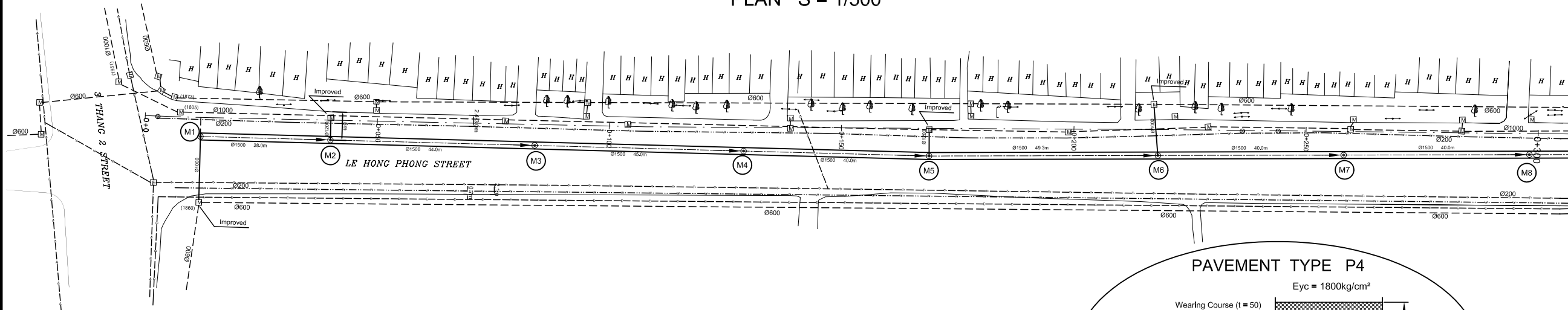
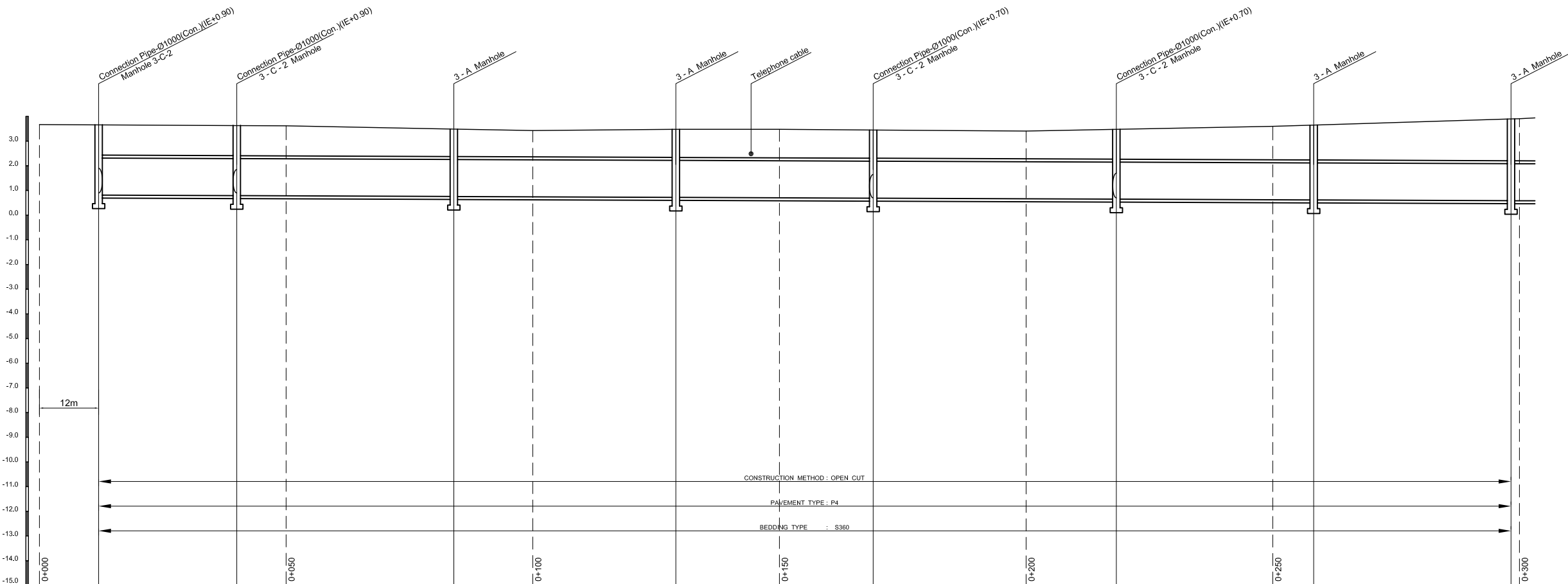
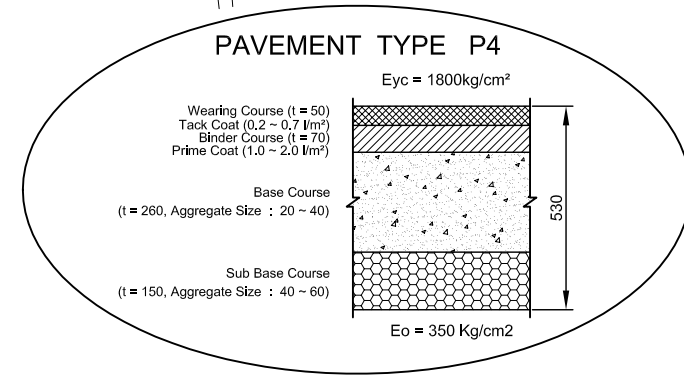


