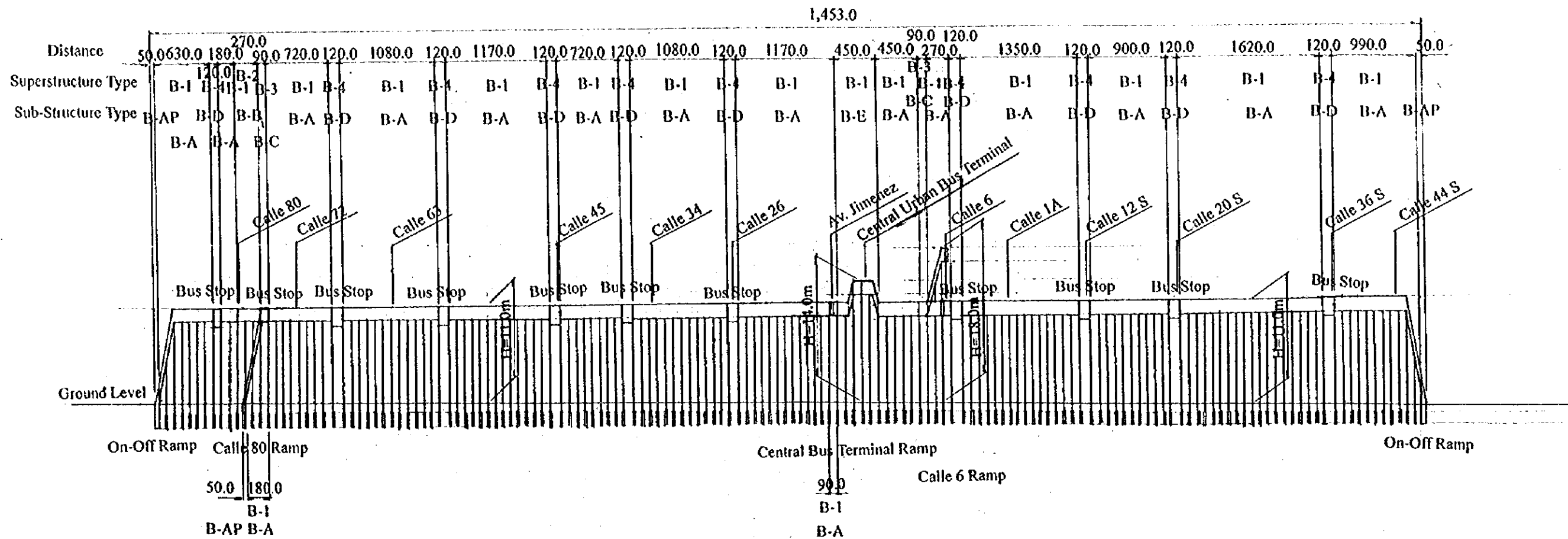


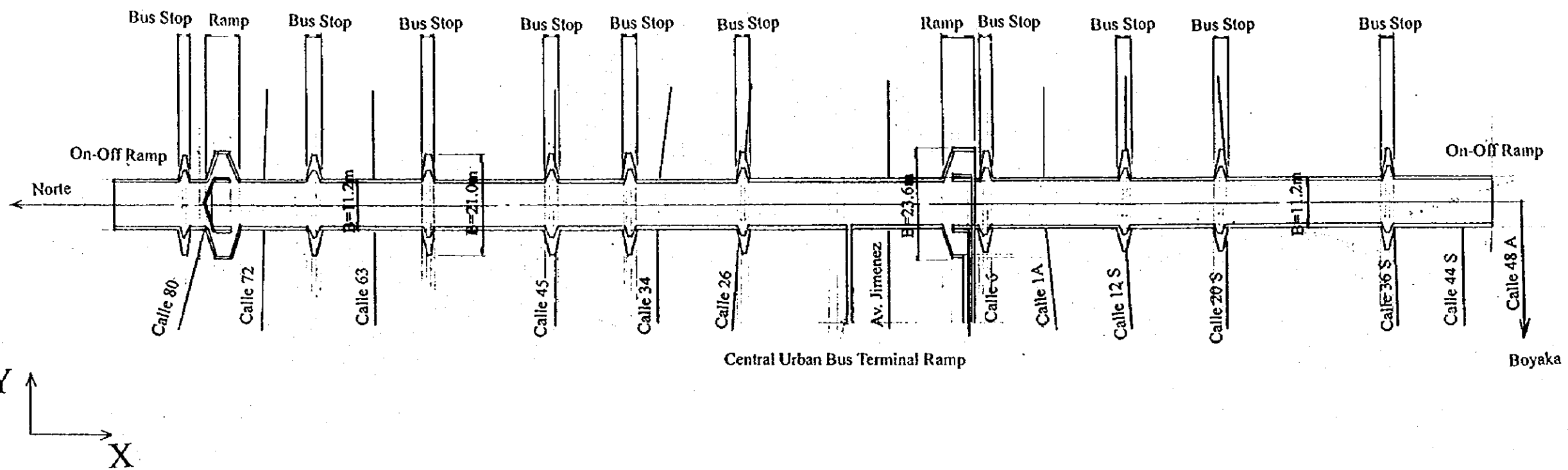
# Viaduct (Avenida Caracas)

	SANTA FE DE BOGOTA THE REPUBLIC OF COLOMBIA	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA	
			DATA SCALE	DWG No 25 PAGE No

ELEVATION V=1:500 H=1:50,000



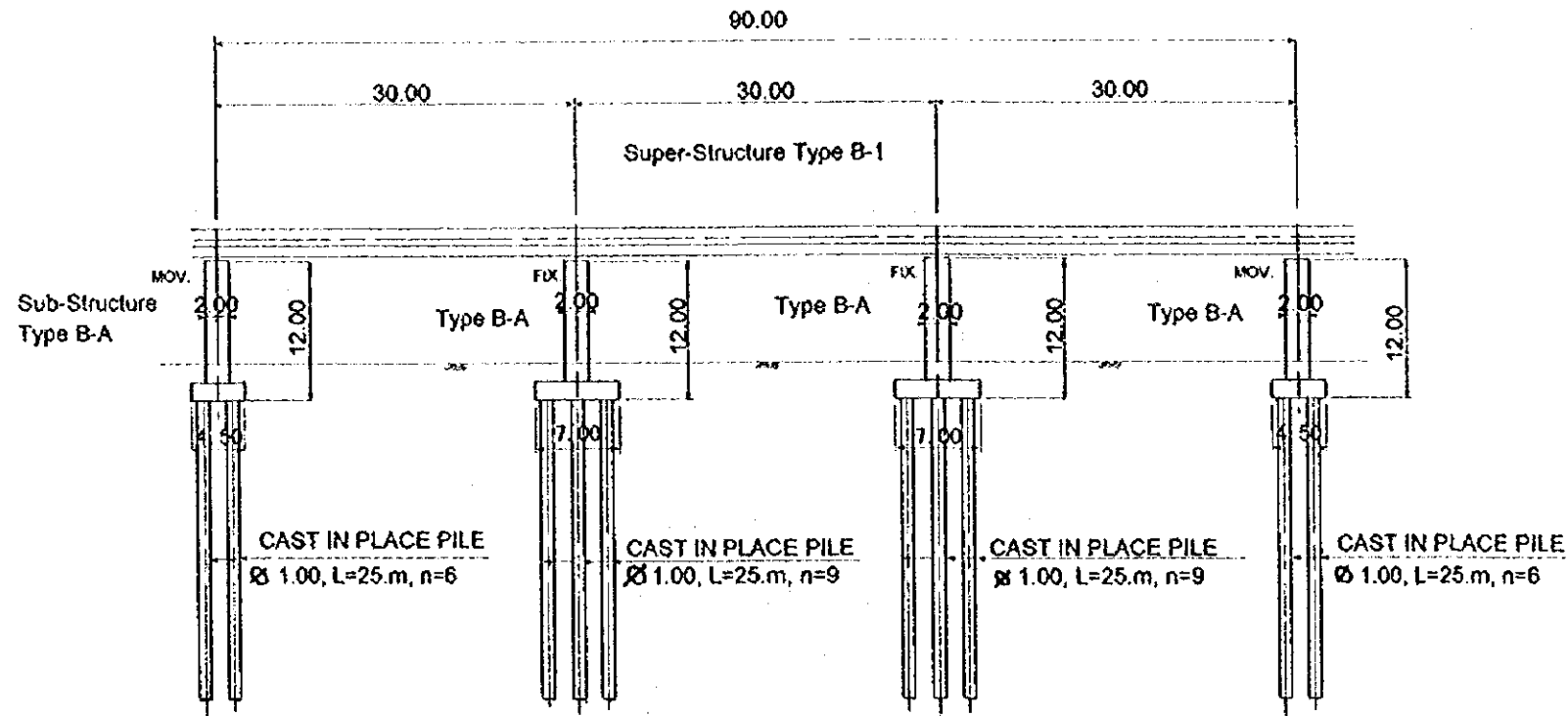
PLAN X=1:50,000 Y=1:1,000



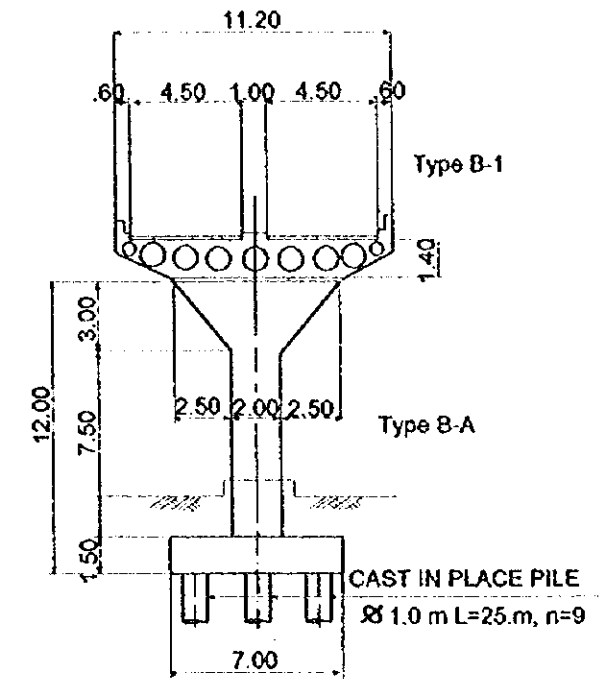
General View of Caracas Busway Viaduct	SANTA FE DE BOGOTA THE REPUBLIC OF COLOMBIA	JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )	THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA	
			DATA SCALE	DWG No. 26 PAGE No. 3-1

Super-Structure Type B-1  
Sub-Structure Type B-A

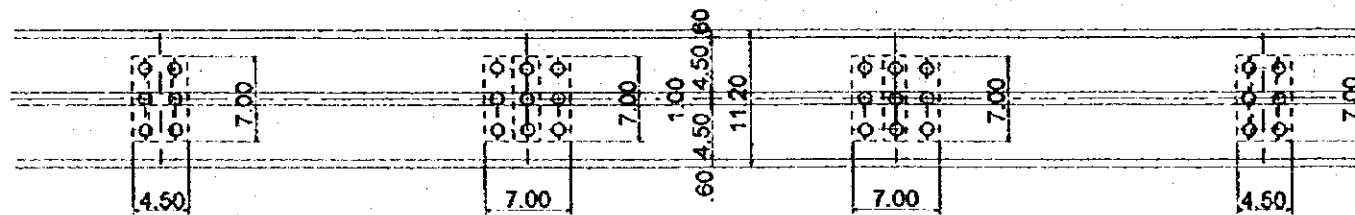
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA

TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	11.2 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Caracas Busway Viaduct  
General View1

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

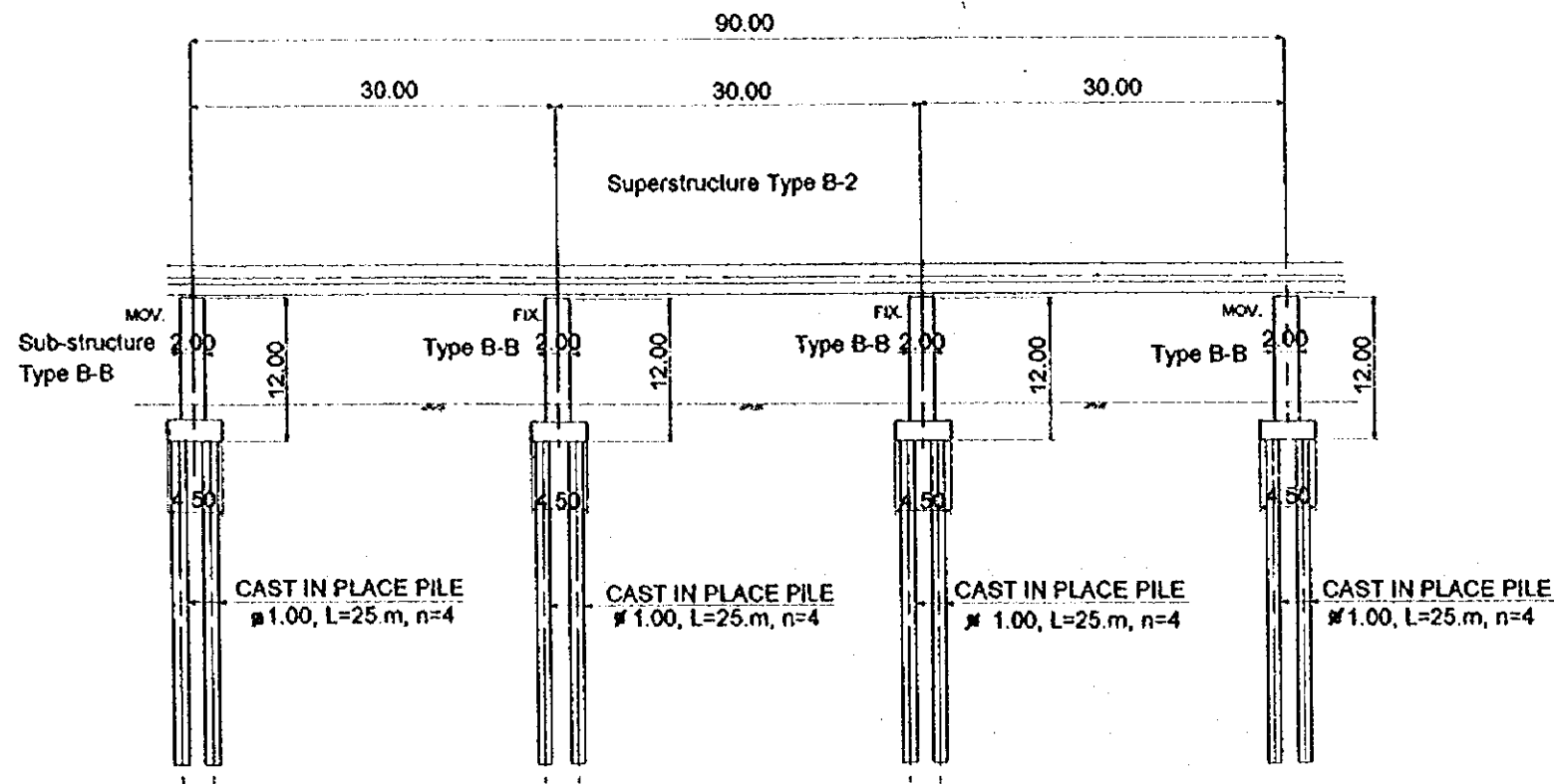
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
SCALE

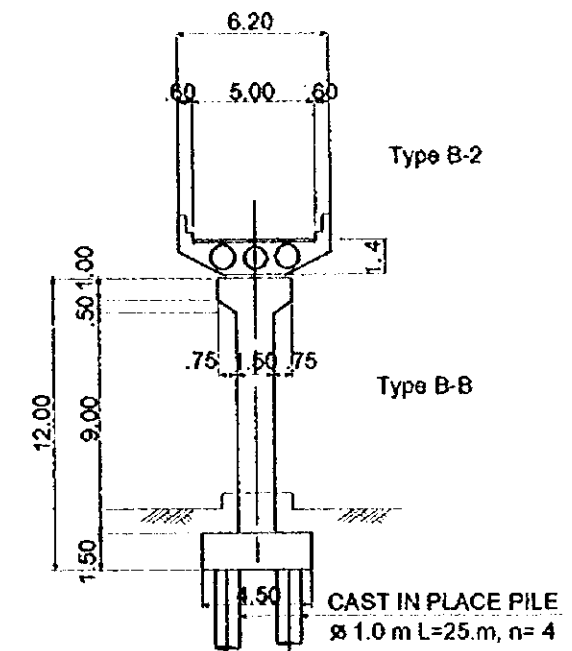
DWG No 27  
PAGE No 3-2

Superstructure Type B-2  
Sub-structure Type B-B

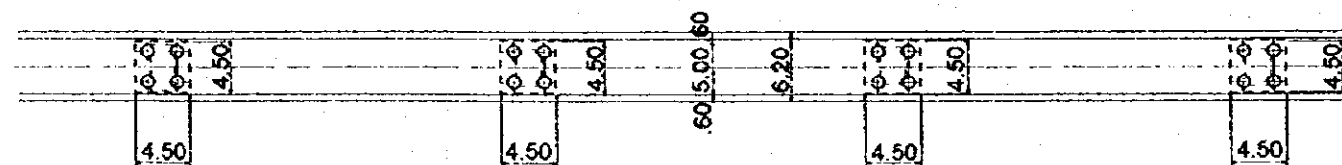
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	6.2 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Caracas Busway Viaduct  
General View 2

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

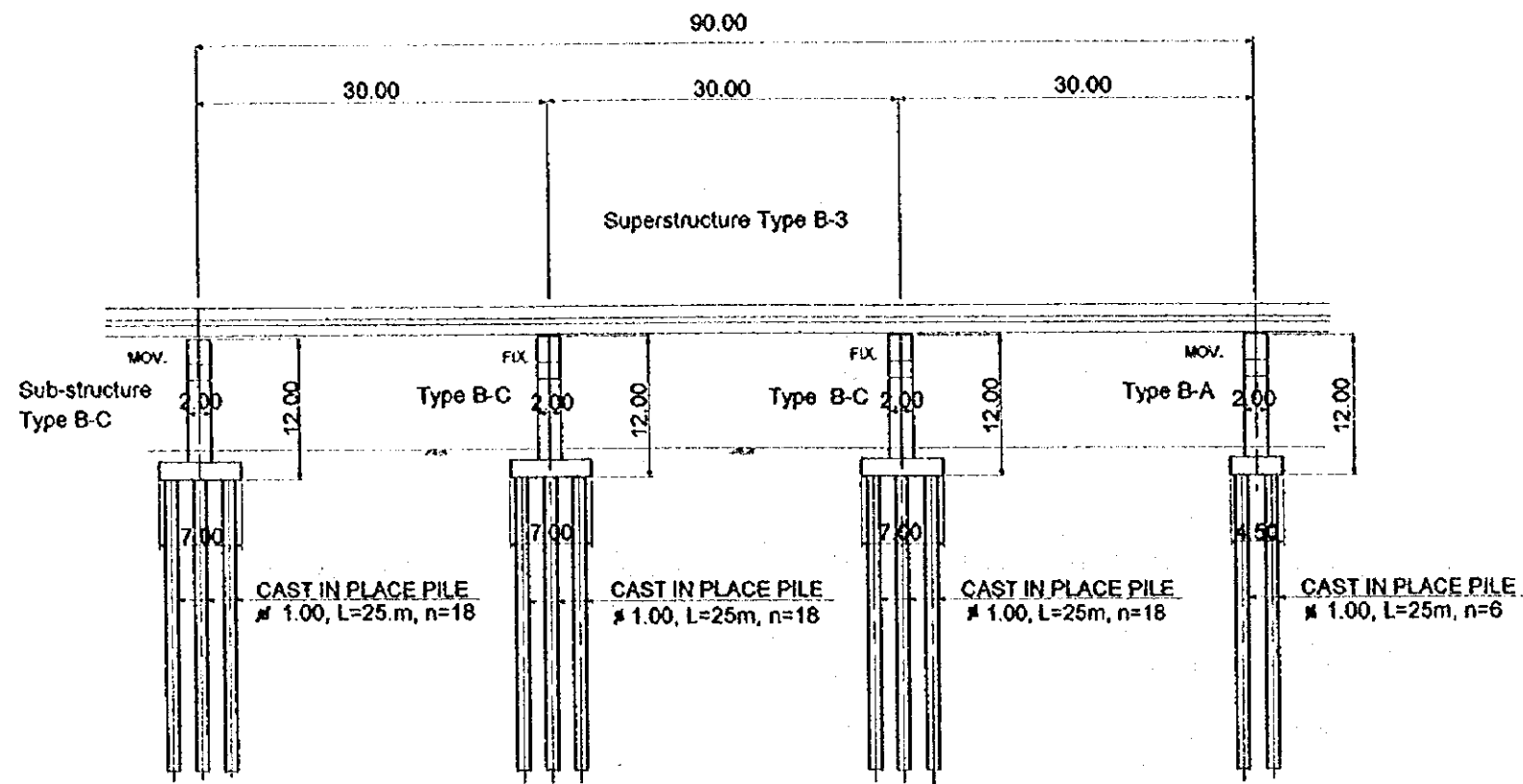
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
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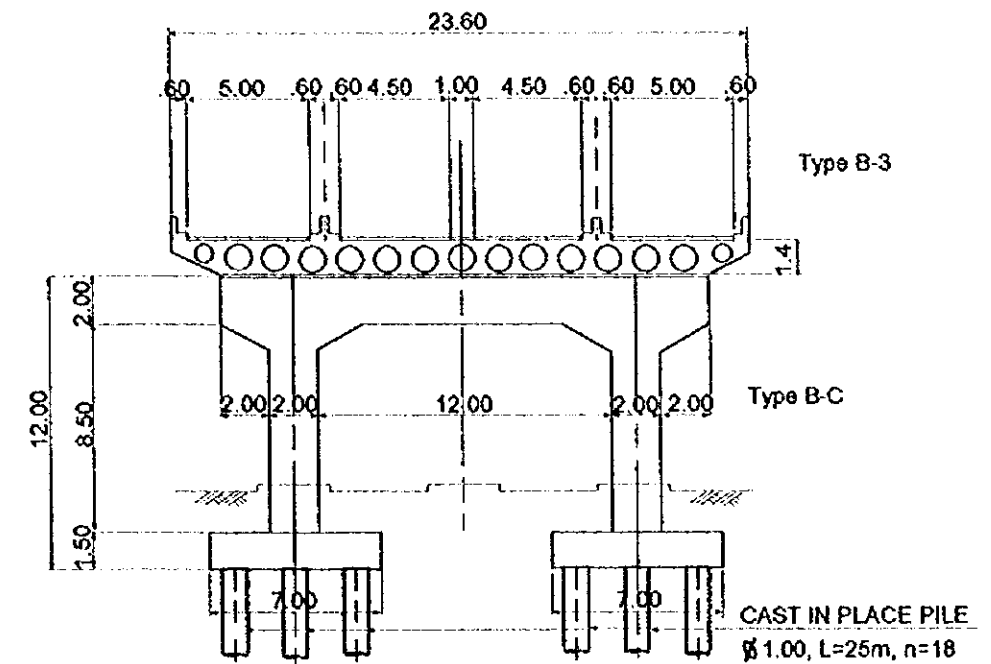
DWG No 28  
PAGE No 3-3

