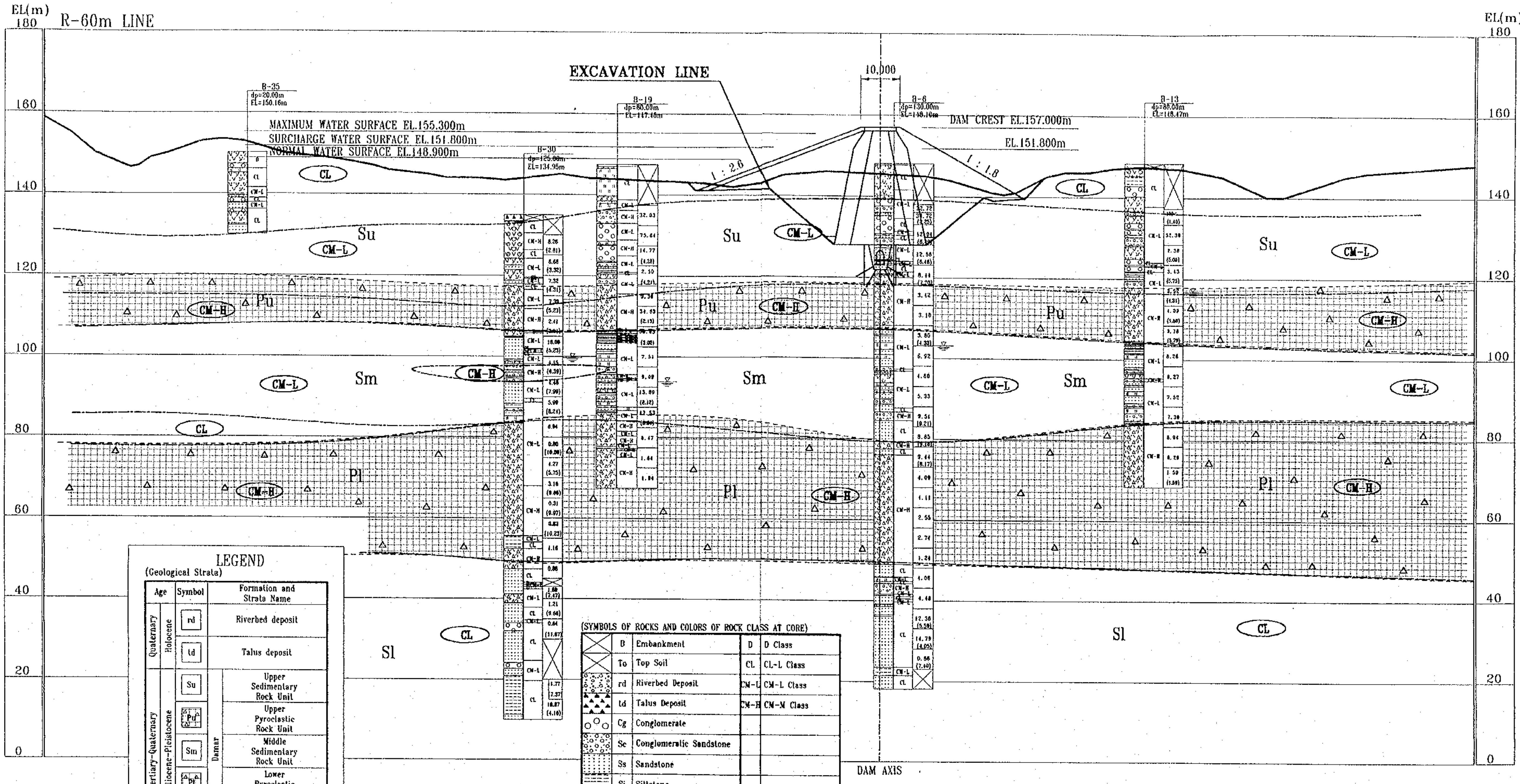

LEGEND

(Geological Strata)

Age			Symbol	Formation and Strata Name
Quaternary	Holocene		rd	Riverbed deposit
			td	Talus deposit
Tertiary-Quaternary	Pliocene-Pleistocene	Damar	Su	Upper Sedimentary Rock Unit
			Pu	Upper Pyroclastic Rock Unit
			Sm	Middle Sedimentary Rock Unit
			Pl	Lower Pyroclastic Rock Unit
			Sl	Lower Sedimentary Rock Unit

(Note)

Boundary of Geological Unit

Boundary of Rock Class

(SYMBOLS OF ROCKS AND COLORS OF ROCK CLASS AT CORE)

B	Embankment	D	D Class
To	Top Soil	CL	CL-L Class
rd	Riverbed Deposit	CM-L	CM-L Class
td	Talus Deposit	CM-H	CM-M Class
Cg	Conglomerate		
Sc	Conglomeratic Sandstone		
Ss	Sandstone		
Si	Siltstone		
St	Tuffaceous Sandstone		
Ts	Sandy Tuff		
Tf	Tuff		
Cv	Volcanic Conglomerate		
Bb	Volcanic Breccia		
La	Andesite Lava		

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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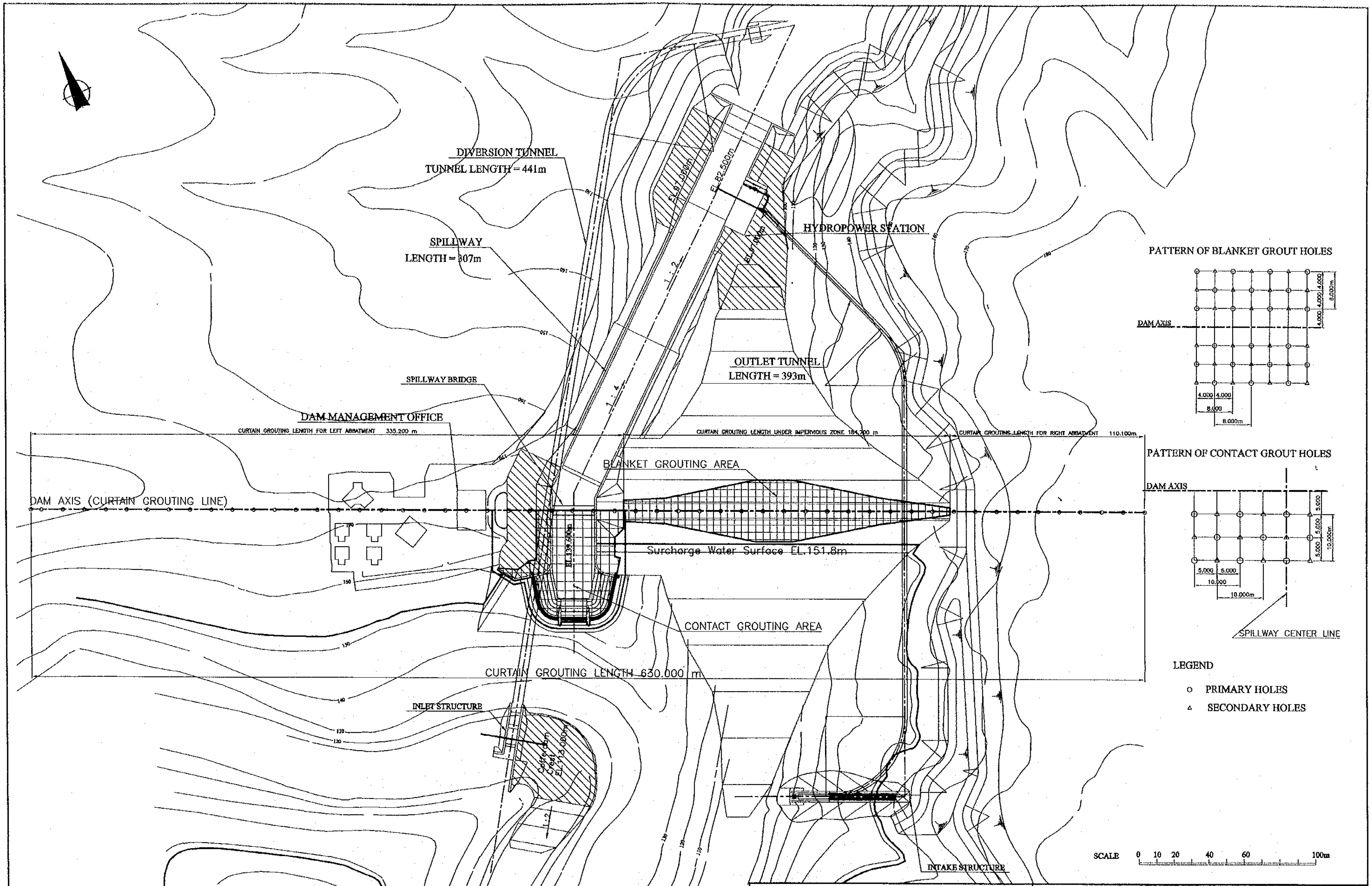
Fig. 7.2.5

EXCAVATION LINE AT RIGHT ABUTMENT (R60M)



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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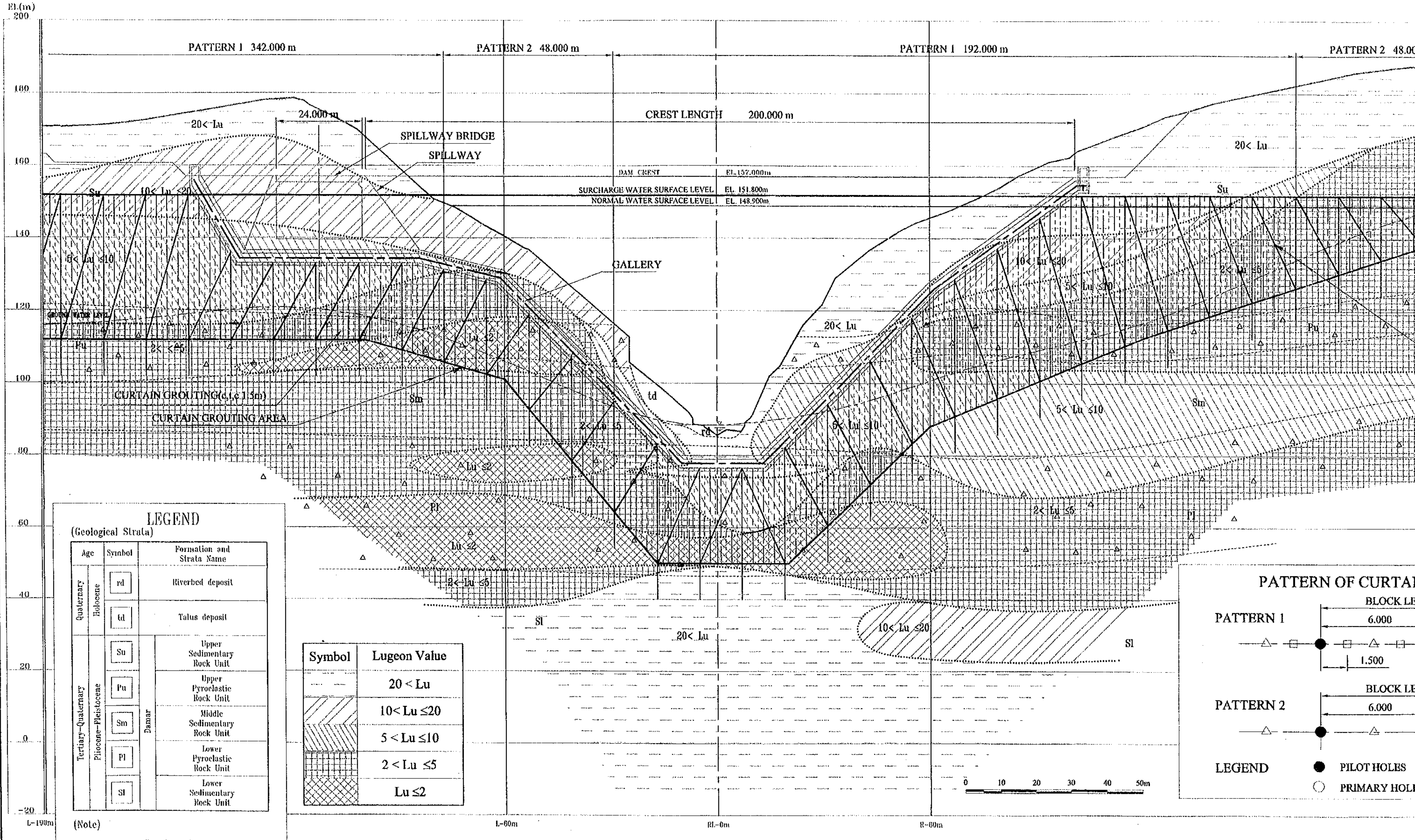
Fig. 7.2.6 GROUTING PLAN



LEGEND

(Geological Strata)

Age			Symbol	Formation and Strata Name
Quaternary	Holocene		rd	Riverbed deposit
			td	Talus deposit
Tertiary-Quaternary	Pliocene-Pleistocene	Damar	Su	Upper Sedimentary Rock Unit
			Pu	Upper Pyroclastic Rock Unit
			Sm	Middle Sedimentary Rock Unit
			Pl	Lower Pyroclastic Rock Unit
			Sl	Lower Sedimentary Rock Unit

(Note)

Boundary of Geological Unit

Boundary of Lugeon Value

Symbol	Lugeon Value
	20 < Lu
	10< Lu ≤20
	5 < Lu ≤10
	2 < Lu ≤5
	Lu ≤2

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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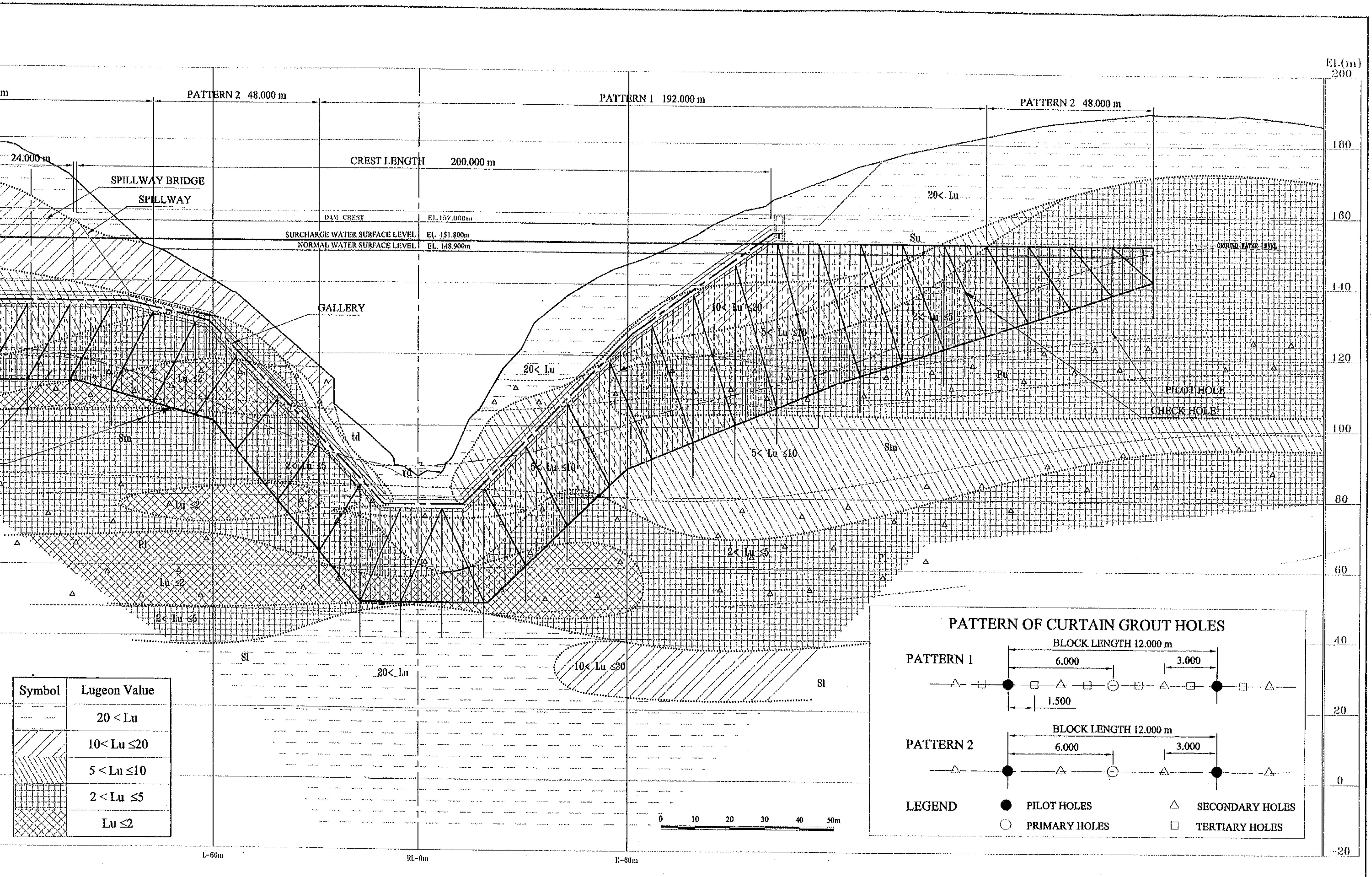
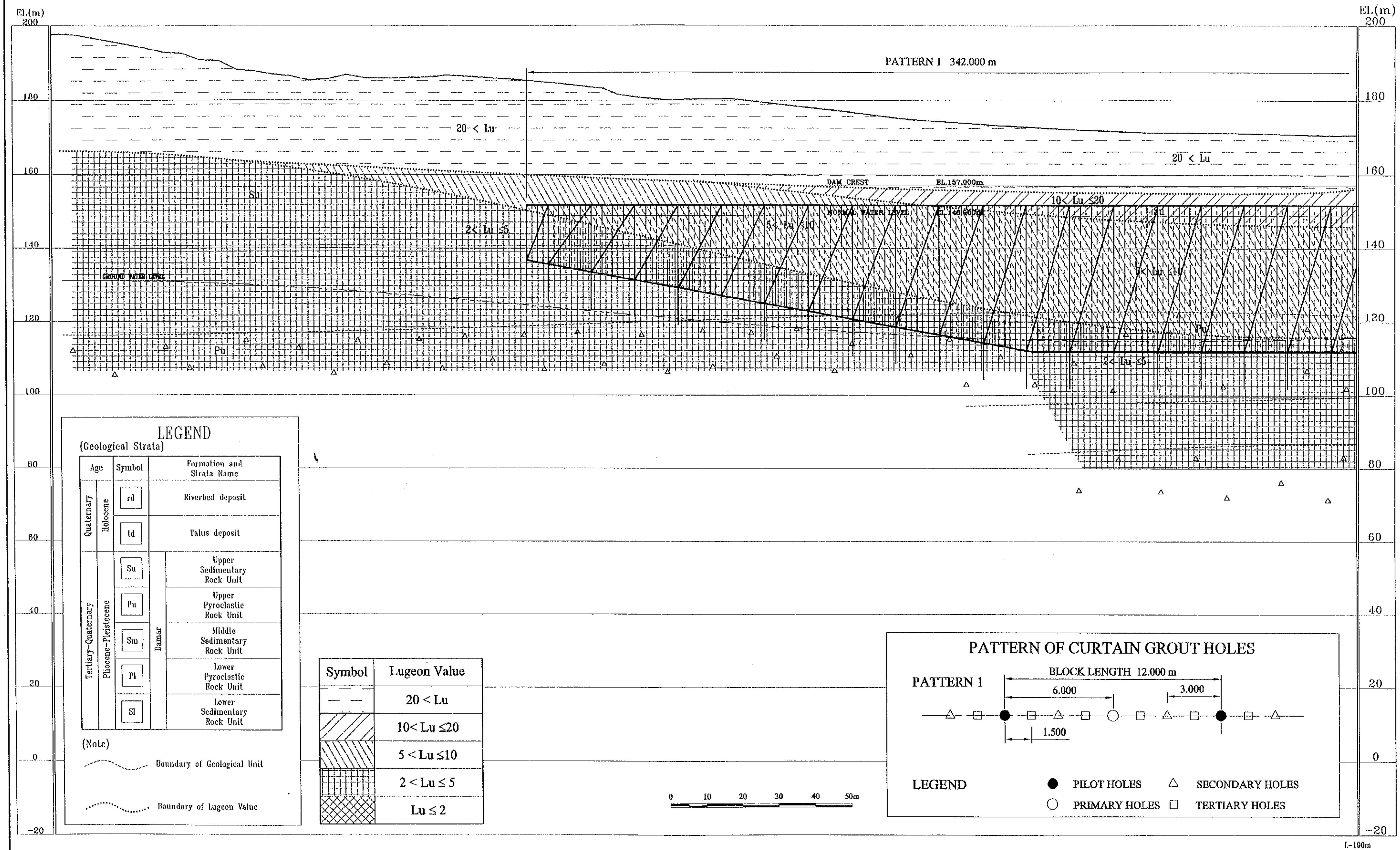
Fig. 7.2.7 (