PLAN S = 1/500

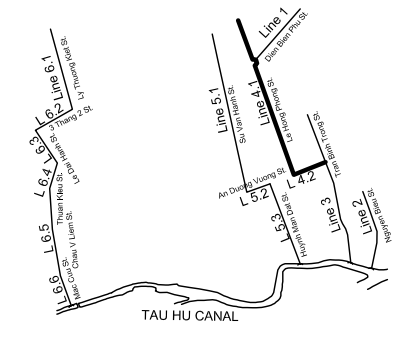


PROFILE  $S_H = 1/500, S_V = 1/100$



Manhole Number	M1	M2	M3	M4	M5	M6	M7	M8
Diameter (mm)	Ø1500	Ø1500	Ø1500	Ø1500	Ø1500	Ø1500	Ø1500	Ø1500
Gradient (‰)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Length (m)	28.0	44.0	45.0	40.0	49.3	40.0	40.0	
Existing Ground Elevation (m)	3.67	3.66	3.63	3.62	3.49	3.43	3.48	3.48
Earth Covering (m)	1.23	1.22	1.11	1.14	1.14	1.21	1.41	1.69
Invert Elevation (m)	0.81	0.79	0.78	0.76	0.75	0.72	0.70	0.69
Total Accumulation Length (m)	0.0	28.0	38.0	72.0	88.0	117.0	138.0	157.0
								188.0
								206.3
								238.0
								246.3
								286.3
								288.0

KEYMAP



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	APPRO.
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 D  
EXISTING COMBINED SEWER IMPROVEMENT

PLAN AND PROFILE  
ECSI - LINE 4.1 (1)

SCALE : As Shown

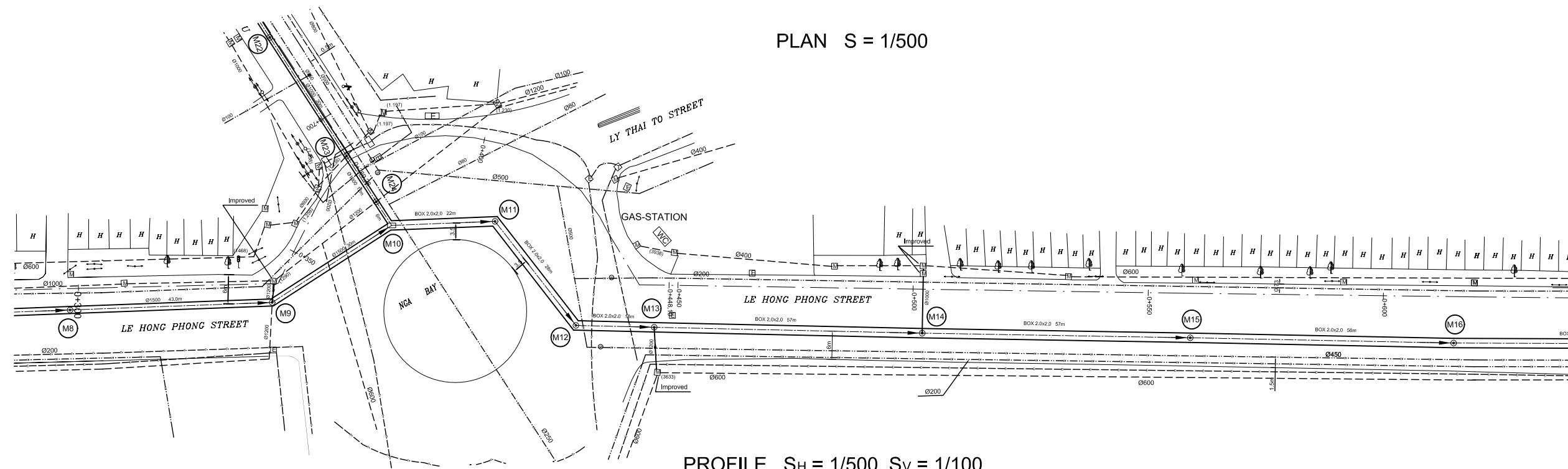
JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PCIC PACIFIC CONSULTANTS INTERNATIONAL