Superstructure Type B-3  
Sub-structure Type B-C

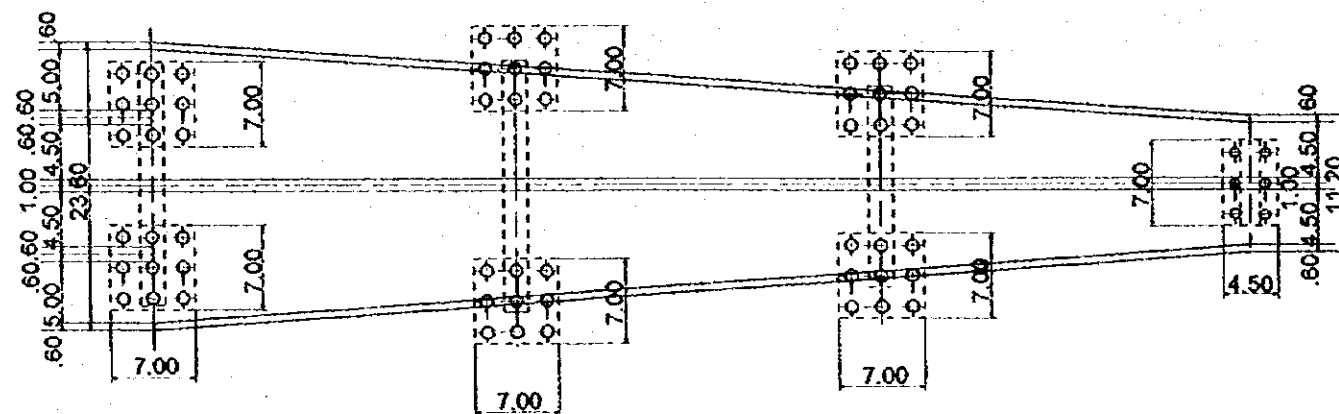
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	11.2m - 23.6m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (C <sub>e</sub> = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Caracas Busway Viaduct  
General View 3

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

DATA  
SCALE

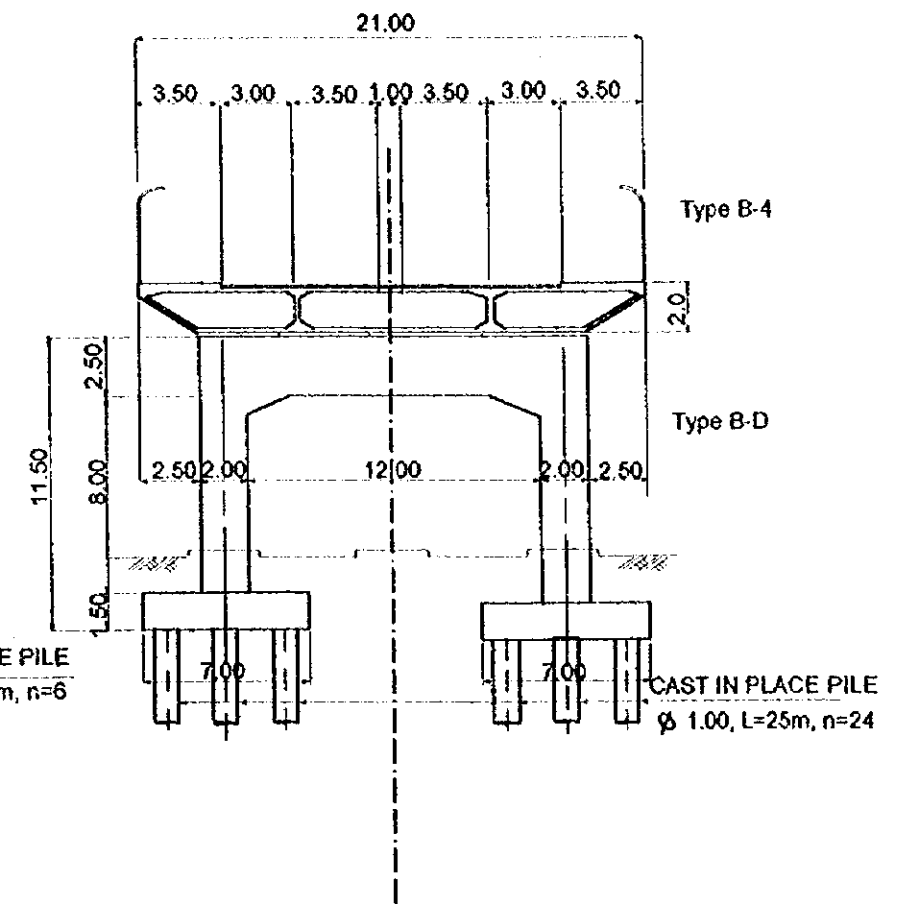
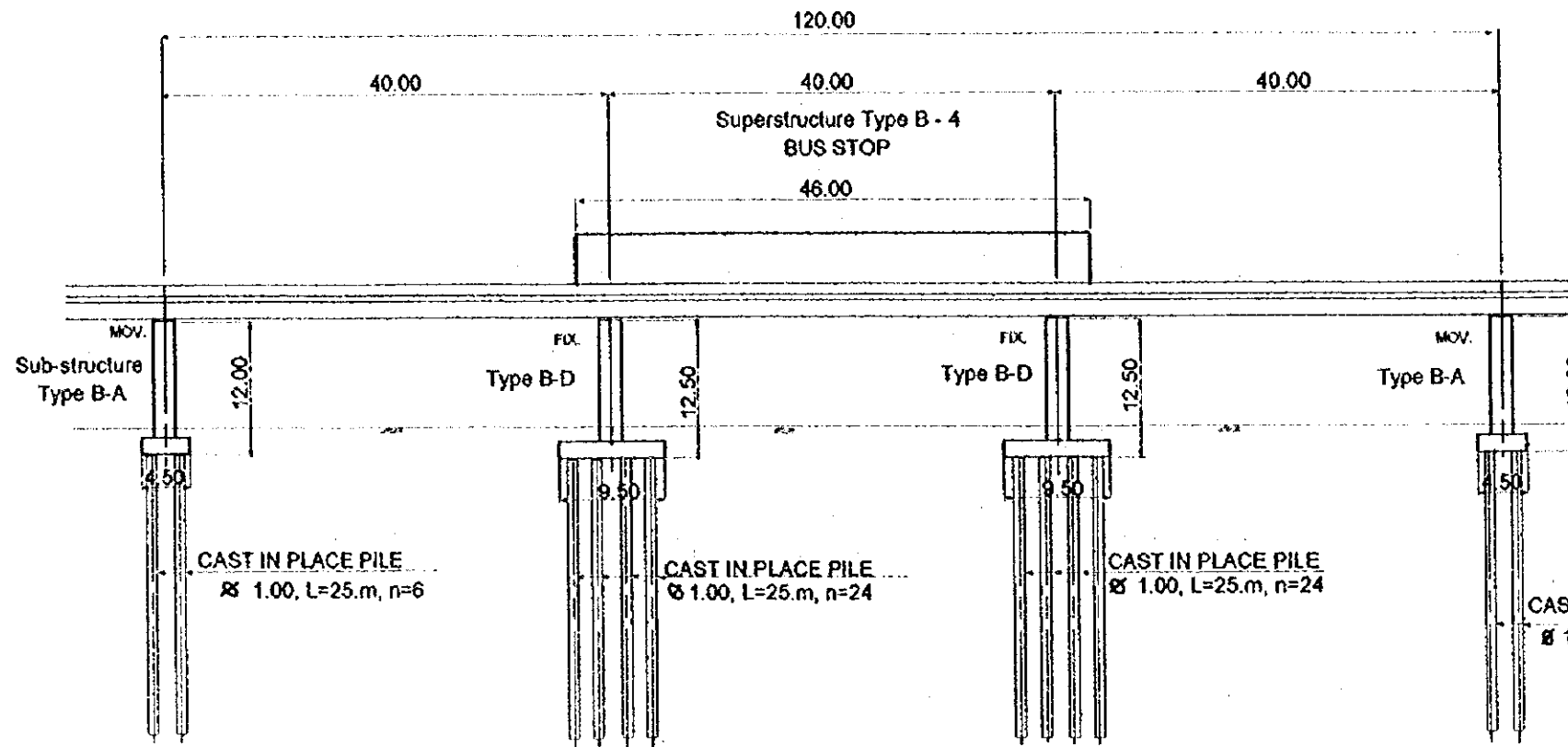
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DWG No 29  
PAGE No 3-4

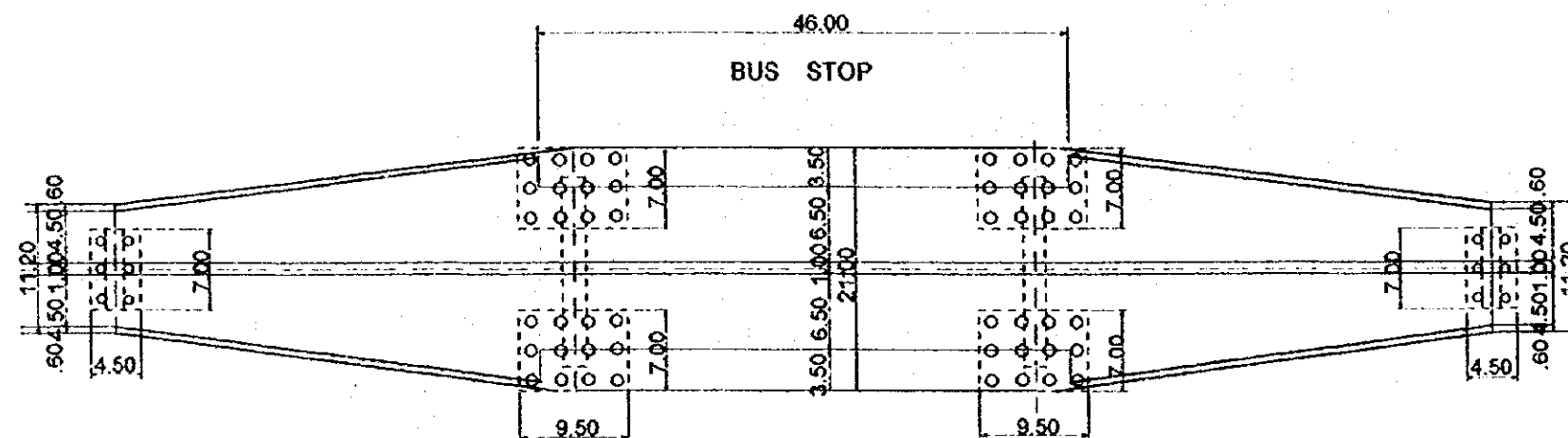
Superstructure Type B - 4  
Sub-structure Type B-D

ELEVATION 1 : 600

SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. BOX GIRDER
TOTAL BRIDGE LIGHT	120.0 m
SPAN	3 x 40m
WIDTH	11.2 m ~ 21.0 m
LIVE LOAD	C-40-95
ACCELERATION COEFFICIENT	A = 0.20 (C <sub>e</sub> = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes

