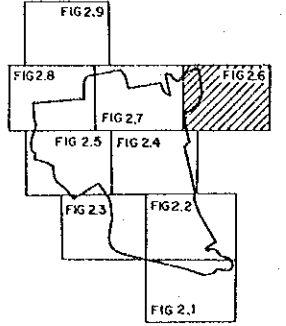


KEY PLAN

- LEGEND**
- Boundary of Project Area
 - Boundary of Wastewater Collection Sector
 - > Conveyance Sewer
 - > Main/Trunk Sewer
 - Force Main
 - > Secondary/Tertiary Sewer
 - (M) Manhole with Pump
 - (P) Lift Pump Station
 - Line Number
 - Sewer Diameter (mm)
 - △ Sewer Gradient (%)
 - Sewer Length (m)
 - 12.5 Ha Wastewater Collection Sector Area

NOTE: Secondary and Tertiary Sewer lines corresponding to longest Main/Trunk Sewers only shown

SEWER NETWORK PLAN (5)	
FIG. 2.5	SCALE 1:5,000
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	

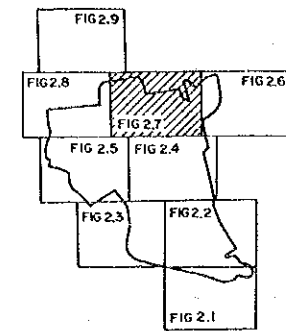
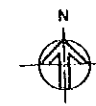
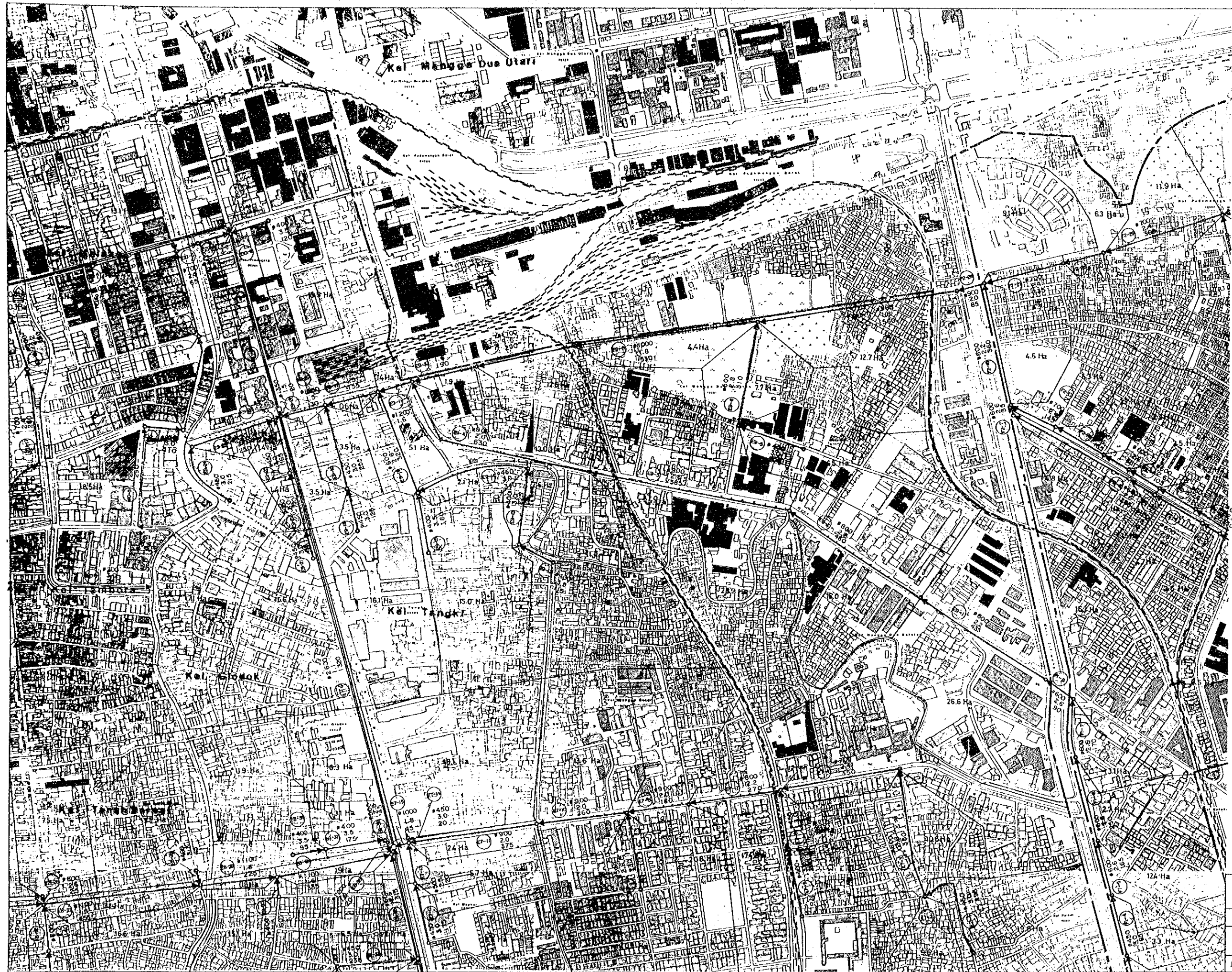


LEGEND

- Boundary of Project Area
- Boundary of Wastewater Collection Sector
- > Conveyance Sewer
- > Main/Trunk Sewer
- Force Main
- > Secondary/Tertiary Sewer
- (M) Manhole with Pump
- (P) Lift Pump Station
- Line Number
- Sewer Diameter (mm)
- Sewer Gradient (%)
- Sewer Length (m)
- Wastewater Collection Sector Area

NOTE: Secondary and Tertiary Sewer lines corresponding to longest Main/Trunk Sewers only shown

SEWER NETWORK PLAN (6)	
FIG. 2.6	SCALE 1:5,000
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	



KEY PLAN

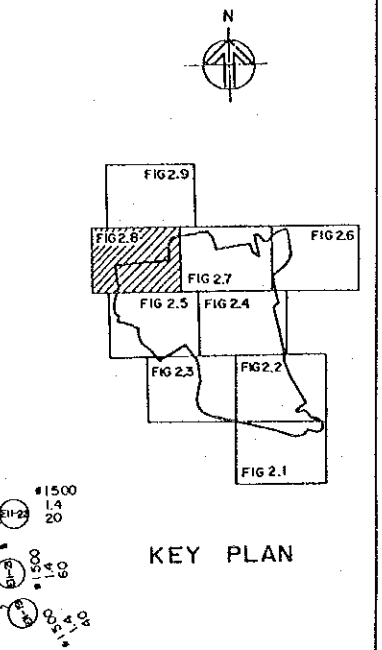
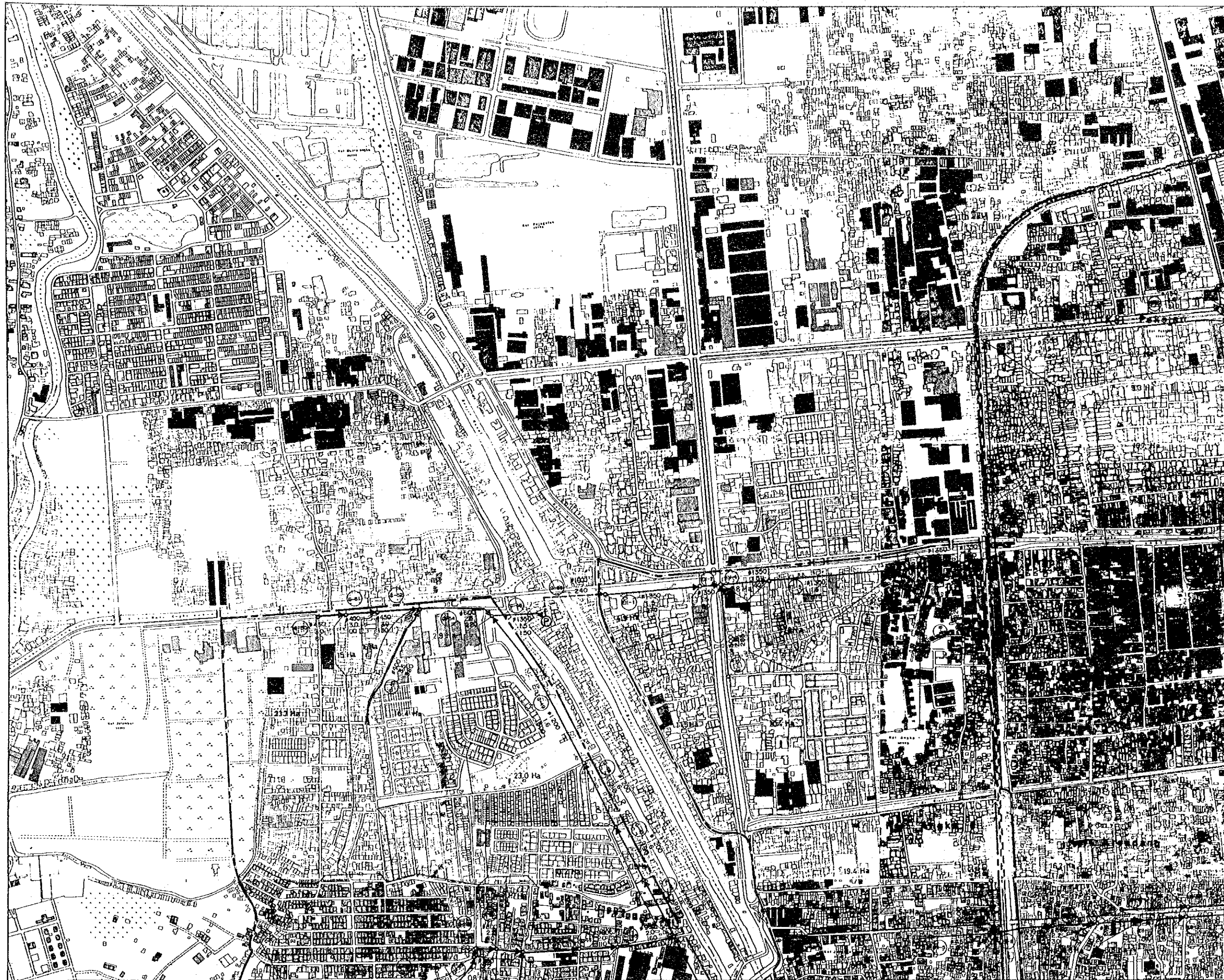
LEGEND

- Boundary of Project Area
- Boundary of Wastewater Collection Sector
- Conveyance Sewer
- Main/Trunk Sewer
- Force Main
- Secondary/Tertiary Sewer
- (M) Manhole with Pump
- (P) Lift Pump Station
- Line Number
- 45-2 Sewer Diameter (mm.)
- 3.0 Sewer Gradient (%)
- 410 Sewer Length (m.)
- 12.5 Ha Wastewater Collection Sector Area

NOTE: Secondary and Tertiary Sewer lines corresponding to longest Main/Trunk Sewers only shown

SEWER NETWORK PLAN (7)

FIG. 2.7	SCALE 1:5,000
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	



KEY PLAN

#1500
 1.4
 20
 #1000
 1.60
 #500
 1.40

LEGEND

- Boundary of Project Area
- Boundary of Wastewater Collection Sector
- > Conveyance Sewer
- > Main/Trunk Sewer
- Force Main
- > Secondary/Tertiary Sewer
- (M) Manhole with Pump
- (P) Lift Pump Station
- Line Number
- 450 Sewer Diameter (mm)
- 3.0 Sewer Gradient (%)
- 410 Sewer Length (m)
- 12.5 Ha Wastewater Collection Sector Area

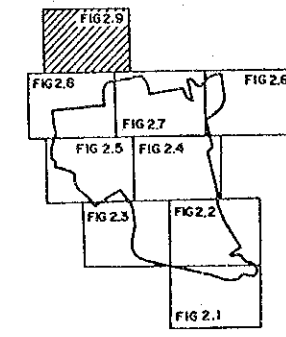
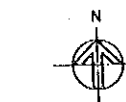
NOTE: Secondary and Tertiary Sewer lines corresponding to longest Main/Trunk Sewers only shown

SEWER NETWORK PLAN (8)

