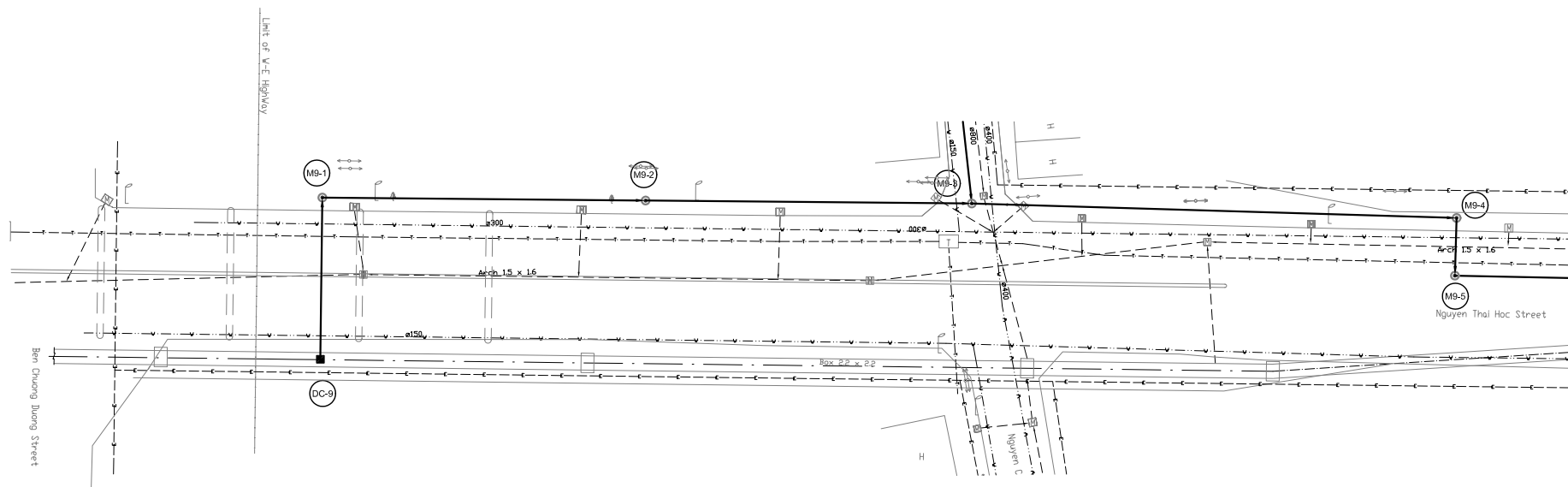
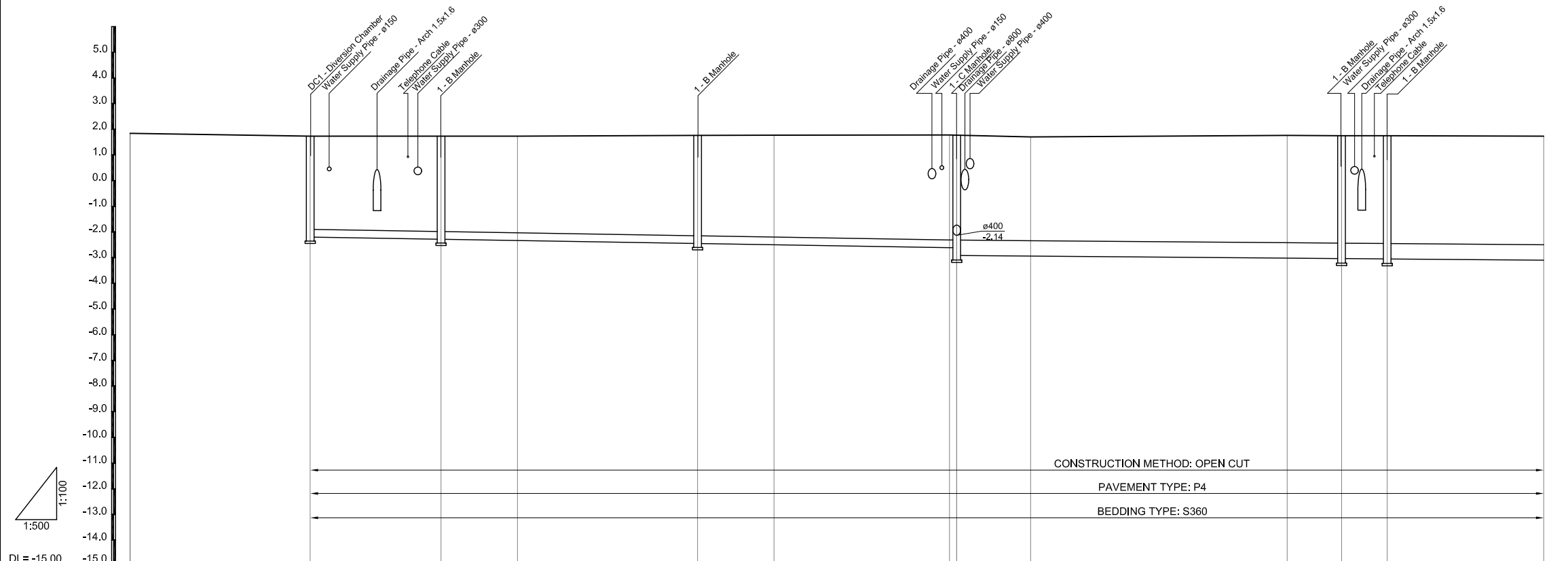


PLAN S = 1/500

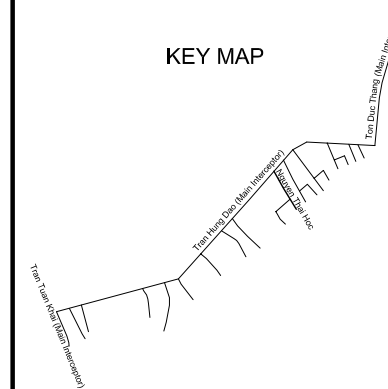


PROFILE $S_H = 1/500, S_V = 1/100$



Manhole number	DC-9		M9-1		M9-2		M9-3		M9-4		M9-5		
Diameter (mm)		ø300		ø300		ø300		ø300		ø600	ø600		
Gradient (%)		3.3		3.3		3.3		1.6		1.6	1.6		
Length (m)		25.5		50.0		50.5		75.0		8.9	70.0		
Ground Elevation (m)	1.84	1.73	1.73	1.73	1.76	1.77	1.79	1.77	1.70	1.76	1.75	1.75	1.73
Earth Covering (m)		3.93		3.71	3.76	3.81	3.97	4.89	4.34	4.48	4.49	4.50	4.53
Invert Elevation (m)		-2.20		-2.28	-2.33	-2.45	-2.50	-2.62	-2.94	-3.02	-3.04	-3.05	-3.10
Accumulation Length (m)		0.0		25.5	40.4	75.5	90.4	126.0	140.4	190.4	201.0	209.9	240.4

