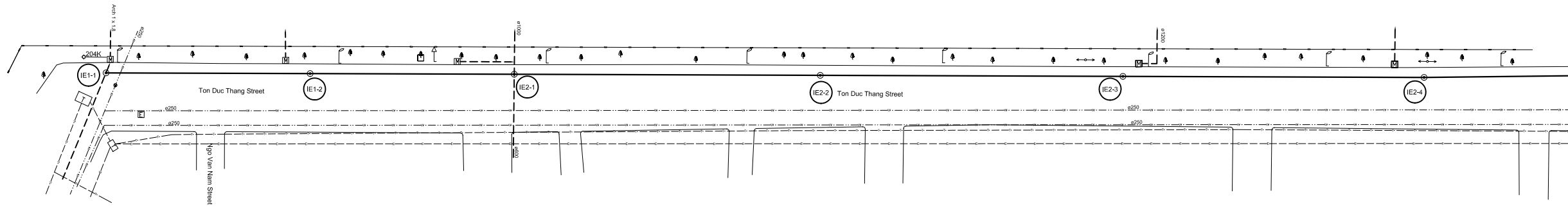
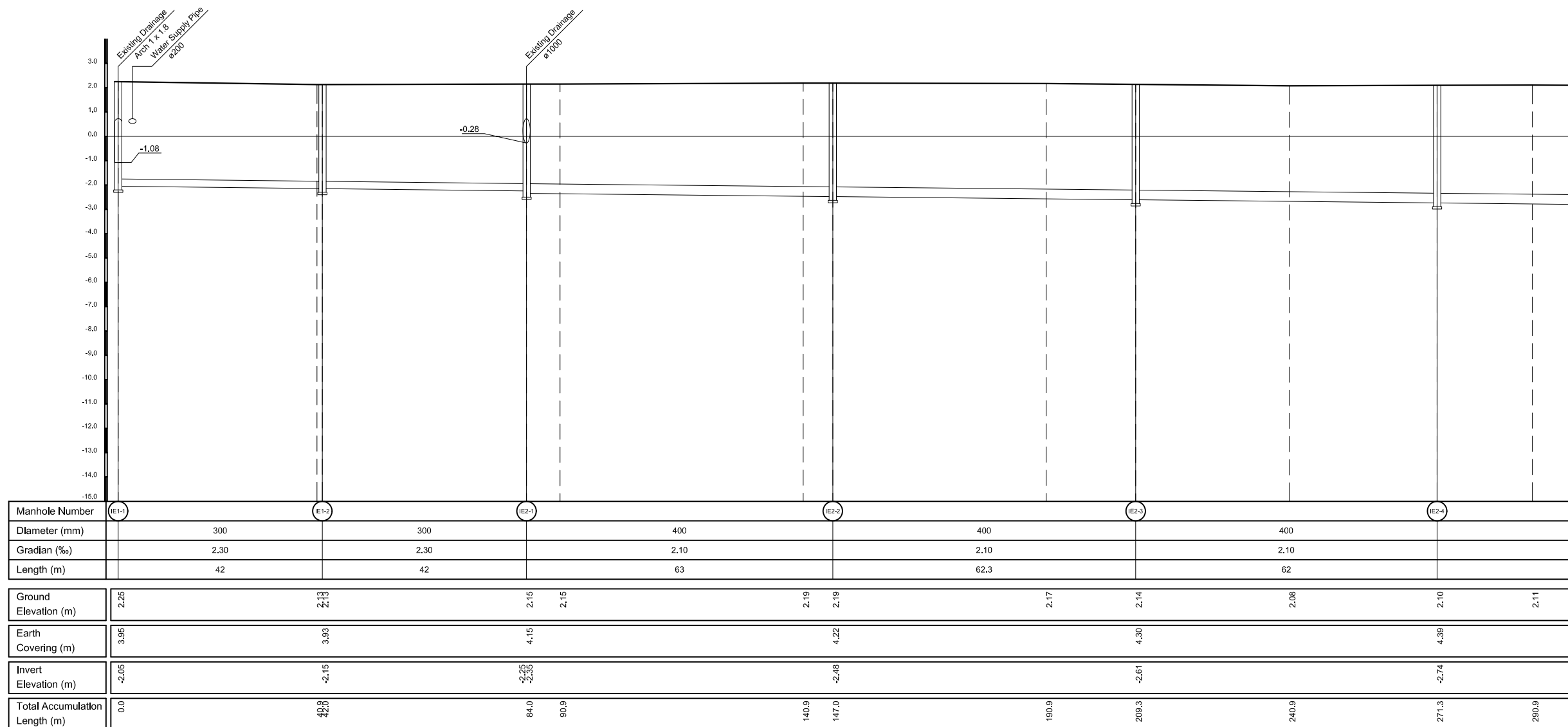


INTERCEPTOR SEWER CONSTRUCTION

PLAN S = 1/500



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



LEGEND

	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole ($\phi 600\text{mm}$)
	No. 2 Manhole ($\phi 1000\text{mm}$)
	No. 3 Manhole ($\phi 1500\text{mm}$)
	No. 4 Manhole ($\phi 2000\text{mm}$)
	Special Manhole
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (1)

SCALE : As Shown

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

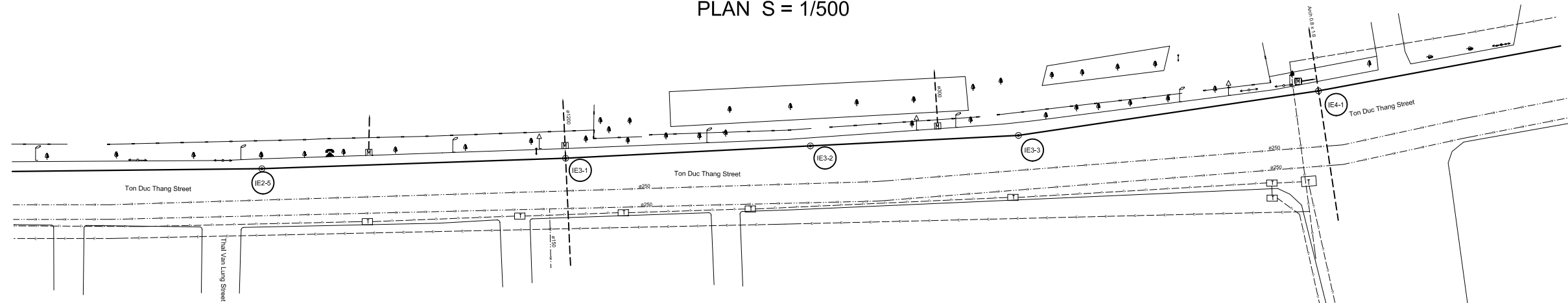
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
SATO NOBUYUKI