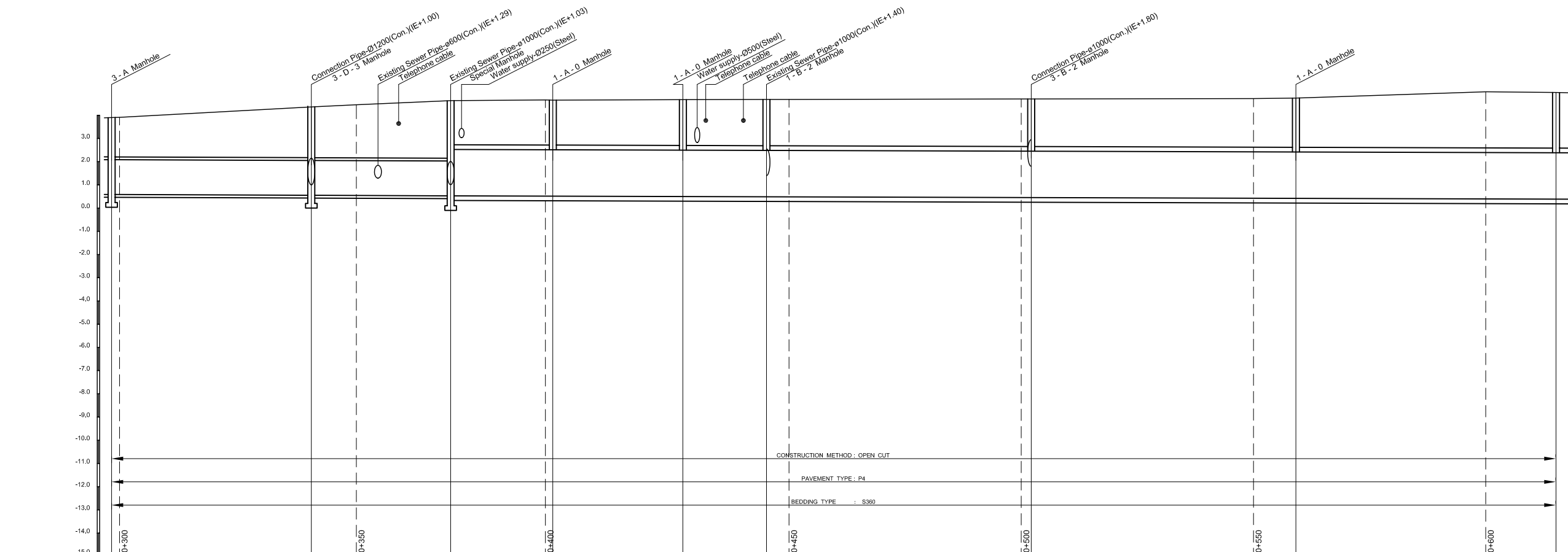
DESIGNED: KATSUKI TAKAAKI  
CHECKED: KONDO MASAMI

DATE : JUNE 2001 DWG. No. PD - ECSI - 212

PLAN S = 1/500

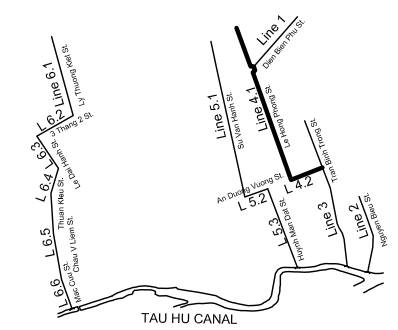


PROFILE  $S_H = 1/500, S_V = 1/100$

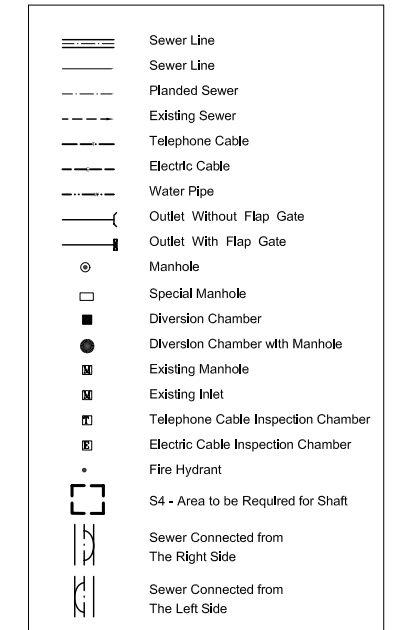


Manhole Number	M8	M9	M10	M11	M12	M13	M14	M15	M16
Diameter (mm)	Ø1500	Ø1500	Box 2000 x 2000	Box 2000 x 2000	Box 2000 x 2000	Box 2000 x 2000	Box 2000 x 2000	Box 2000 x 2000	Box 2000 x 2000
Gradient (%)	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Length (m)	43.0	30.0	22.0	28.0	18.0	57.0	57.0	56.0	
Existing Ground Elevation (m)	3.90 3.91	4.36 4.45	4.63	4.66 4.65	4.67	4.68 4.68	4.70 4.70	4.72 4.74	5.01 4.98