Cracas Busway Viaduct  
General View 4

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

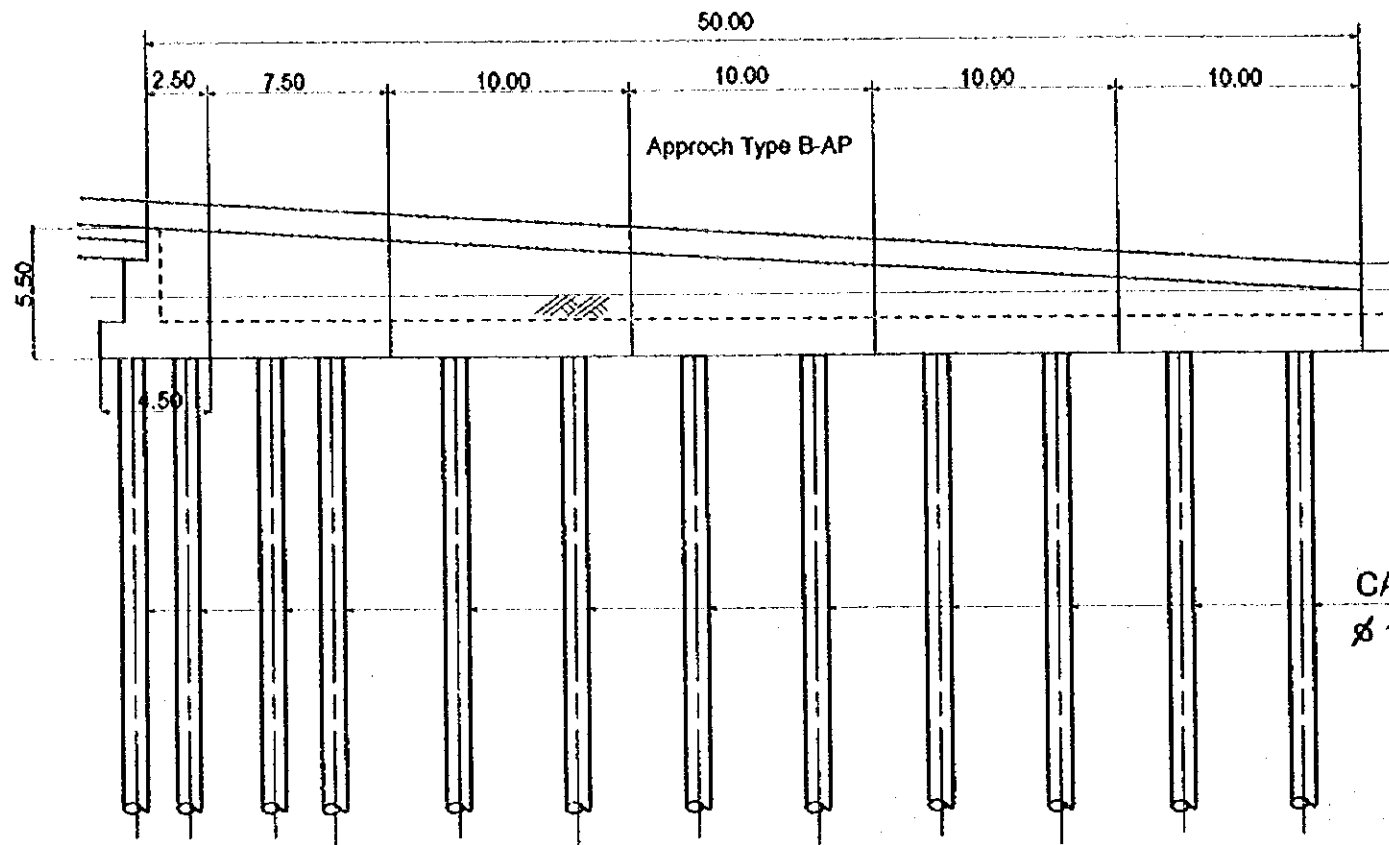
DATA  
SCALE

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DWG No 30  
PAGE No 3-5

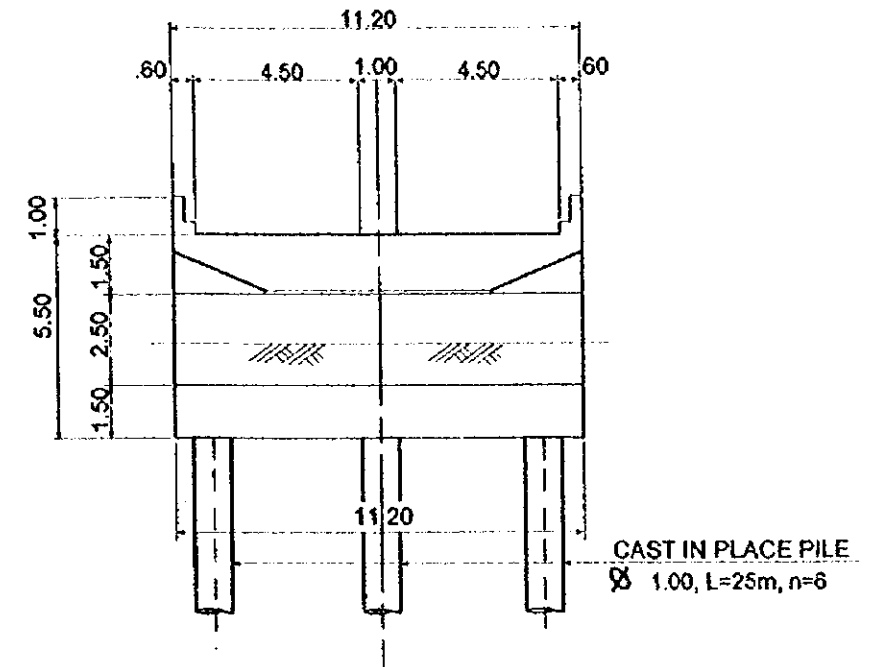
Sub-Structure Type B-AP

ELEVATION 1 : 300

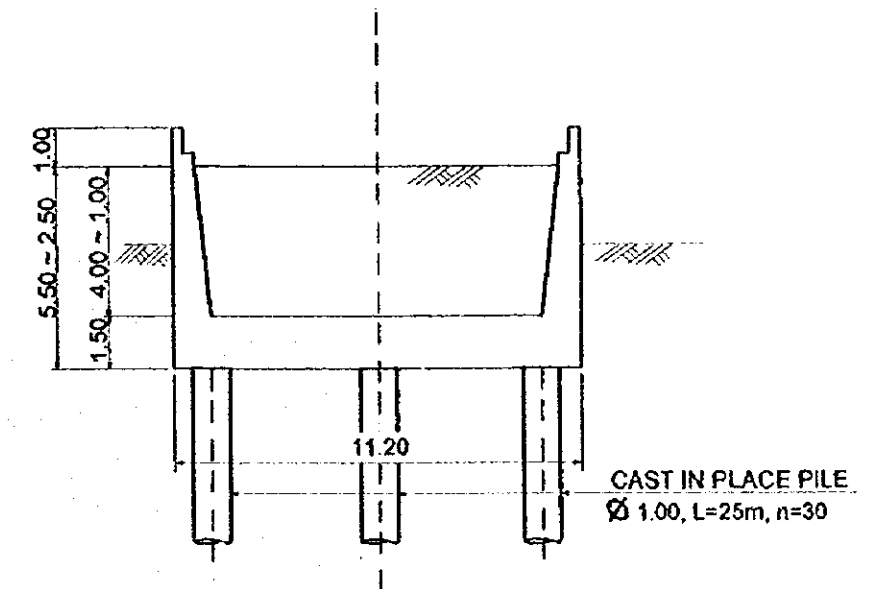


SECTION 1 : 200

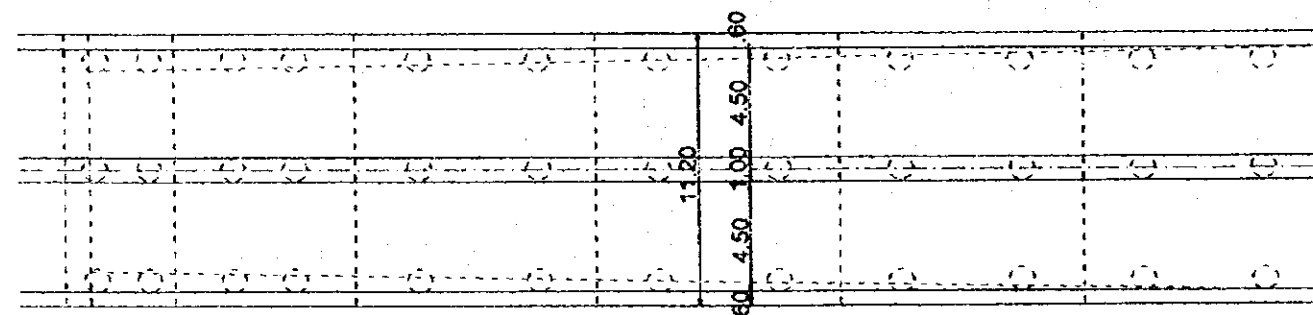
ABUT



U-TYPE RETAINING WALL



PLAN 1 : 300



# Avenida Ciudad De Quito / Autopista Del Sur

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

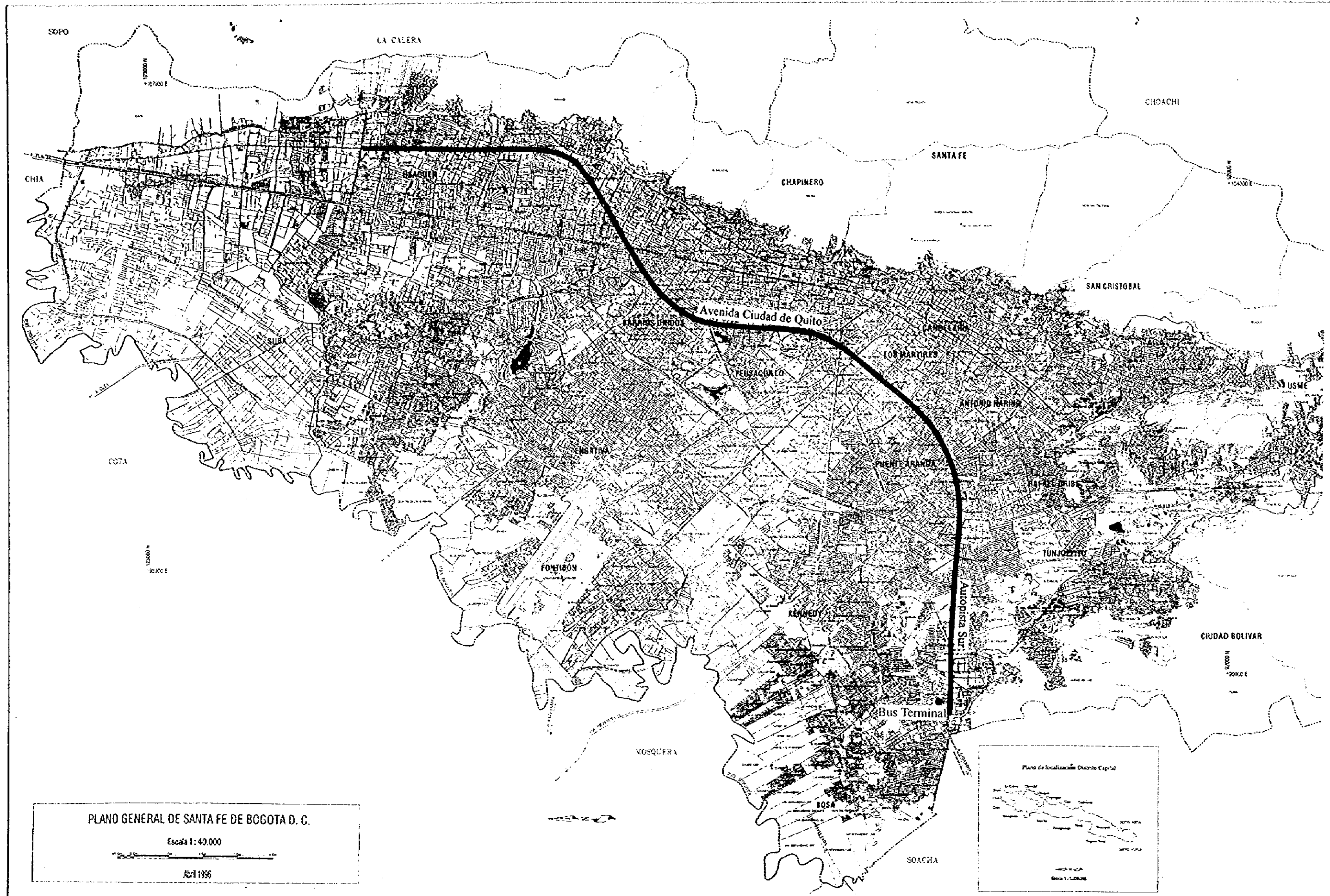
JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
SCALE

DWG No 32  
PAGE No

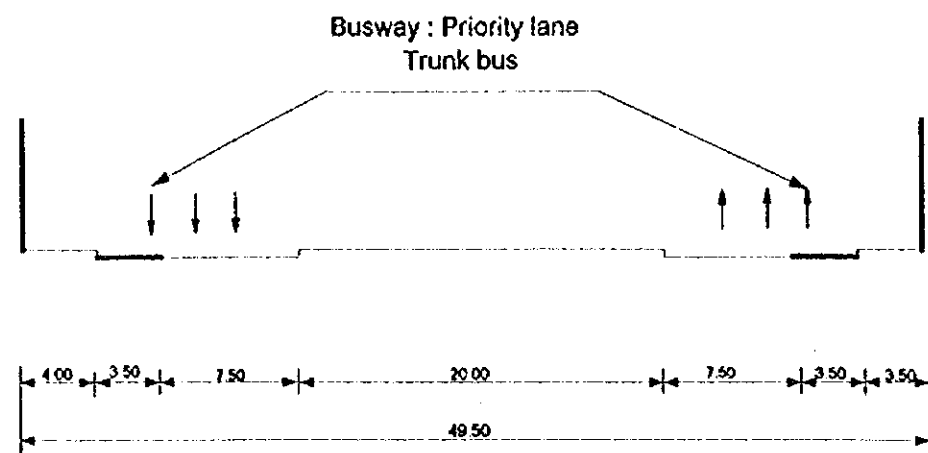




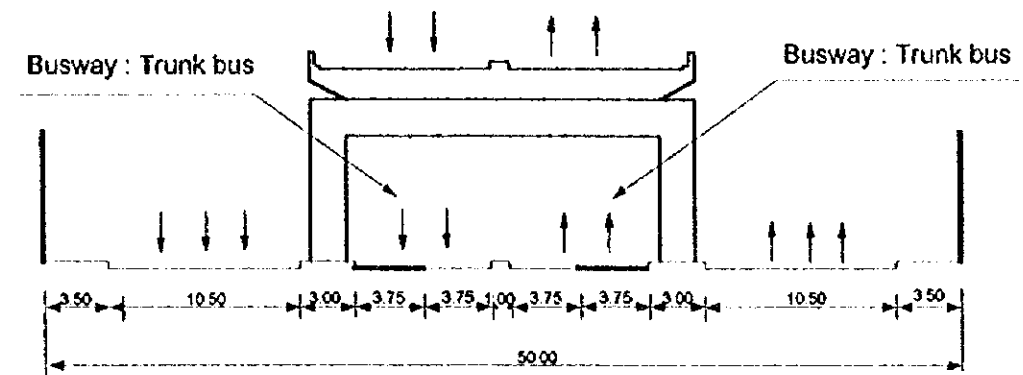
Avenida Ciudad de Quito/Autopista Sur. Location Map	SANTA FE DE BOGOTA THE REPUBLIC OF COLOMBIA	JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )	THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA DATA SCALE	DWG No. 33 PAGE No. 4-1
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## TYPICAL CROSS SECTION : AVENIDA QUITO

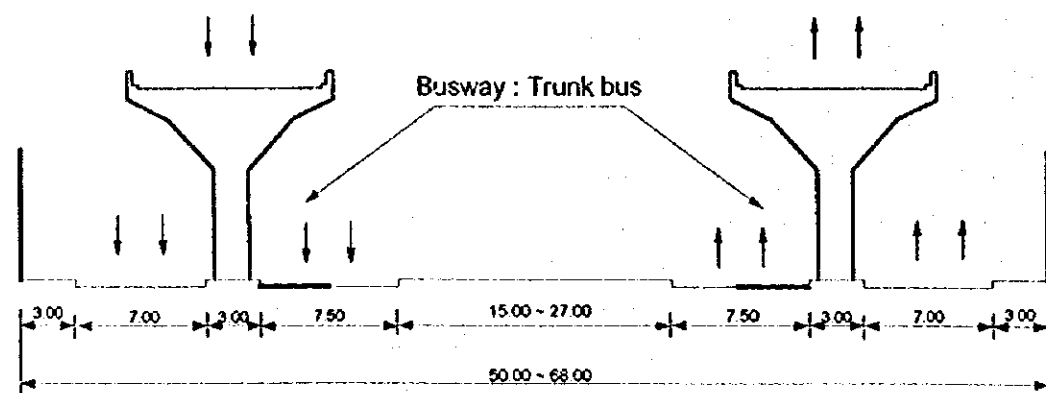
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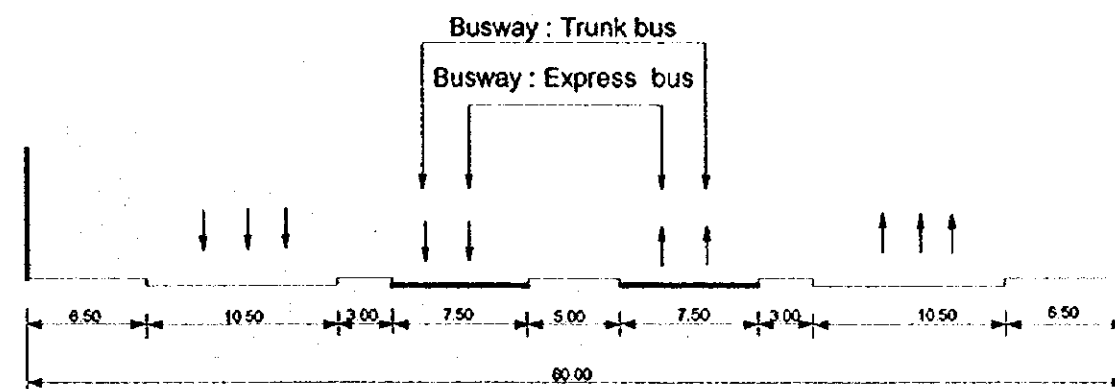
Section : Calle 68 - Av Lima



Section : Cra 15 Calle 68



Section : Calle 6 - Calle 8 S



TYPICAL CROSS SECTION:  
AV QUITO

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

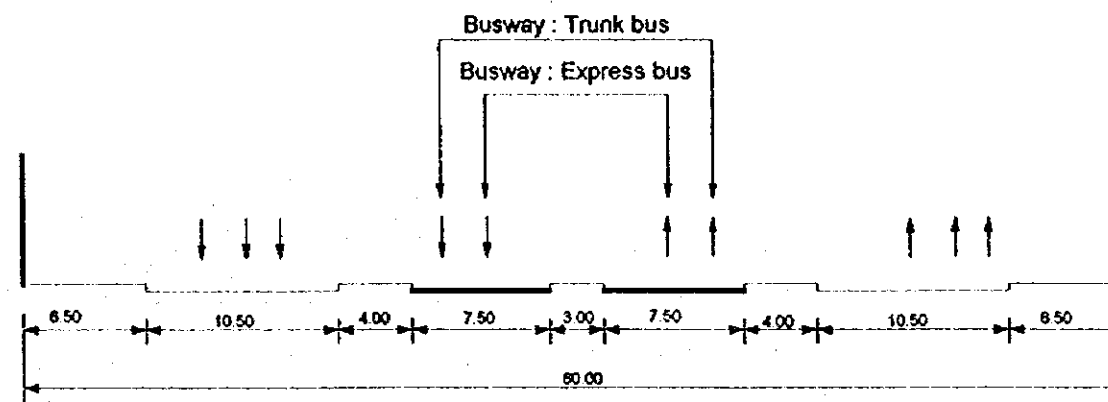
DATA  
SCALE 1:400

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DWG No 34  
PAGE No 4-2

TYPICAL CROSS SECTION : AUTOPISTA SUR

Section : Calle 8 S - Bus terminal



TYPICAL CROSS SECTION:  
AUTOPISTA SUR

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

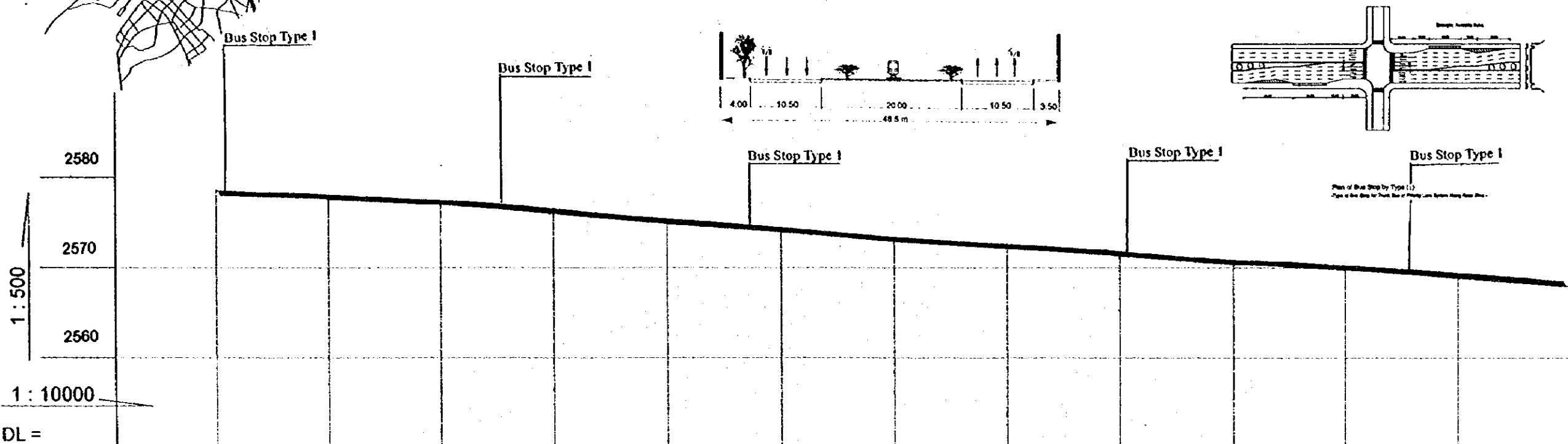
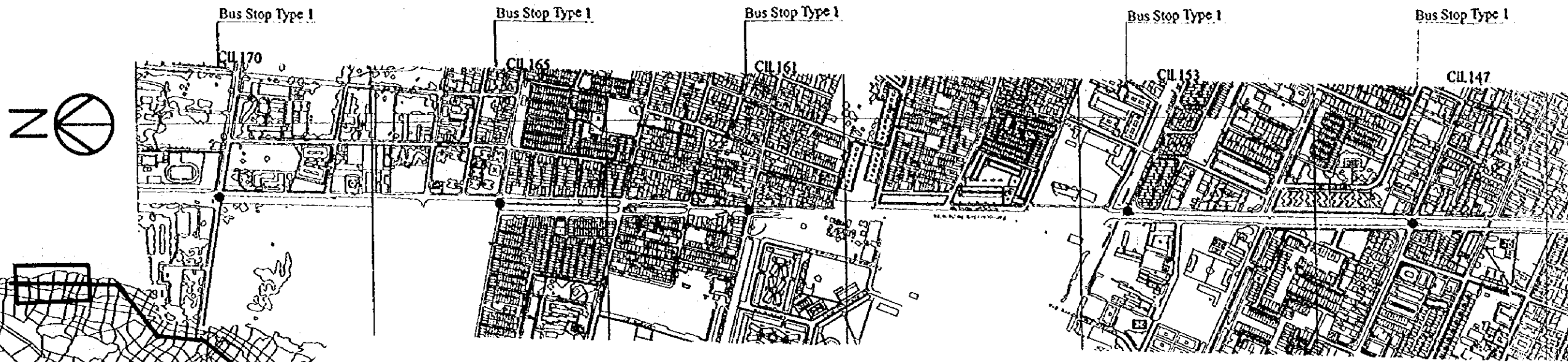
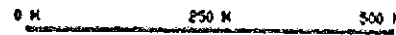
JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

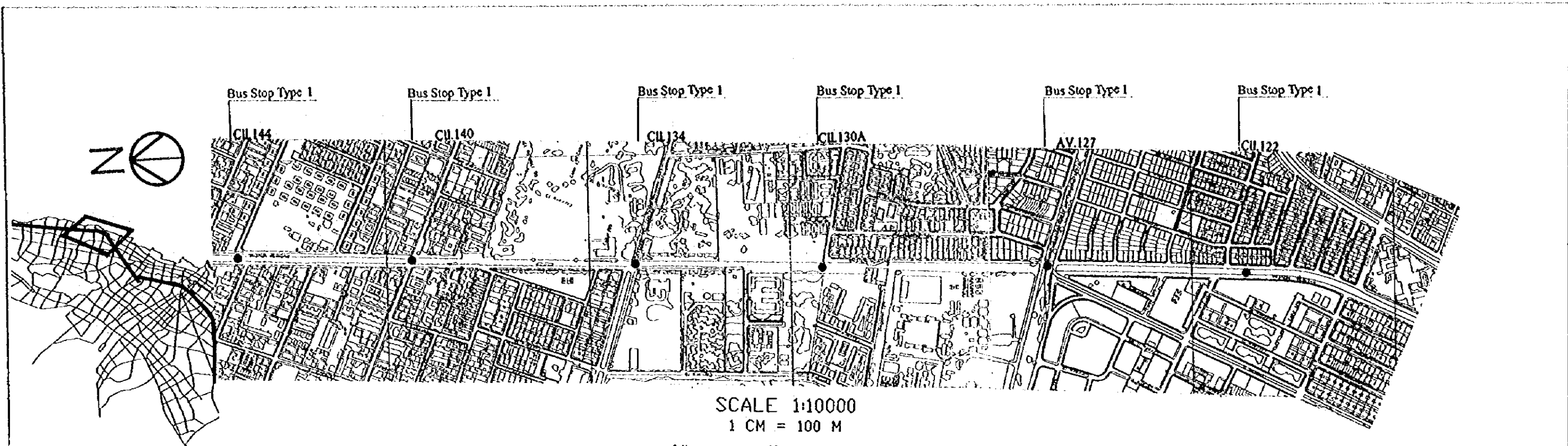
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DWG No 35  
PAGE No 4-3

