



**GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS**

VOLUME - 4

PART - 1

ROAD DEVELOPMENT AUTHORITY

**HAMBANTHOTA HUB DEVELOPMENT PROJECT
EXTENSION OF SOUTHERN EXPRESSWAY FROM WETIYA TO ANDARAWEWA**

SECTION 3- 15KM

PRELIMINARY GEOMETRIC DESIGNS

Design Office (Central Province)

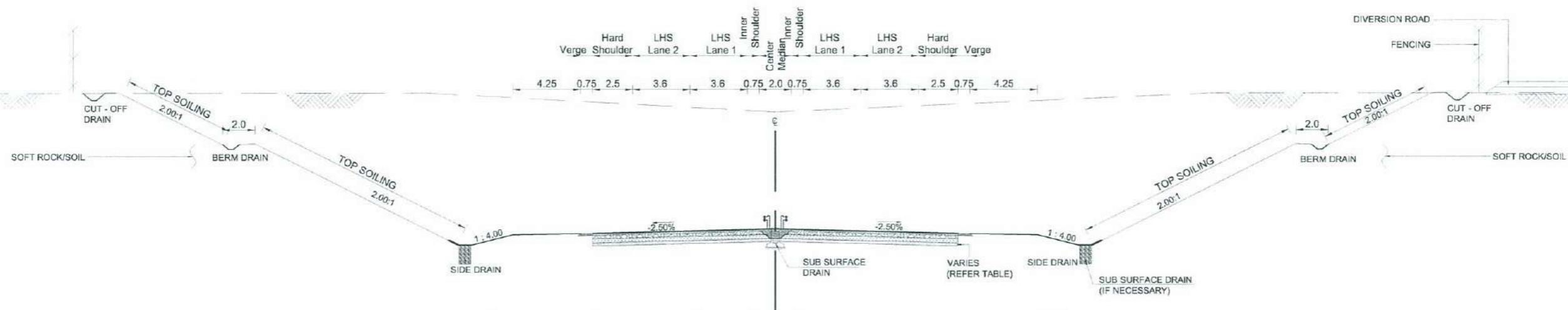
Road Development Authority

S.W.R.D. Bandaranayake Mawatha

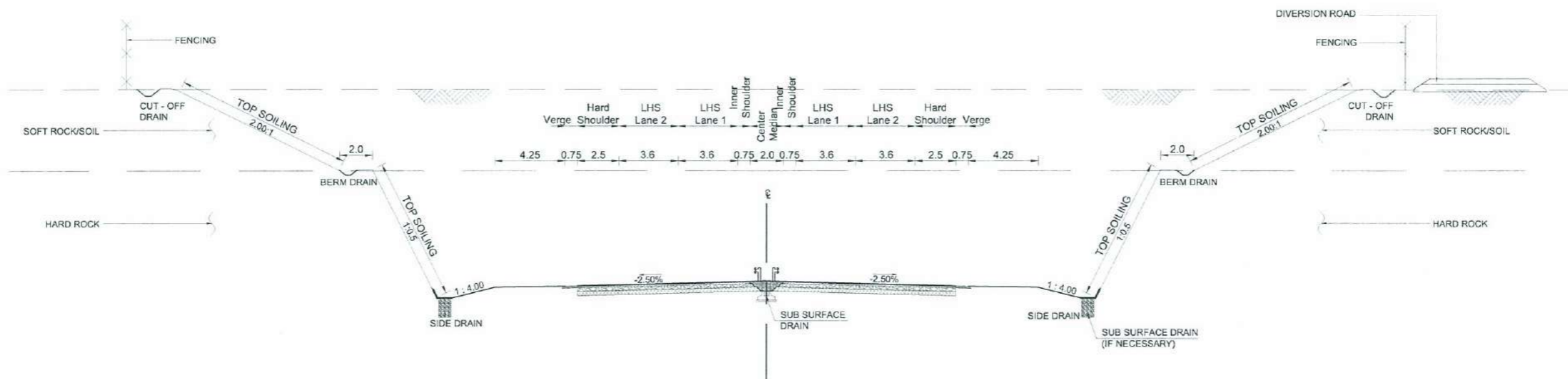
Kandy

AUGUST 2013

Handwritten signature/initials



TYPICAL CROSS SECTION FOR EXCAVATION - SOIL / SOFTROCK



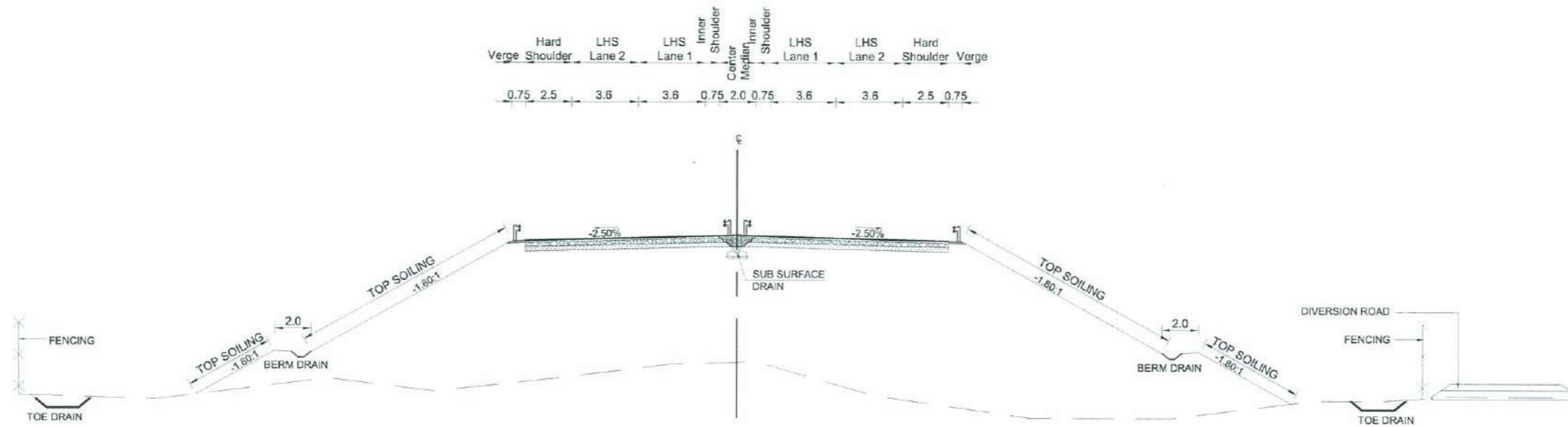
TYPICAL CROSS SECTION FOR EXCAVATION - HARD ROCK (4 LANE)

NOTES

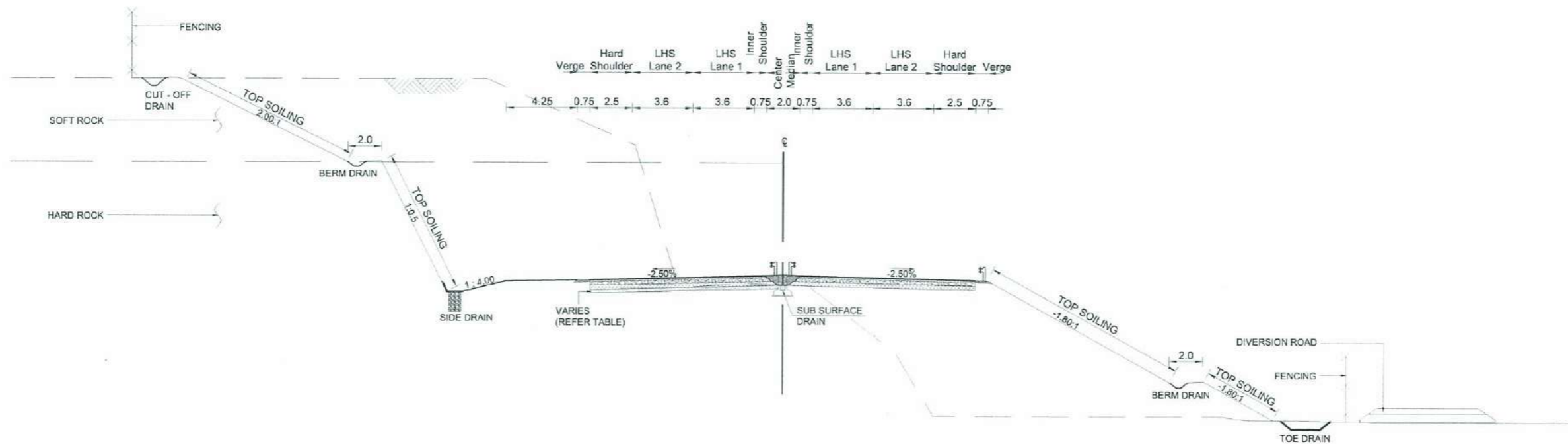
- 1) ADDITIONAL 4.25m IS PROVIDED FOR CLEARANCE AT CUTTING AREA.

Handwritten initials/signature





TYPICAL CROSS SECTION FOR FILL (4 LANE)



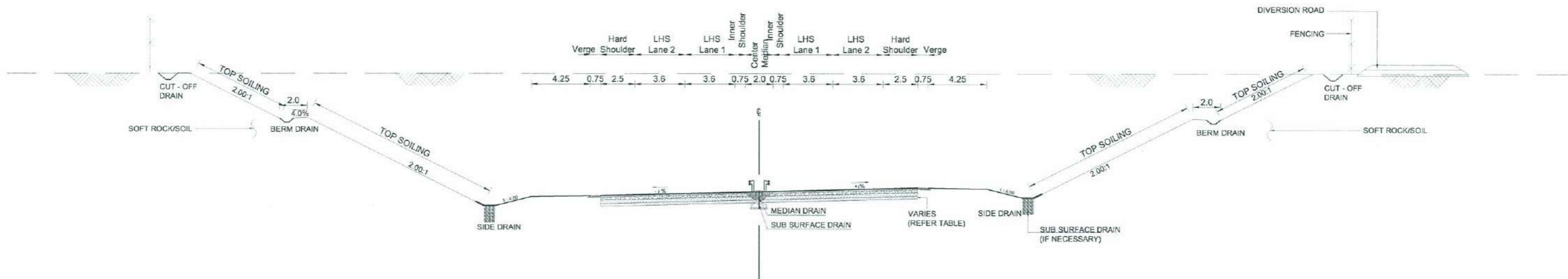
TYPICAL CROSS SECTION FOR EXCAVATION & FILLING (4 LANE)

NOTES

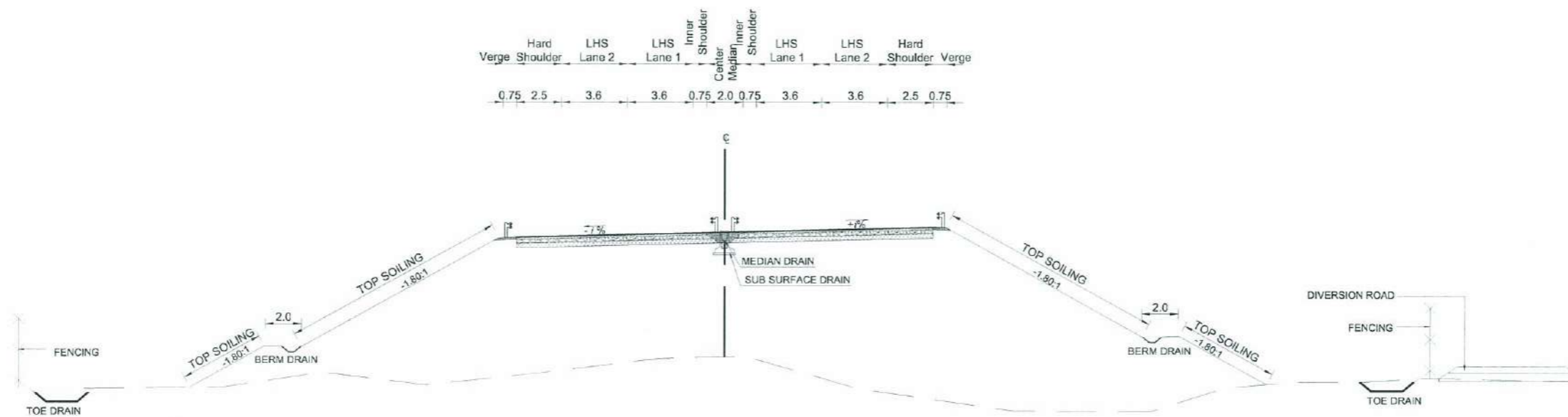
- 1) ADDITIONAL 4.25m IS PROVIDED FOR CLEARANCE AT CUTTING AREA

Handwritten initials/signature





TYPICAL CROSS SECTION FOR EXCAVATION AT SUPERELEVATED SECTIONS



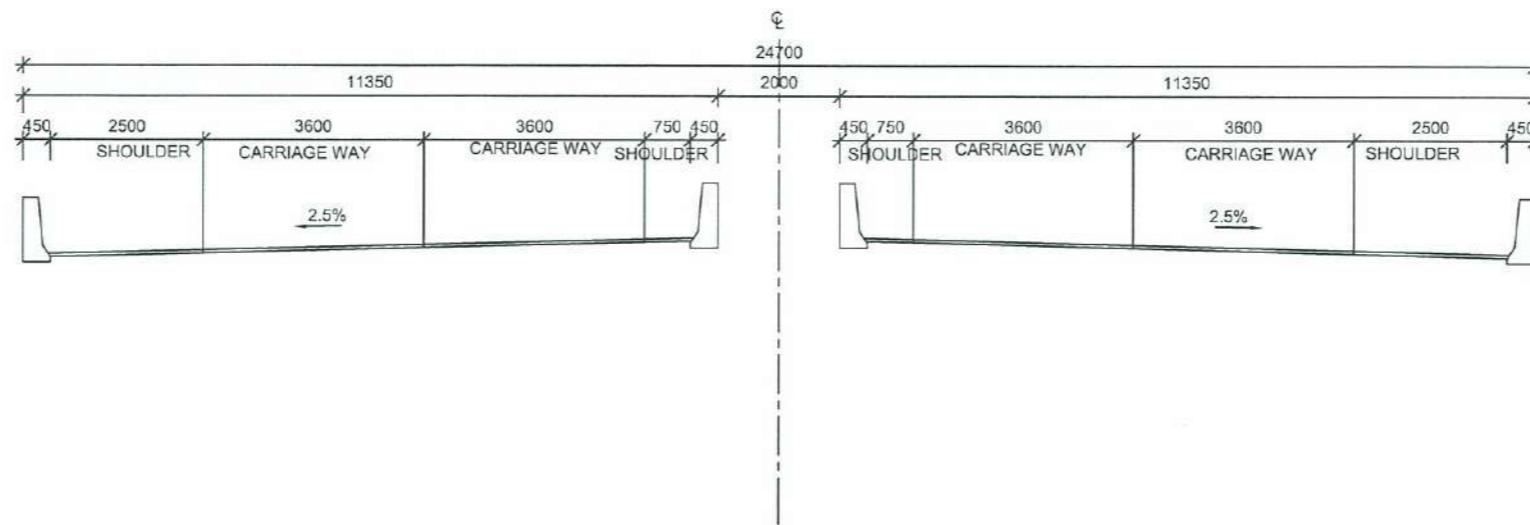
TYPICAL CROSS SECTION FOR FILL AT SUPERELEVATED SECTIONS

NOTES

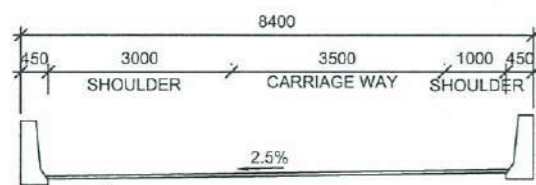
- 1) ADDITIONAL 4.25m IS PROVIDED FOR CLEARANCE AT CUTTING AREA.

Handwritten initials/signature

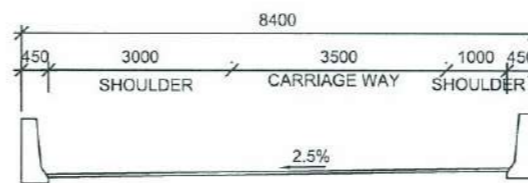




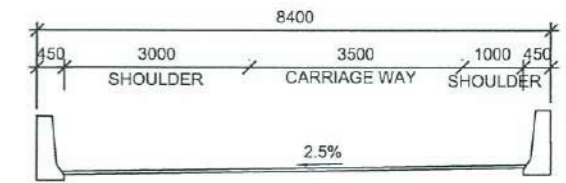
TS ST VD1 : TYPICAL CROSS SECTION (4 LANE) - MAIN VIADUCT
SCALE :- 1:200



TS ST R1 : TYPICAL CROSS SECTION-RAMP 1
SCALE :- 1:125



TS ST R2 : TYPICAL CROSS SECTION-RAMP 2
SCALE :- 1:125

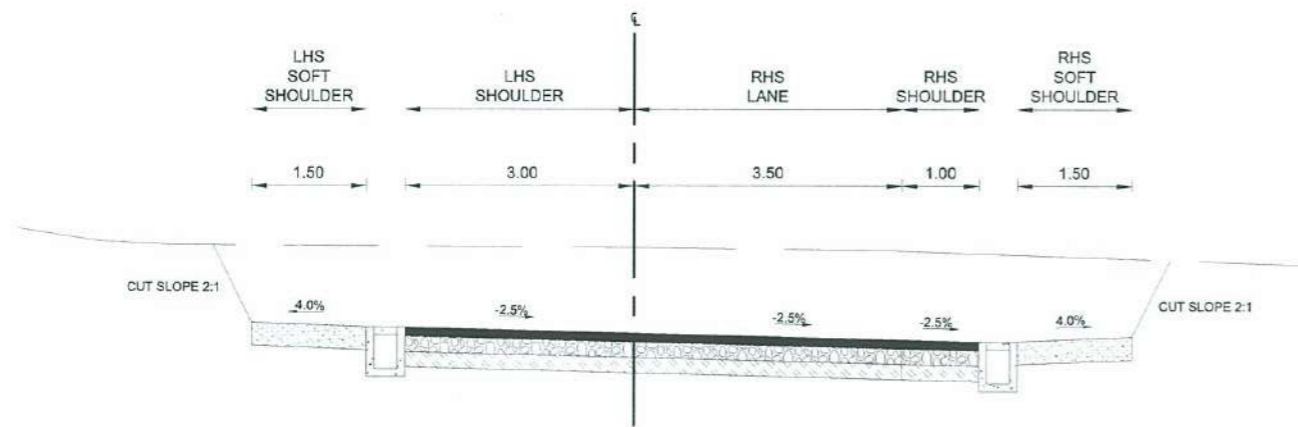


TS ST R3 : TYPICAL CROSS SECTION-RAMP 3
SCALE :- 1:125

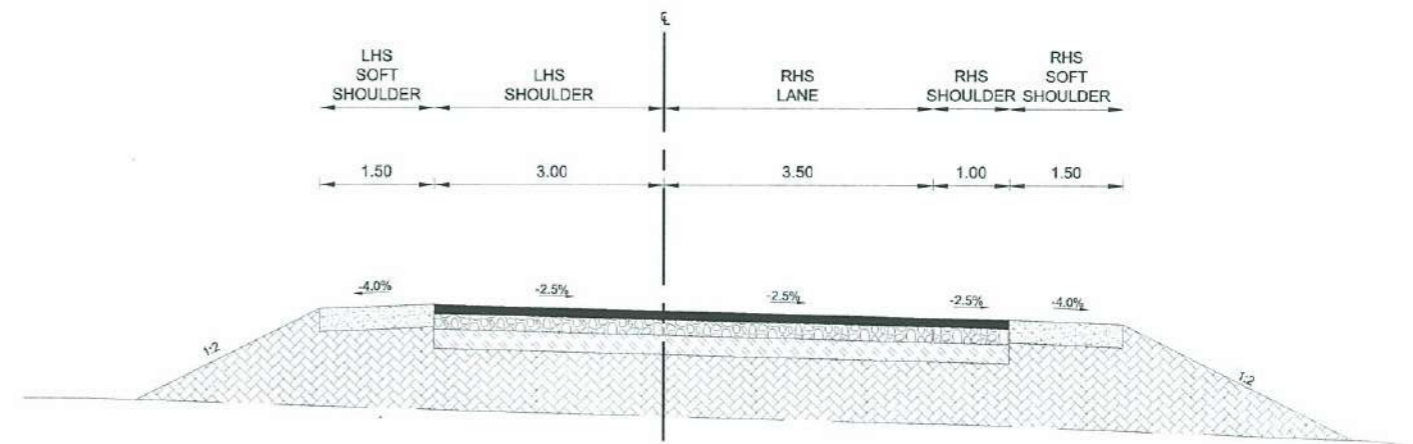
NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.

Handwritten signature

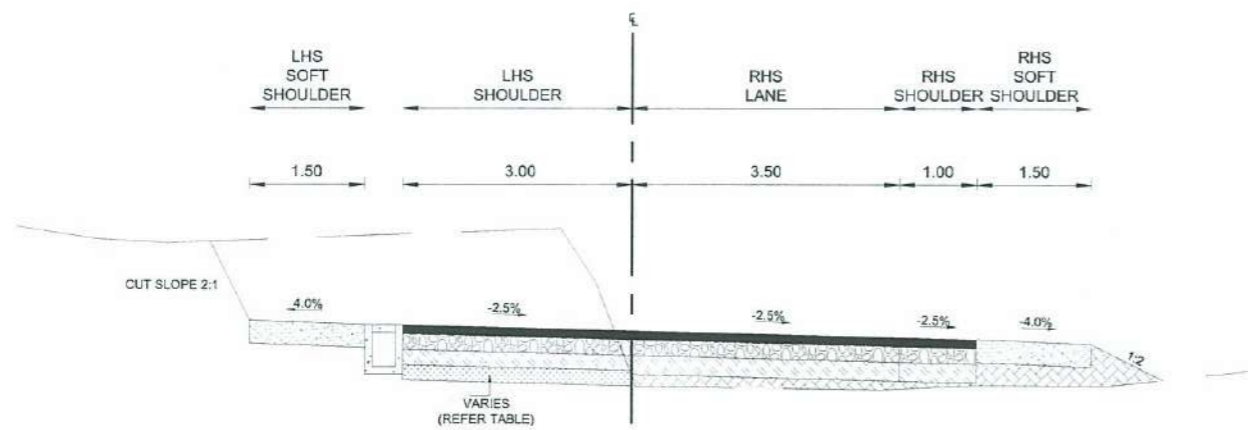




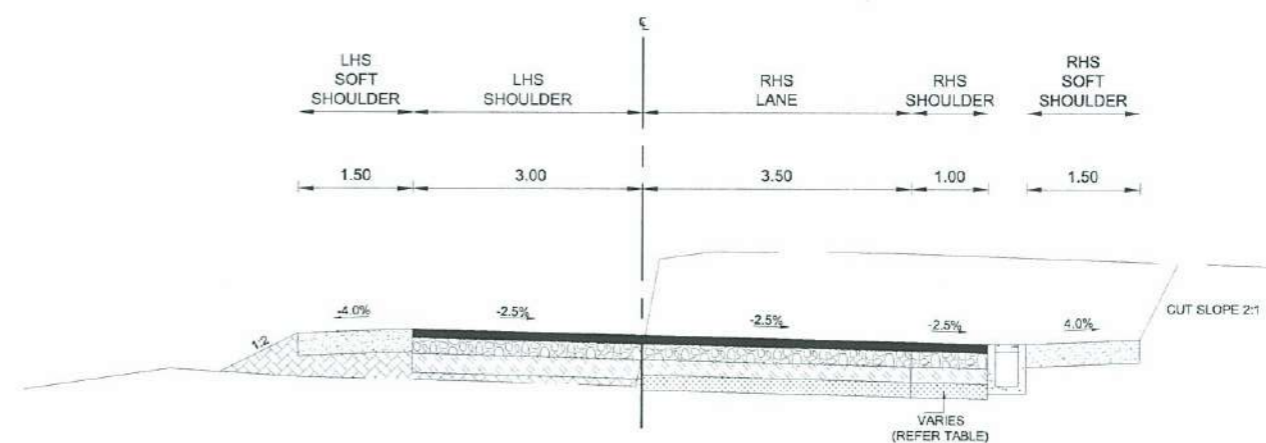
TS R1 : TYPICAL SECTION FOR SINGLE LANE RAMP BOTH SIDE CUT



TS R2 : TYPICAL SECTION FOR SINGLE LANE RAMP WITH BOTH SIDE FILL



TS R3 : TYPICAL SECTION FOR SINGLE LANE RAMP - LHS CUT & RHS FILL

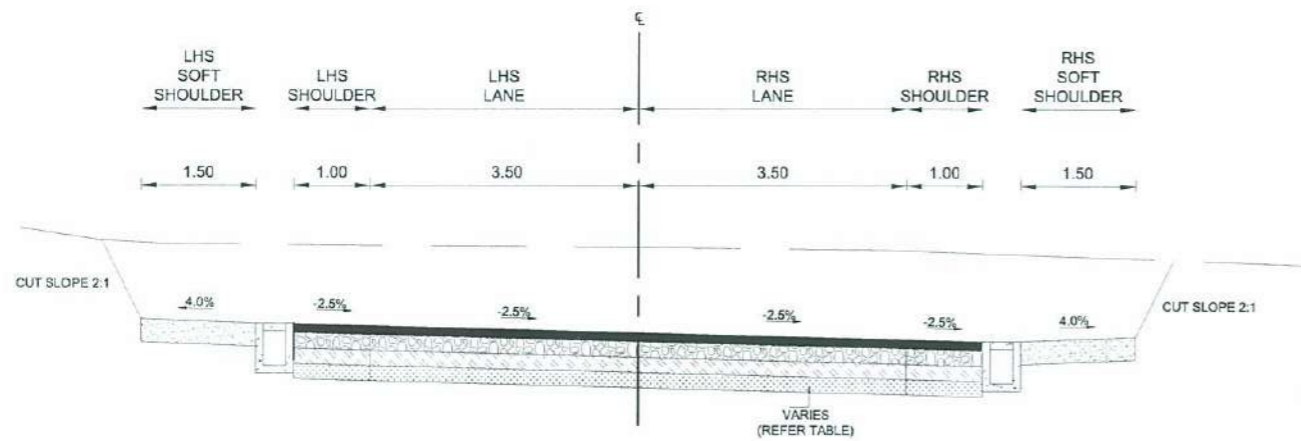


TS R4 : TYPICAL SECTION FOR SINGLE LANE RAMP - RHS CUT & LHS FILL

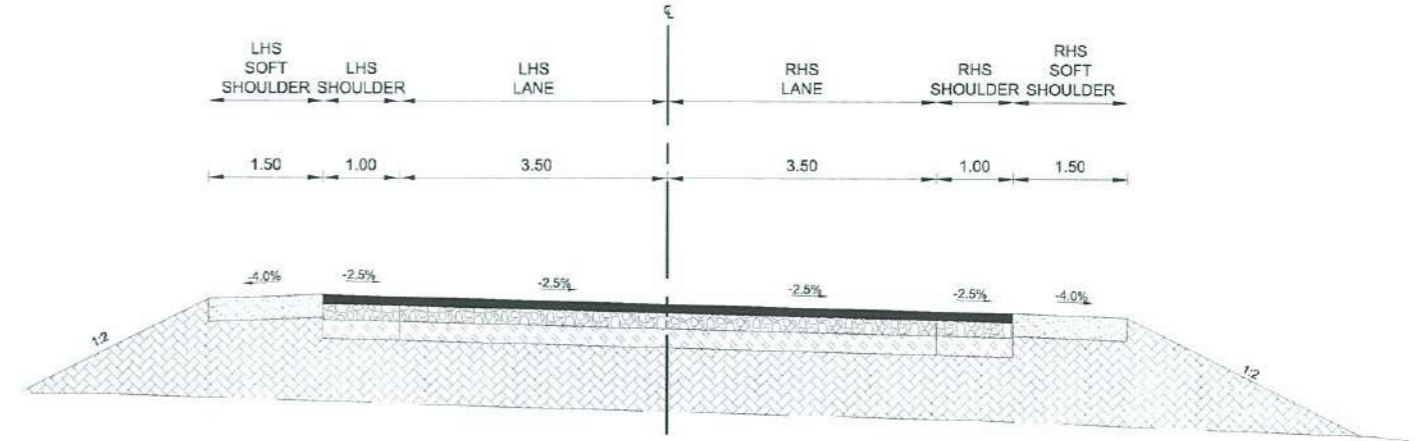
- NOTES
- 1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - 2) TYPICAL FILL AND CUT SLOPES ARE 1:2 & 2:1 RESPECTIVELY.