Earth Covering (m)	1.69	2.19	1.90	1.94	1.97	1.99	2.05	2.12	2.40
Invert Elevation (m)	0.59 0.59	0.55 0.55	0.53	0.52 0.52	0.50	0.49 0.49	0.45 0.45	0.42 0.42	0.40 0.39
Total Accumulation Length (m)	286.3 285.0	329.3 339.0	359.3	379.7 381.3	409.3	427.3 432.2	482.2 484.3	532.2 541.3	582.2 597.3

KEYMAP



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 D  
EXISTING COMBINED SEWER IMPROVEMENT

PLAN AND PROFILE  
ECSI - LINE 4.1 (2)

SCALE : As Shown

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

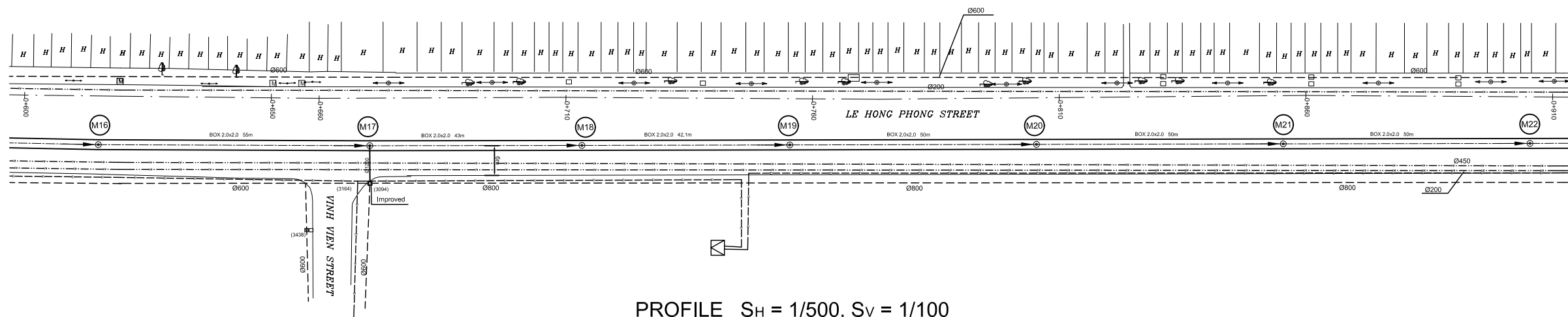
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KATSUKI TAKAOKI

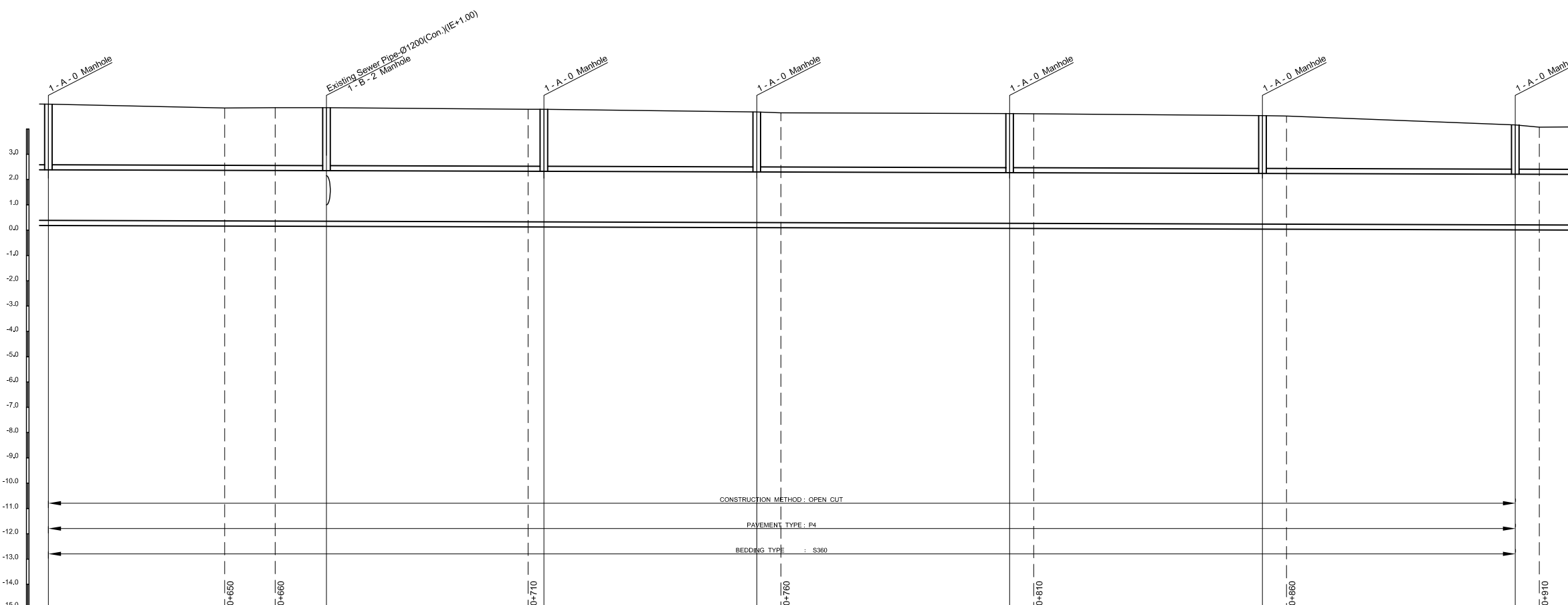
CHECKED  
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PD - ECSI - 213