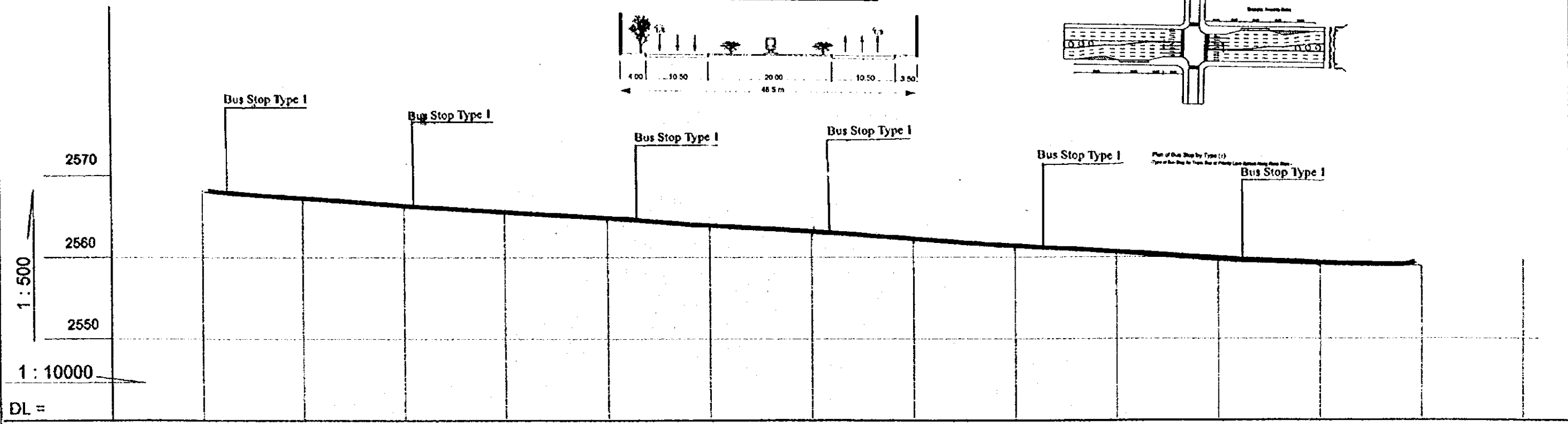
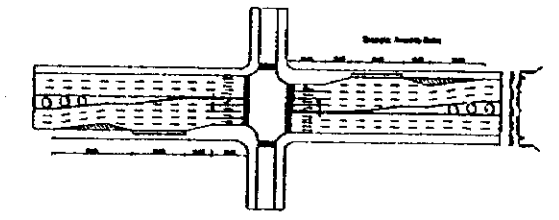
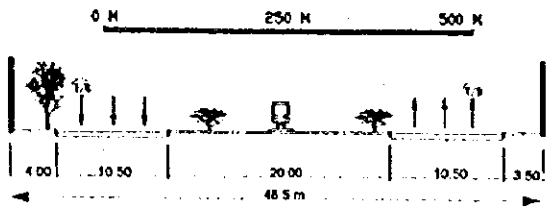
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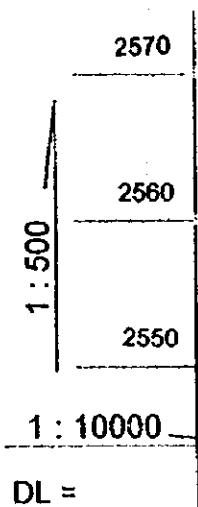
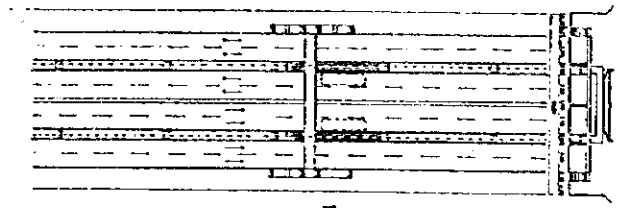
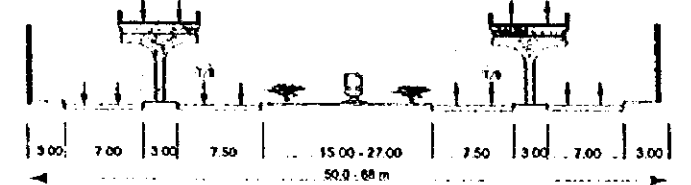
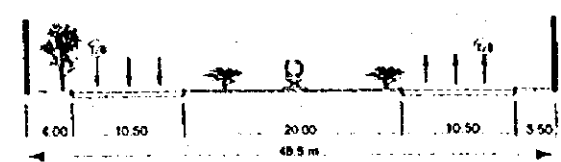
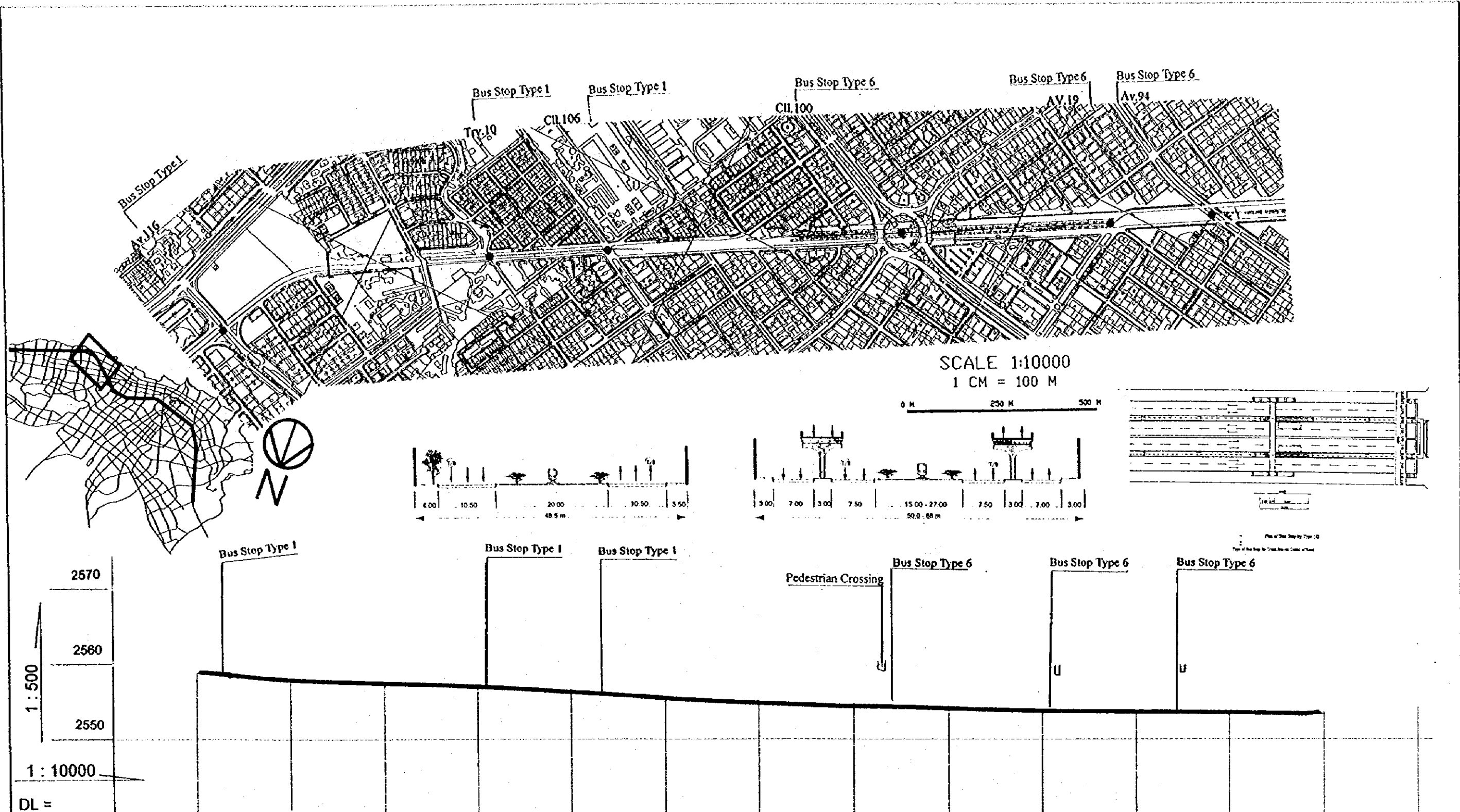
Gradient	Same as existing ground												
Proposed Height	Same as existing ground												
Ground Level	74-4-260/2579.87	74-4-000/2577.75	74-4-700/2576.86	74-4-800/2576.86	74-4-900/2576.12	74-4-000/2574.25	74-3-700/2573.86	74-3-600/2572.61	74-3-500/2571.64	74-3-000/2570.77	74-2-700/2568.00	74-2-600/2566.00	74-2-300/2566.16
Number													



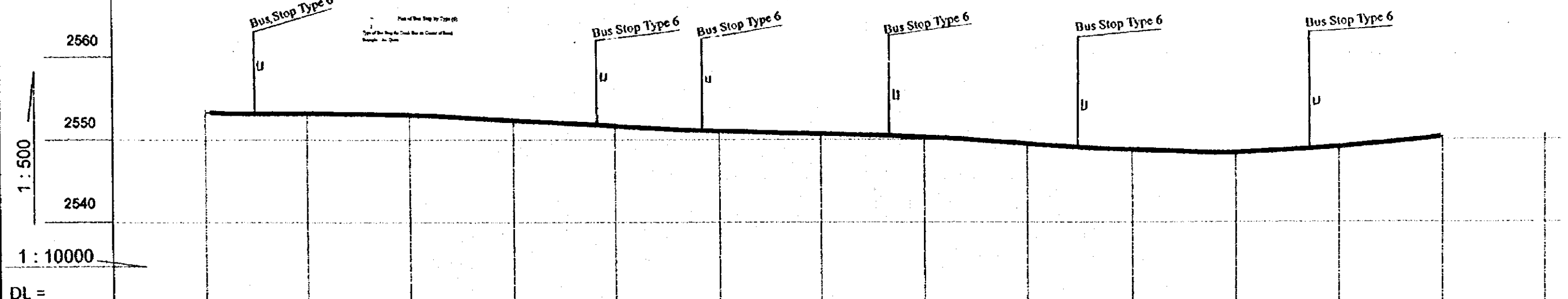
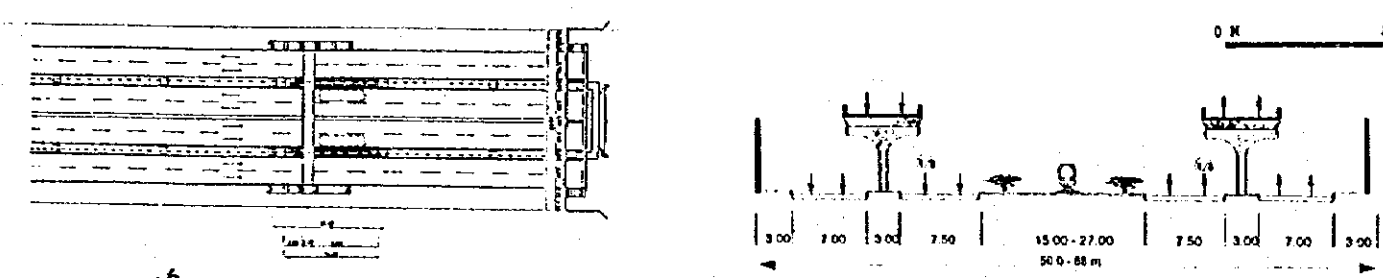
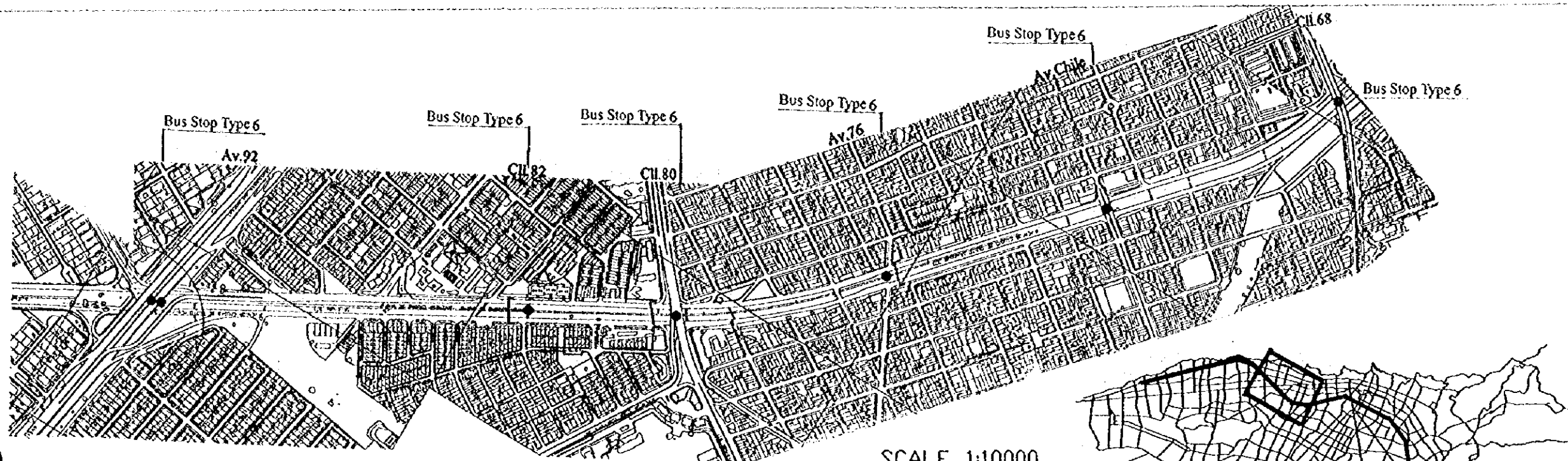
SCALE 1:10000  
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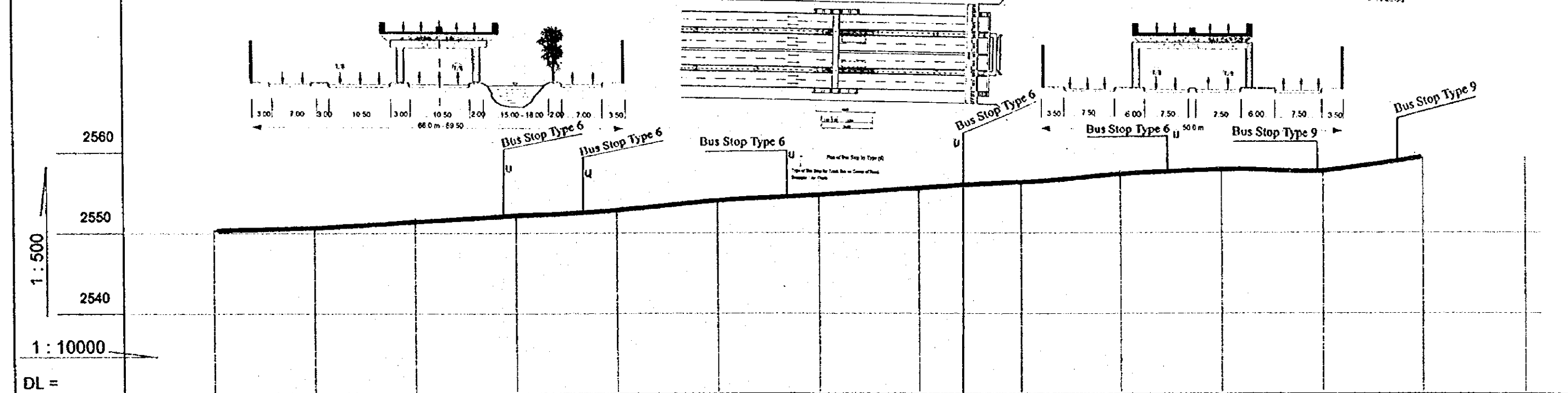
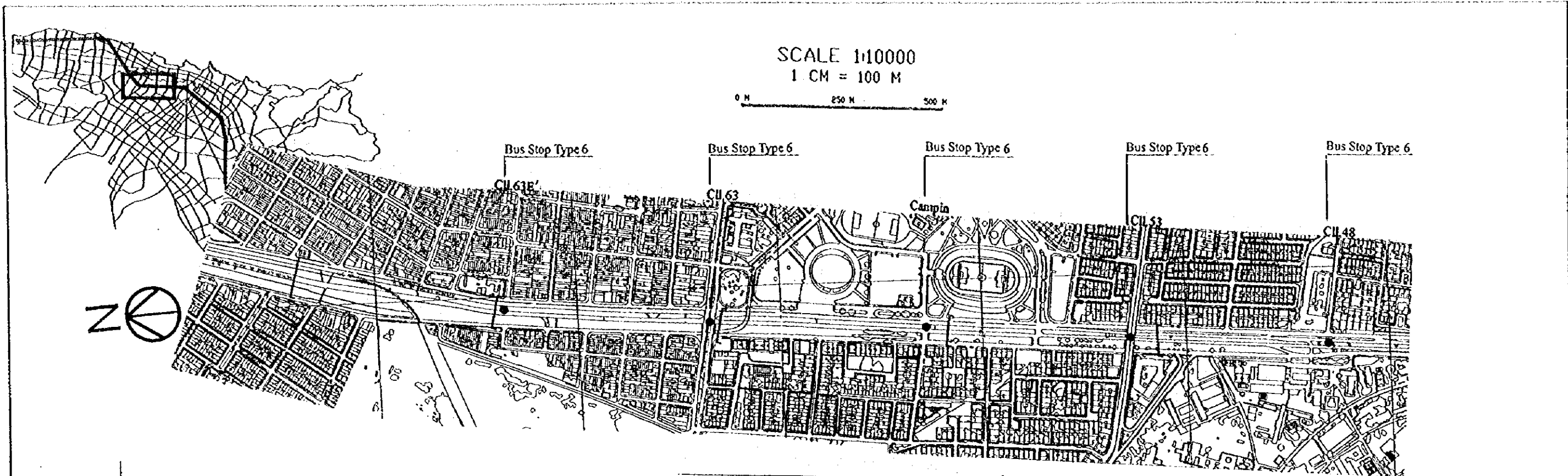
Gradient	Same as existing ground										
Proposed Height	Same as existing ground										
Ground Level	70+200 2568.15	70+300 2567.25	70+400 2566.35	70+500 2565.45	70+600 2564.55	70+700 2563.65	70+800 2562.75	70+900 2561.85	70+1000 2560.95	70+1100 2560.05	70+1200 2559.15
Number											



Gradient	Same as existing ground										
Proposed Height	Same as existing ground										
Ground Level	10+780/2565.02	10+800/2567.07	10+820/2567.51	10+840/2567.00	10+860/2566.08	10+880/2565.94	10+900/2565.77	10+920/2565.70	10+940/2565.21	10+960/2565.07	10+980/2563.94
Number											

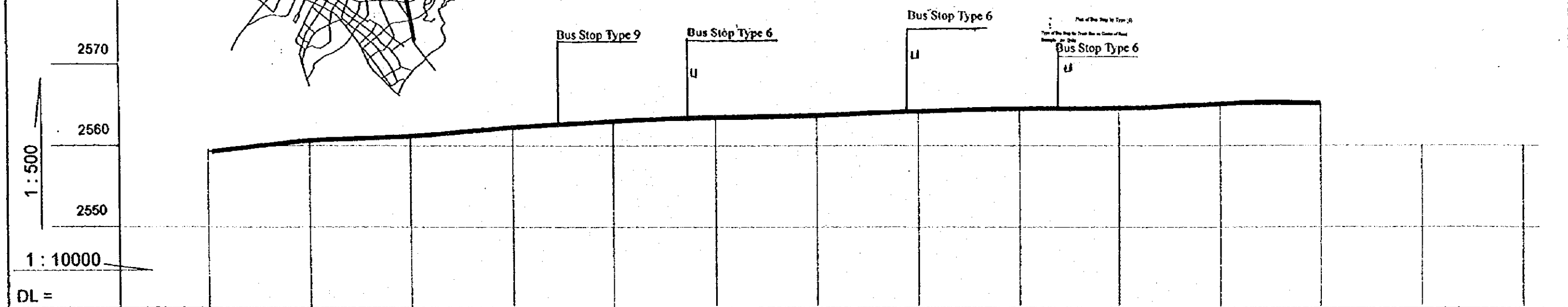
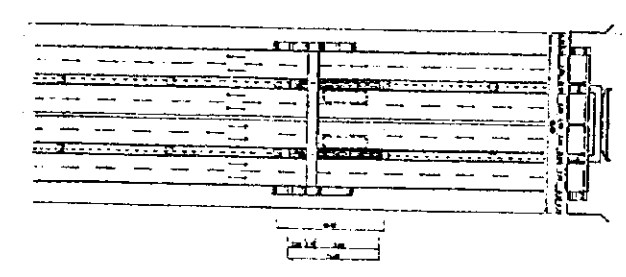
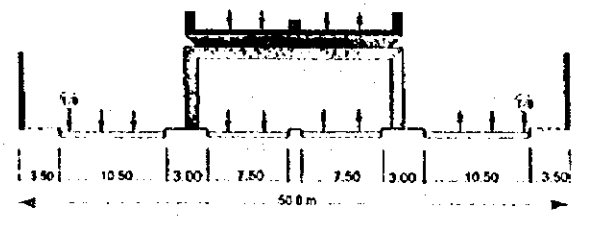
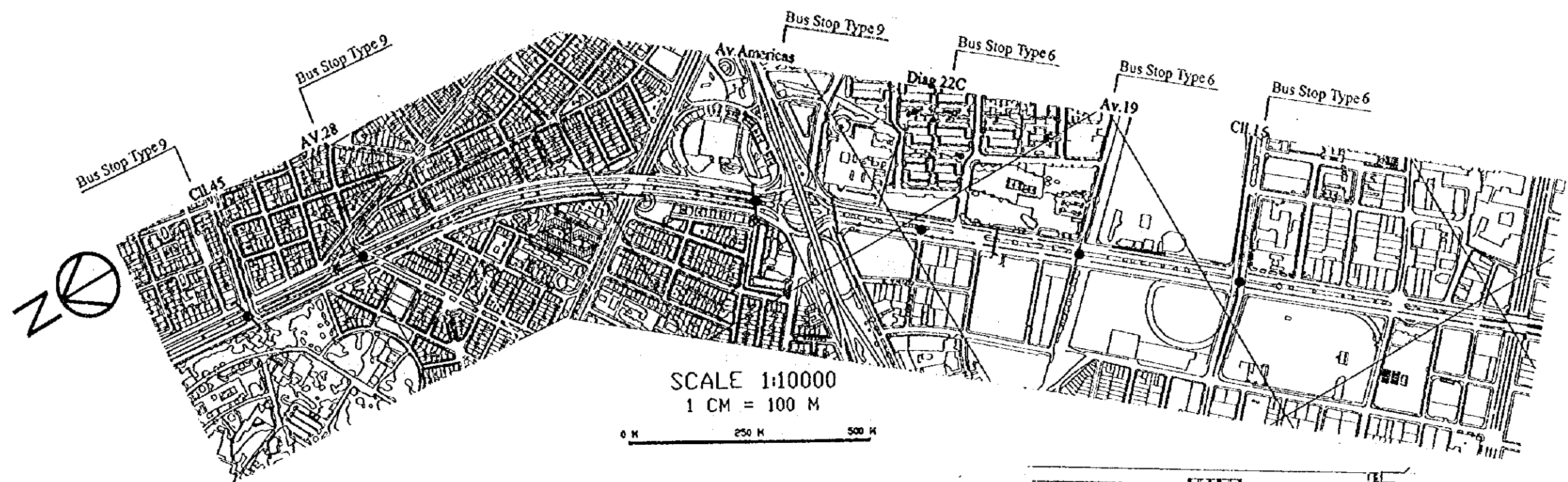