Handwritten signature/initials

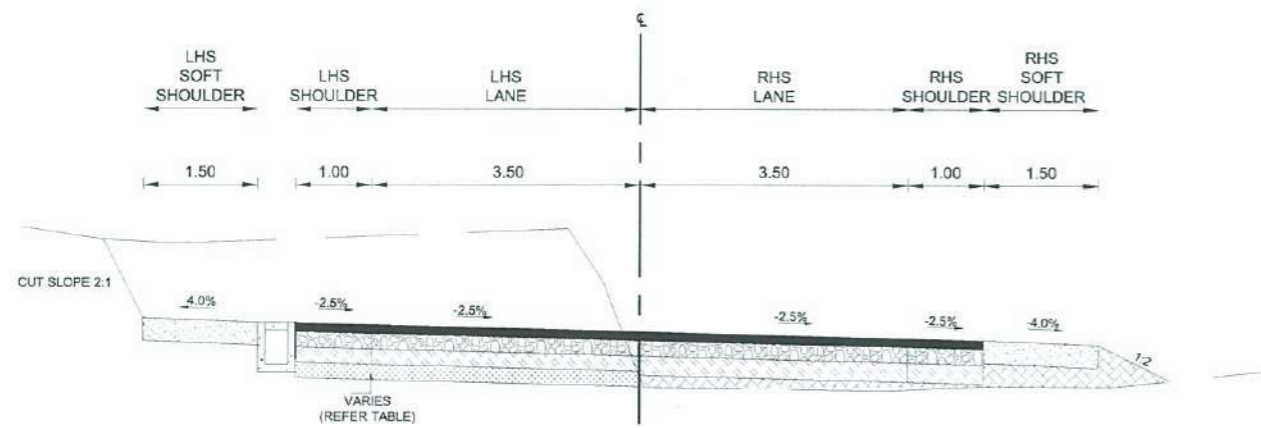




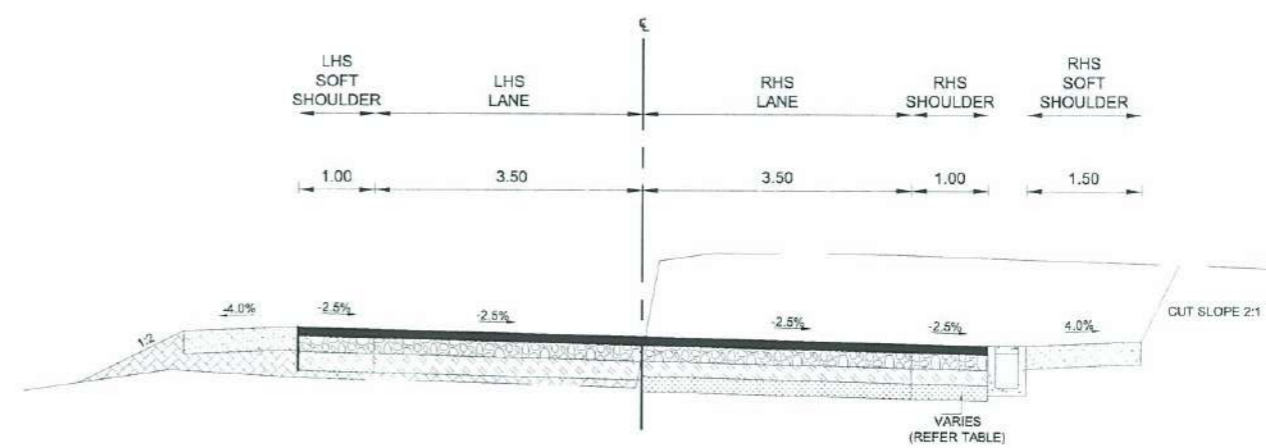
TS R5 : TYPICAL SECTION FOR TWO LANE ONE WAY RAMP BOTH SIDE CUT



TS R6 : TYPICAL SECTION FOR TWO LANE ONE WAY RAMP WITH BOTH SIDE FILL



TS R7 : TYPICAL SECTION FOR TWO LANE ONE WAY RAMP - LHS CUT & RHS FILL

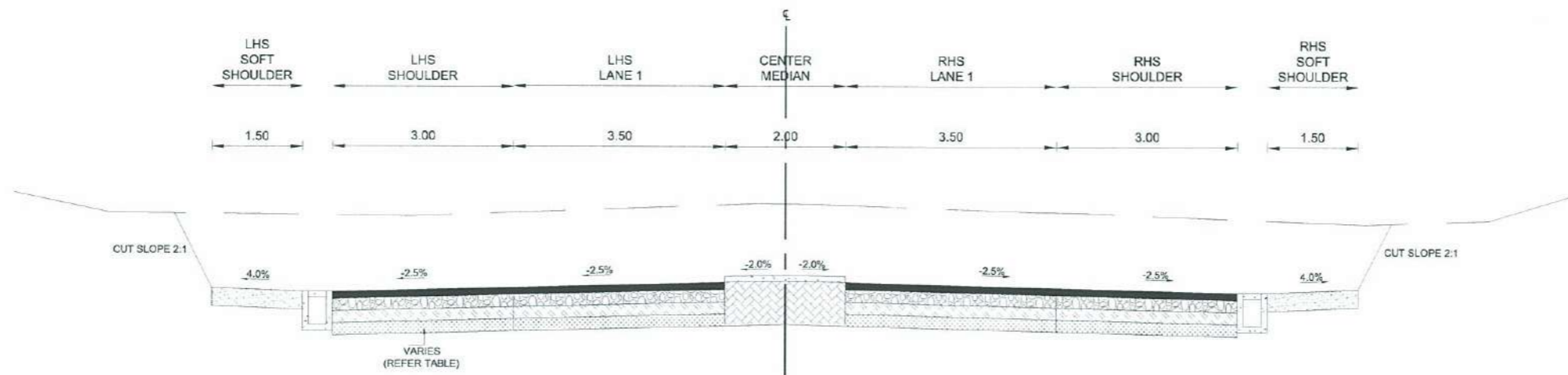


TS R8 : TYPICAL SECTION FOR TWO LANE ONE WAY RAMP - RHS CUT & LHS FILL

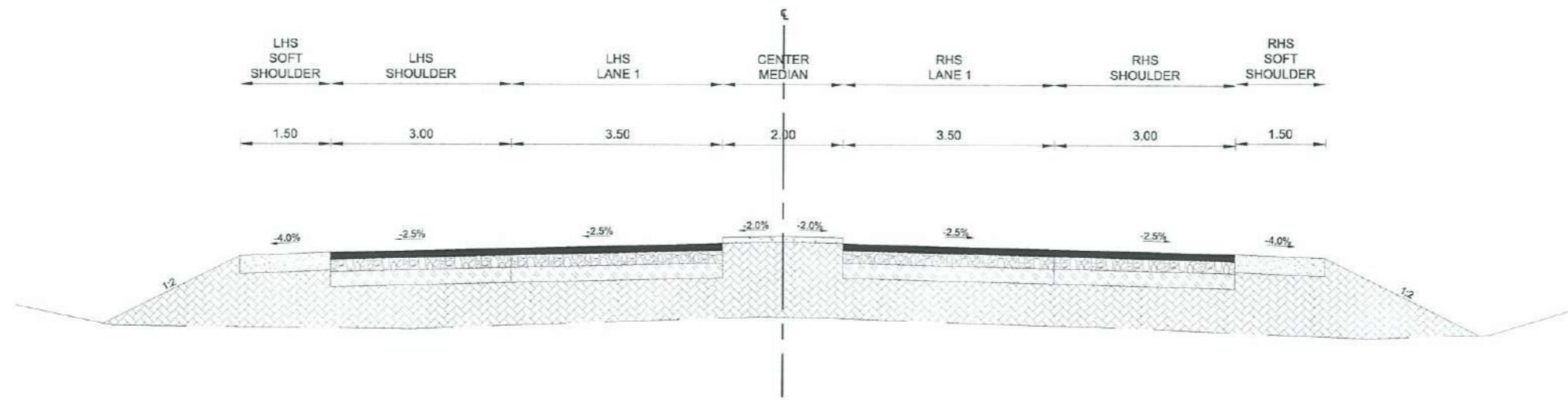
- NOTES
- 1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - 2) TYPICAL FILL AND CUT SLOPES ARE 1:2 & 2:1 RESPECTIVELY.

Handwritten signature/initials





TS R9 :TYPICAL SECTION FOR TWO LANE TWO WAY RAMP - BOTH SIDE CUT

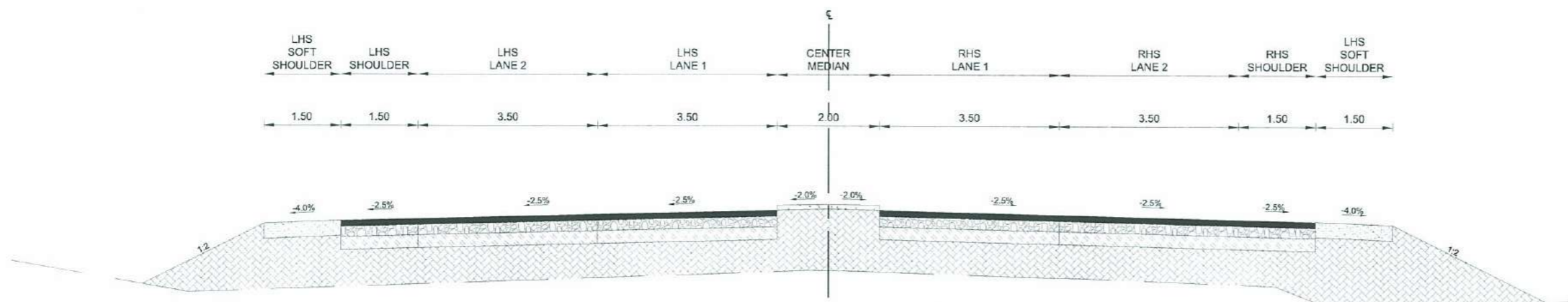


TS R10 :TYPICAL SECTION FOR TWO LANE TWO WAY RAMP - BOTH SIDE FILL

- NOTES
- 1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - 2) TYPICAL FILL AND CUT SLOPES ARE 1:2 & 2:1 RESPECTIVELY.

Handwritten initials/signature





TS R11 :TYPICAL SECTION FOR FOUR LANE TWO WAY RAMP

- NOTES
- 1) ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 - 2) TYPICAL FILL AND CUT SLOPES ARE 1:2 & 2:1 RESPECTIVELY.

Handwritten signature/initials

HAMBANTOTA HUB DEVELOPMENT PROJECT
EXTENSION TO SOUTHERN EXPRESS WAY FROM WETIYA TO ANDARAWEWA
SECTION 3

08



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 14-08-2013

TYPICAL CROSS SECTIONS FOR FOUR LANE TWO WAY RAMP

SCALE - 1:100

DRG.No. : DD/FWD/SP/ISE/GD/IC-IFS/1/1.4/004



**GOVERNMENT OF DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS**

ROAD DEVELOPMENT AUTHORITY

VOLUME - 4

PART - 2

**HAMBANTHOTA HUB DEVELOPMENT PROJECT
EXTENSION OF SOUTHERN EXPRESSWAY FROM WETIYA TO ANDARAWEWA**

SECTION 3- 15KM

PRELIMINARY STRUCTURAL DESIGNS

**Design Office (Central Province)
Road Development Authority
S.W.R.D. Bandaranayake Mawatha
Kandy**

AUGUST 2013

BN &

CONTENTS

1.0 Key Plan - Section 3 (Ch 56+000 to Ch 71+000)

2.0 Layout Plans

2.1 Length -I (Ch 56+000 to Ch 57+000)

2.2 Length -II (Ch 57+000 to Ch 58+800)

2.3 Length -III (Ch 58+800 to Ch 66+900)

2.4 Length -IV (Ch 66+900 to Ch 68+400)

2.5 Length -V (Ch 68+400 to Ch 71+000)

3/1/2

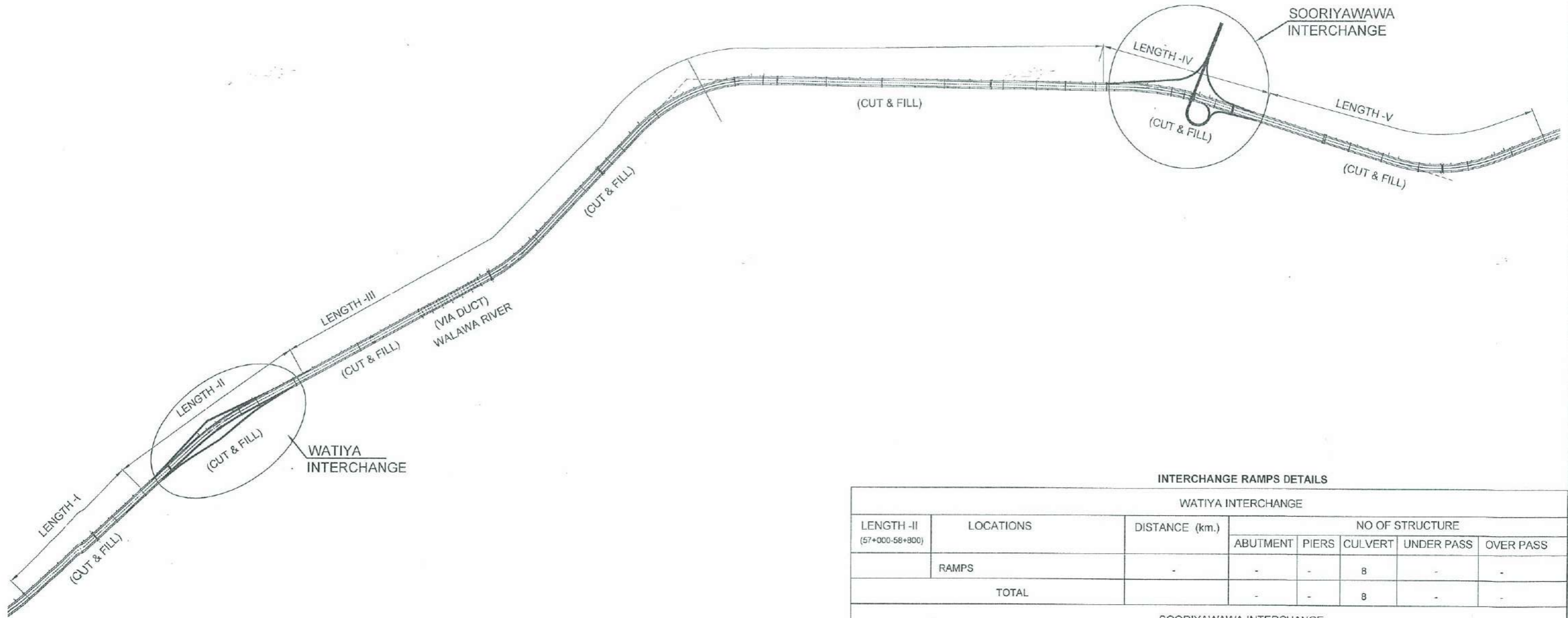
3.0 Typical Drawings

- 3.1 Typical General Arrangement of Via Duct
- 3.2 Typical Cross Sections of Via Duct
- 3.3 Typical General Arrangement of Overpass Bridges, Underpass Bridges and River Bridges
- 3.4 Deck Concrete Outline - Via Duct, Underpass Bridges and River Bridges
- 3.5 Deck Concrete Outline - Overpass Bridges
- 3.6 30m Beam
- 3.7 25m Beam
- 3.8 20m Beam
- 3.9 Deck Continuation Details (Slab Post Tensioning Over Support)
- 3.10 Abutment - Via Duct, Underpass Bridges and River Bridges
- 3.11 Abutments - Overpass
- 3.12 Approach Slab - Via Duct, Underpass Bridges and River Bridges
- 3.13 Approach Slab - Overpass
- 3.14 Pier Concrete Outline - Type 01
- 3.15 Pier Concrete Outline - Type 02
- 3.16 Box Type Vehicular Underpass
- 3.17 Typical Culvert Detail
- 3.18 Typical Pile Detail

3/12/2

MAIN ROAD DETAILS

LENGTH	CHAIANGE	DISTANCE (km.)	NO OF STRUCTURE				
			ABUTMENT	PIERS	CULVERT	UNDER PASS	OVER PASS
I	56+000-57+000	1.000	-	-	2	1	-
II	57+000-58+800	1.800	4	2	3	1	-
III	58+800-66+900	8.100	6	38	15	2	2(A-4,P-2)
IV	66+900-68+400	1.500	2	-	6	1	-
V	68+400-71+000	2.600	-	-	5	1	1(A-4,P-2)
TOTAL		15	12	40	31	6	-



INTERCHANGE RAMPS DETAILS

WATIYA INTERCHANGE							
LENGTH -II (57+000-58+800)	LOCATIONS	DISTANCE (km.)	NO OF STRUCTURE				
			ABUTMENT	PIERS	CULVERT	UNDER PASS	OVER PASS
	RAMPS	-	-	-	8	-	-
TOTAL			-	-	8	-	-
SOORIYAWAWA INTERCHANGE							
LENGTH -IV (66+900-68+500)	LOCATIONS	DISTANCE (km.)	NO OF STRUCTURE				
			ABUTMENT	PIERS	CULVERT	UNDER PASS	OVER PASS
	RAMPS	-	-	-	10	-	-
TOTAL			-	-	10	-	-

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

KEY PLAN

01



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

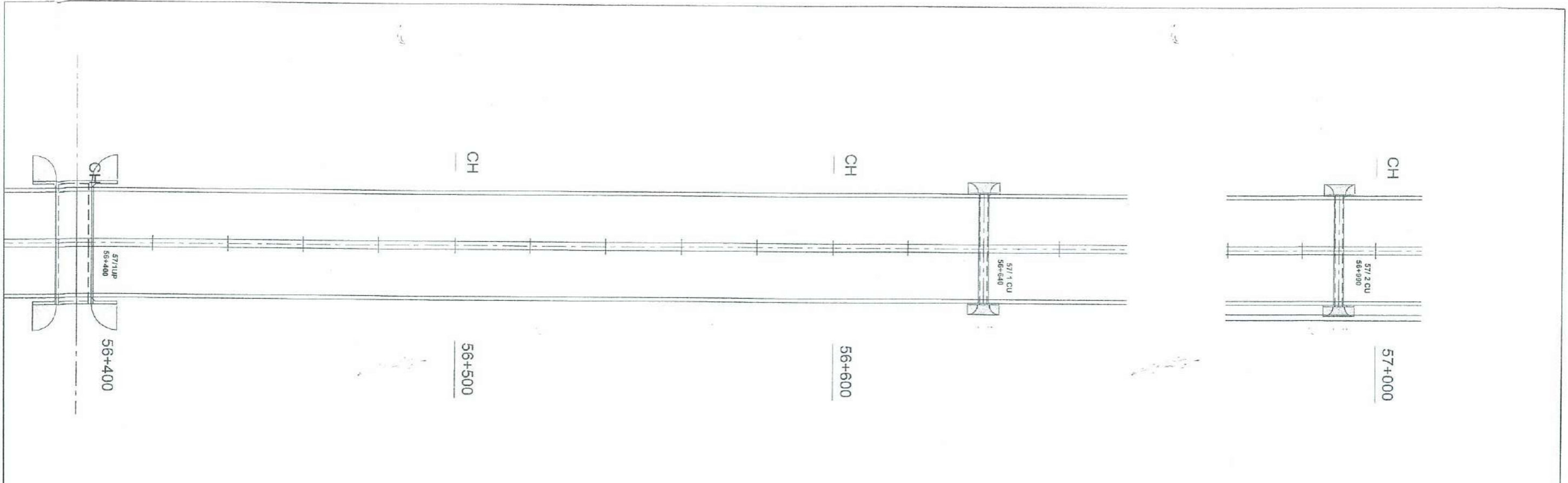
Handwritten signature/initials



DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 04-07-2013

DRG.No. : DD-PWD-SP-ESE-ST-EW-FS-S3-GA-000



Structure No	Chainage	Road Class	Structure height (m)	Structure Length (m)
57/1 UP	56+400	C	7.725	28.0

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
57/1 CU	56+640	BOX	2X2	2.560	36.840
57/2 CU	56+990	BOX	2X2	3.760	41.640

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH I - 56+000- 57+000

STRUCTURE LOCATION (CH 56+400 TO CH 57+000)

02



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

SN

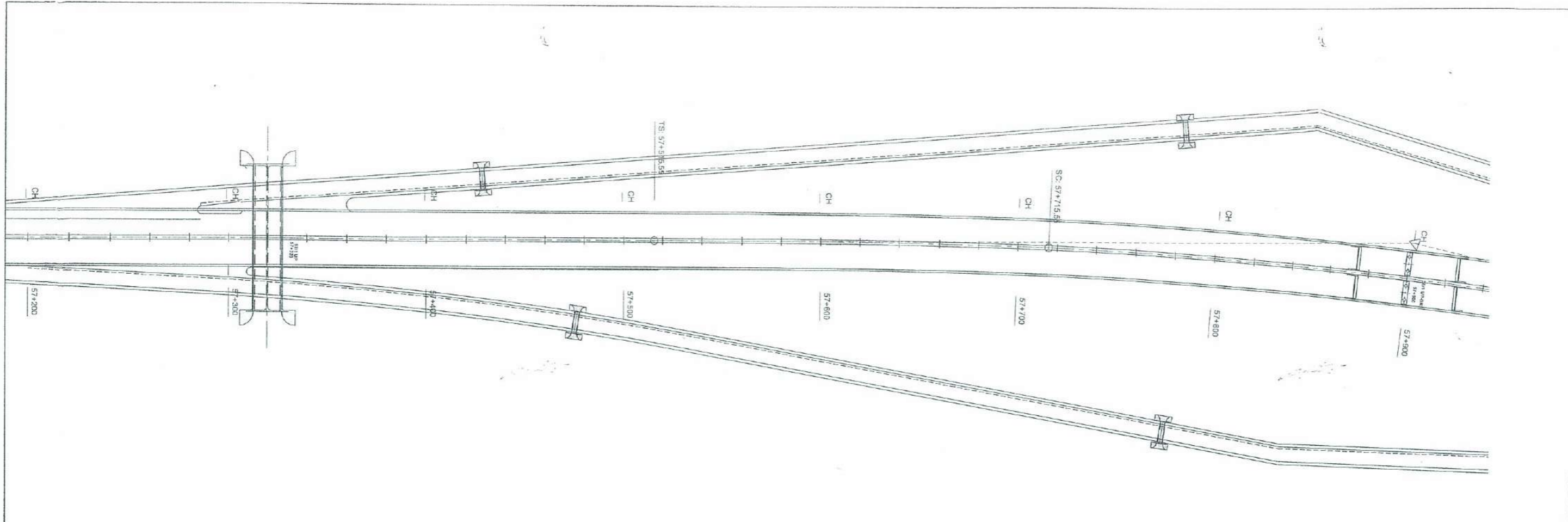


DESIGN OFFICE (C.P.)
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234287 email : docp@rda.gov.lk

DATE : 09-07-2013

Sheet 01 of 01

DRG.No. : DD-FWD-SP-ESE-ST-EW-FS-S3-GA-001



Structure.No	Location	Road Class	Structure	Hieght
58/1 UP-BR	57+900	B2	A1	6.2
			A2	6.2
			P	6.2
			w.wall	
			deck & diph	
		aprch. slab		

IC / Cul No	Type	Size (m)	Fill height (H)	Structure Length (m)
Watiya 1	BOX	2x2	3.0	22.5
Watiya 2	BOX	2X2	3.0	22.5
Watiya 3	BOX	2X2	3.0	22.5
Watiya 4	BOX	2X2	3.0	22.5

Structure. No	Chainage	Road Class	Structure hieght (m)	Structure Length (m)
58/1 UP	57+320	E	7.725	58.0

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH II - 57+000-58+800 [WATIYA INTERCHANGE]

STRUCTURE LOCATION (CH 57+200 TO CH 57+900)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 email: docp@rdg.gov.lk

DATE: 09-07-2013

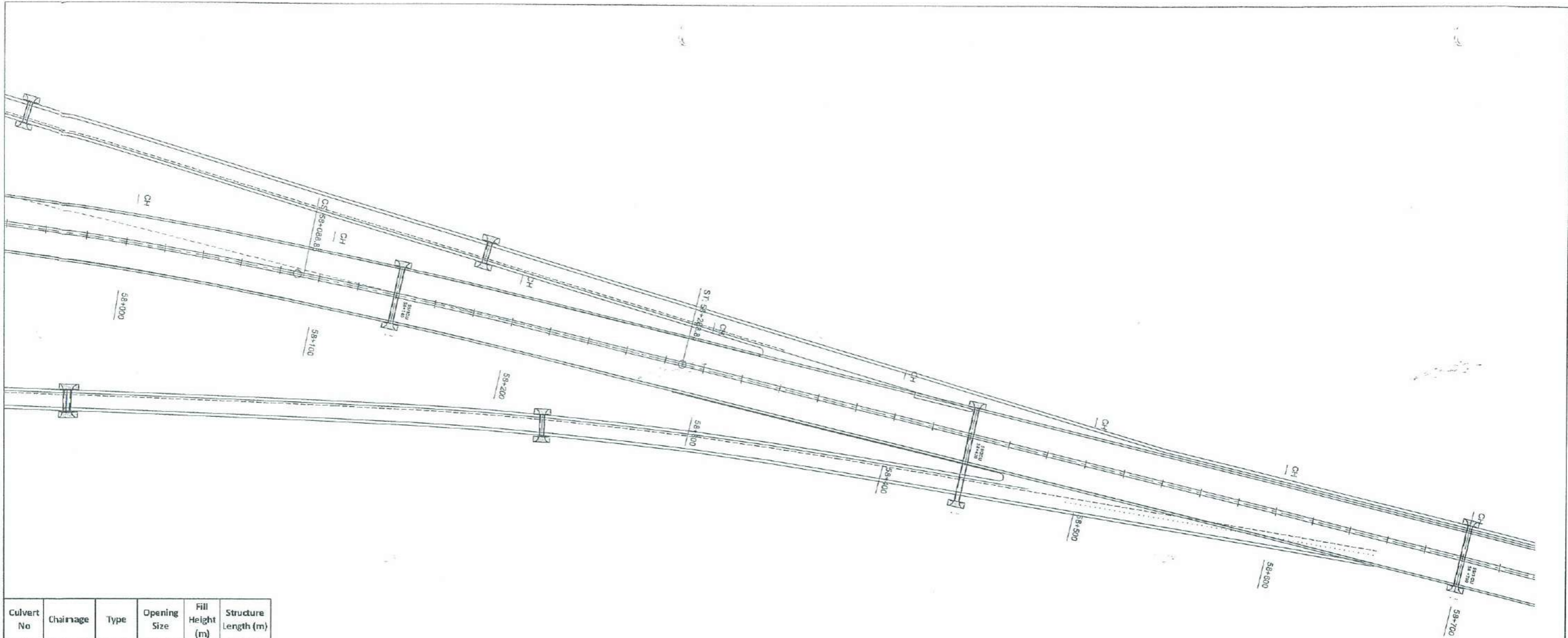
Sheet 01 of 02

DRG.No.: DD-FWD-SP-ESE-ST-EW-FS-S3-GA-002

32

J

03



Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
59/1 CU	58+140	BOX	2X2	5.900	54.200
59/2 CU	58+420	BOX	2X2	1.800	33.800
59/3 CU	58+700	BOX	2X2	1.400	32.200

IC / Cul No	Type	Size (m)	Fill height (H)	Structure Length (m)
Watiya 5	BOX	2X2	5.0	30.5
Watiya 6	BOX	2X2	5.0	30.5
Watiya 7	BOX	2X2	5.0	30.5
Watiya 8	BOX	2X2	5.0	30.5

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH II -57+000-58+800 [WATIYA INTERCHANGE]

STRUCTURE LOCATION (CH 58+000 TO CH 58+700)

04

Handwritten signature/initials



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

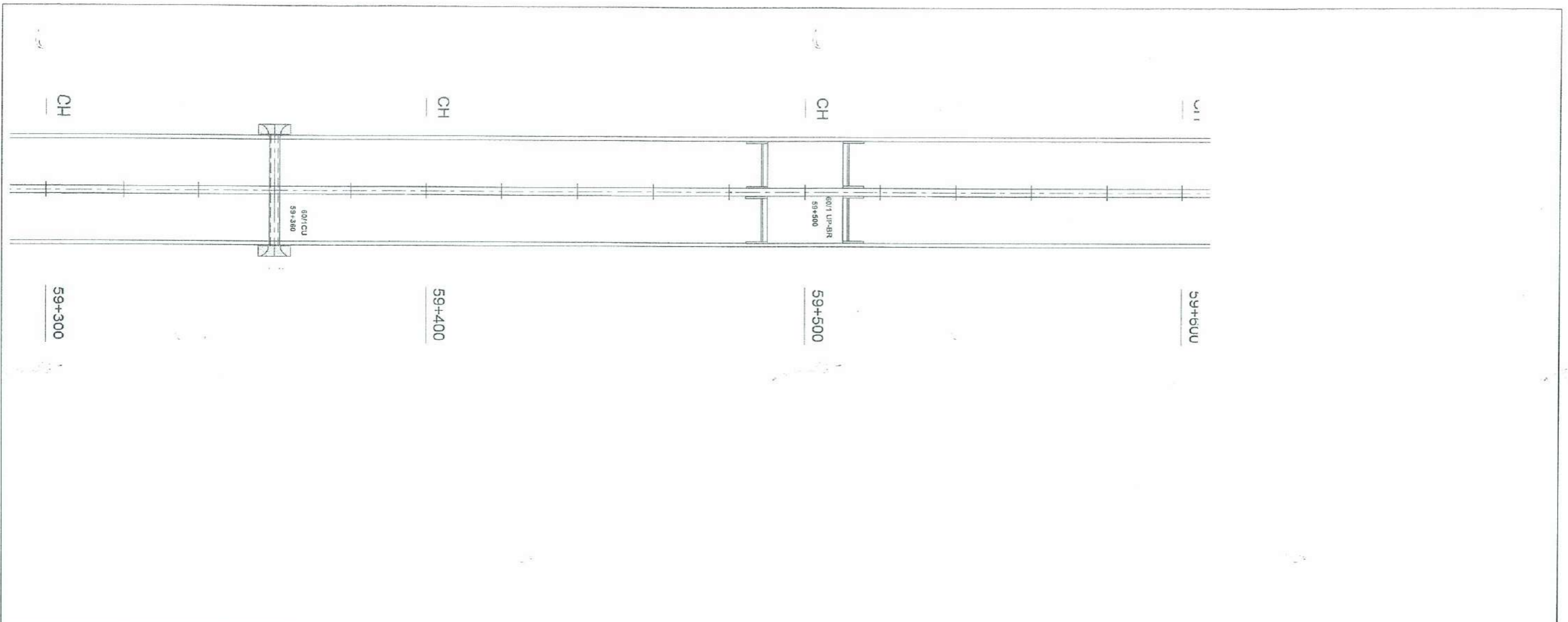


DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 e-mail: docp@rda.gov.lk

DATE: 09-07-2013

Sheet 02 of 02

DRG.No : DD-FWD-SP-ESE-ST-EW-FS-S3-CA-002



Structure.No	Location	Road Class	Structure	Hieght
60/1 UP-BR	59+500	D	A1	6.2
			A2	6.2
			w.wall	
			deck & diph	
			aprch. slab	