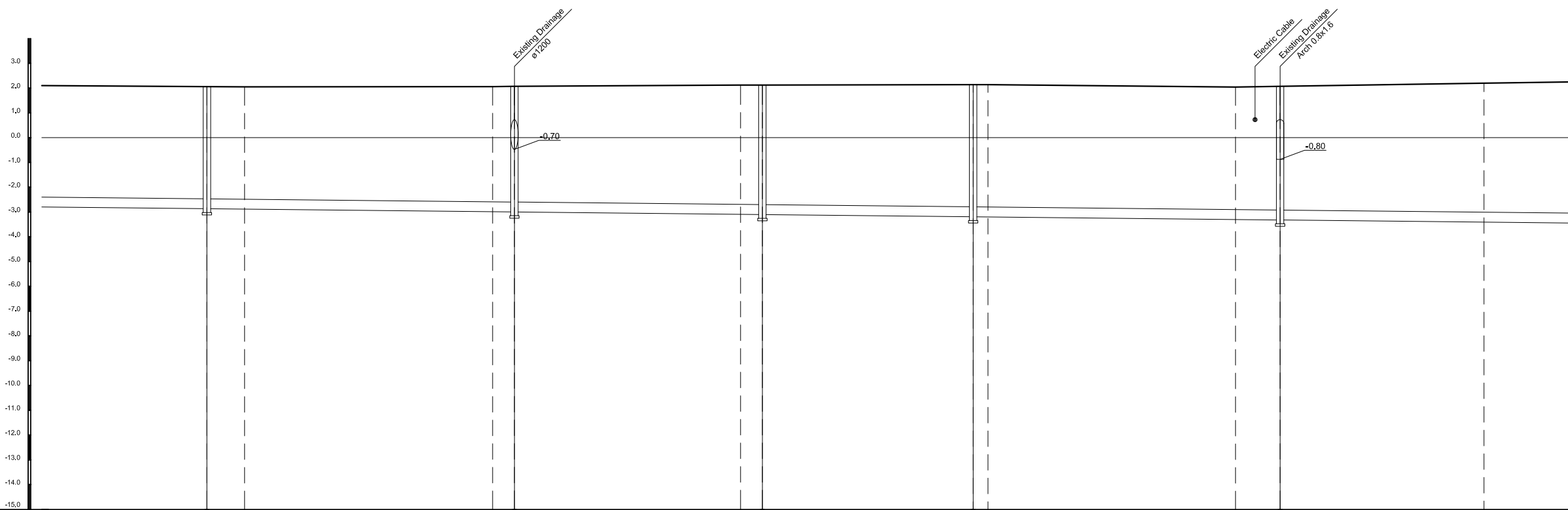
CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PC - ISC - 201

PLAN S = 1/500



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



Manhole Number		IE2-5		IE3-1		IE3-2		IE3-3		IE4-1		
Diameter (mm)		400		400		400		400		400		
Gradient (%)		2.10		2.10		2.10		2.10		2.10		
Length (m)		62		50		42.5		61.9		69.4		
Ground Elevation (m)		2.06	2.05	2.06	2.07	2.12	2.12	2.14	2.14	2.04	2.07	2.20
Earth Covering (m)		4.48		4.62		4.77		4.88		4.94		
Invert Elevation (m)		-2.87		-3.00		-3.10		-3.19		-3.32		
Total Accumulation Length (m)		333.3	340.9	390.9	395.3	440.9	445.3	487.8	490.8	540.7	549.7	590.8

LEGEND

	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole (<900mm)
	No. 2 Manhole (<1000mm)
	No. 3 Manhole (<1500mm)
	No. 4 Manhole (<2000mm)
	Special Manhole
	Division Chamber
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (2)

SCALE : As Shown

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

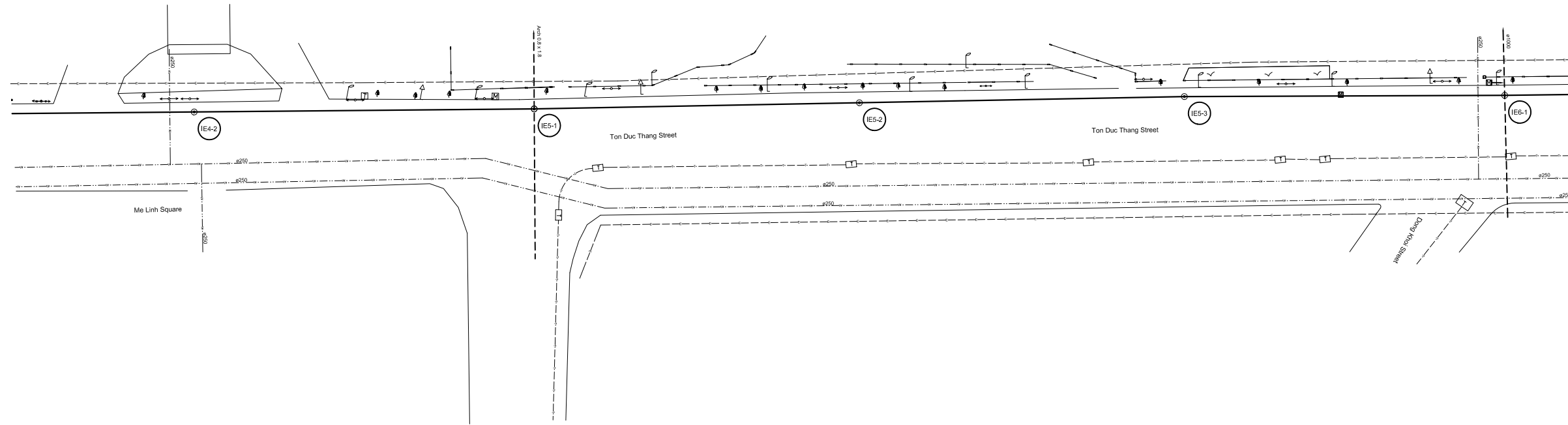
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
SATO NOBUYUKI