KEY MAP



LEGEND

- Sewer Line
- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- Manhole
- Special Manhole
- Diversion Chamber
- Diversion Chamber with Manhole
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant
- S4 - Area to be Required for Shaft
- Sewer Connected from The Right Side
- Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(11)

SCALE : AS SHOWN

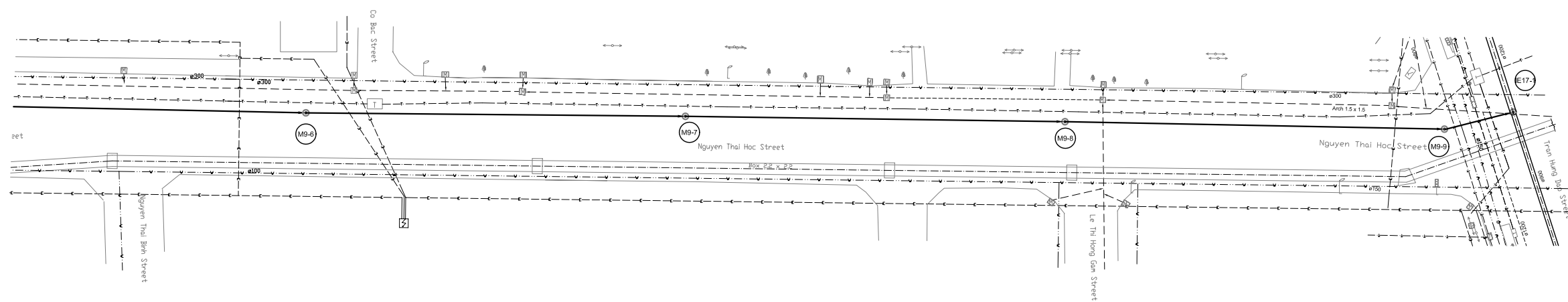
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

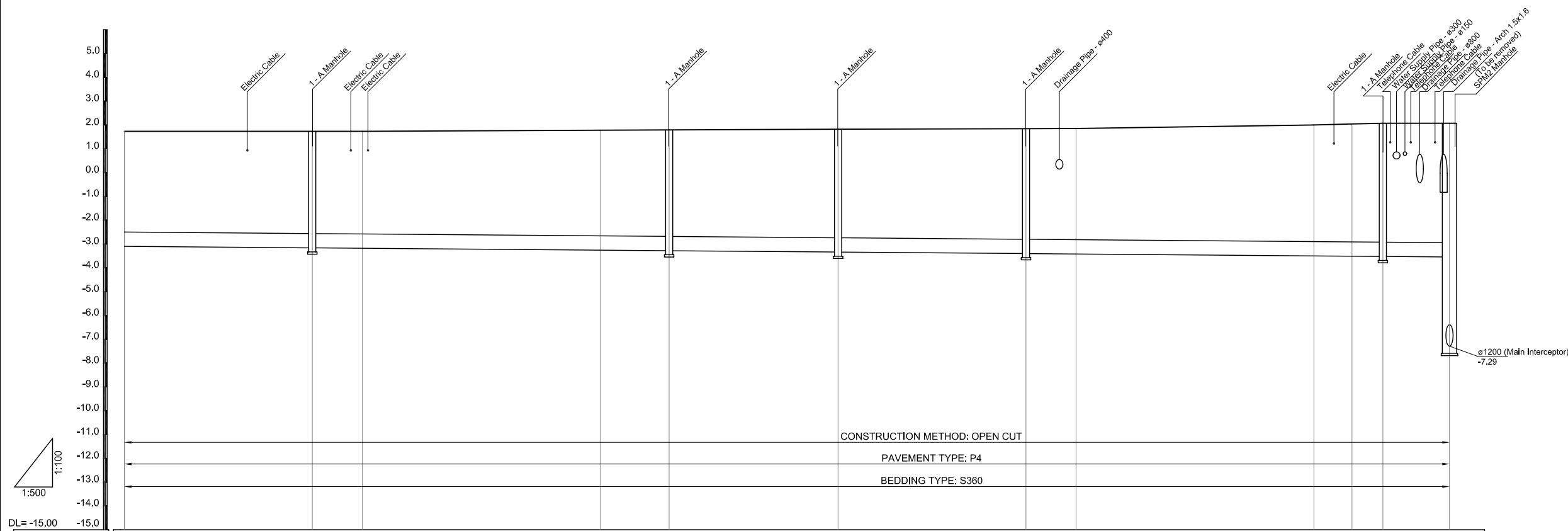
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 233