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
60/1 CU	59+360	BOX	2X2	4.100	43.000

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III -58+800-66+900

STRUCTURE LOCATION (CH 59+300 TO CH 59+600)

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

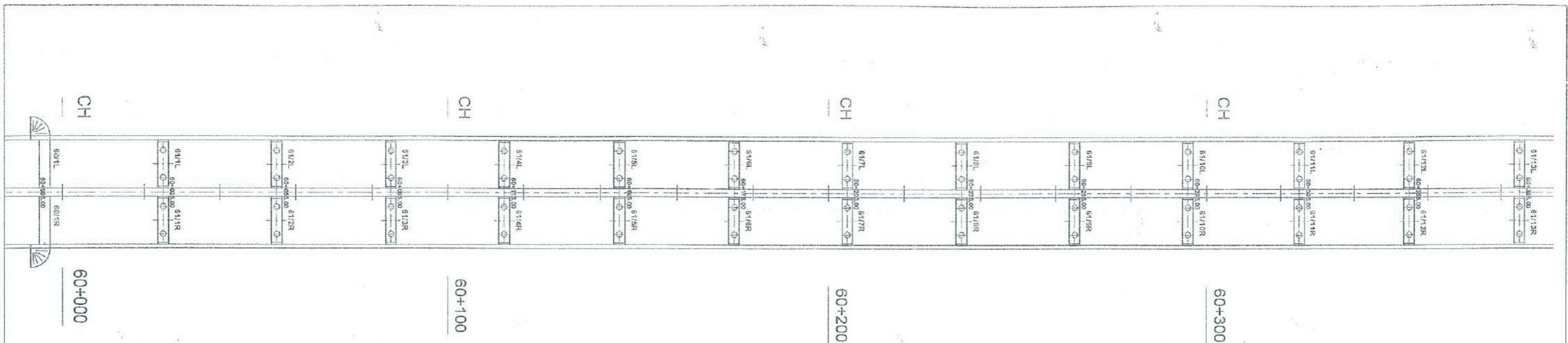
DATE: 09-07-2013

DRG.No.: DD-FWD-SP-ESE-ST-EWFS-S3-GA-003

Sheet 01 of 06

Handwritten signature/initials

05



Structure No	Structure Location (Change)	Type of structure	Structure Height(m)	Structure Width (m)
60/1L	59+995	Abutment	7.516	12.3
60/1R	59+995	Abutment	7.516	12.3
61/1L	60+025	Pier	7.758	12.3
61/1R	60+025		7.758	12.3
61/2L	60+055	Pier	7.999	12.3
61/2R	60+055		7.999	12.3
61/3L	60+085	Pier	8.432	12.3
61/3R	60+085		8.432	12.3
61/4L	60+115	Pier	9.137	12.3
61/4R	60+115		9.137	12.3
61/5L	60+145	Pier	9.82	12.3
61/5R	60+145		9.82	12.3
61/6L	60+175	Pier	10.477	12.3
61/6R	60+175		10.477	12.3
61/7L	60+205	Pier	10.371	12.3
61/7R	60+205		10.371	12.3
61/8L	60+235	Pier	9.741	12.3
61/8R	60+235		9.741	12.3
61/9L	60+265	Pier	8.881	12.3
61/9R	60+265		8.881	12.3
61/10L	60+295	Pier	8.009	12.3
61/10R	60+295		8.009	12.3
61/11L	60+325	Pier	7.634	12.3
61/11R	60+325		7.634	12.3
61/12L	60+355	Pier	7.828	12.3
61/12R	60+355		7.828	12.3
61/13L	60+385	Pier	9.022	12.3
61/13R	60+385		9.022	12.3

**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

STRUCTURE ARRANGEMENT /LENGTH III -58+800-61+000 [WALAWA RIVER (VIA DUCT)]

STRUCTURE LOCATION (CH 59+995 TO CH 60+385)

06



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



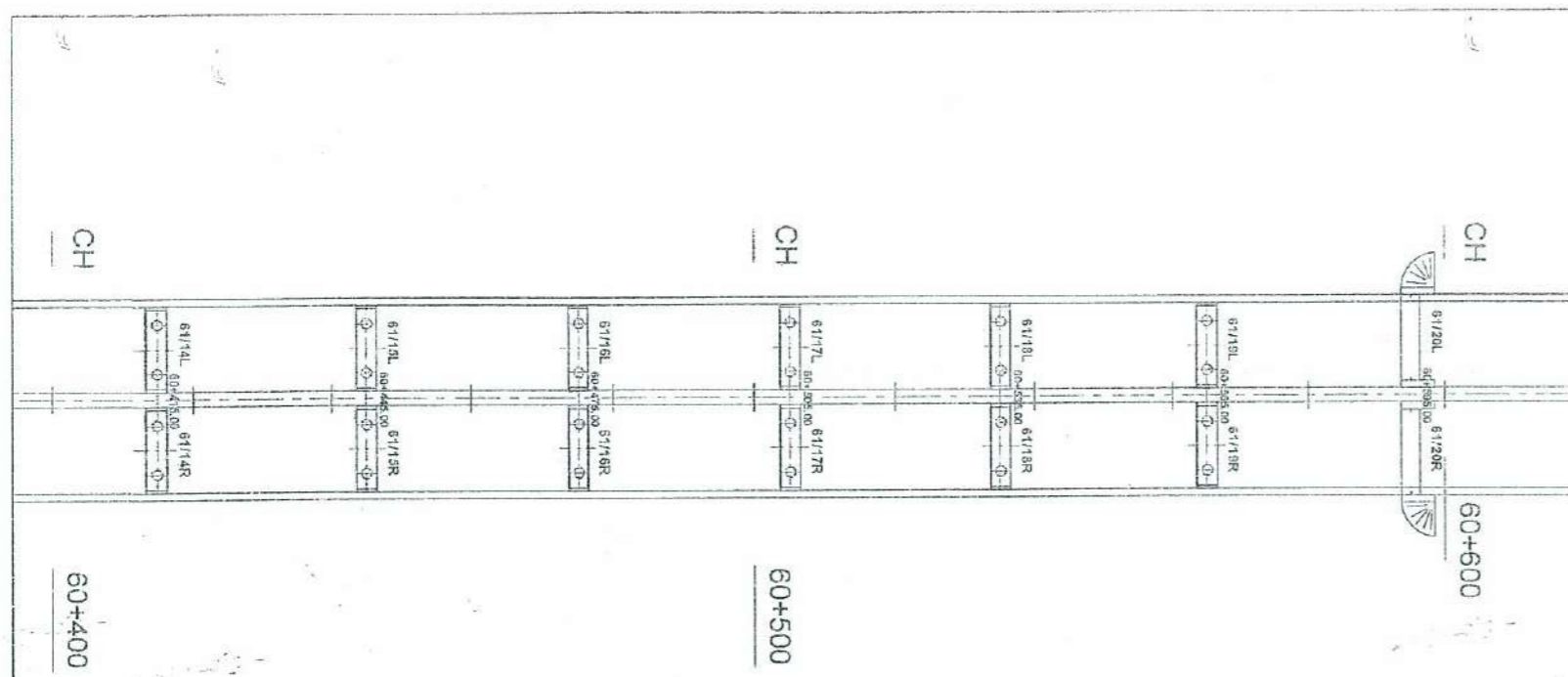
DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 09-07-2013

Sheet 02 of 05

DRG.No. : DD-FWD-SP-ESE-ST-EWFS-93-GA-003

Handwritten initials/signature



Structure No	Structure Location (Change)	Type of structure	Structure Height(m)	Structure Width (m)
61/14L 61/14R	60+415 60+415	Pier	8.216 8.216	12.3 12.300
61/15L 61/15R	60+445 60+445	Pier	4.745 4.745	12.3 12.3
61/16L 61/16R	60+475 60+475	Pier	6.848 6.848	12.3 12.3
61/17L 61/17R	60+505 60+505	Pier	5.706 5.706	12.3 12.3
61/18L 61/18R	60+535 60+535	Pier	6.726 6.726	12.3 12.3
61/19L 61/19R	60+565 60+565	Pier	7.579 7.579	12.3 12.3
61/20L 61/20R	60+595 60+595	Abutment Abutment	7.369 7.369	12.3 12.3

Handwritten signature/initials

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III - 58+800-66+900- [WALAWA RIVER (VIA DUCT)]

STRUCTURE LOCATION (CH 60+415 TO CH 60+595)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

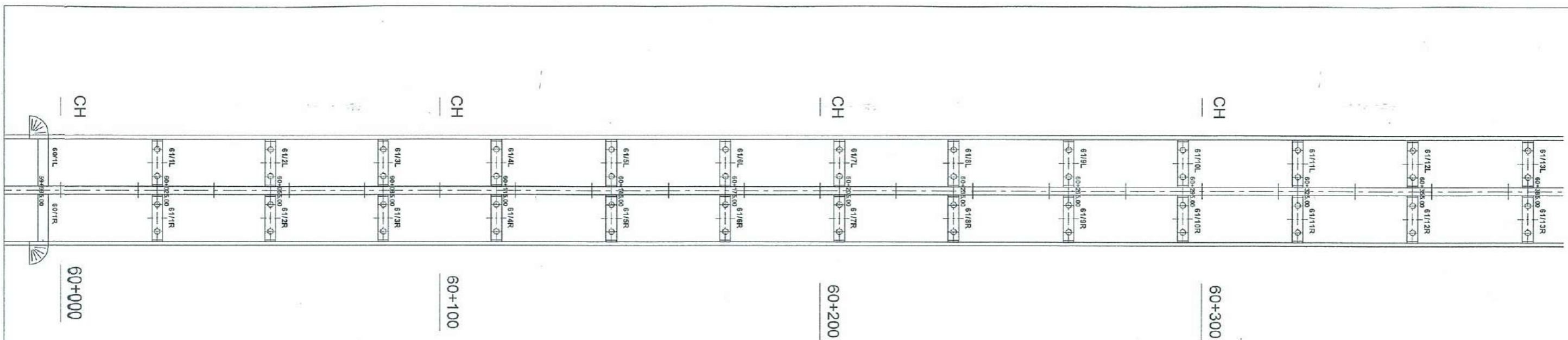


DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA KANDY
TEL. 0812234267 FAX. 0812234267 email dcoo@rdagov.lk

DATE: 09-07-2013

Sheet 03 of 05

DRG.No.: DD-FWD-SP-ESE-ST-EWFS-S3-GA-003



StructureNo	Structure location (Change)	Type of structure	Structure Height(m)	Structure Width (m)
60/1L	59+995	Abutment	7.516	12.3
60/1R	59+995	Abutment	7.516	12.3
61/1L	60+025	Pier	7.758	12.3
61/1R	60+025		7.758	12.3
61/2L	60+055	Pier	7.999	12.3
61/2R	60+055		7.999	12.3
61/3L	60+085	Pier	8.432	12.3
61/3R	60+085		8.432	12.3
61/4L	60+115	Pier	9.137	12.3
61/4R	60+115		9.137	12.3
61/5L	60+145	Pier	9.82	12.3
61/5R	60+145		9.82	12.3
61/6L	60+175	Pier	10.477	12.3
61/6R	60+175		10.477	12.3
61/7L	60+205	Pier	10.371	12.3
61/7R	60+205		10.371	12.3
61/8L	60+235	Pier	9.741	12.3
61/8R	60+235		9.741	12.3
61/9L	60+265	Pier	8.881	12.3
61/9R	60+265		8.881	12.3
61/10L	60+295	Pier	8.009	12.3
61/10R	60+295		8.009	12.3
61/11L	60+325	Pier	7.634	12.3
61/11R	60+325		7.634	12.3
61/12L	60+355	Pier	7.828	12.3
61/12R	60+355		7.828	12.3
61/13L	60+385	Pier	9.022	12.3
61/13R	60+385		9.022	12.3

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT /LENGTH III -58+800-61+000 [WALAWA RIVER (VIA DUCT)]

STRUCTURE LOCATION (CH 59+995 TO CH 60+385)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL. 0812234267 FAX. 0812234267 email: docp@rdag.gov.lk

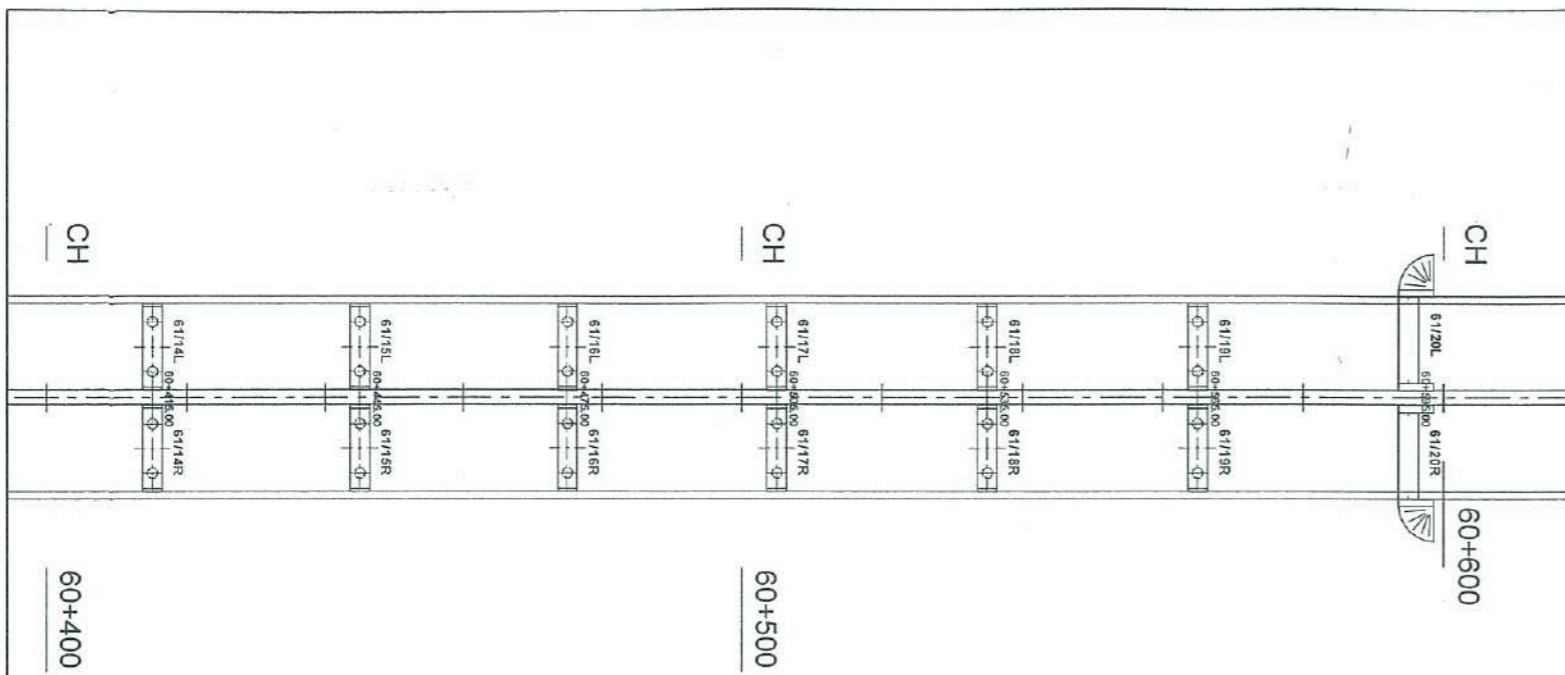
DATE: 09-07-2013

Sheet 02 of 06

DRG.No.: DD-FWD-SP-ESE-ST-EWFS-93-GA-003

Signature

08



StructureNo	Structure Location (Change)	Type of structure	Structure Height(m)	Structure Width (m)
61/14L	60+415	Pier	8.216	12.3
61/14R	60+415		8.216	12300
61/15L	60+445	Pier	4.745	12.3
61/15R	60+445		4.745	12.3
61/16L	60+475	Pier	6.848	12.3
61/16R	60+475		6.848	12.3
61/17L	60+505	Pier	5.706	12.3
61/17R	60+505		5.706	12.3
61/18L	60+535	Pier	6.726	12.3
61/18R	60+535		6.726	12.3
61/19L	60+565	Pier	7.579	12.3
61/19R	60+565		7.579	12.3
61/20L	60+595	Abutment	7.369	12.3
61/20R	60+595	Abutment	7.369	12.3

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III - 58+800-66+900- [WALAWA RIVER (VIA DUCT)]

STRUCTURE LOCATION (CH 60+415 TO CH 60+595)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS



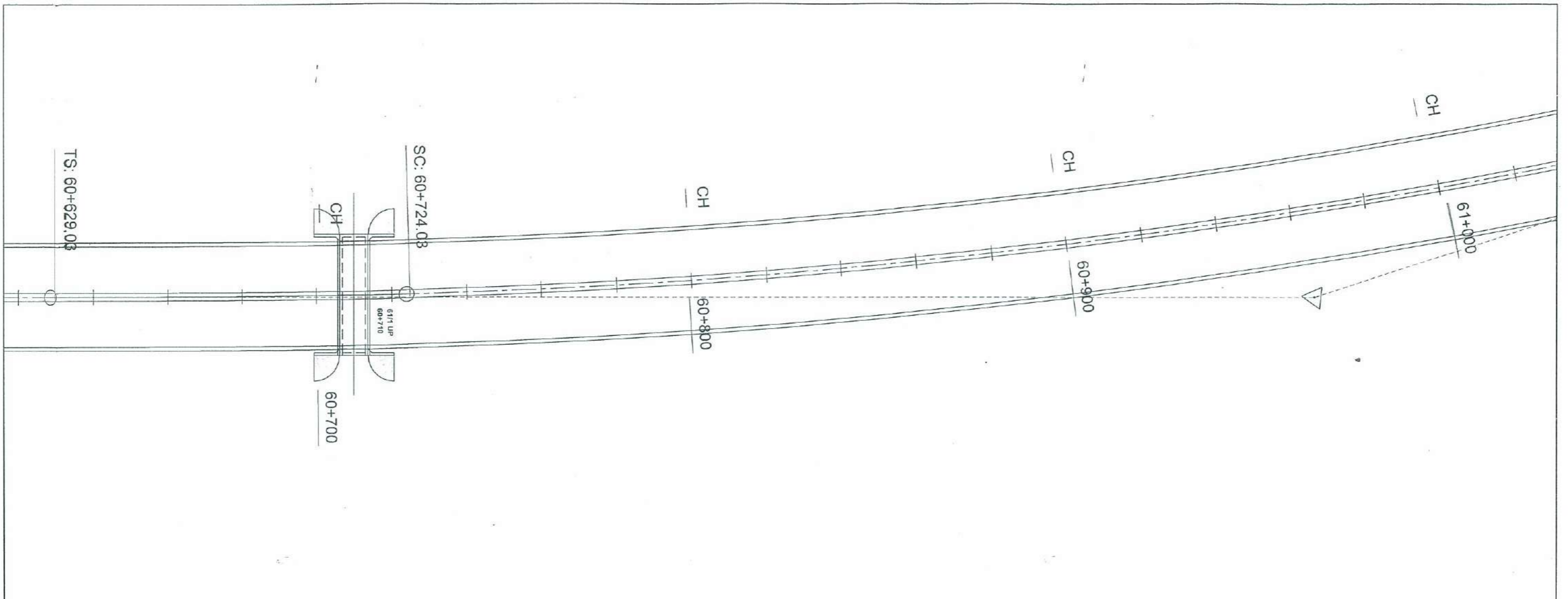
DESIGN OFFICE (C.P.)
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA KANDY
 TEL: 0812234267 FAX: 0812234267 email: doep@rda.gov.lk

DATE: 09-07-2013

Sheet 03 of 06

DRG.No.: DO-FWD-SP-ESE-ST-EWFS-S3-GA-003

Shi



Structure No	Chainage	Road Class	Structure height (m)	Structure Length (m)
61/1 UP	60+710	C	7.725	28.0

Handwritten signature/initials

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III - 58+800-66+900

STRUCTURE LOCATION (CH 60+630 TO CH 61+000)

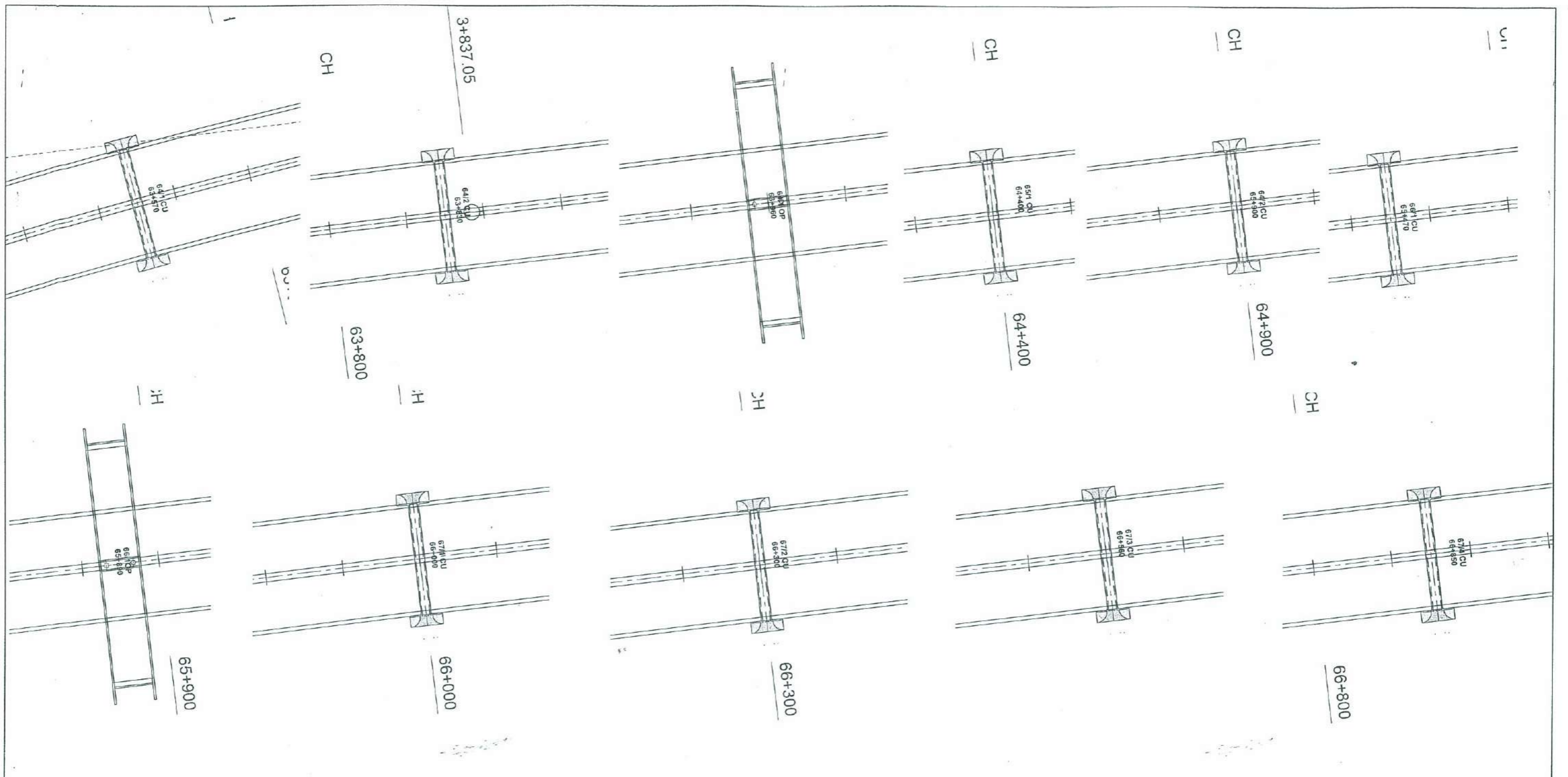


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA KANDY
 TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

DATE: 09-07-2013
 DRG No. DD-FWD-SP-ESE-ST-EW-FS-S3GA-003
 Sheet 04 of 06



Structure No	Location	Road Class	Structure	Height (m)	
64/1 OP	63+960	C	A1	6.2	
			A2	6.2	
			P1	6.2	
				w.wall	
				deck & diph	
				aprch slab	
66/1 OP	65+890	C	A1	6.2	
			A2	6.2	
			P1	6.2	
				w.wall	
				deck & diph	
				aprch slab	

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
64/1 CU	63+570	BOX	2X2	0.400	28.200
64/2 CU	63+830	BOX	2X2	0.500	28.600
65/1 CU	64+400	BOX	2X2	4.660	49.240
65/2 CU	64+900	BOX	2X2	3.400	40.200
66/1 CU	65+470	BOX	2X2	5.500	52.600
67/1 CU	66+000	BOX	2X2	3.600	41.000
67/2 CU	66+300	BOX	2X2	2.800	37.800
67/3 CU	66+560	BOX	2X2	3.900	42.200
67/4 CU	66+850	BOX	2X2	5.300	51.800

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO MATTALA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III - CH 58+800 TO CH 66+900

STRUCTURE LOCATION (CH 63+570 TO CH 66+850)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

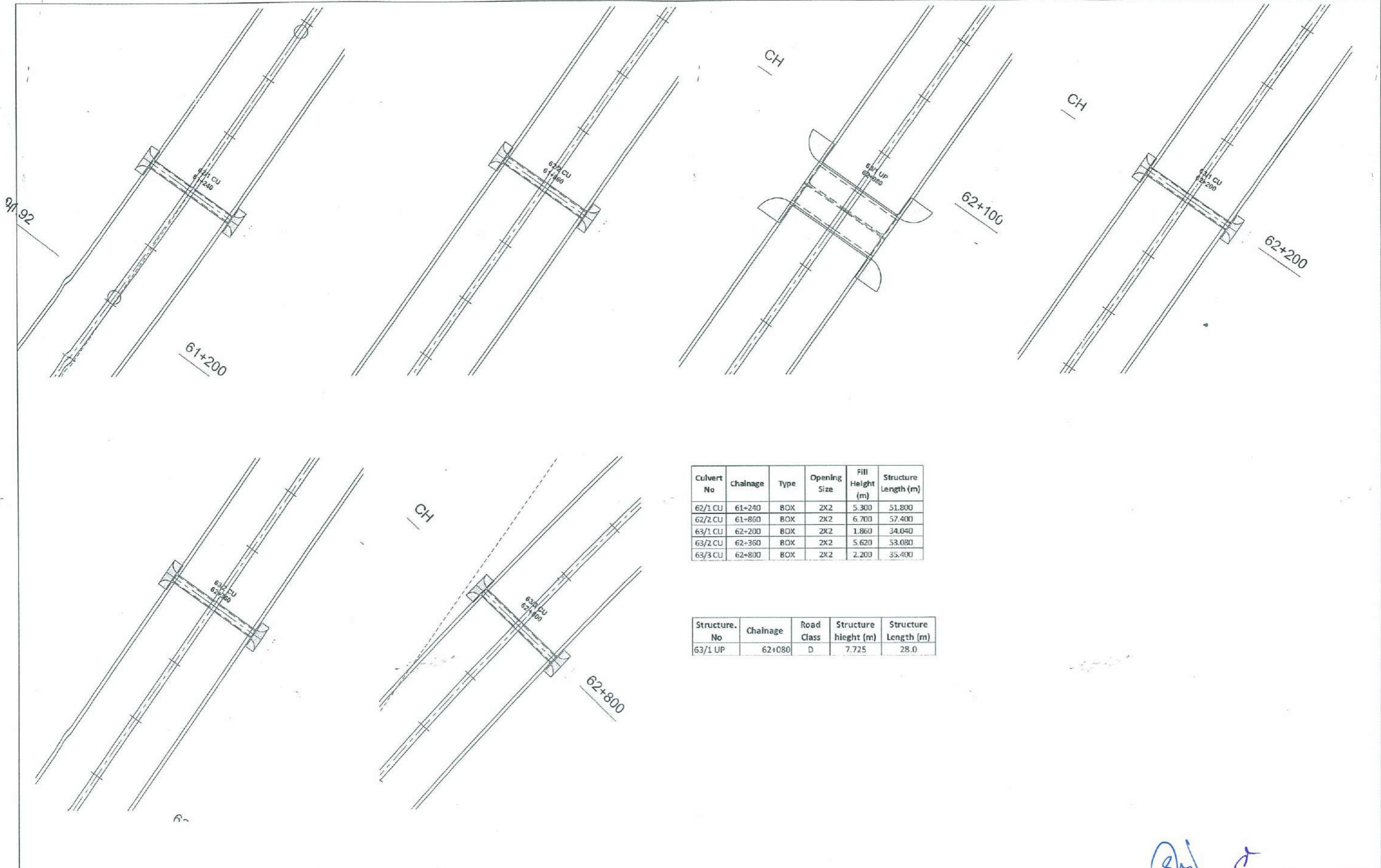
DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 email: doep@rda.gov.lk