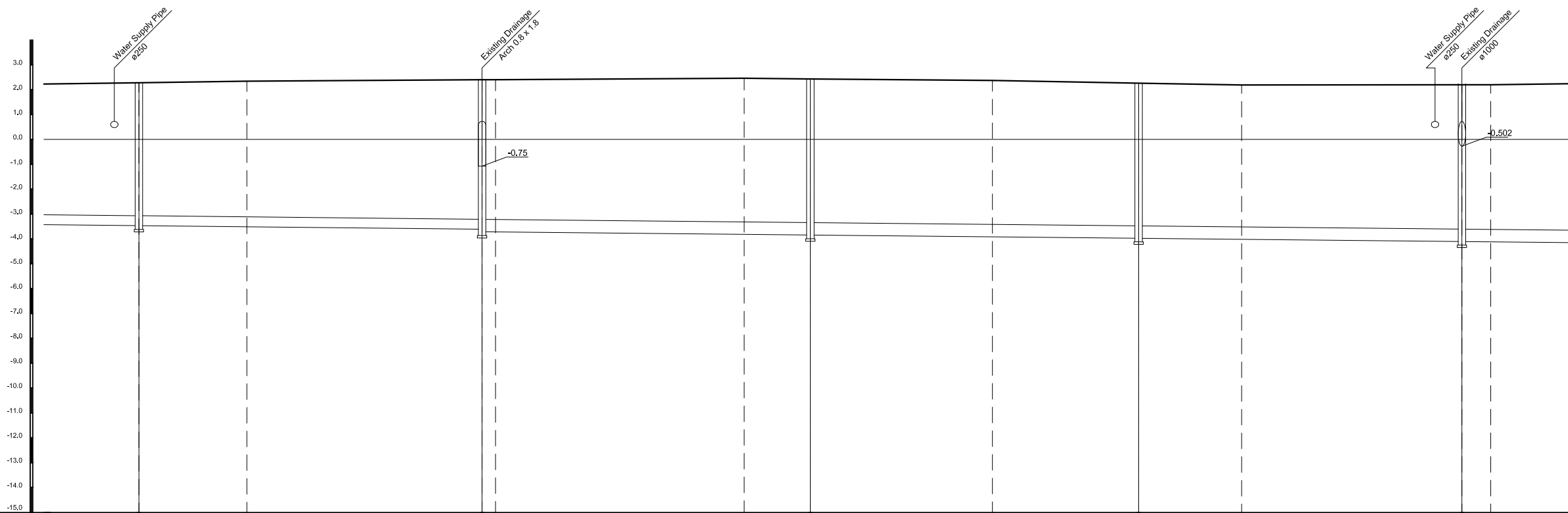
CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PC - ISC - 202

PLAN S = 1/500



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



Manhole Number	IE4-2	IE5-1	IE5-2	IE5-3	IE6-1
Diameter (mm)	400	500	500	500	500
Gradient (‰)	2.10	2.00	2.00	2.00	2.00
Length (m)	69	66	66	65	
Ground Elevation (m)	2.28	2.34	2.40	2.46	2.43
Earth Covering (m)	5.30	5.56	5.72	5.68	5.75
Invert Elevation (m)	-3.47	-3.51	-3.85	-3.88	-4.11
Total Accumulation Length (m)	619.1	640.8	688.1	740.8	764.1
			690.8	790.7	820.1
					840.8
					865.1
					890.9

LEGEND

- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- No. 1 Manhole ($\phi 600\text{mm}$)
- No. 2 Manhole ($\phi 1000\text{mm}$)
- No. 3 Manhole ($\phi 1500\text{mm}$)
- No. 4 Manhole ($\phi 2000\text{mm}$)
- Special Manhole
- Diversion Chamber
- Inlet
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (3)

SCALE : As Shown

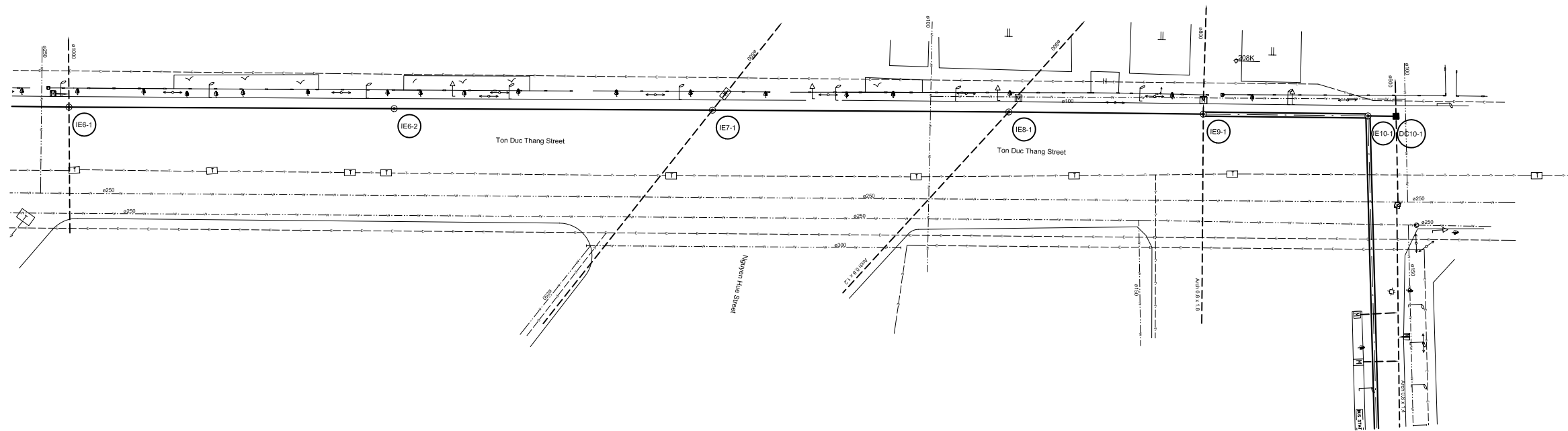
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