Gradient	Same as existing ground									
Proposed Height	Same as existing ground									
Ground Level	14+000	14+050	14+100	14+150	14+200	14+250	14+300	14+350	14+400	14+450
Number	1	2	3	4	5	6	7	8	9	10

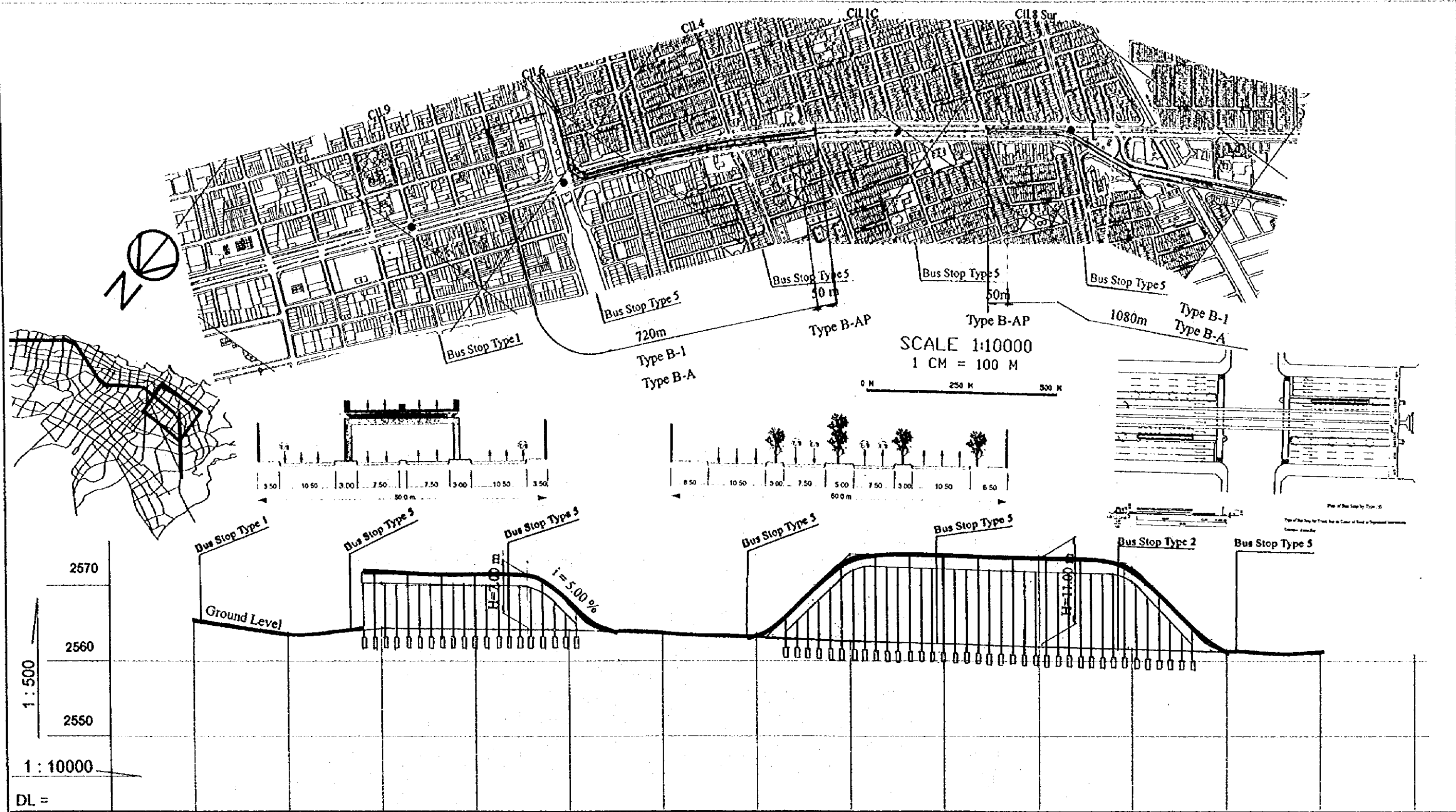


Gradient	Same as existing ground											
Proposed Height	Same as existing ground											
Ground Level	10+750/2550.27	10+800/2550.88	10+850/2561.58	10+900/2562.27	10+950/2562.97	10+1000/2563.67	10+1050/2564.37	10+1100/2565.07	10+1150/2565.77	10+1200/2566.47	10+1250/2567.17	10+1300/2567.87
Number												

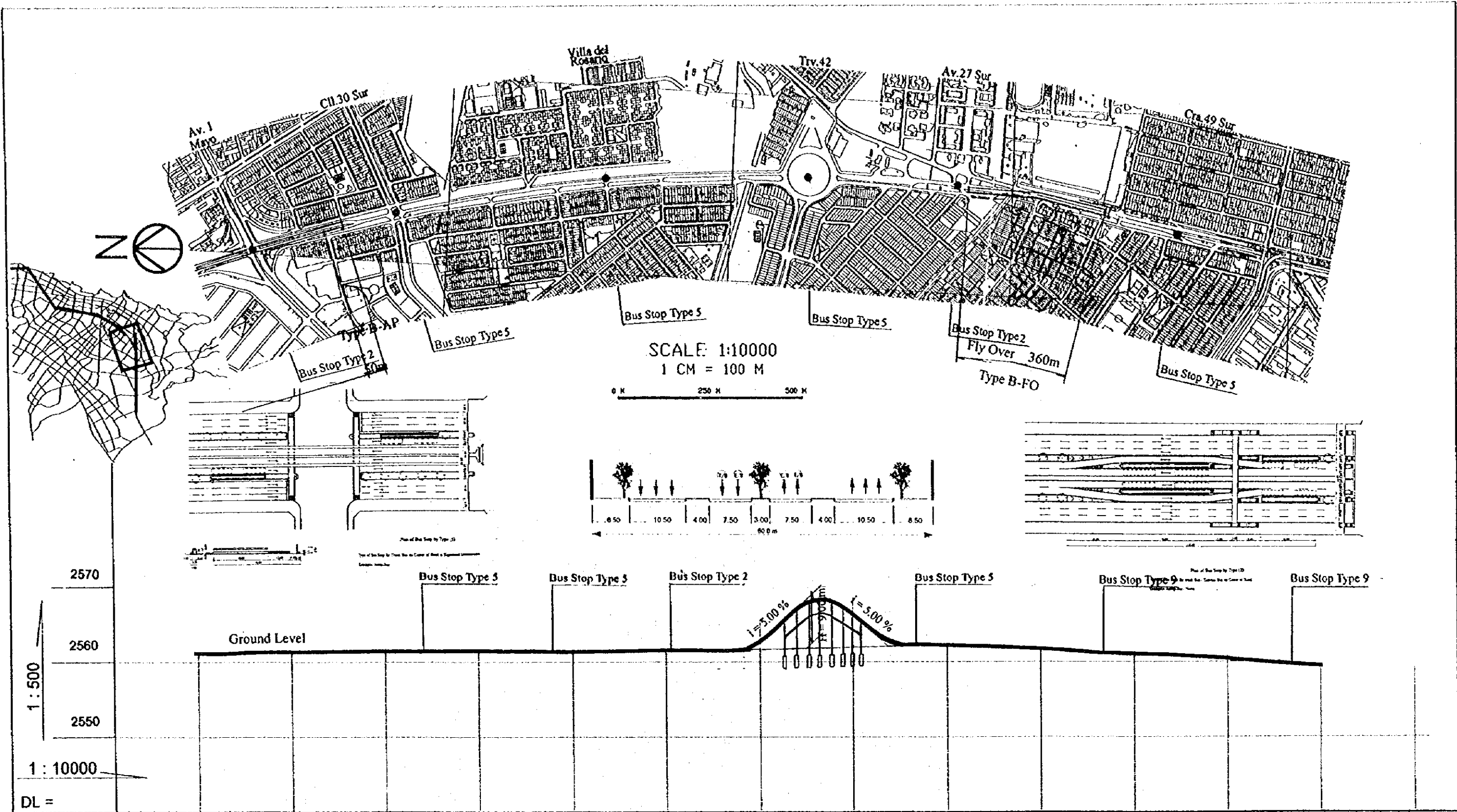




Gradient	Same as existing ground										
Proposed Height	Same as existing ground										
Ground Level	K10+0072860.48	K10+0072860.28	K10+0072881.28	K10+0072882.15	K10+0072883.08	K10+0072883.83	K10+0072883.78	K10+0072884.22	K10+0072884.48	K10+0072884.87	K10+0072885.13
Number											



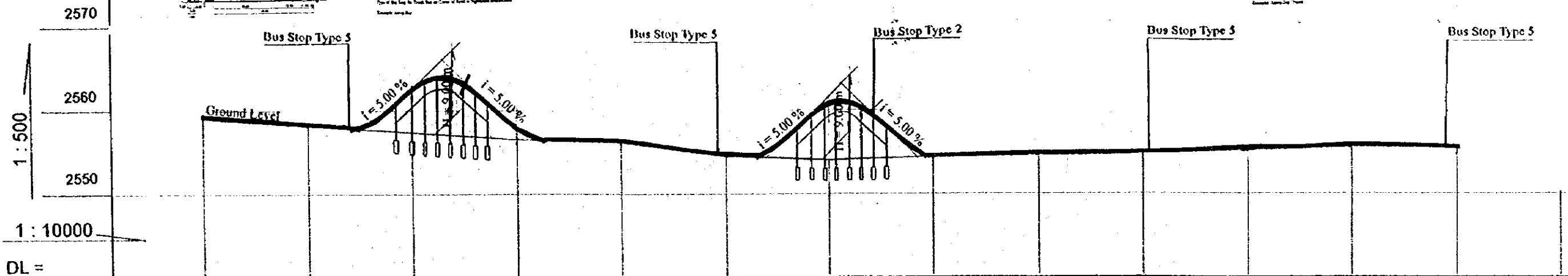
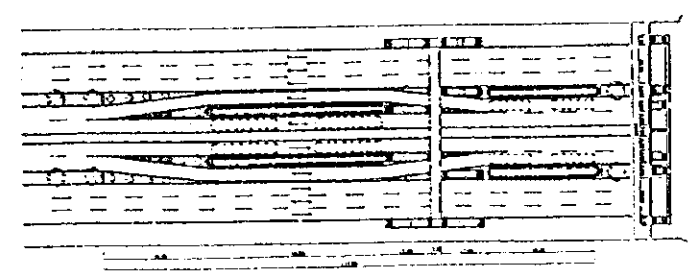
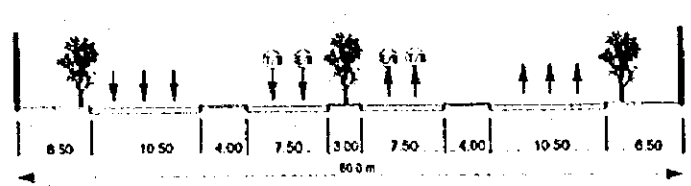
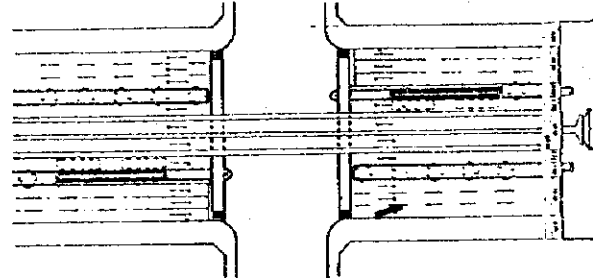
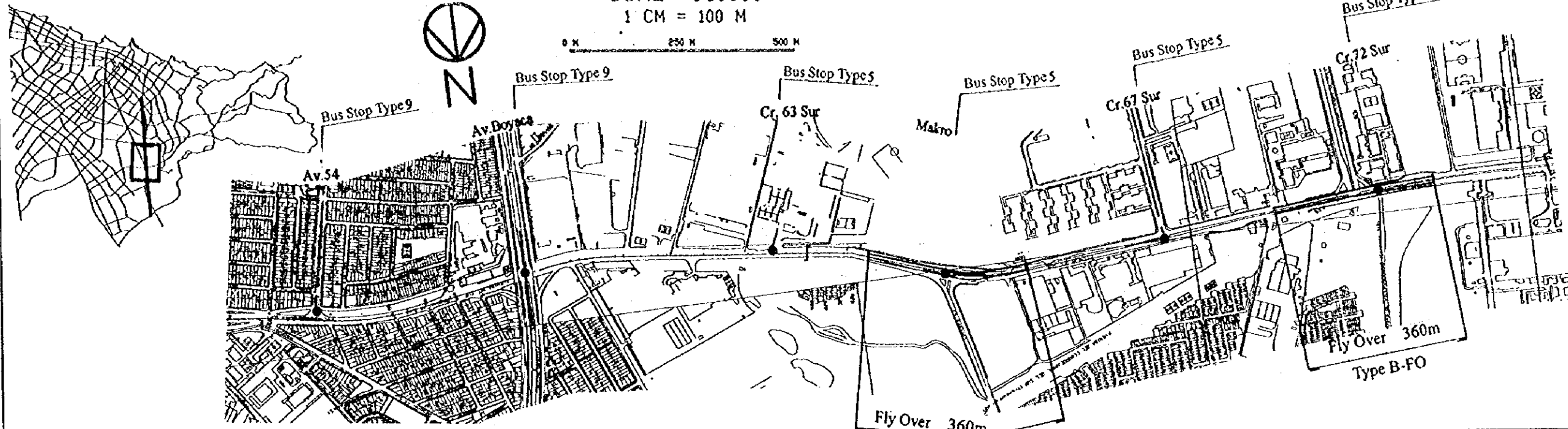
Gradient	Same as existing ground										
Proposed Height	Same as existing ground (Proposed High of Viaduct is 7m higher than existing ground)										
Ground Level	X13+702286.08	X13+007286.05	X13+202286.06	X13+402286.07	X13+602286.17	X13+802286.07	X14+002286.07	X14+202286.07	X14+402286.06	X14+602286.06	X14+802286.07
Number											



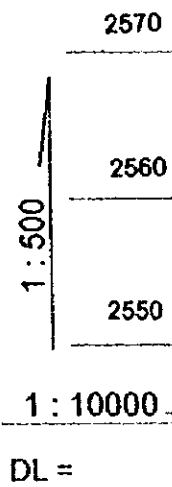
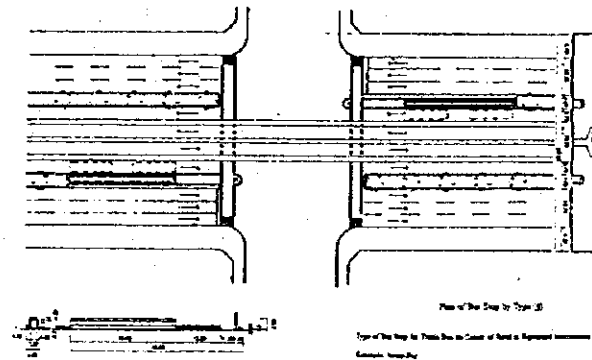
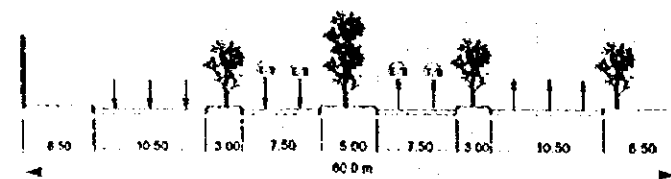
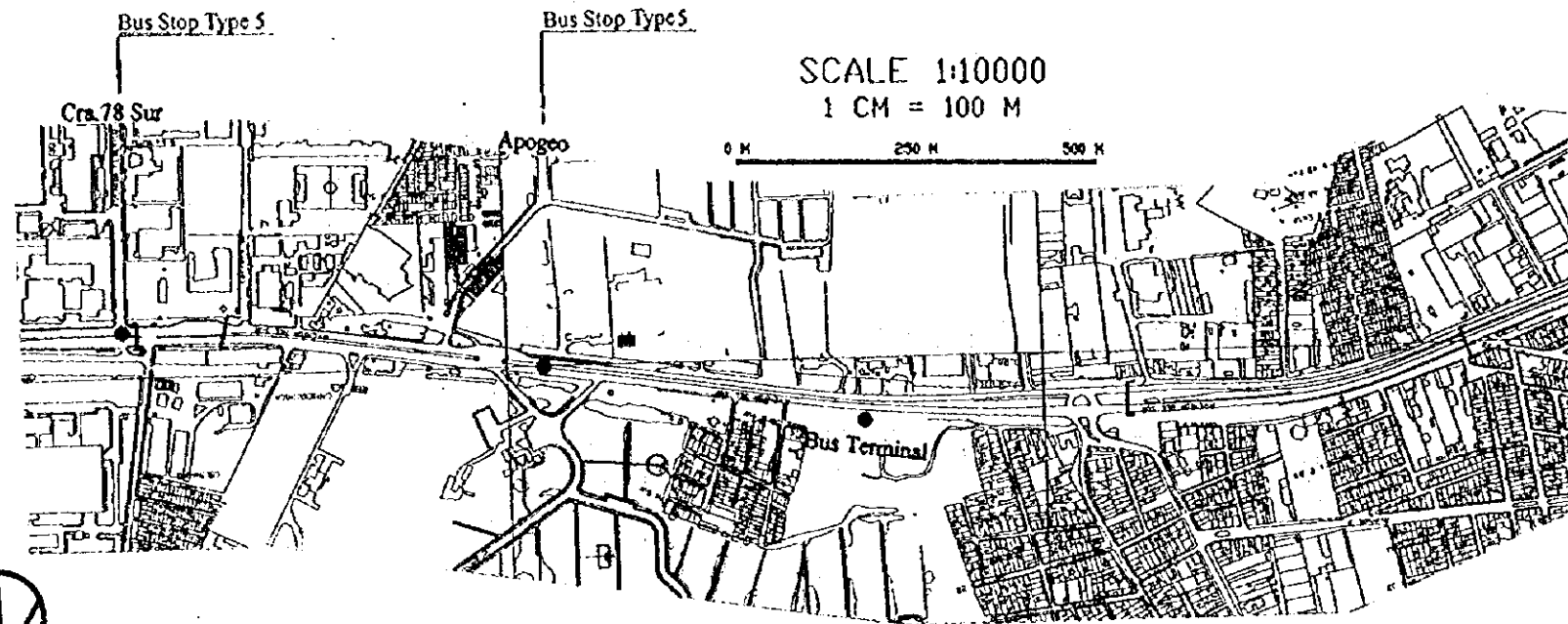
Gradients	Same as existing ground											
Proposed Height	Same as existing ground (Proposed High of Viaduct is 7m higher than existing ground)											
Ground Level	X17+702260.03	X17+002261.17	X17+202261.30	X17+402261.42	X17+602261.54	X17+802261.66	X17+102261.78	X17+302262.03	X17+502262.15	X17+702261.28	X17+902261.40	X17+1102261.53
Number												