DATE: 04-07-2013

Sheet 09 of 06

DRG No.: DD-FWD-SP-ESE-ST-EW-FS-S3-GA-003

Handwritten signature/initials



Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
62/1 CU	61+240	BOX	2X2	5.300	51.800
62/2 CU	61+860	BOX	2X2	6.700	57.400
63/1 CU	62+200	BOX	2X2	1.860	34.040
63/2 CU	62+360	BOX	2X2	5.620	53.080
63/3 CU	62+800	BOX	2X2	2.200	35.400

Structure No	Chainage	Road Class	Structure height (m)	Structure Length (m)
63/1 UP	62+080	D	7.725	28.0

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH III - CH 58+800 TO CH 66+900

STRUCTURE LOCATION (CH 61+200 TO CH 62+800)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

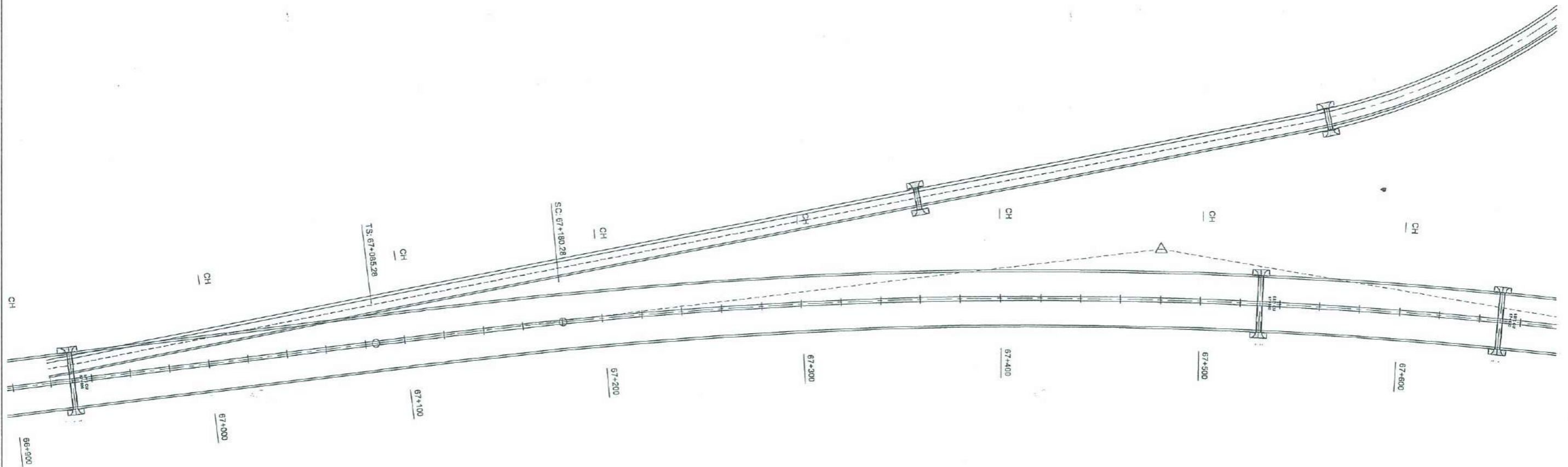


DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

DATE: 04-07-2013 Sheet 05 of 05

DRG No.: DD-FWD-SP-ESE-ST-EWFS-S3-GA-003

Handwritten signature and initials



IC / Cul No	Type	Size (m)	Fill height (H)	Structure Length (m)
Sooriyawawa 1	BOX	2X2	3.0	22.5
Sooriyawawa 2	BOX	2X2	3.0	22.5

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
67/5 CU	66+930	BOX	2X2	6.300	55.800
68/1 CU	67+530	BOX	2X2	7.300	59.800
68/2 CU	67+650	BOX	2X2	5.500	52.600

**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

STRUCTURE ARRANGEMENT / LENGTH IV - CH 66+900 TO CH 68+400 (SOORIYAWEWA INTERCHANGING)

STRUCTURE LOCATION (CH 66+900 TO CH 67+650)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rdagov.lk

DATE: 04-07-2013

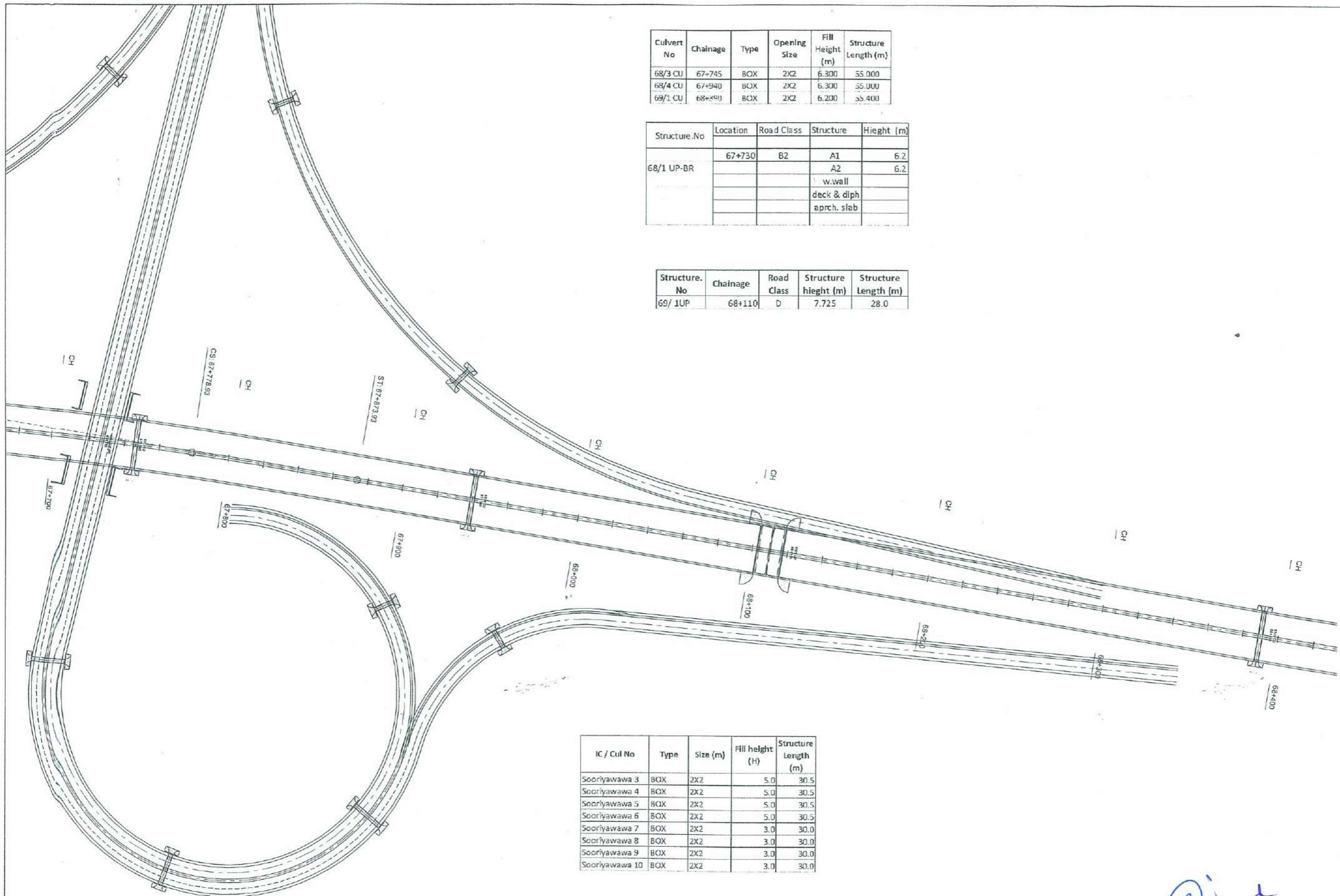
Sheet 01 of 02

DRG No.: DD-FWD-SP-ESE-ST-EW-FS-S3-GA-004

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
68/3 CU	67+745	BOX	2X2	6.300	55.000
68/4 CU	67+940	BOX	2X2	6.300	55.000
69/1 CU	68+200	BOX	2X2	6.200	55.400

Structure.No	Location	Road Class	Structure	Height (m)
68/1 UP-BR	67+730	B2	A1	6.2
			A2	6.2
			w.wall	
			deck & diph	
			aprch. slab	

Structure. No	Chainage	Road Class	Structure height (m)	Structure Length (m)
69/ 1UP	68+110	D	7.725	28.0



IC / Cul No	Type	Size (m)	Fill height (H)	Structure Length (m)
Sooriyawawa 3	BOX	2X2	5.0	30.5
Sooriyawawa 4	BOX	2X2	5.0	30.5
Sooriyawawa 5	BOX	2X2	5.0	30.5
Sooriyawawa 6	BOX	2X2	5.0	30.5
Sooriyawawa 7	BOX	2X2	3.0	30.0
Sooriyawawa 8	BOX	2X2	3.0	30.0
Sooriyawawa 9	BOX	2X2	3.0	30.0
Sooriyawawa 10	BOX	2X2	3.0	30.0

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH IV - CH 66+900 TO CH 68+400 (SOORIYAWEWA INTERCHANGING)

STRUCTURE LOCATION (CH 67+900 TO CH 68+400)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234257 FAX : 0812234257 email : docp@rda.gov.lk

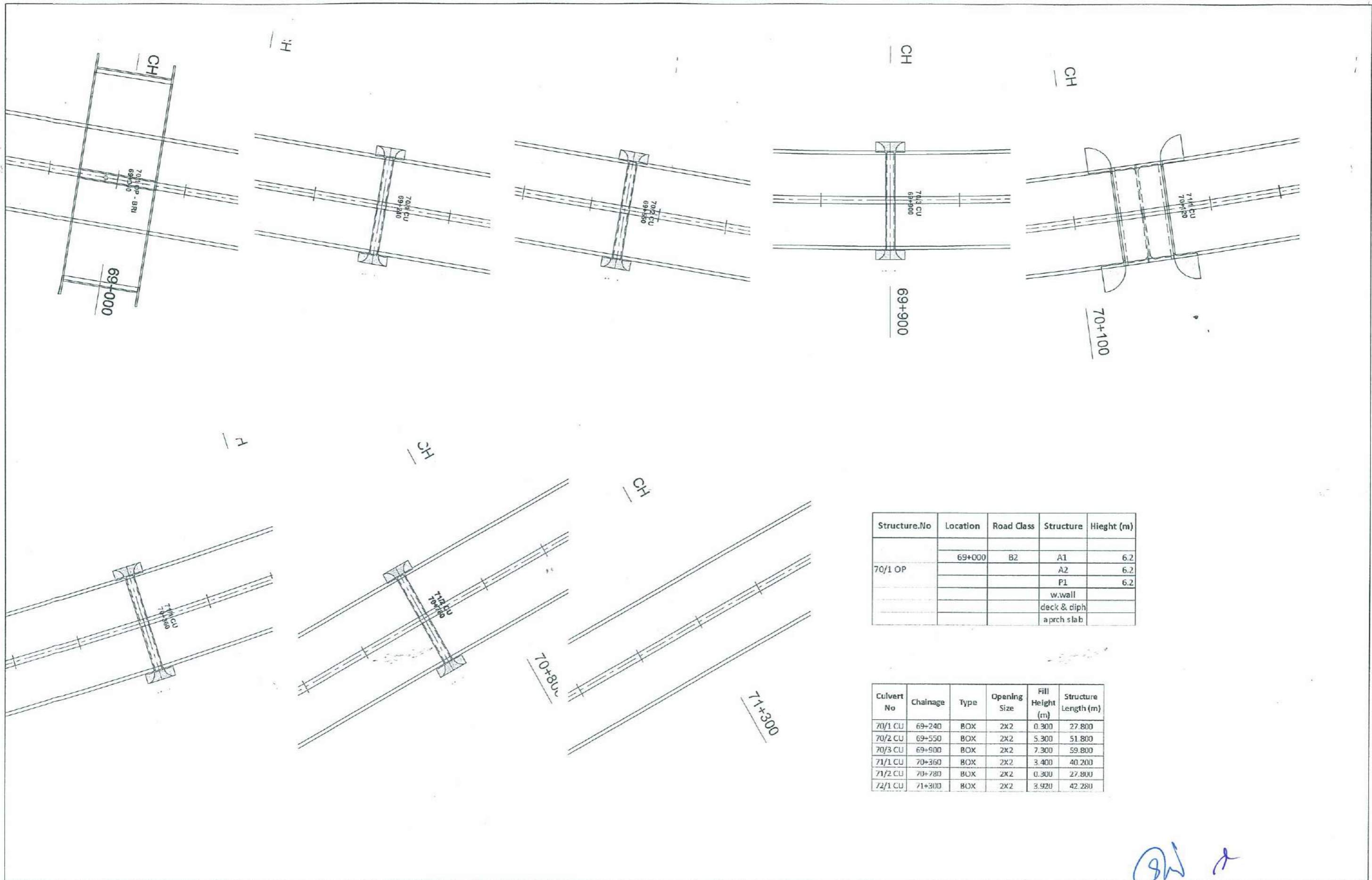
DATE : 04-07-2013

Sheet 02 of 02

DRG No. : DD-FWD-SP-ESE-ST-EW-FS-S3-GA-004

Signature

14



Structure.No	Location	Road Class	Structure	Height (m)
70/1 OP	69+000	B2	A1	6.2
			A2	6.2
			P1	6.2
			w.wall	
			deck & diph	
			aprch slab	

Culvert No	Chainage	Type	Opening Size	Fill Height (m)	Structure Length (m)
70/1 CU	69+240	BOX	2X2	0.300	27.800
70/2 CU	69+550	BOX	2X2	5.300	51.800
70/3 CU	69+900	BOX	2X2	7.300	59.800
71/1 CU	70+360	BOX	2X2	3.400	40.200
71/2 CU	70+780	BOX	2X2	0.300	27.800
72/1 CU	71+300	BOX	2X2	3.920	42.280

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

STRUCTURE ARRANGEMENT / LENGTH V - CH 68+400 TO CH 71+000

STRUCTURE LOCATION (CH 69+000 TO CH 71+300)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

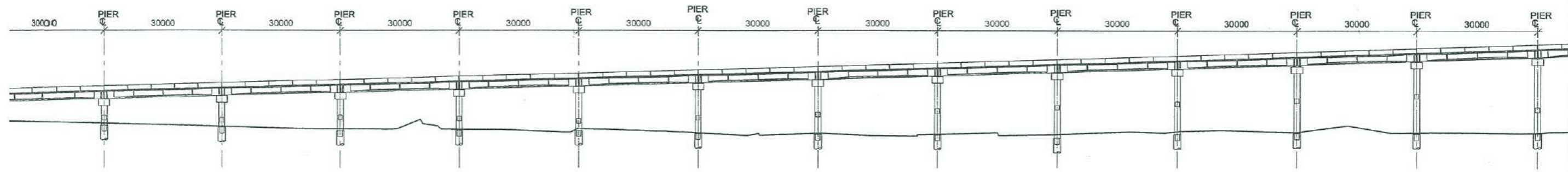
DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL: 0812234267 FAX: 0812234267 email: dooc@rda.gov.lk

DATE: 04-07-2013

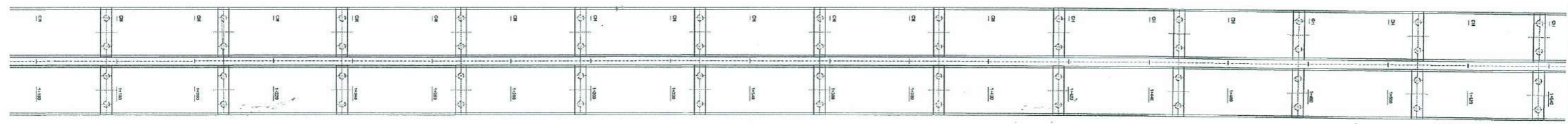
Sheet 01 of 01

DRG No: DD-FWD-SP-ESE-ST-EWFS-83-GA-005

Handwritten initials/signature



LONGITUDINAL SECTION
SCALE: 1:1000



PLAN
SCALE: 1:1000

Handwritten signature

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

VIADUCT -TYPICAL GENERAL ARRANGEMENT

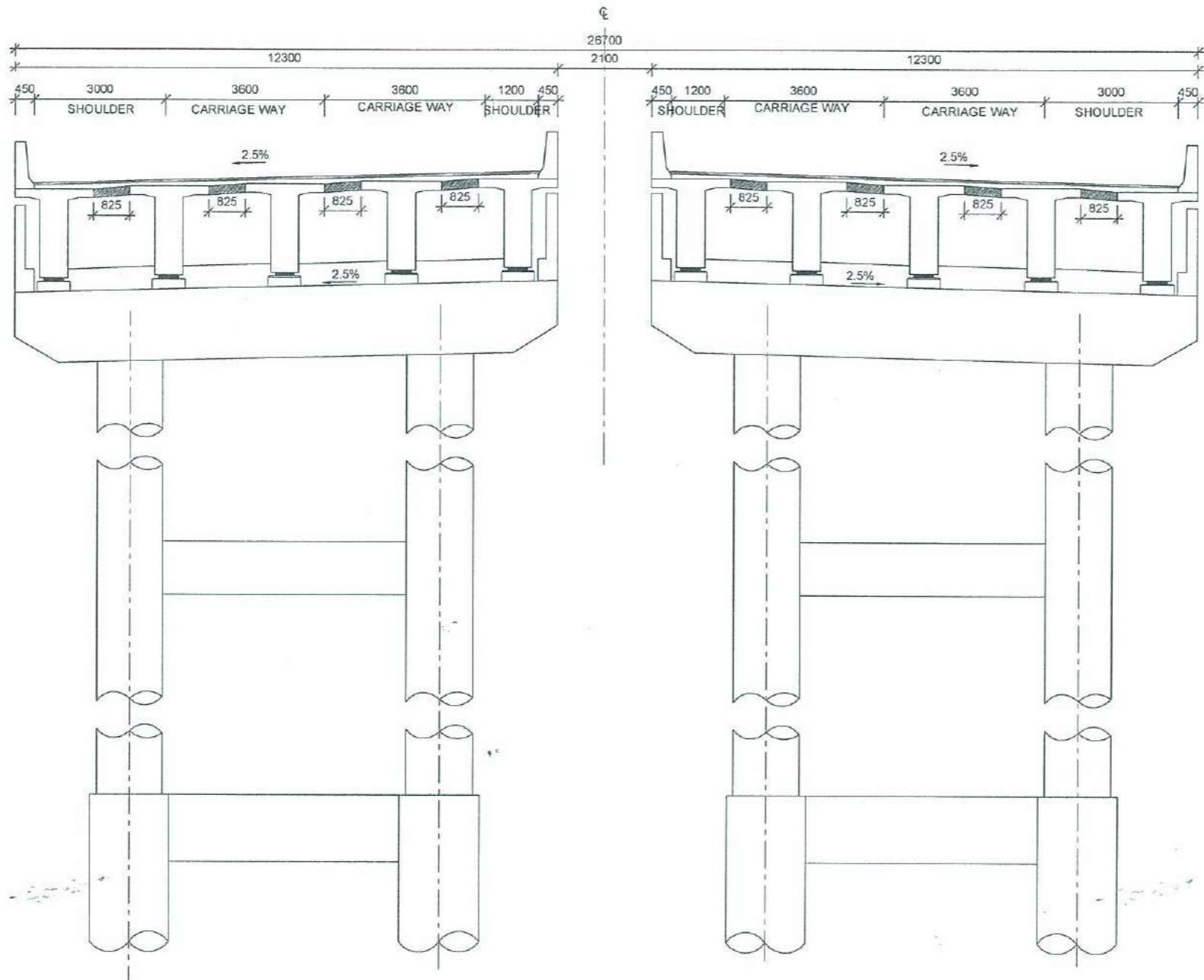
16



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 04-07-2013
Sheet 01 of 01
DRG.No. : DD-FWD-SP-ESE-ST-EWFS-S3-GA-006



TYPICAL CROSS SECTION -VIADUCT
SCALE :- 1:125

Handwritten signature/initials

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

17



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



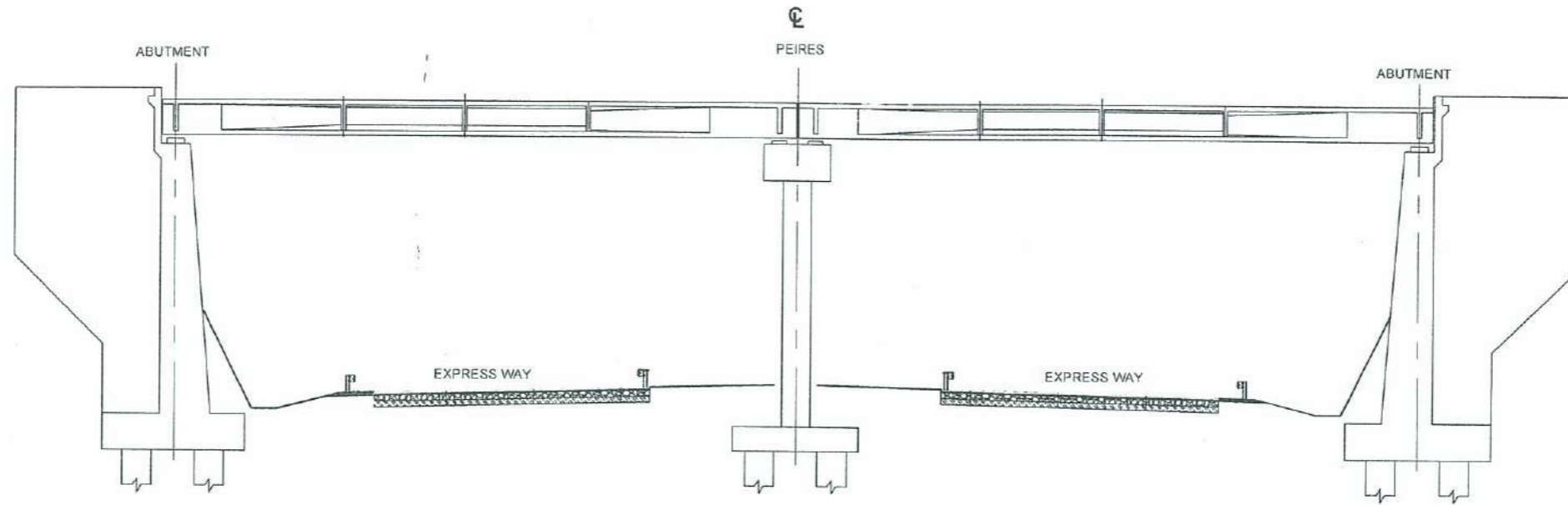
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.V.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

DATE: 04-07-2013

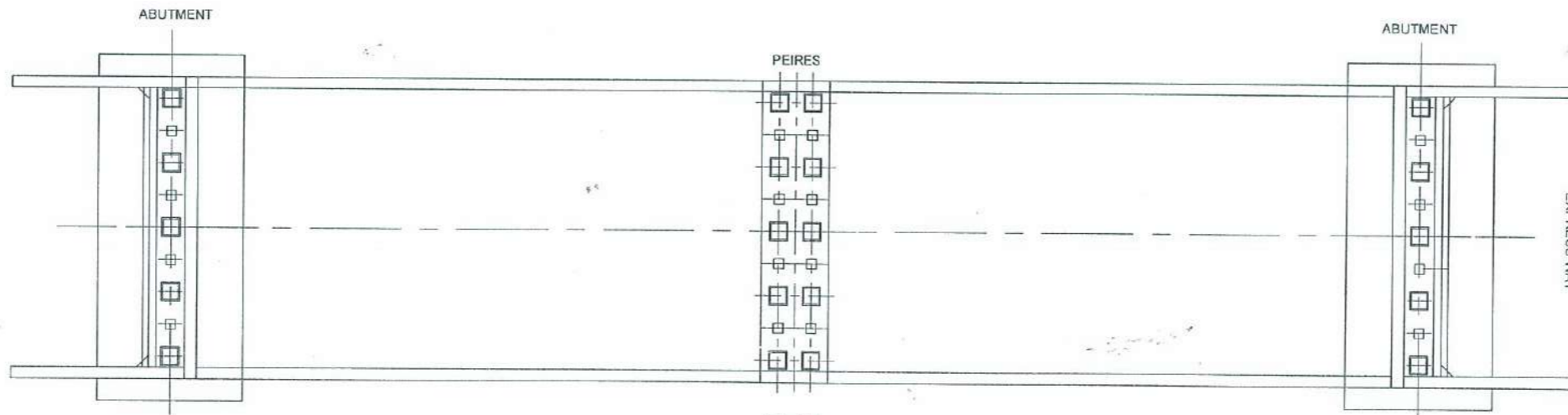
Sheet 01 of 01

TYPICAL CROSS SECTION- VIA DUCT

DRG.No.: DD-FWD-SP-ESE-ST-EW-FS-S3-GA-007



SECTION
SCALE:- 1:250



PLAN
SCALE:- 1:250

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL GENERAL ARRANGEMENT FOR OVERPASS BRIDGES

18



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



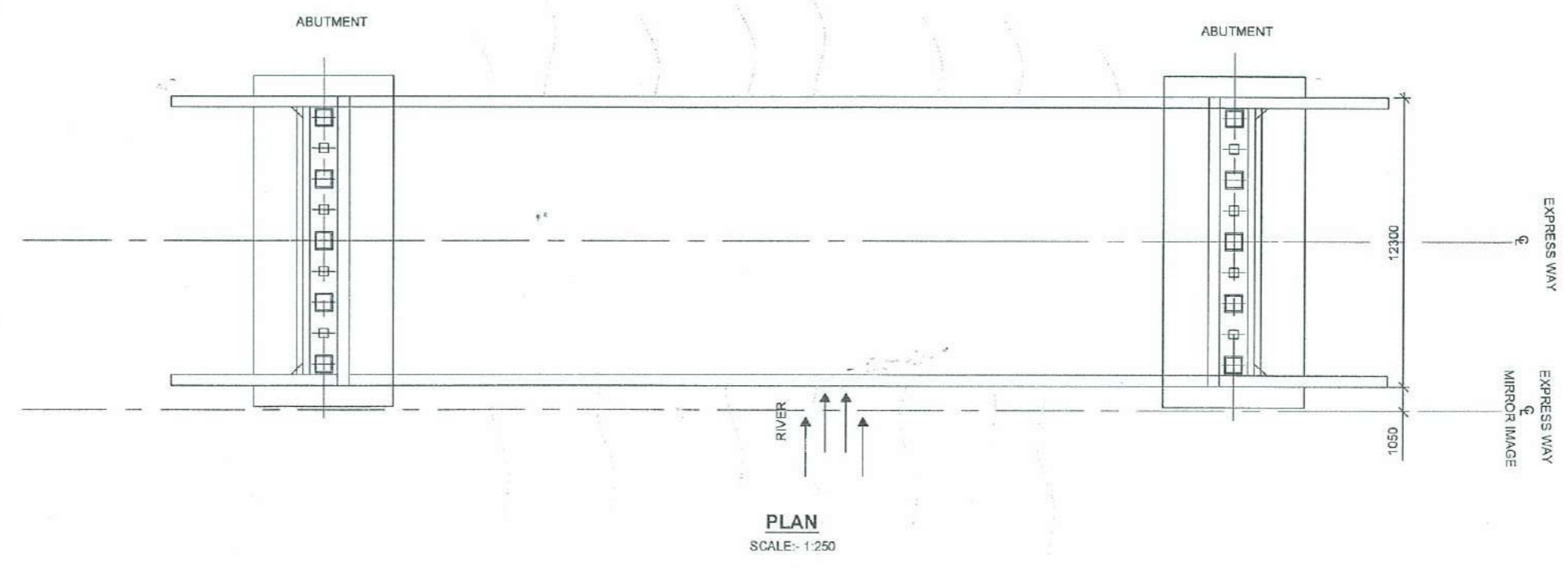
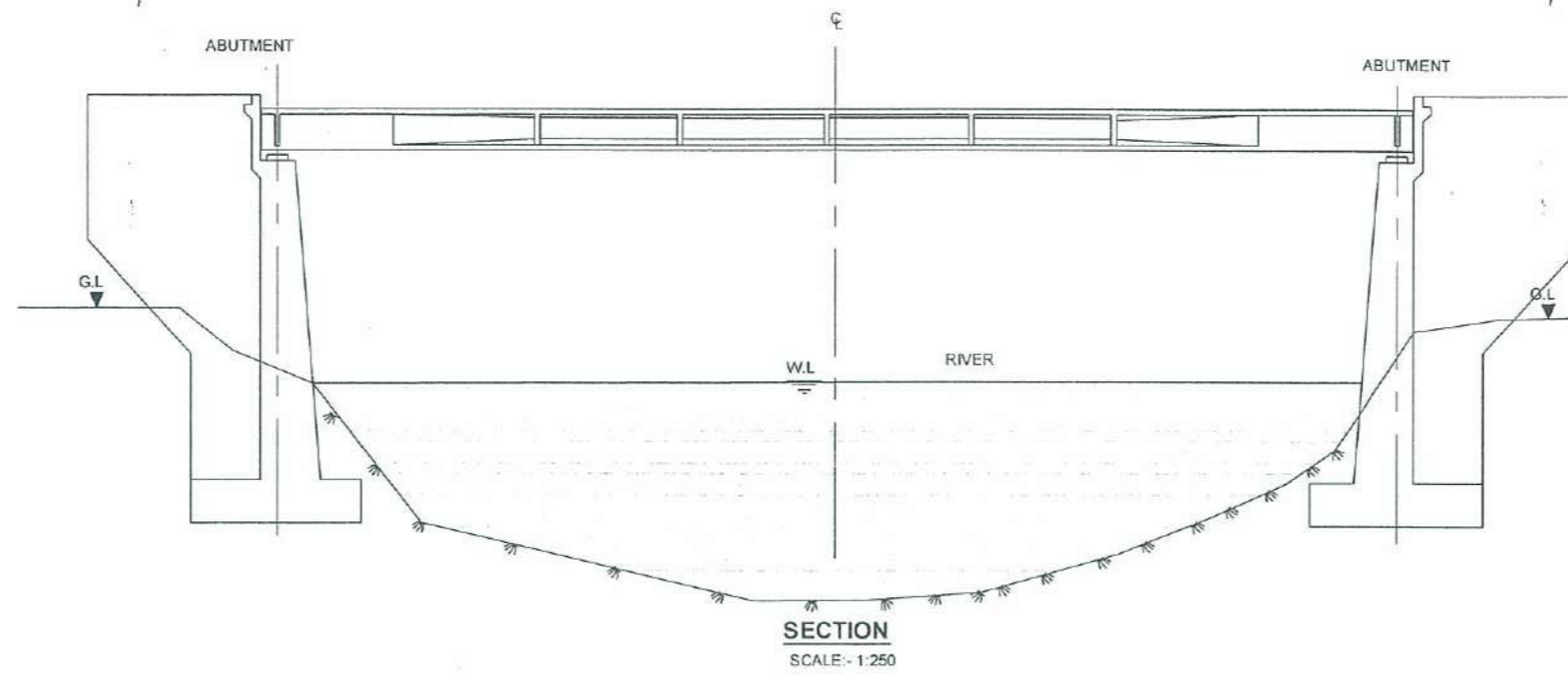
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : doep@rda.gov.lk

DATE : 04-07-2013

Sheet 01 of 03

DRG No : DD-FWD-SP-ESE-ST-EW-F6-S3-GA-008

Handwritten signature/initials



Handwritten signature/initials in blue ink.