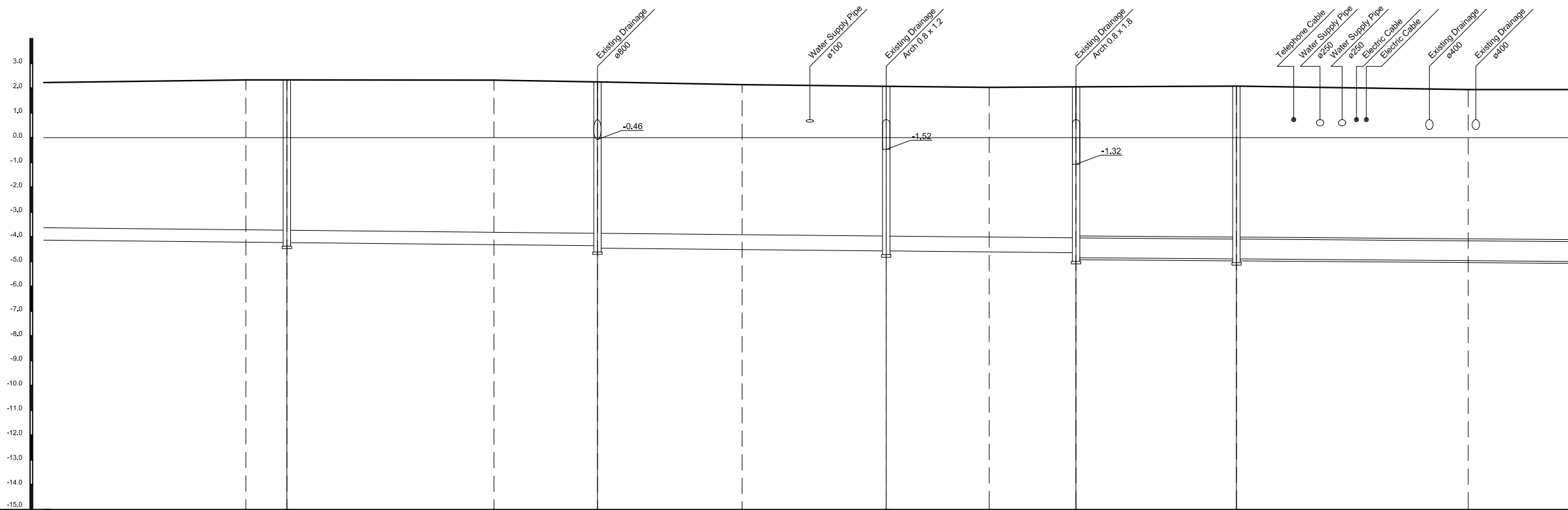
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 203

PLAN S = 1/500



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



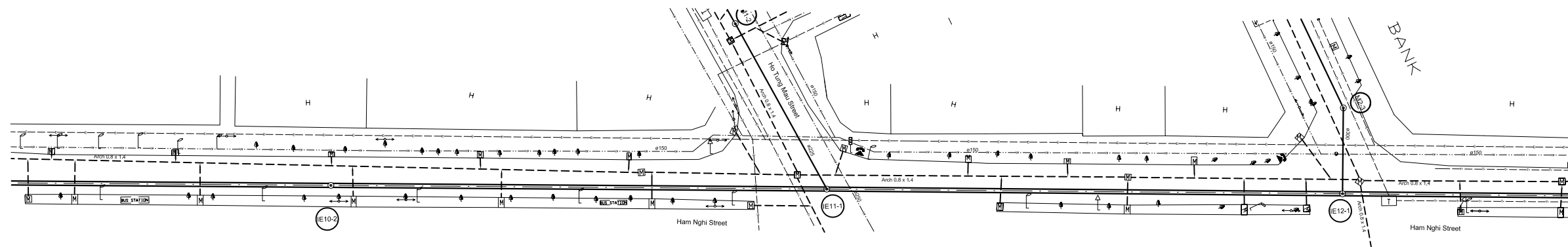
Manhole Number		IE6-2		IE7-1		IE8-1		IE9-1		IE10-1	
Diameter (mm)		500		500		600		600		800	
Gradient (‰)		2.00		2.00		1.90		1.90		1.50	
Length (m)		64		62.7		58.3		38.3		32.4	
Ground Elevation (m)		2.33	2.33	2.32	2.25	2.14	2.07	2.03	2.05	2.08	1.94
Earth Covering (m)			6.01		6.05 6.03		5.96		6.01	6.09	
Invert Elevation (m)			-4.24		-4.36 -4.46		-4.57		-4.64 -4.84	-4.89	
Total Accumulation Length (m)		940.0	949.1		990.9	1041.0	1070.1	1090.9	1108.4	1140.8	1187.6

LEGEND

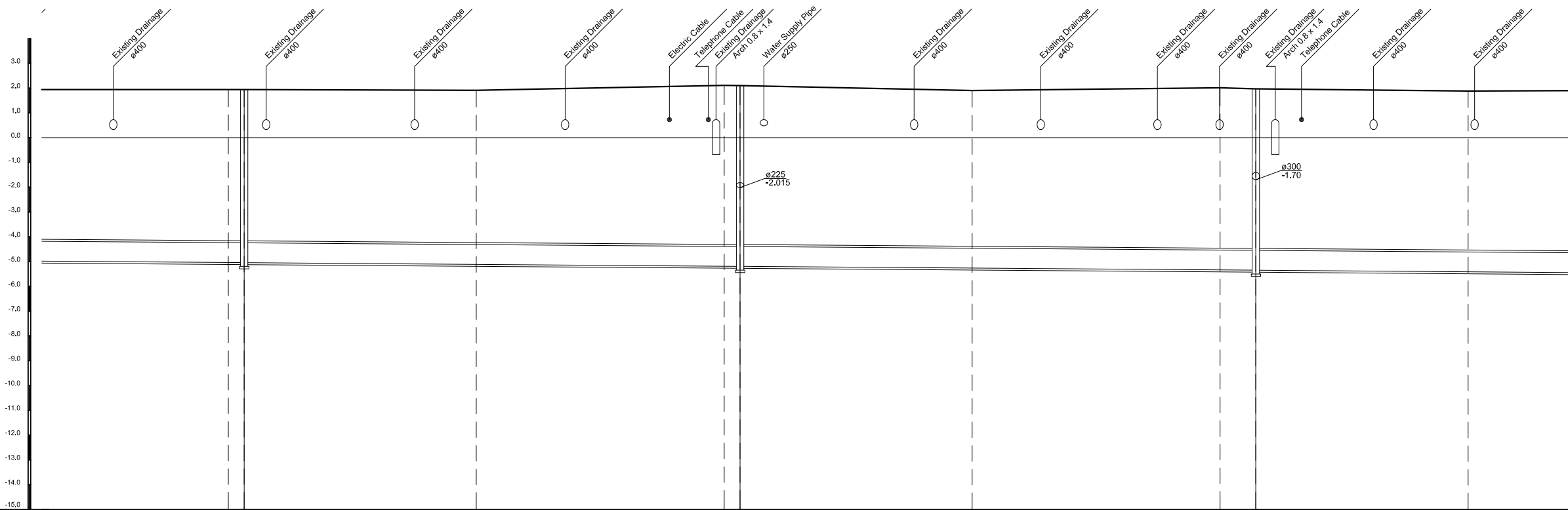
	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole ($\phi 600\text{mm}$)
	No. 2 Manhole ($\phi 1000\text{mm}$)
	No. 3 Manhole ($\phi 1500\text{mm}$)
	No. 4 Manhole ($\phi 2000\text{mm}$)
	Special Manhole
	Division Chamber
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY 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 MAIN INTERCEPTOR SEWER (4)				
SCALE : As Shown				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED SATO NOBUYUKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PC - ISC - 204		

