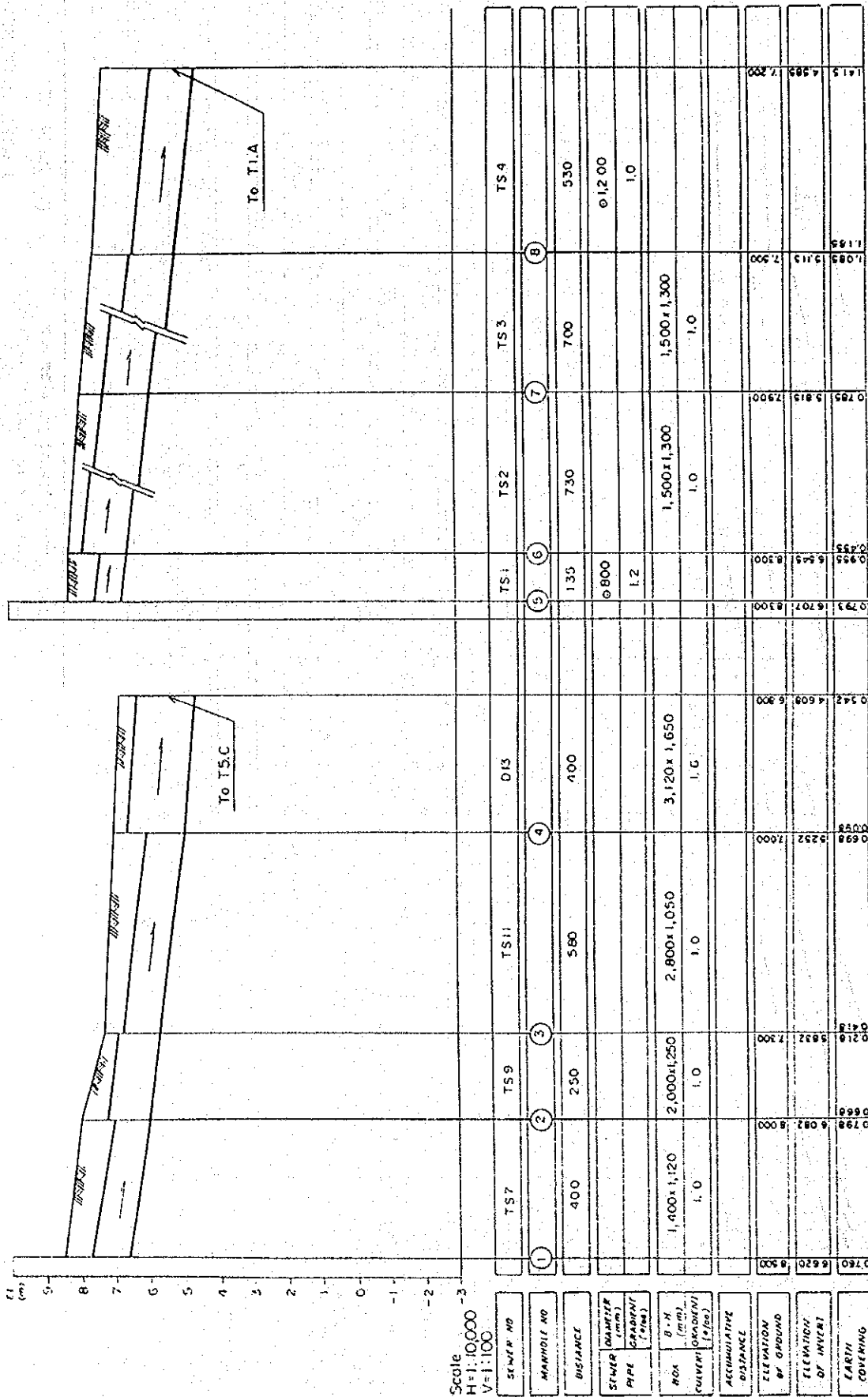


Scale
 H=1:10,000
 V=1:100

SEWER NO.	MANHOLE NO.	DISTANCE	SEWER DIAMETER (mm)	PIPE GRADIENT %	BOX INVERT (mm)	SEWER GRADIENT %	ACCUMULATIVE DISTANCE	ELEVATION OF GROUND	ELEVATION OF INVERT	EARTH COVERING
	(22)	50	ø1,200	2.0	1,350 x 1,100	2.0		5.000	3.144	1.856
	(23)	200	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(24)	300	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(25)	550	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(26)	550	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(27)	150	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(28)	400	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(29)	260	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856