FIG. 2.8 SCALE 1:5,000

THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA

JAPAN INTERNATIONAL COOPERATION AGENCY



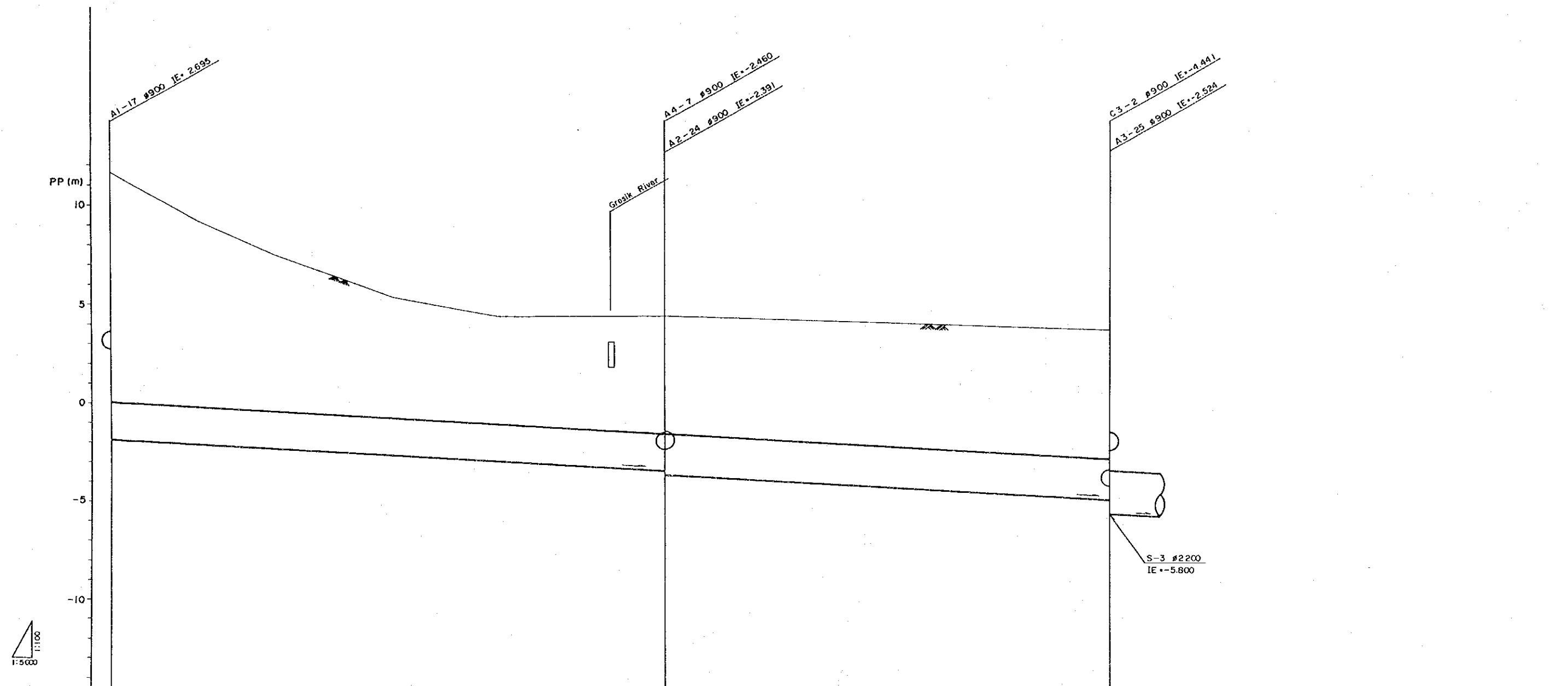
KEY PLAN

LEGEND

- Boundary of Project Area
- Boundary of Wastewater Collection Sector
- > Conveyance Sewer
- > Main/Trunk Sewer
- > Force Main
- > Secondary/Tertiary Sewer
- (M) Manhole with Pump
- (P) Lift Pump Station
- Line Number
- Sewer Diameter (mm)
- Sewer Gradient (%)
- Sewer Length (m)
- Wastewater Collection Sector Area

NOTE: Secondary and Tertiary Sewer lines corresponding to longest Main/Trunk Sewers only shown

PLUIT POND WASTEWATER TREATMENT SYSTEM	
FIG. 2.9	SCALE 1:5,000
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	

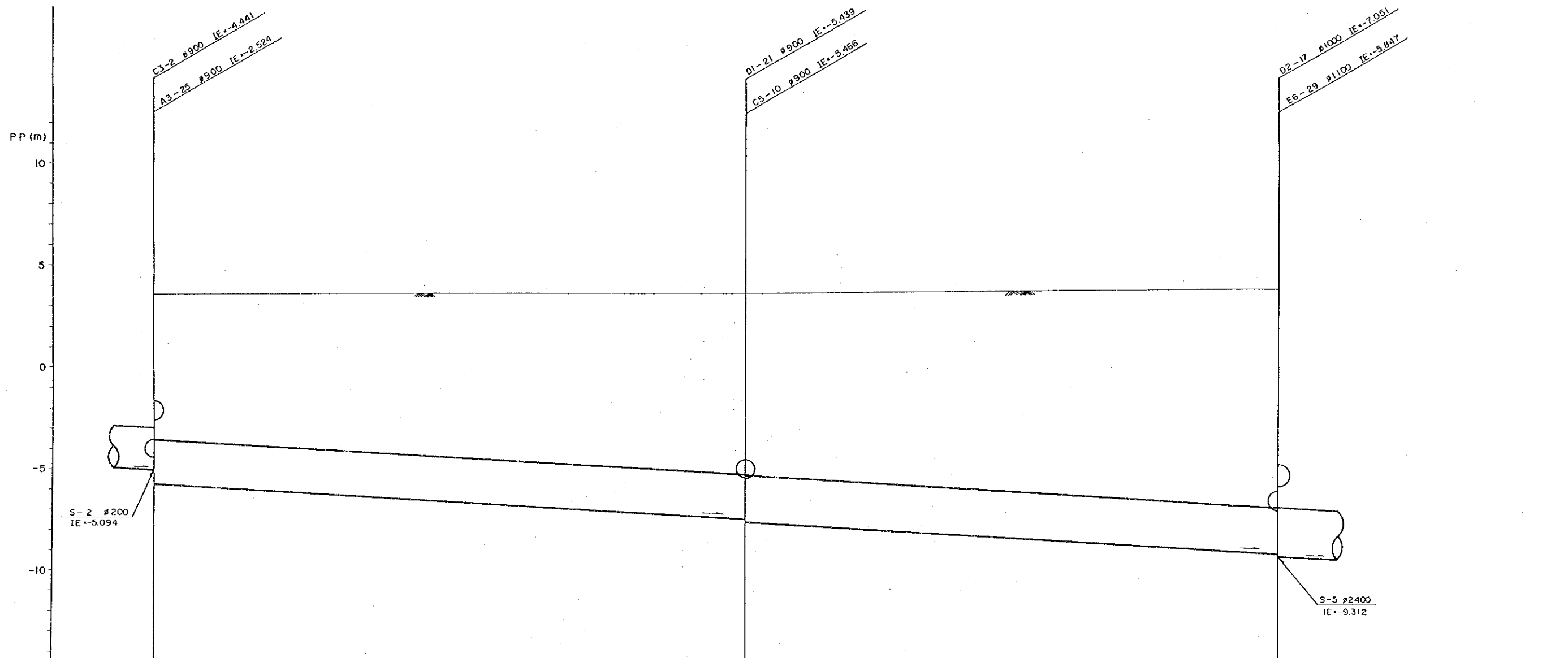


DL =	-15.000	
Line Number	S-1	S-2
Diameter (mm)	#1 900	#2 100
Gradient (%)	1.2	1.2
Length (m)	1 385	1 110

Ground Elevation (m)	11.67	9.16	7.47	5.26	4.31	4.3	3.54
Earth Covering (m)	11.30					5.99	6.16
Invert Elevation (m)	-1.900					-3.562	-5.096
Total Length (m)	0					1 385	2 495

NOTE
Line Number is as shown in FIG. 2.2 & FIG. 2.3

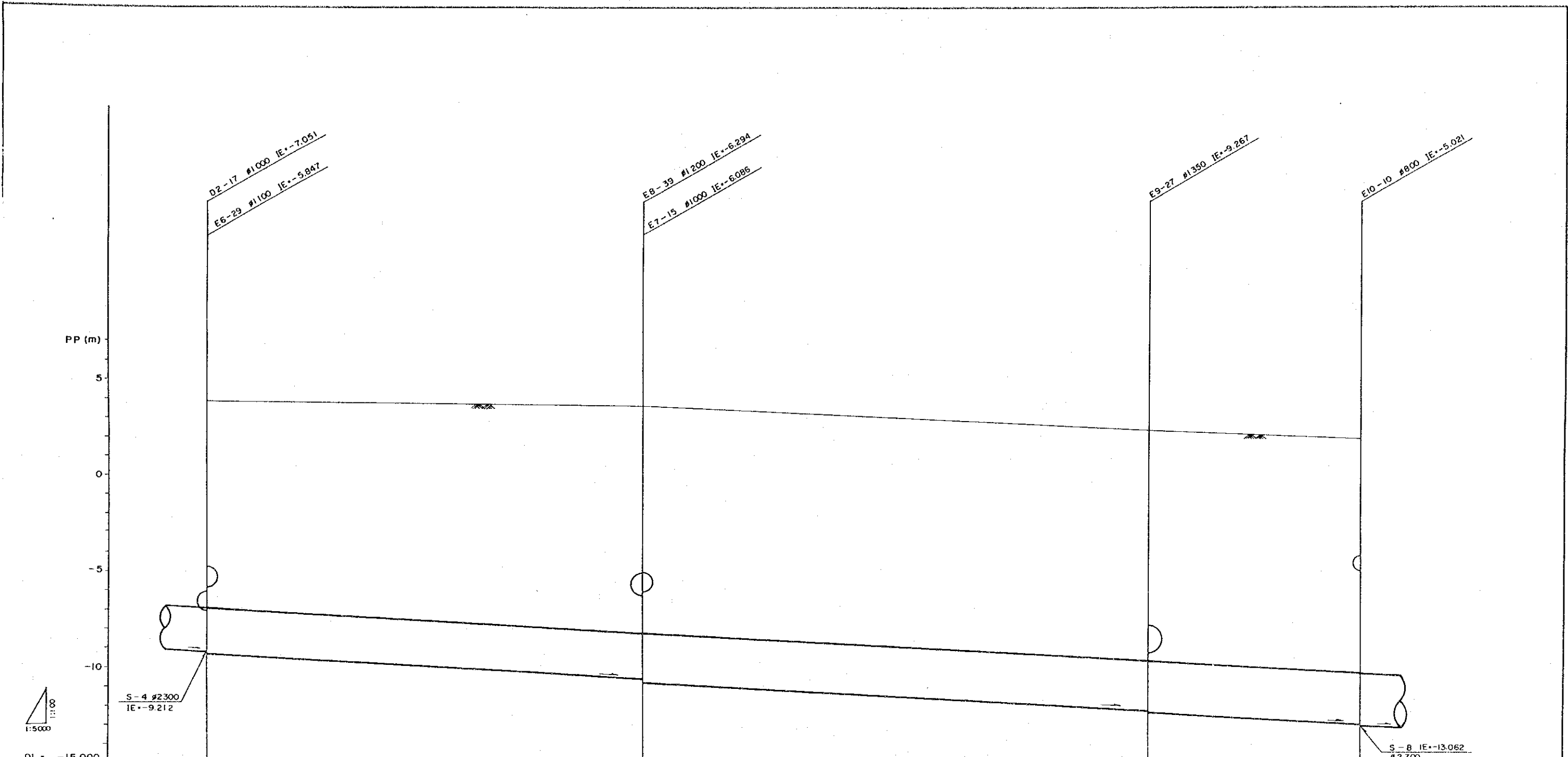
FIG. 3.1 (1)	SCALE	H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
			JAPAN INTERNATIONAL COOPERATION AGENCY



DL =	-15.000	
Line Number	S - 3	S - 4
Diameter (mm)	#2 200	#2 300
Gradient (%)	1.2	1.2
Length (m)	1 460	1 300
Ground Elevation (m)	3.54	3.6
Earth Covering (m)	6.77	8.58 8.58
Invert Elevation (m)	-5.800	-7.52 -7.52
Total Length (m)	2 495	5 255

NOTE
Line Number is as shown in FIG. 2.3 & FIG. 2.4

FIG. 3.1 (2)	SCALE	H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA JAPAN INTERNATIONAL COOPERATION AGENCY
	PROFILE OF CONVEYANCE SEWER (LINE NUMBER S-3 & S-4)		

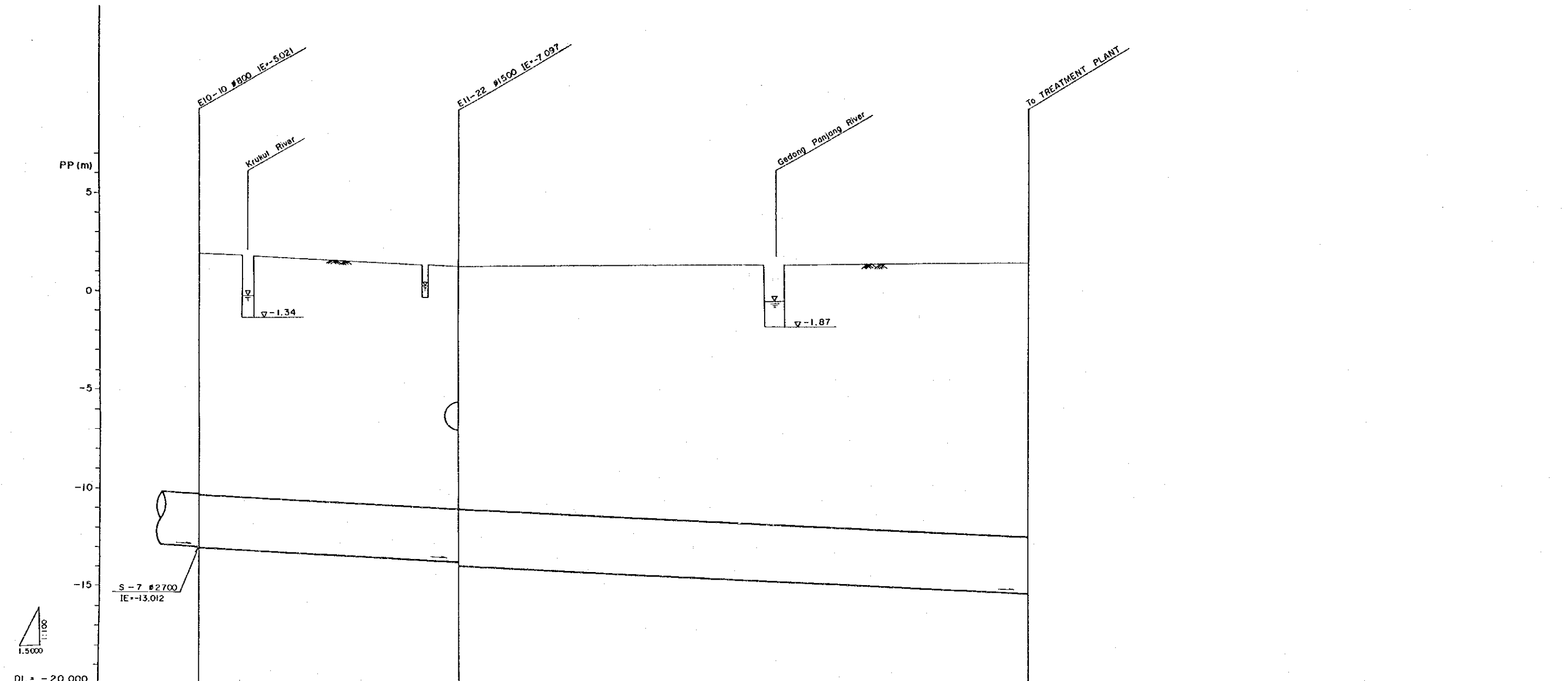


DL =	-15.000					
Line Number	S - 5		S - 6		S - 7	
Diameter (mm)	#2400		#2600		#2700	
Gradient (%)	1.2		1.1		1.1	
Length (m)	1110		1320		560	
Ground Elevation (m)	3.83		3.52		2.3	
Earth Covering (m)	10.37		11.39		11.60	
Invert Elevation (m)	-9.312		-10.844		-12.396	
Total Length (m)	5255		6365		7685	