PLAN S = 1/500



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



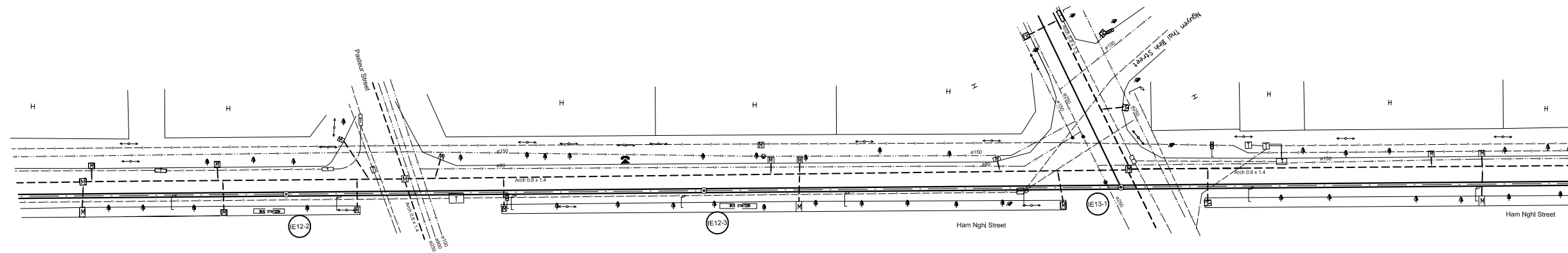
Manhole Number	E10-2		E11-1		E12-1	
Diameter (mm)	800		800		800	
Gradient (‰)	1.50		1.50		1.50	
Length (m)	100		104		86	
Ground Elevation (m)	1.94	1.94	1.91	2.11	2.10	1.90
Earth Covering (m)	6.10		6.41		6.44	
Invert Elevation (m)	-5.04		-5.19		-5.35	
Total Accumulation Length (m)	1237.6	1240.8	1287.6	1337.6	1340.8	1487.6

LEGEND

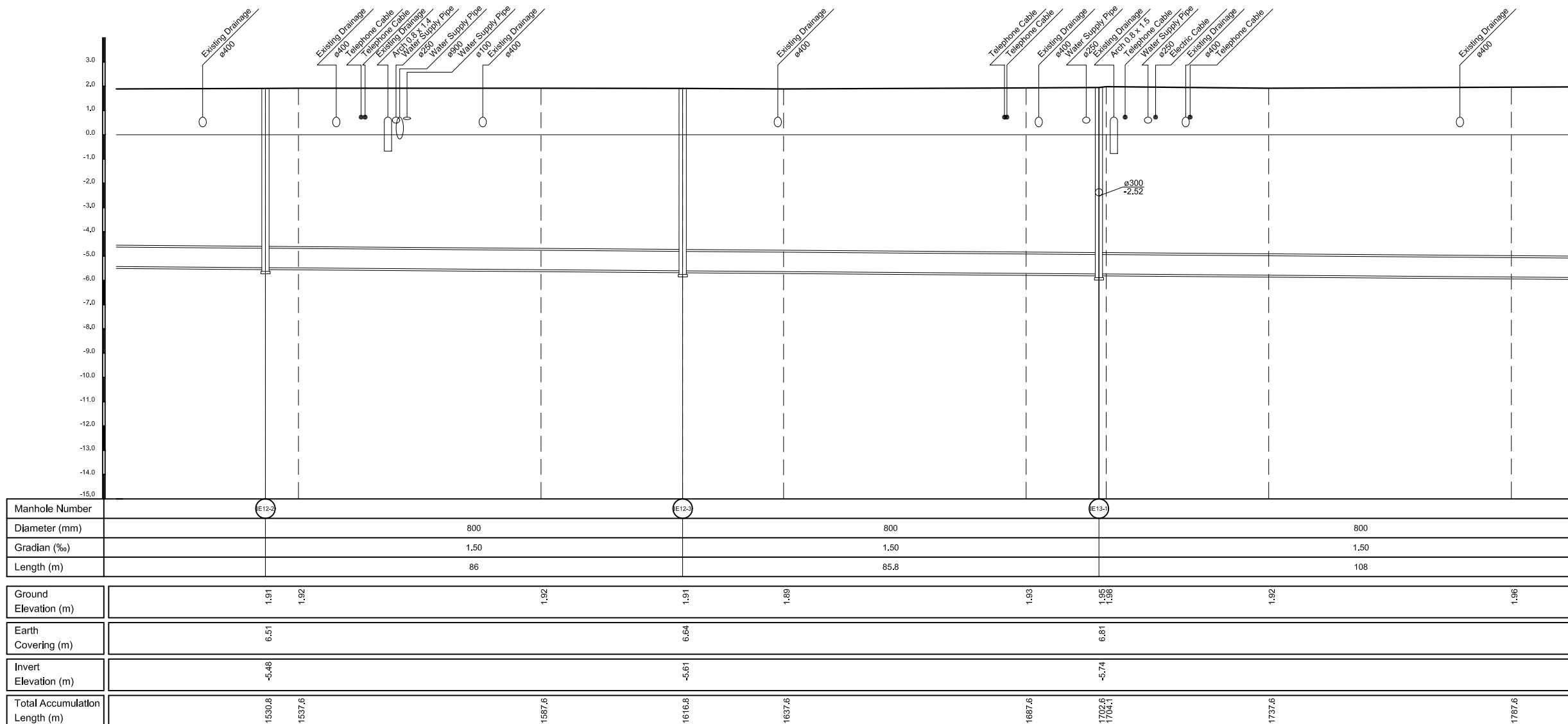
- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- No. 1 Manhole ($\phi 600\text{mm}$)
- No. 2 Manhole ($\phi 1000\text{mm}$)
- No. 3 Manhole ($\phi 1500\text{mm}$)
- No. 4 Manhole ($\phi 2000\text{mm}$)
- Special Manhole
- Division Chamber
- Inlet
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APPRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY 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 MAIN INTERCEPTOR SEWER (5)				
SCALE : As Shown				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED SATO NOBUYUKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PC - ISC - 205		