	(30)	320	ø1,200	2.0	1,850 x 1,200	0.5		5.000	3.144	1.856

Fig. D4.14 (3/7)
 PROFILES OF SEWERS

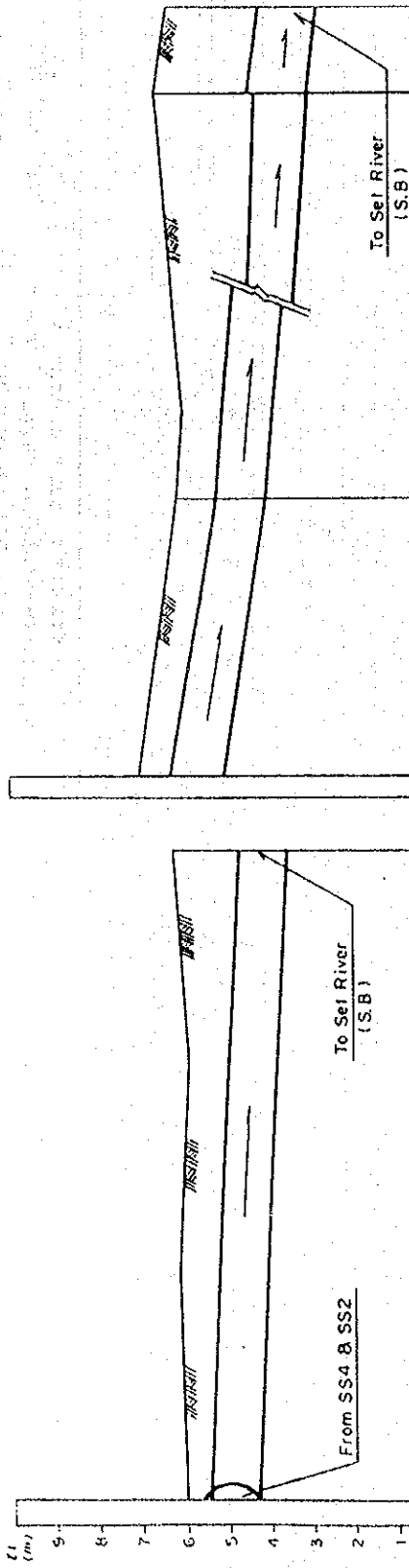
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Scale
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V=1:100

Fig. D4.14 (4/7)
PROFILES OF SEWERS

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Scale
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 V=1:100

SEWER NO	MANHOLE NO	DISTANCE	SEWER PIPE DIAMETER (mm)	PIPE SLOPE (%)	RIP (cm)	INVERT ELEVATION (m)	ACCUMULATIVE DISTANCE	ELEVATION OF GROUND	ELEVATION OF INVERT	EARTH COVERING
SS 5	SS 7	650	1,520	0.5	1,450 ± 1,100	2.000	0.000	2.000	2.000	0.981
SS 8	SS 8	1,070	200	1.0	1,800 ± 1,400	2.000	0.000	2.000	2.000	1.691
SS 2	SS 2	200	200	1.0	1,800 ± 1,400	2.000	0.000	2.000	2.000	1.691