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

19

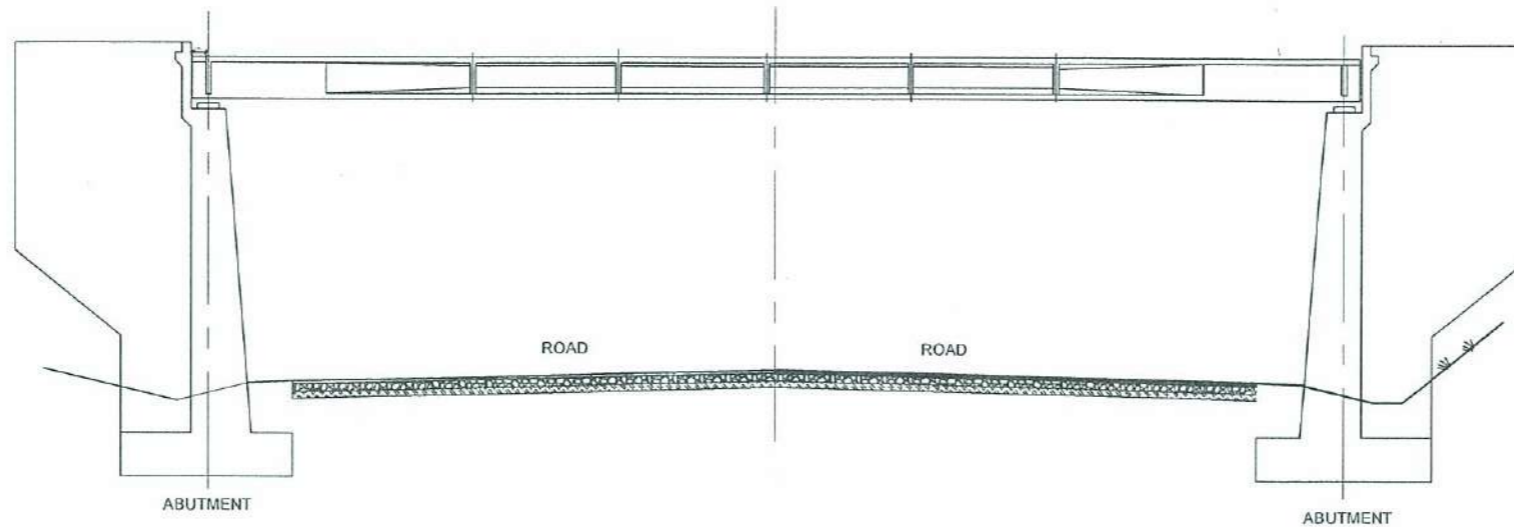


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

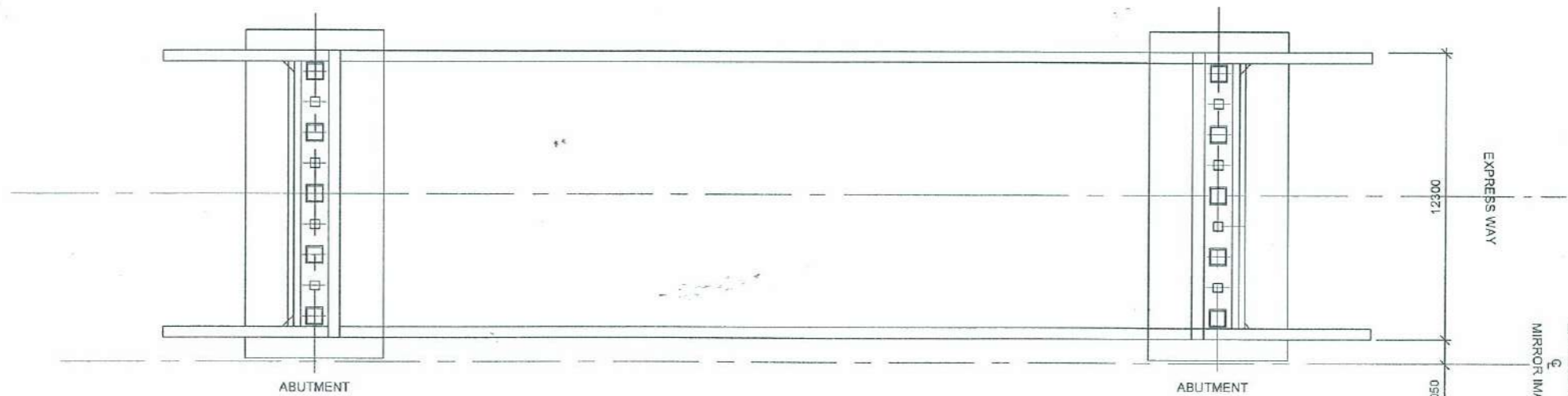
DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234267 e-mail : docp@rda.gov.lk

DATE : 04-07-2013
 Sheet 02 of 03
 DRG No. DD-FWD-SP-ESE-ST-EW-FS-S3-GA-008

TYPICAL GENERAL ARRANGEMENT FOR RIVER BRIDGES



SECTION
SCALE: 1:250



PLAN
SCALE: 1:250

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA

(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL GENERAL ARRANGEMENT FOR UNDERPASS BRIDGES

20



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



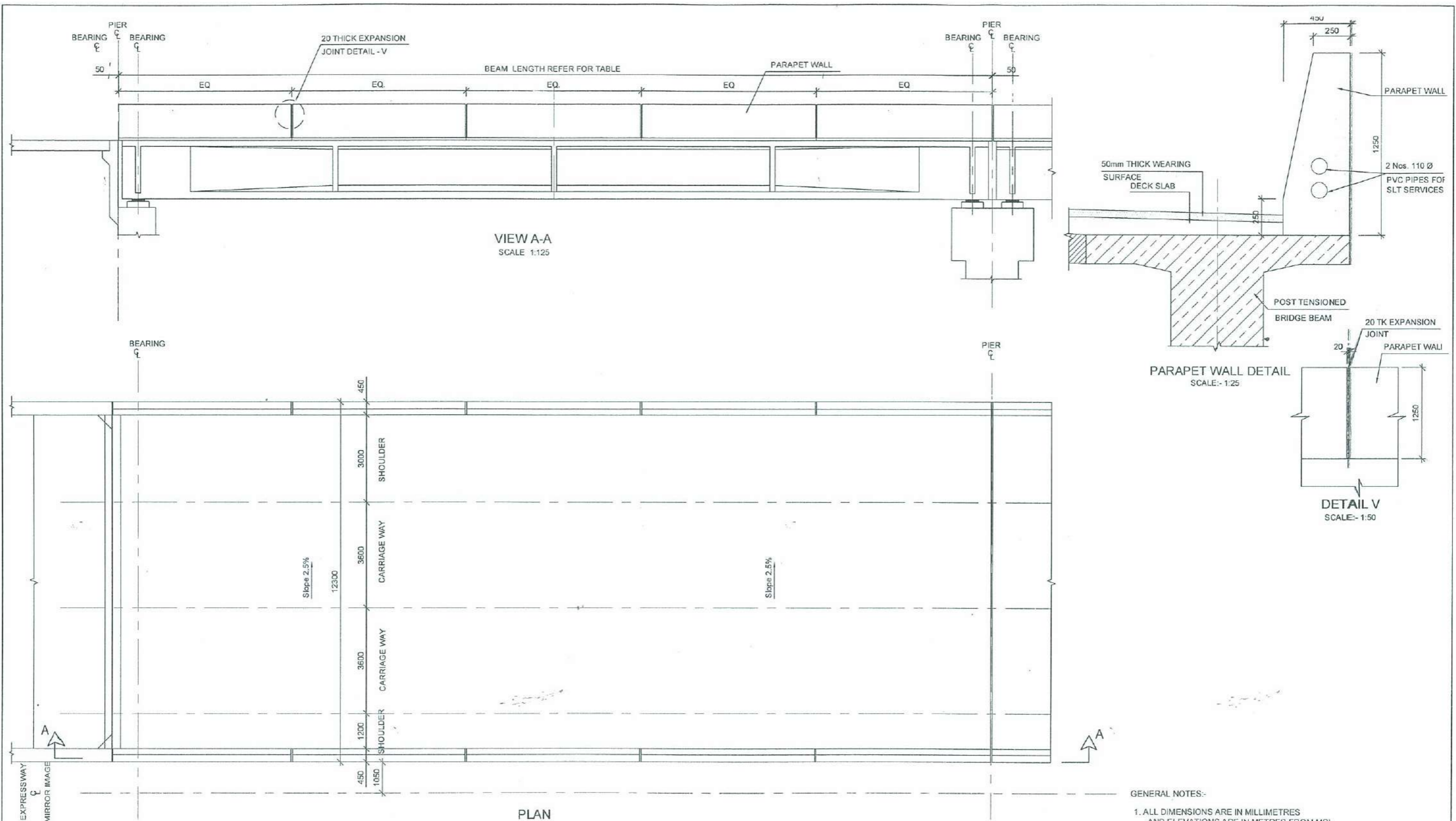
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 04-07-2013

Sheet 03 of 03

DRG.No. : DD-FWD-SP-ESE-ST-EW-FS-S3-GA-008

Signature



- GENERAL NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
 2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
 3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

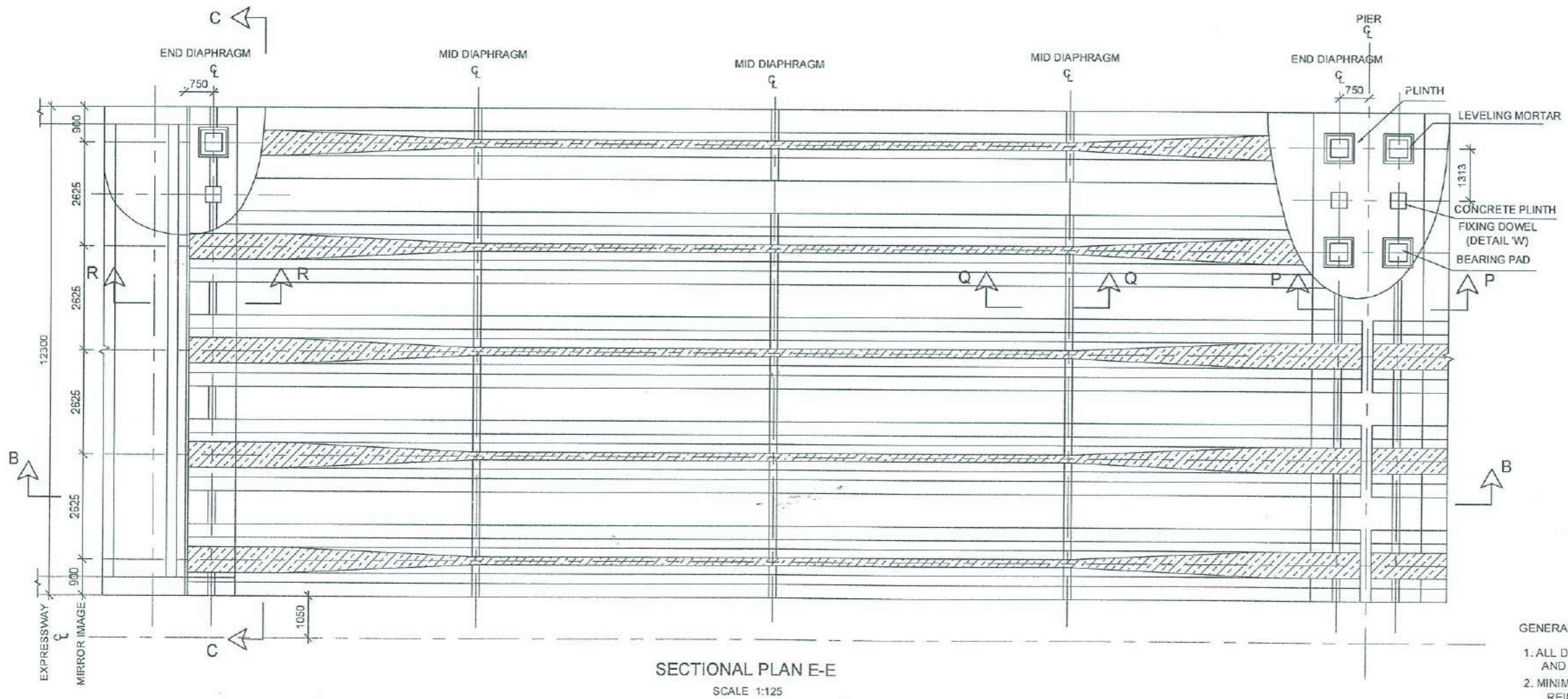
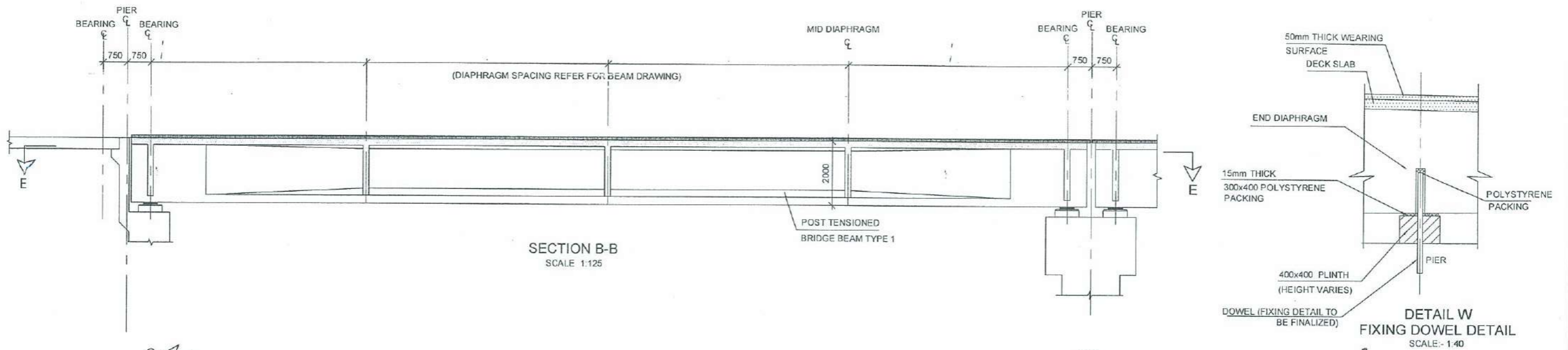
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

TYPICAL DETAILS OF VIA DUCT , RIVER BRIDGE AND UNDER PASS BRIDGE DECK - CONCRETE OUTLINE

21

DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

DATE : 04-07-2013
 Sheet 01 of 03
 DRG No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-001



- GENERAL NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
 - MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - 45 mm AT TOP OF THE DECK SLAB
 - 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - 45mm ELSEWHERE
 - STRUCTURAL CONCRETE SHALL BE
 - GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL DETAILS OF VIA DUCT, RIVER BRIDGE AND UNDER PASS BRIDGE DECK - CONCRETE OUTLINE



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

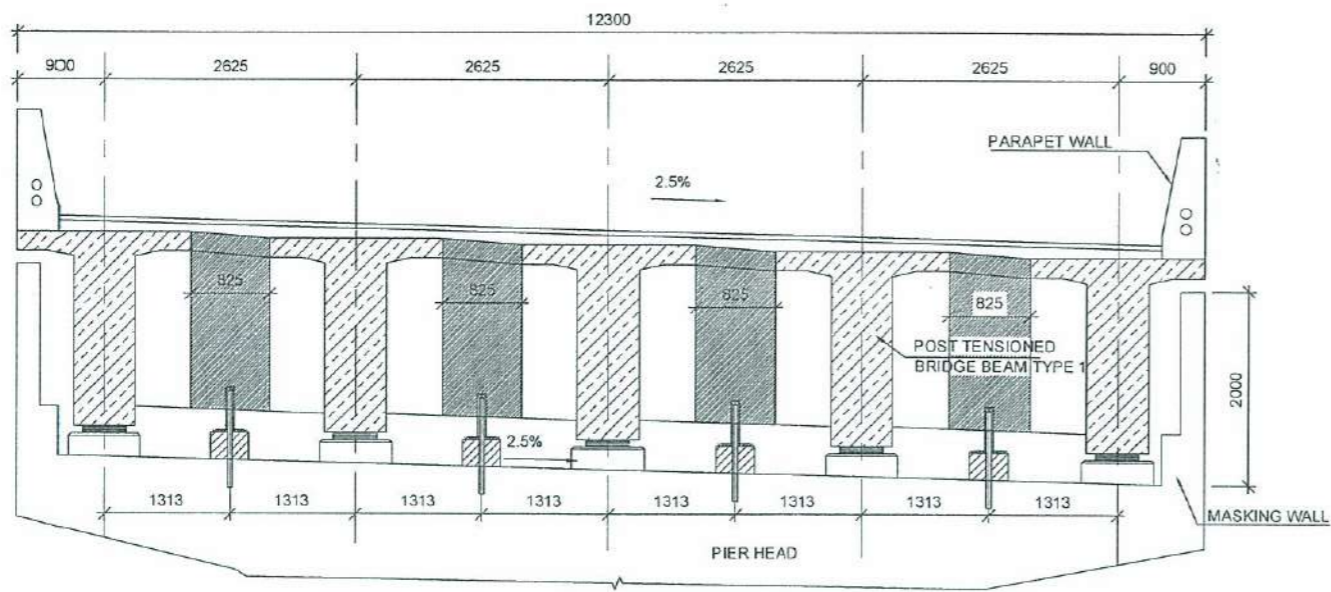


DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 e-mail : docp@rda.gov.lk

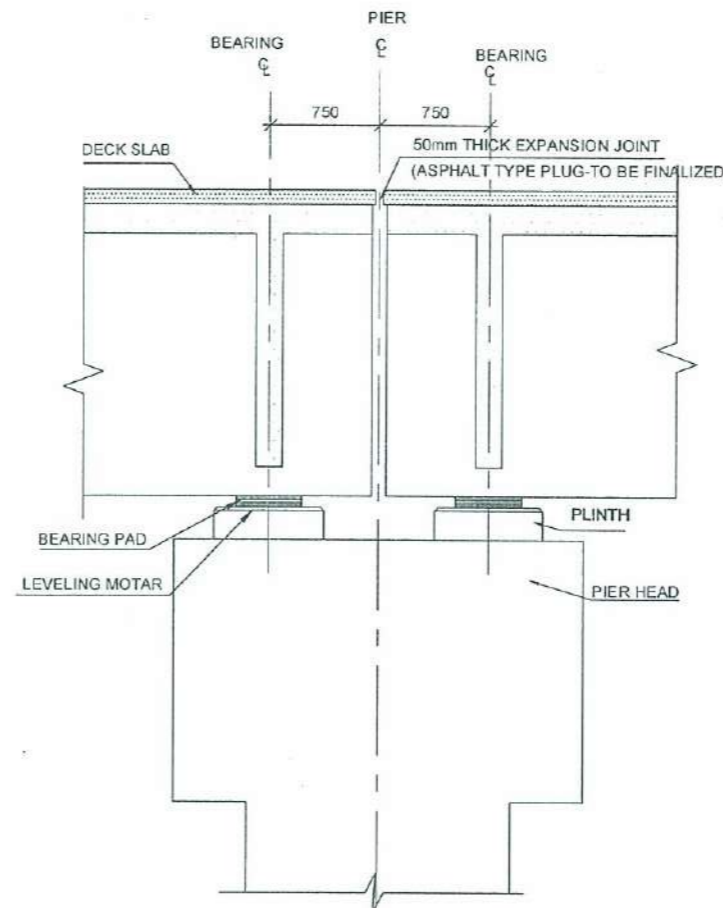
DATE : 04/07-2013

Sheet 02 of 03

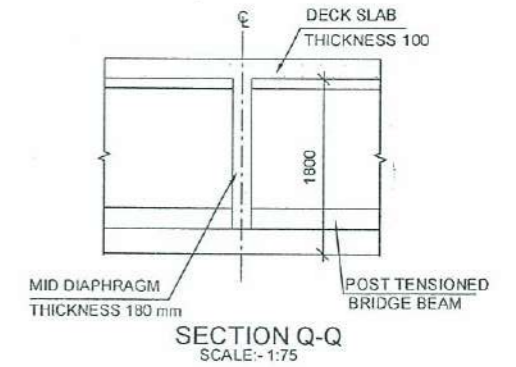
DRG.No : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-001



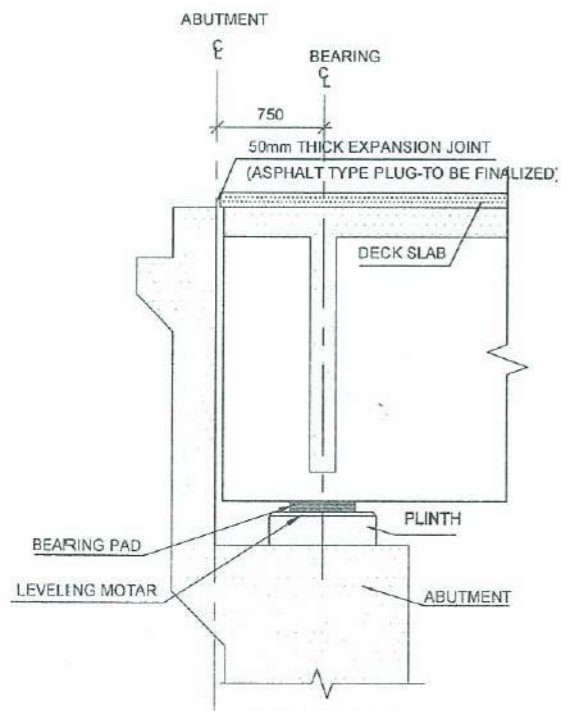
SECTIONAL ELEVATION C-C
SCALE:- 1:75



SECTION P-P
SCALE:- 1:50



SECTION Q-Q
SCALE:- 1:75



SECTION R-R
SCALE:- 1:50

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

23

TYPICAL DETAILS OF VIA DUCT , RIVER BRIDGE AND UNDER PASS BRIDGE DECK - CONCRETE OUTLINE



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



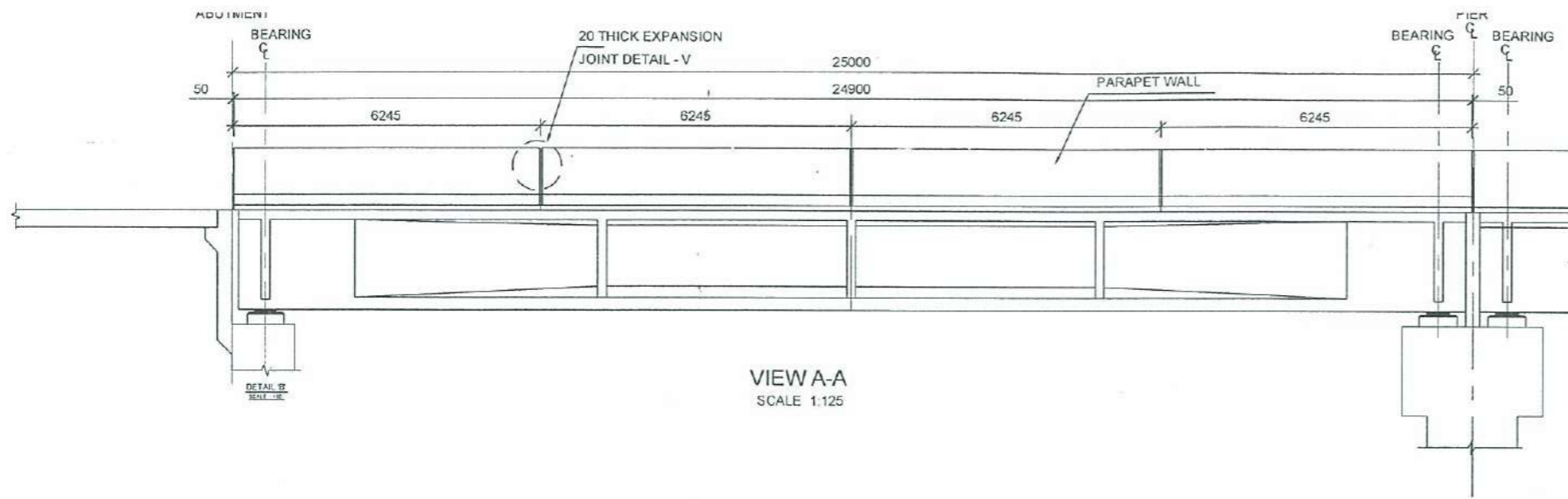
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

(Handwritten signature)