ARRA

HOLE



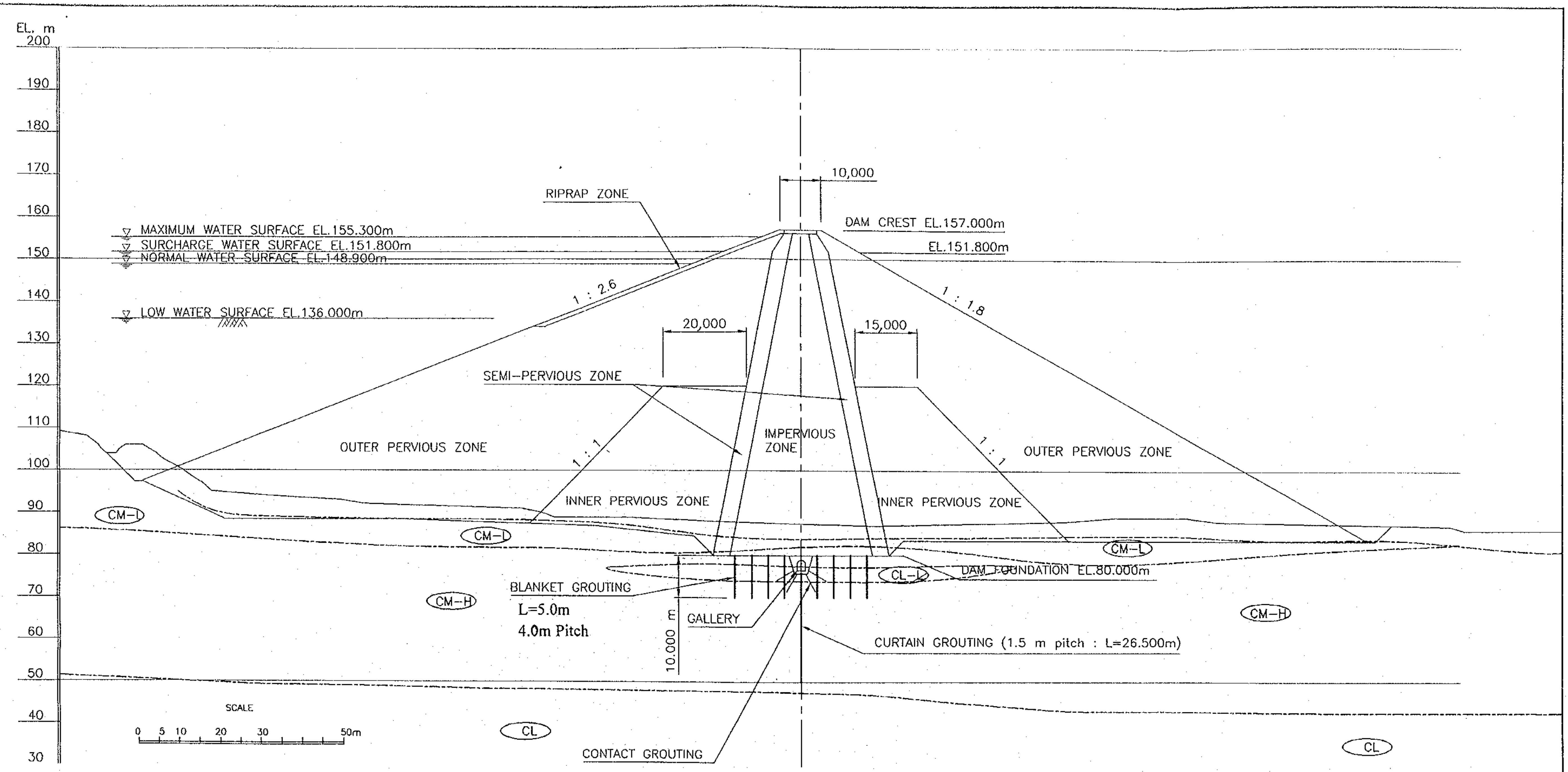
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. 7.2.7 (1/2) ARRANGEMENT OF CURTAIN GROUTING HOLES
JAPAN INTERNATIONAL COOPERATION AGENCY	

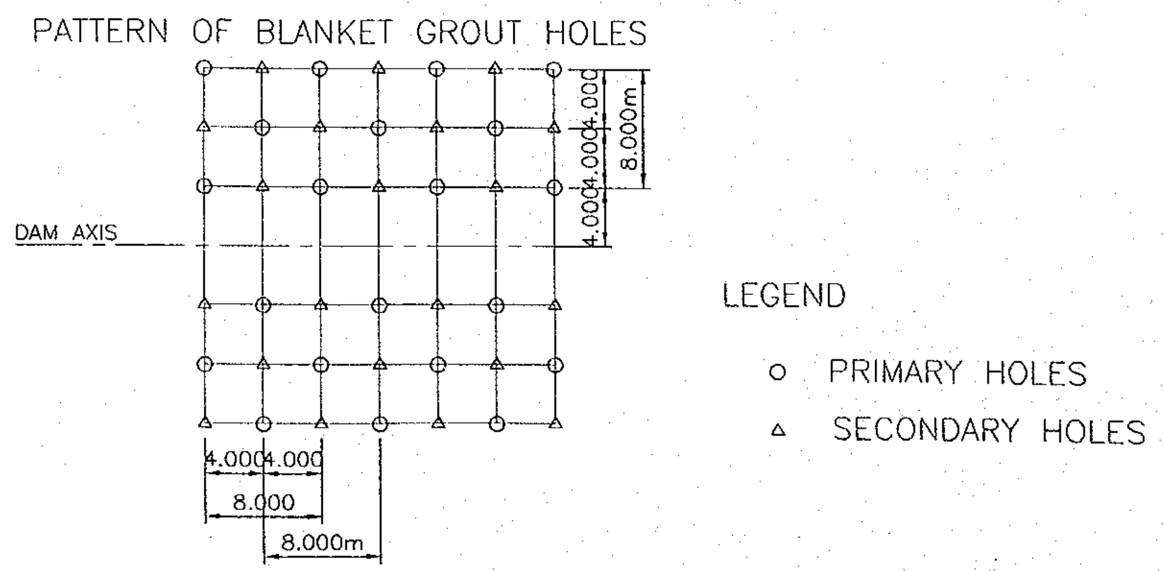


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.7 (2/2)
ARRANGEMENT OF CURTAIN GROUTING HOLES

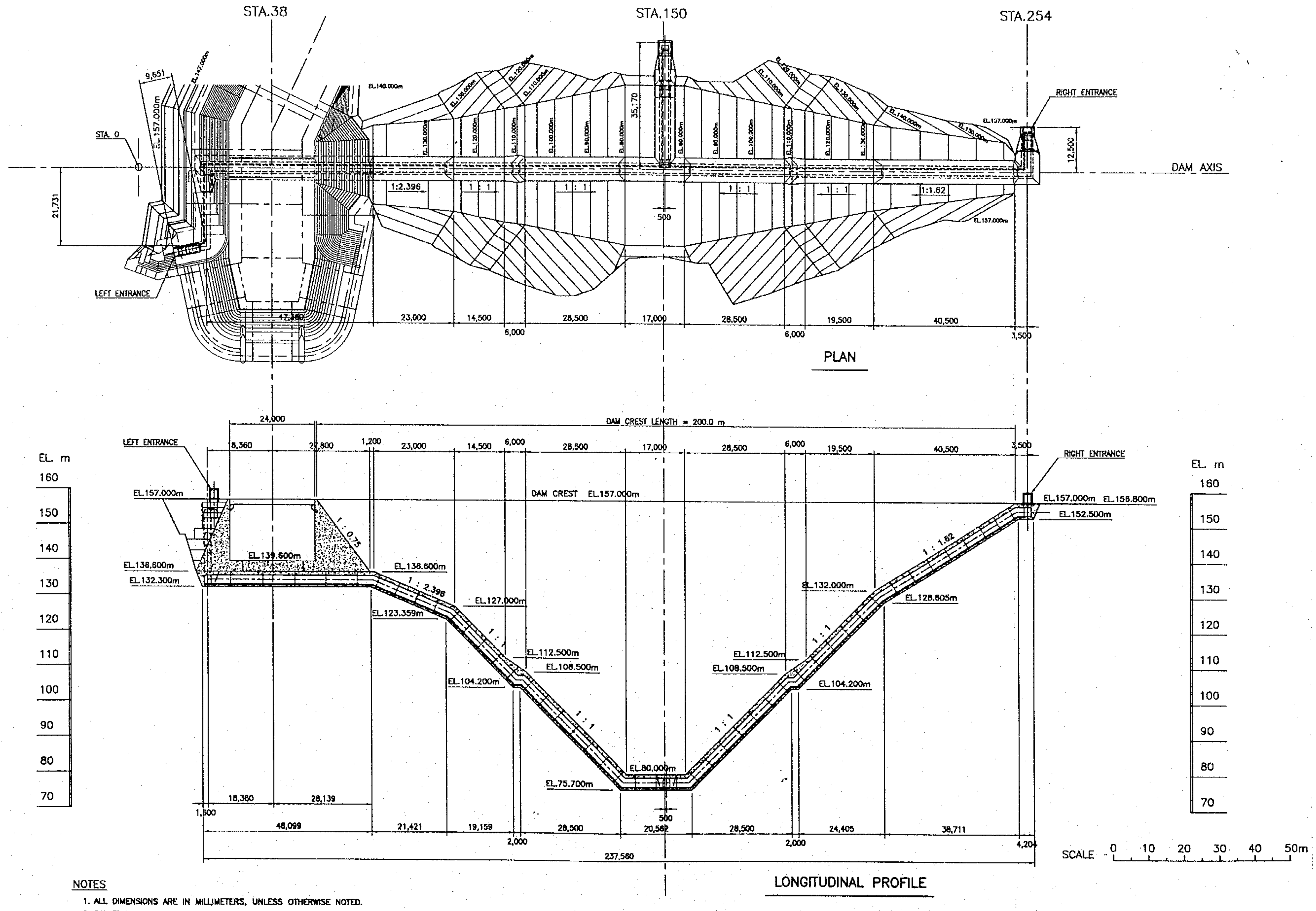




THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.8 ARRANGEMENT OF BLANKET GROUTING HOLES



NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
2. GALLERY CONCRETE SHALL BE OF TYPE B AS PER SPECIFICATION.

REFERENCE DRAWINGS

JD-P1-ED-Ga-2 GALLERY - STRUCTURAL DETAILS (1/4)
JD-P1-ED-Ga-3 GALLERY - STRUCTURAL DETAILS (2/4)
JD-P1-ED-Ga-4 GALLERY - STRUCTURAL DETAILS (3/4)

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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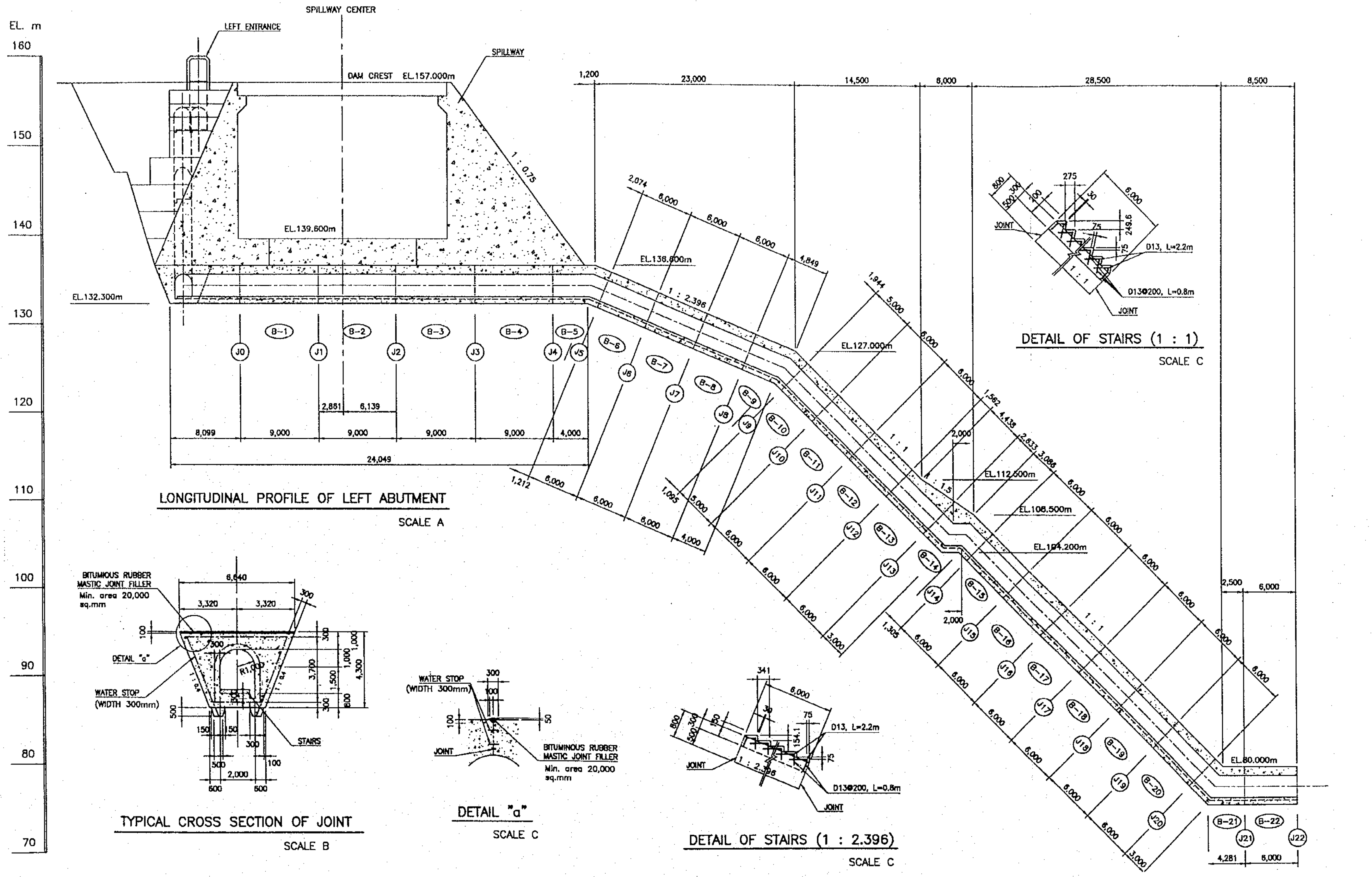
Fig. 7.2.9

LAYOUT OF GALLERY



REFERENCE DRAWINGS

JD-P1-ED-Ga-1 GALLERY - LAYOUT PLAN AND PROFILE
JD-P1-ED-Ga-3 GALLERY - STRUCTURAL DETAILS (2/4)

SCALE A 0 5 10 15 20m
SCALE B 0 2.5 5 7.5 10m
SCALE C 0 2.5 5m

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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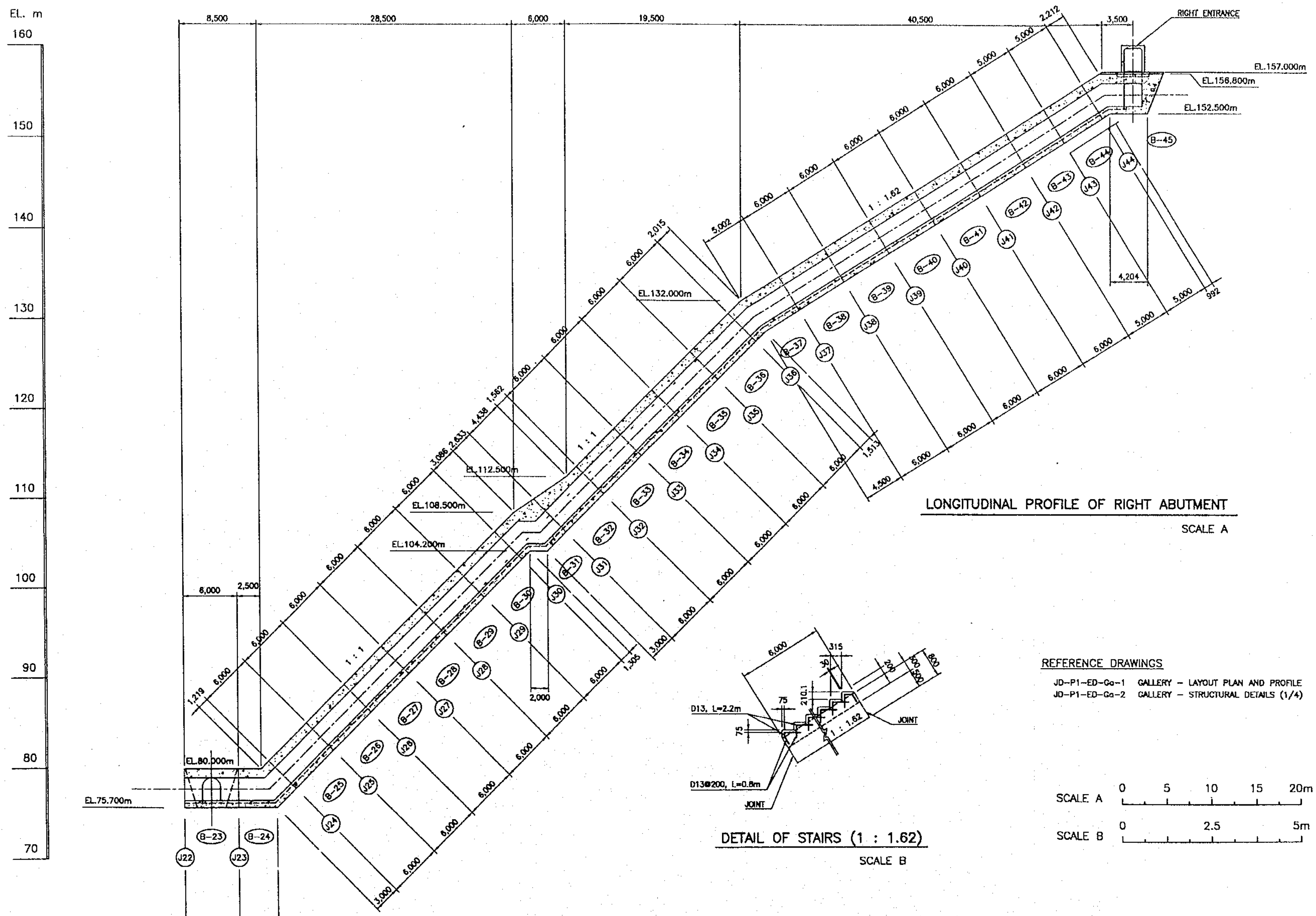
Fig. 7.2.10 (1/2)
DETAILS OF GALLERY



LONGITUDINAL PROFILE OF RIGHT ABUTMENT

SCALE A

DETAIL OF STAIRS (1 : 1.62)

