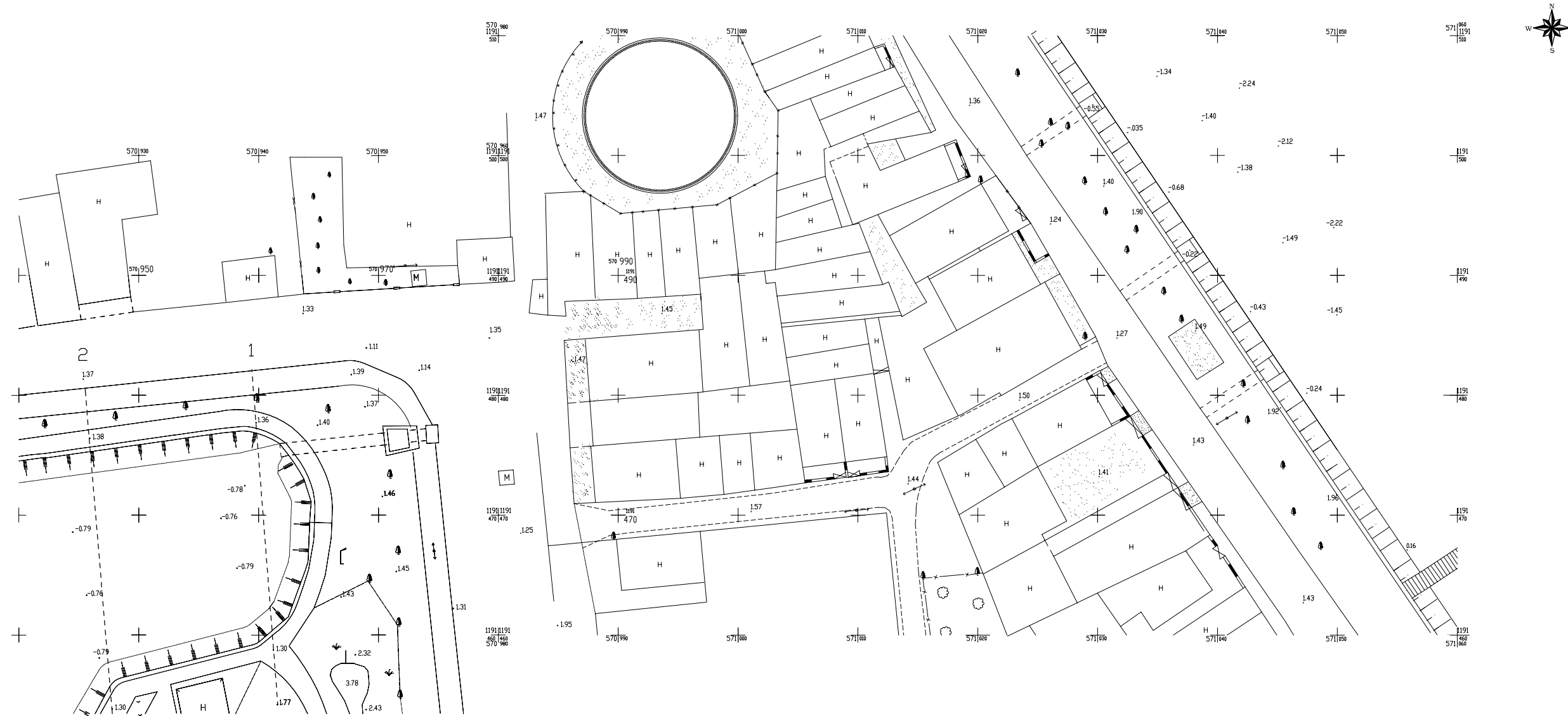


## **B. THANH DA PUMP DRAINAGE IMPROVEMENT**

## **B1. PUMPING STATION**

PLAN S = 1 : 200



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

PLANMENTNC SURVEY OF  
THANH DA PUMPING STATION

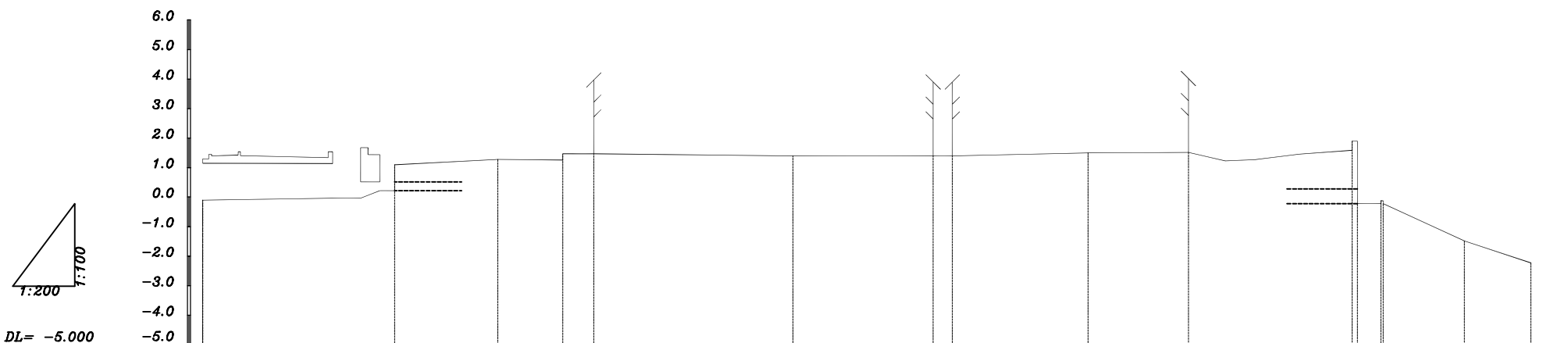
SCALE = 1/200

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED \_\_\_\_\_ CHECKED \_\_\_\_\_

DATE : \_\_\_\_\_ DWG. No. \_\_\_\_\_



<i>Design</i>	<i>Ground Elevation</i>																				
	<i>Bottom Elevation</i>																				
<i>Existing</i>	<i>Ground Elevation</i>	1.30	1.54	1.68	1.44	1.10	1.28	1.26	1.47	1.40	1.40	1.40	1.50	1.52	1.23	1.27	1.46	1.88	-0.22	-1.48	-2.22
	<i>Bottom Elevation</i>	-0.10	-0.03	-0.03	0.22	0.22															
<i>Accumulate Distance (m)</i>		0.0	8.9	10.7	12.0	13.0	20.0	24.4	26.5	40.0	49.5	50.8	60.0	66.8	69.3	71.3	74.3	77.9	80.0	85.5	90.0
<i>Distance (m)</i>			8.80	1.90	1.30	1.00	7.00	4.40	2.10	13.50	3.50	1.30	9.20	6.80	2.50	2.00	3.00	3.60	2.10	5.50	4.50
<i>Station No</i>		No.1					No.2			No.3			No.4					No.5			No.6