PLAN S = 1/500



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

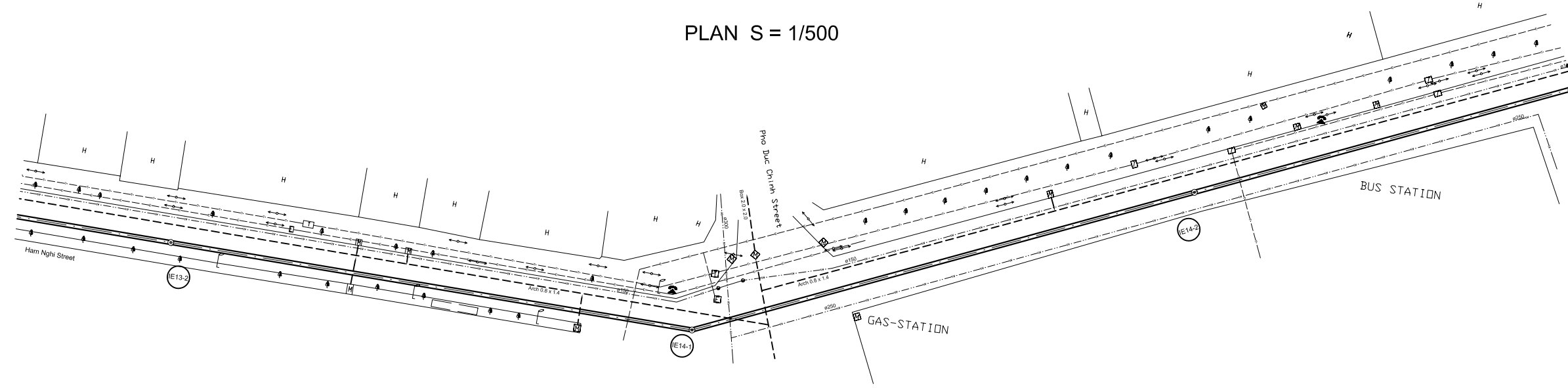


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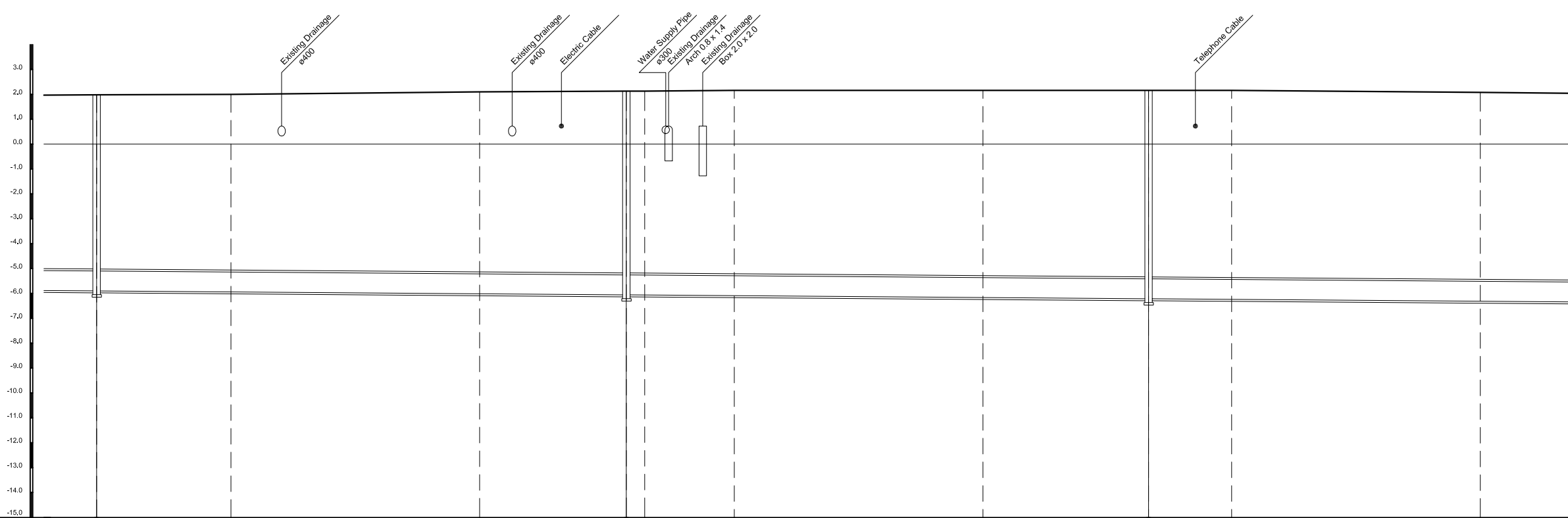
- Sewer Line
- Planned Sewer
- Existing Sewer
- Telephone Cable
- Electric Cable
- Water Pipe
- Outlet Without Flap Gate
- Outlet With Flap Gate
- No. 1 Manhole ($\phi 600\text{mm}$)
- No. 2 Manhole ($\phi 1000\text{mm}$)
- No. 3 Manhole ($\phi 1500\text{mm}$)
- No. 4 Manhole ($\phi 2000\text{mm}$)
- Special Manhole
- Diversion Chamber
- Inlet
- Existing Manhole
- Existing Inlet
- Telephone Cable Inspection Chamber
- Electric Cable Inspection Chamber
- Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY 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 MAIN INTERCEPTOR SEWER (6)				
SCALE : As Shown				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED SATO NOBUYUKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PC - ISC - 206		