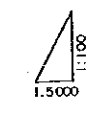
NOTE
Line Number is as shown in FIG. 2.4 & FIG. 2.7

PROFILE OF CONVEYANCE SEWER (LINE NUMBER S-5 ~ S-7)		THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
FIG. 3.1 (3)	SCALE H = 1:5,000 V = 1:100	

JAPAN INTERNATIONAL COOPERATION AGENCY



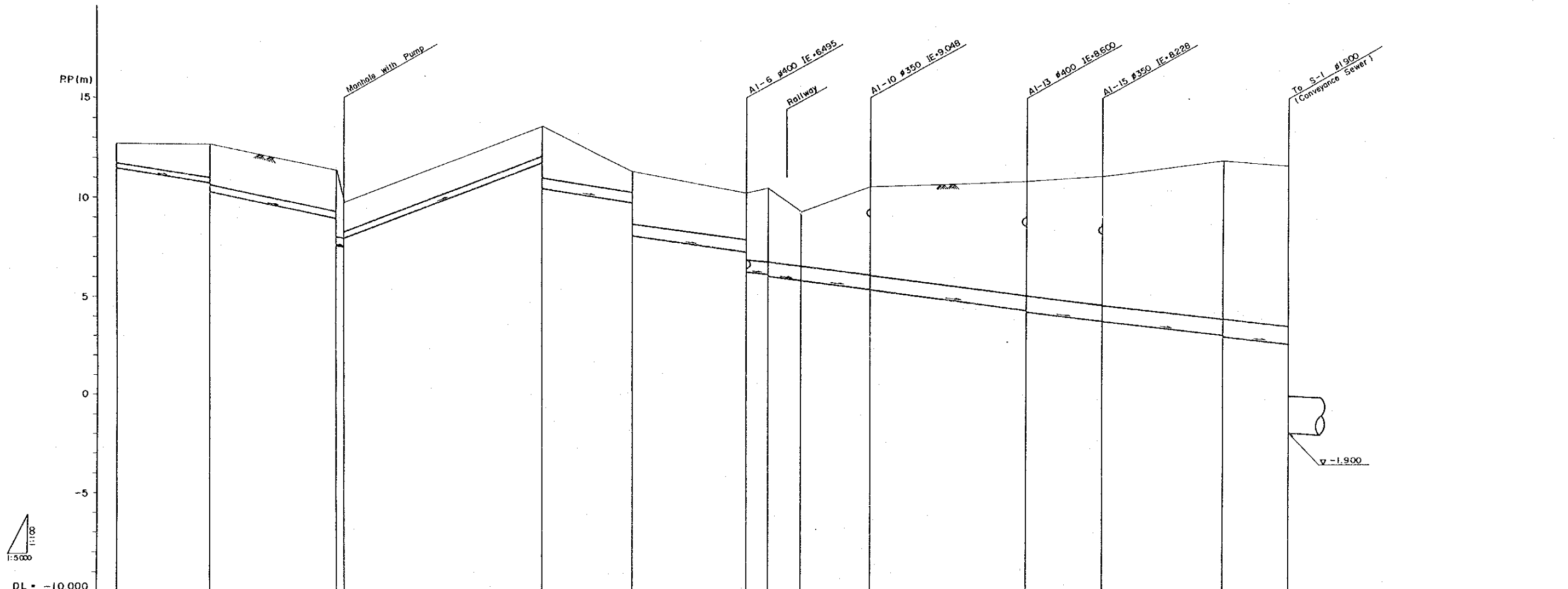
DL = -20.000			
Line Number		S - 8	S - 9
Diameter (mm)		Ø 2 700	Ø 2 900
Gradient (%)		1.1	1.0
Length (m)		660	1 435
Ground Elevation (m)	1.90	22.1	1.5
Earth Covering (m)	11.86	16.11	13.62
Invert Elevation (m)	-13.062	-13.769	-15.423
Total Length (m)	8 245	8 908	10 340



NOTE
Line Number is as shown in FIG. 2.7 ~ FIG. 2.9

PROFILE OF CONVEYANCE SEWER (LINE NUMBER S-8 & S-9)	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
FIG. 3.1 (4)	JAPAN INTERNATIONAL COOPERATION AGENCY

SCALE H = 1:5,000
V = 1:100

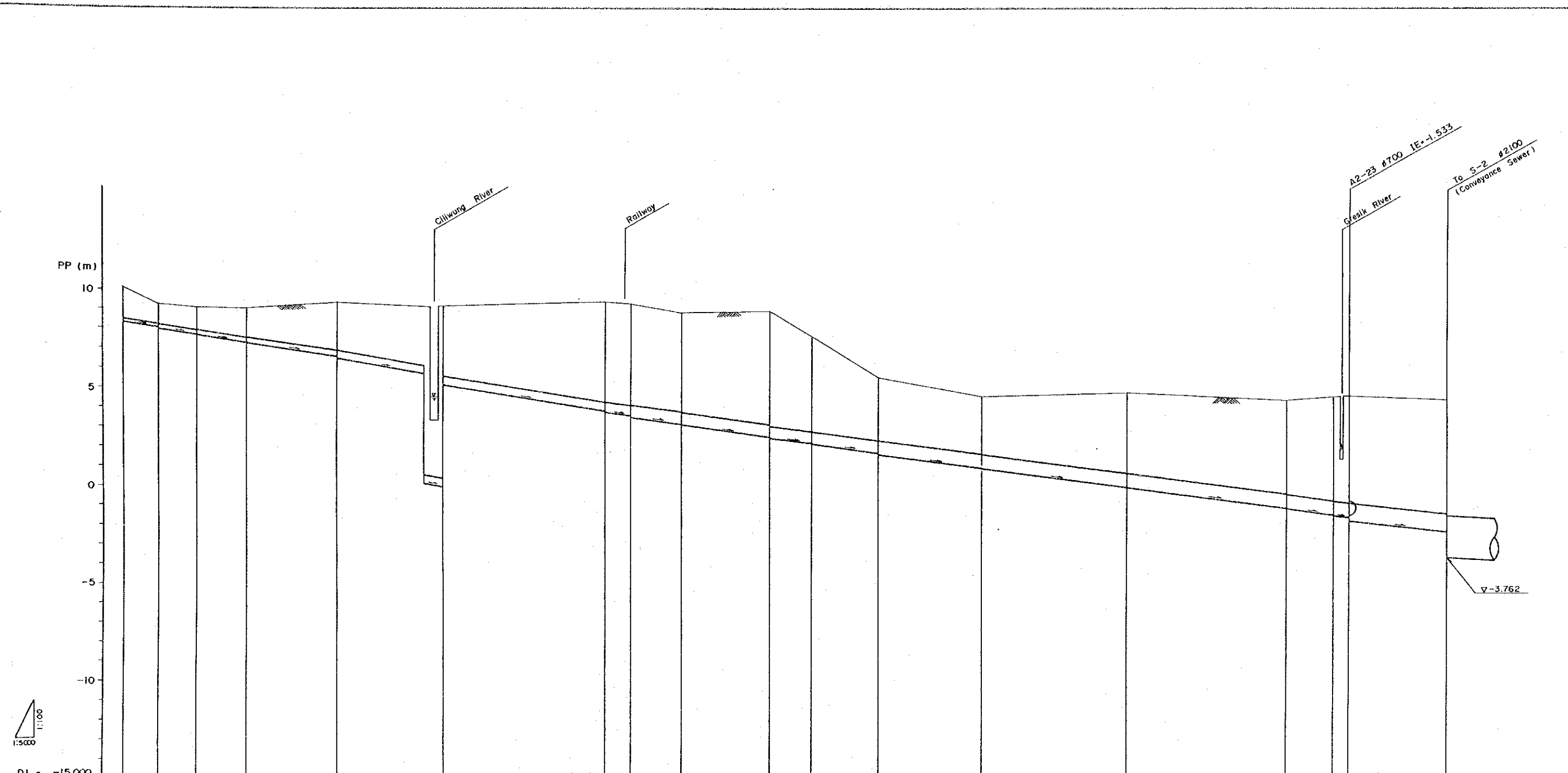


DL = -10.000

Line Number	A1-1	A1-2	A1-3	A1-4	A1-5	A1-7	A1-8	A1-9	A1-11	A1-14	A1-16	A1-17
Diameter (mm)	φ250	φ350	φ300 (Pressured)	φ500	φ600	φ600	φ700	φ700	φ700	φ800	φ800	φ900
Gradient (%)	2.8	4.0	3.0	2.8	2.6	2.6	2.4	2.4	2.4	2.2	2.2	2.0
Length (m)	240	320	500	225	290	55	80	175	390	195	300	160
Ground Elevation (m)	12.7	12.67	11.35 9.72	13.55	11.29	10.02	10.48	9.30	10.51	10.85	11.10	11.90
Earth Covering (m)	1.00	1.68 2.00	1.50 1.73 1.50	1.50 2.39	1.00 2.56	2.08 3.08	3.68 3.67	2.67 2.70	4.36 4.38	5.71 5.70	6.40 6.42	7.92 7.91
Invert Elevation (m)	11.497	10.745 10.296	9.850 8.990 7.500 7.510	11.740 10.418	9.748 8.080	7.285 6.235	6.152 6.052	5.850 5.840	5.400 5.380	4.384 4.284	3.850 3.815	3.115 3.015
Total Length (m)	0	240	560	1080	1305	1595	1650	1730	1905	2295	2490	2790

NOTE
Line Number is as shown in FIG. 2.2

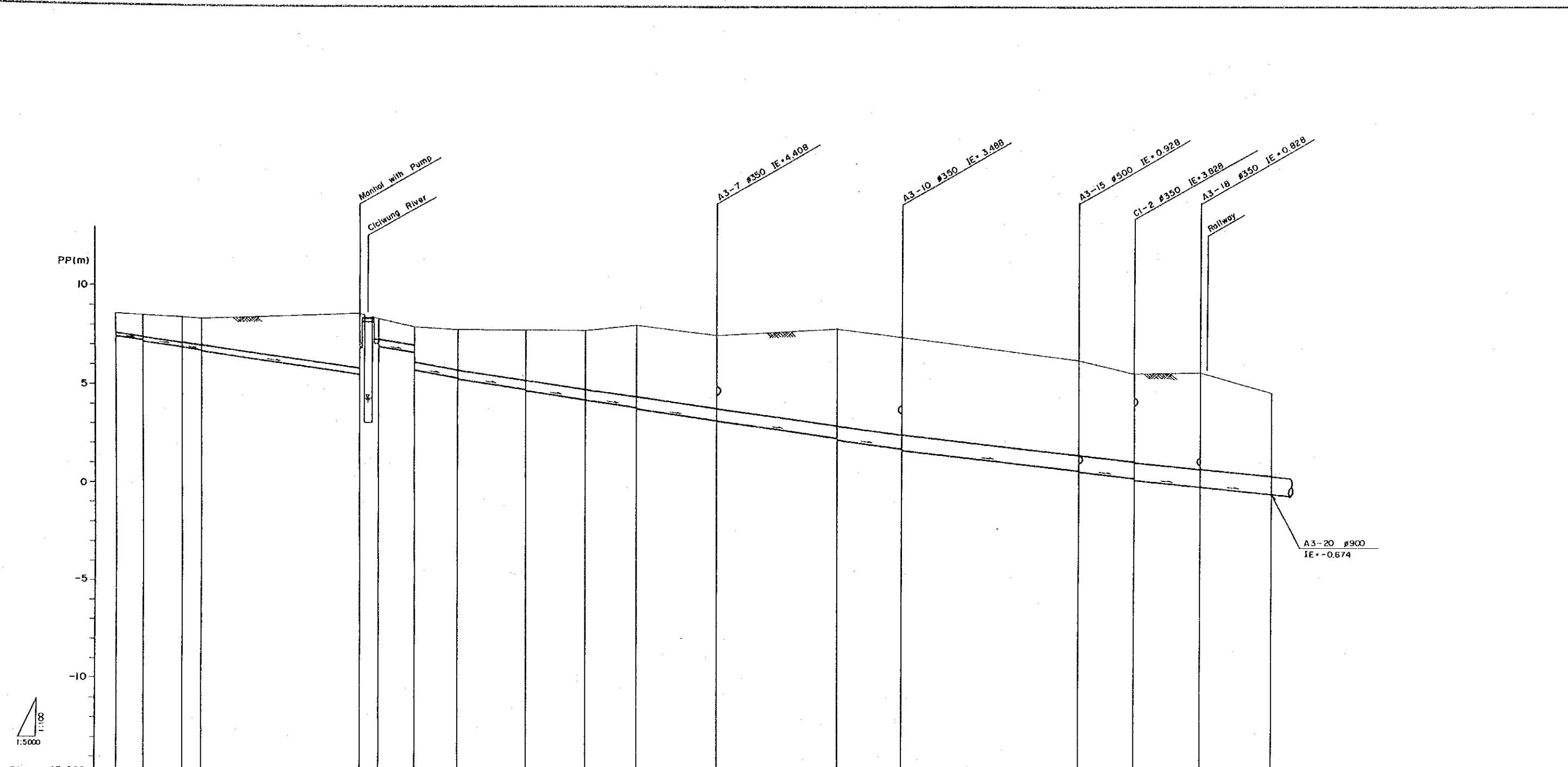
FIG. 3.2	SCALE	H = 1:5000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA JAPAN INTERNATIONAL COOPERATION AGENCY
	PROFILE OF COLLECTION SEWER (LINE NUMBER a1-1~A1-17)		