SCALE 1:10000  
1 CM = 100 M

0 M 250 M 500 M



Gradient	Same as existing ground												
Proposed Height	Same as existing ground (Proposed High of Viaduct is 7m higher than existing ground)												
Ground Level	1019+752266.85	1019+002266.10	1019+252267.48	1019+502268.79	1019+752268.11	1020+002268.74	1020+252269.05	1020+502269.36	1020+752269.68	1021+002269.98	1021+252270.29	1021+502270.60	1021+752270.91
Number													



Gradient	Same as existing ground				
Proposed Height	Same as existing ground				
Ground Level	2570.00	2568.15	2566.30	2564.45	2562.60
Number	1	2	3	4	5

Plan and Profile  
Av. Quito - Autop. Sur (9)

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
( JICA )

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

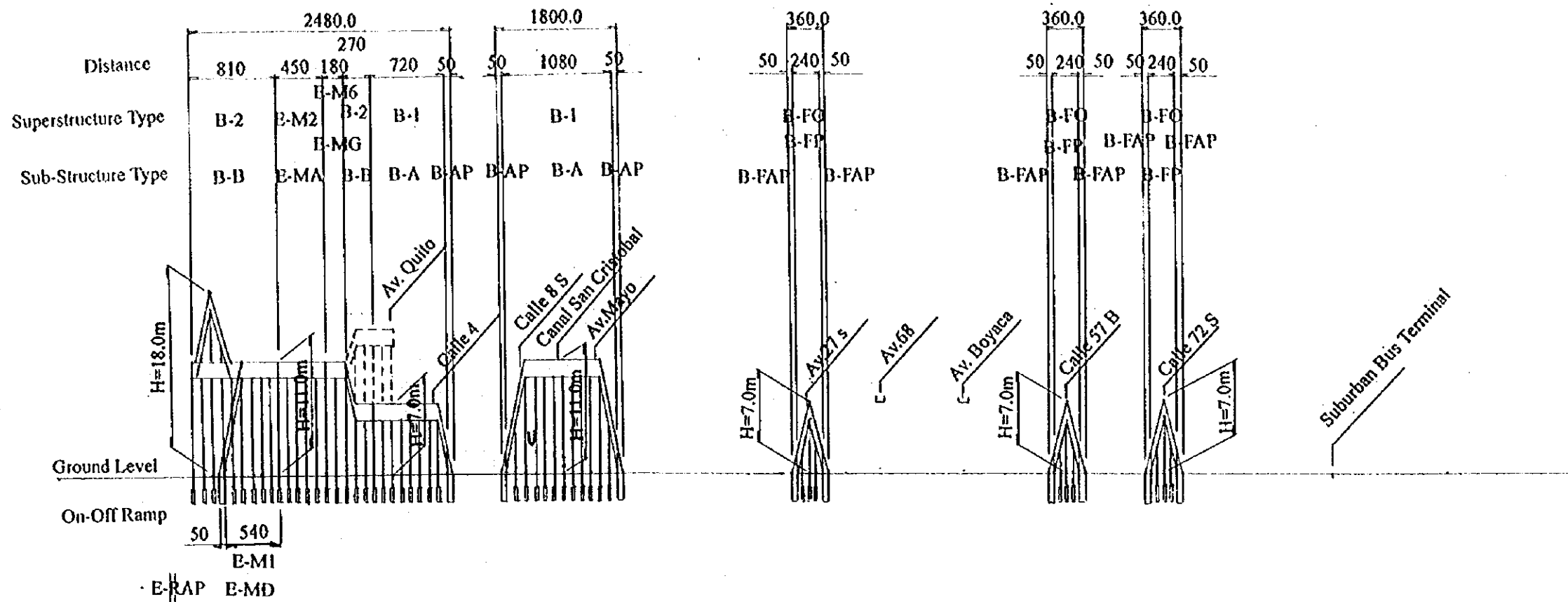
DATA  
SCALE H=1:10000 V=1:500

DWG No. 45  
PAGE No. 4-13

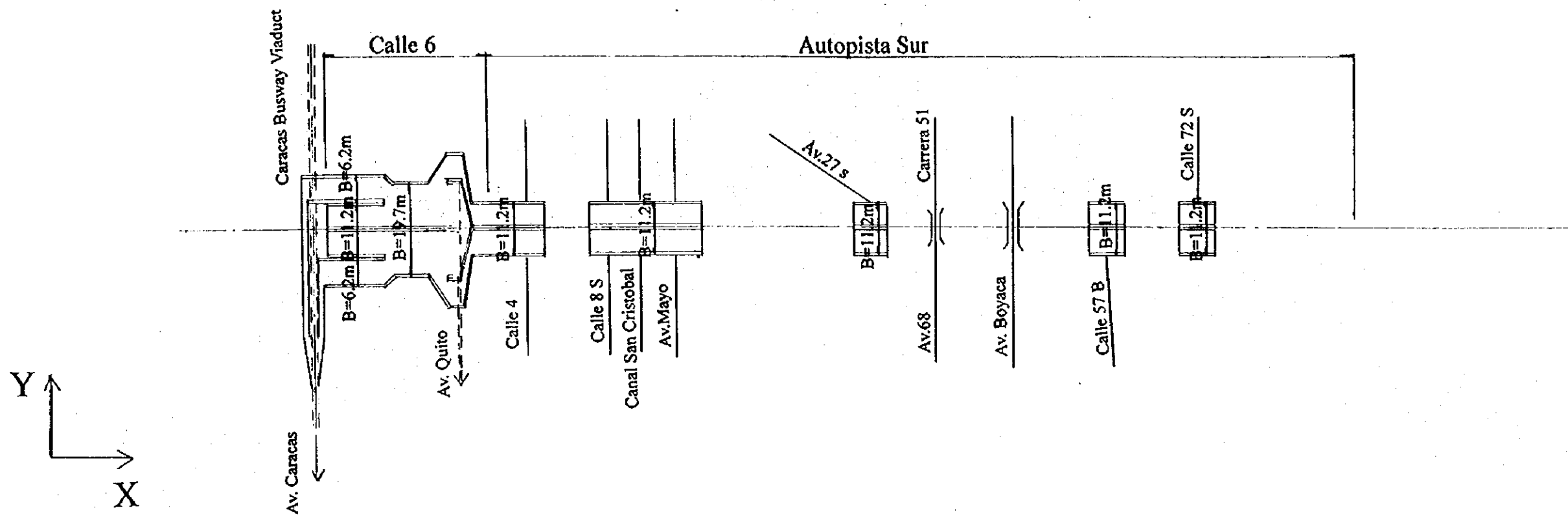
# Viaduct (Autopista Del Sur)

	SANTA FE DE BOGOTA THE REPUBLIC OF COLOMBIA	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA	
			DATA SCALE	DWG No 46 PAGE No

ELEVATION V=1:500 H=1:50,000



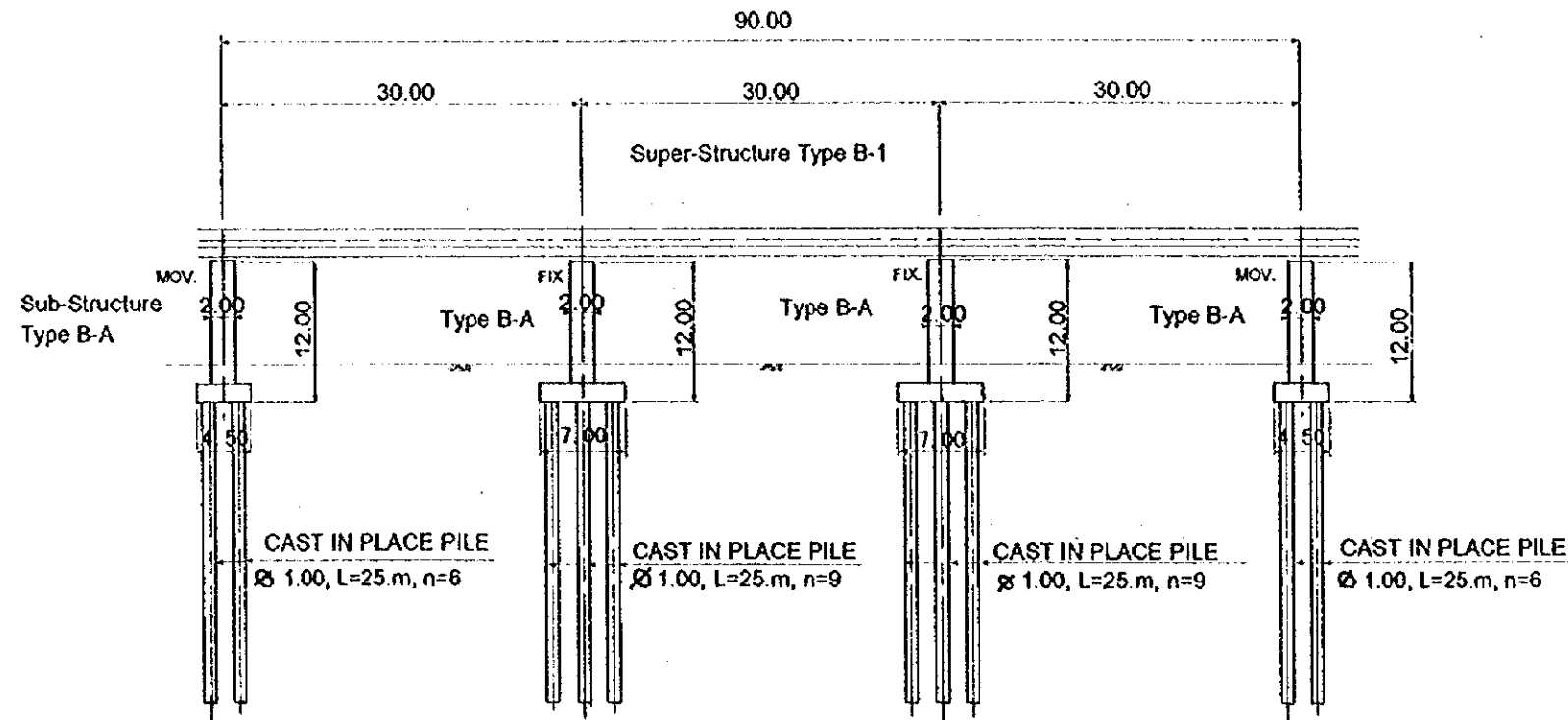
PLAN X=1:50,000 Y=1:1,000



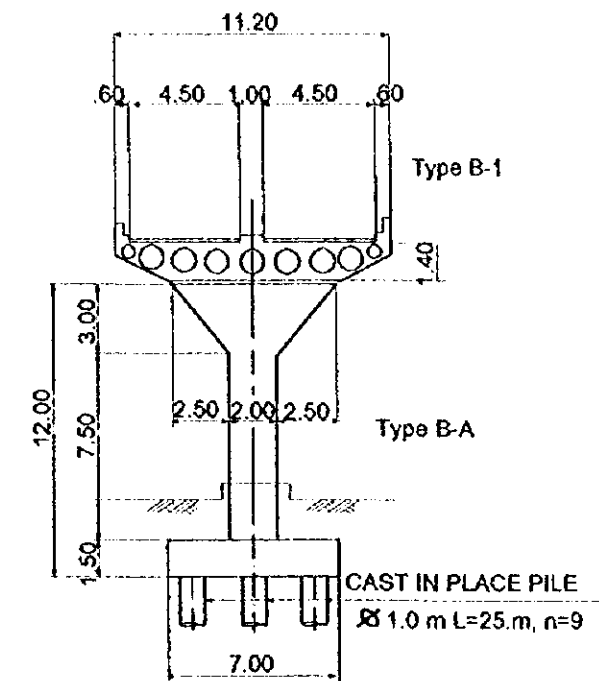
General View of Sur Busway Viaduct and Flyover	SANTA FE DE BOGOTA THE REPUBLIC OF COLOMBIA	JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )	THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA	
			DATA SCALE	DWG No. 47 PAGE No. 5.1

Super-Structure Type B-1  
Sub-Structure Type B-A

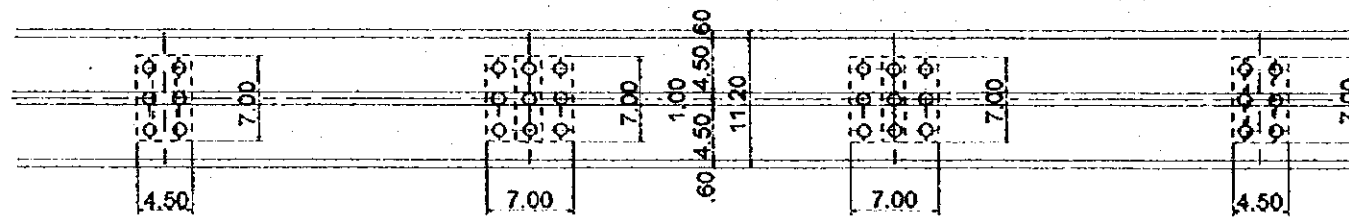
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA

TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	11.2 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Autopista Sur Busway Viaduct  
General View1

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

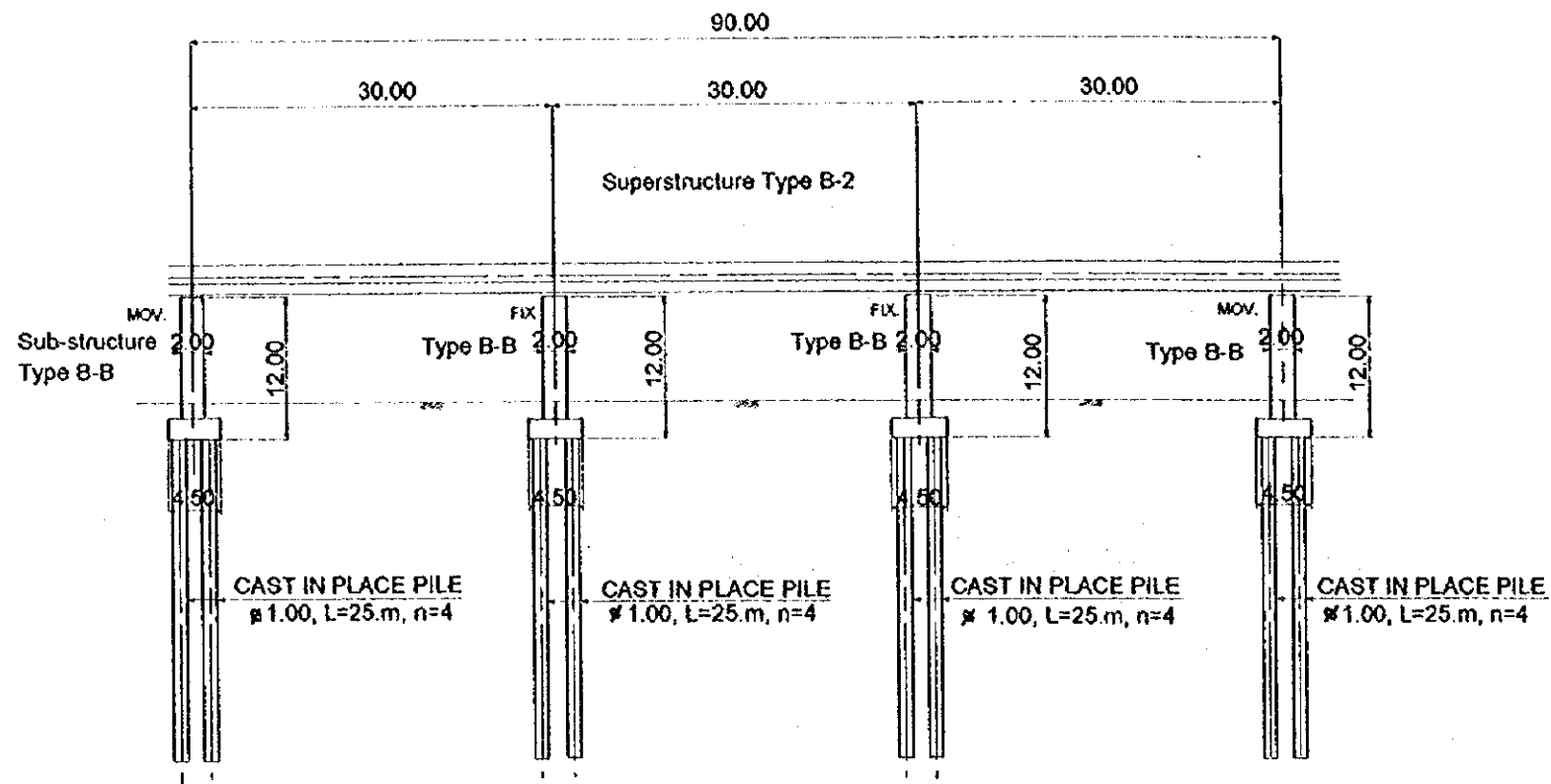
DATA  
SCALE

DWG No 48  
PAGE No 5-2

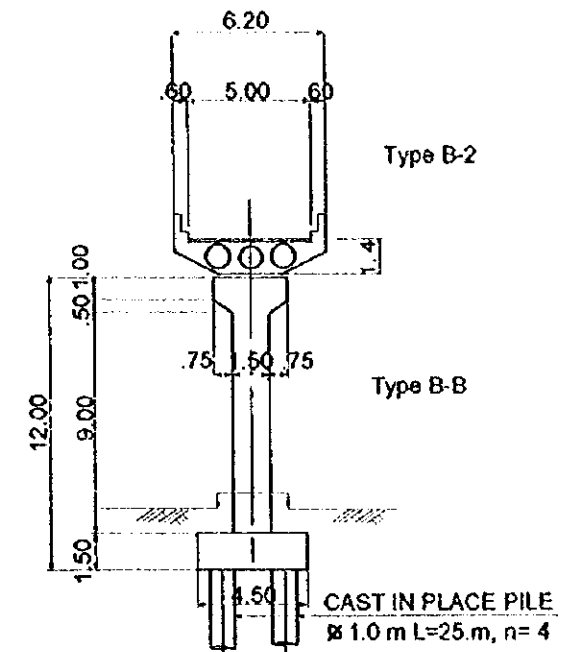


Superstructure Type B-2  
Sub-structure Type B-B

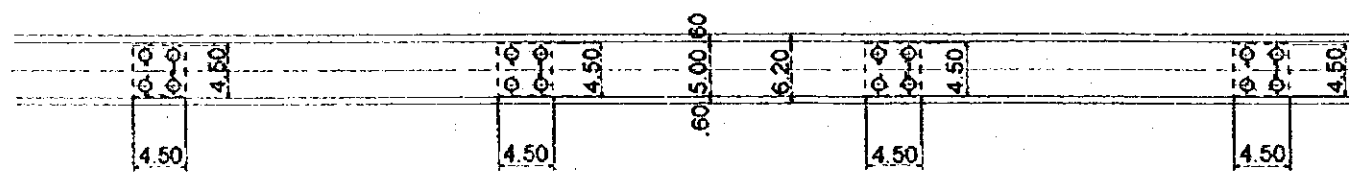
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	6.2 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Autopista Sur Busway  
Viaduct General View 2