PLAN S = 1/500

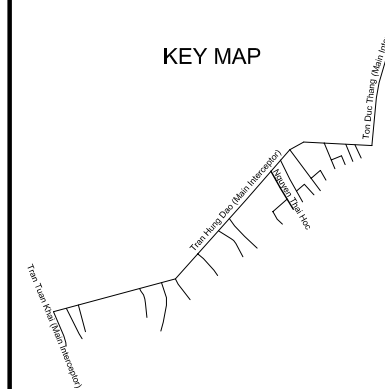


PROFILE S_H = 1/500, S_V = 1/100

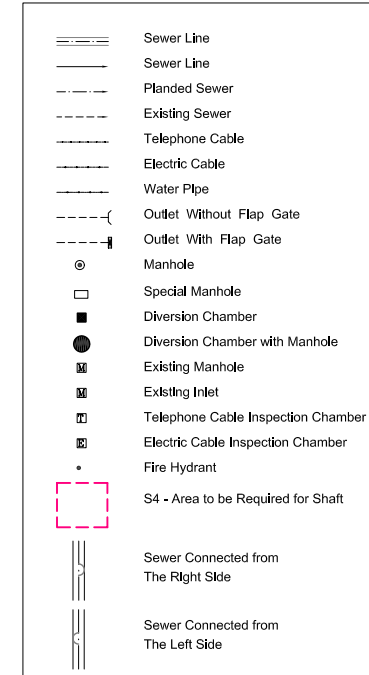


Manhole number	M9-6		M9-7		M9-8		M9-9		IE17-1			
Diameter (mm)	Ø600		Ø600		Ø600		Ø600		Ø600			
Gradient (%)	1.6		1.6		1.6		1.6		1.6			
Length (m)	70.0		75.0		75.0		75.0		14.0			
Ground Elevation (m)	1.73	1.73	1.73	1.78	1.79	1.82	1.84	1.85	2.00	2.04	2.07	2.07
Earth Covering (m)	4.53	4.59	4.51	4.74	4.77	4.86	4.94	4.87	5.20	5.25	5.29	5.32
Invert Elevation (m)	-3.09	-3.16	-3.16	-3.26	-3.28	-3.34	-3.40	-3.42	-3.50	-3.51	-3.52	-3.54
Accumulation Length (m)	240.4	279.9	290.4	340.4	354.9	390.4	429.9	440.4	490.4	495.4	504.9	516.9