DL = -15,000																		
Line Number	a2-1	a2-2	a2-3	a2-4	A2-1	A2-2	A2-3	A2-4	A2-5	A2-6	A2-7	A2-8	A2-9	A2-10	A2-11	A2-12	A2-24	
Diameter (mm)	150	200	250	300	400	450	500	600	600	600	600	700	700	700	700	700	900	
Gradient (%)	3.0	3.0	2.8	2.8	3.5	3.0	2.8	2.6	2.6	2.6	2.6	2.4	2.4	2.4	2.4	2.4	2.0	
Length (m)	90	100	130	230	270	410	65	130	225	105	175	265	370	405	120	40	250	
Ground Elevation (m)	10.1	9.20	9.06	9.0	9.3	9.1	9.3	9.2	8.73	8.80	7.57	5.42	4.49	4.67	4.27	4.48	4.3	
Earth Covering (m)	1.65	1.00	1.17	1.50	2.46	0.53	0.68	0.68	0.15	0.73	0.75	3.16	2.90	4.05	4.72	0.26	5.72	
Invert Elevation (m)	8.315	8.045	7.995	7.695	7.261	-0.865	3.752	3.682	3.600	2.417	2.104	1.609	0.833	-0.135	-1.207	-1.535	-2.391	
Total Length (m)	0	90	190	320	590	820	1230	1295	1425	1650	1755	1930	2195	2565	2970	3090	3380	

NOTE
Line Number is as shown in FIG. 2.2 & FIG. 2.3

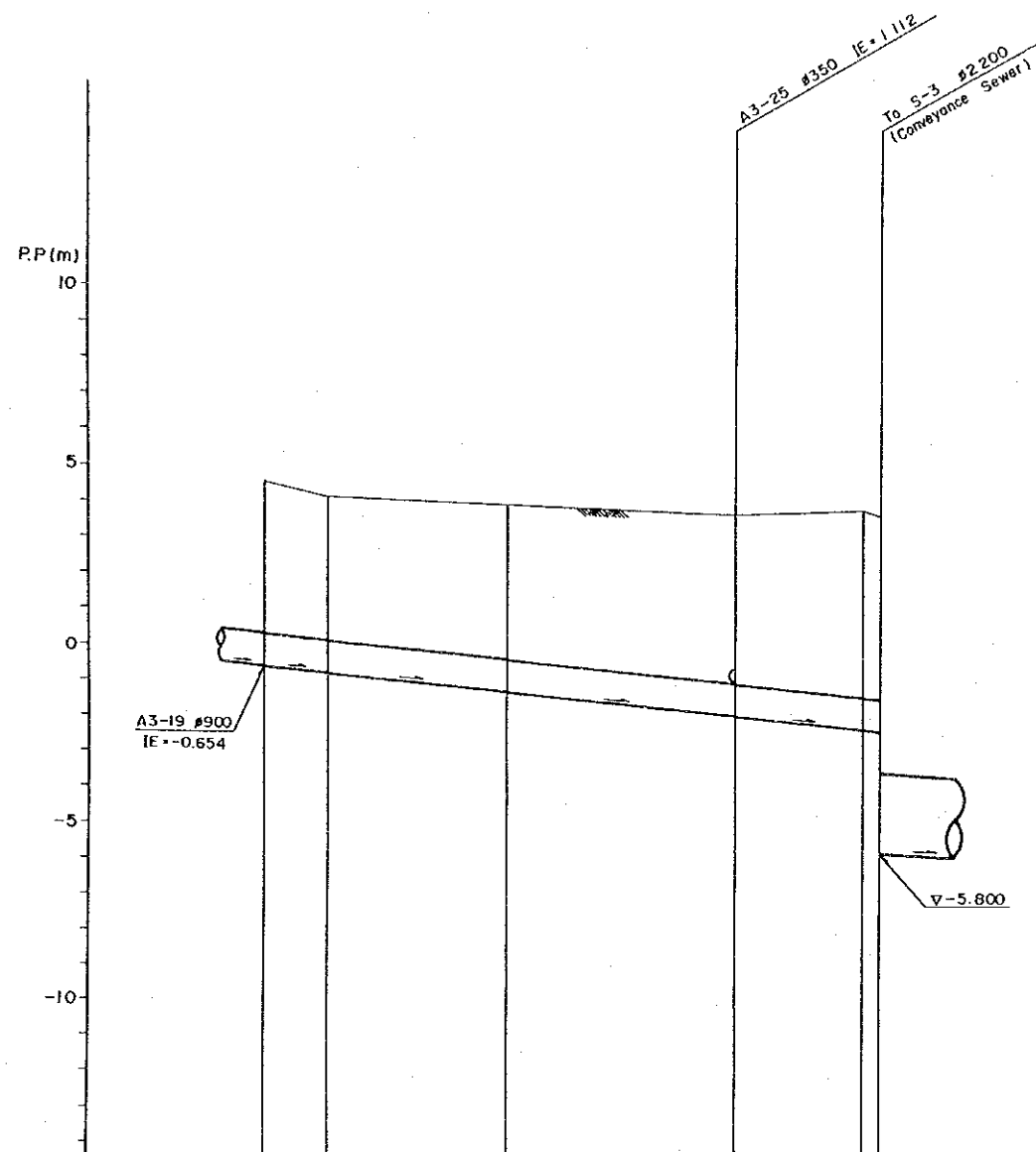
FIG. 3.3	PROFILE OF COLLECTION SEWER (LINE NUMBER a2-1~A2-24)	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
	SCALE H = 1:5,000 V = 1:100	JAPAN INTERNATIONAL COOPERATION AGENCY



DL = -15.000																		
Line Number	a3-1	a3-2	a3-3	a3-4	a3-5	A3-1	A3-2	A3-3	A3-4	A3-5	A3-6	A3-8	A3-9	A3-11	A3-16	A3-17	A3-19	
Diameter (mm)	Ø150	Ø200	Ø250	Ø300	Ø200 (Pressured)	Ø350	Ø400	Ø450	Ø500	Ø500	Ø600	Ø600	Ø700	Ø800	Ø800	Ø900	Ø900	
Gradient (%)	3.0	3.0	2.8	2.8	-	4.0	3.5	3.0	2.8	2.8	2.6	2.6	2.4	2.2	2.2	2.0	2.0	
Length (m)	70	100	50	400	50	90	105	175	150	130	205	305	165	450	140	170	180	
Ground Elevation (m)	8.6	8.90	8.4	8.90	8.33	8.27	7.86	7.74	7.70	7.67	7.90	7.4	7.73	7.31	6.17	5.48	5.55	4.52
Earth Covering (m)	1.00	1.11	1.12	1.32	2.76	1.90	1.00	1.05	1.00	1.00	2.07	2.07	2.57	2.57	3.00	3.60	3.60	3.60
Invert Elevation (m)	7.445	7.235	7.183	7.183	5.450	6.850	7.060	6.840	6.840	6.840	6.480	5.622	5.235	5.185	4.640	4.950	4.150	4.130
Total Length (m)	0	70	170	220	620	670	760	865	1040	1190	1320	1525	1830	1995	2445	2585	2755	2935

NOTE
Line Number is as shown in FIG. 2.2

FIG. 3.4 (1)	SCALE	H = 1:5,000	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
		V = 1:100	

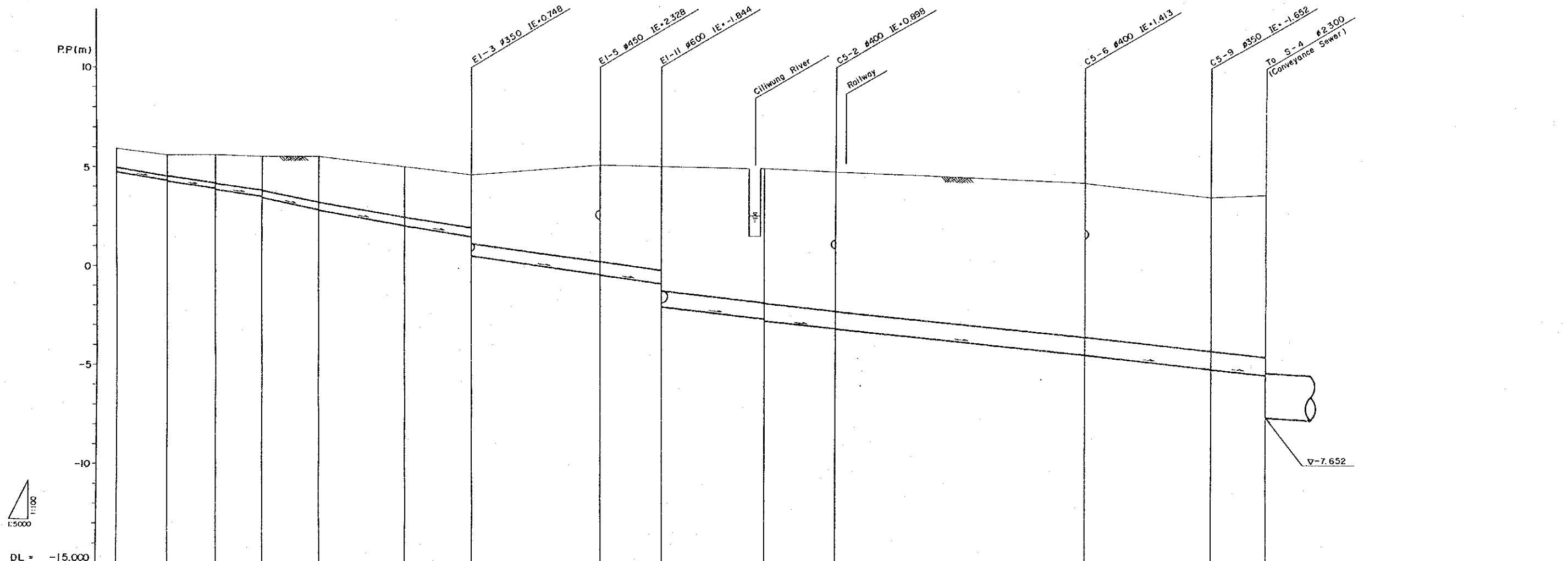


DL = -15.000

Line Number	A3-20	A3-21	A3-22	A3-24	A3-25
Diameter (mm)	ø900	ø900	ø900	ø900	ø900
Gradient (%)	2.0	2.0	2.0	2.0	2.0
Length (m)	90	250	320	180	25
Ground Elevation (m)	4.32	4.07	3.95	3.37	3.7
Earth Covering (m)	4.20	3.97	4.25	4.67	3.25
Invert Elevation (m)	-0.674	-0.874	-1.114	-2.074	-2.454
Total Length (m)	3.935	3.025	3.275	3.595	3.775

NOTE
Line Number is as shown in FIG. 2.2 & FIG. 2.3

FIG. 3.4 (2)	PROFILE OF COLLECTION SEWER (LINE NUMBER A3-20-3-25)	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
	SCALE H = 1:5,000 V = 1:100	
		JAPAN INTERNATIONAL COOPERATION AGENCY



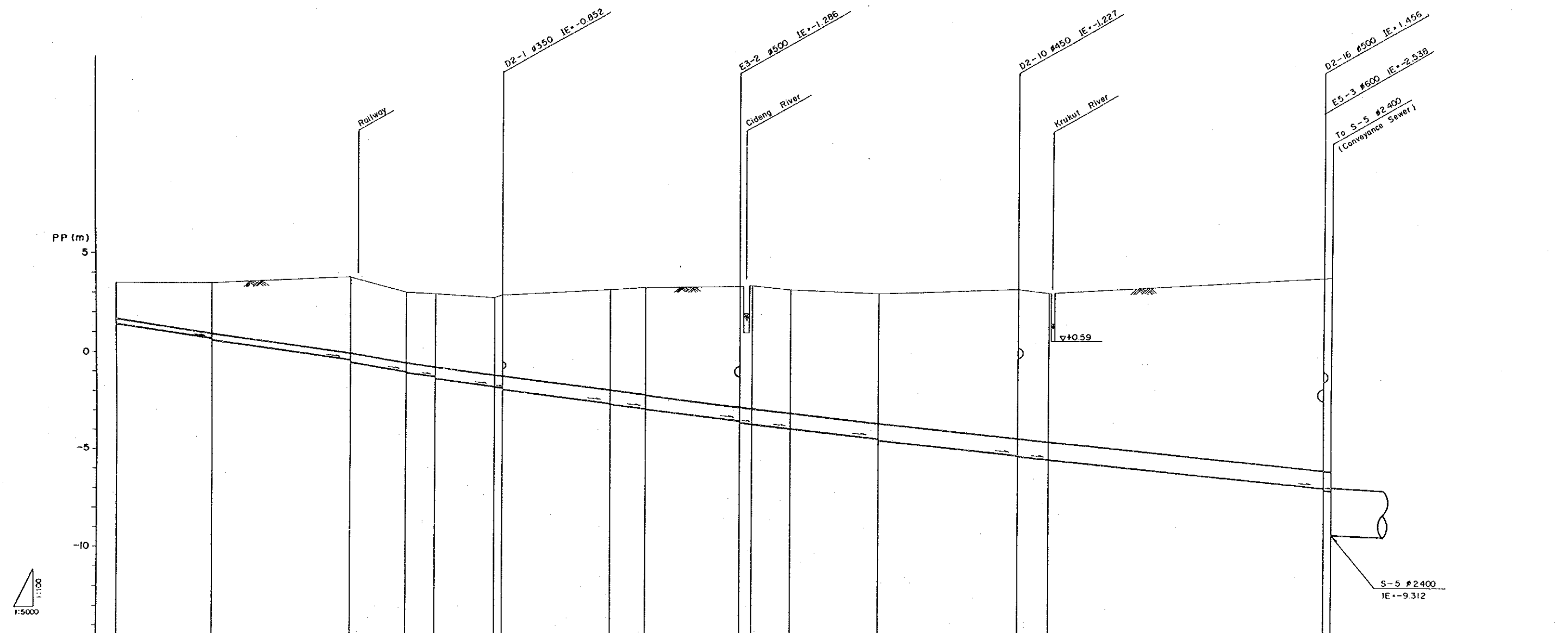
DL = -15.000

Line Number	h-1	h-2	h-3	C4-1	E1-1	E1-2	E1-4	E1-6	E1-12	C5-3	C5-4	C5-7	C5-10
Diameter (mm)	φ200	φ250	φ300	φ350	φ400	φ450	φ600	φ700	φ800	φ900	φ900	φ900	φ900
Gradient (%)	3.0	2.8	2.8	4.0	3.5	3.0	2.6	2.4	2.2	2.0	2.0	2.0	2.0
Length (m)	130	120	115	145	215	170	330	155	260	180	630	320	135