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

LONGITUDINAL SURVEY OF  
THANH DA PUMPING STATION

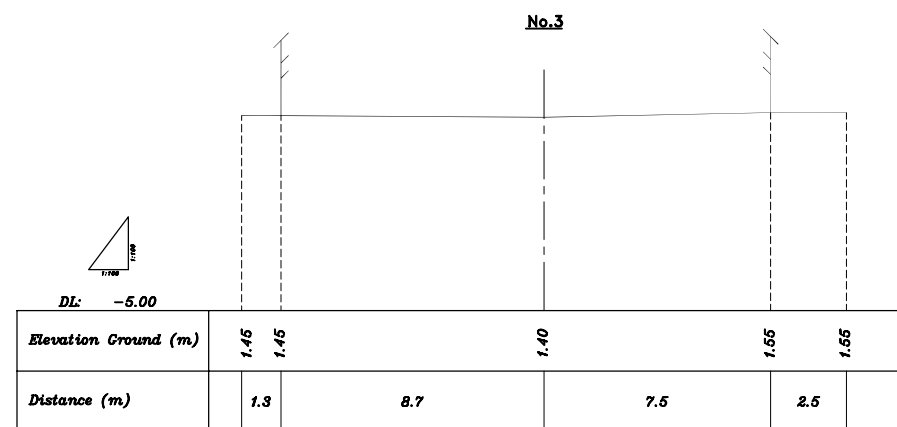
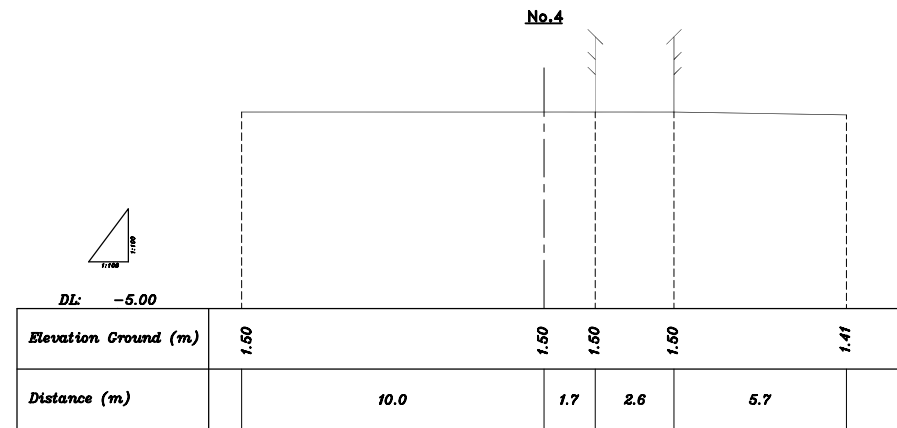
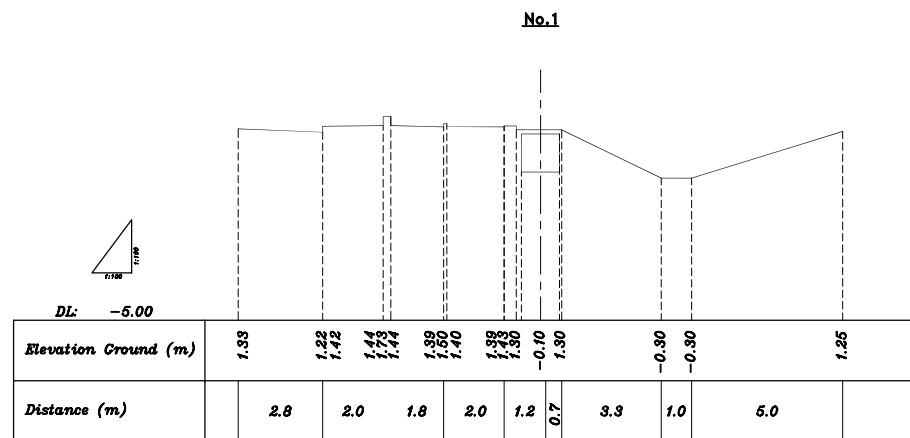
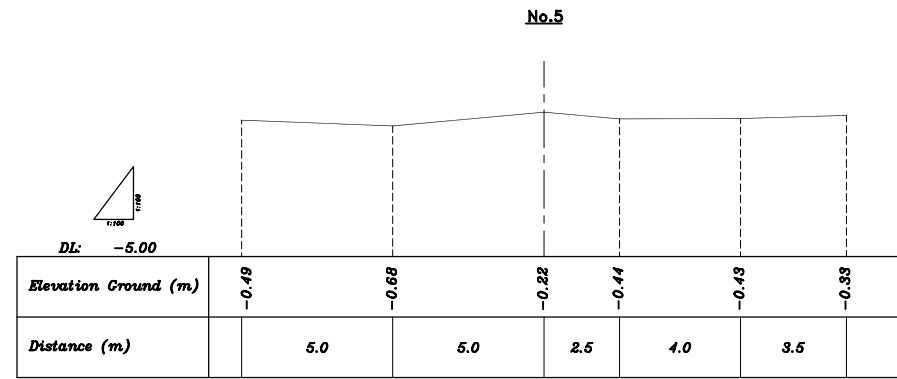
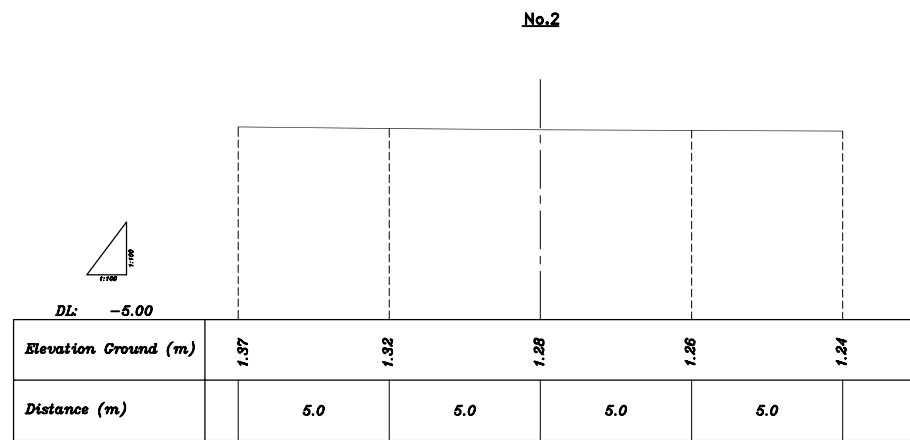
SCALE = AS SHOWN

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED CHECKED

DATE : DWG. No.




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

CROSS SECTION SURVEY OF  
THANH DA PUMPING STATION

SCALE = AS SHOWN

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

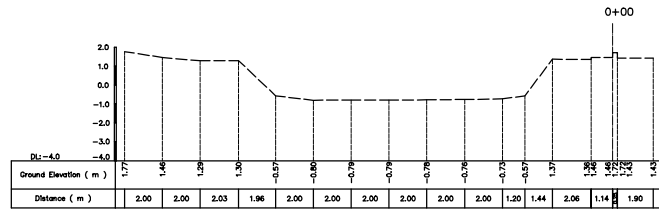
DESIGNED	CHECKED
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DATE :	DWG. No.
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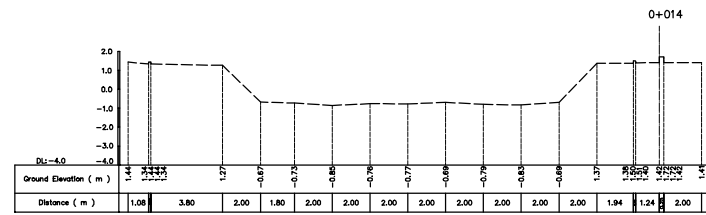
## **B2. RETARDING POND**



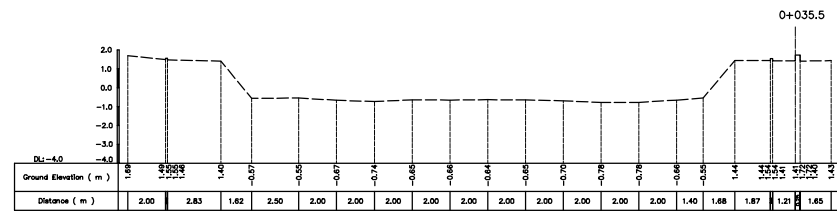
SECTION 1 - 1



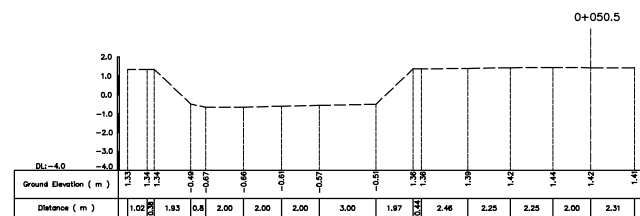
SECTION 2 - 2



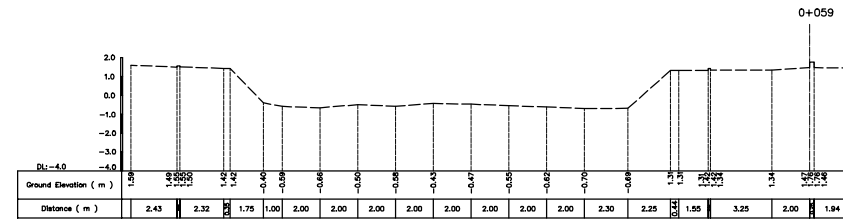
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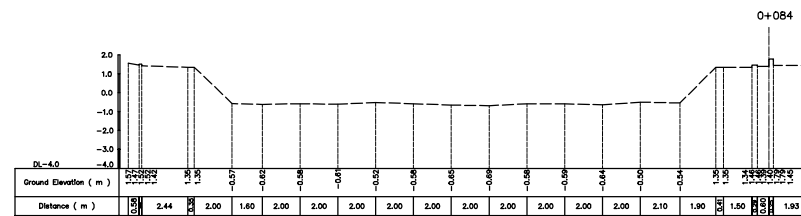
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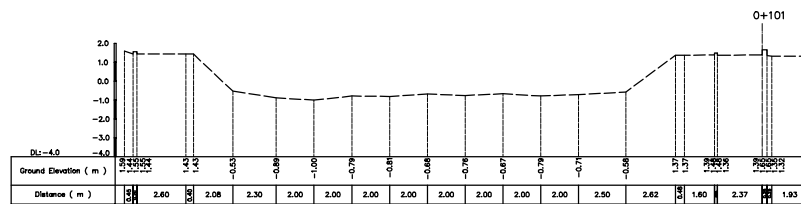
SECTION 5 - 5



SECTION 6 - 6



SECTION 7 - 7




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

CROSS SECTIONAL SURVEY OF  
THANH DA RETENTION POND

SCALE = 1 / 200

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

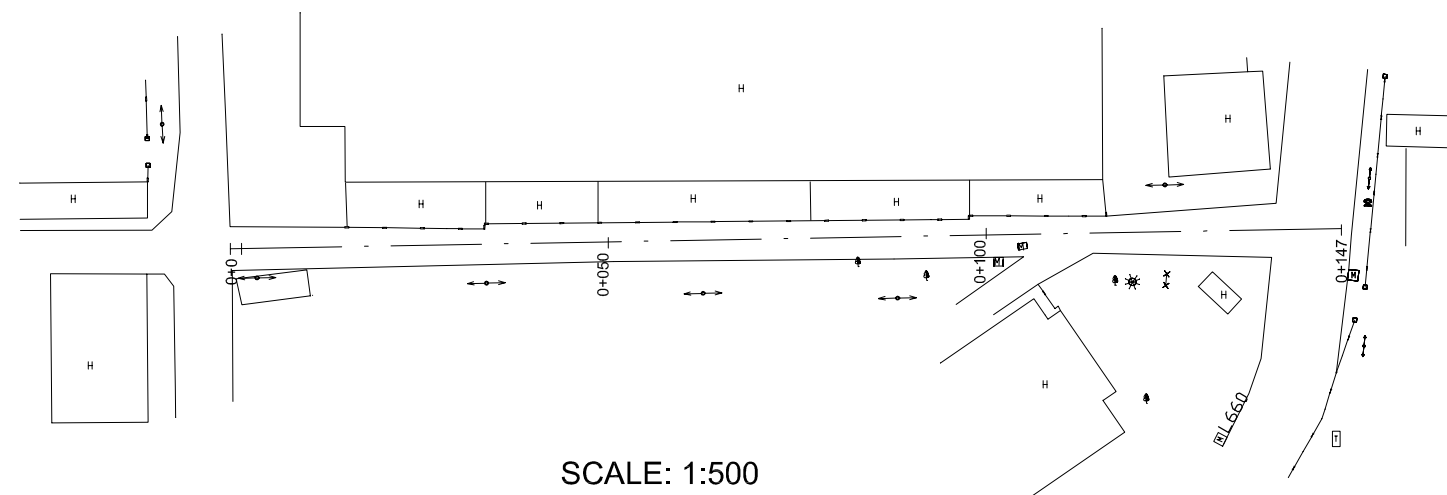
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED CHECKED

DATE : DWG. No.