PLAN S = 1/500



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



Manhole Number	E13-2		E14-1		E14-2	
Diameter (mm)	800		800		800	
Gradient (‰)	1.50		1.50		1.50	
Length (m)	106.5		105		105.8	
Ground Elevation (m)	1.98	2.00	2.10	2.13 2.13	2.16	2.16 2.16 2.08
Earth Covering (m)	7.00		7.31		7.50	
Invert Elevation (m)	-6.50		-6.06		-6.22	
Total Accumulation Length (m)	1810.6	1837.6	1857.6	1917.1 1920.8	1938.8	1968.8 2022.1 2038.8 2068.8

LEGEND

	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole ($\phi 600\text{mm}$)
	No. 2 Manhole ($\phi 1000\text{mm}$)
	No. 3 Manhole ($\phi 1500\text{mm}$)
	No. 4 Manhole ($\phi 2000\text{mm}$)
	Special Manhole
	Division Chamber
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (7)

SCALE : As Shown

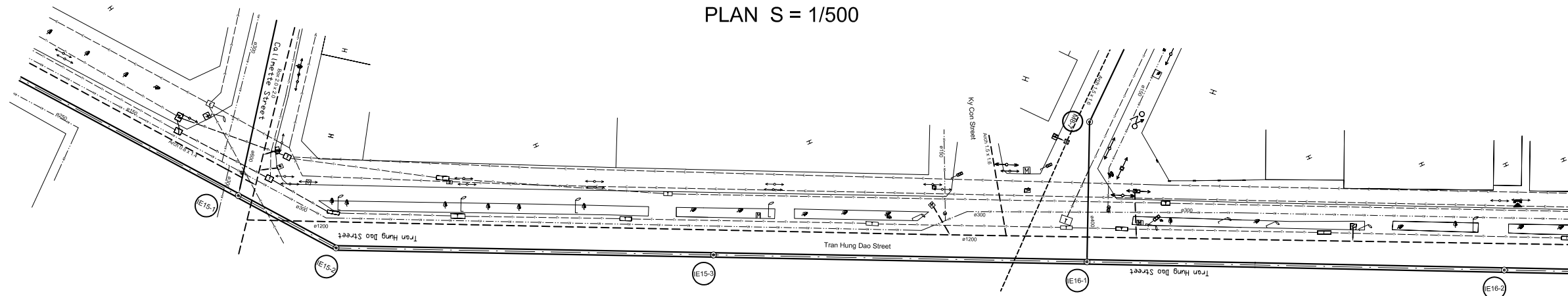
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

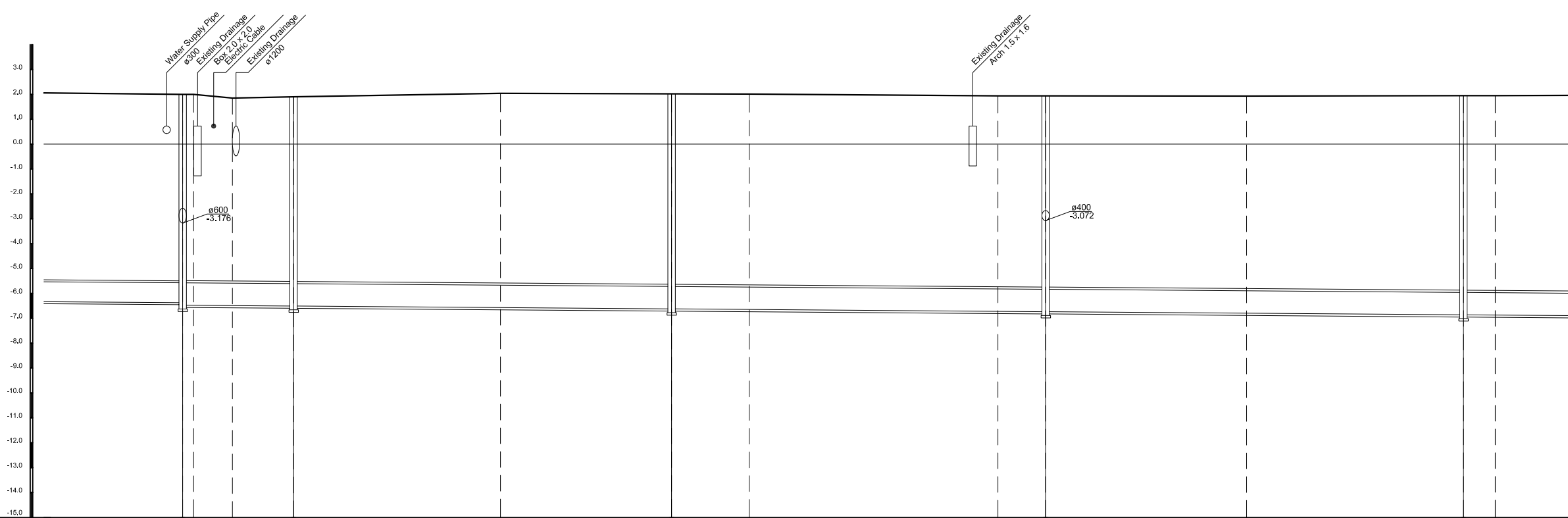
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 207

PLAN S = 1/500



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



Manhole Number	E15-1	E15-2	E15-3	E16-1	E16-2
Diameter (mm)	900	900	900	900	900
Gradient (%)	1.50	1.50	1.50	1.50	1.50
Length (m)	22.3	76	75.2	84	
Ground Elevation (m)	2.00 2.00	1.85 1.90	2.04	2.02 2.01	1.94 1.94
Earth Covering (m)	7.48 7.47	1.85 7.42	7.65	7.88	7.82 1.95
Invert Elevation (m)	-6.37 -6.47	-6.51	-6.62	-6.73	-6.86
Total Accumulation Length (m)	2127.9 2130.1	2137.9 2150.2	2191.8 2226.2	2241.8 2291.8 2301.4	2341.8 2385.4 2391.8