Ground Elevation (m)	5.92	5.5	5.6	5.5	5.5	5.0	4.6	5.1	5.00	4.9	4.76	4.2	3.48	3.6
Earth Covering (m)	1.00	1.09	1.45	1.43	2.25	2.54	2.34	4.87	4.86	6.70	6.93	7.71	7.67	8.10
Invert Elevation (m)	4.726	4.316	3.910	3.860	3.318	2.868	2.818	2.025	1.975	1.446	0.498	-0.420	-0.320	-2.044
Total Length (m)	0	130	250	365	510	725	895	1225	1380	1640	1820	2450	2770	2905

NOTE
Line Number is as shown in FIG. 2.4

FIG. 3.5	SCALE	H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
			JAPAN INTERNATIONAL COOPERATION AGENCY



Line Number	e2-1	e2-2	E2-1	E2-2	E2-3	E2-4	D2-2	D2-3	D2-4	D2-5	D2-6	D2-7	D2-8	D2-11	D2-12	D2-17
Diameter (mm)	250	300	450	500	600	800	700	700	700	800	800	800	900	900	900	1000
Gradient (%)	2.8	2.8	3.0	2.8	2.6	2.6	2.4	2.4	2.4	2.2	2.2	2.2	2.0	2.0	2.0	1.8
Length (m)	245	350	140	70	150	20	270	90	235	30	95	220	350	80	700	20
Ground Elevation (m)	3.5	3.5	3.8	3.02	2.94	2.78	3.2	3.3	3.5	3.4	3.2	3.0	3.27	3.06	3.3	3.3
Earth Covering (m)	1.85	2.58	3.90	3.53	3.64	3.89	5.06	5.08	6.07	6.06	6.23	6.55	7.56	7.58	7.53	7.53
Invert Elevation (m)	1.406	0.680	-0.410	-1.000	-1.246	-1.756	-2.616	-2.636	-3.476	-3.576	-3.682	-3.871	-4.415	-5.255	-5.275	-6.910
Total Length (m)	0	245	595	735	805	955	1245	1335	1570	1600	1695	1915	2265	2345	3045	3065



DL = -15.000

v+0.59

S-5 #2400
IE = -9.312

NOTE
Line Number is as shown in FIG. 2.4 & FIG. 2.5

PROFILE OF COLLECTION SEWER (LINE NUMBER e2-1-D2-17)		THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
FIG. 3.6	SCALE H = 1:5,000 V = 1:100	
JAPAN INTERNATIONAL COOPERATION AGENCY		

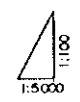
PP (m)

5

0

-5

-10



DL = -15.000

Line Number	e8-1		e8-2		E8-1		E8-2		E8-3		E8-4		E8-6		E8-9		E8-10		E8-11		E8-12		E8-27		E8-29		E8-31		E8-39	
Diameter (mm)	#250		#300		#450		#500		#500		#600		#800		#800		#800		#800		#800		#1100		#1100		#1100		#1200	
Gradient (%)	2.8		2.8		3.0		2.8		2.8		2.6		2.2		2.2		2.2		2.2		2.2		1.6		1.6		1.6		1.6	
Length (m)	370		280		80		95		90		310		165		130		120		140		200		455		225		335		20	
Ground Elevation (m)	3.08		2.60		2.8		2.5		2.4		2.3		2.6		2.8		2.7		2.6		2.6		2.46		2.4		2.1		2.52	
Earth Covering (m)	1.00		1.81		2.62		2.54		2.70		2.67		4.03		4.60		4.82		5.03		5.37		5.71		6.40		6.50		8.47	
Invert Elevation (m)	-1.837		-0.741		-0.283		-0.523		-0.539		-1.111		-2.077		-2.660		-2.965		-3.290		-3.636		-4.118		-5.186		-5.656		-6.034	
Total Length (m)	0		370		650		750		825		915		1225		1390		1520		1660		1780		1980		2435		2860		2995	

E8-5 #450 IE=-1.828
E8-7 #600 IE=-1.926

Railway
Kredong River

E8-26 #600 IE=-2.525
E8-23 #800 IE=-3.703

E8-28 #400 IE=-1.542

Krukut River

E8-30 #400 IE=-1.095

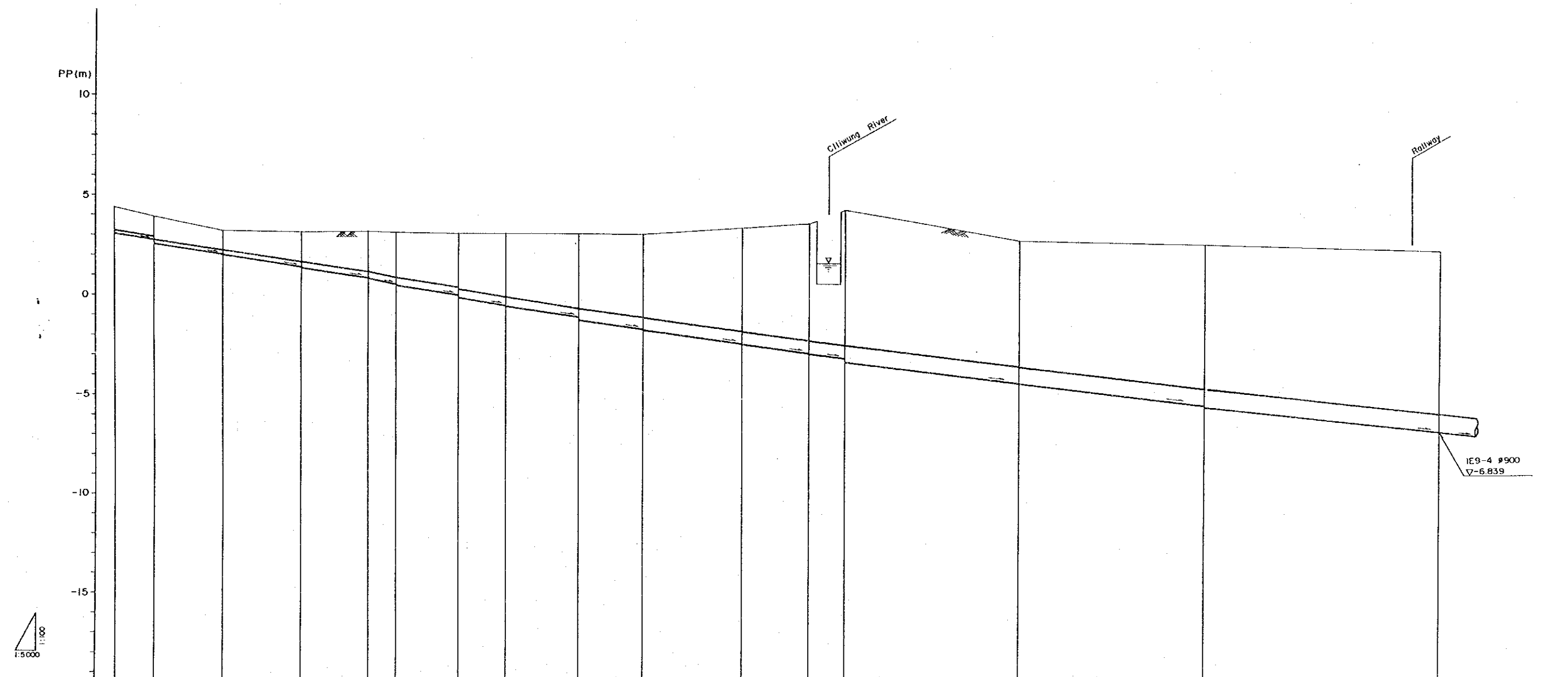
E8-35 #600 IE=-3.028
E8-38 #500 IE=-1.896

To S-6 #2500
(Conveyance Sewer)



NOTE
Line Number is as shown in FIG. 2.5, FIG. 2.7 and FIG. 2.8

PROFILE OF COLLECTION SEWER (LINE NUMBER e8-1-E8-39)		SCALE H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA JAPAN INTERNATIONAL COOPERATION AGENCY
FIG. 3.7			

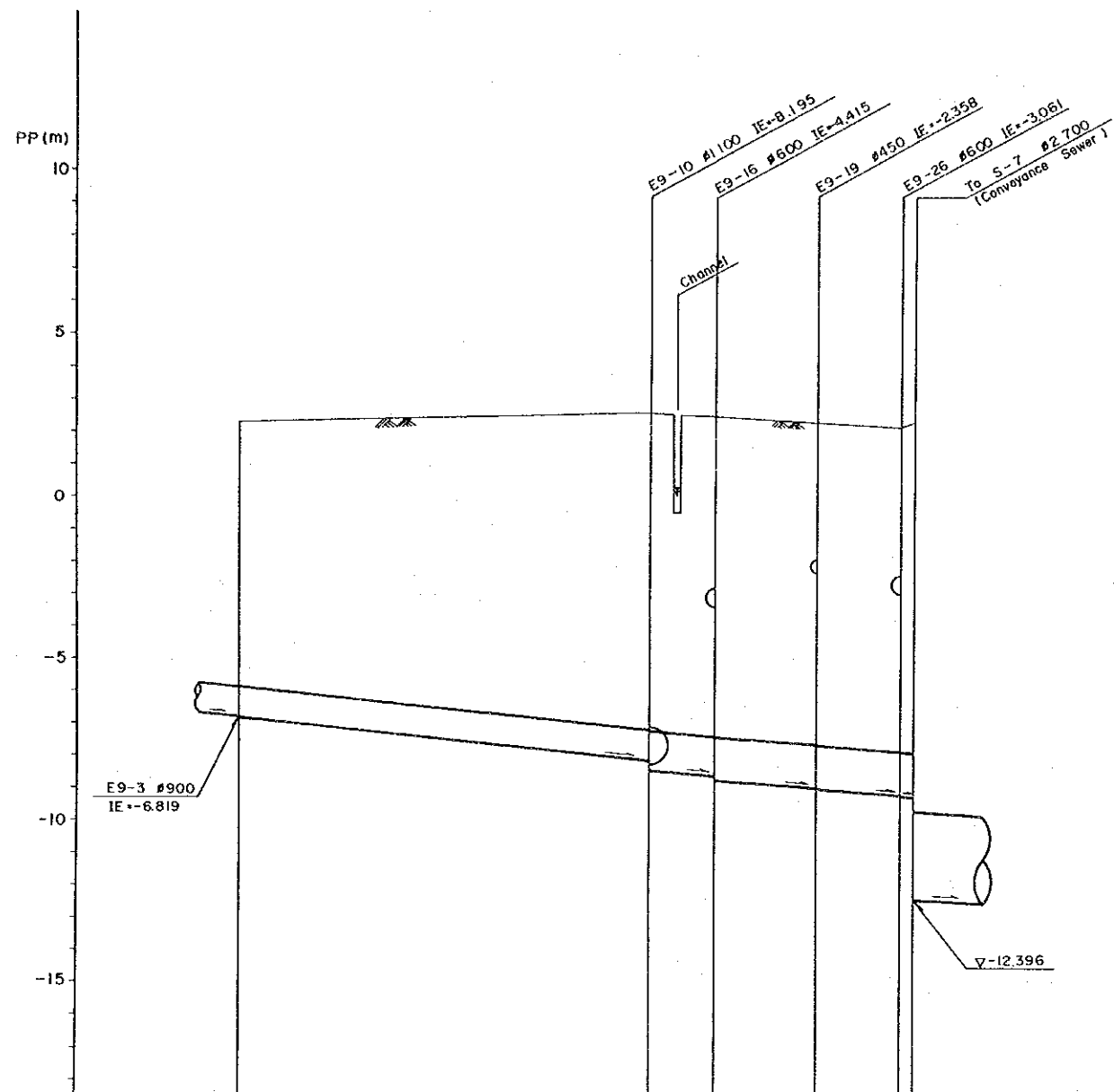


DL = -20,000																
Line Number	f1-1	f1-2	f1-3	f1-4	F1-1	F1-2	F1-3	F1-4	F1-5	F1-6	F1-7	F1-8	E9-1	E9-2	E9-3	
Diameter (mm)	Ø150	Ø200	Ø250	Ø300	Ø350	Ø400	Ø450	Ø450	Ø600	Ø600	Ø600	Ø600	Ø800	Ø800	Ø900	
Gradient (%)	3.0	3.0	2.8	2.8	4.0	3.5	3.0	3.0	2.6	2.6	2.6	2.6	2.2	2.2	2.0	
Length (m)	100	170	200	170	70	160	120	185	165	250	170	90	435	460	585	