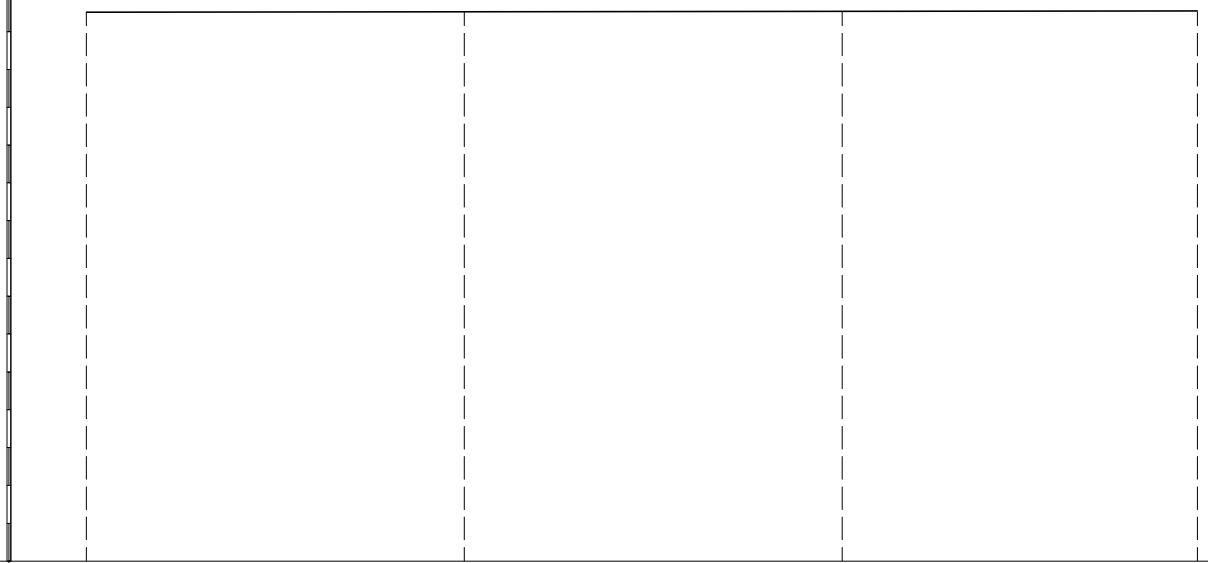
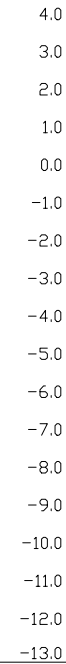


### **B3. SEWER**

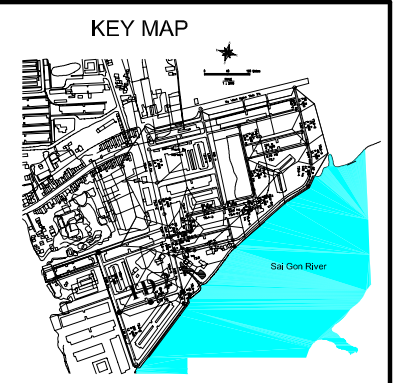


SCALE: 1:500

SCALE V: 1:100  
SCALE H: 1:500



Location of Survey	0+00	0+50	0+100	0+147
Manhole number				
Diameter (mm)				
Gradient (‰)				
Length (m)				
Gradient of Road (‰)				
Design road Elevation (m)				
Existing Ground Elevation (m)	1.52	1.53	1.46	1.46
Earth Covering (m)				
Invert Elevation (m)				
Total Length (m)				



LEGEND

	Bank
	barbed wire
	Retaining wall
	Fencing
	Culvert
	Manhole
	Grass land
	Coconut tree
	Electric Transforming Station
	Electric Pole


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

THANH DA AREA  
PLAN AND LONGITUDINAL SURVEY  
OF SEWER ROUTE (1)  
( TD.2 )

SCALE : AS SHOW

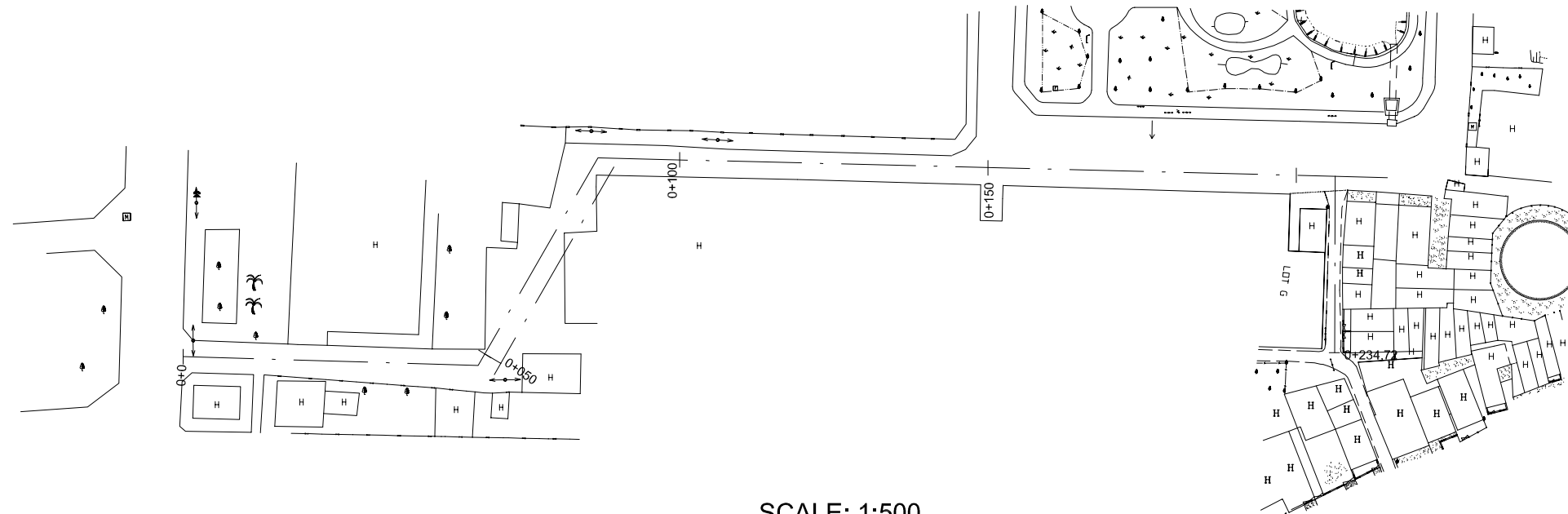
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED \_\_\_\_\_ CHECKED \_\_\_\_\_

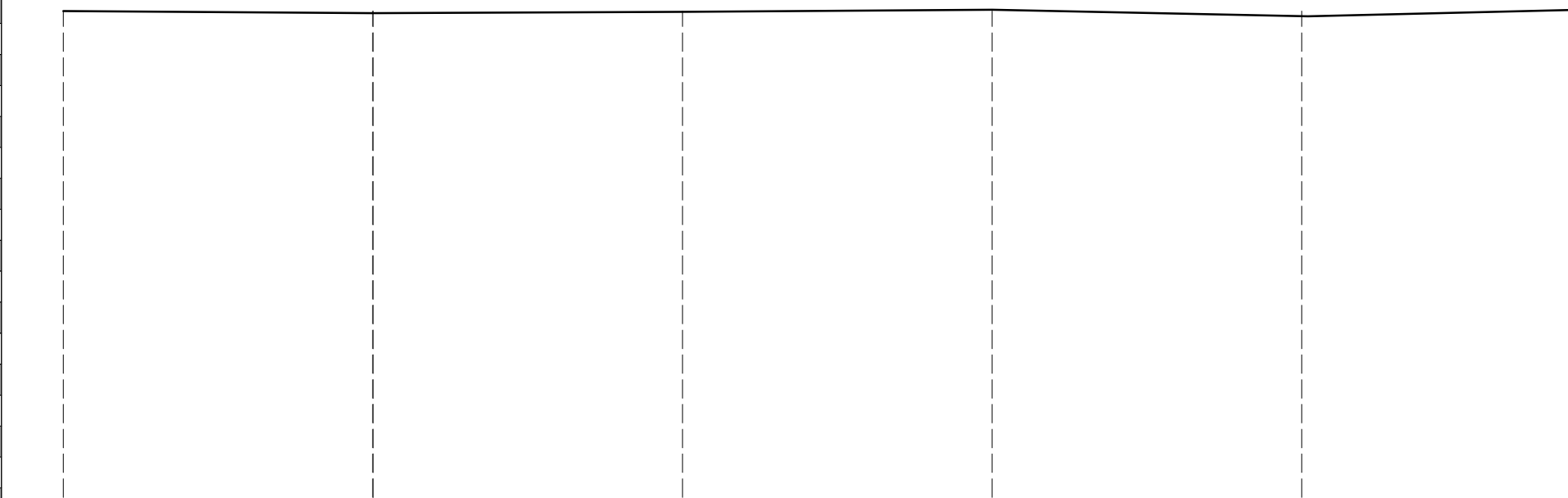
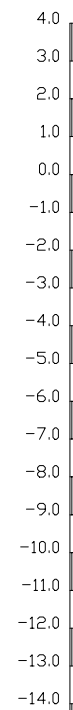
DATE : \_\_\_\_\_ DWG. No. \_\_\_\_\_