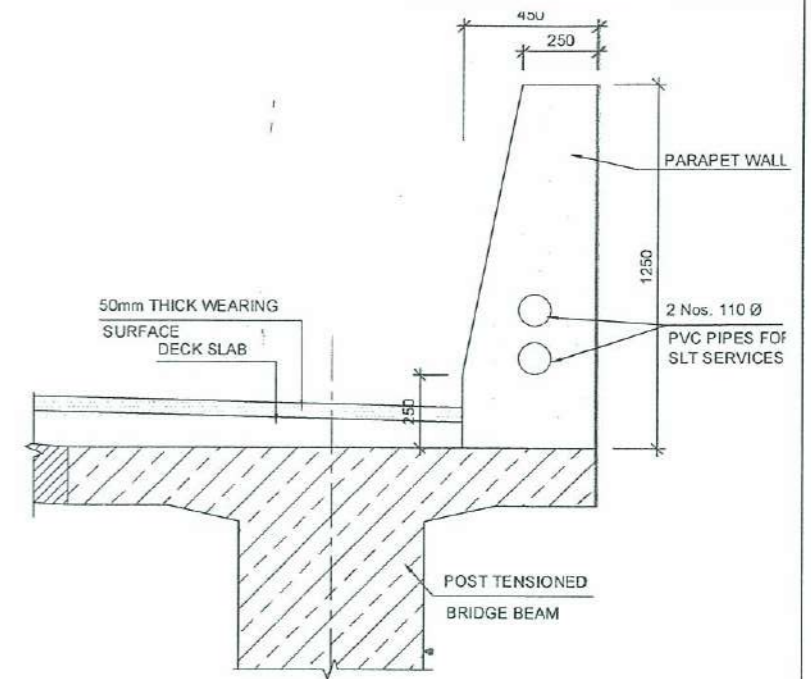
DATE : 04-07-2013

Sheet 03 of 03

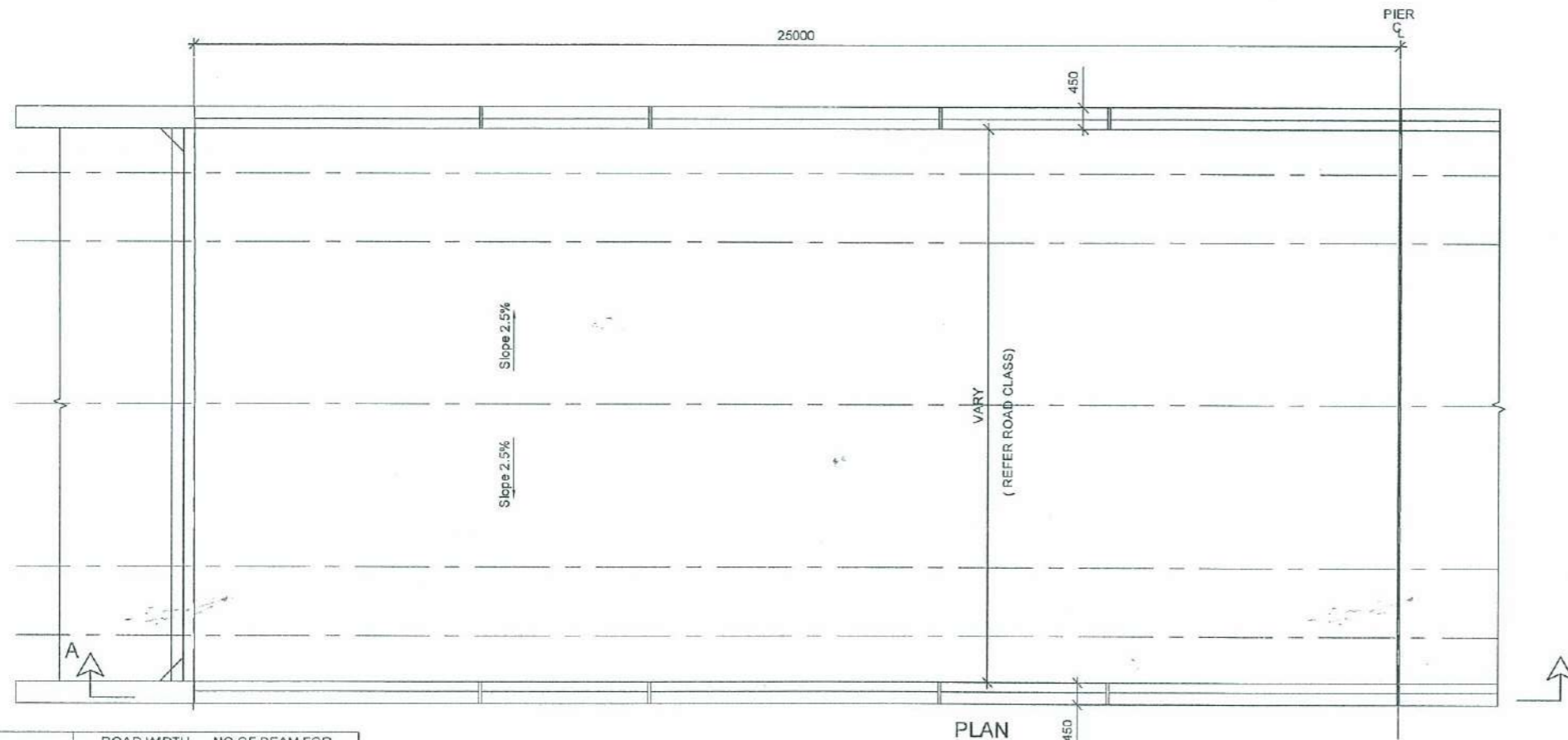
DRG.No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-001



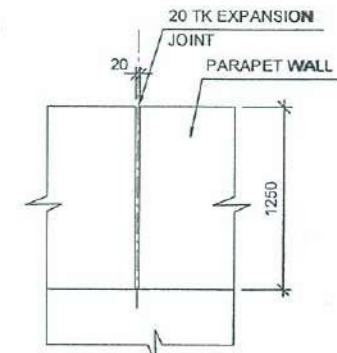
VIEW A-A
SCALE 1:125



PARAPET WALL DETAIL
SCALE: 1:25



PLAN
SCALE 1:125



DETAIL V
SCALE: 1:50

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

ROAD CLASS	ROAD WIDTH	NO OF BEAM FOR SPAN
A	22100	10
B2	22100	10
B3	13900	6
C	10900	5
D	7400	3
E	6800	3

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL DETAILS OF OVER PASS BRIDGE DECK - CONCRETE OUTLINE



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



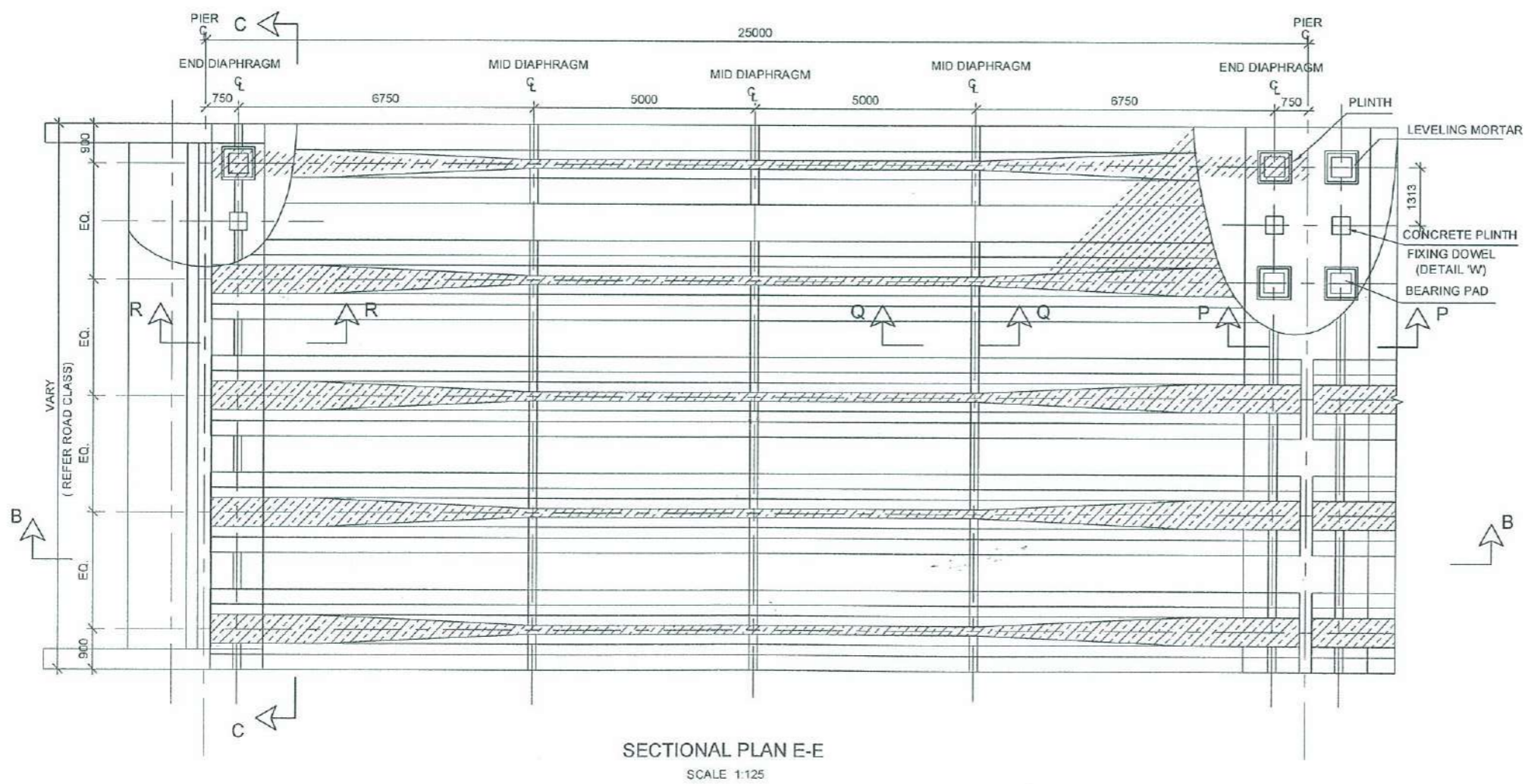
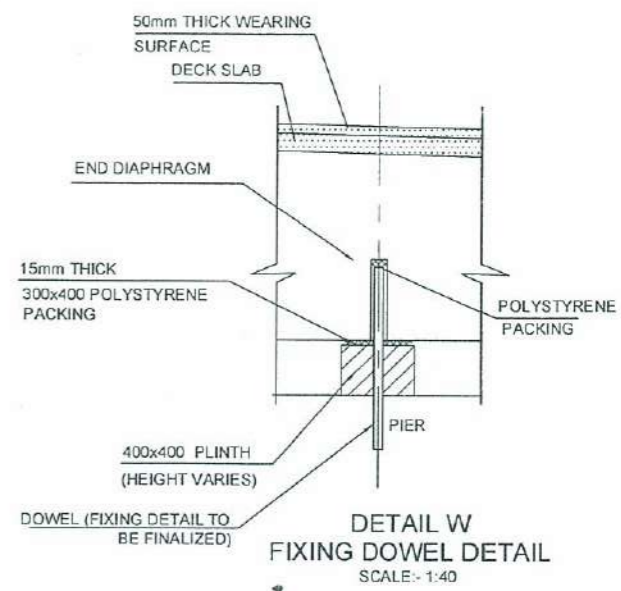
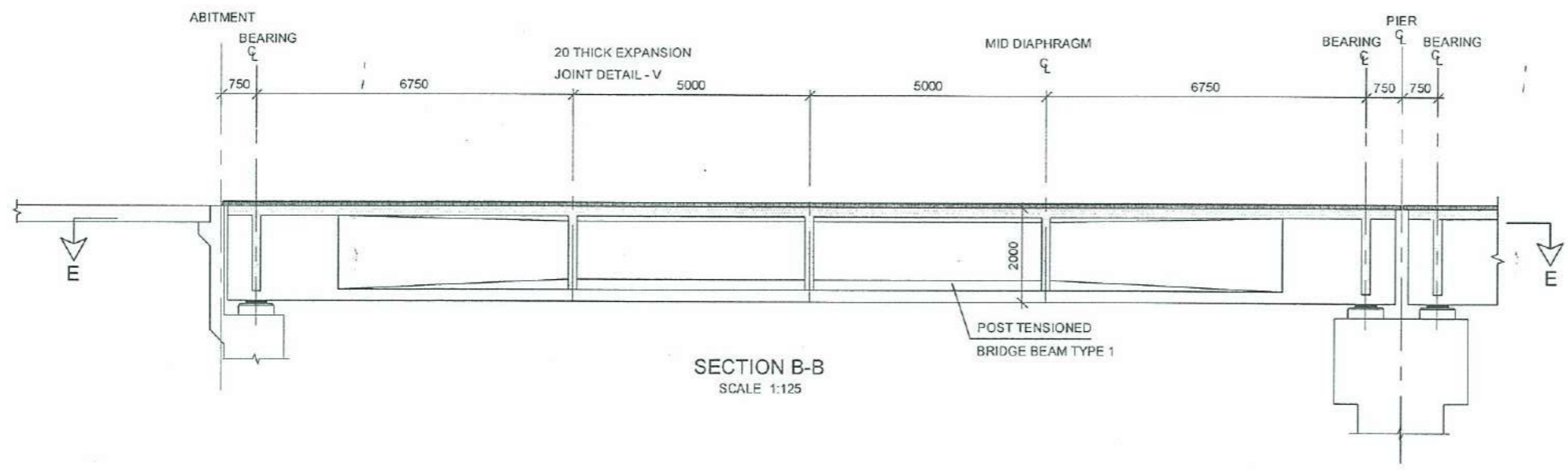
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX: 0812234267 email: ddc@rda.gov.lk

Handwritten signature

DATE: 04-07-2013

Sheet 01 of 03

DRG.No.: DD-FWD-SP-ESE-ST-EW-FS-S1-CD-092



- GENERAL NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
 - MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - 45 mm AT TOP OF THE DECK SLAB
 - 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - 45mm ELSEWHERE
 - STRUCTURAL CONCRETE SHALL BE
 - GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL DETAILS OF OVER PASS BRIDGE DECK - CONCRETE OUTLINE

25

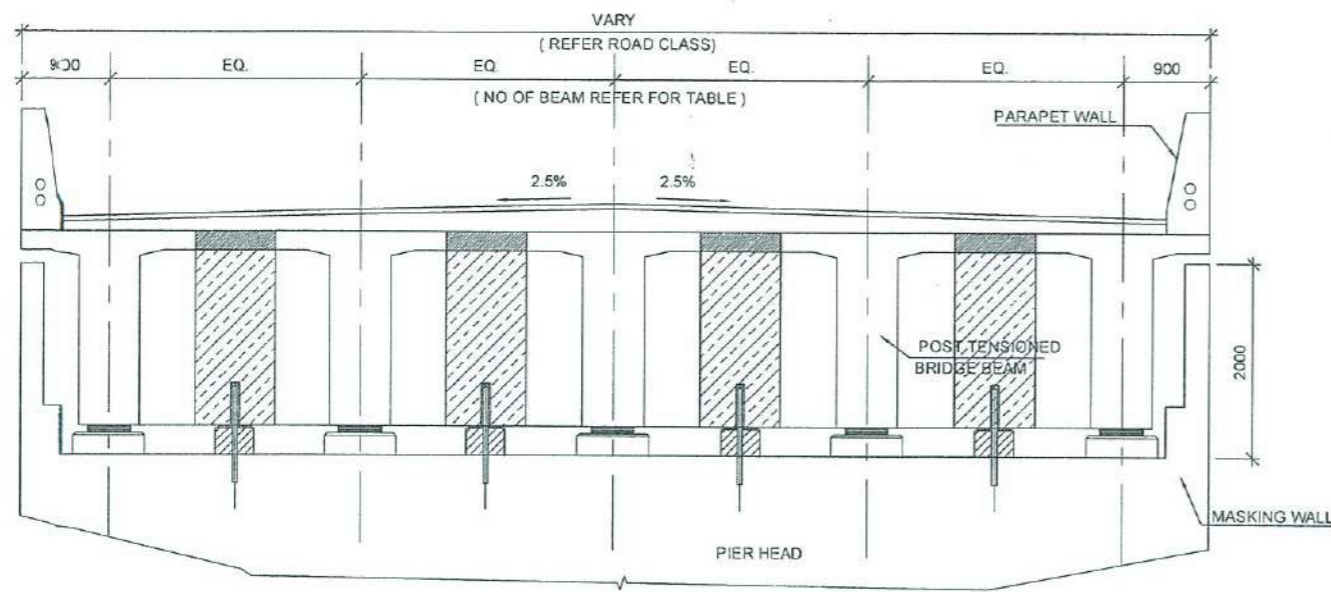


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

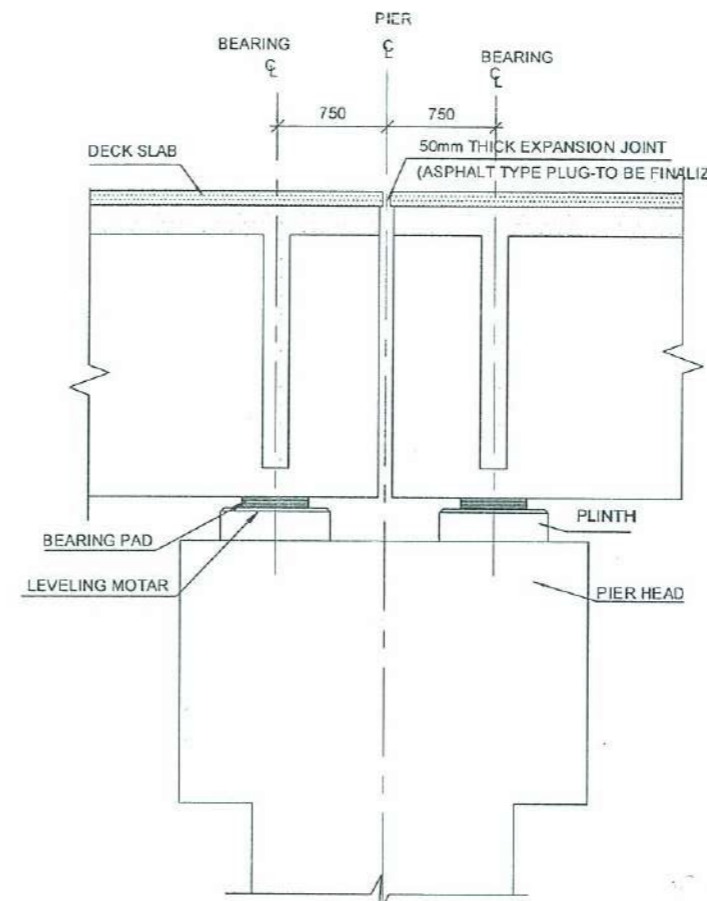
DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA KANDY
 TEL : 0812234287 FAX : 0812234287 email : docp@nda.gov.lk

(Handwritten initials)

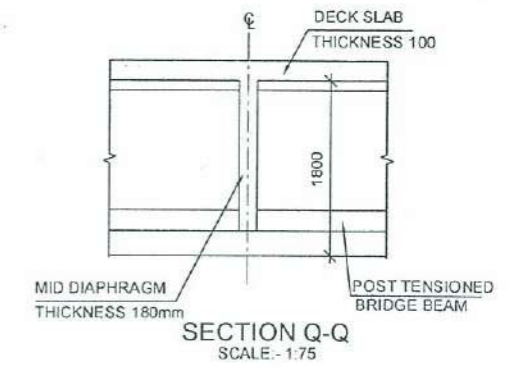
DATE : 04-07-2013
 Sheet 02 of 03
 DRG No : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-002



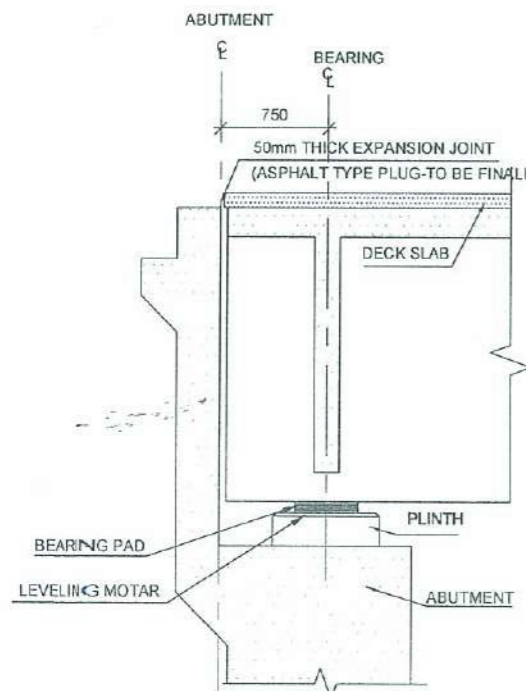
SECTIONAL ELEVATION C-C
SCALE:- 1:75



SECTION P-P
SCALE:- 1:50



SECTION Q-Q
SCALE:- 1:75



SECTION R-R
SCALE:- 1:50

ROAD CLASS	ROAD WIDTH	NO OF BEAM FOR SPAN
A	22100	10
B2	22100	10
B3	13900	6
C	10900	5
D	7400	3
E	6800	3

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
- MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - 45 mm AT TOP OF THE DECK SLAB
 - 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - 45mm ELSEWHERE
- STRUCTURAL CONCRETE SHALL BE
 - GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

26

TYPICAL DETAILS OF OVER PASS BRIDGE DECK - CONCRETE OUTLINE



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

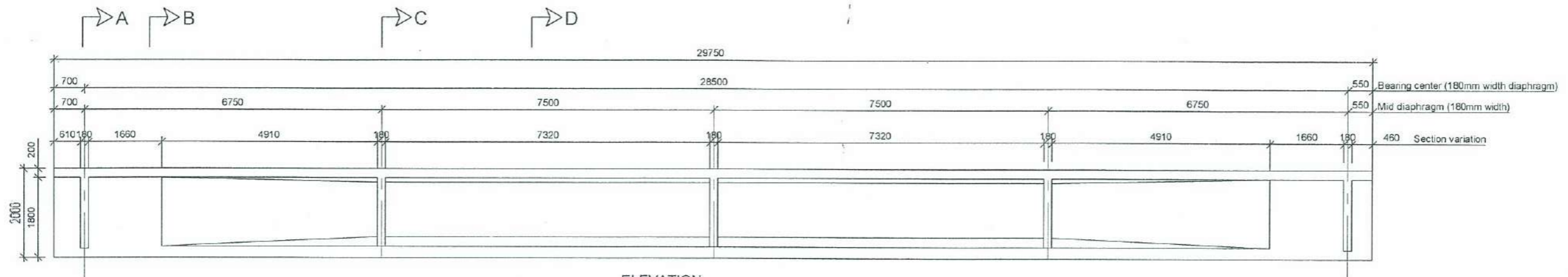
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

Handwritten signature

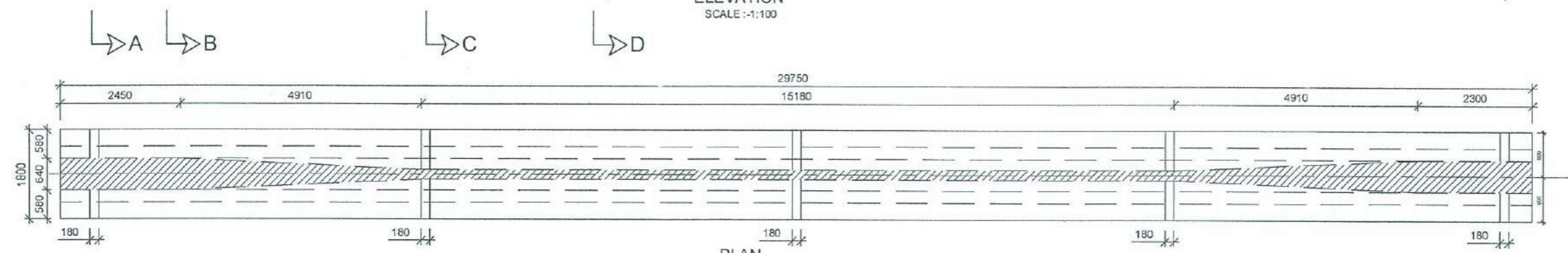
DATE : 04-07-2013

DRG No : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-002

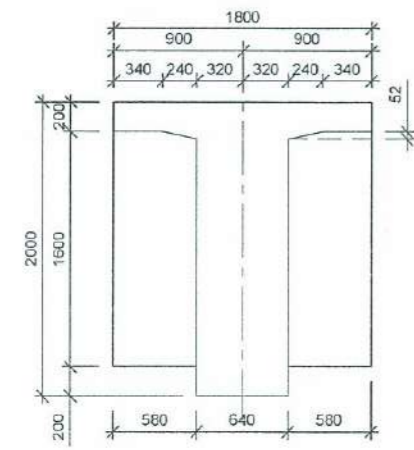
Sheet 03 of 03



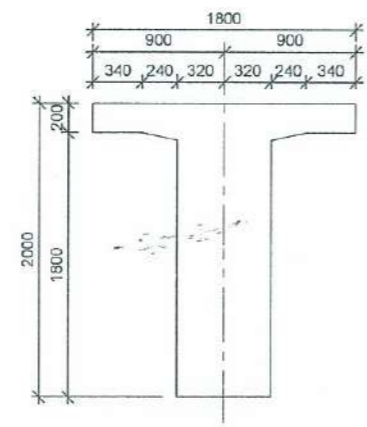
ELEVATION
SCALE:-1:100



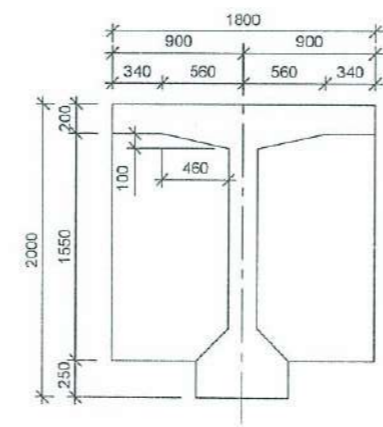
PLAN
SCALE:-1:100



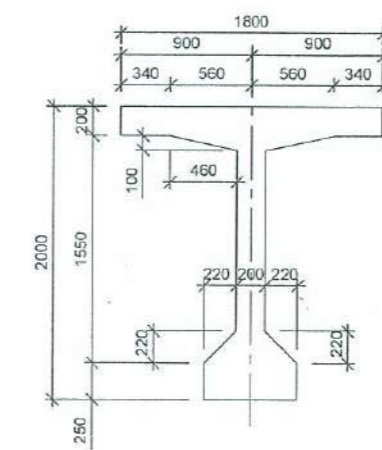
SECTION A-A
SCALE:- 1:50



SECTION B-B
SCALE:- 1:50



SECTION C-C
SCALE:- 1:50



SECTION D-D
SCALE:- 1:50

- GENERAL NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
 2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
 3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

30m BEAM - CONCRETE OUTLINE

27



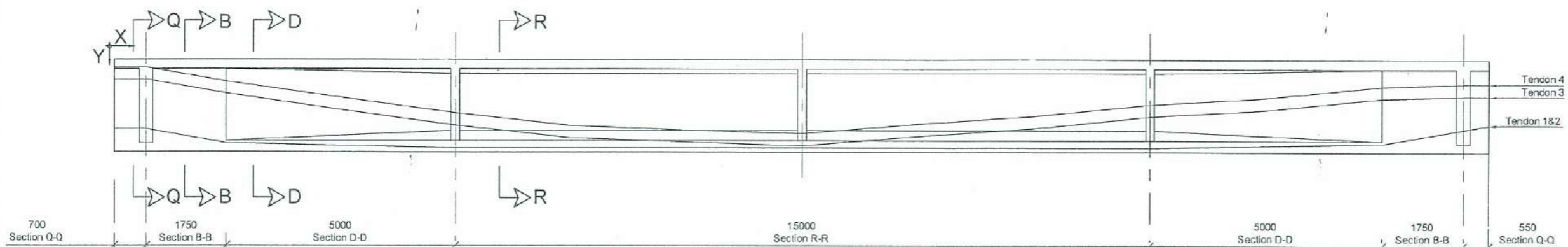
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : dcp@rda.gov.lk

Handwritten signature

DATE : 04-07-2013
Sheet 01 of 02

DRG No : D0-FWD-SP-ESE-ST-EW-FS-S3-CO-003



LONGITUDINAL ELEVATION OF GIRDER
(29.75m SPAN)
SCALE :-1:100

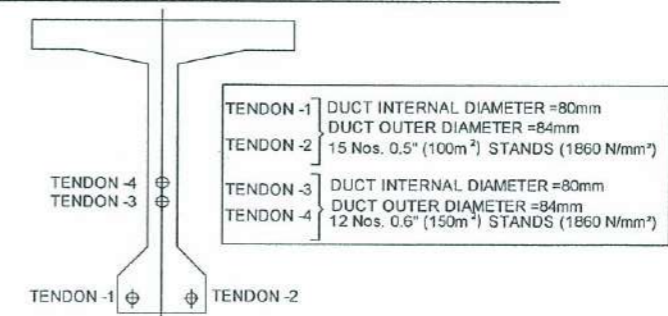


PLAN
SCALE :-1:100

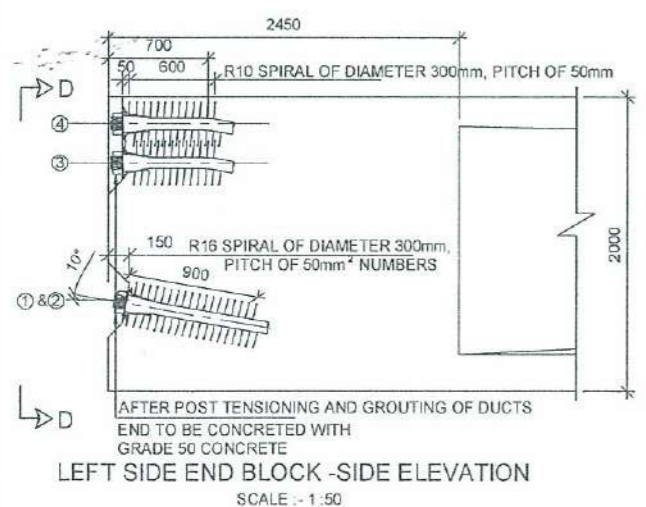
TABLE 01
COORDINATES OF CENTRE OF GRAVITY OF TENDONS
(X-FROM GIRDER EDGE AT C.L., Y-FROM GIRDER TOP)

X mm \ Y mm	700	2450	4950	7450	9950	12450	14950	17450	19950	22450	24950	27450	29200
TENDON 4	170	470	820	1150	1420	1520	1590	1390	1220	970	820	570	520
TENDON 3	430	730	1080	1410	1680	1780	1850	1650	1480	1230	1080	830	780
TENDON 1 & 2	1500	1800	1850	1900	1900	1900	1900	1900	1900	1900	1850	1800	1500