Ground Elevation (m)	4.42	3.95	3.24	3.2	3.23	3.18	3.16	3.12	3.1	3.1	3.4	3.62	4.32	2.6	2.61	2.3
Earth Covering (m)	1.17	1.00	1.00	1.53	2.00	2.20	2.82	3.10	3.73	3.72	4.16	4.18	5.86	5.90	6.83	6.82
Invert Elevation (m)	3.095	2.95	2.24	1.67	1.23	0.98	0.30	0.02	-0.090	-0.140	-0.320	-0.320	-1.115	-1.265	-1.714	-1.734
Total Length (m)	0	100	270	470	640	710	870	990	1175	1340	1590	1760	1850	2285	2745	3330

NOTE
Line Number is as shown in FIG. 2.4 & FIG. 2.7

FIG. 3.8 (1)	SCALE H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
	JAPAN INTERNATIONAL COOPERATION AGENCY	



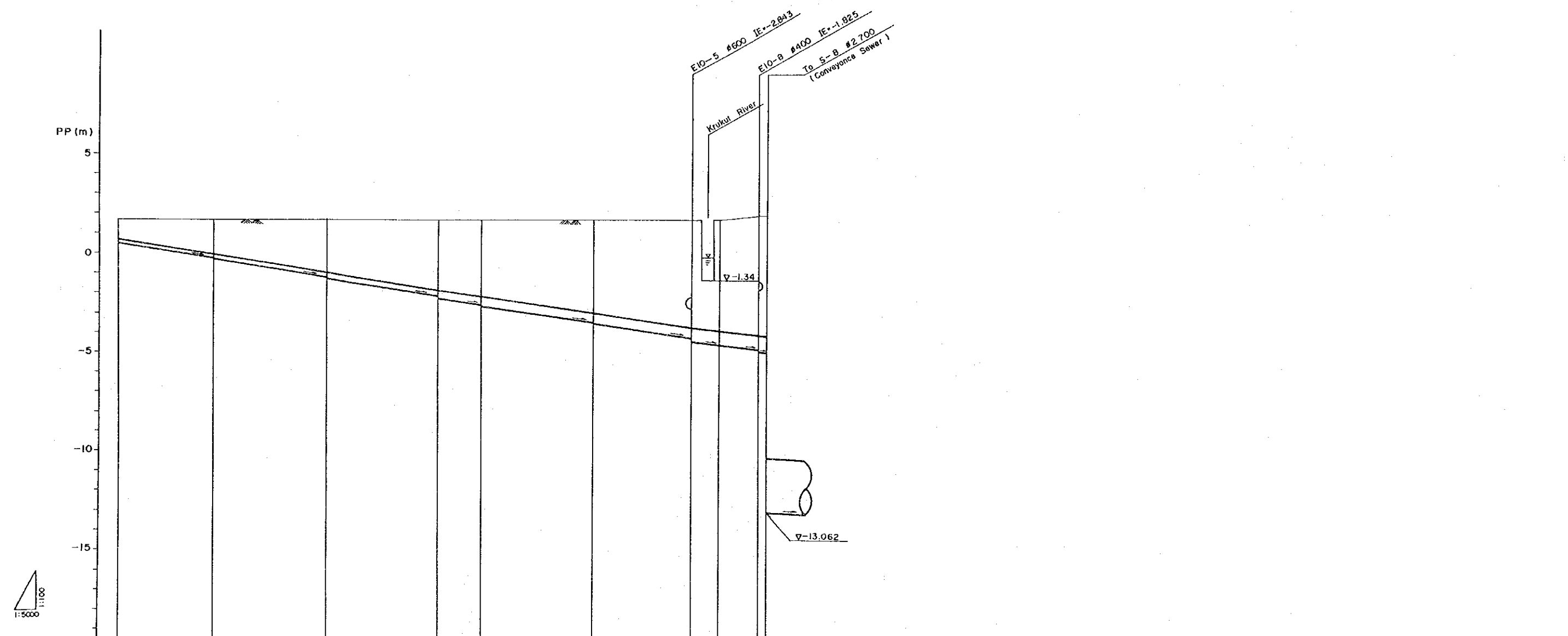
DL = -20.000

Line Number	E9-4	E9-11	E9-17	E9-20	E9-27
Diameter (mm)	Ø900	Ø1200	Ø1350	Ø1350	Ø300
Gradient (%)	2.0	1.6	1.5	1.5	1.5
Length (m)	630	100	155	130	20

Ground Elevation (m)	2.3	2.59	2.5	2.3	2.15
Earth Covering (m)	8.17	9.77 9.74	9.82 9.82	9.85 9.87	9.91 9.93
Invert Elevation (m)	-6.819	-8.159 -8.459	-8.619 -8.769	-9.002 -9.022	-9.217 -9.237
Total Length (m)	3330	3960	4060	4215	4345

NOTE
Line Number is as shown in FIG. 2.7

PROFILE OF COLLECTION SEWER (LINE NUMBER E9-4-E9-27)		THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
FIG. 3.8 (2)	SCALE H = 1:5,000 V = 1:100	
		JAPAN INTERNATIONAL COOPERATION AGENCY

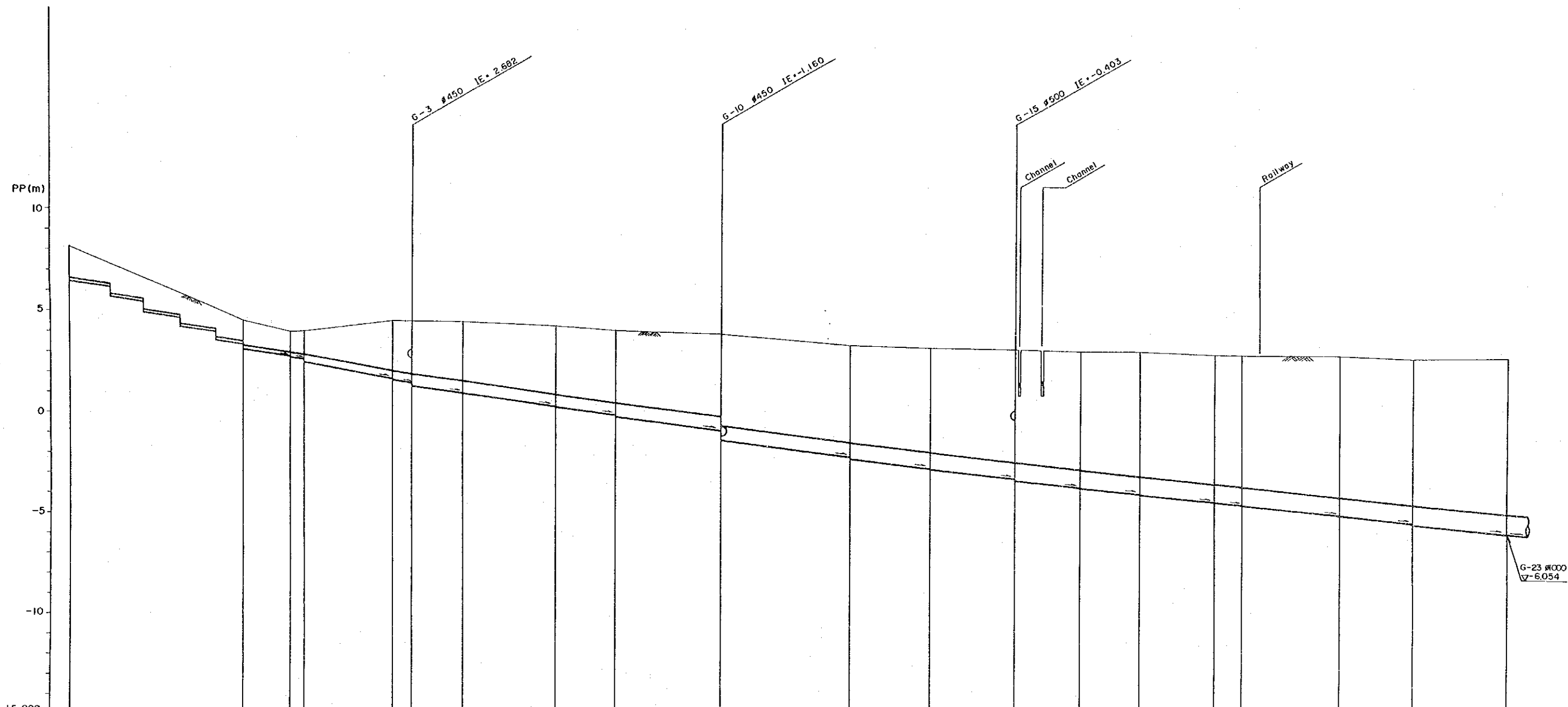


DL = -20.000										
Line Number	e10-1	e10-2	e10-3	E10-1	E10-2	E10-3	E10-6	E10-7	E10-10	
Diameter (mm)	∅200	∅250	∅300	∅450	∅500	∅500	∅700	∅700	∅800	
Gradient (%)	3.0	3.0	2.8	3.0	2.8	2.8	2.4	2.4	2.2	
Length (m)	240	290	290	110	280	250	65	100	20	
Ground Elevation (m)	1.7	1.7	1.66	1.7	1.7	1.7	1.7	1.7	1.90	1.90
Earth Covering (m)	1.01	1.77 2.56	2.66 2.65	3.52 3.49	3.84 3.83	4.66 4.68	5.42 5.41	5.56 5.58	6.03 6.01	6.06
Invert Elevation (m)	0.495	-0.285 -0.315	-1.225 -1.275	-2.127 -2.277	-2.627 -2.677	-3.50 -3.52	-4.261 -4.261	-4.617 -4.637	-4.877 -4.877	-5.021
Total Length (m)	0	240	530	640	930	1210	1460	1525	1625	1645

1:5000
1:100

NOTE
Line Number is as shown in FIG. 2.7

FIG. 3.9	SCALE H = 1:5000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
	JAPAN INTERNATIONAL COOPERATION AGENCY	



1:5000
1:100

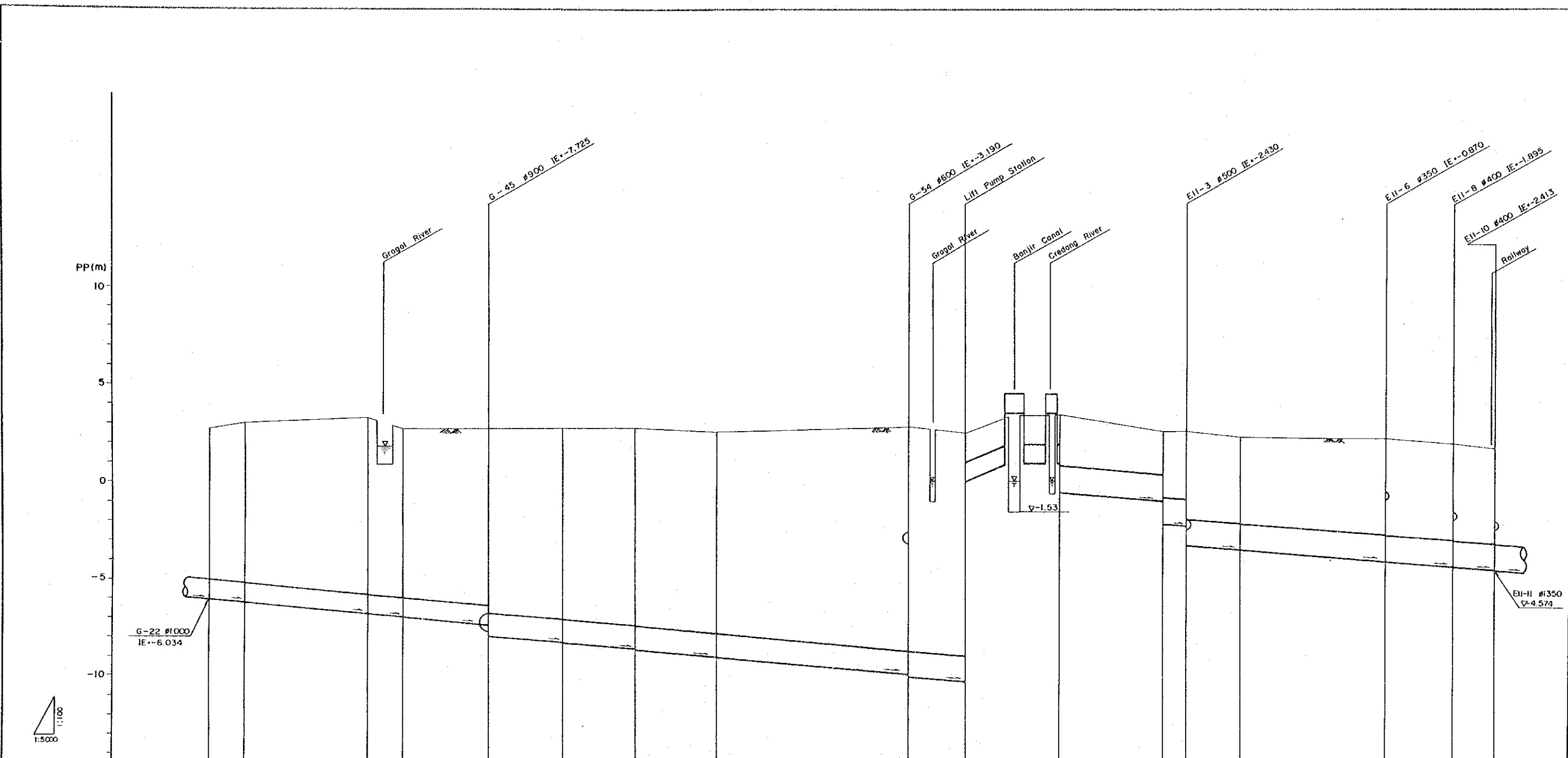
DL = -15.000

Line Number	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	G-17	G-18	G-19	G-20	G-21	G-22
Diameter (mm)	150	200	250	400	450	600	600	600	700	700	700	800	800	800	900	900	900	900	900	900	900	1000
Gradient (%)	3.0	3.0	2.8	3.5	3.0	2.6	2.6	2.6	2.4	2.4	2.4	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8
Length (m)	430	120	35	220	50	130	230	150	260	320	200	210	160	150	180	70	240	180	230			