PLAN S = 1/500

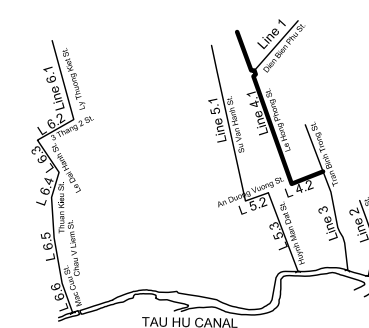


PROFILE S<sub>H</sub> = 1/500, S<sub>V</sub> = 1/100



Manhole Number	M16		M17		M18		M19		M20		M21		M22
Diameter (mm)		Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000	
Gradient (%)		0.6		0.6		0.6		0.6		0.6		0.6	
Length (m)		55.0		43.0		42.1		50.0		50.0		50.0	
Existing Ground Elevation (m)	4.98		4.83	4.84		4.78	4.78		4.67	4.64		4.61	4.60
Earth Covering (m)	2.40			2.29		2.25		2.17		2.14		2.09	
Invert Elevation (m)	0.39	0.36	0.35	0.35	0.33	0.33	0.30	0.30	0.27	0.27	0.24	0.24	0.21
Total Accumulation Length (m)	597.3	632.2	642.2	652.3	692.2	695.3	737.4	742.2	787.4	792.2	837.4	842.2	887.4
													892.2