KEY MAP

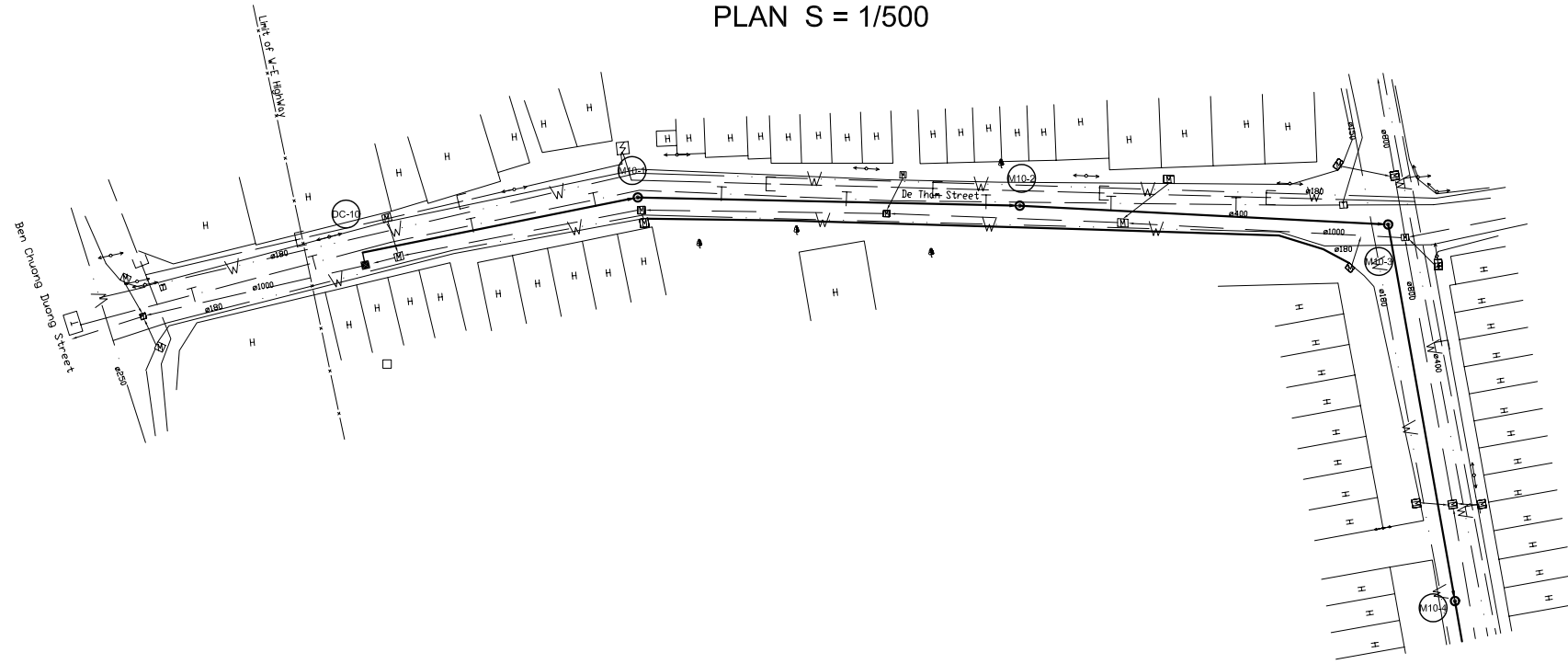


LEGEND

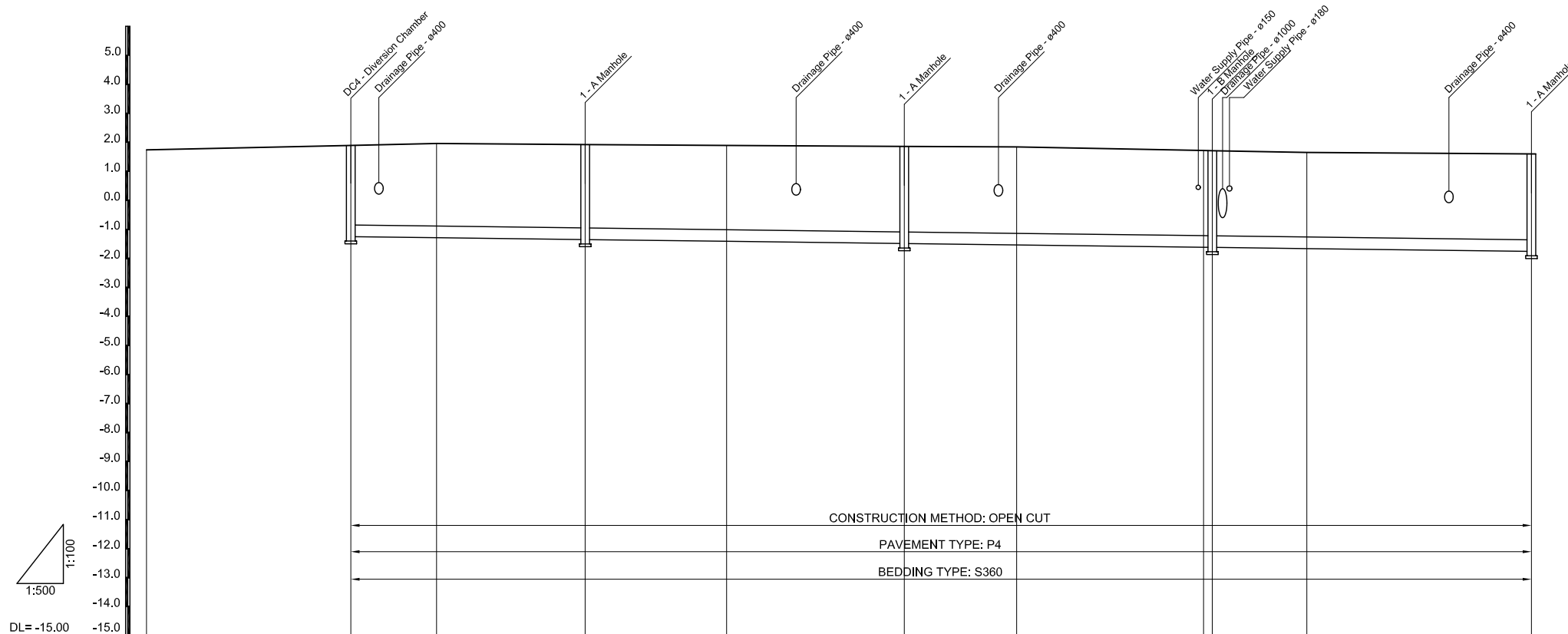


NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE C INTERCEPTOR SEWER CONSTRUCTION				
PLAN AND PROFILE OF SECONDARY INTERCEPTOR SEWER (12)				
SCALE : AS SHOWN				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED SATO NOBUYUKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PC - ISC - 234		

PLAN S = 1/500

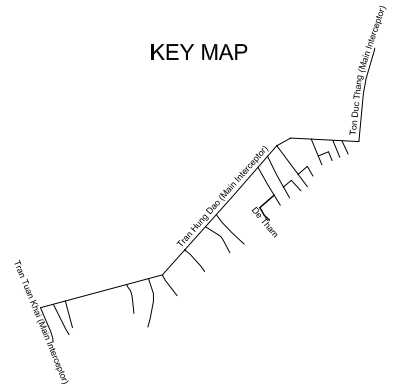


PROFILE S_H = 1/500, S_V = 1/100



Manhole number	DC-10		M10-1		M10-2		M10-3		M10-4		
Diameter (mm)	Ø400		Ø400		Ø400		Ø400				
Gradient (‰)	2.5		2.5		2.5		2.5				
Length (m)	40.4		55.0		53.1		55.0				
Ground Elevation (m)	1.74	1.89	1.96	1.92	1.89	1.86	1.84	1.72	1.71	1.65	1.60
Earth Covering (m)		2.74	2.85	2.87	2.90	2.95	2.96	2.94	2.93	2.91	3.00
Invert Elevation (m)		-1.25	-1.29	-1.35	-1.41	-1.49	-1.54	-1.52	-1.52	-1.56	-1.60
Accumulation Length (m)		0.0	14.8	40.4	64.8	95.4	114.8	147.0	148.5	164.8	203.5

KEY MAP



LEGEND

- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- Manhole
- Special Manhole
- Diversion Chamber
- Diversion Chamber with Manhole
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant
- S4 - Area to be Required for Shaft
- Sewer Connected from The Right Side
- Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(13)

SCALE : AS SHOWN

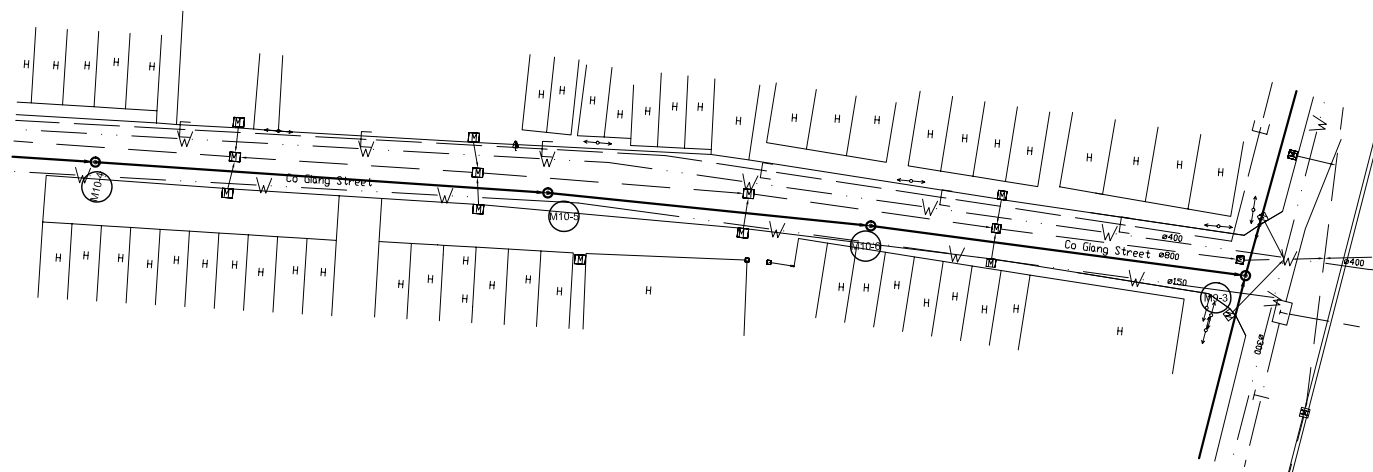
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