Ground Elevation (m)	8.12	4.50	3.96	3.99	4.5	4.5	4.46		4.27	4.0	3.85		3.28		3.18	3.1	3.0	3.00		2.86		2.82		2.80		2.67		2.70
Earth Covering (m)	1.50	1.00	1.19	1.00	2.43	2.43	2.56		3.35	3.5	4.0		4.75		5.13	5.65	5.75	6.0		6.33		6.4		6.6		7.20		7.65
Invert Elevation (m)	6.46	3.335	2.75	2.75	1.636	1.586	1.426		0.270	-0.260	-0.94		-2.336		-2.798	-3.320	-3.740	-4.060		-4.40		-4.77		-5.120		-5.500		-6.034
Total Length (m)	0	430	550	585	805	855	985		1215	1365	1625		1945		2145	2355	2515	2665		2845		2915		3135		3335		3565

NOTE
Line Number is as shown in FIG. 2.5

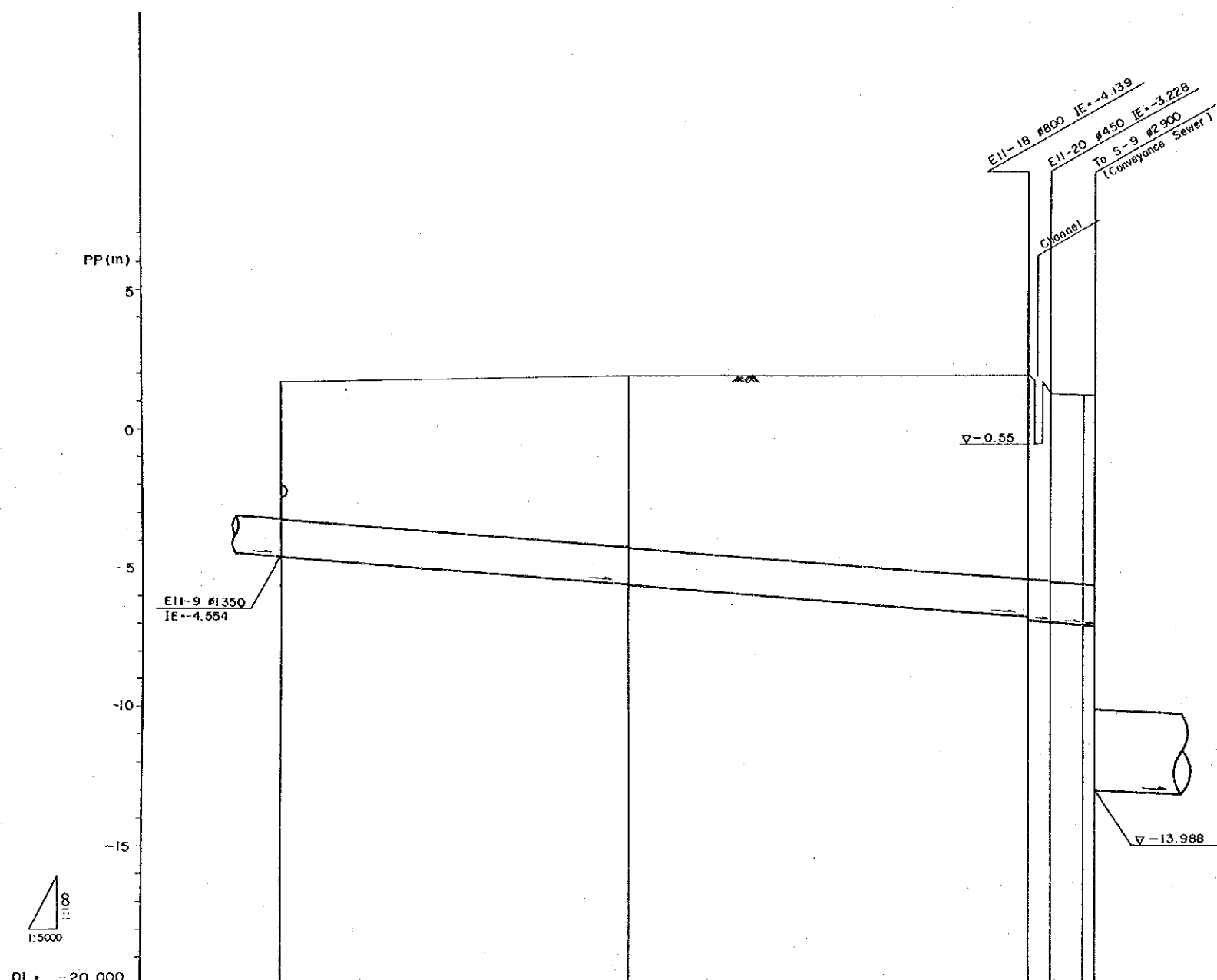
FIG. 3.10 (1)	SCALE	H = 1:5,000 V = 1:100	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
			JAPAN INTERNATIONAL COOPERATION AGENCY



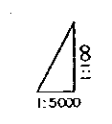
Line Number	G-23	G-24	G-25	G-26	G-46	G-47	G-48	G-49	G-55	G-56	EII-1	EII-2	EII-4	EII-5	EII-7	EII-9
Diameter (mm)	Ø1000	Ø1000	Ø1000	Ø1000	Ø1200	Ø1200	Ø1200	Ø1200	Ø1350	Ø1000 (Pressured)	Ø1350	Ø1350	Ø1350	Ø1350	Ø1350	Ø1350
Gradient (%)	1.8	1.8	1.8	1.8	1.6	1.6	1.6	1.6	1.5	-	1.5	1.5	1.5	1.5	1.5	1.5
Length (m)	90	320	90	225	190	190	210	500	150	240	270	60	140	375	175	105
Ground Elevation (m)	2.70	2.97	3.23	2.65	2.7	2.7	2.7	2.50	2.82	2.5	3.47	2.6	2.6	2.7	2.2	1.94
Earth Covering (m)	7.68	8.11	8.99	8.59	9.08	9.73	10.06	10.23	11.41	11.36	1.50	2.13	3.30	4.36	4.86	4.86
Invert Elevation (m)	-6.054	-6.216	-6.832	-7.014	-7.439	-8.389	-8.653	-9.059	-9.889	-10.016	-0.992	-0.978	-2.153	-3.280	-4.093	-4.376
Total Length (m)	3.955	3.635	3.973	4.065	4.290	4.480	4.670	4.880	5.390	5.530	5.770	6.040	6.100	6.240	6.615	6.790

NOTE
Line Number is as shown in FIG. 2.5 & FIG. 2.8

FIG. 3.10 (2)	PROFILE OF COLLECTION SEWER (LINE NUMBER G-23-EII-9)	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
	SCALE H = 1:5,000 V = 1:100	JAPAN INTERNATIONAL COOPERATION AGENCY

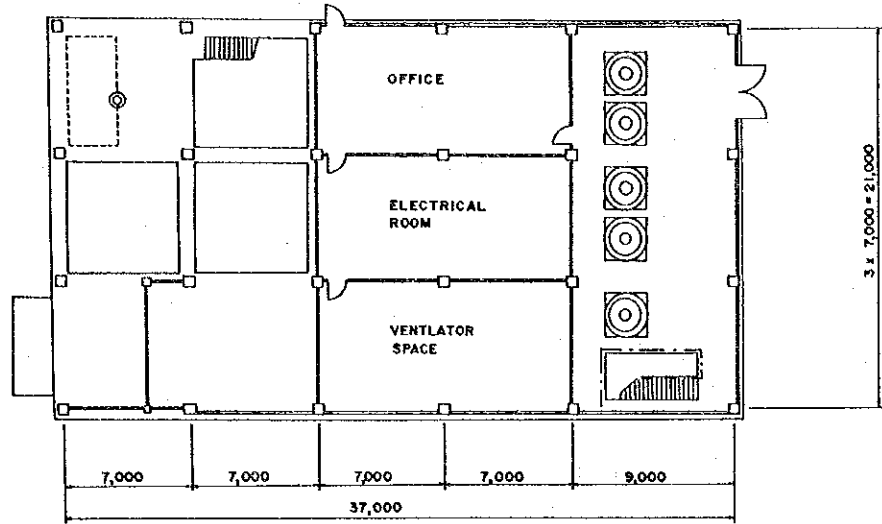


DL = -20.000						
Line Number		E11-11	E11-12	E11-19	E11-20	E11-22
Diameter (mm)		#1350	#1350	#1500	#500	#500
Gradient (%)		1.5	1.5	1.4	1.4	1.4
Length (m)		630	720	40	60	20
Ground Elevation (m)	1.70		1.9	1.91	1.25	1.22
Earth Covering (m)	4.82	6.03	6.00	7.20	6.75	6.70
Invert Elevation (m)	-4.374	-5.578	-5.558	-6.739	-6.889	-6.943
Total Length (m)	6.695	7.595		8.245	8.285	8.345

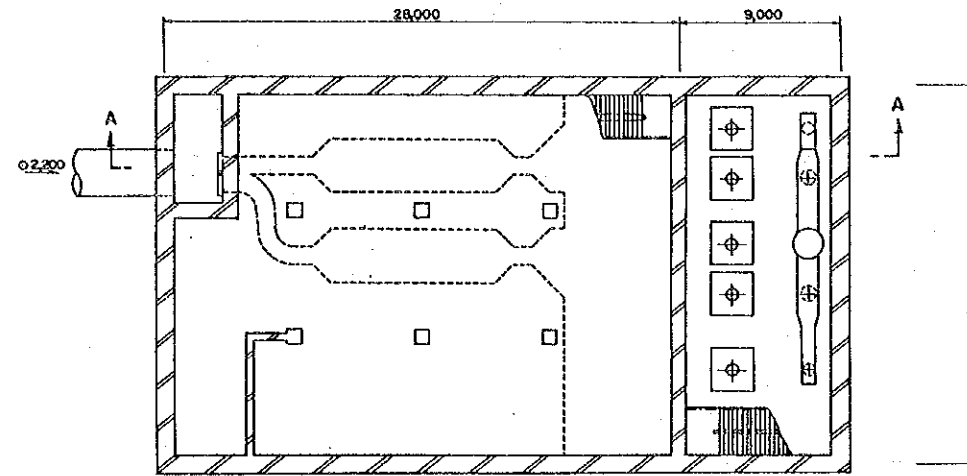


NOTE
Line Number is as shown in FIG. 2.8

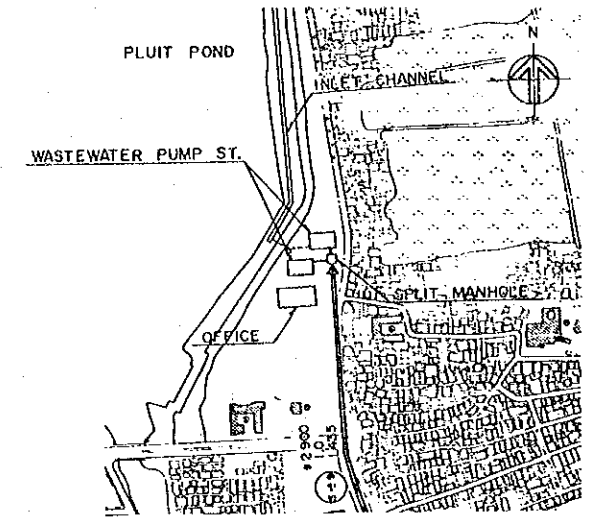
FIG. 3.10 (3)	SCALE	H = 1:5,000	THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA
		V = 1:100	
			JAPAN INTERNATIONAL COOPERATION AGENCY