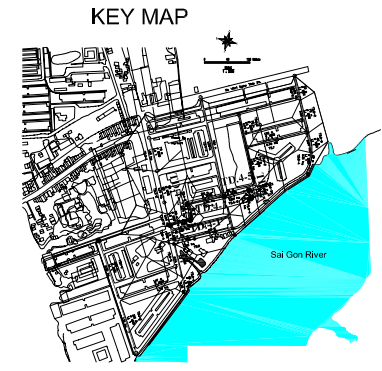


SCALE V: 1:100  
SCALE H: 1:500

SCALE: 1:500



Location of Survey	0+0	0+50	0+100	0+150	0+200	0+245
Manhole number						
Diameter (mm)						
Gradient (%)						
Length (m)						
Gradient of Road (%)						
Design road Elevation (m)						
Existing Ground Elevation (m)	1.41	1.34	1.38	1.45	1.24	1.45
Earth Covering (m)						
Invert Elevation (m)						
Total Length (m)						



LEGEND

- Bank
- barbed wire
- Retaining wall
- Fencing
- Culvert
- Manhole
- Grass land
- Coconut tree
- Electric Transforming Station
- Electric Pole

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

THANH DA AREA  
PLAN AND LONGITUDINAL SURVEY  
OF SEWER ROUTE (3)  
( TD.4-1, TD.4-3, TD.4-6 )

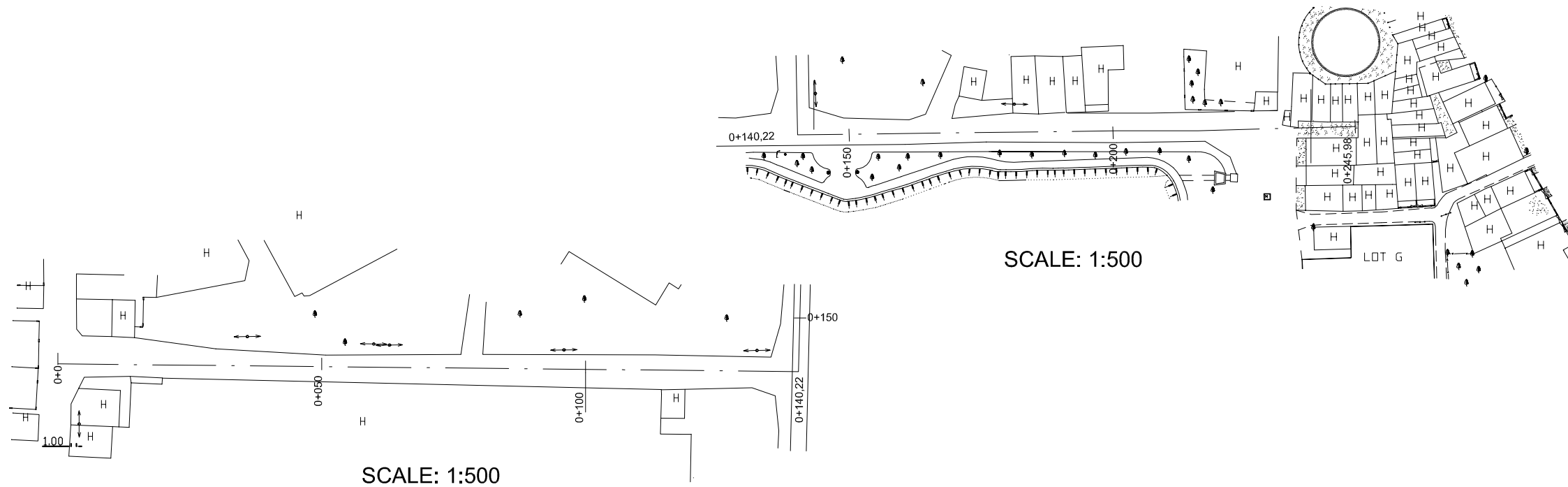
SCALE : AS SHOW

JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

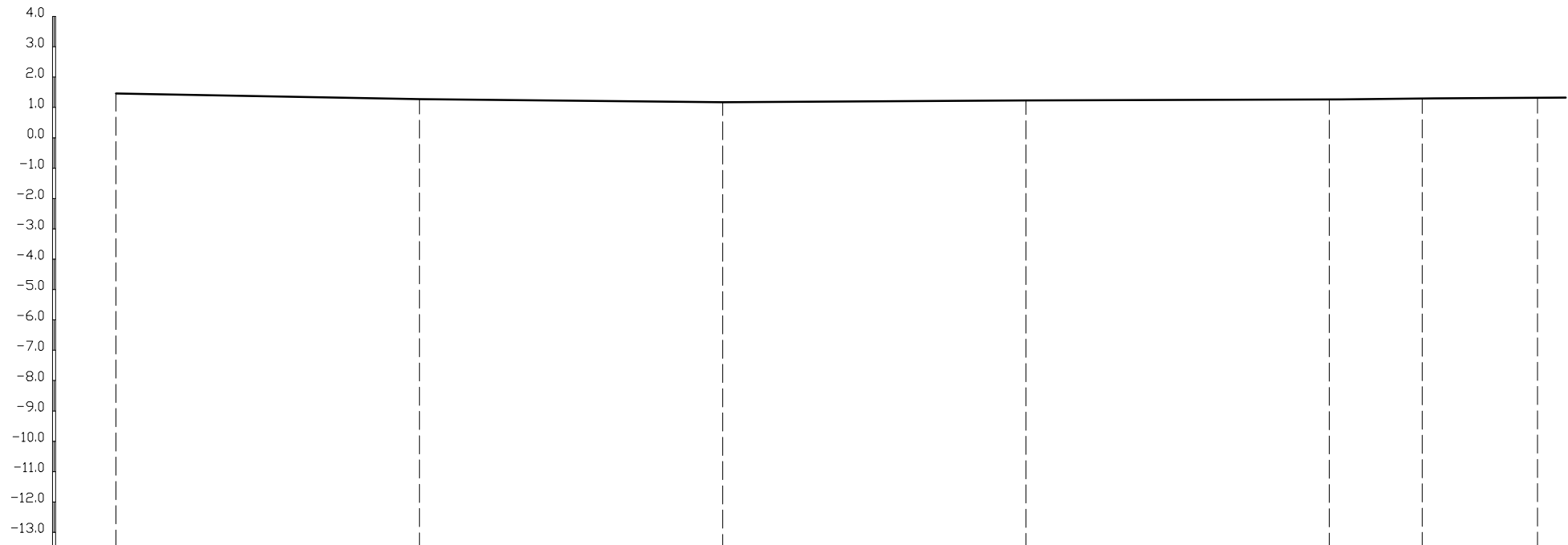
DESIGNED \_\_\_\_\_ CHECKED \_\_\_\_\_

DATE : \_\_\_\_\_ DWG. No. \_\_\_\_\_

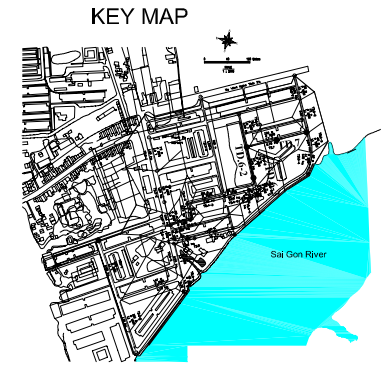


SCALE: 1:500

SCALE V: 1:100  
SCALE H: 1:500



Location of Survey	0+00	0+50	0+100	0+150	0+200	0+215	0+234.3
Manhole number							
Diameter (mm)							
Gradient (%)							
Length (m)							
Gradient of Road (%)							
Design road Elevation (m)							
Existing Ground Elevation (m)	1.47	1.28	1.18	1.24	1.27	1.31	1.31
Earth Covering (m)							
Invert Elevation (m)							
Total Length (m)							



LEGEND

- Bank
- barbed wire
- Retaining wall
- Fencing
- Culvert
- Manhole
- Grass land
- Coconut tree
- Electric Transforming Station
- Electric Pole