SCALE B

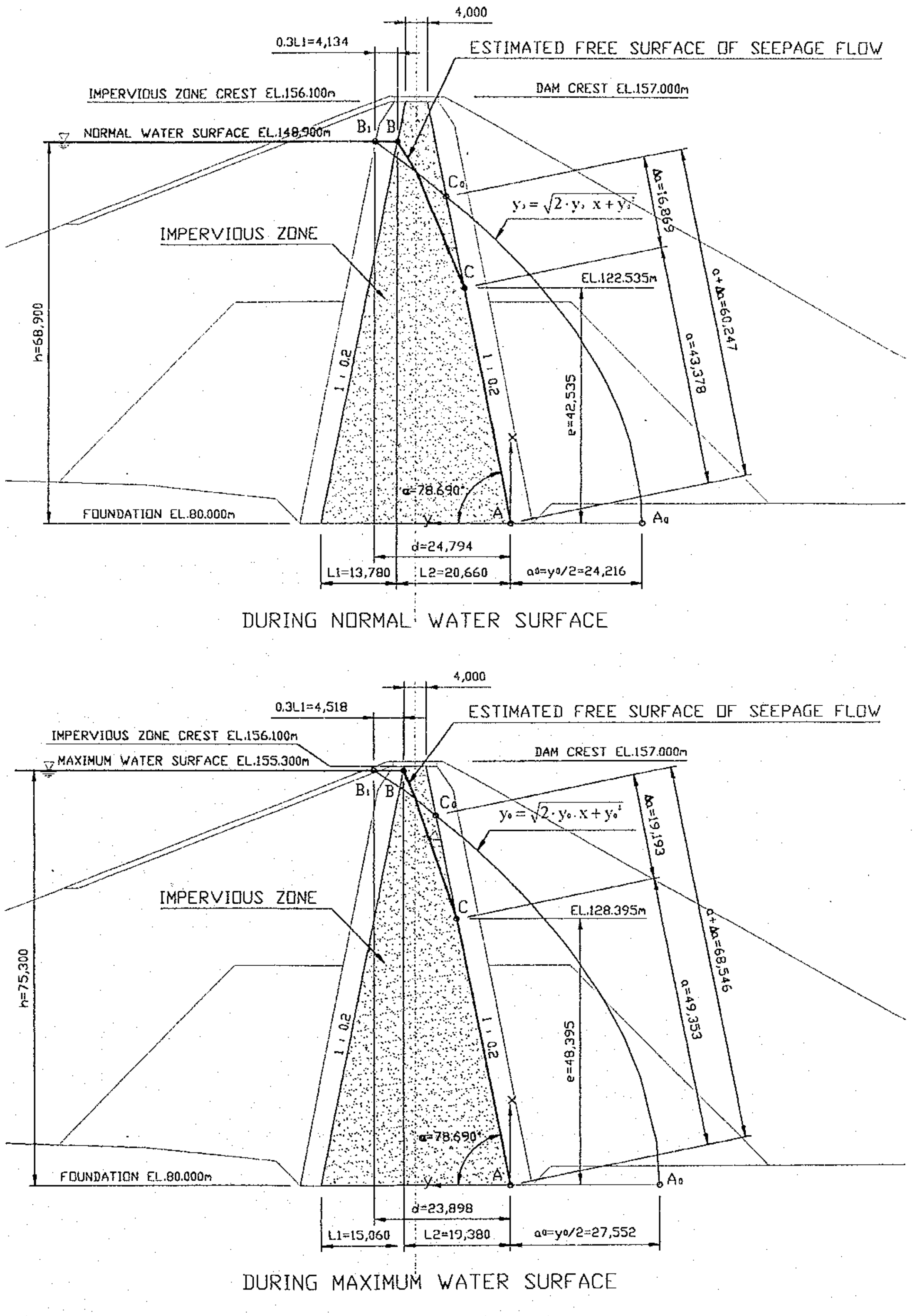
REFERENCE DRAWINGS

JD-P1-ED-Ga-1 GALLERY – LAYOUT PLAN AND PROFILE
JD-P1-ED-Ga-2 GALLERY – STRUCTURAL DETAILS (1/4)

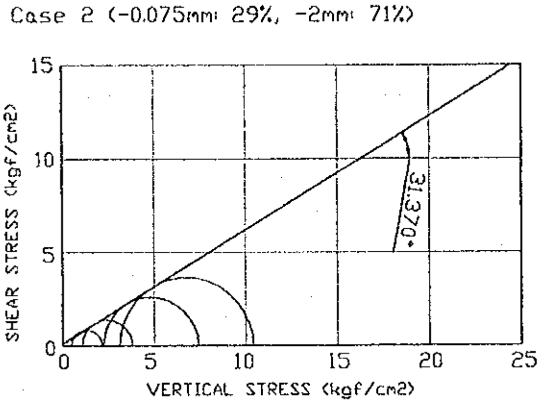
SCALE A 0 5 10 15 20m

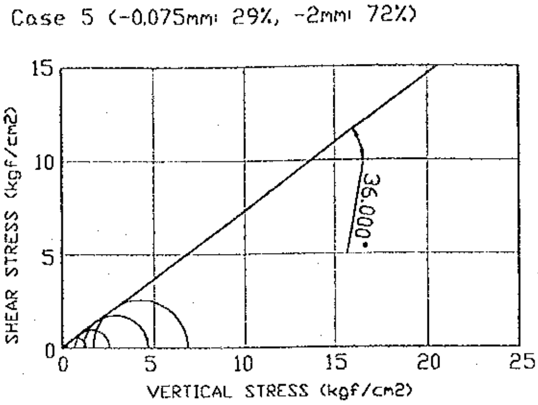
SCALE B 0 2.5 5m

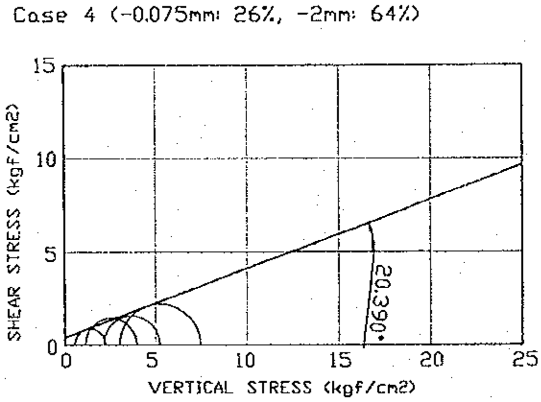
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. 7.2.10 (2/2) DETAILS OF GALLERY
JAPAN INTERNATIONAL COOPERATION AGENCY	



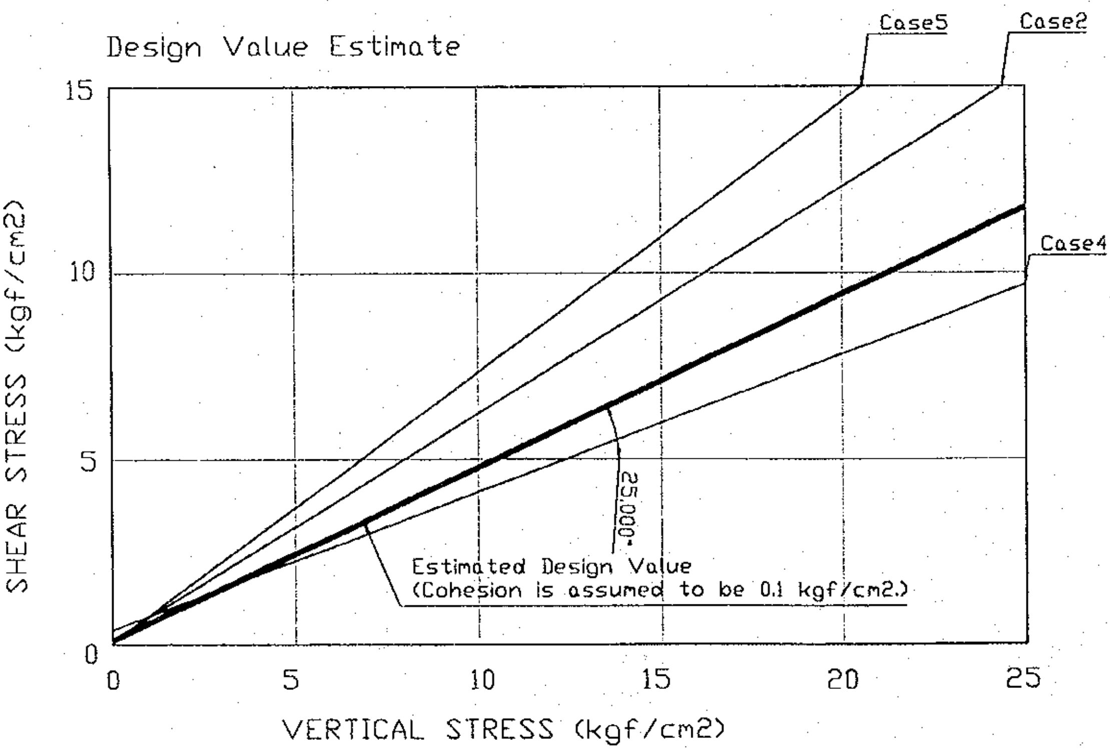
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. 7.2.11 FREE SURFACE OF SEEPAGE FLOW IN DAM BODY
JAPAN INTERNATIONAL COOPERATION AGENCY	



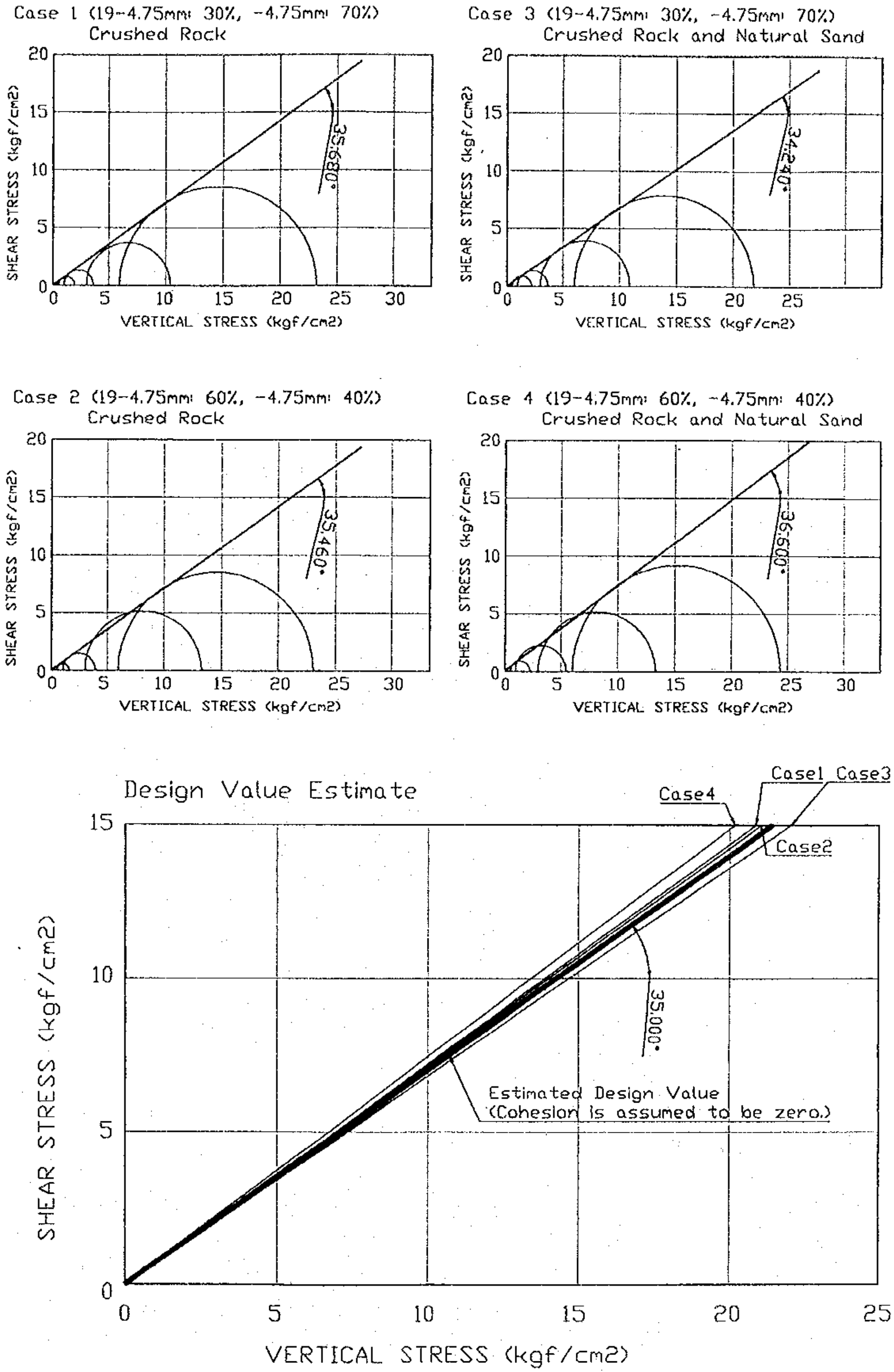




Note: Cases 1 and 3 were not suitable for impervious materials.



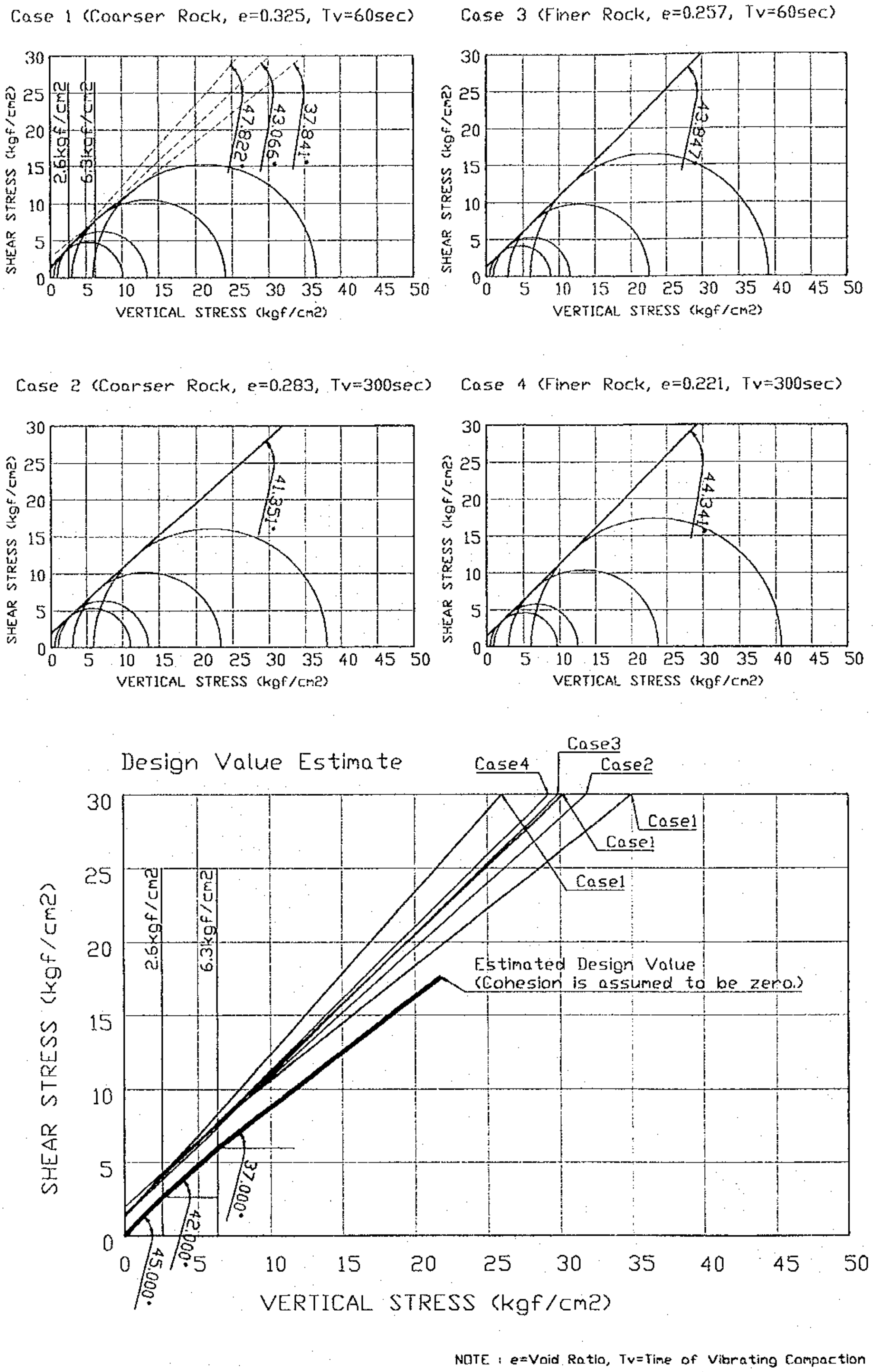
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. 7.2.12 EFFECTIVE INTERNAL FRICTION ANGLE OF IMPERVIOUS MATERIAL
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.13
EFFECTIVE INTERNAL FRICTION ANGLE OF SEMI-PERVIOUS MATERIAL



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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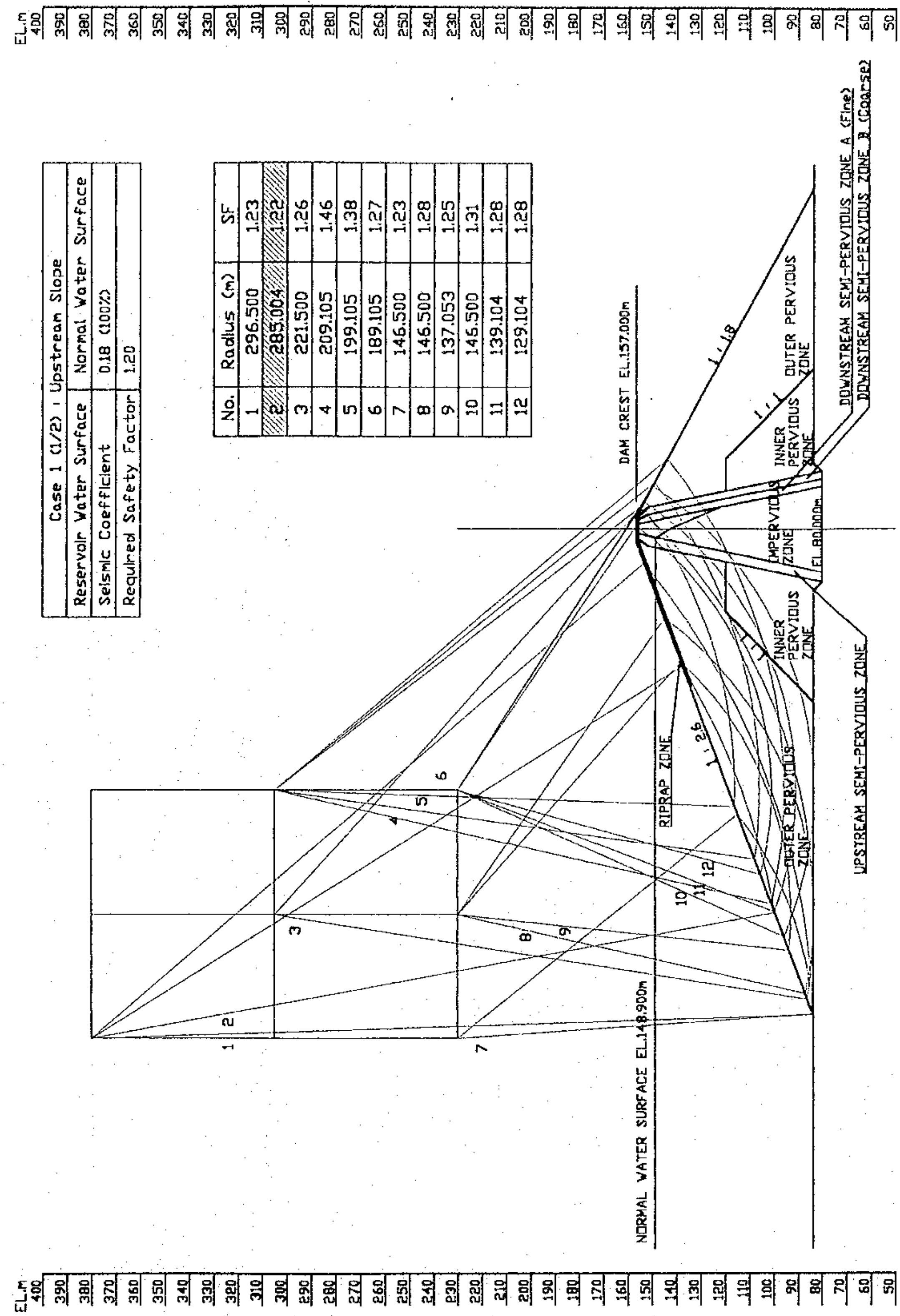
Fig. 7.2.14