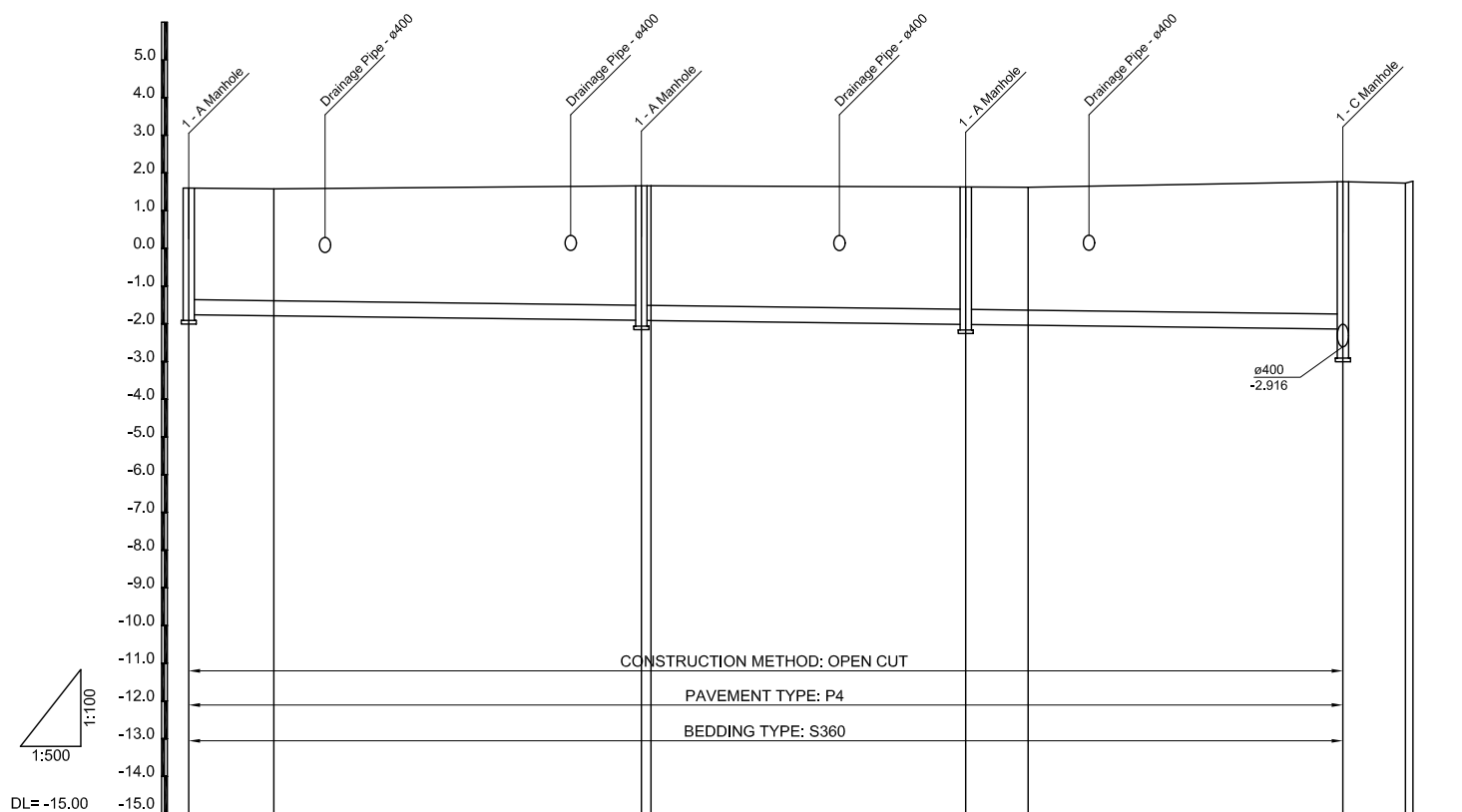
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 235

PLAN S = 1/500

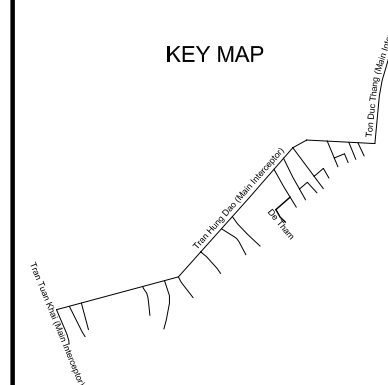


PROFILE S_H = 1/500, S_V = 1/100



Manhole number	M10-4	M10-5	M10-6	M9-3
Diameter (mm)	Ø400			
Gradient (%)	2.5			
Length (m)	60.0	43.0	50.0	
Ground Elevation (m)	1.60, 1.58	1.66, 1.66	1.63, 1.62	1.77, 1.78
Earth Covering (m)	2.96, 2.97	3.17, 3.17	3.25, 3.26	3.51
Invert Elevation (m)	-1.76, -1.79	-1.91, -1.91	-2.02, -2.04	-2.14
Accumulation Length (m)	203.5, 214.8	263.5, 264.8	306.5, 314.8	356.5

KEY MAP



LEGEND

	Sewer Line
	Sewer Line
	Planted Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	Manhole
	Special Manhole
	Diversion Chamber
	Diversion Chamber with Manhole
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant
	S4 - Area to be Required for Shaft
	Sewer Connected from The Right Side
	Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(14)

SCALE : AS SHOWN

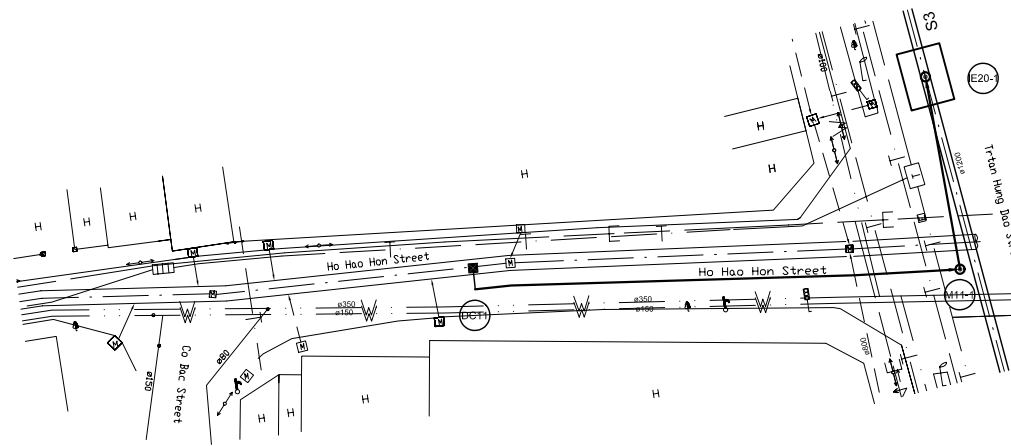
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