KEYMAP

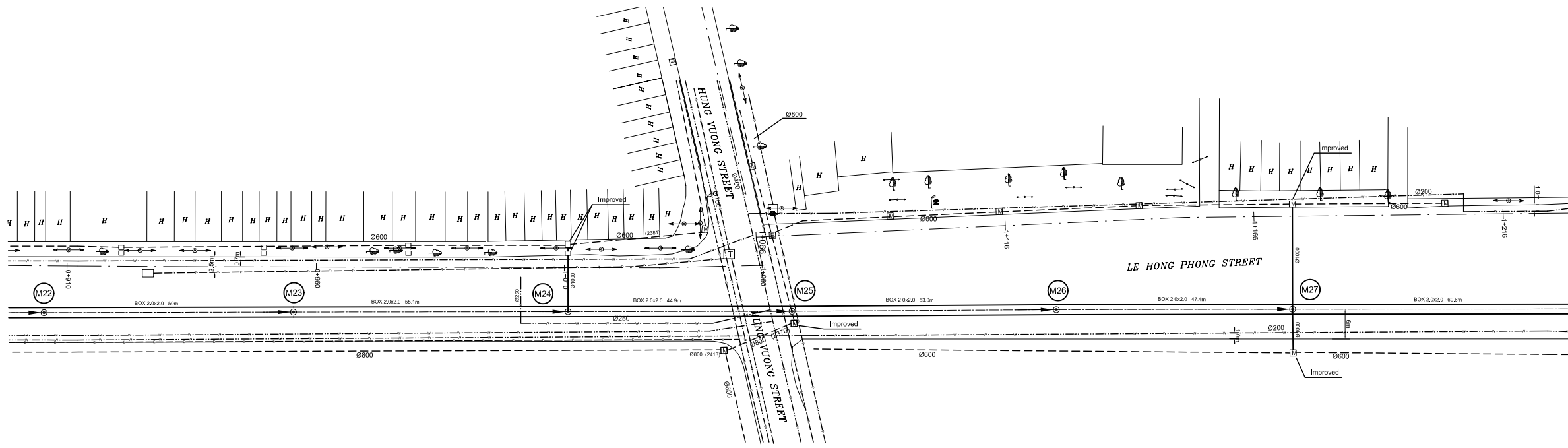


LEGEND

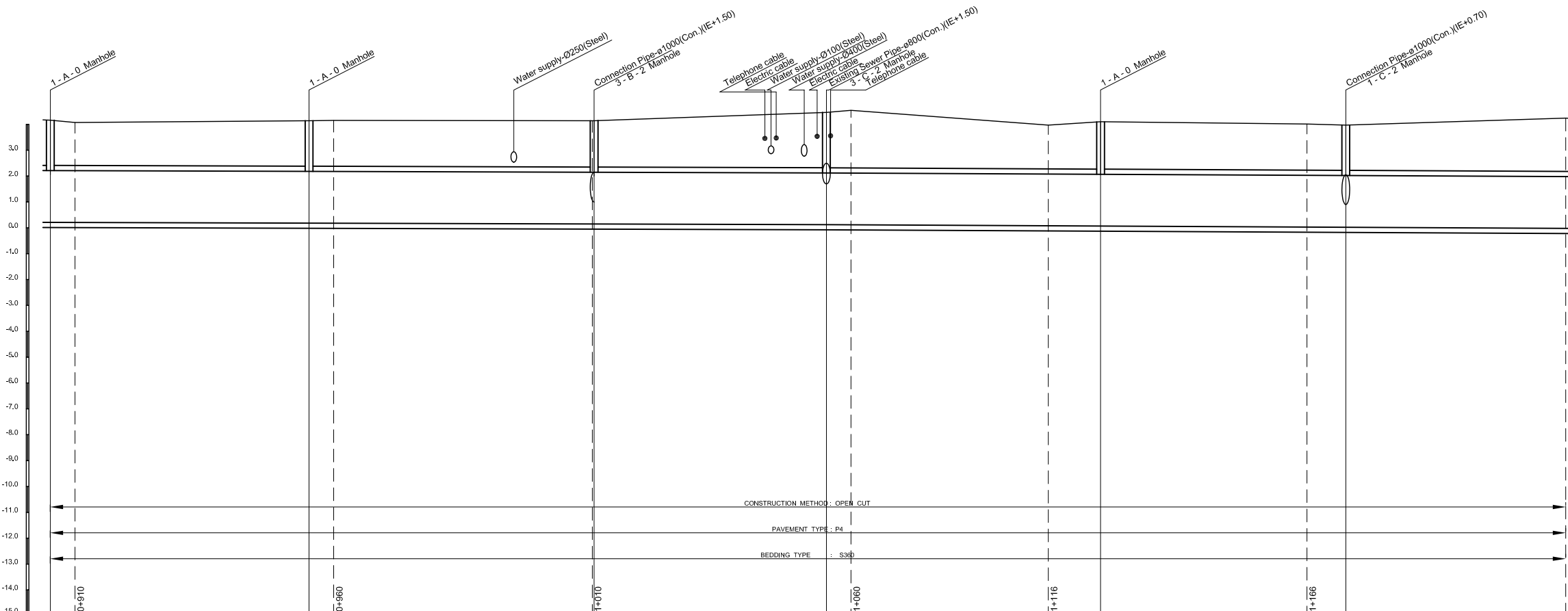
- Sewer Line
- Planned Sewer
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- Outlet With Flap Gate
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NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE D EXISTING COMBINED SEWER IMPROVEMENT				
<b>PLAN AND PROFILE</b> <b>ECSI - LINE 4.1 (3)</b>				
SCALE : As Shown				
JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KATSUKI TAKAOKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PD - ECSI - 214		