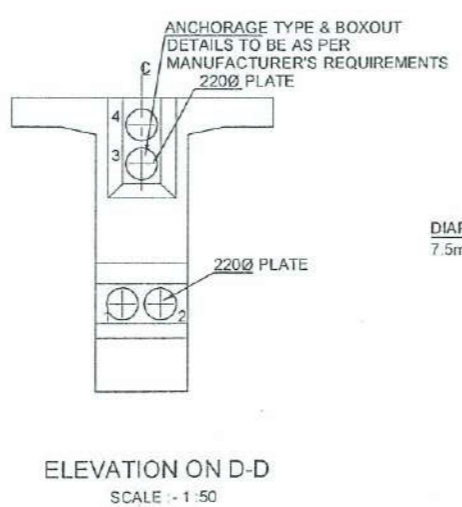
GIRDER TYPE 1 INITIAL PRE-STRESSED DETAILS



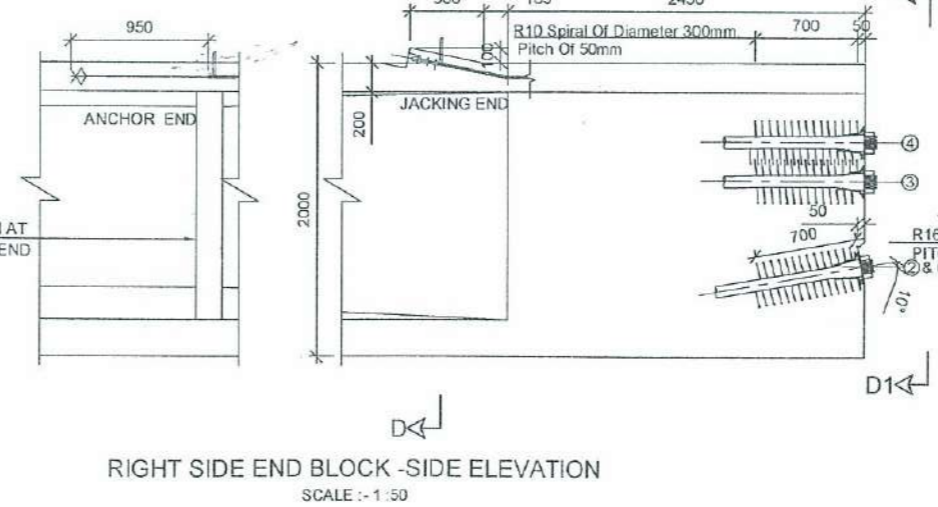
- TENDON -1 DUCT INTERNAL DIAMETER = 80mm
DUCT OUTER DIAMETER = 84mm
- TENDON -2 15 Nos. 0.5" (100mm²) STANDS (1860 N/mm²)
- TENDON -3 DUCT INTERNAL DIAMETER = 80mm
DUCT OUTER DIAMETER = 84mm
- TENDON -4 12 Nos. 0.6" (150mm²) STANDS (1860 N/mm²)



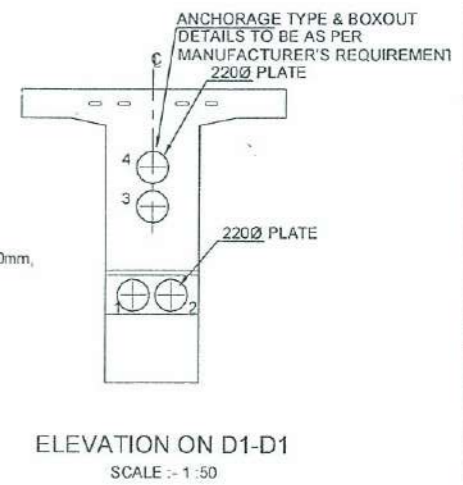
LEFT SIDE END BLOCK -SIDE ELEVATION
SCALE :- 1:50



ELEVATION ON D-D
SCALE :- 1:50



RIGHT SIDE END BLOCK -SIDE ELEVATION
SCALE :- 1:50



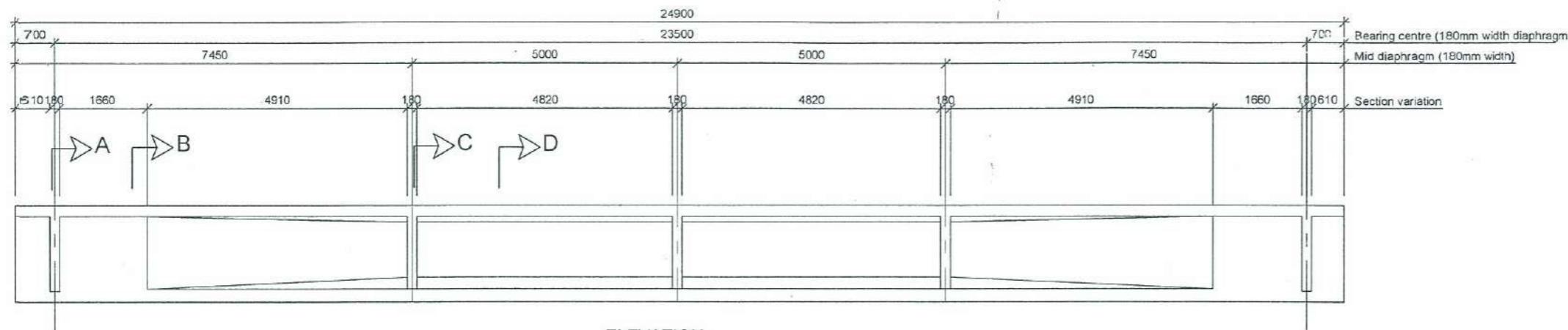
ELEVATION ON D1-D1
SCALE :- 1:50

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

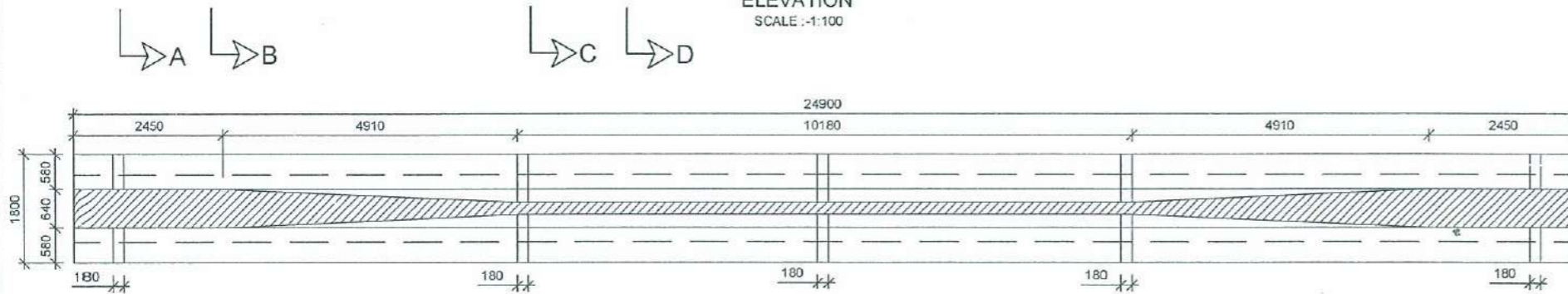
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : doep@rda.gov.lk

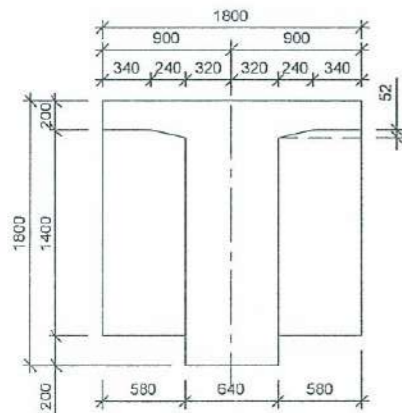
DATE : 04-07-2013



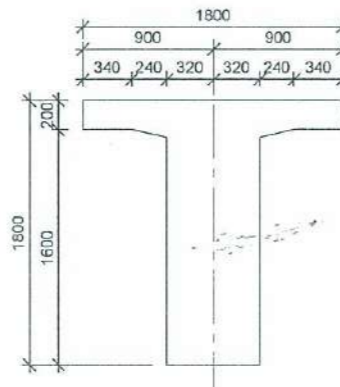
ELEVATION
SCALE :-1:100



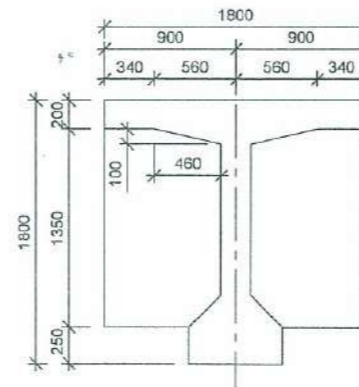
PLAN
SCALE :-1:100



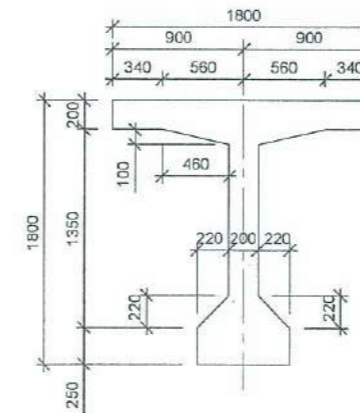
SECTION A-A
SCALE:- 1:50



SECTION B-B
SCALE:- 1:50



SECTION C-C
SCALE:- 1:50



SECTION D-D
SCALE:- 1:50

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

25m BEAM - CONCRETE OUTLINE

29



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



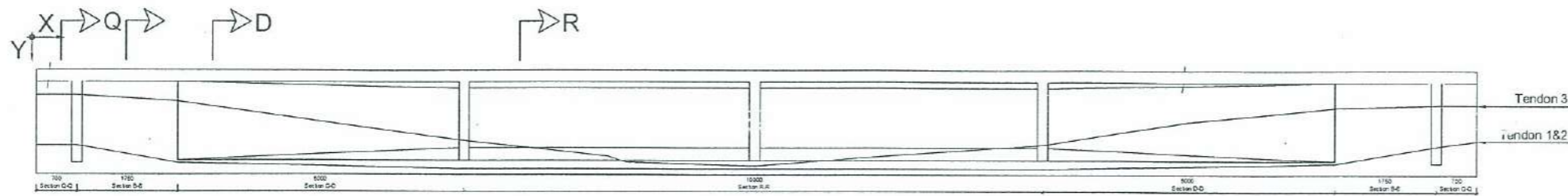
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234257 FAX : 0812234257 email : docp@rda.gov.lk

Handwritten signature

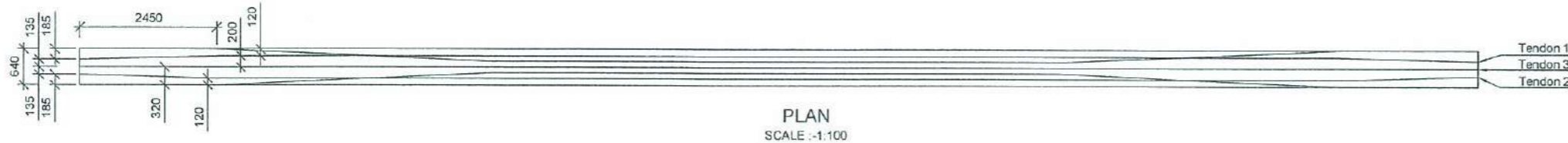
DATE : 04-07-2013

Sheet 01 of 02

DRG.No : DD-FWD-SP-ESE-ST-4W-FS-S3-CO-004



LONGITUDINAL ELEVATION OF GIRDER
(24.90m SPAN)
SCALE :-1:100

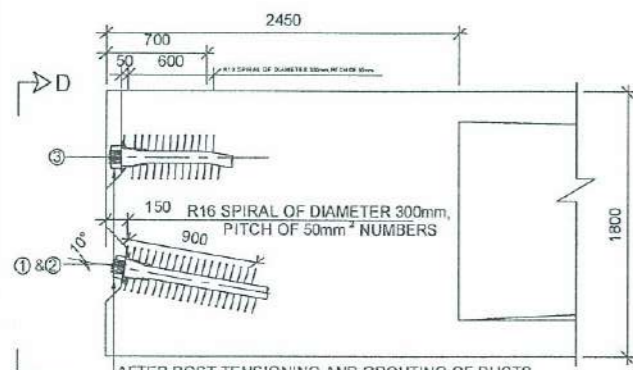
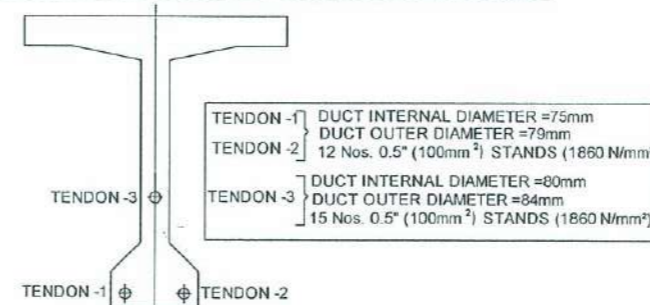


PLAN
SCALE :-1:100

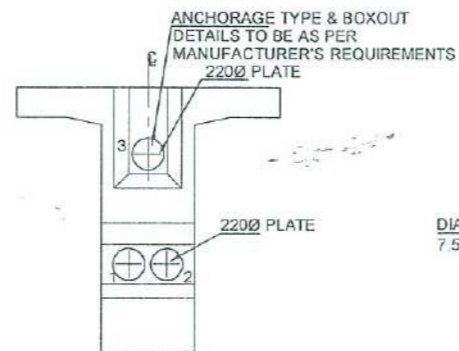
TABLE 01
COORDINATES OF CENTRE OF GRAVITY OF TENDONS
(X-FROM GIRDER EDGE AT C.L, Y-FROM GIRDER TOP)

Y m m.	X m m.																						
		0	2500	5000	7500	10000	12500	15000	17500	20000	22500	25000											
TENDON 3	2300kN	300	100	1100	1500	1550	1700	1550	1500	1100	100	300											
TENDON 1 & 2	1500kN	900	1800	1700	1700	1700	1700	1700	1700	1700	1600	900											

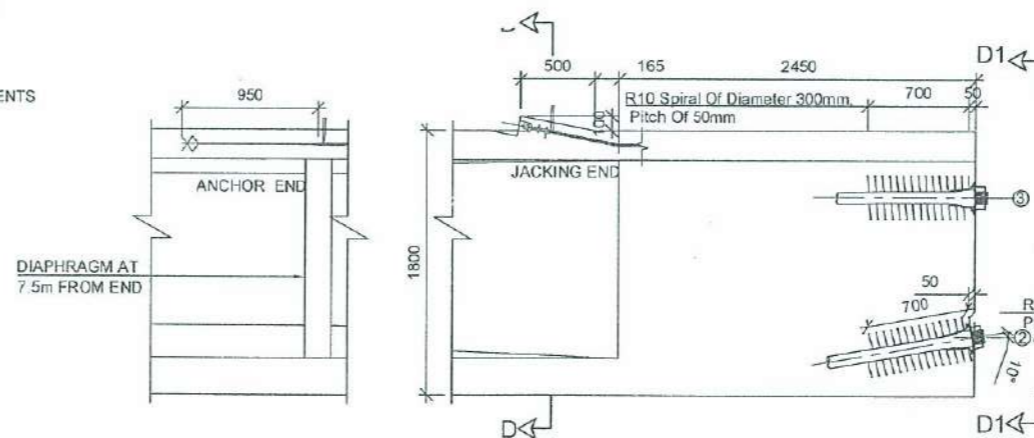
GIRDER TYPE 1 INITIAL PRE-STRESSED DETAILS



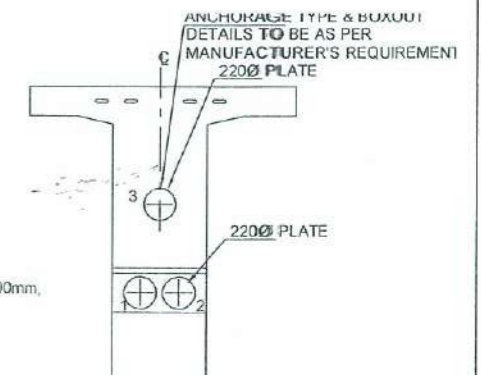
LEFT SIDE END BLOCK -SIDE ELEVATION
SCALE :- 1:50



ELEVATION ON D-D
SCALE :- 1:50



RIGHT SIDE END BLOCK -SIDE ELEVATION
SCALE :- 1:50



ELEVATION ON D1-D1
SCALE :- 1:50

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

25m BEAM - CONCRETE OUTLINE

30



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

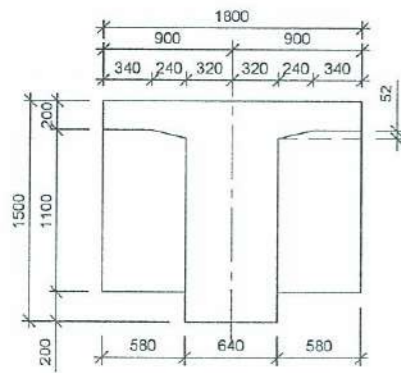
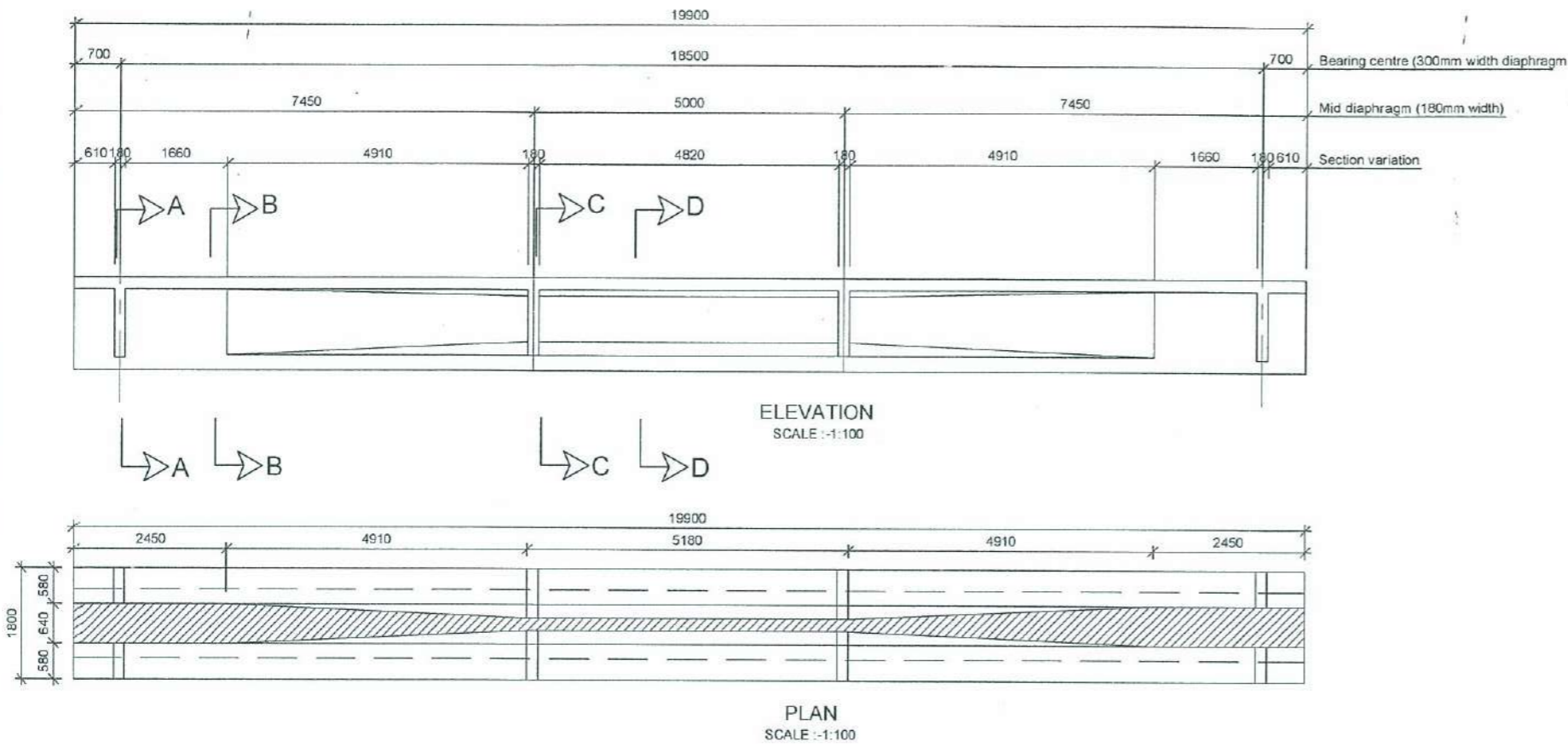
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

Handwritten signature

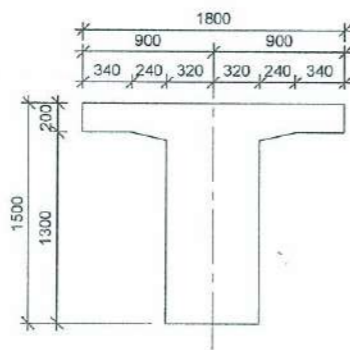
DATE : 04-07-2013

Sheet 02 of 02

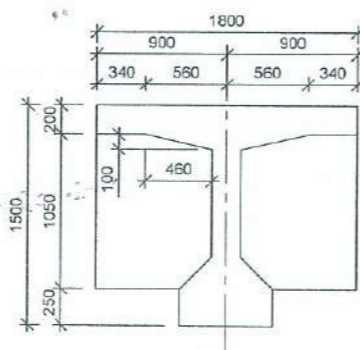
DRG.No : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-004



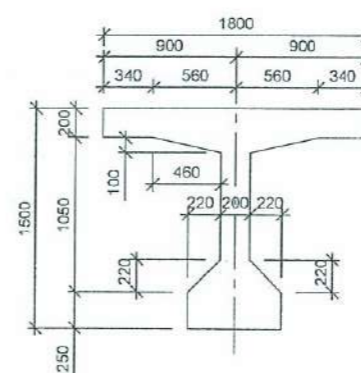
SECTION A-A
SCALE: 1:50



SECTION B-B
SCALE: 1:50



SECTION C-C
SCALE: 1:50



SECTION D-D
SCALE: 1:50

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES FROM MSL
2. MINIMUM CONCRETE COVER TO REINFORCEMENT SHALL BE
 - I. 45 mm AT TOP OF THE DECK SLAB
 - II. 30 mm FOR INNER FACE & 35mm FOR OUTERFACE IN POST-TENSIONED BRIDGE BEAM
 - III. 45mm ELSEWHERE
3. STRUCTURAL CONCRETE SHALL BE
 - I. GRADE 40(20) FOR DECK SLAB & DIAPHRAGM
 - II. GRADE 50(20) FOR POST-TENSIONED REINFORCED BRIDGE BEAM

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 e-mail : docp@rda.gov.lk

(Handwritten signature)

DATE: 04-07-2013

Sheet 01 of 02

20m BEAM M - CONCRETE OUTLINE

DRG.No.: DD-FWD-SP-ESE-ST-EW-FS-S3-CO-005

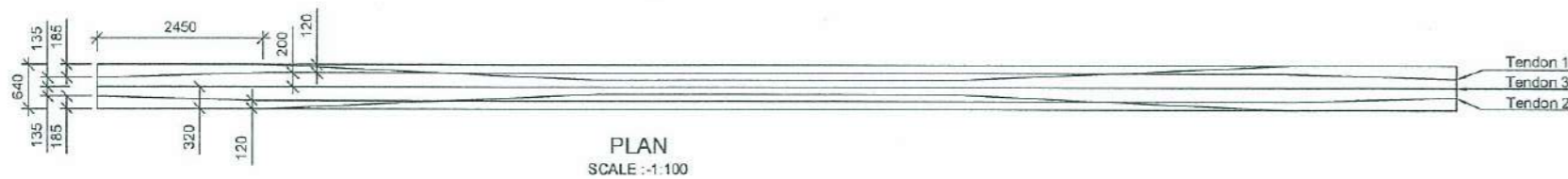
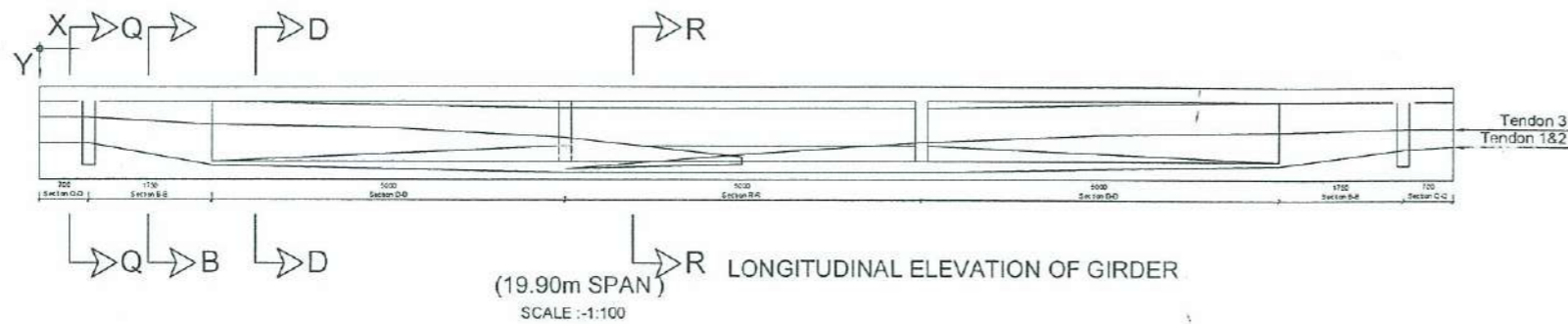
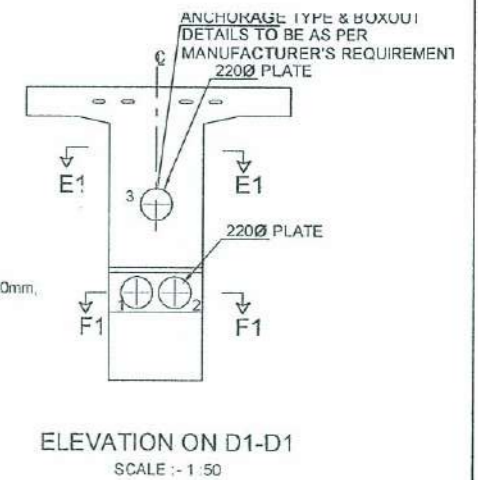
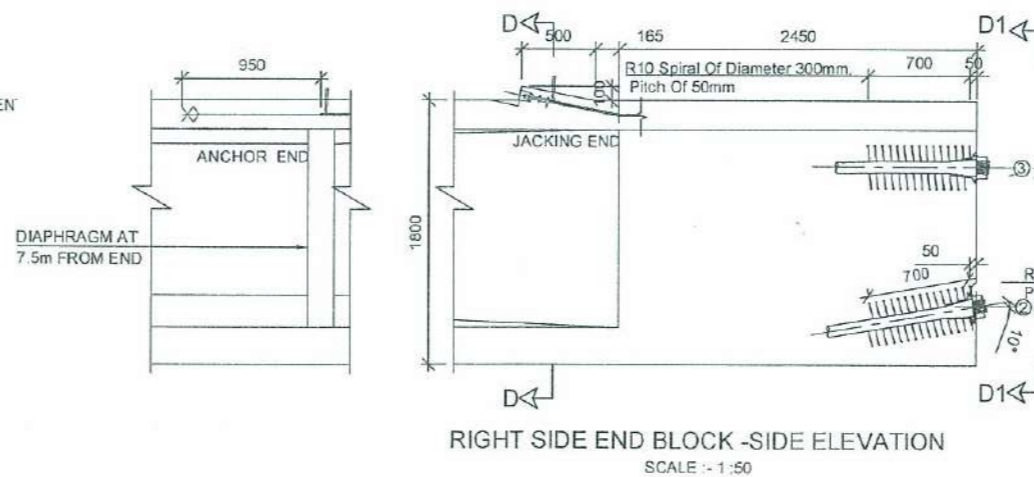
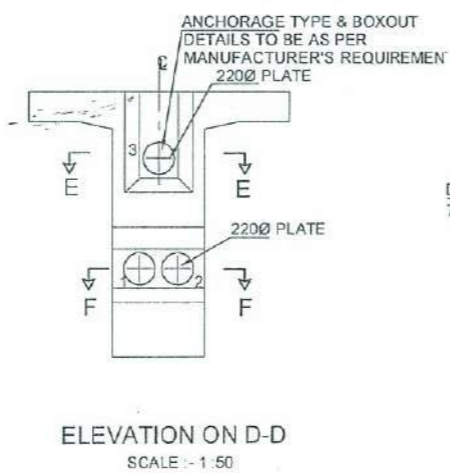
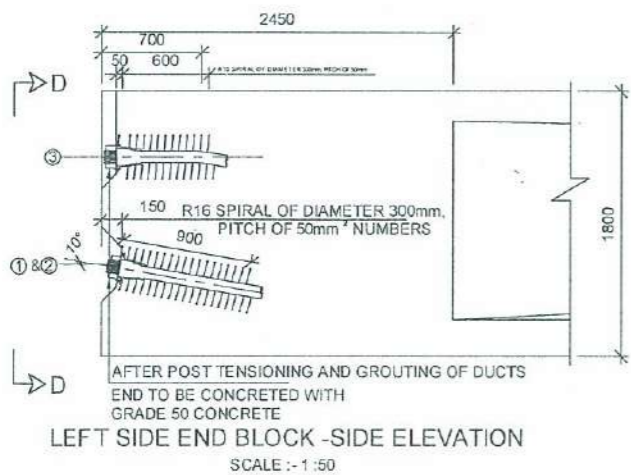
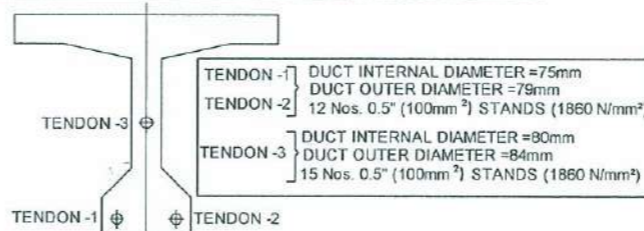