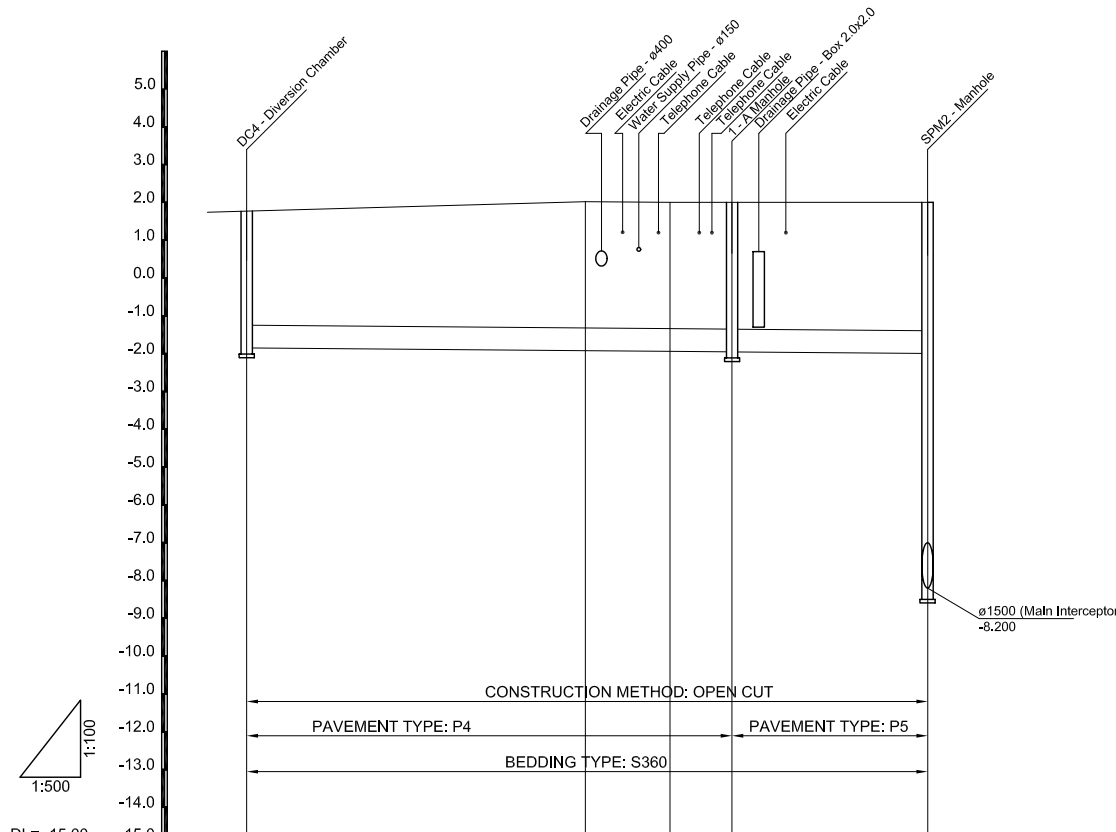
DESIGNED SATO NOBUYUKI CHECKED KONDO MASAMI

DATE : JUNE 2001 DWG. No. PC - ISC - 236

PLAN S = 1/500

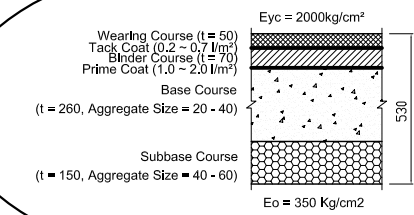


PROFILE S_H = 1/500, S_V = 1/100

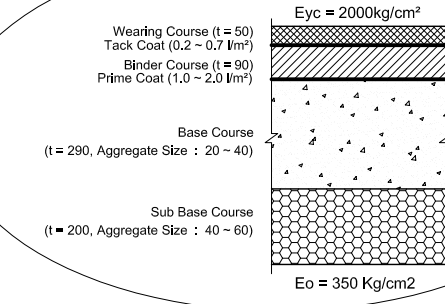


Manhole number	DC-11		M11-1			M20-1
Diameter (mm)	Ø600		Ø600			Ø600
Gradient (‰)	1.6		1.6			1.6
Length (m)	64.2		25.9			
Ground Elevation (m)	1.74	1.77	2.02	2.00	2.00	2.00
Earth Covering (m)	3.22		3.54	3.54	3.55	3.59
Invert Elevation (m)	-1.85		-1.92	-1.94	-1.95	-1.99
Accumulation Length (m)	0.0		44.8	56.0	64.2	90.1

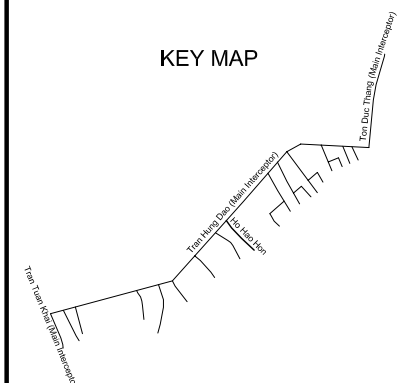
PAVEMENT TYPE P4



PAVEMENT TYPE P5



KEY MAP



LEGEND

- Sewer Line
- Sewer Line
- Planted Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- Manhole
- Special Manhole
- Diversion Chamber
- Diversion Chamber with Manhole
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant
- S4 - Area to be Required for Shaft
- Sewer Connected from The Right Side
- Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(15)

SCALE : AS SHOWN

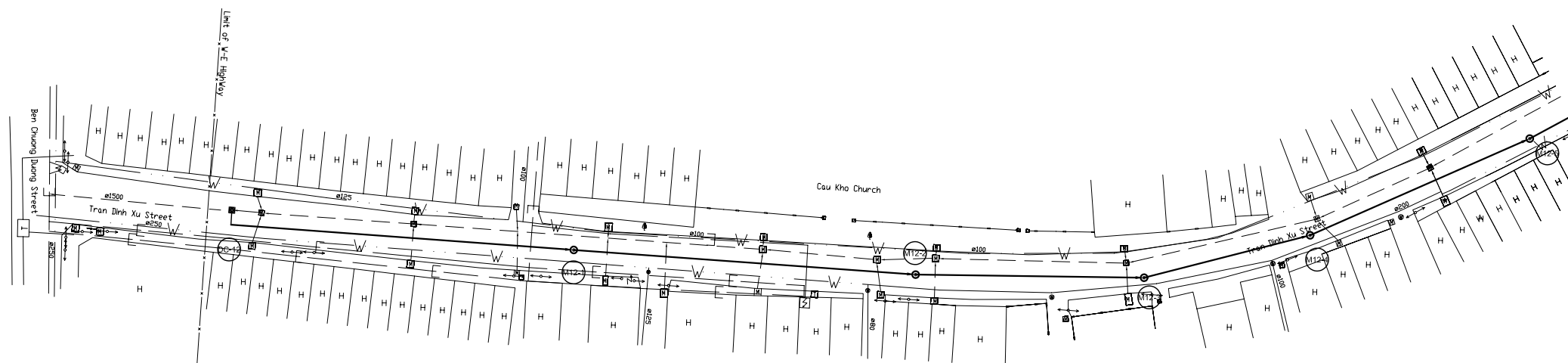
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