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

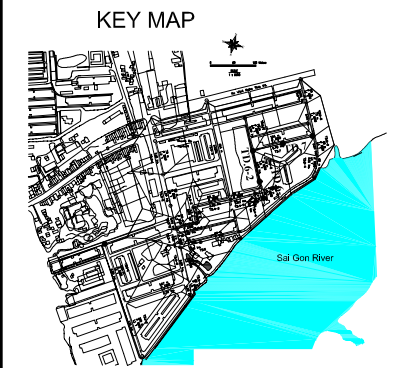
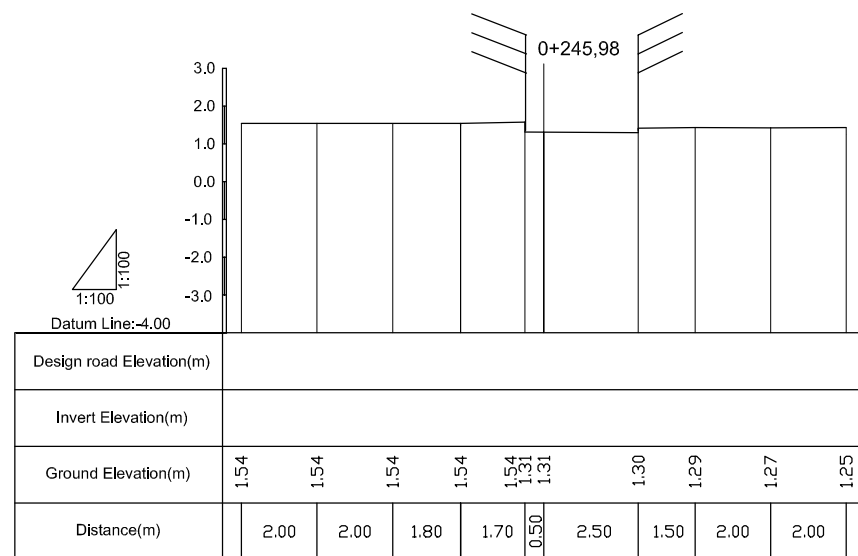
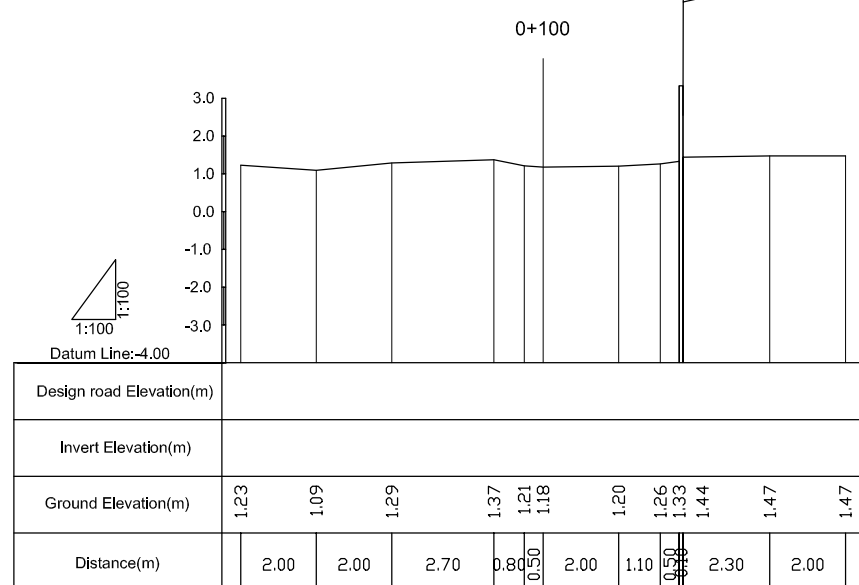
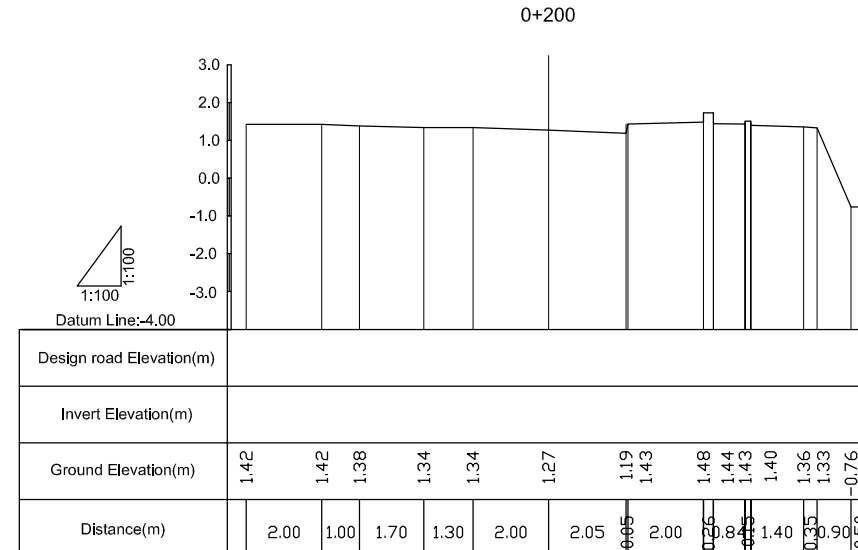
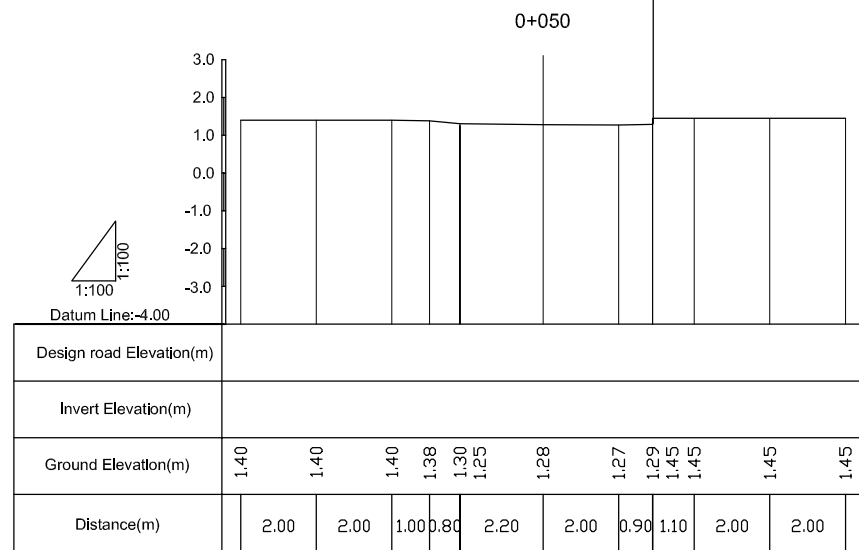
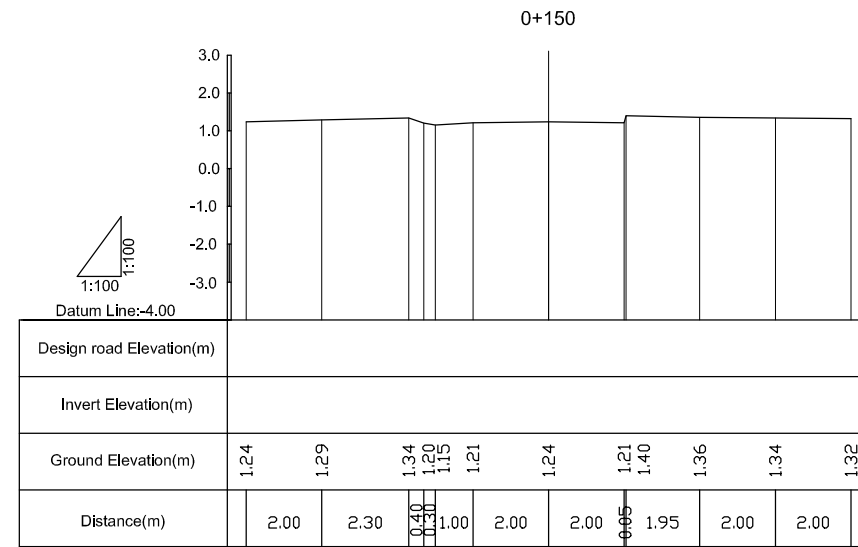
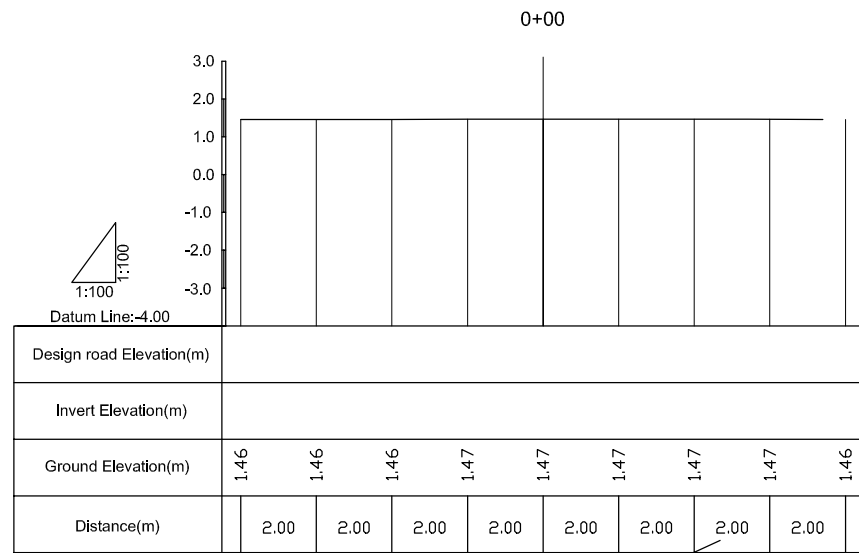
THANH DA AREA  
PLAN AND LONGITUDINAL SURVEY  
OF SEWER ROUTE (4)  
( TD.7, TD.6-2, TD.6-3 )