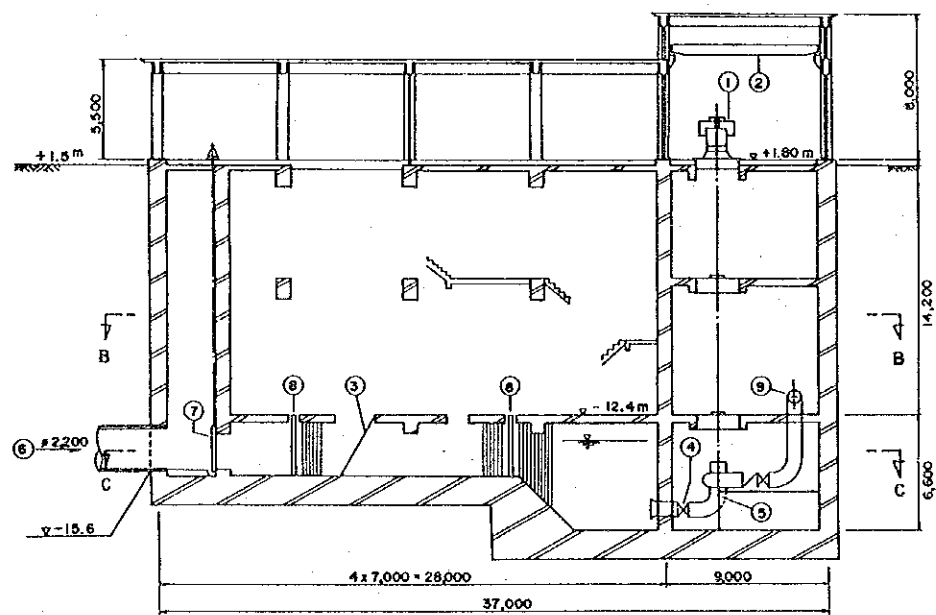
GROUND FLOOR LEVEL



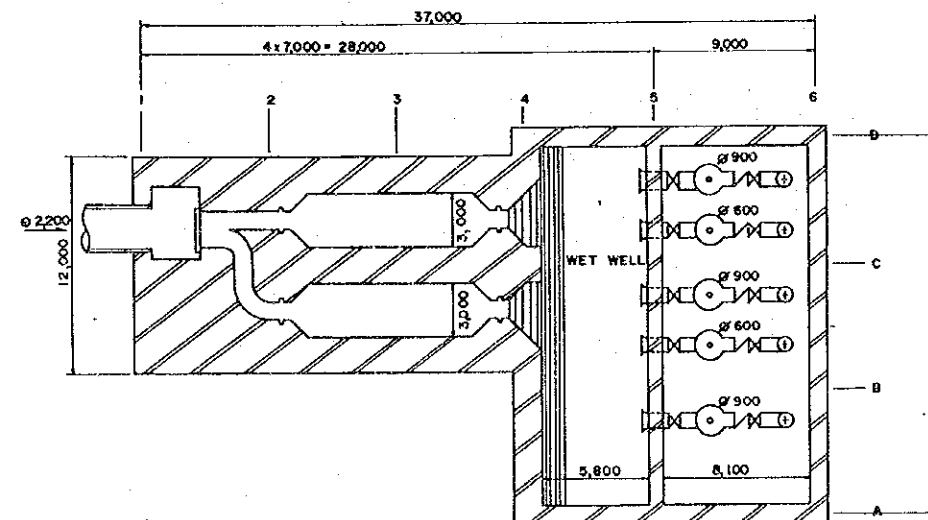
SECTION B - B



KEY PLAN



SECTION A - A



SECTION C - C

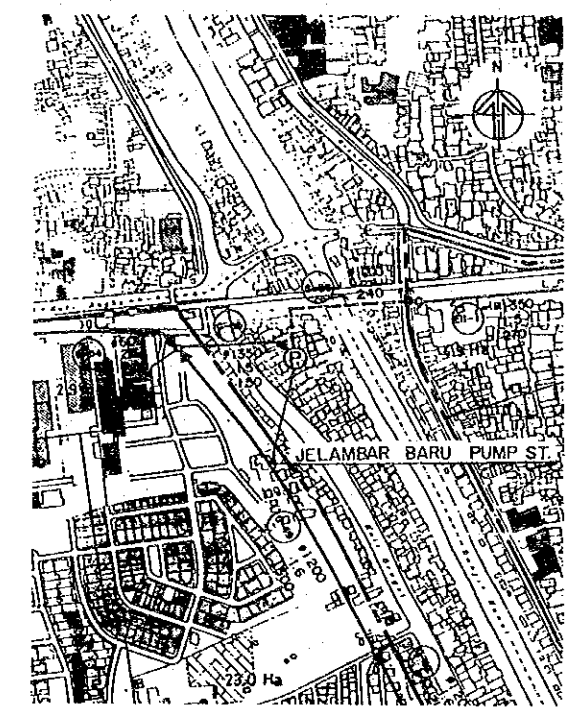
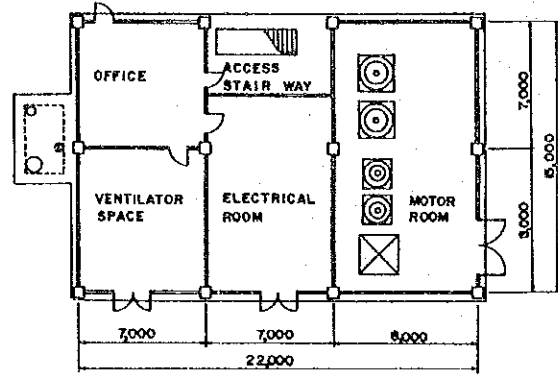
NOTE

- ① Motor
- ② Crane & Hoist
- ③ Bar Screen
- ④ Valve
- ⑤ Volute Mixed Flow Pump
- ⑥ Inlet Sewer
- ⑦ Inlet Gate
- ⑧ Stop Log
- ⑨ Outlet Pipe

PLUIT POND WASTEWATER PUMP STATION	
FIG. 4	SCALE 1:200
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	

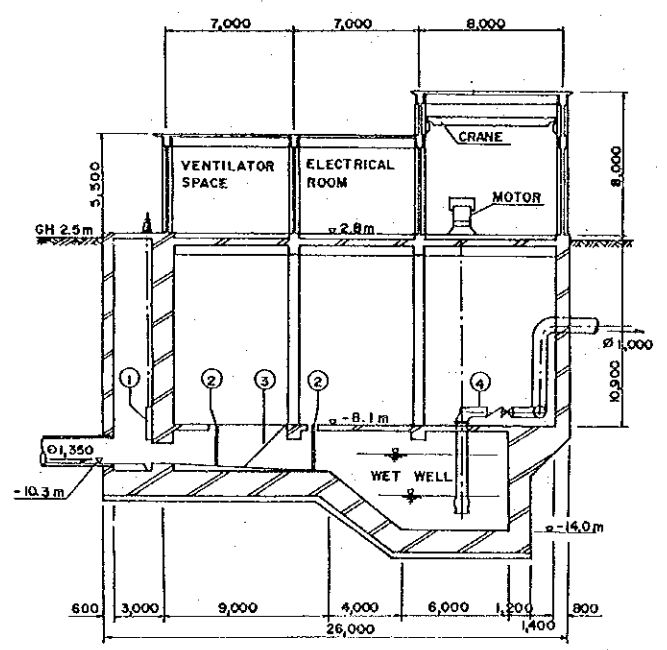
* Dimension in mm

GROUND FLOOR



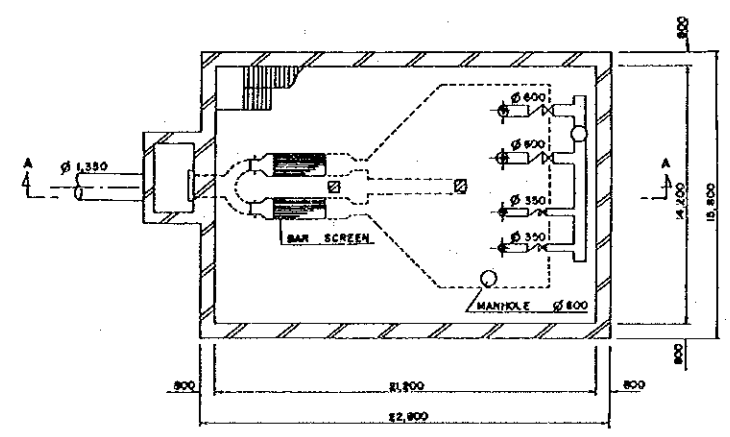
KEY PLAN

SECTION A - A



- ① INLET GATE
- ② STOP LOG
- ③ BAR SCREEN
- ④ VERTICAL AXIAL MIXED FLOW PUMP

B - I FLOOR

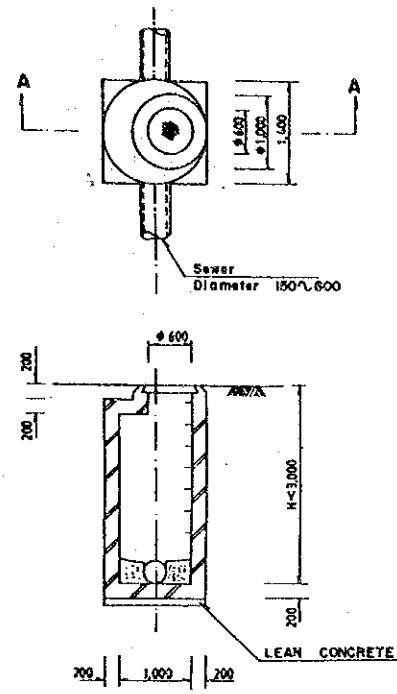


JELAMBAR BARU PUMP STATION	
FIG. 5	SCALE 1:200
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	

* Dimension in mm

TYPE 1 MANHOLE

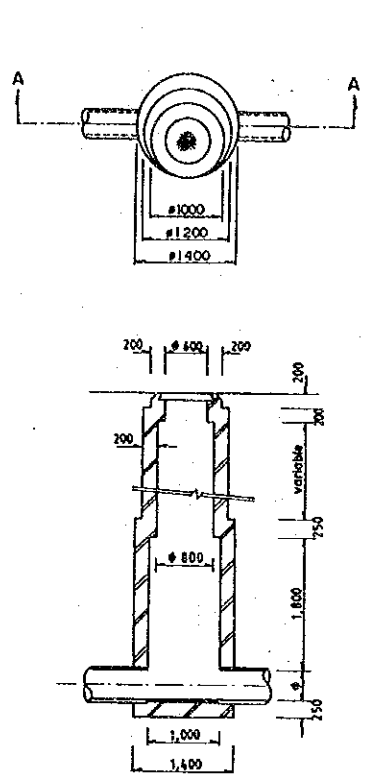
SEWER #150~#600mm
MANHOLE DEPTH UP TO 3.0m



SECTION A - A

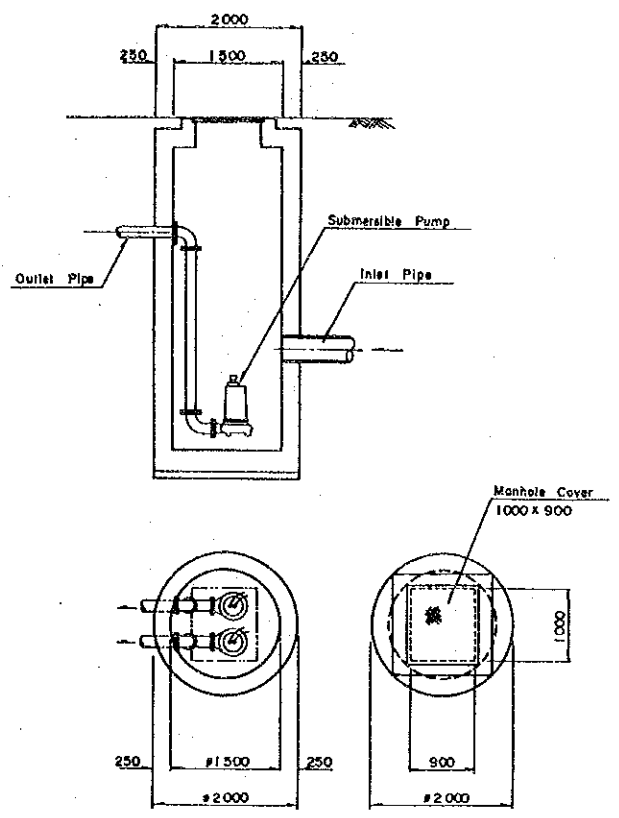
TYPE 2 MANHOLE

SEWER #150~#600mm
MANHOLE DEPTH OVER 3.0m



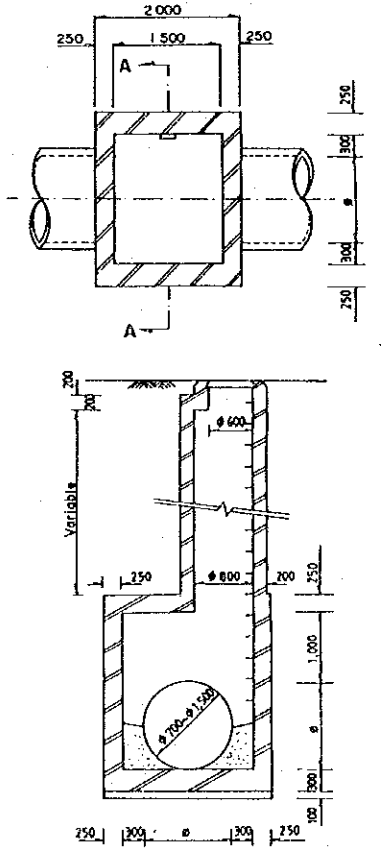
SECTION A - A

MANHOLE WITH PUMP



TYPE 3 MANHOLE

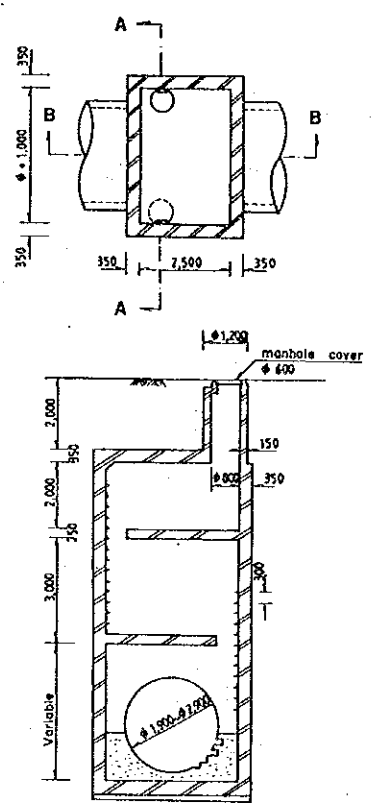
SEWER #700~#1500mm



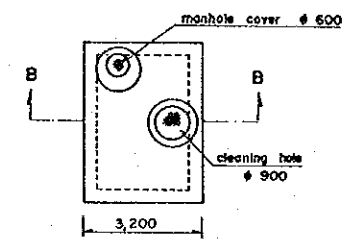
SECTION A - A

TYPE 4 MANHOLE

CONVEYANCE SEWER #1900~2900mm



SECTION A - A



SECTION B - B

DETAIL OF TYPICAL MANHOLES	
FIG. 6	SCALE 1:50 · 1:100
THE STUDY ON URBAN DRAINAGE AND WASTEWATER DISPOSAL PROJECT IN THE CITY OF JAKARTA	
JAPAN INTERNATIONAL COOPERATION AGENCY	

* Dimension in mm

JICA