EFFECTIVE INTERNAL FRICTION ANGLE OF PERVIOUS MATERIAL



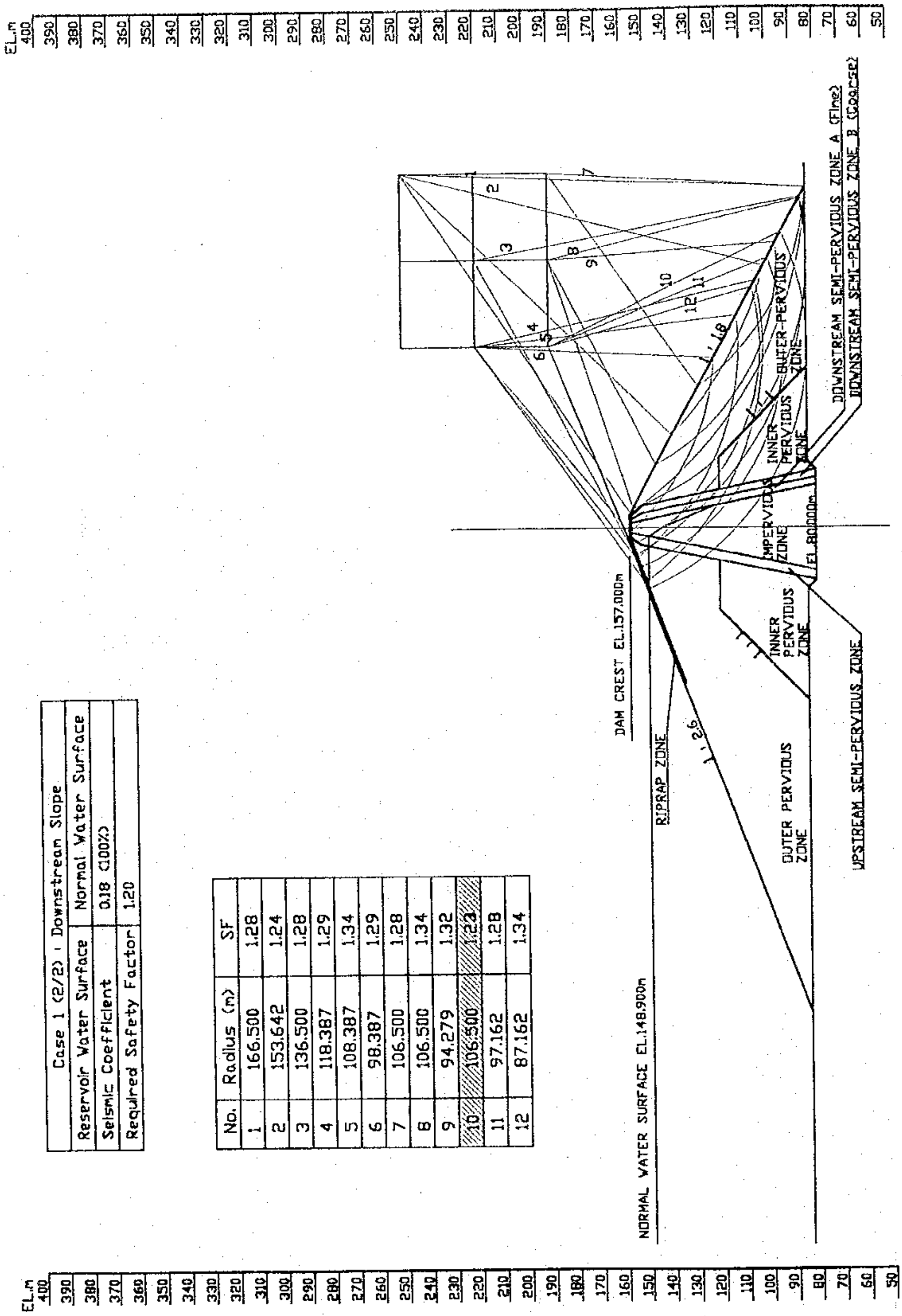
Case 1 (1/2) : Upstream Slope	
Reservoir Water Surface	Normal Water Surface
Seismic Coefficient	0.18 (100%)
Required Safety Factor	1.20

No.	Radius (m)	SF
1	296.500	1.23
2	285.004	1.22
3	221.500	1.26
4	209.105	1.46
5	199.105	1.38
6	189.105	1.27
7	146.500	1.23
8	146.500	1.28
9	137.053	1.25
10	146.500	1.31
11	139.104	1.28
12	129.104	1.28

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.15 (1/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-1)



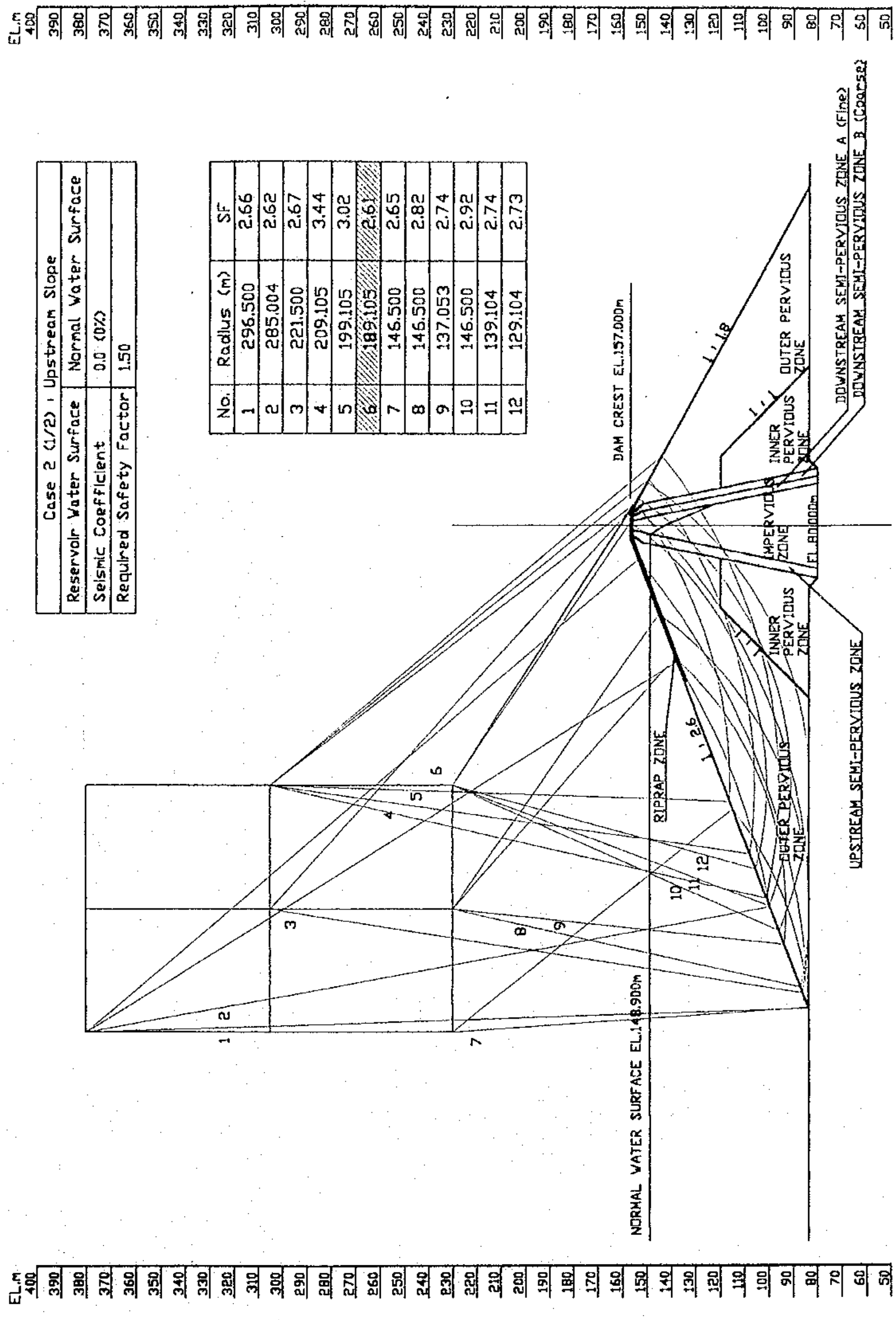
Case 1 (2/2) : Downstream Slope	
Reservoir Water Surface	Normal Water Surface
Seismic Coefficient	0.18 (100%)
Required Safety Factor	1.20

No.	Radius (m)	SF
1	166.500	1.28
2	153.642	1.24
3	136.500	1.28
4	118.387	1.29
5	108.387	1.34
6	98.387	1.29
7	106.500	1.28
8	106.500	1.34
9	94.279	1.32
10	106.500	1.23
11	97.162	1.28
12	87.162	1.34

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.15 (2/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-1)



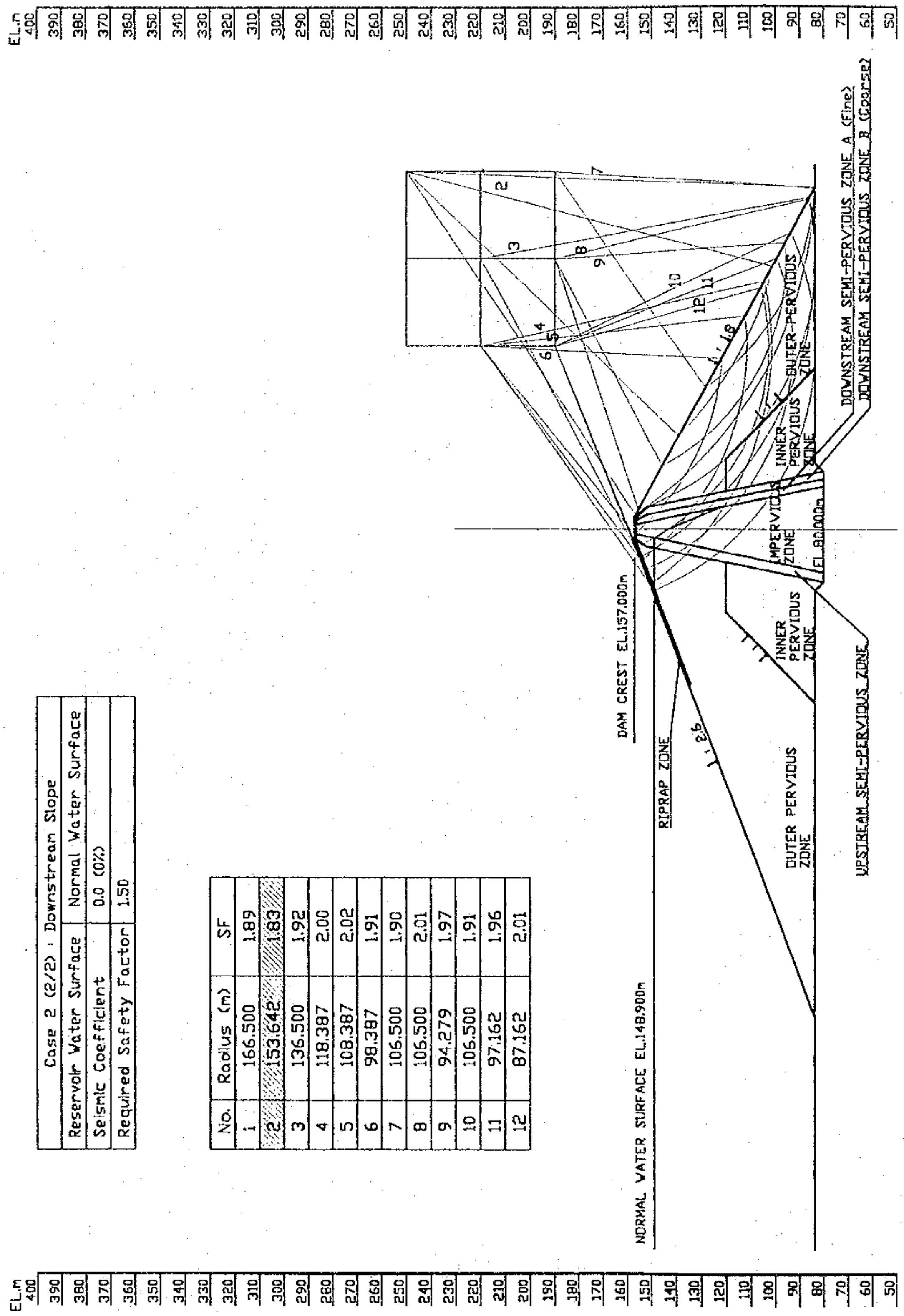
Case 2 (1/2) : Upstream Slope	
Reservoir Water Surface	Normal Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.50

No.	Radius (m)	SF
1	296.500	2.56
2	285.004	2.62
3	221.500	2.67
4	209.105	3.44
5	199.105	3.02
6	189.105	2.61
7	146.500	2.65
8	146.500	2.82
9	137.053	2.74
10	146.500	2.92
11	139.104	2.74
12	129.104	2.73

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.16 (1/2)**
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-2)



Case 2 (2/2) : Downstream Slope	
Reservoir Water Surface	Normal Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.50

No.	Radius (m)	SF
1	166.500	1.89
2	153.642	1.83
3	136.500	1.92
4	118.387	2.00
5	108.387	2.02
6	98.387	1.91
7	106.500	1.90
8	106.500	2.01
9	94.279	1.97
10	106.500	1.91
11	97.162	1.96
12	87.162	2.01

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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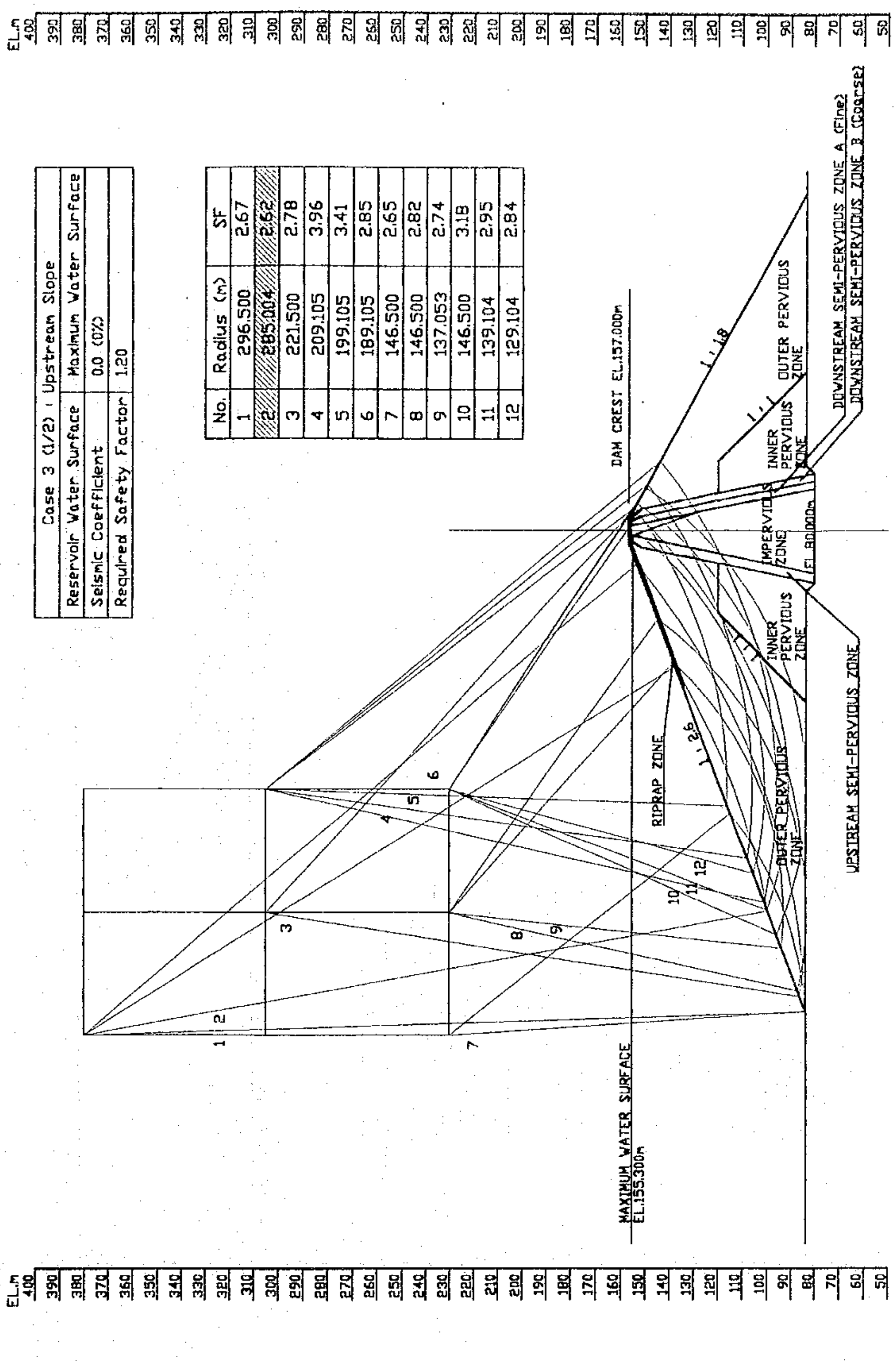
Fig. **7.2.16 (2/2)**
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-2)



Case 3 (1/2) : Upstream Slope	
Reservoir Water Surface	Maximum Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.20

No.	Radius (m)	SF
1	296.500	2.67
2	285.004	2.62
3	221.500	2.78
4	209.105	3.96
5	199.105	3.41
6	189.105	2.85
7	146.500	2.65
8	146.500	2.82
9	137.053	2.74
10	146.500	3.18
11	139.104	2.95
12	129.104	2.84

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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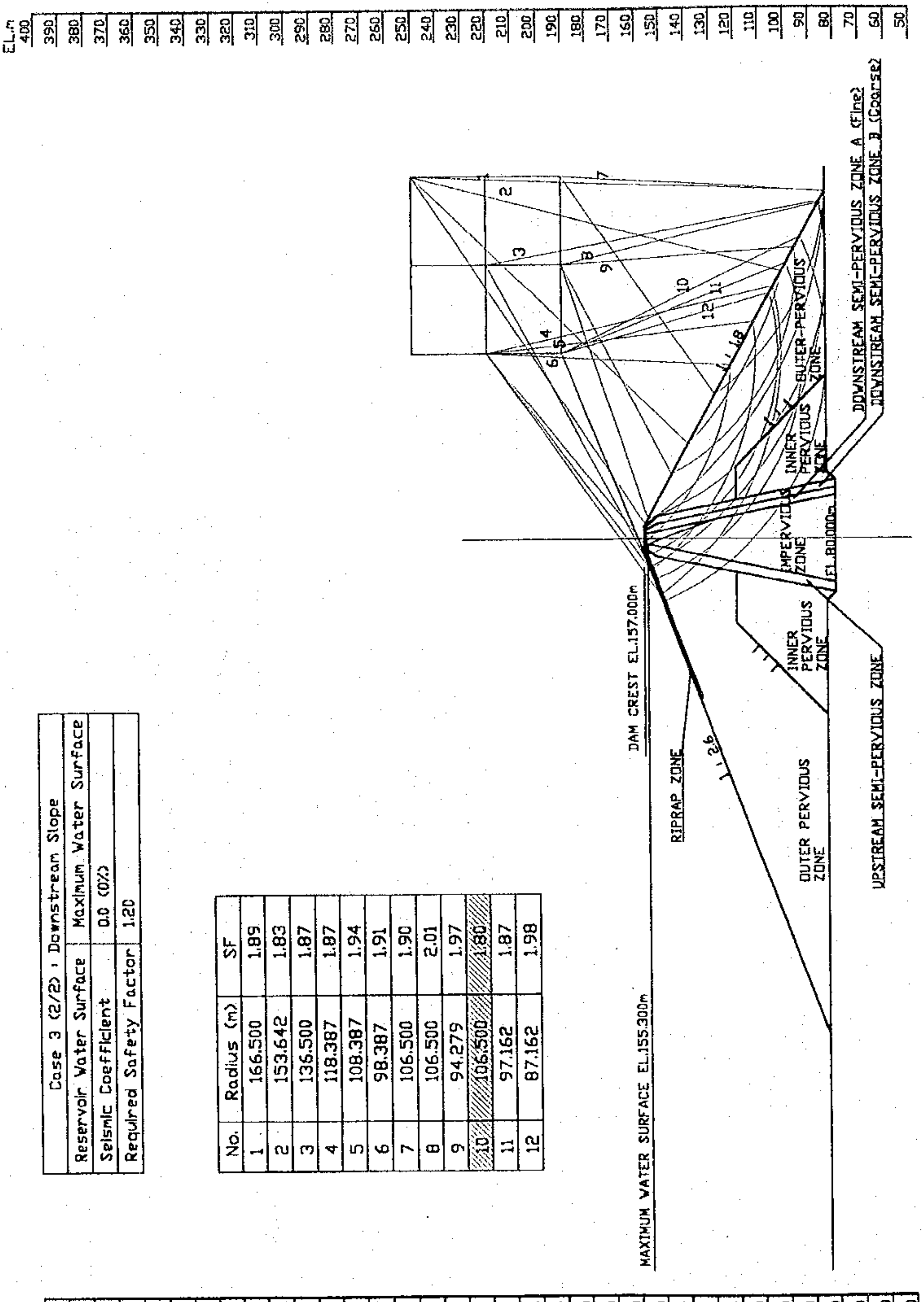
Fig. **7.2.17 (1/2)**
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-3)