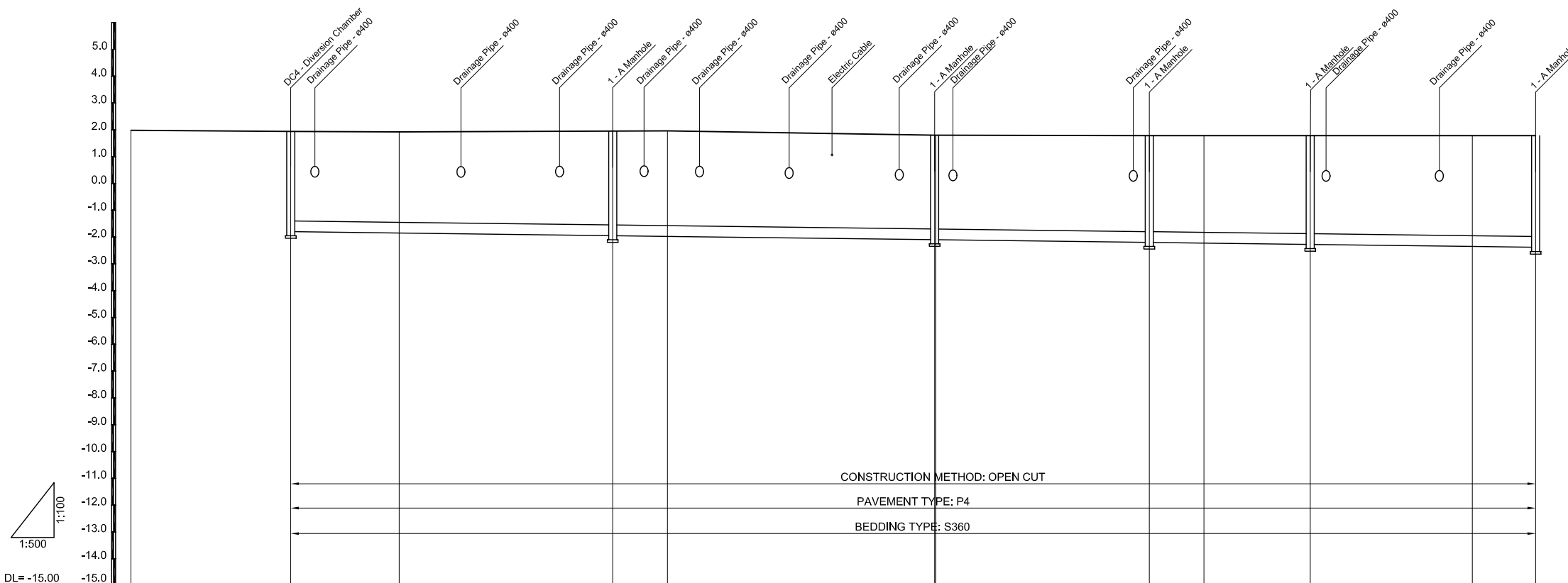
DESIGNED SATO NOBUYUKI
CHECKED KONDO MASAMI

DATE : JUNE 2001 DWG. No. PC - ISC - 237

PLAN S = 1/500

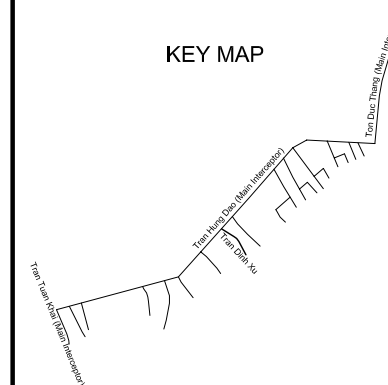


PROFILE $S_H = 1/500, S_V = 1/100$



Manhole number	DC-12		M12-1		M12-2		M12-3		M12-4		M12-5
Diameter (mm)	Ø400		Ø400		Ø400		Ø400		Ø400		
Gradient (‰)	2.5		2.5		2.5		2.5		2.5		
Length (m)	60.0		60.0		40.0		30.0		42.0		
Ground Elevation (m)	1.98	1.94	1.92	1.95	1.96	1.88	1.78	1.78	1.78	1.78	1.78
Earth Covering (m)		3.34	3.37	3.50	3.54	3.50	3.58	3.61	3.65	3.73	3.76
Invert Elevation (m)		-1.80	-1.85	-1.95	-1.98	-2.10	-2.20	-2.23	-2.27	-2.35	-2.38
Accumulation Length (m)	0.0		20.2	60.0	70.2	120.2	160.0	170.2	190.0	220.2	232.0

KEY MAP



LEGEND

- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- Manhole
- Special Manhole
- Diversion Chamber
- Diversion Chamber with Manhole
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant
- S4 - Area to be Required for Shaft
- Sewer Connected from The Right Side
- Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(16)

SCALE : AS SHOWN

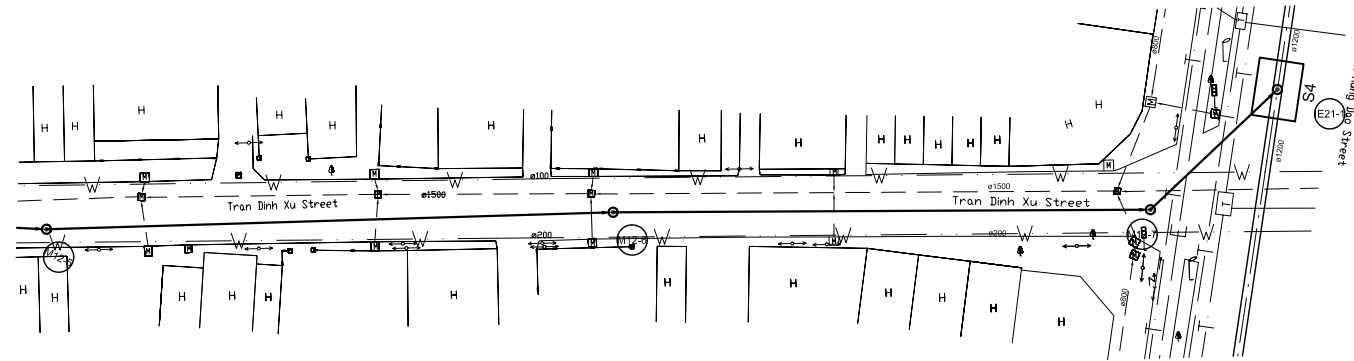
JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