Fig. D4.14 (677)
 PROFILES OF SEWERS

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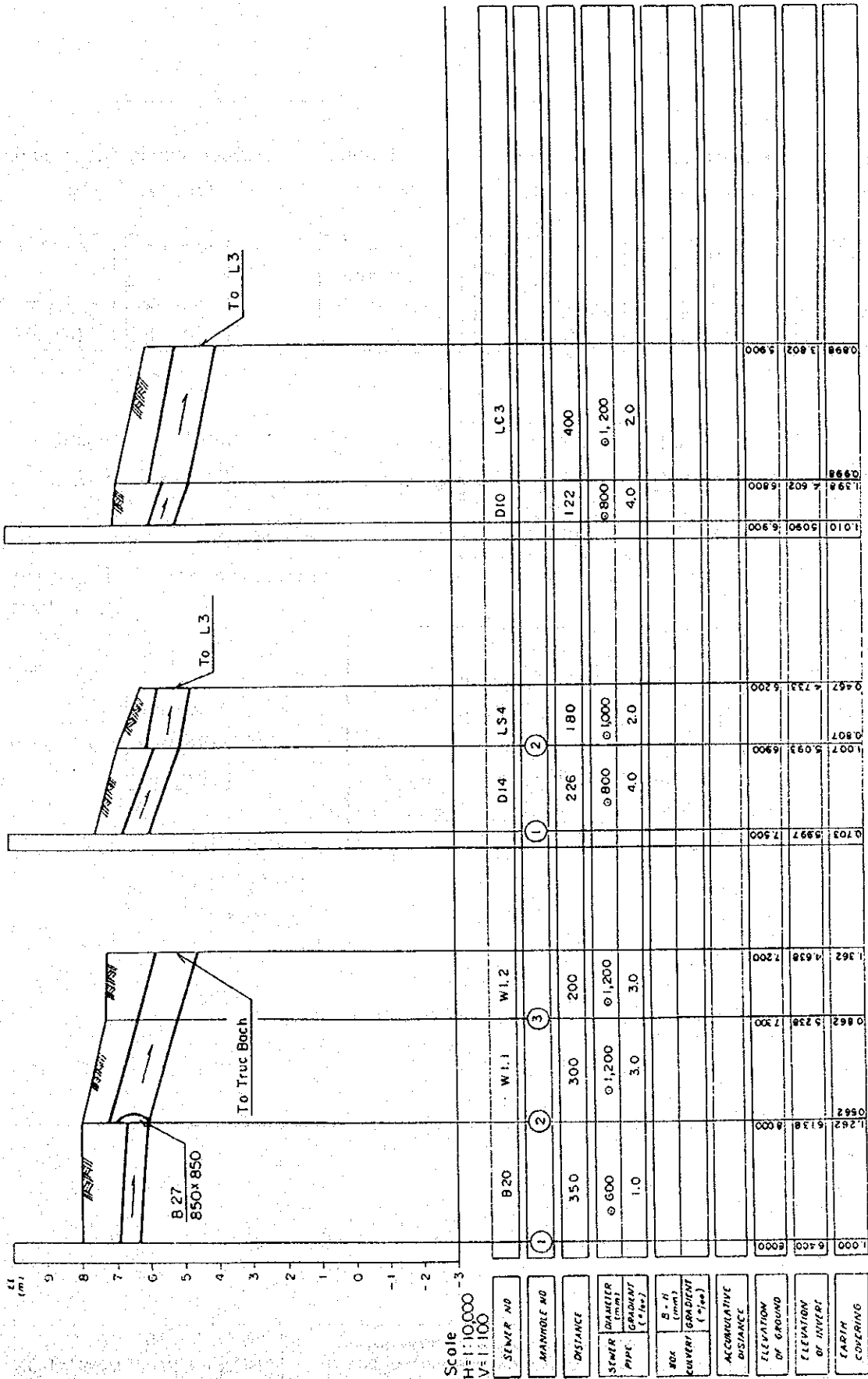
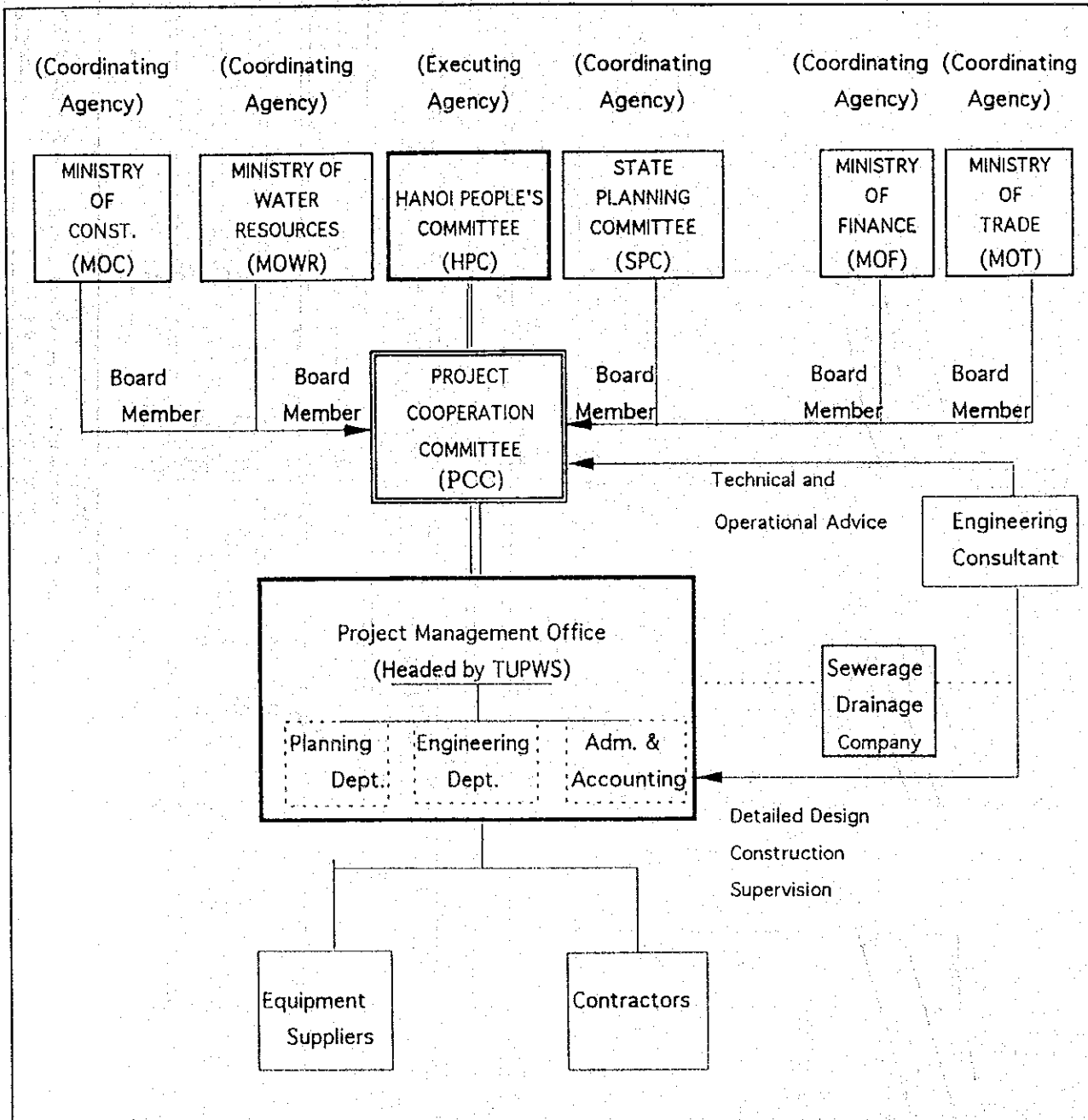


Fig. D4.14 (7/7)
PROFILES OF SEWERS

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Fig. D 4 . 15
 PROJECT IMPLEMENTATION
 ORGANIZATION