Case 3 (2/2) : Downstream Slope	
Reservoir Water Surface	Maximum Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.20

No.	Radius (m)	SF
1	166.500	1.89
2	153.642	1.83
3	136.500	1.87
4	118.387	1.87
5	108.387	1.94
6	98.387	1.91
7	106.500	1.90
8	106.500	2.01
9	94.279	1.97
10	106.500	1.80
11	97.162	1.87
12	87.162	1.98

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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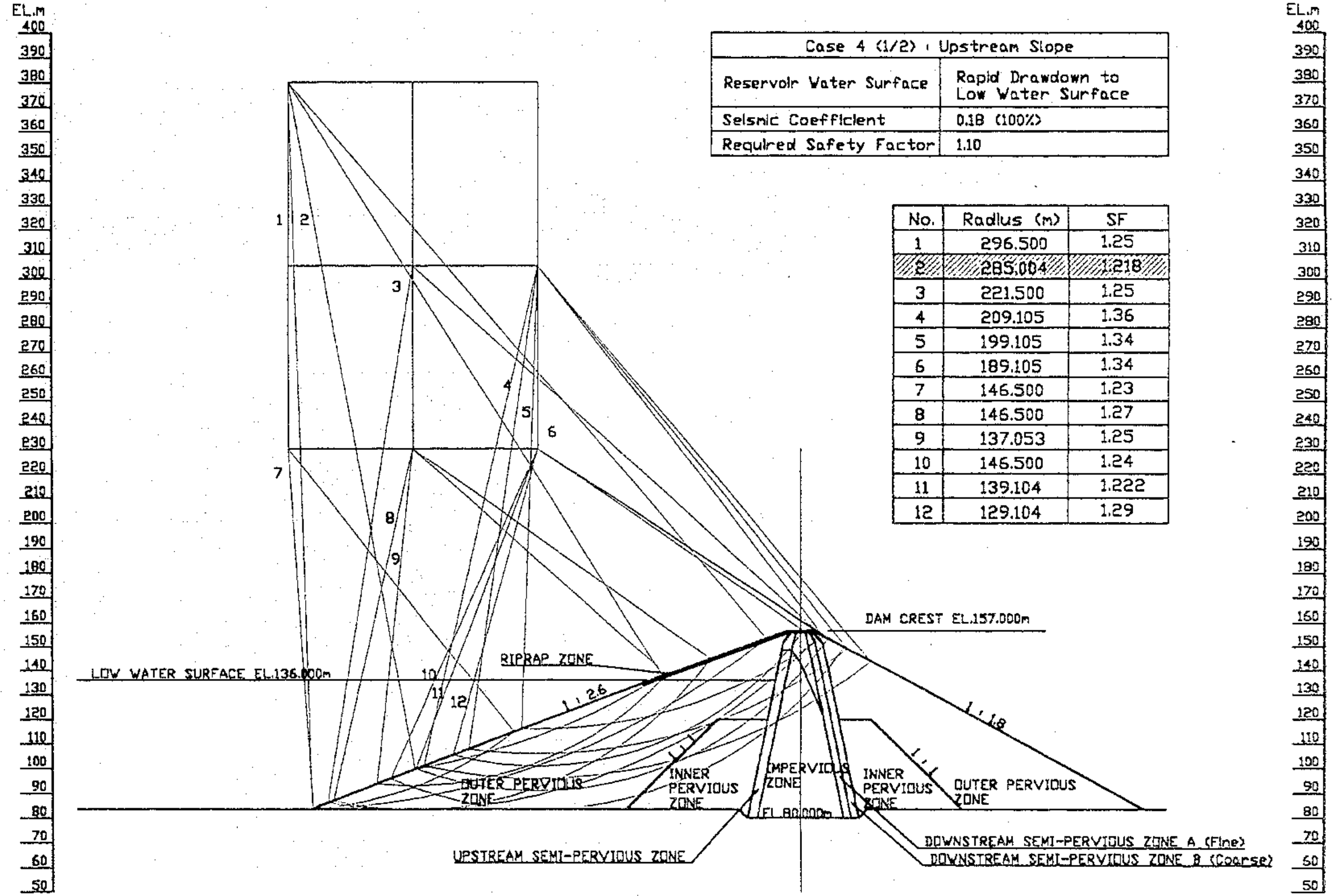
Fig. 7.2.17 (2/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-3)



Case 4 (1/2) : Upstream Slope	
Reservoir Water Surface	Rapid Drawdown to Low Water Surface
Seismic Coefficient	0.18 (100%)
Required Safety Factor	1.10

No.	Radius (m)	SF
1	296.500	1.25
2	285.004	1.218
3	221.500	1.25
4	209.105	1.36
5	199.105	1.34
6	189.105	1.34
7	146.500	1.23
8	146.500	1.27
9	137.053	1.25
10	146.500	1.24
11	139.104	1.222
12	129.104	1.29

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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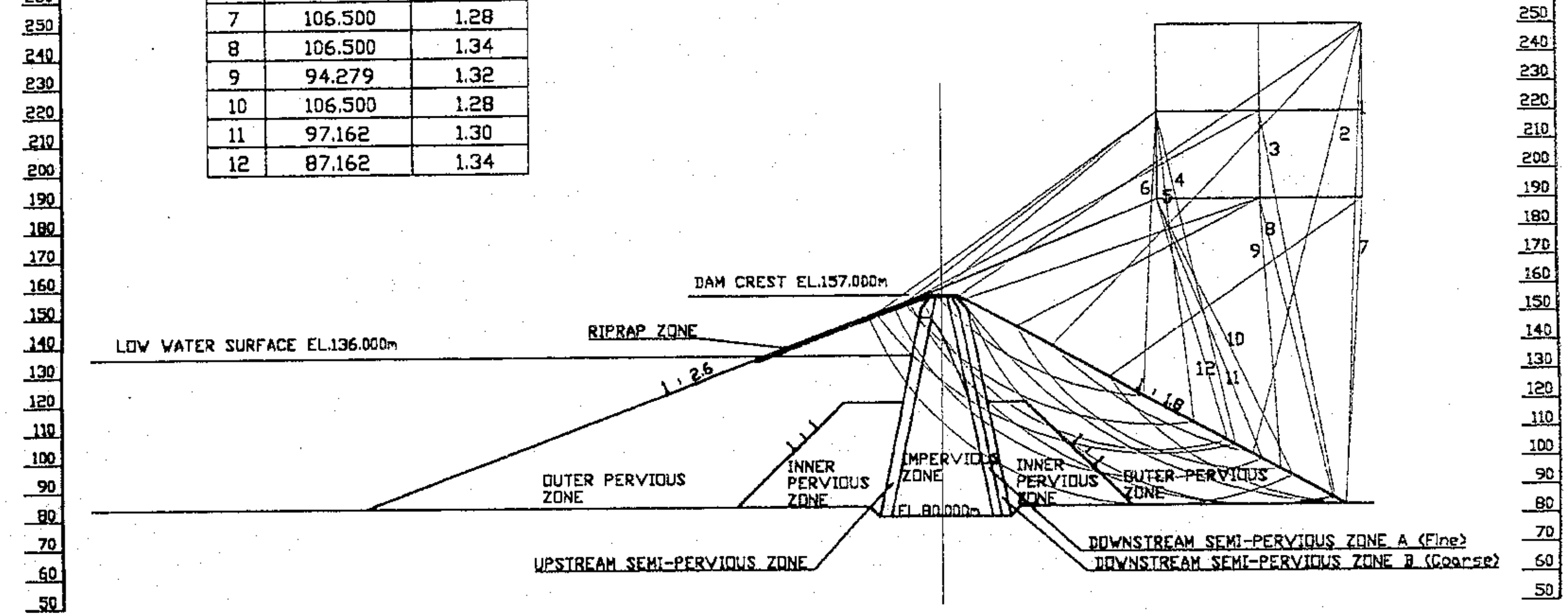
Fig. **7.2.18 (1/2)**
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-4)

Case 4 (2/2) : Downstream Slope	
Reservoir Water Surface	Rapid Drawdown to Low Water Surface
Seismic Coefficient	0.18 (100%)
Required Safety Factor	1.10

No.	Radius (m)	SF
1	166.500	1.28
2	153.642	1.24
3	136.500	1.28
4	118.387	1.33
5	108.387	1.34
6	98.387	1.29
7	106.500	1.28
8	106.500	1.34
9	94.279	1.32
10	106.500	1.28
11	97.162	1.30
12	87.162	1.34



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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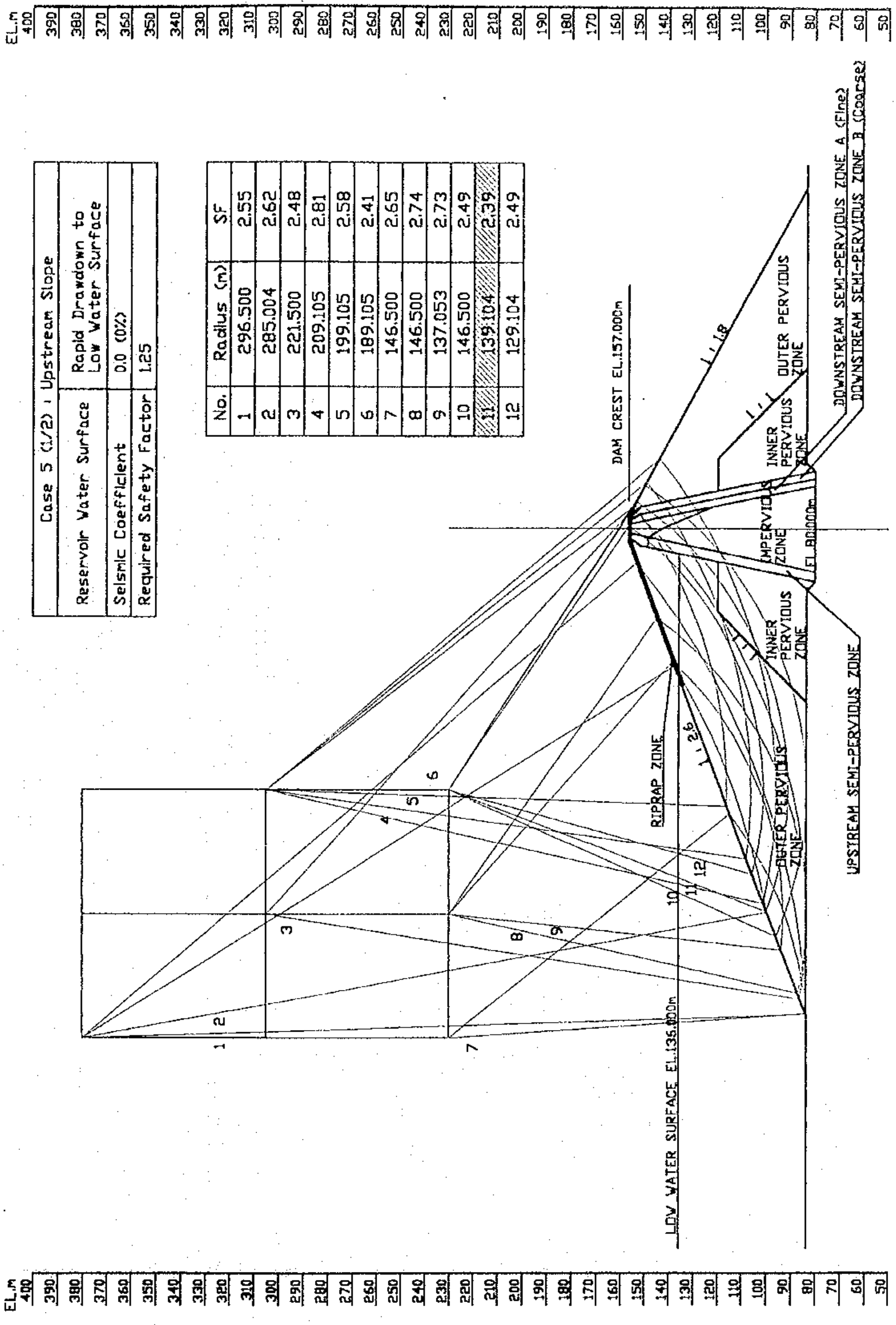
Fig. 7.2.18 (2/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-4)



Case 5 (1/2) : Upstream Slope	
Reservoir Water Surface	Rapid Drawdown to Low Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.25

No.	Radius (m)	SF
1	296.500	2.55
2	285.004	2.62
3	221.500	2.48
4	209.105	2.81
5	199.105	2.58
6	189.105	2.41
7	146.500	2.65
8	146.500	2.74
9	137.053	2.73
10	146.500	2.49
11	139.104	2.39
12	129.104	2.49

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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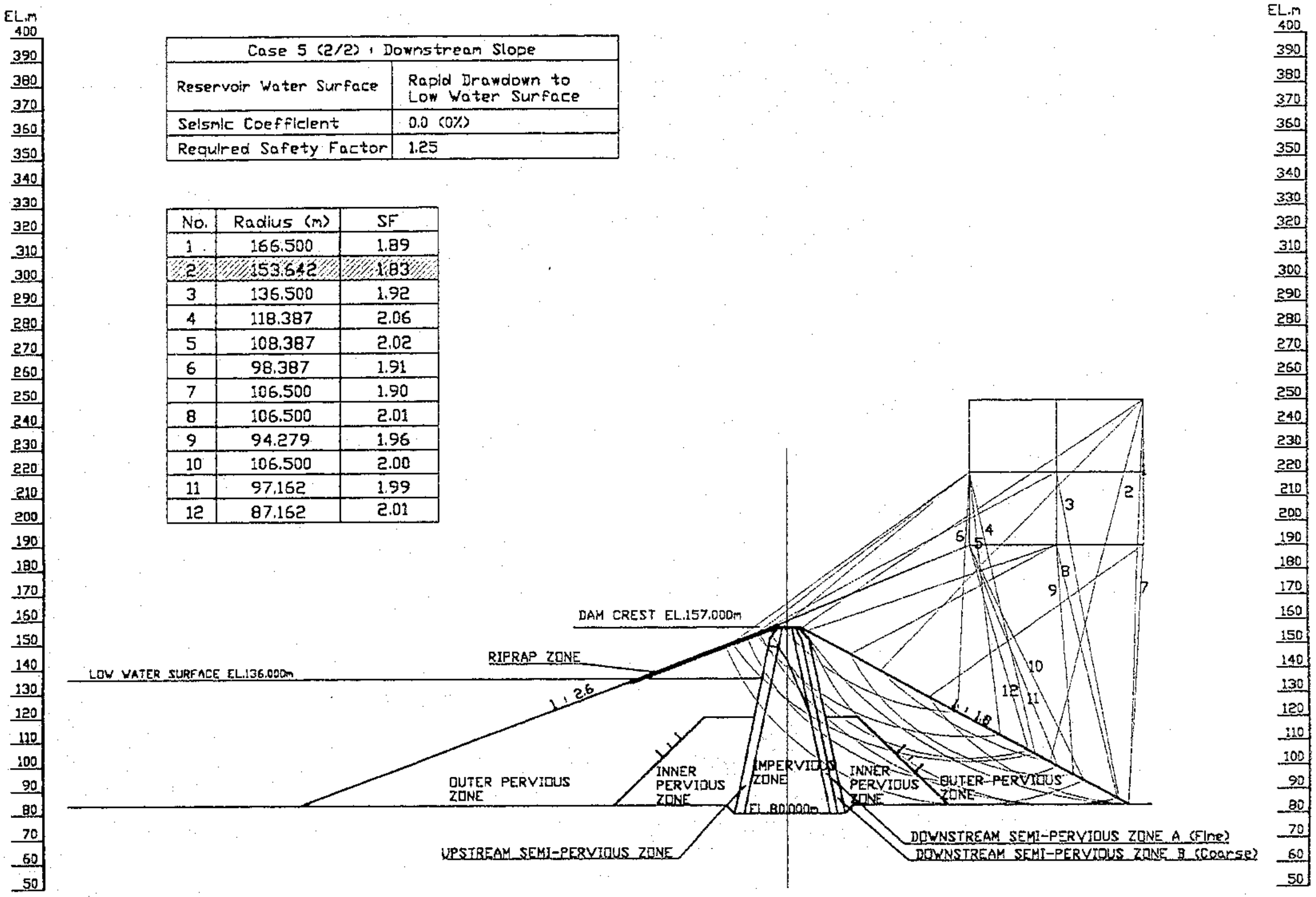
Fig. **7.2.19 (1/2)**
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-5)

Case 5 (2/2) : Downstream Slope	
Reservoir Water Surface	Rapid Drawdown to Low Water Surface
Seismic Coefficient	0.0 (0%)
Required Safety Factor	1.25

No.	Radius (m)	SF
1	166.500	1.89
2	153.642	1.83
3	136.500	1.92
4	118.387	2.06
5	108.387	2.02
6	98.387	1.91
7	106.500	1.90
8	106.500	2.01
9	94.279	1.96
10	106.500	2.00
11	97.162	1.99
12	87.162	2.01



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

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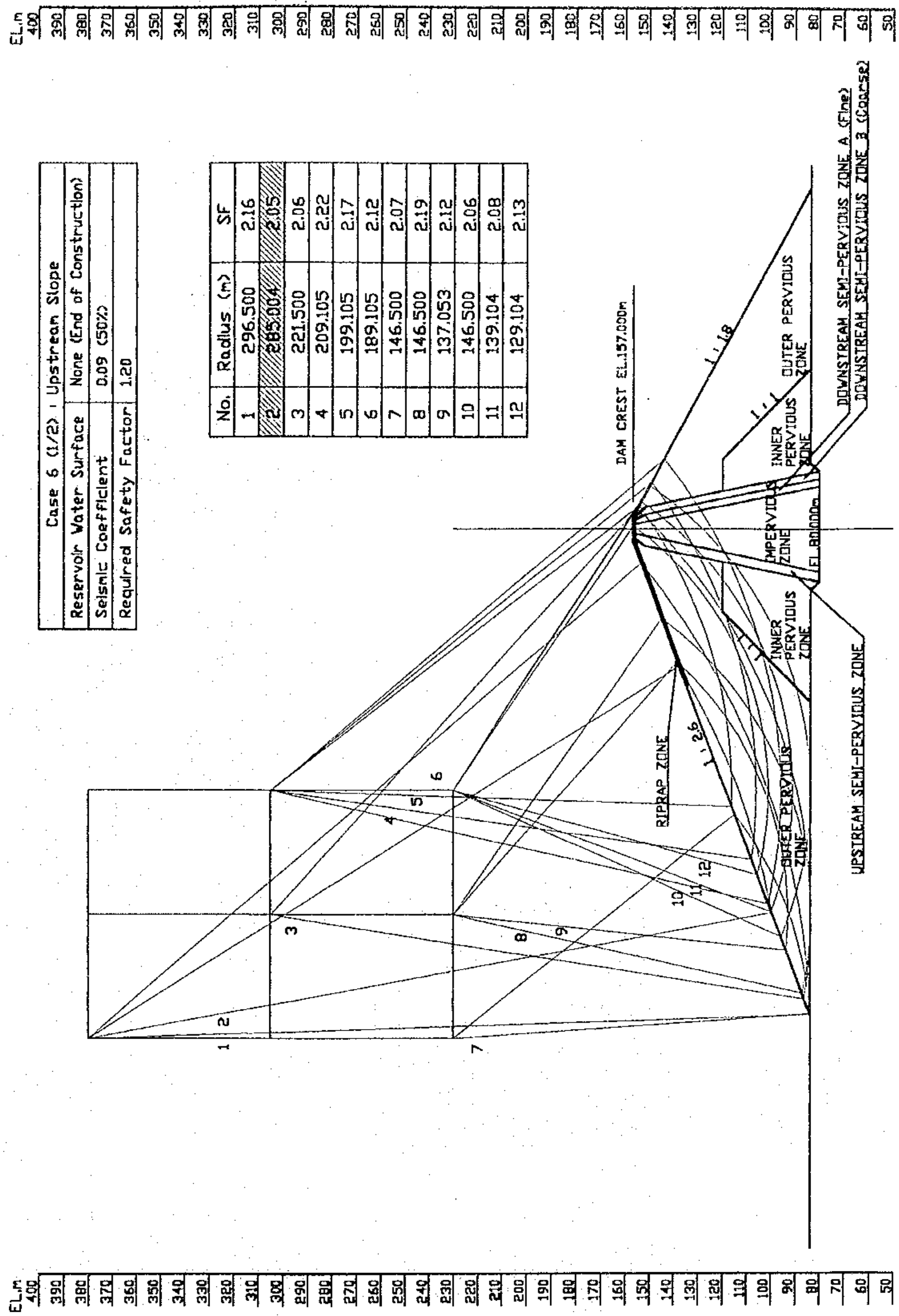
Fig. 7.2.19 (2/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-5)