PLAN S = 1/500

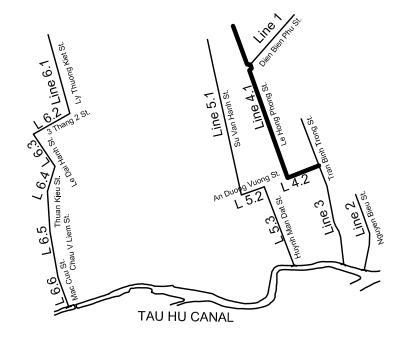


PROFILE S<sub>H</sub> = 1/500, S<sub>V</sub> = 1/100

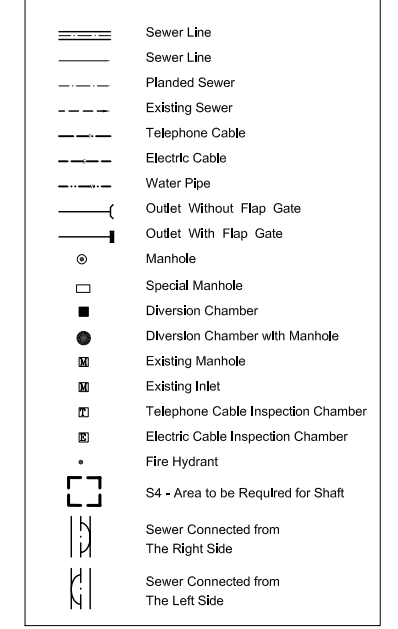


Manhole Number	M22	M23	M24	M25	M26	M27
Diameter (mm)	Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000	
Gradient (%)	0.6		0.6		1.0	
Length (m)	50.0		55.1		44.9	
Existing Ground Elevation (m)	4.16 4.07	4.14 4.15	4.14 4.14	4.46 4.54	3.97 4.10	4.01 3.97
Earth Covering (m)	1.75		1.76		1.79	
Invert Elevation (m)	0.21 0.21	0.18 0.18	0.15 0.15	0.12 0.12	0.08 0.07	0.03 0.02
Total Accumulation Length (m)	887.4 892.2	937.4 942.2	992.2 992.5	1037.4 1042.2	1080.3 1090.4	1130.3 1137.8

KEYMAP



LEGEND



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 D  
EXISTING COMBINED SEWER IMPROVEMENT

**PLAN AND PROFILE**  
**ECSI - LINE 4.1 (4)**

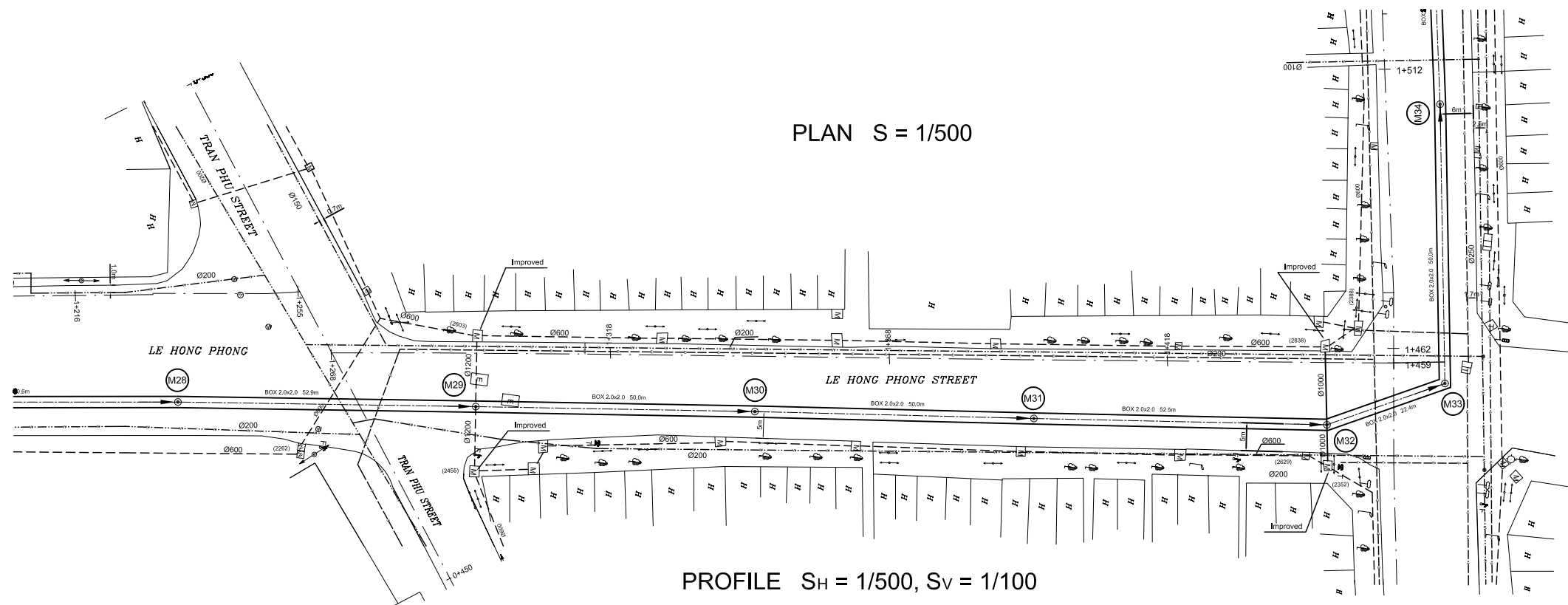
SCALE : As Shown

JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

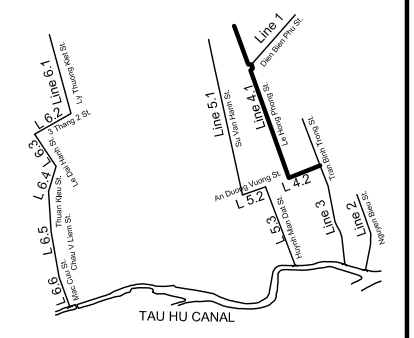
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED: KATSUKI TAKAOKI  
CHECKED: KONDO MASAMI