SCALE : AS SHOW

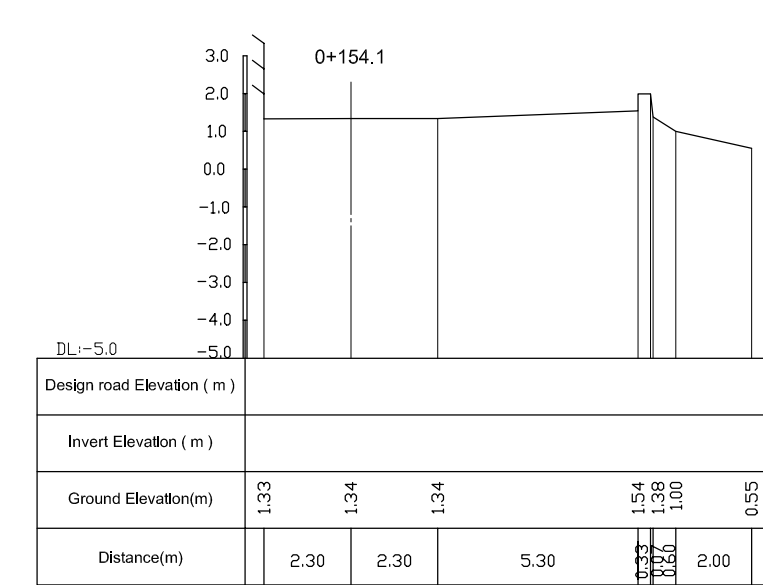
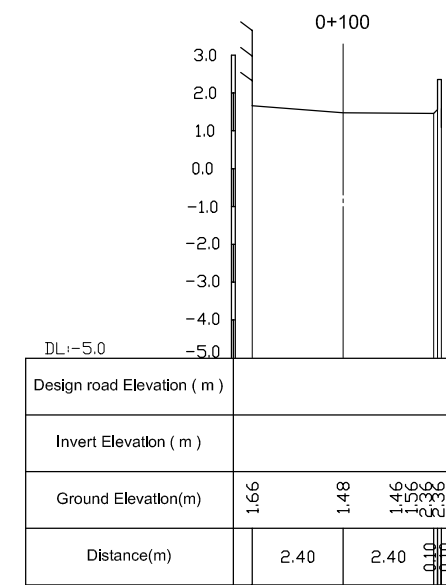
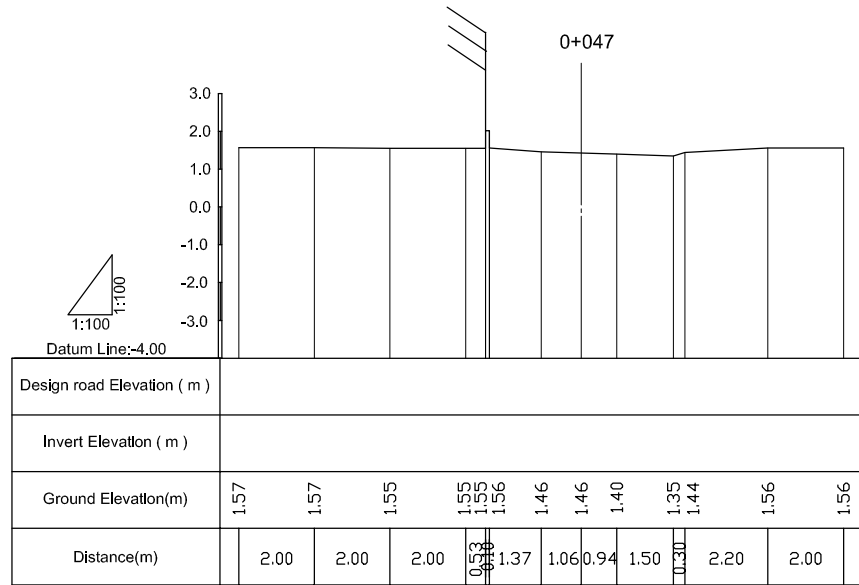
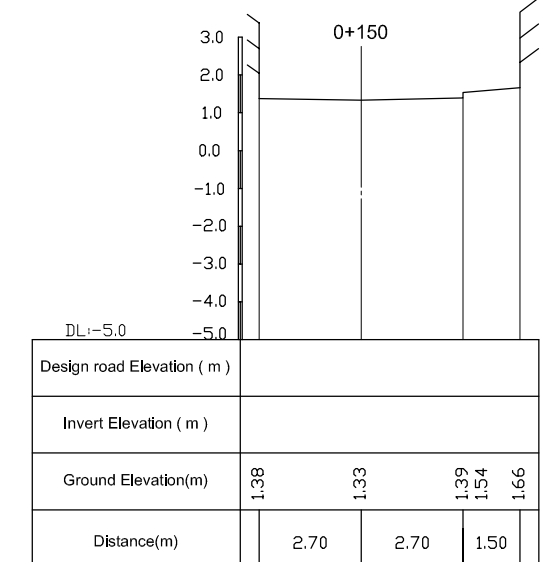
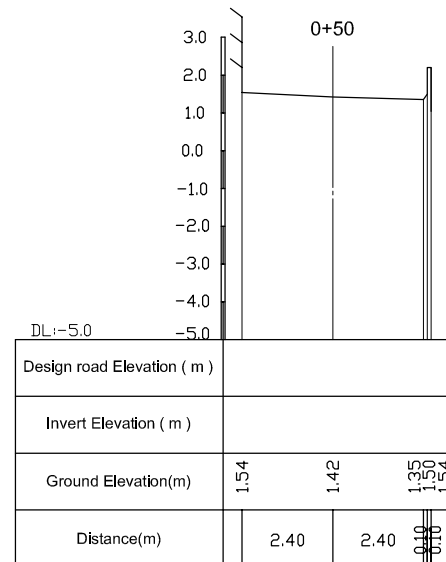
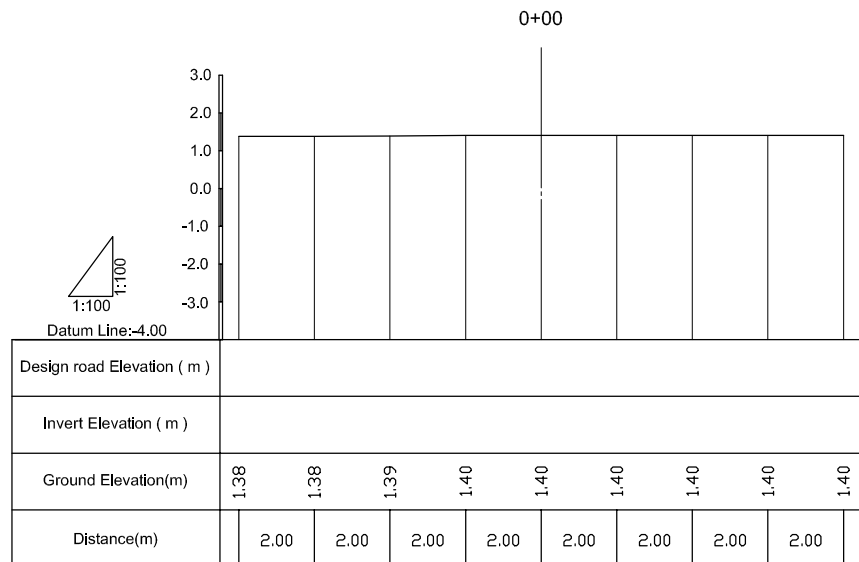
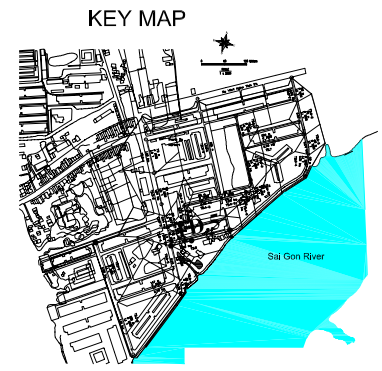
JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	CHECKED
DATE :	DWG. No.



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				
THANH DA AREA CROSS SECTION SURVEY OF THANH DA SEWER ROUTE (4) (TD.7, TD.6-2, TD.6-3)				
SCALE : AS SHOW				
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED		CHECKED		
DATE :		DWG. No.		



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

THANH DA AREA  
CROSS SECTION SURVEY OF  
THANH DA SEWER ROUTE (2)  
(TD.5)