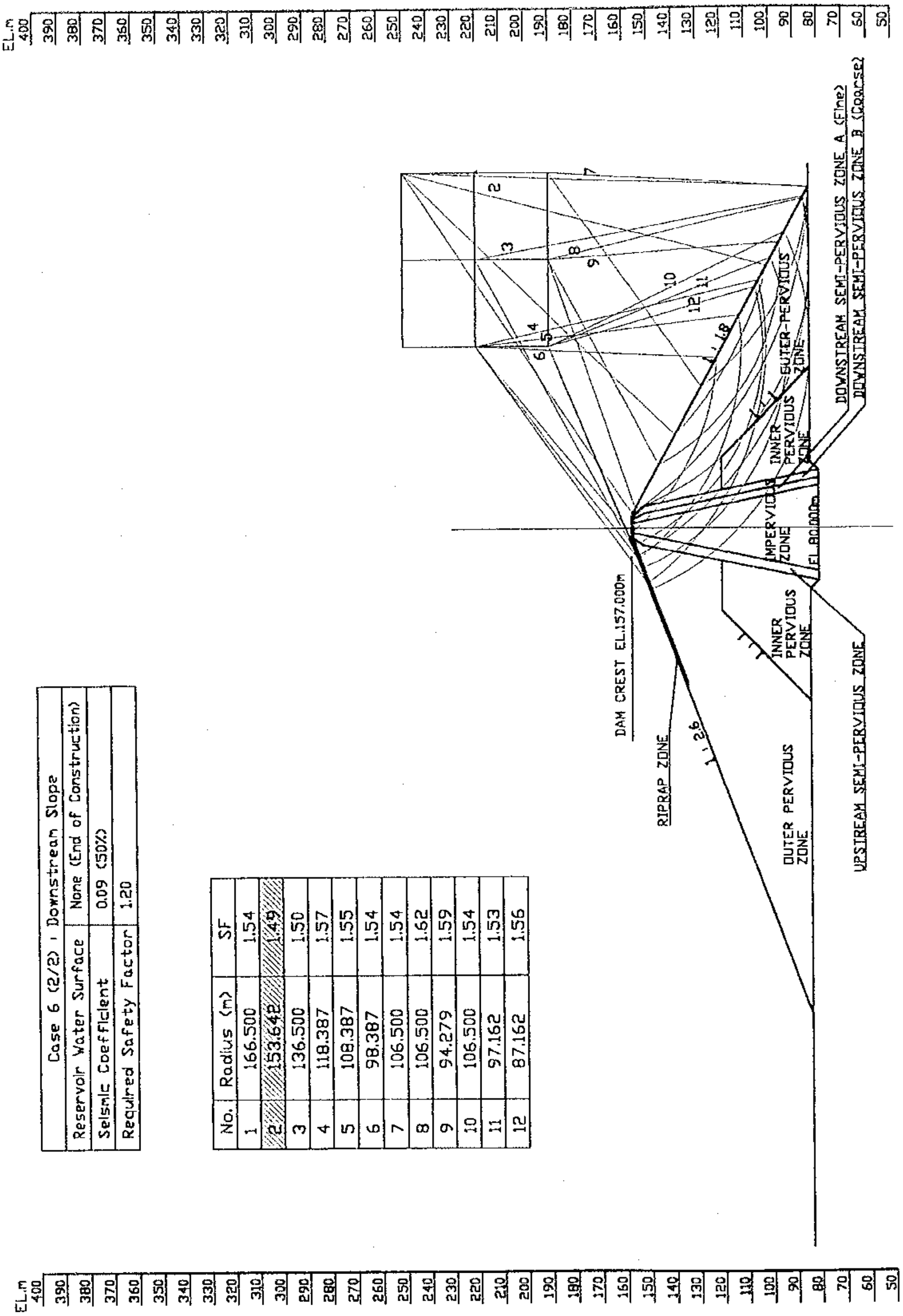
Case 6 (1/2) : Upstream Slope	
Reservoir Water Surface	None (End of Construction)
Seismic Coefficient	0.09 (50%)
Required Safety Factor	1.20

No.	Radius (m)	SF
1	296.500	2.16
2	285.004	2.05
3	221.500	2.06
4	209.105	2.22
5	199.105	2.17
6	189.105	2.12
7	146.500	2.07
8	146.500	2.19
9	137.053	2.12
10	146.500	2.06
11	139.104	2.08
12	129.104	2.13

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.20 (1/2)
RESULTS OF SLOPE STABILITY ANALYSIS (CASE-6)



Case 6 (2/2) : Downstream Slope	
Reservoir Water Surface	None (End of Construction)
Seismic Coefficient	0.09 (50%)
Required Safety Factor	1.20

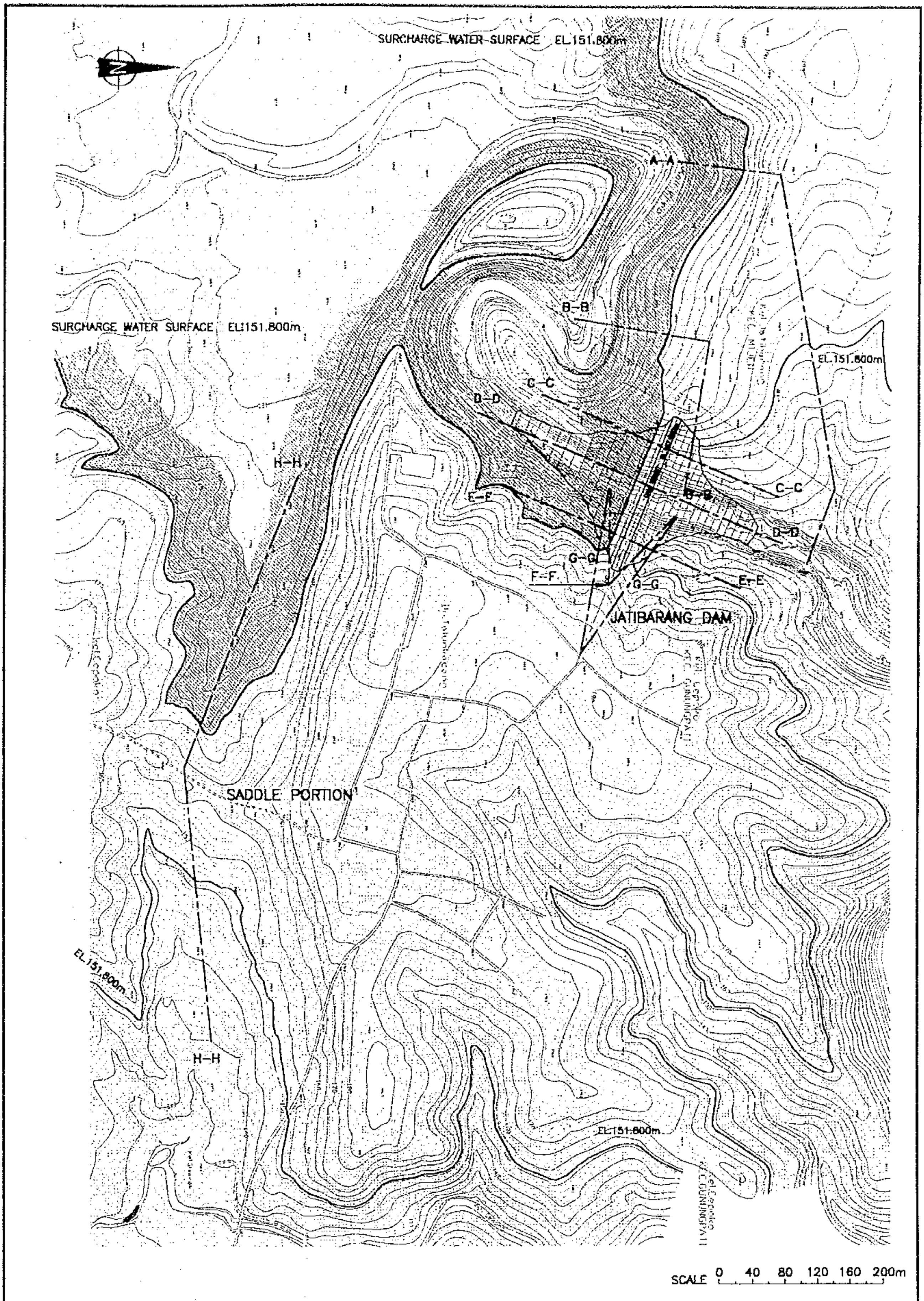
No.	Radius (m)	SF
1	166.500	1.54
2	153.642	1.49
3	136.500	1.50
4	118.387	1.57
5	108.387	1.55
6	98.387	1.54
7	106.500	1.54
8	106.500	1.62
9	94.279	1.59
10	106.500	1.54
11	97.162	1.53
12	87.162	1.56

THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.20 (2/2)**

RESULTS OF SLOPE STABILITY ANALYSIS (CASE-6)

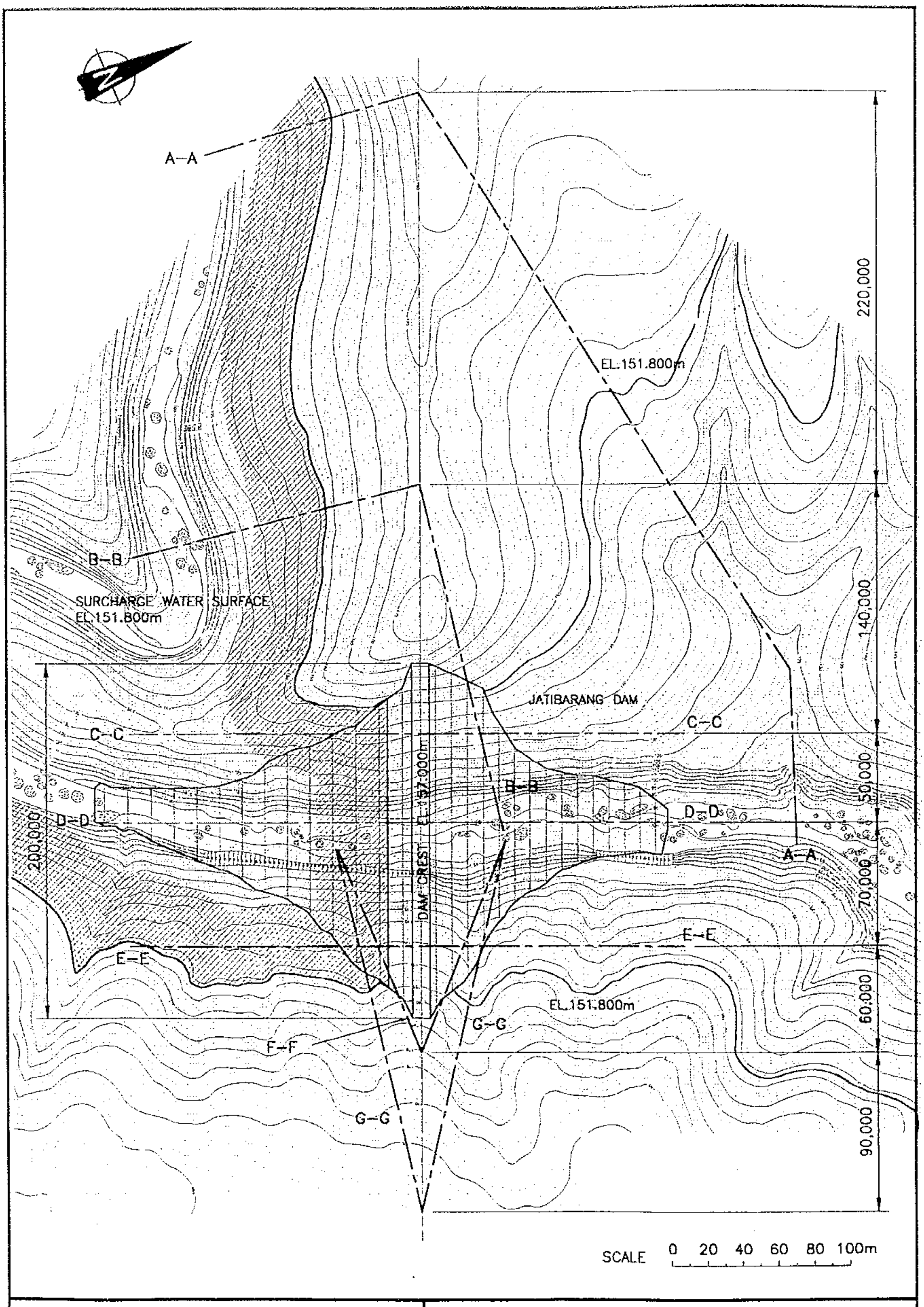


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.21 (1/2)

LOCATION OF SEEPAGE ANALYSIS SECTION

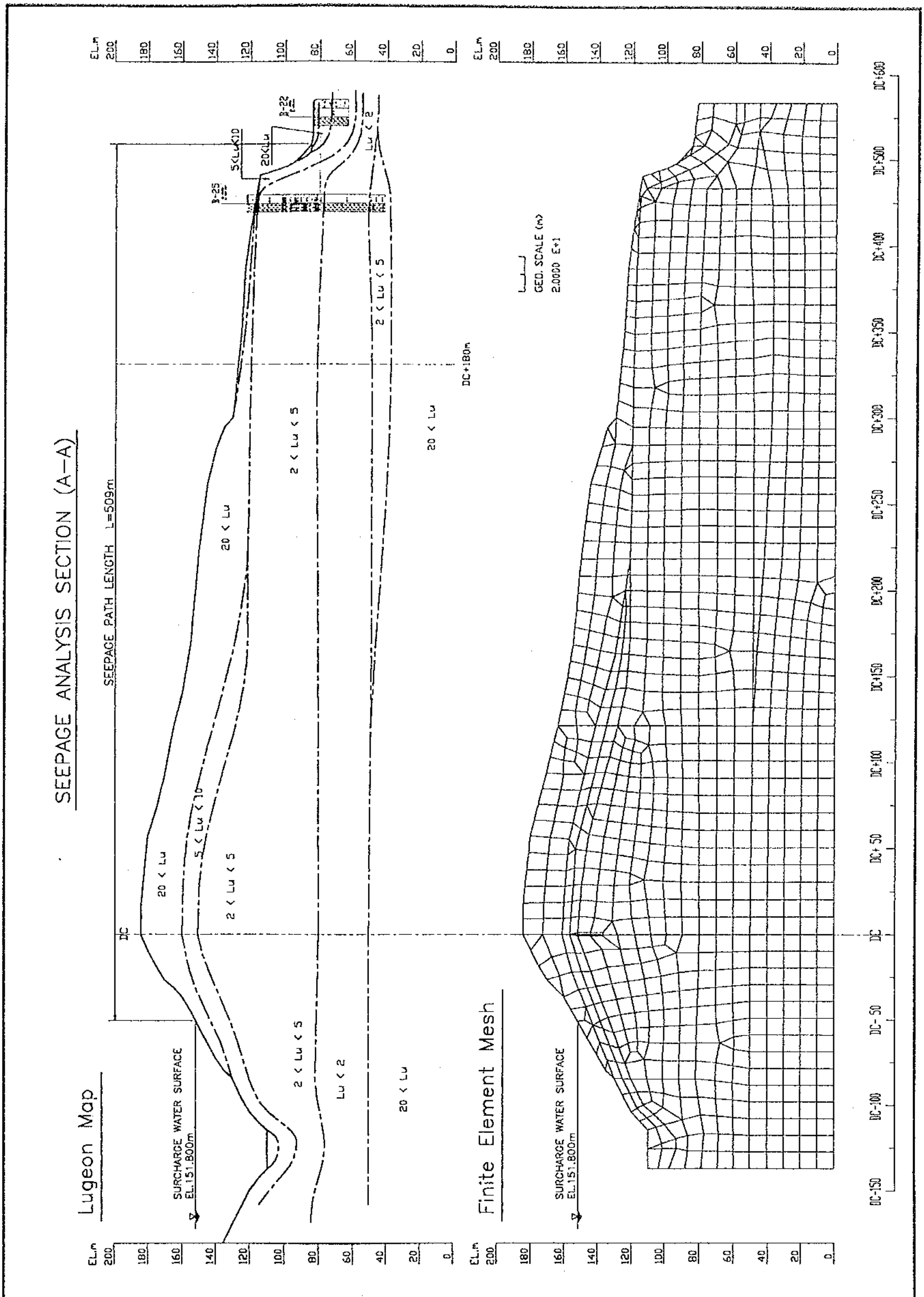


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 7.2.21 (2/2)