DATE : JUNE 2001 DWG. No. PD - ECSI - 215



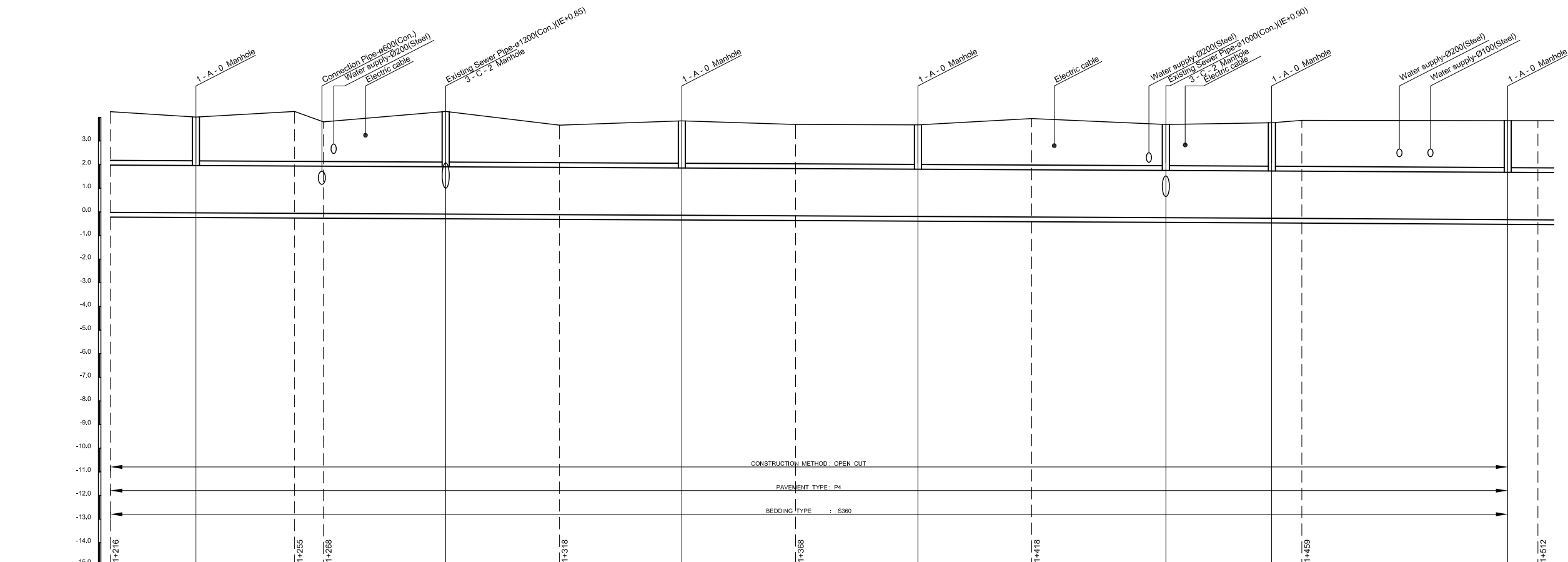
KEYMAP



LEGEND

- Sewer Line
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PROFILE S<sub>H</sub> = 1/500, S<sub>V</sub> = 1/100



Manhole Number	M28	M29	M30	M31	M32	M33	M34								
Diameter (mm)	Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000		Box 2000 x 2000								
Gradient (%)	1.0		1.0		1.0		1.2								
Length (m)	52.9	50.0	50.0	52.5	22.4	50.0									
Existing Ground Elevation (m)	4.24	4.01	4.25	3.81	4.25	3.67	3.85	3.70	3.68	3.95	3.70	3.77	3.87	3.86	3.86
Earth Covering (m)		1.85		2.14		1.79		1.67		1.75		1.84		1.99	
Invert Elevation (m)	-0.02	-0.04	-0.06	-0.06	-0.09	-0.11	-0.14	-0.16	-0.19	-0.22	-0.25	-0.27	-0.28	-0.33	-0.34
Total Accumulation Length (m)	1180.3	1198.4	1218.3	1225.4	1251.3	1275.4	1301.3	1325.4	1351.3	1375.4	1403.8	1426.2	1432.6	1476.2	1482.6

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 D EXISTING COMBINED SEWER IMPROVEMENT				
<b>PLAN AND PROFILE</b> <b>ECSI - LINE 4.1 - 4.2 (5)</b>				
SCALE : As Shown				
JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KATSUKI TAKAOKI		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PD - ECSI - 216		