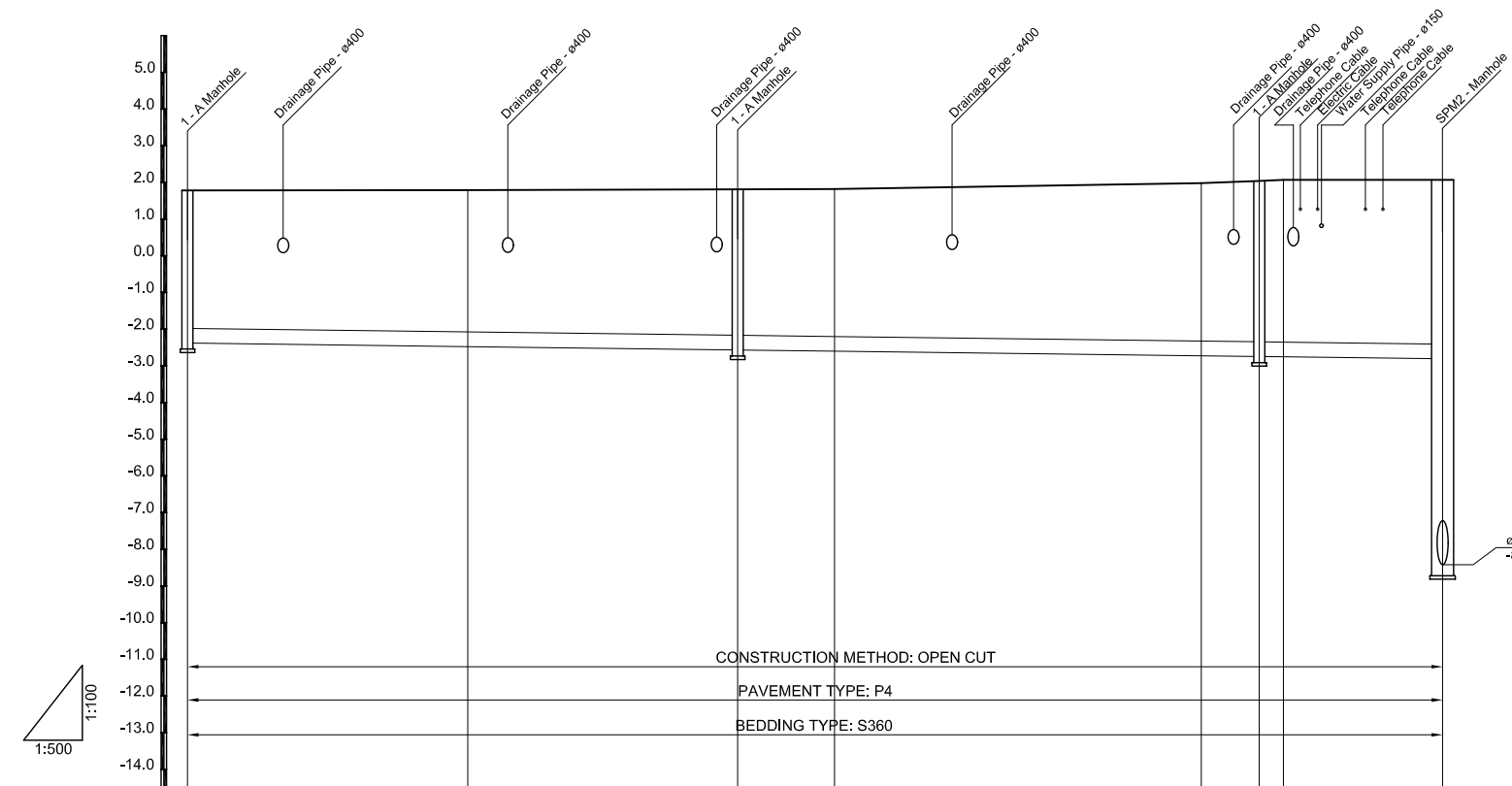
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 238

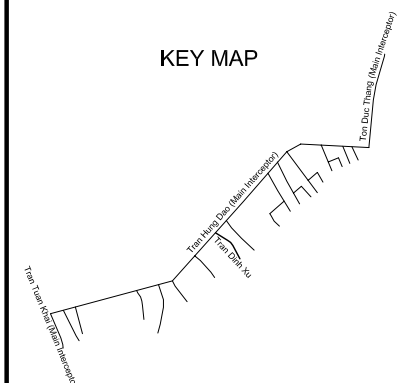
PLAN S = 1/500



PROFILE S_H = 1/500, S_V = 1/100



Manhole number	M12-5		M12-6		M12-7		IE21-1
Diameter (mm)	Ø400		Ø400		Ø400		Ø400
Gradient (%)	2.5		2.5		2.5		2.5
Length (m)	75.0		71.1		25.0		
Ground Elevation (m)	1.78	1.79	1.81	1.82	1.98	2.04	2.07
Earth Covering (m)	3.76	3.87	3.98	4.02	4.31	4.38	4.48
Invert Elevation (m)	-2.38	-2.48	-2.57	-2.60	-2.73	-2.75	-2.81
Accumulation Length (m)	232.0	270.2	307.0	320.2	370.2	378.1	403.1



LEGEND

- Sewer Line
- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- Manhole
- Special Manhole
- Diversion Chamber
- Diversion Chamber with Manhole
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant
- S4 - Area to be Required for Shaft
- Sewer Connected from The Right Side
- Sewer Connected from The Left Side

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE C
INTERCEPTOR SEWER CONSTRUCTION

PLAN AND PROFILE OF
SECONDARY INTERCEPTOR SEWER
(17)

SCALE : AS SHOWN

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 239