LOCATION OF SEEPAGE ANALYSIS SECTION

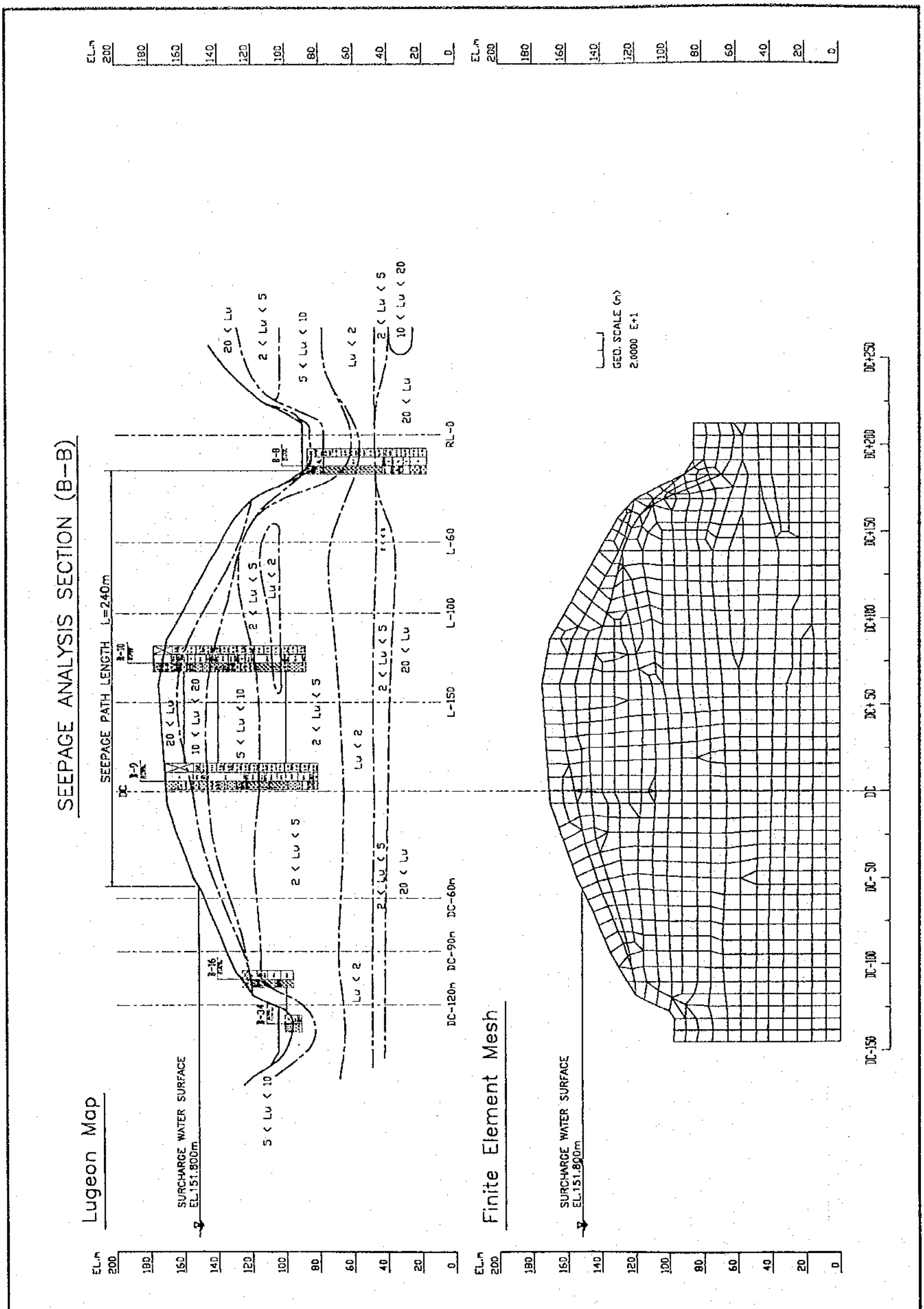


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.22 (1/8)**

SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS

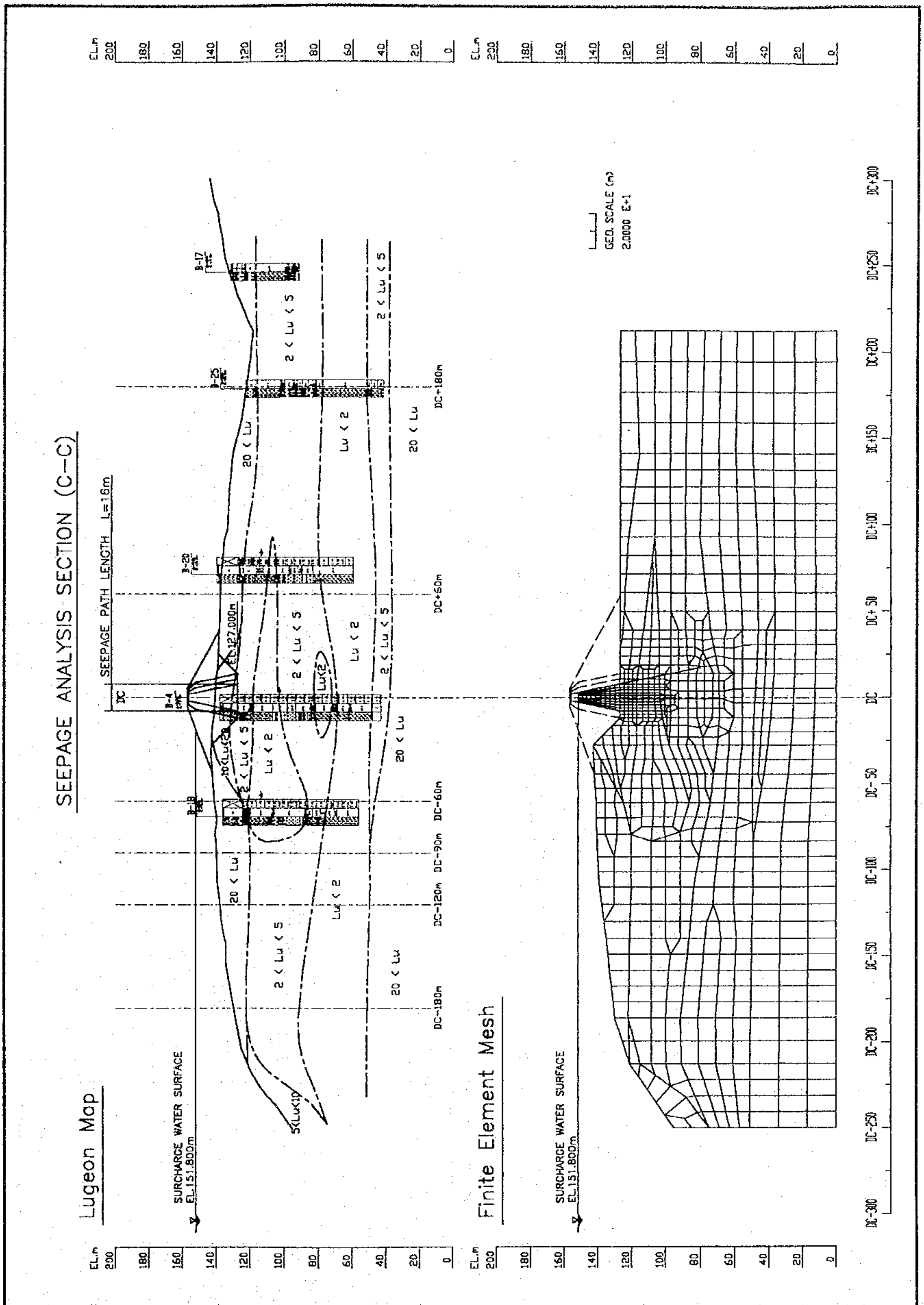


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

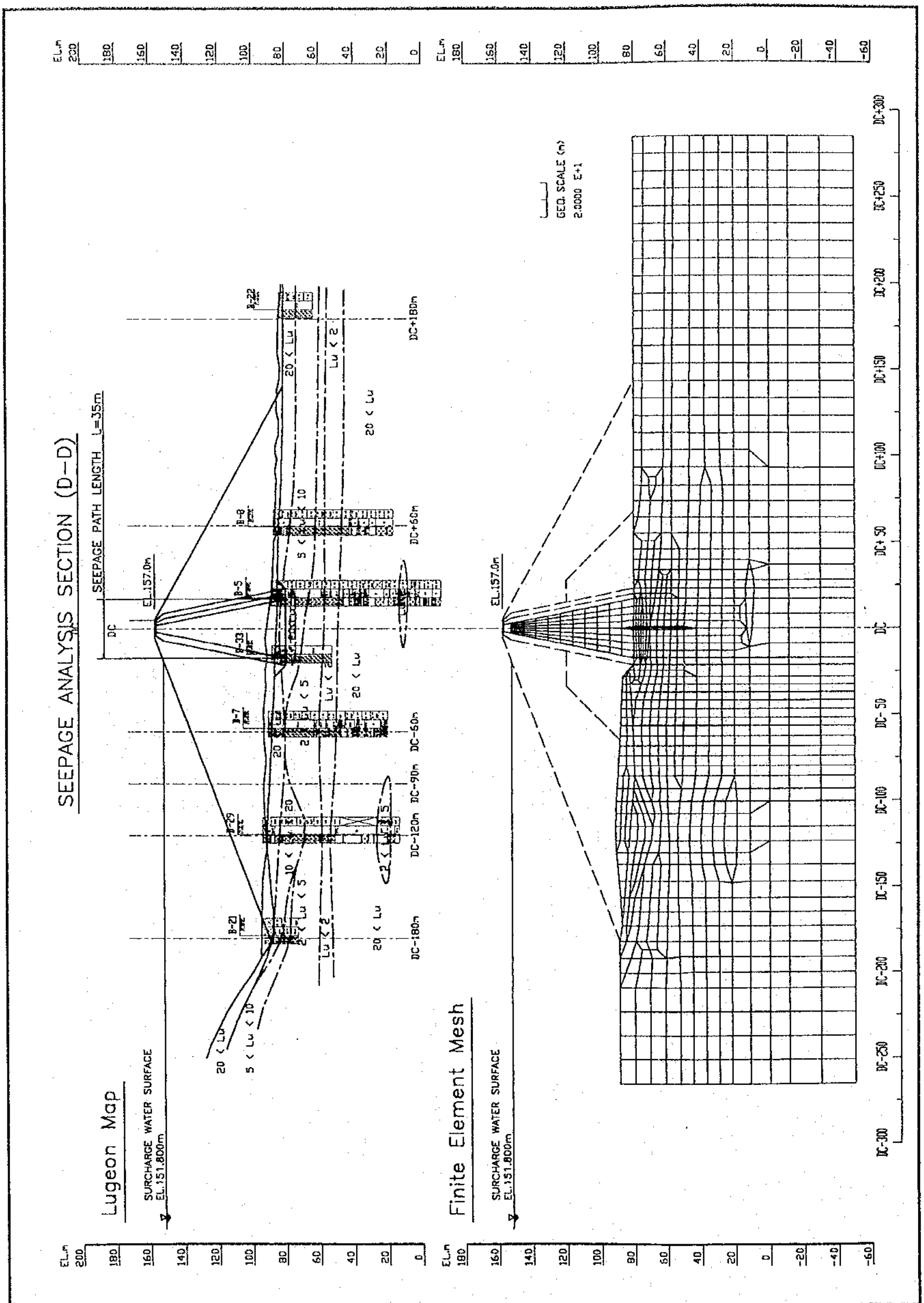
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.22 (2/8)**

SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. 7.2.22 (3/8)
JAPAN INTERNATIONAL COOPERATION AGENCY	**SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS**