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

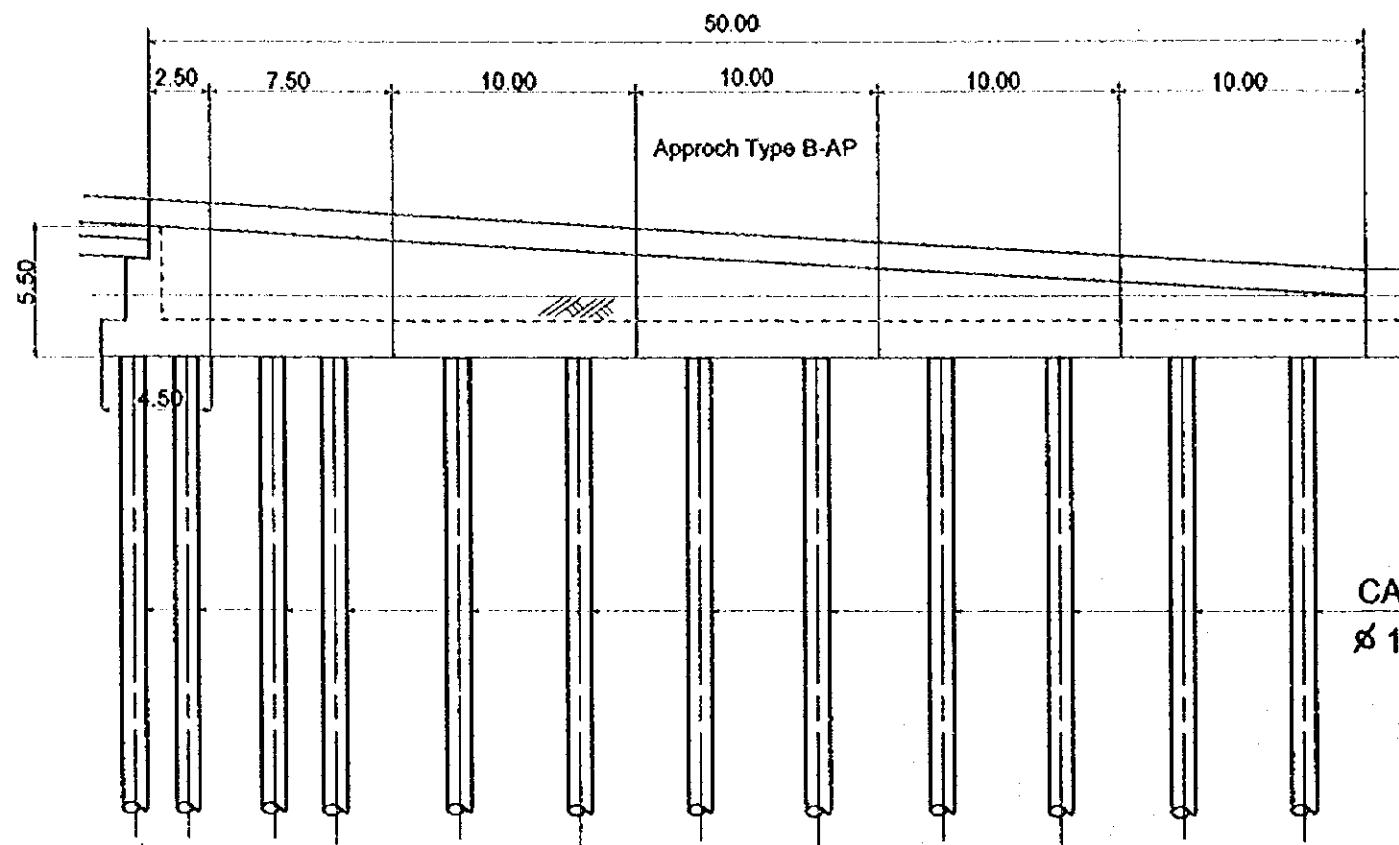
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
SCALE

DWG No 49  
PAGE No 5-3

Sub-Structure Type B-AP

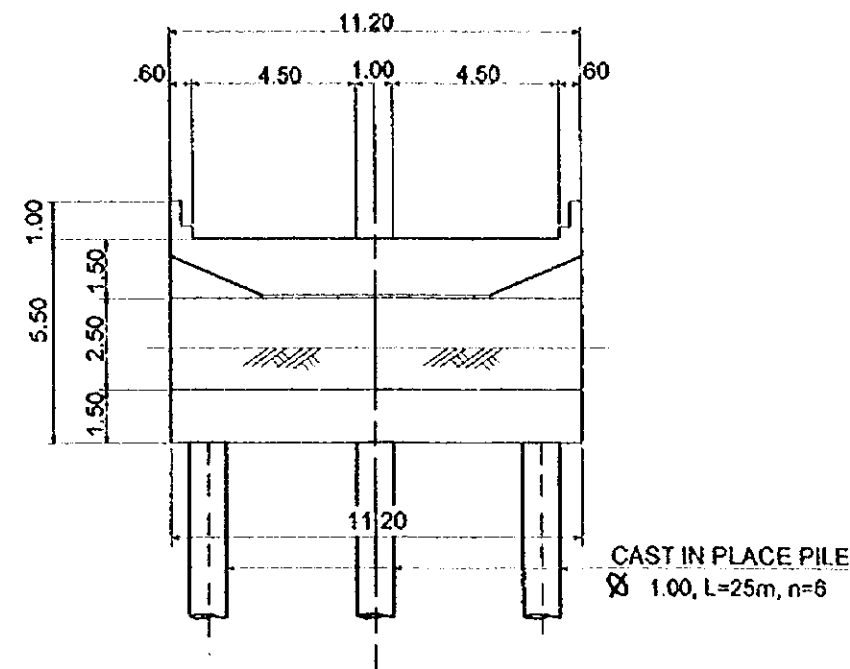
ELEVATION 1 : 300



CAST IN PLACE PILE  
 $\varnothing$  1.00, L=25.m, n=36

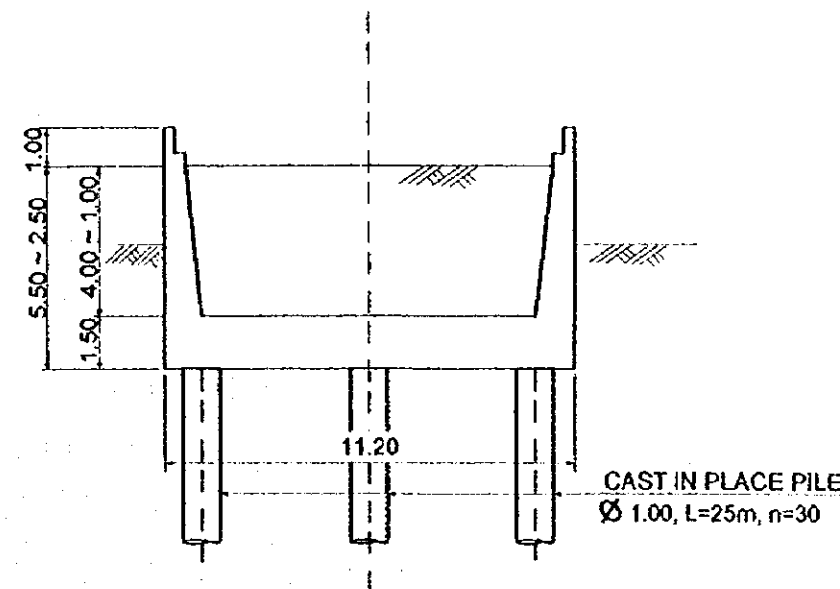
SECTION 1 : 200

ABUT



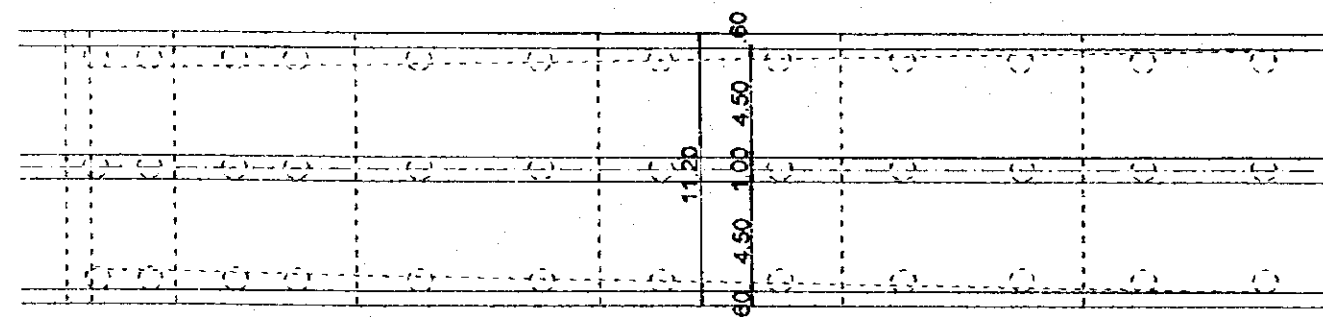
CAST IN PLACE PILE  
 $\varnothing$  1.00, L=25m, n=6

U-TYPE RETAINING WALL



CAST IN PLACE PILE  
 $\varnothing$  1.00, L=25m, n=30

PLAN 1 : 300



Autopista Sur Busway Viaduct  
 General View 3

SANTA FE DE BOGOTA  
 THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
 COOPERATION AGENCY  
 (JICA)

DATA  
 SCALE

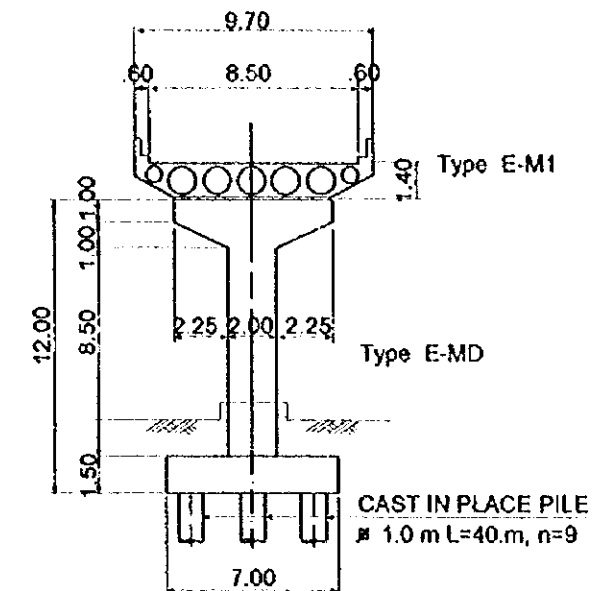
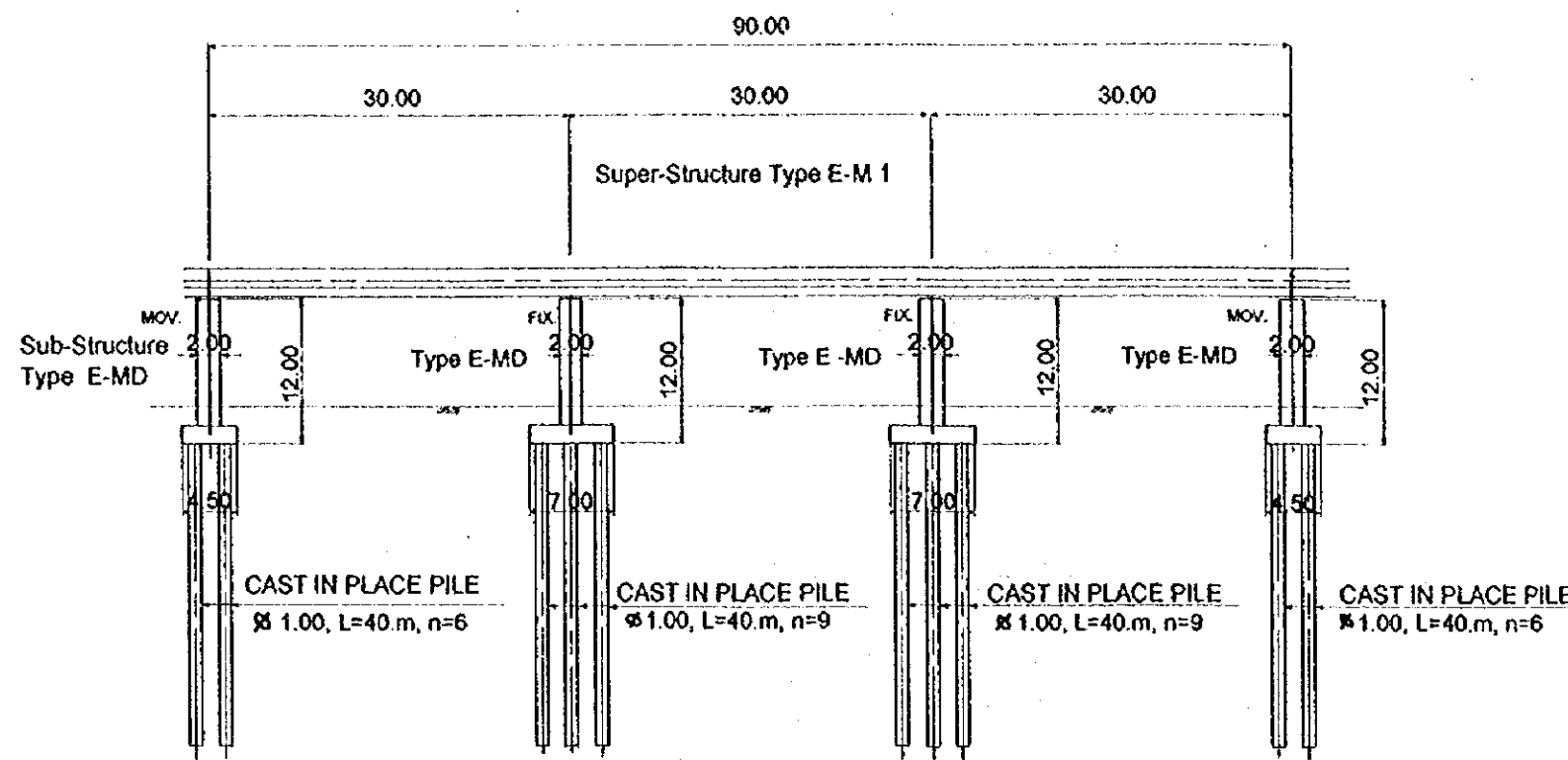
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
 OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DWG No 50  
 PAGE No 5-4

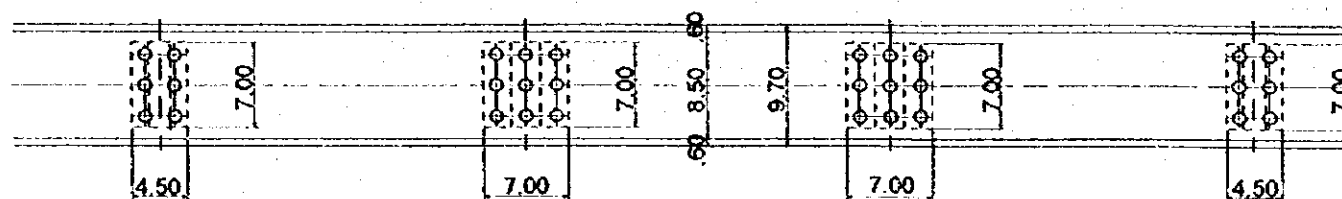
Super-Structure Type E-M 1  
Sub-Structure Type E-MD

ELEVATION 1 : 600

SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0m
SPAN	3 x 30m
WIDTH	9.7 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17 )
STANDARD	Codigo Colombiano de Diseño Sismico de Puentes.

Autopista Sur Busway Viaduct  
General View4

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

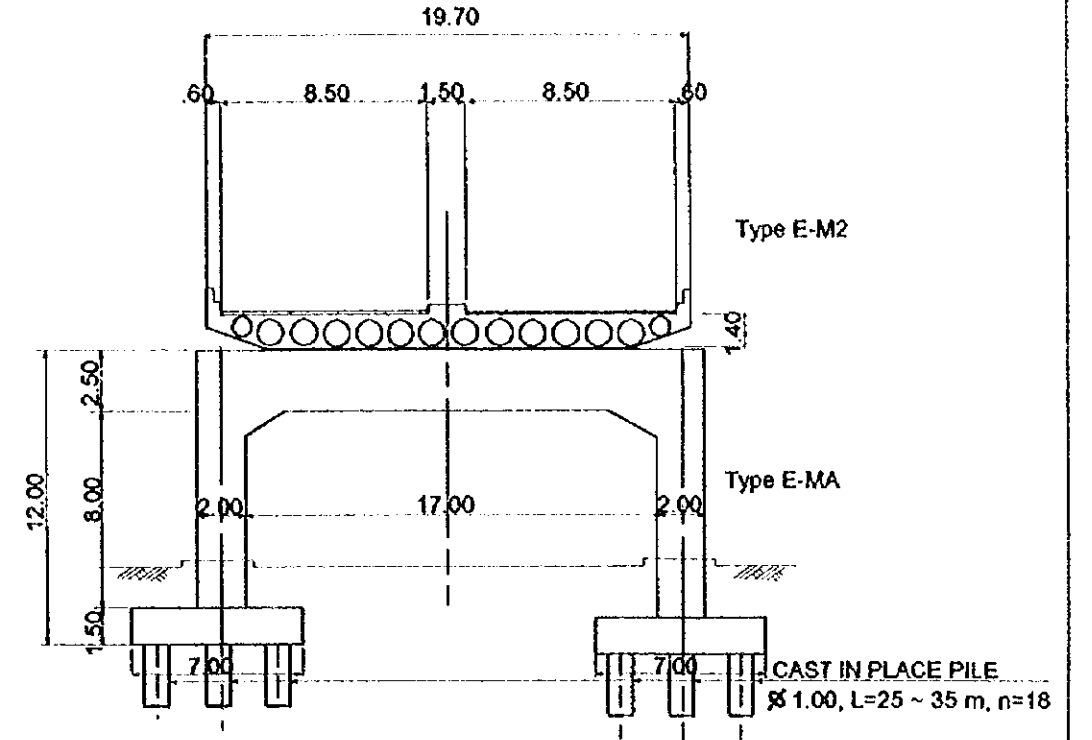
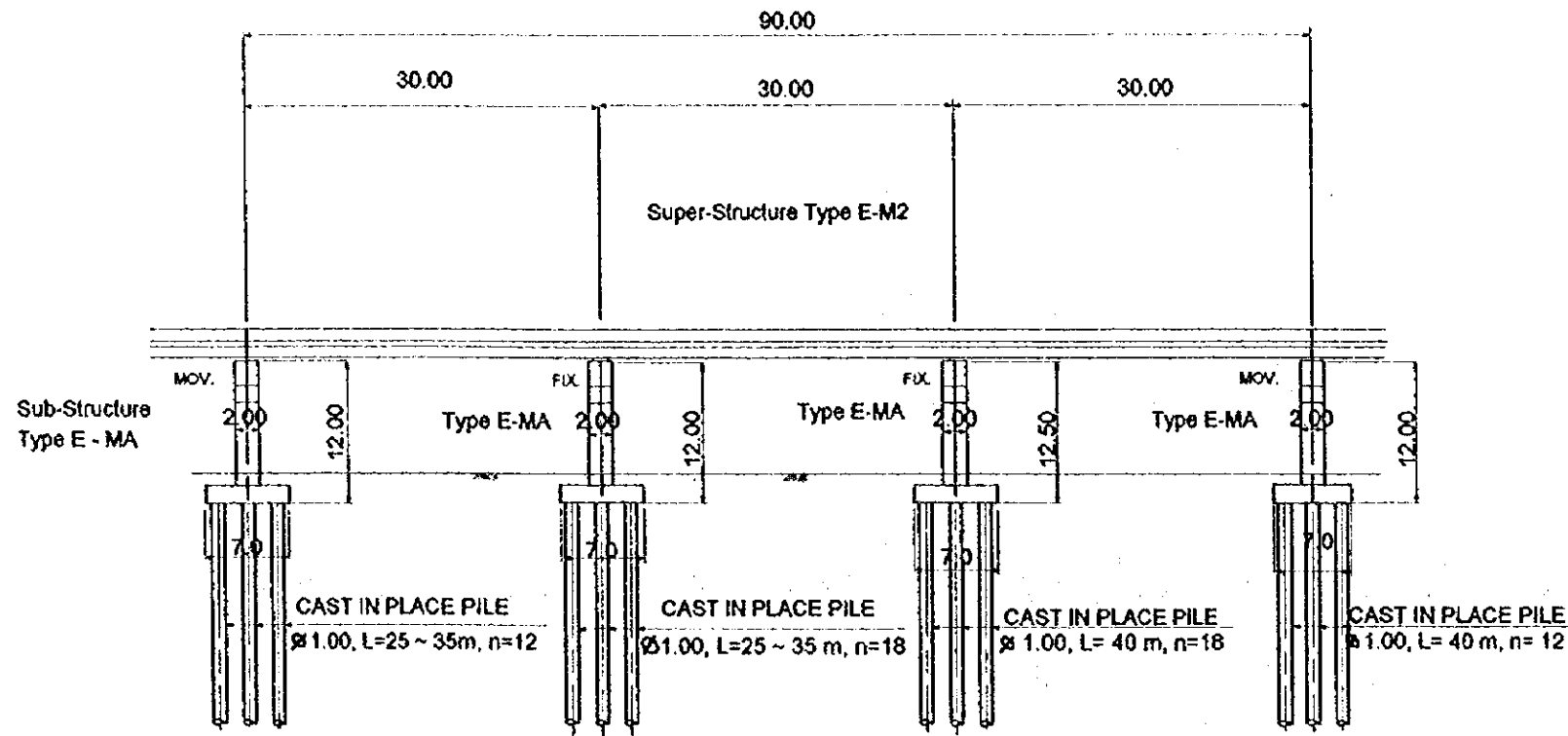
DATA  
SCALE

DWG No 51  
PAGE No S-5

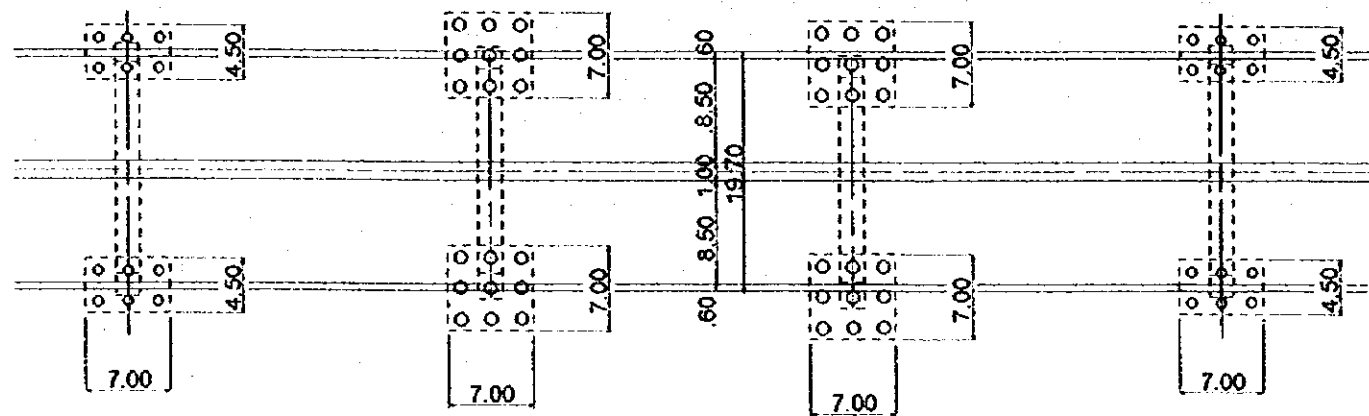
Super-Structure Type E-M2  
 Sub-Structure Type E - MA

ELEVATION 1 : 600

SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.00 m
SPAN	3 X 30.00m
WIDTH	19.70 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs=0.17)
STANDARD	Codigo Colombiano de Diseño Sismico de Puentes.