LEGEND

	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole (<900mm)
	No. 2 Manhole (<1000mm)
	No. 3 Manhole (<1500mm)
	No. 4 Manhole (<2000mm)
	Special Manhole
	Diversion Chamber
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (8)

SCALE : As Shown

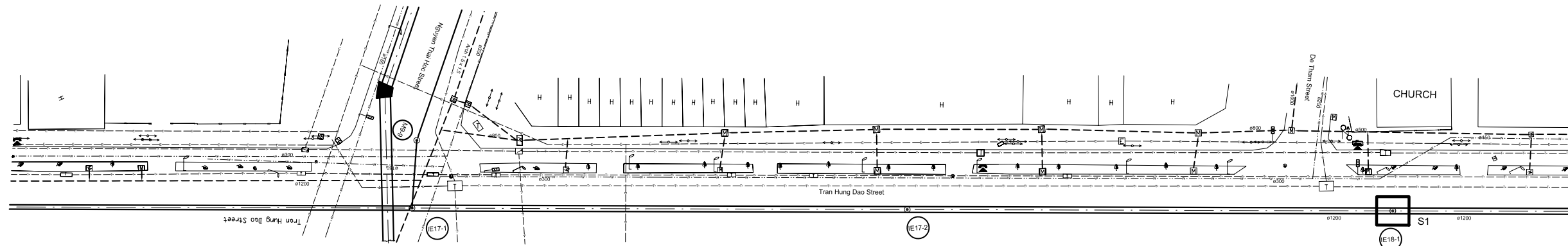
JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

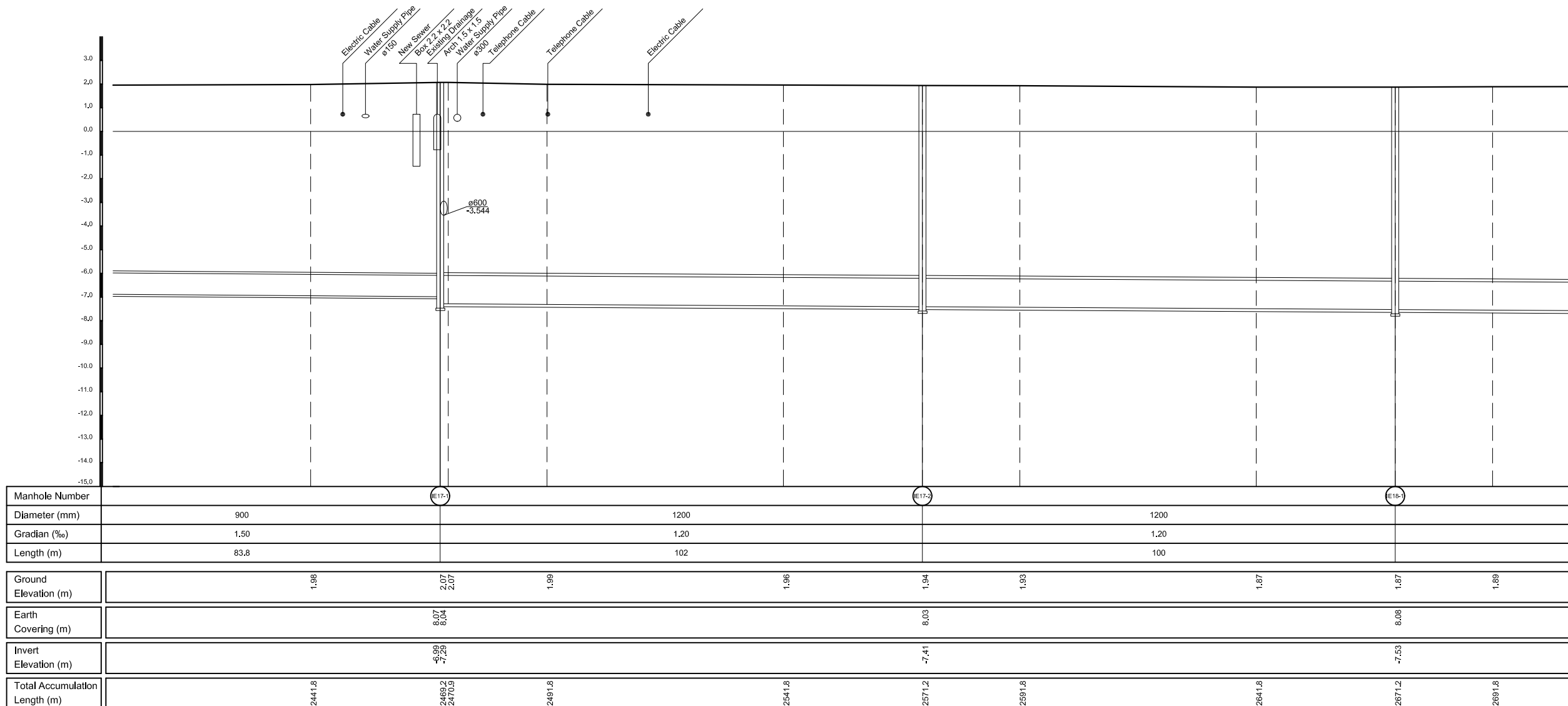
DESIGNED SATO NOBUYUKI	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PC - ISC - 208

PLAN S = 1/500



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



LEGEND

	Sewer Line
	Planned Sewer
	Existing Sewer
	Telephone Cable
	Electric Cable
	Water Pipe
	Outlet Without Flap Gate
	Outlet With Flap Gate
	No. 1 Manhole ($\phi 600\text{mm}$)
	No. 2 Manhole ($\phi 1000\text{mm}$)
	No. 3 Manhole ($\phi 1500\text{mm}$)
	No. 4 Manhole ($\phi 2000\text{mm}$)
	Special Manhole
	Diversion Chamber
	Inlet
	Existing Manhole
	Existing Inlet
	Telephone Cable Inspection Chamber
	Electric Cable Inspection Chamber
	Fire Hydrant

NO.	DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY 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 MAIN
INTERCEPTOR SEWER (9)

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 - ISD - 209