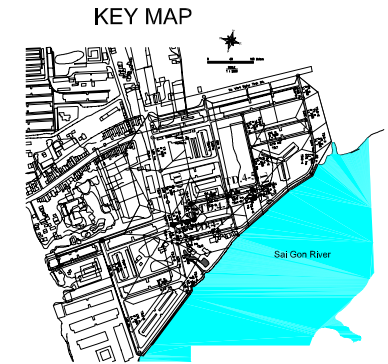
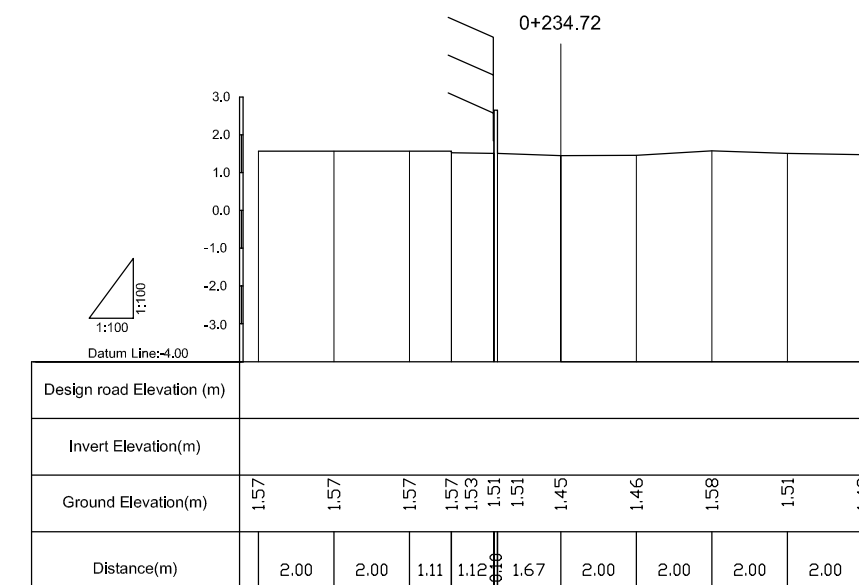
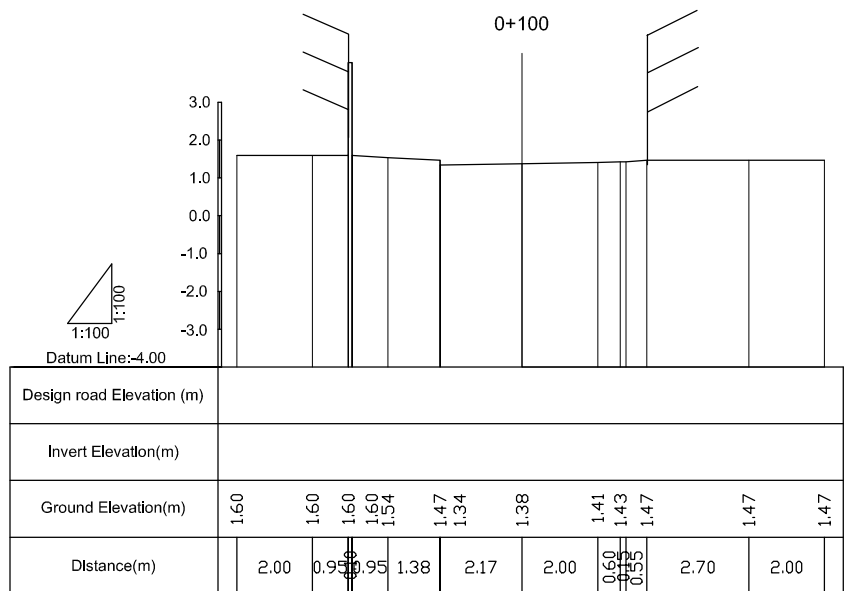
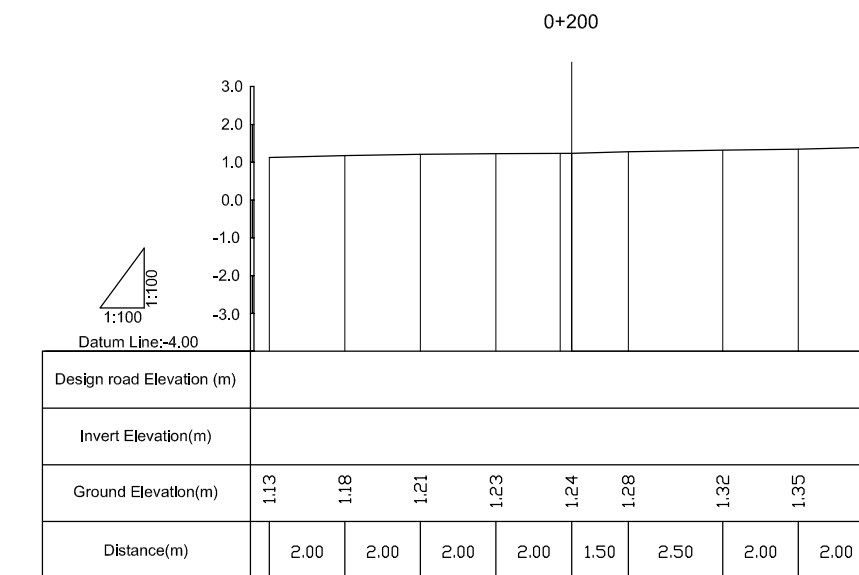
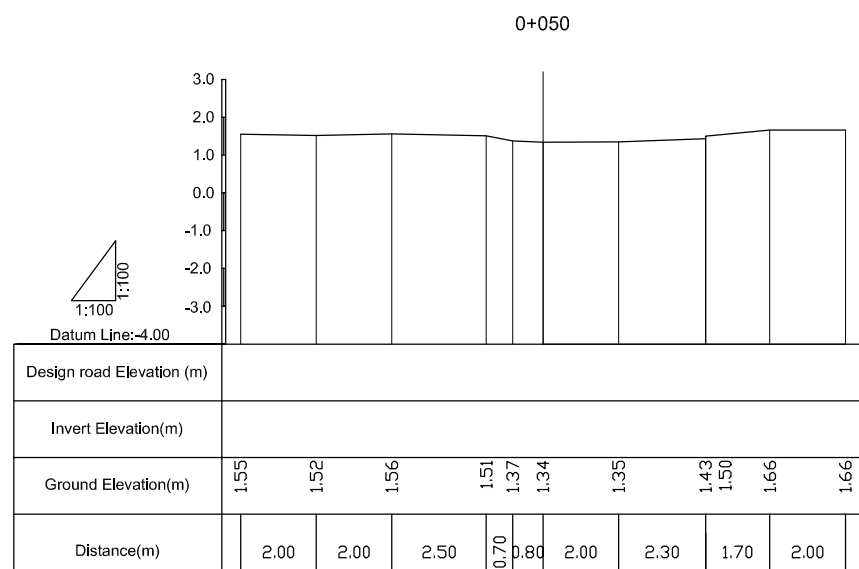
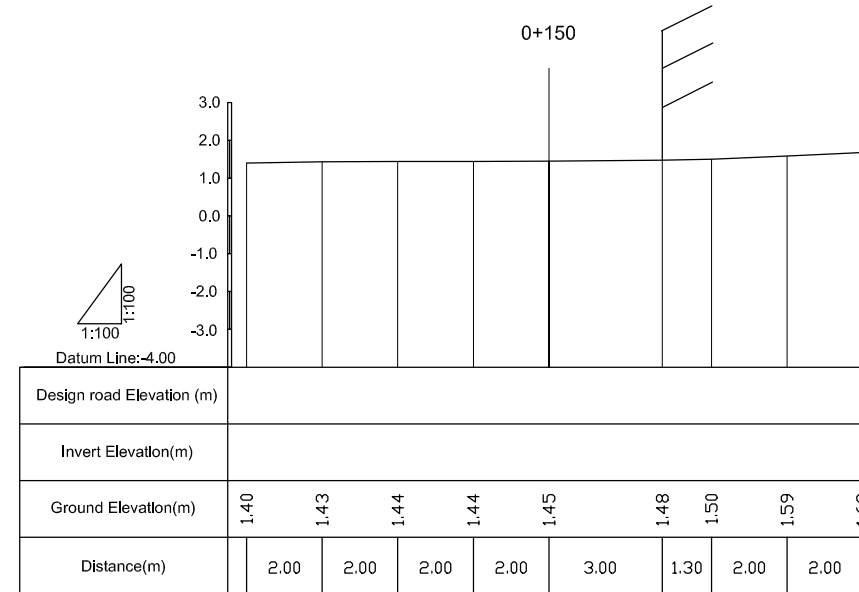
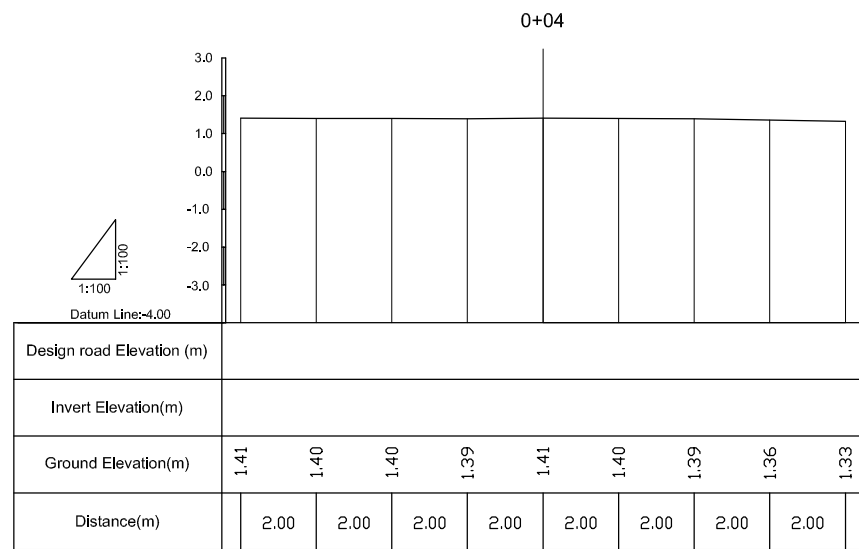
SCALE : AS SHOW

JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED CHECKED

DATE : DWG. No.