Autopista Sur Busway Viaduct  
 General View 5

SANTA FE DE BOGOTA  
 THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
 COOPERATION AGENCY  
 (JICA)

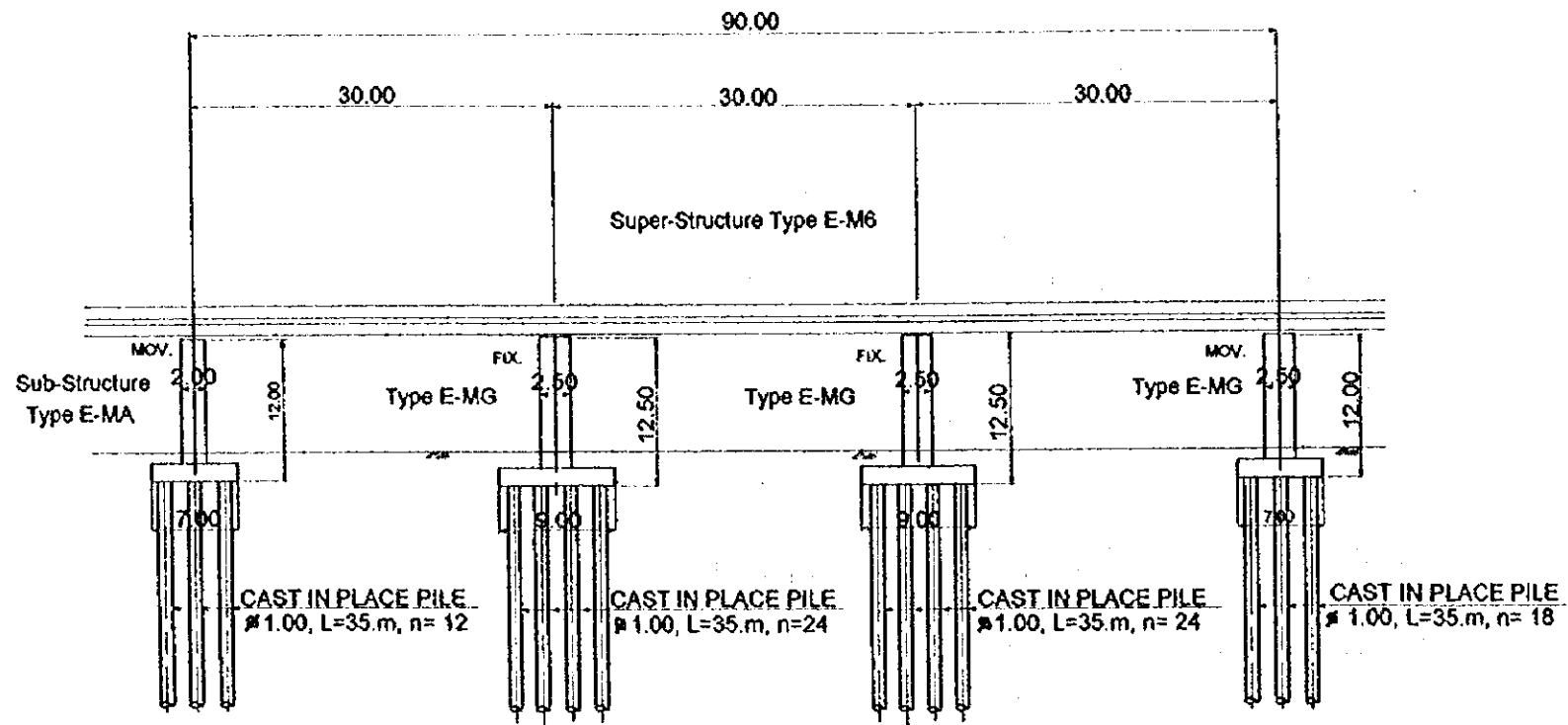
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
 OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
 SCALE

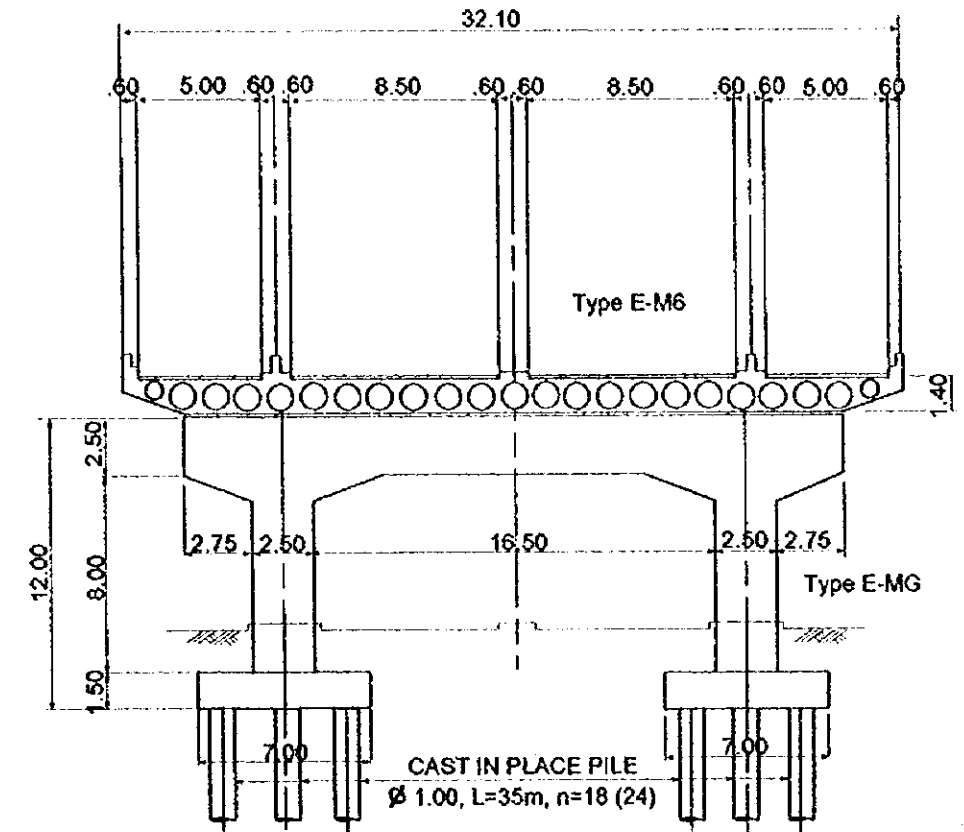
DWG No 52  
 PAGE No 5-6

Super-Structure Type E-M6  
Sub-Structure Type E-MG

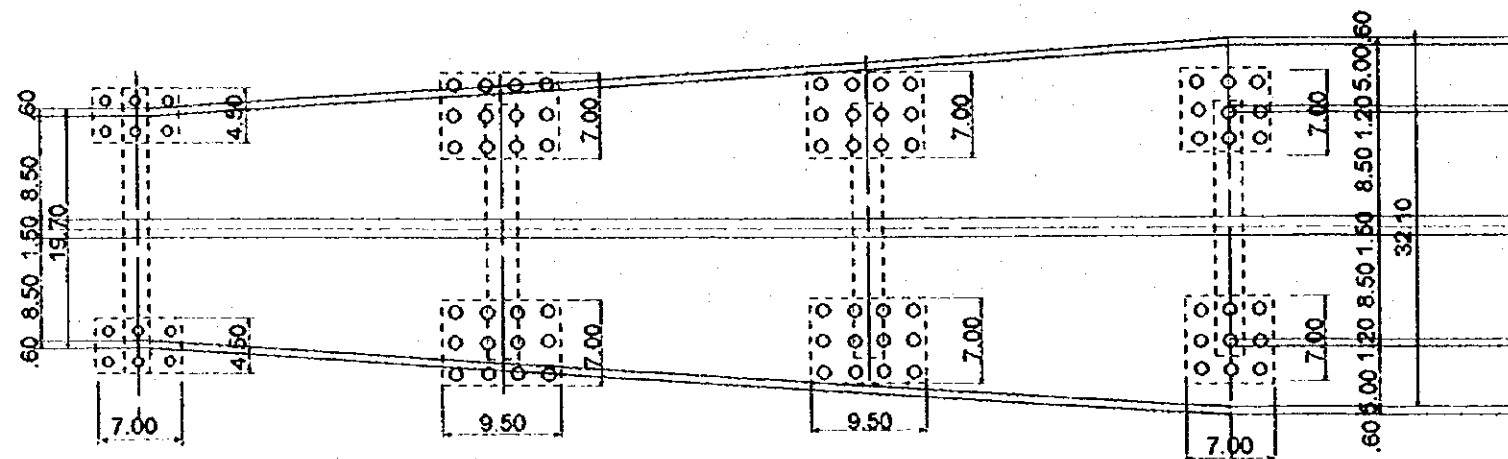
ELEVATION 1 : 600



SECTION 1 : 300



PLAN 1 : 600



DESIGN CRITERIA	
TYPE	3 SPAN P.C. HOLLOW SLAB
TOTAL BRIDGE LIGHT	90.0 m
SPAN	3 x 30m
WIDTH	19.7 m ~ 32.1 m
LIVE LOAD	C 40 - 95
ACCELERATION COEFFICIENT	A = 0.20 (Cs = 0.17)
STANDARD	Código Colombiano de Diseño Sísmico de Puentes.

Autopista Sur Busway Viaduct  
General View 6

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

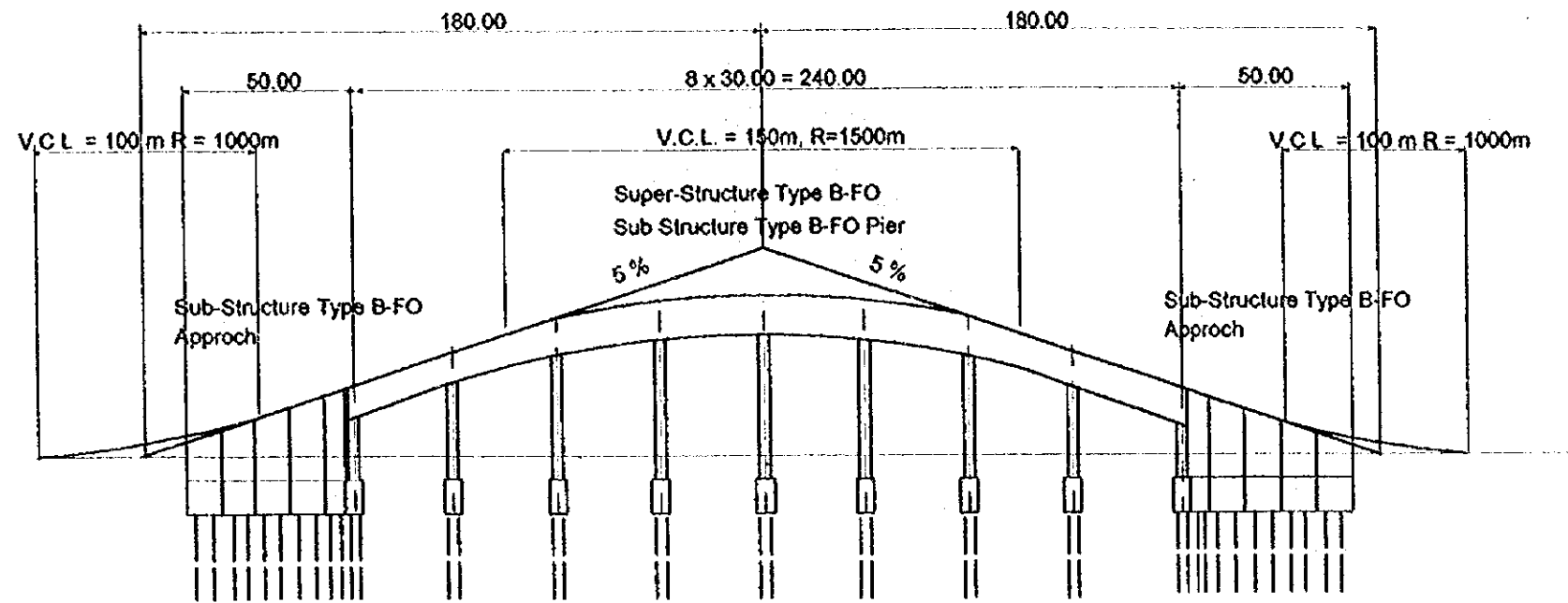
THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DATA  
SCALE

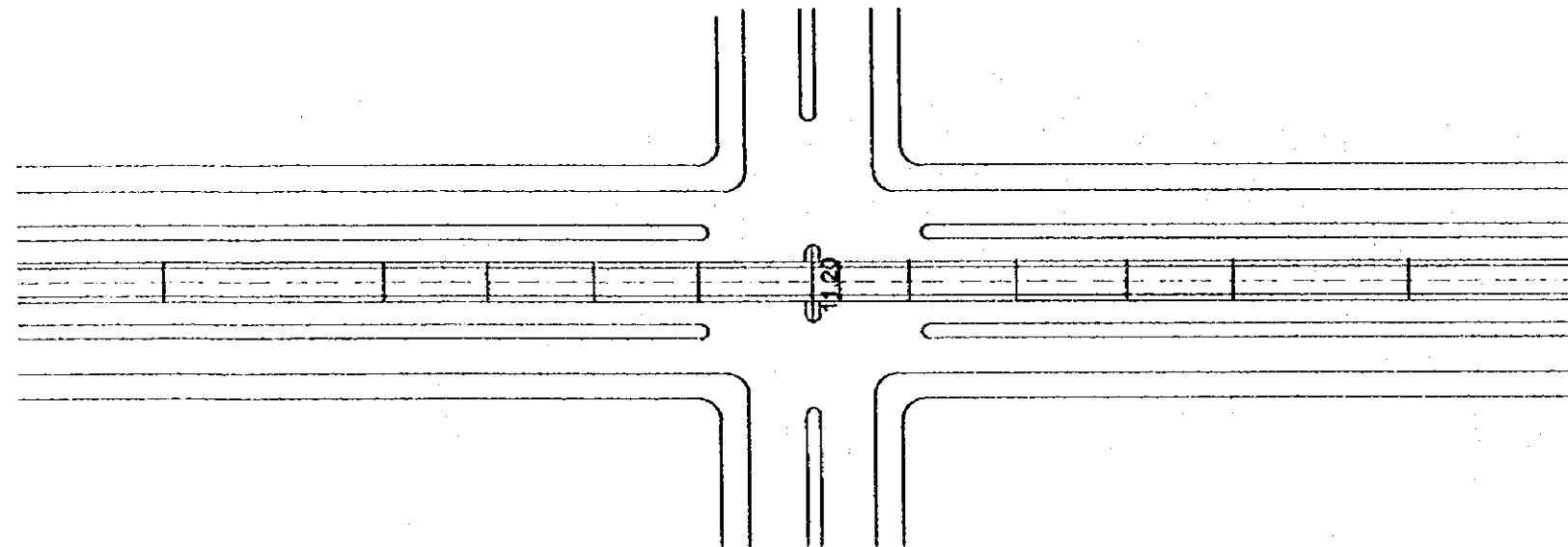
DWG No 53  
PAGE No 5-7

Super-Structure Type B-FO  
Sub-Structure Type B-FO

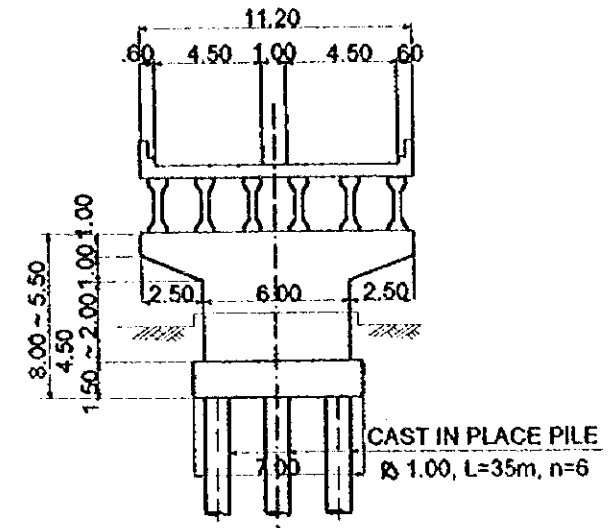
ELEVATION H = 1 : 2000 V = 1 : 300



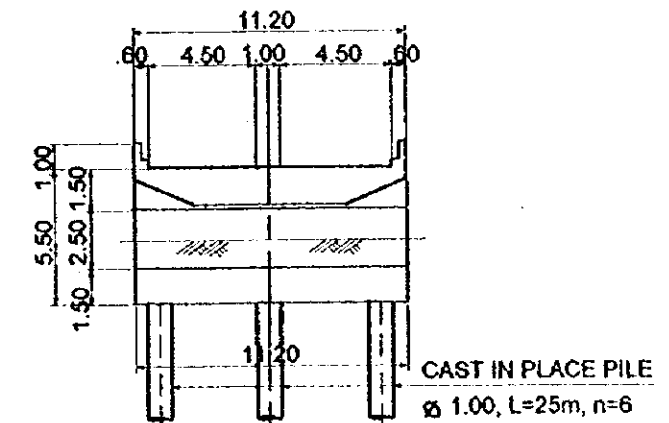
PLAN 1 : 2000



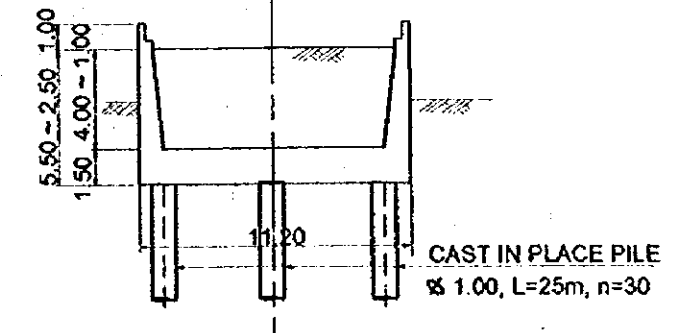
SECTION 1 : 300  
PIER



ABUT



U-TYPE RETAINING WALL



Autopista Sur Busway Viaduct  
General View 7

SANTA FE DE BOGOTA  
THE REPUBLIC OF COLOMBIA

JAPAN INTERNATIONAL  
COOPERATION AGENCY  
(JICA)

DATA  
SCALE

THE FEASIBILITY STUDY ON THE PROJECT OF HIGHWAY AND BUS-LANE  
OF SANTA FE DE BOGOTA IN THE REPUBLIC OF COLOMBIA

DWG No 54  
PAGE No 5-8