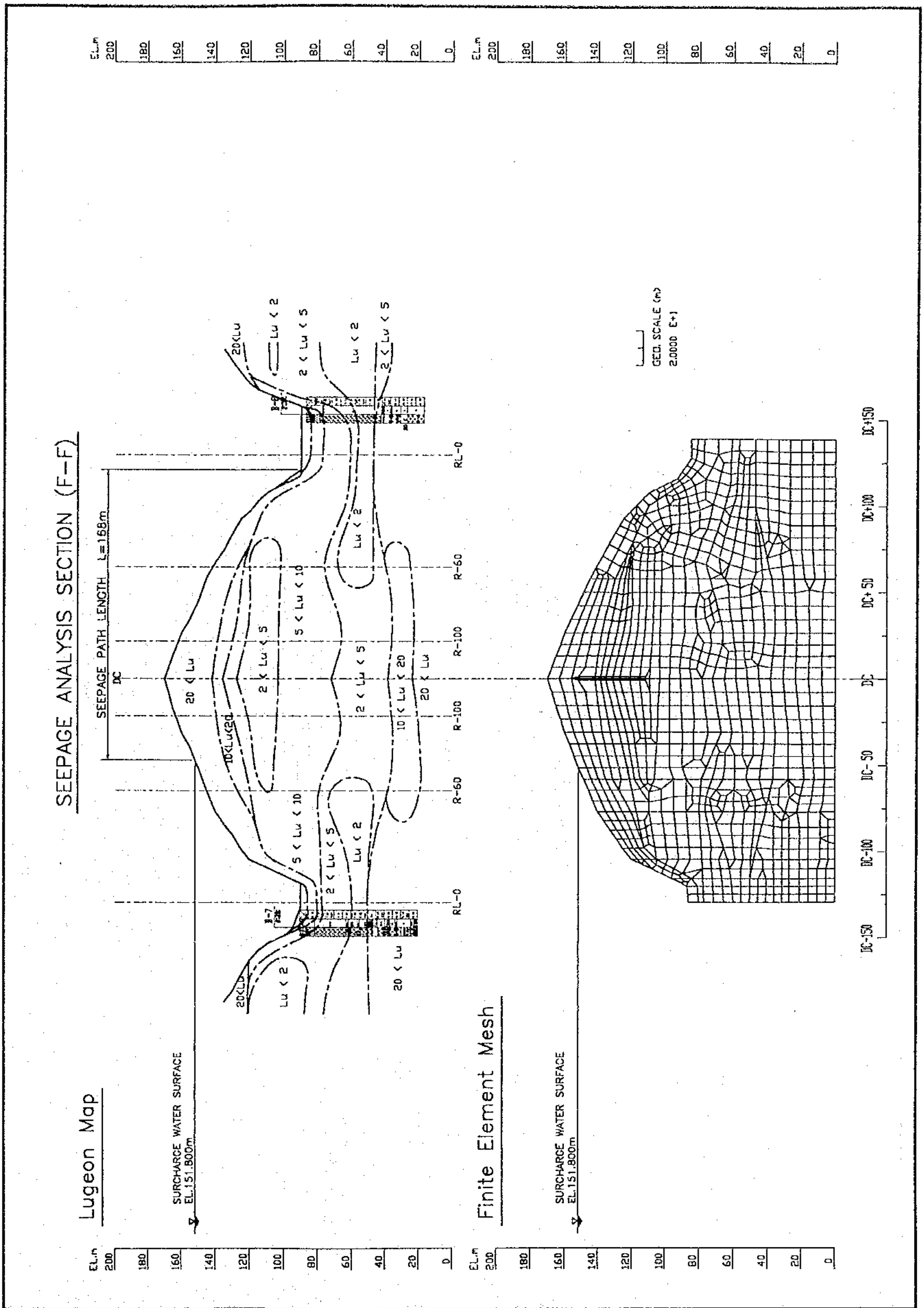


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.22 (4/8)**

SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS

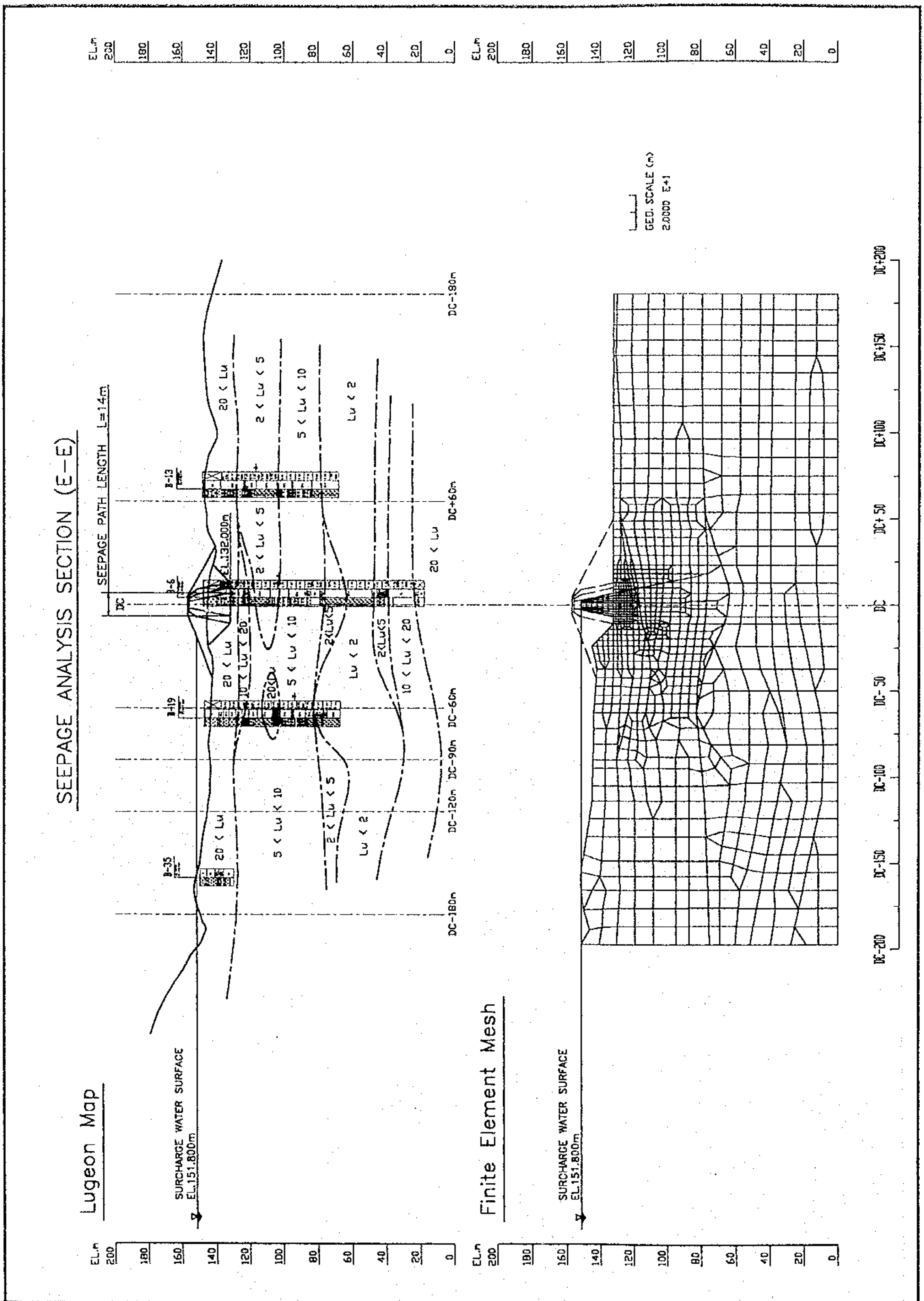


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.22 (6/8)**

SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS

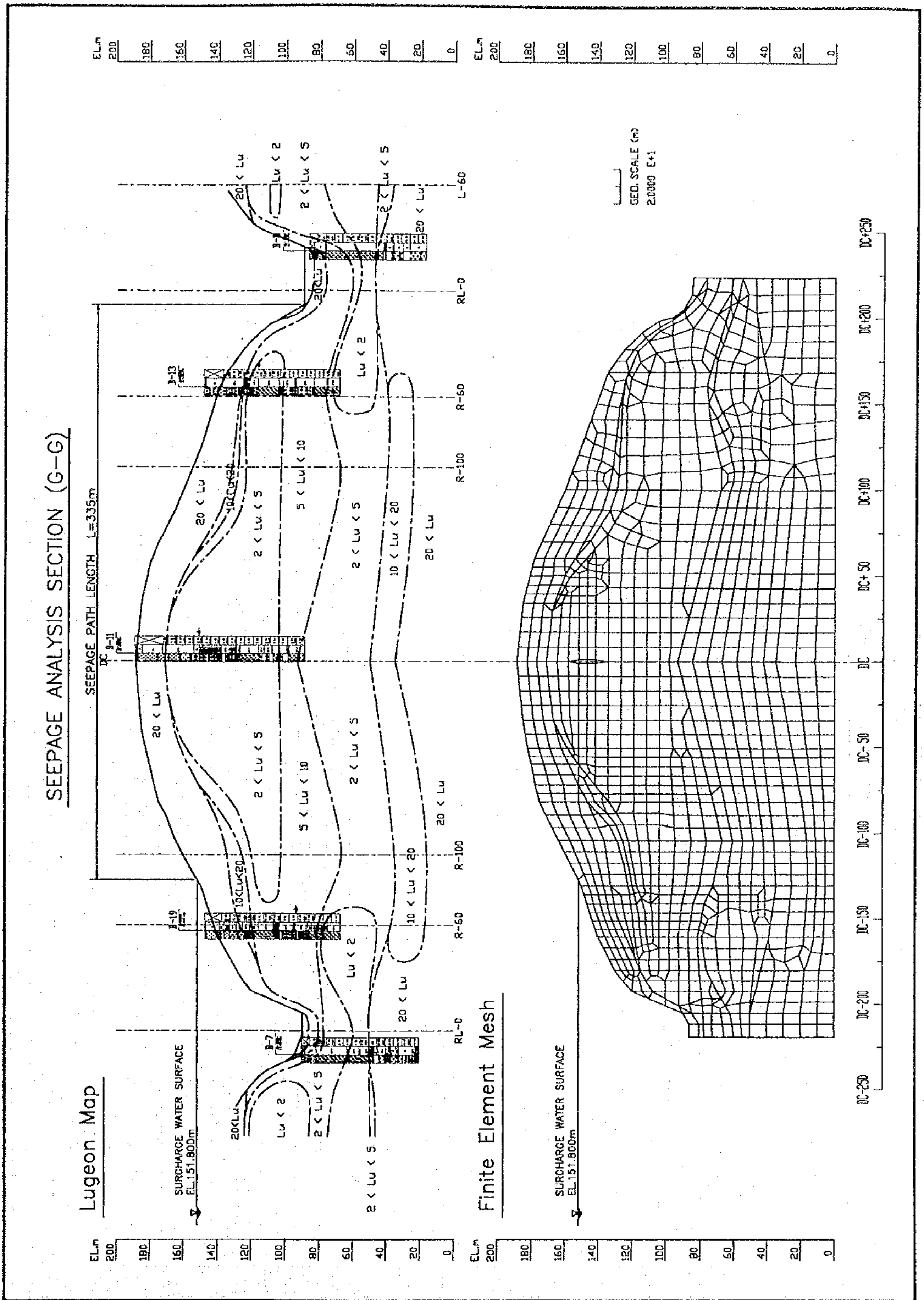


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA

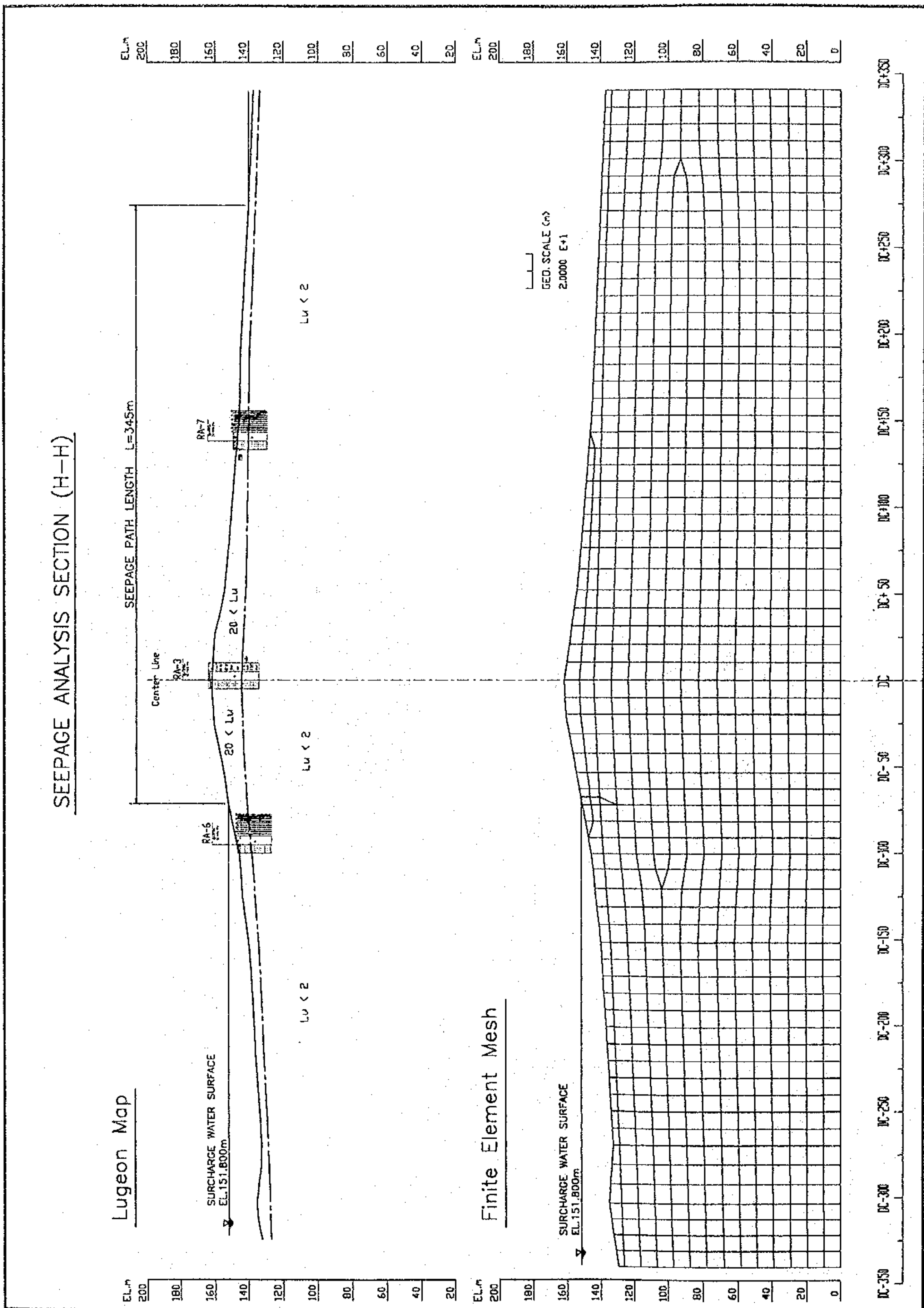
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. **7.2.22 (5/8)**

SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. **7.2.22 (7/8)**
JAPAN INTERNATIONAL COOPERATION AGENCY	**SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS**

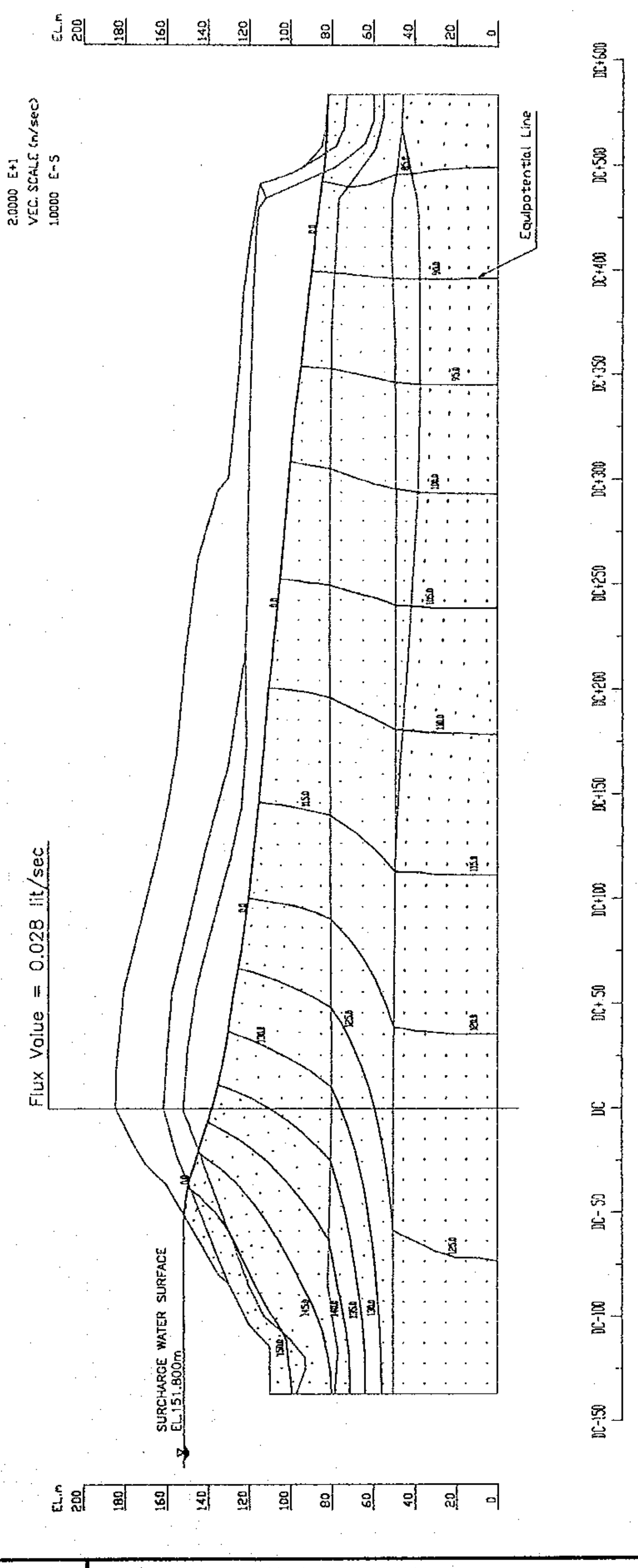


THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. **7.2.22 (8/8)**
JAPAN INTERNATIONAL COOPERATION AGENCY	**SECTION AND FINITE ELEMENT MESH OF SEEPAGE ANALYSIS**

RESULTS OF SEEPAGE ANALYSIS

CASE 1-1
A-A Section, without grout

Escape Gradient Downstream of Impervious Zone	-
Exit Gradient at Downstream River	0.026
Maximum Flow Velocity	8.147x10-7 m/sec



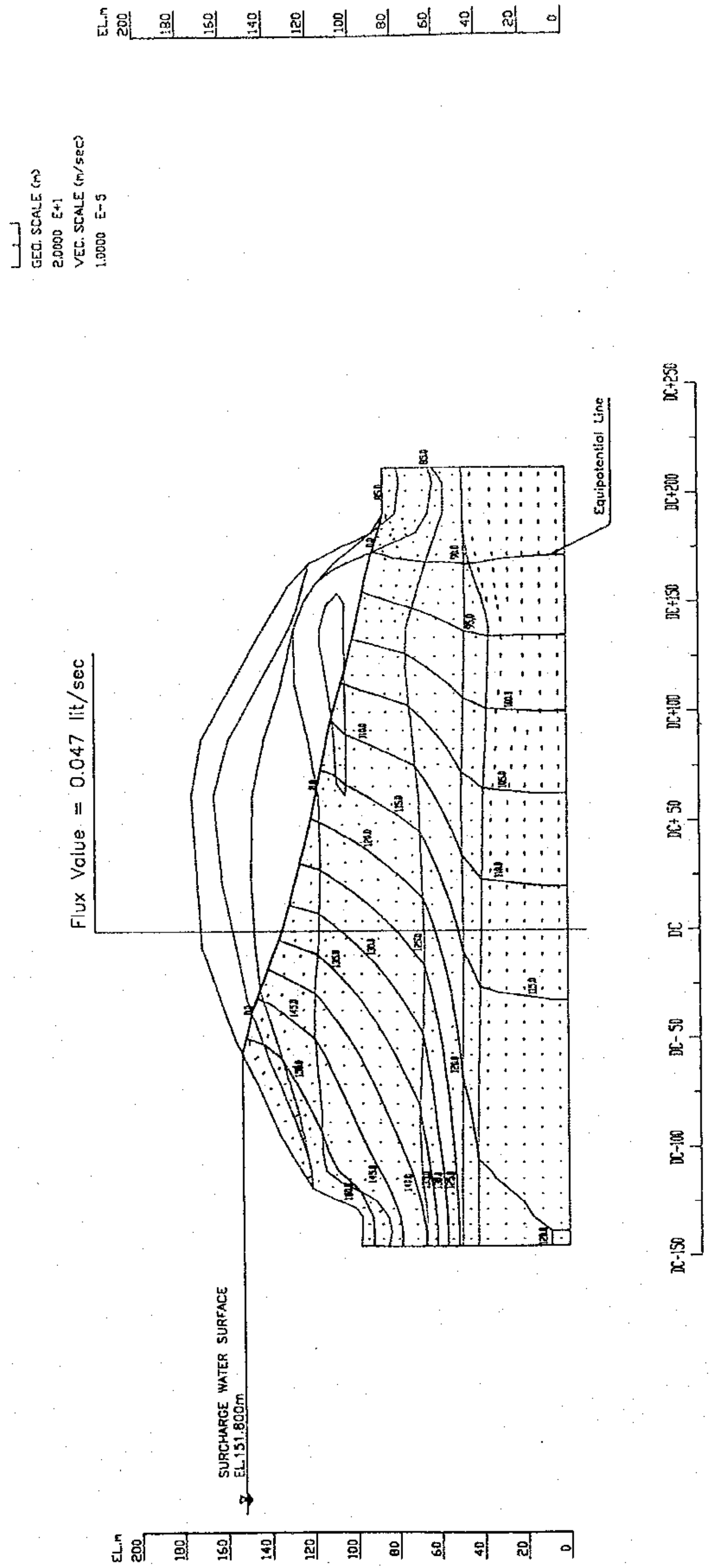
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. **7.2.23 (1/8)** **RESULTS OF SEEPAGE ANALYSIS (WITHOUT GROUT)**

RESULTS OF SEEPAGE ANALYSIS

CASE 1-2

B-B Section, without grout

Escape Gradient Downstream of Impervious Zone	-
Exit Gradient at Downstream River	0.208
Maximum Flow Velocity	1.393×10^{-6} m/sec



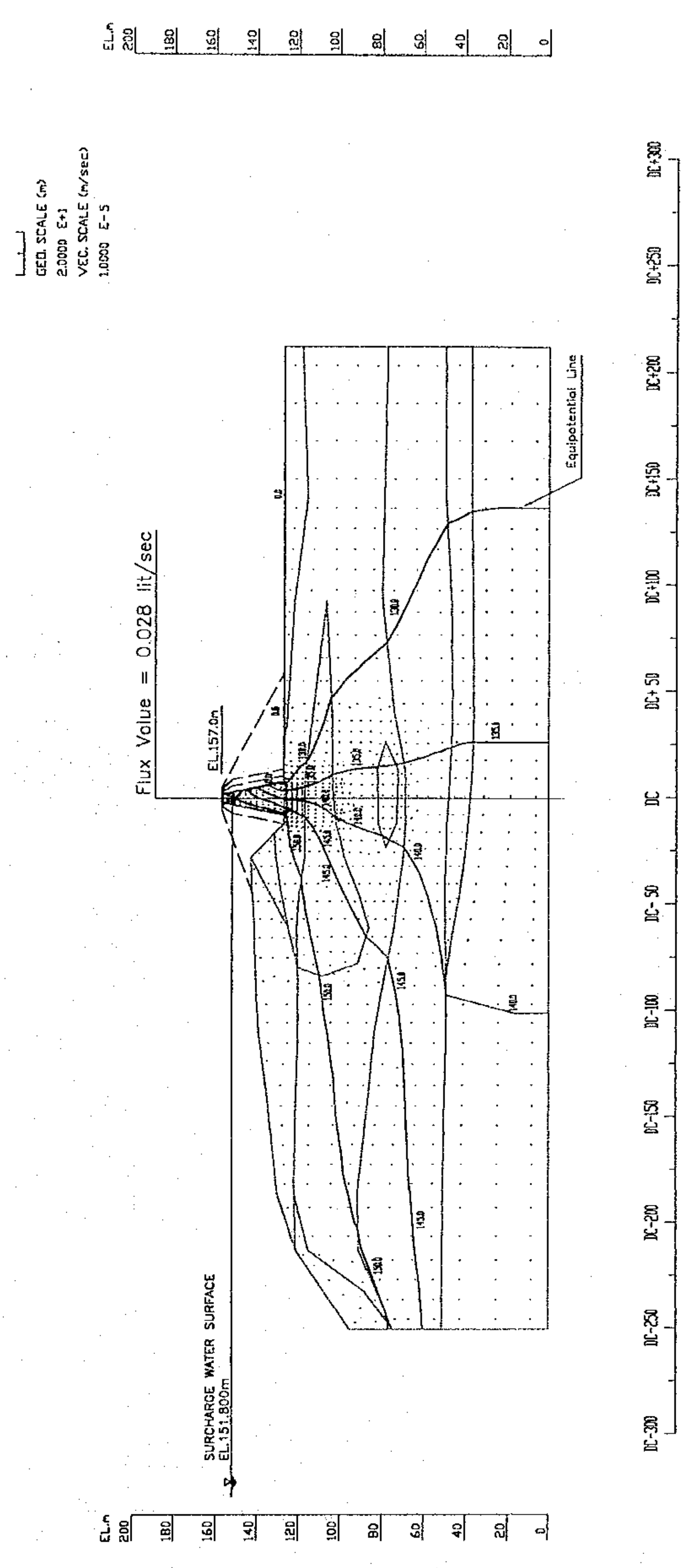
THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. **7.2.23 (2/8)** **RESULTS OF SEEPAGE ANALYSIS (WITHOUT GROUT)**
JAPAN INTERNATIONAL COOPERATION AGENCY	

RESULTS OF SEEPAGE ANALYSIS

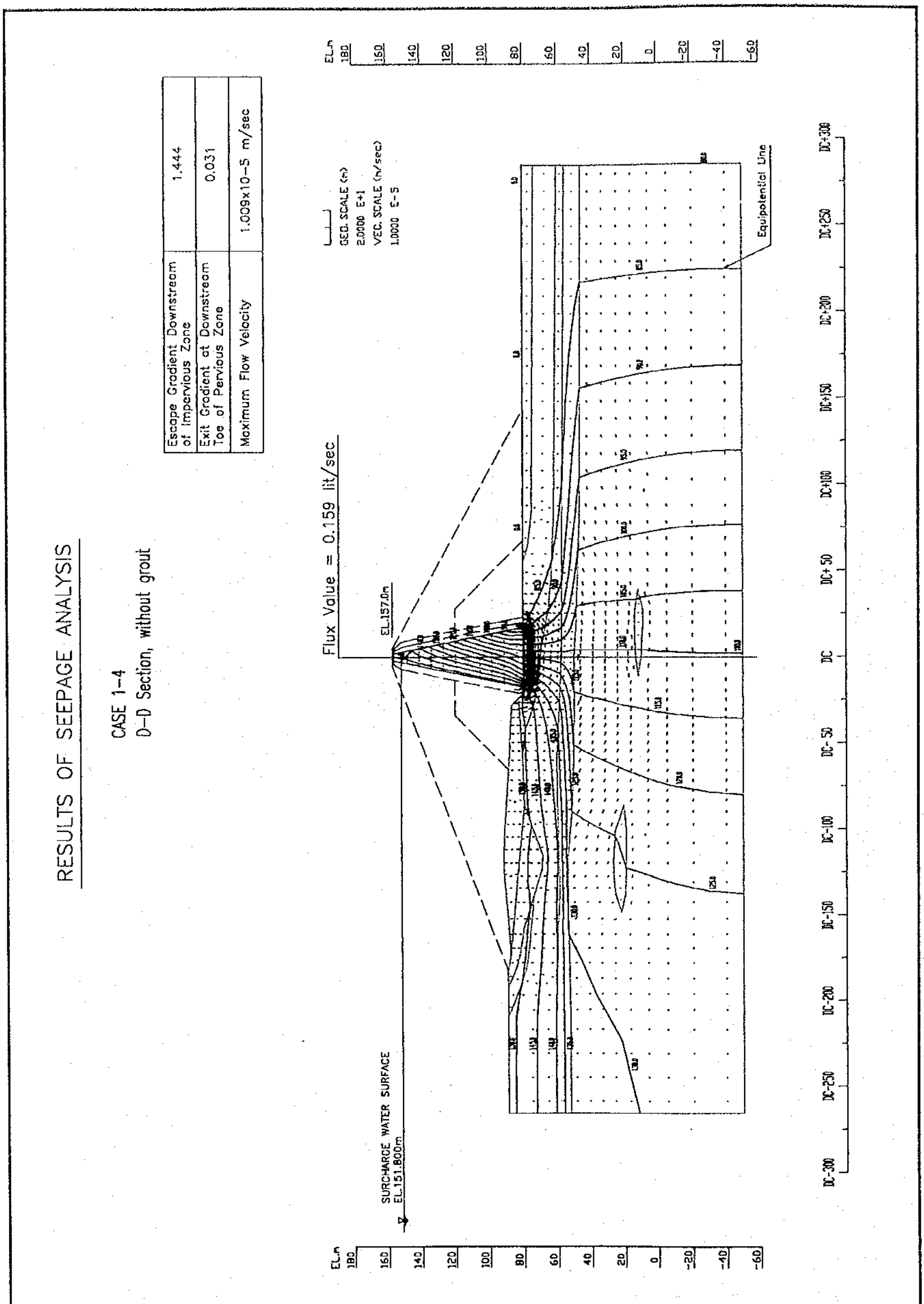
CASE 1-3

C-C Section, without grout

Escape Gradient Downstream of Impervious Zone	1.972
Exit Gradient at Downstream Toe of Pervious Zone	0.009
Maximum Flow Velocity	1.321×10^{-6} m/sec



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. **7.2.23 (3/8)**
JAPAN INTERNATIONAL COOPERATION AGENCY	**RESULTS OF SEEPAGE ANALYSIS (WITHOUT GROUT)**



THE DETAILED DESIGN OF FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	Fig. **7.2.23 (4/8)**
JAPAN INTERNATIONAL COOPERATION AGENCY	**RESULTS OF SEEPAGE ANALYSIS (WITHOUT GROUT)**