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

THANH DA AREA  
CROSS SECTION SURVEY OF  
THANH DA SEWER ROUTE (3)  
(TD.4-1, TD.4-3, TD.4-6)

SCALE : AS SHOW

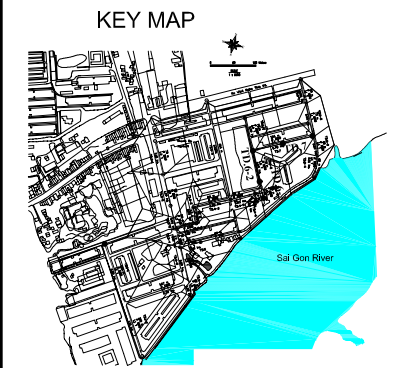
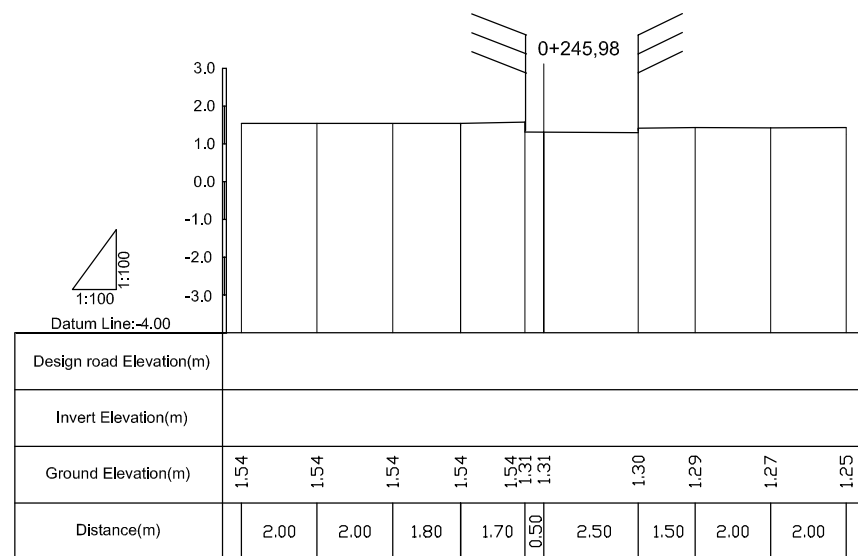
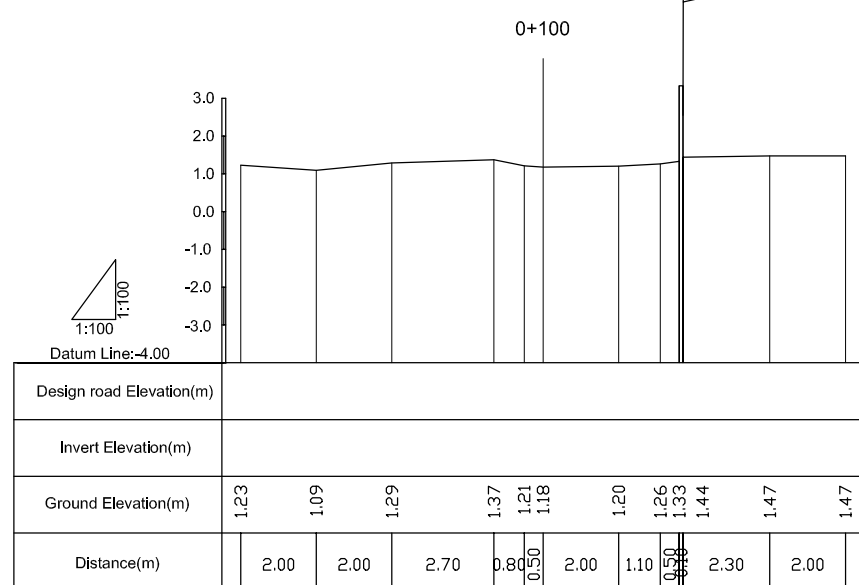
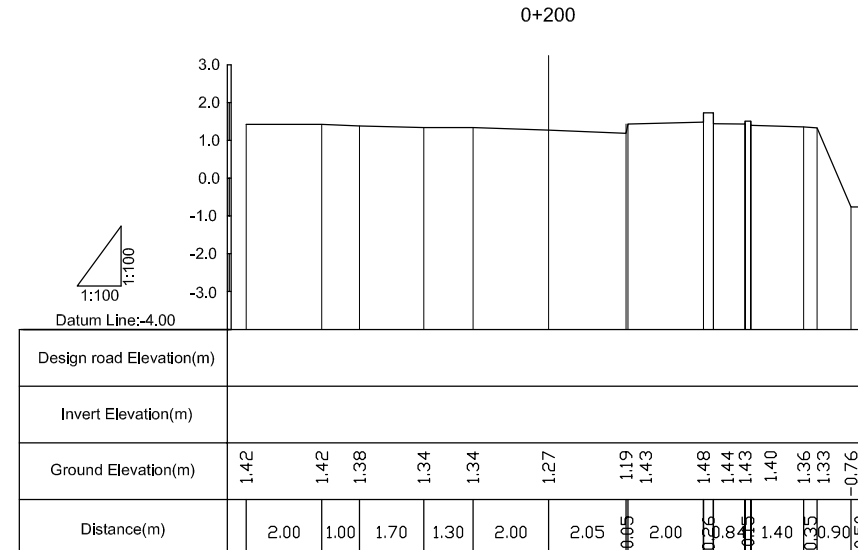
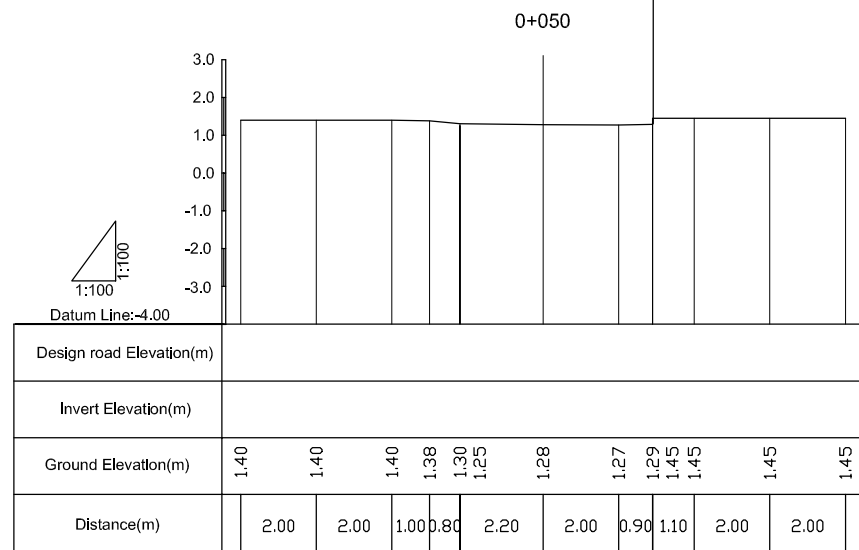
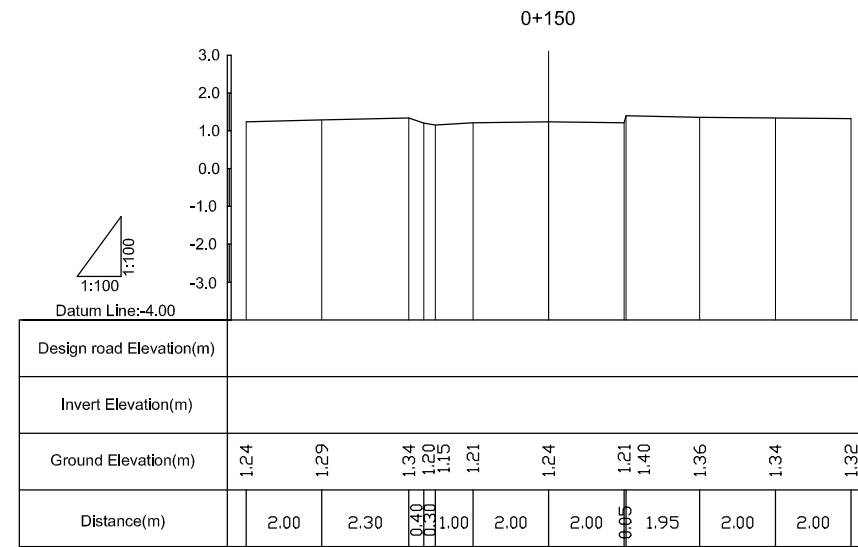
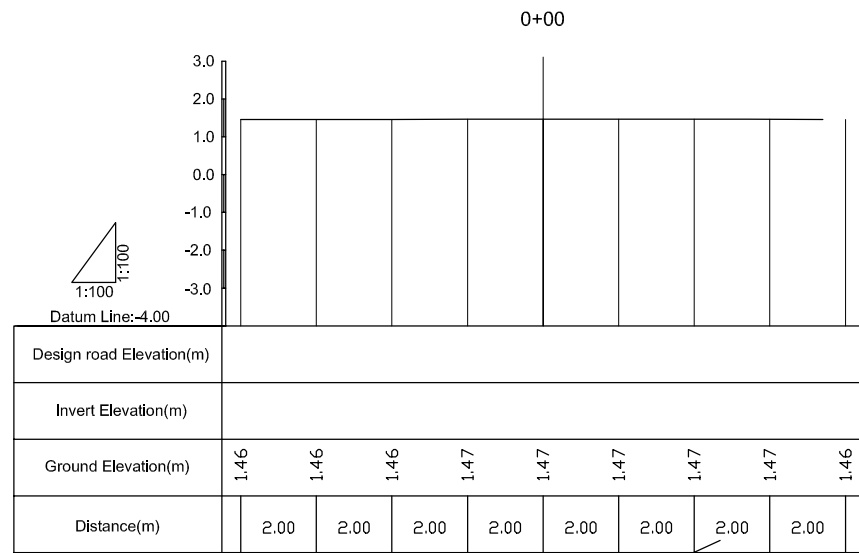
JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED CHECKED

DATE : DWG. No.





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				
THANH DA AREA CROSS SECTION SURVEY OF THANH DA SEWER ROUTE (4) (TD.7, TD.6-2, TD.6-3)				
SCALE : AS SHOW				
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED		CHECKED		
DATE :		DWG. No.		