TABLE 01
COORDINATES OF CENTRE OF GRAVITY OF TENDONS
(X-FROM GIRDER EDGE AT C.L, Y-FROM GIRDER TOP)

Y mm.	X mm	X mm								
		0	2500	5000	7500	10000	12500	15000	17500	20000
TENDON 3	1900kN	300	100	1100	1350	1400	1350	1100	100	300
TENDON 1 & 2	1500kN	900	1350	1400	1400	1400	1400	1400	1350	900

GIRDER TYPE 1 INITIAL PRE-STRESSED DETAILS



EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

32

20m BEAM - CONCRETE OUTLINE



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



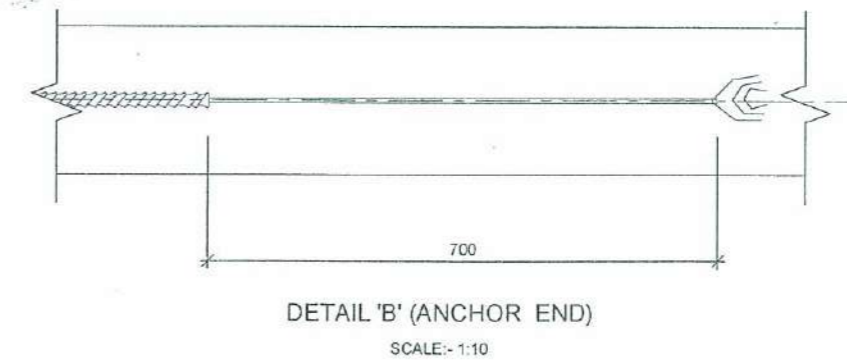
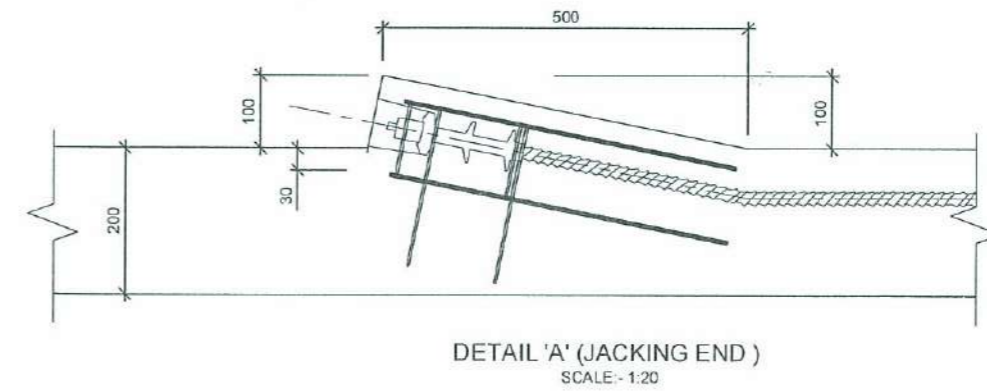
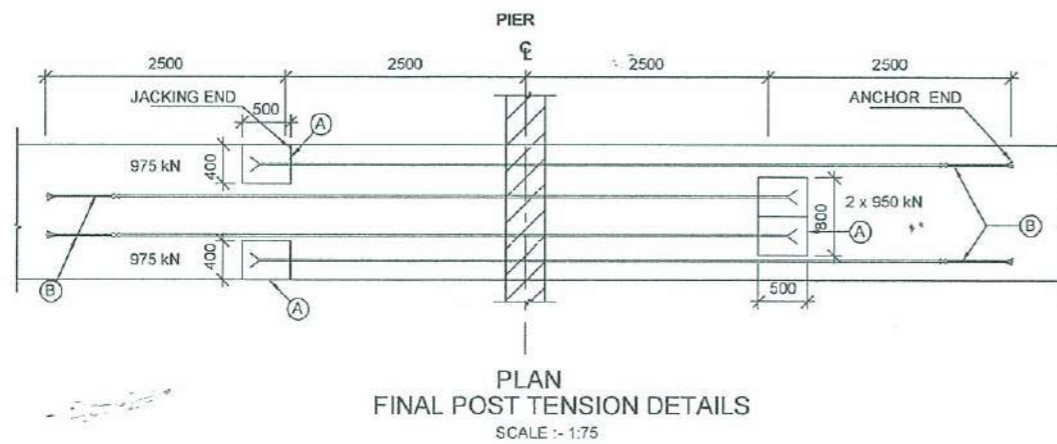
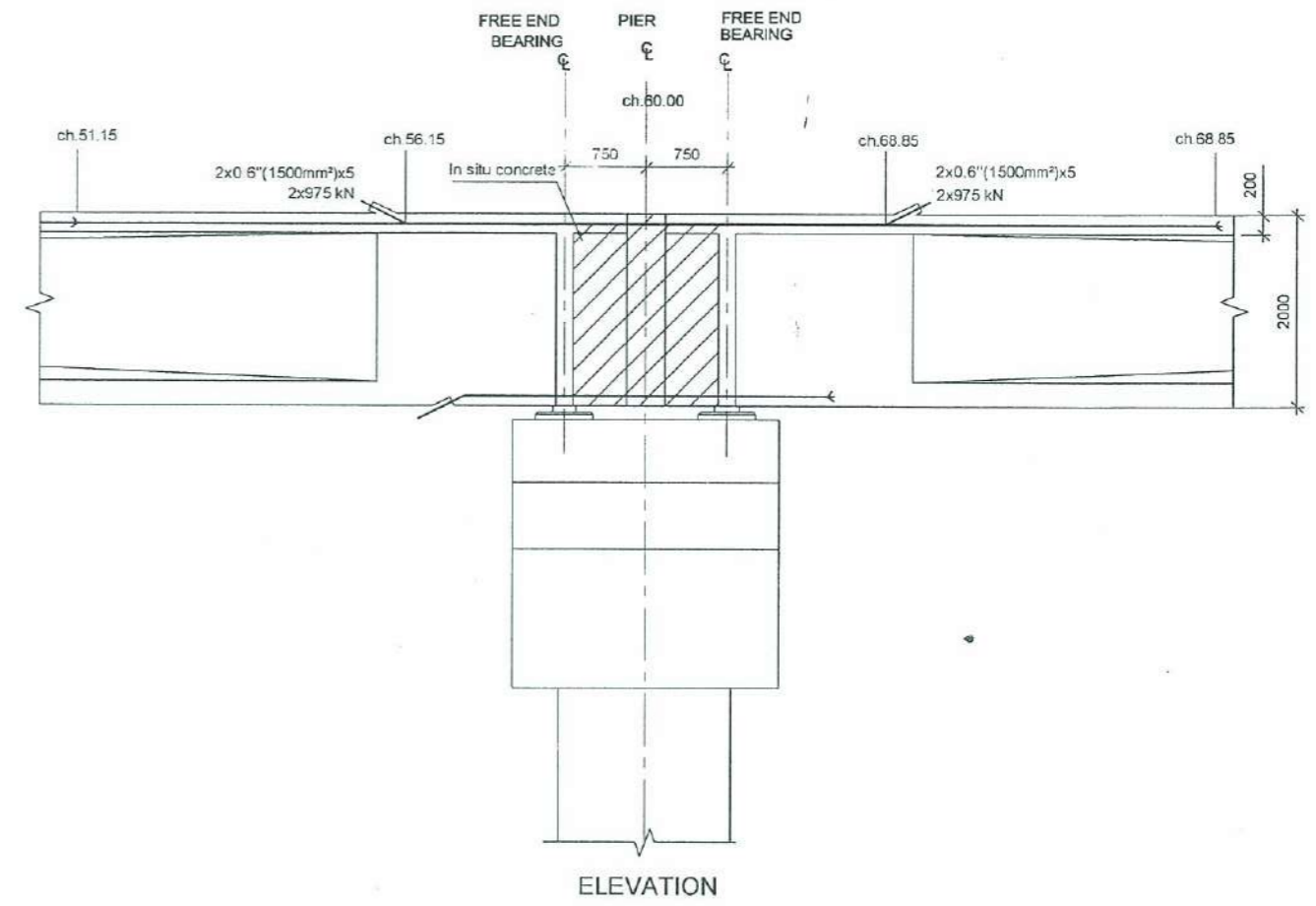
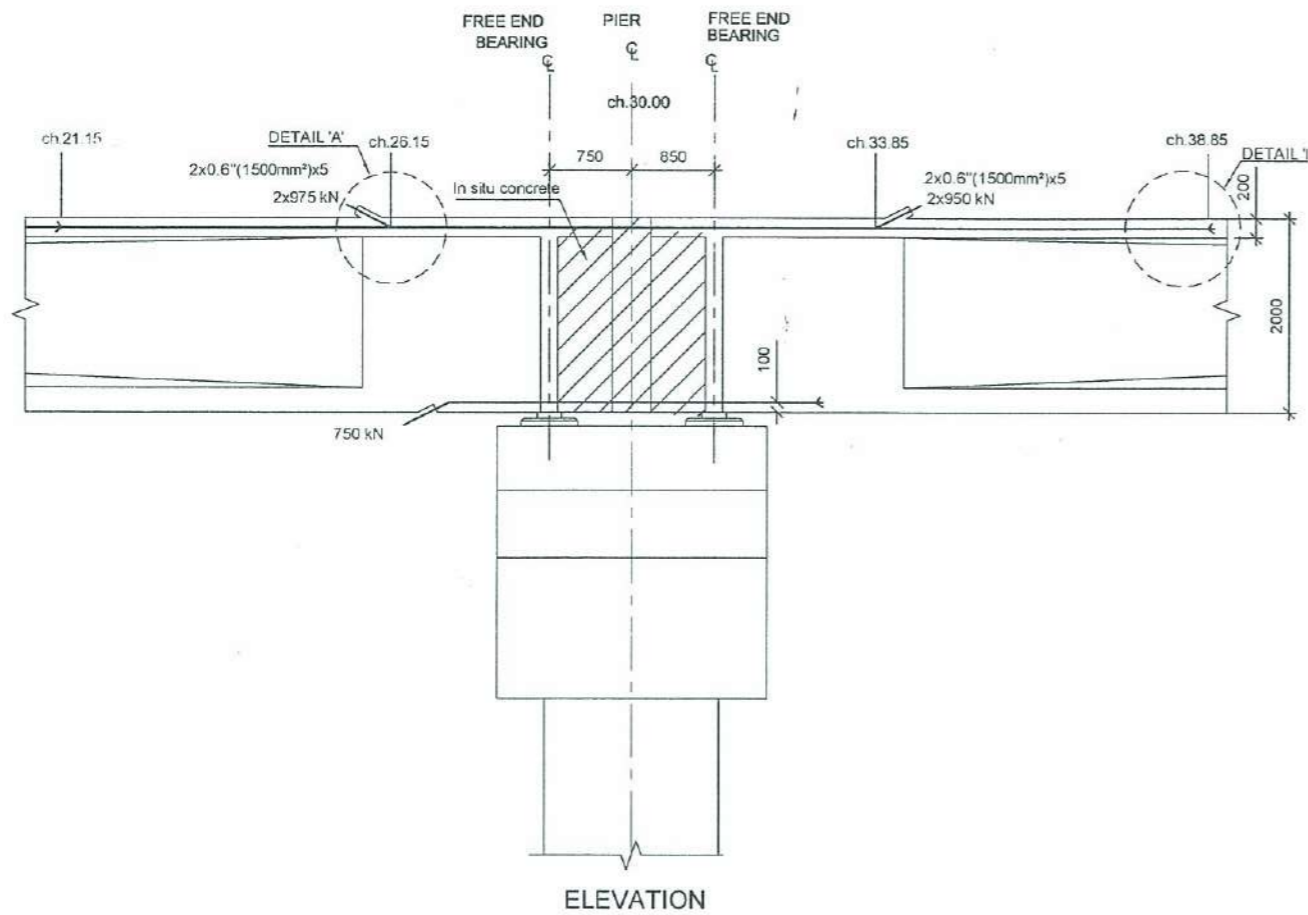
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

Handwritten initials/signature

DATE : 04-07-2013

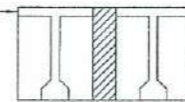
Sheet 02 of 02

DRG No : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-005



CONSTRUCTION SEQUENCE

1. PRECAST BEAM CASTING
2. POST TENSIONING 3 TENDONS IN EACH BEAM
3. ERECTION OF PRECAST BEAM
4. CASTING 825mm IN SITU TOP SLAB BETWEEN BEAM WITH ALL DIAPHRAGM BEAMS
5. CASTING 100mm TOP SLAB AT MID SPANS
6. PRESTRESSING TOP TENDONS AT MID PIERS
7. CASTING CONCRETE REAMING 100mm TOP SLAB
8. FINISHES



**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

33

DECK CONTINUATION DETAILS (SLAB POST TENSION OVER SUPPORT)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



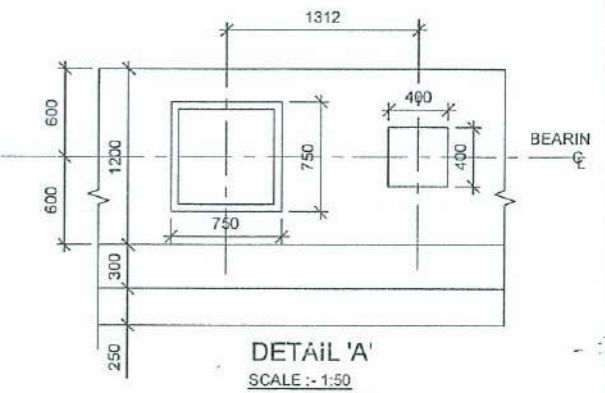
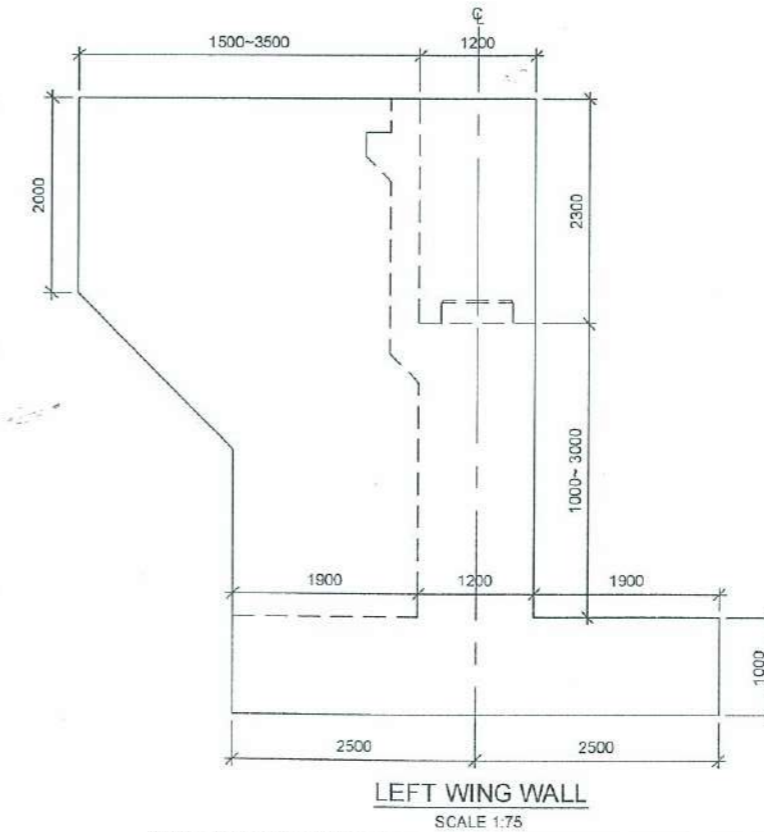
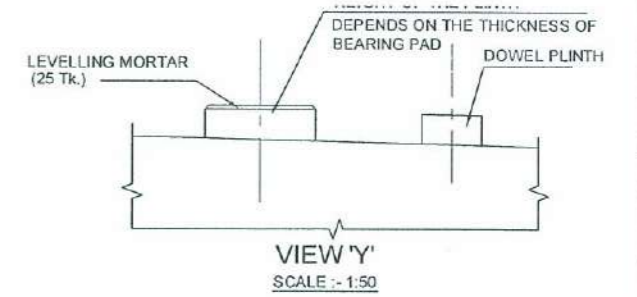
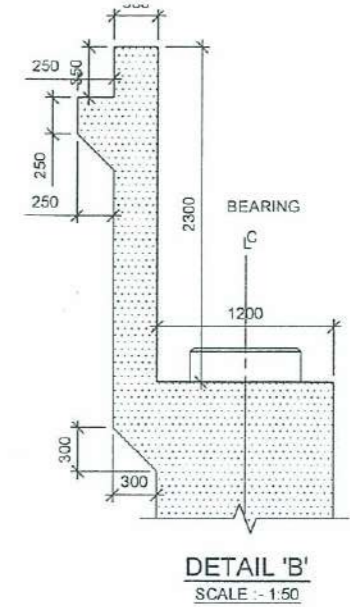
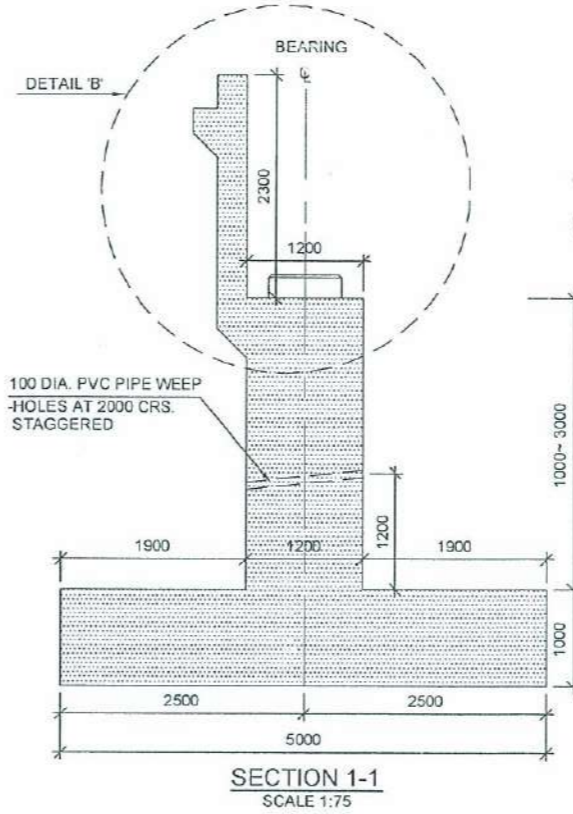
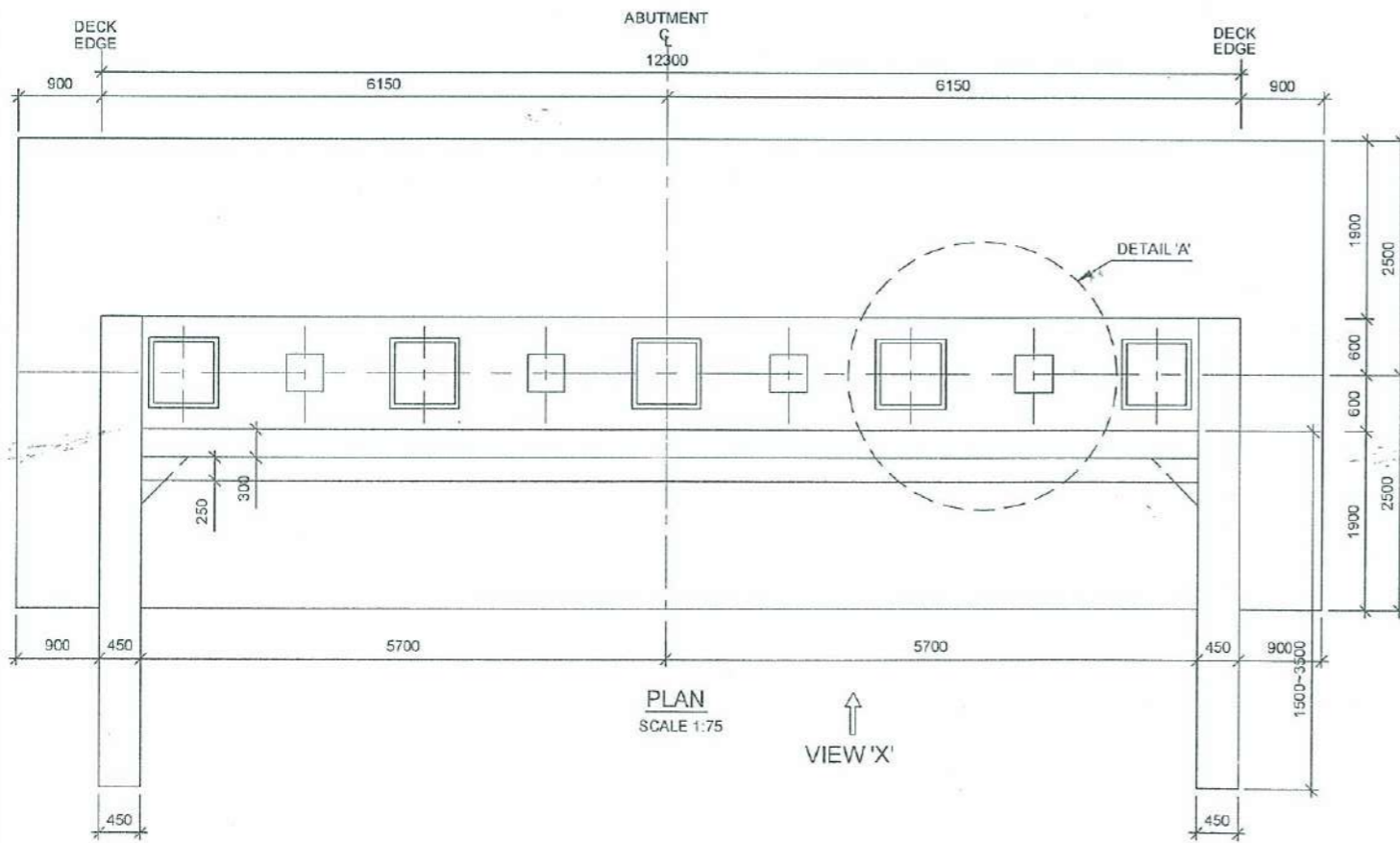
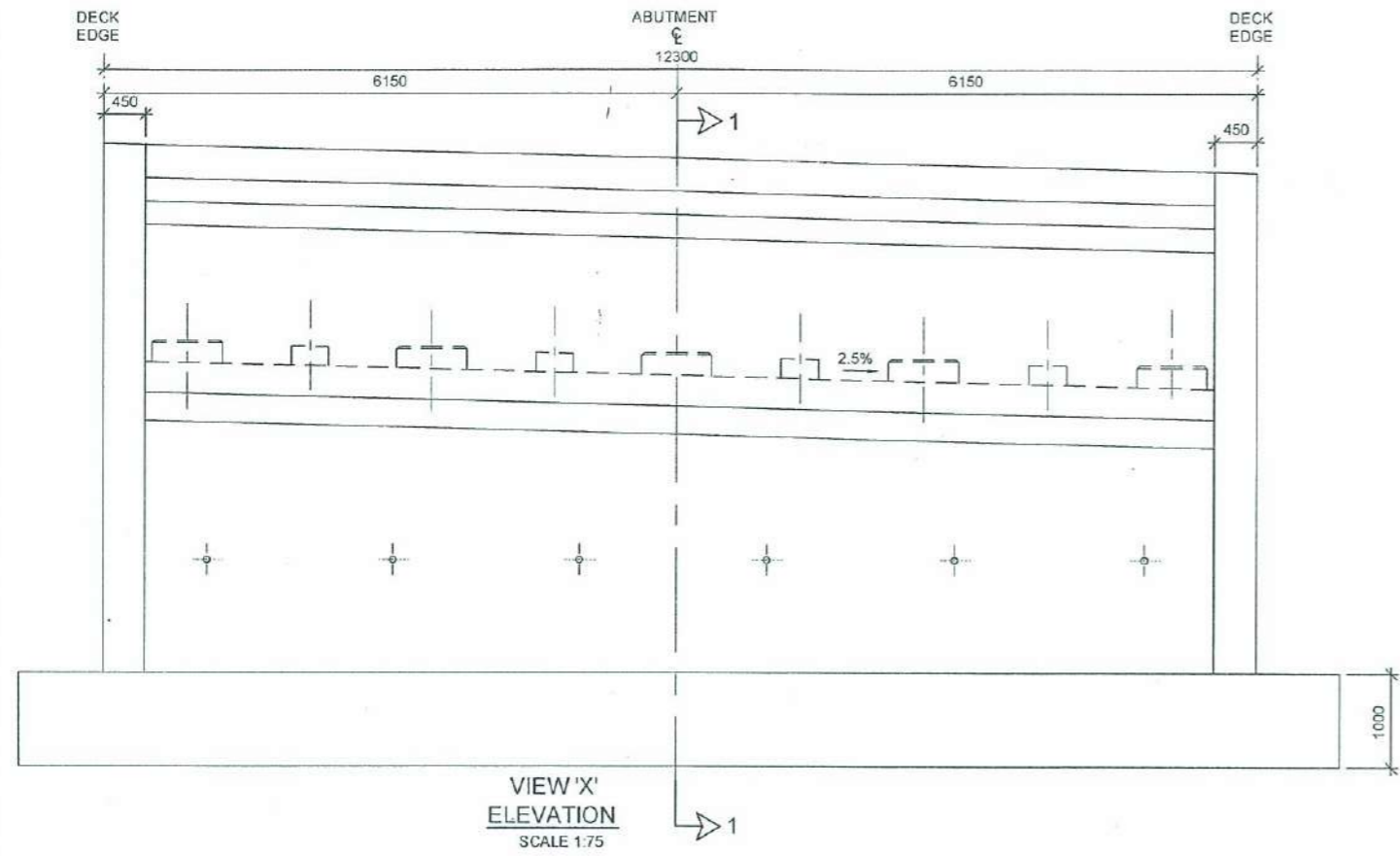
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA KANDY
TEL : 0812234267 FAX : 0812234267 e-mail : docp@rda.gov.lk

(Handwritten signature)

DATE : 04-07-2013

Sheet 01 of 01

DRG No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-006



NOTE: CONCRETE OUTLINE OF RIGHT SIDE WING WALL (VIEW 'Y') IS SIMILAR TO ABOVE

- NOTES -
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

TYPICAL DETAILS OF VIA DUCT, RIVER AND UNDERPASS BRIDGE - ABUTMENT (TYPE 01)

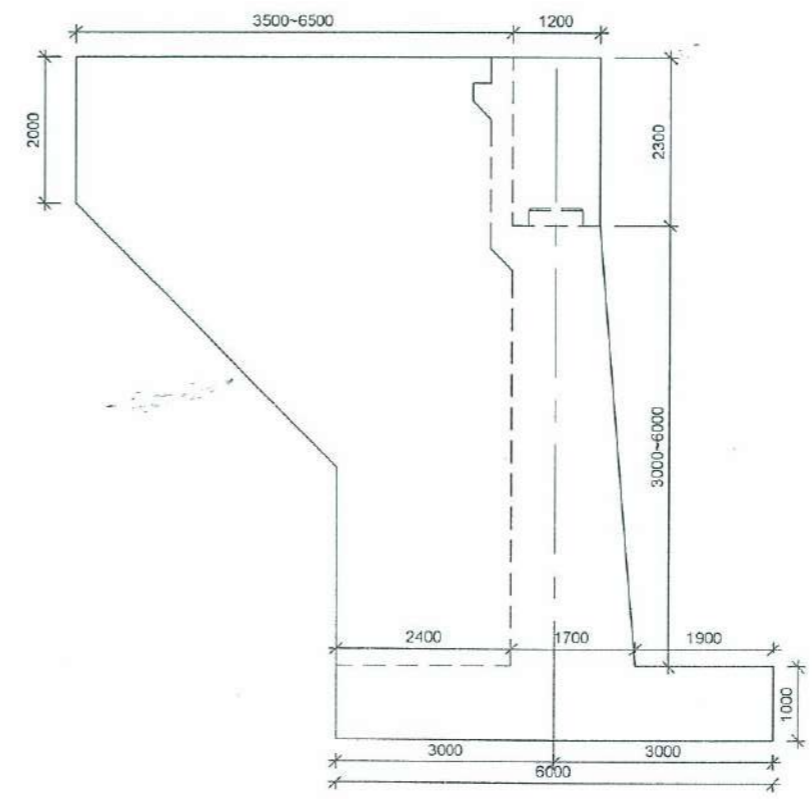
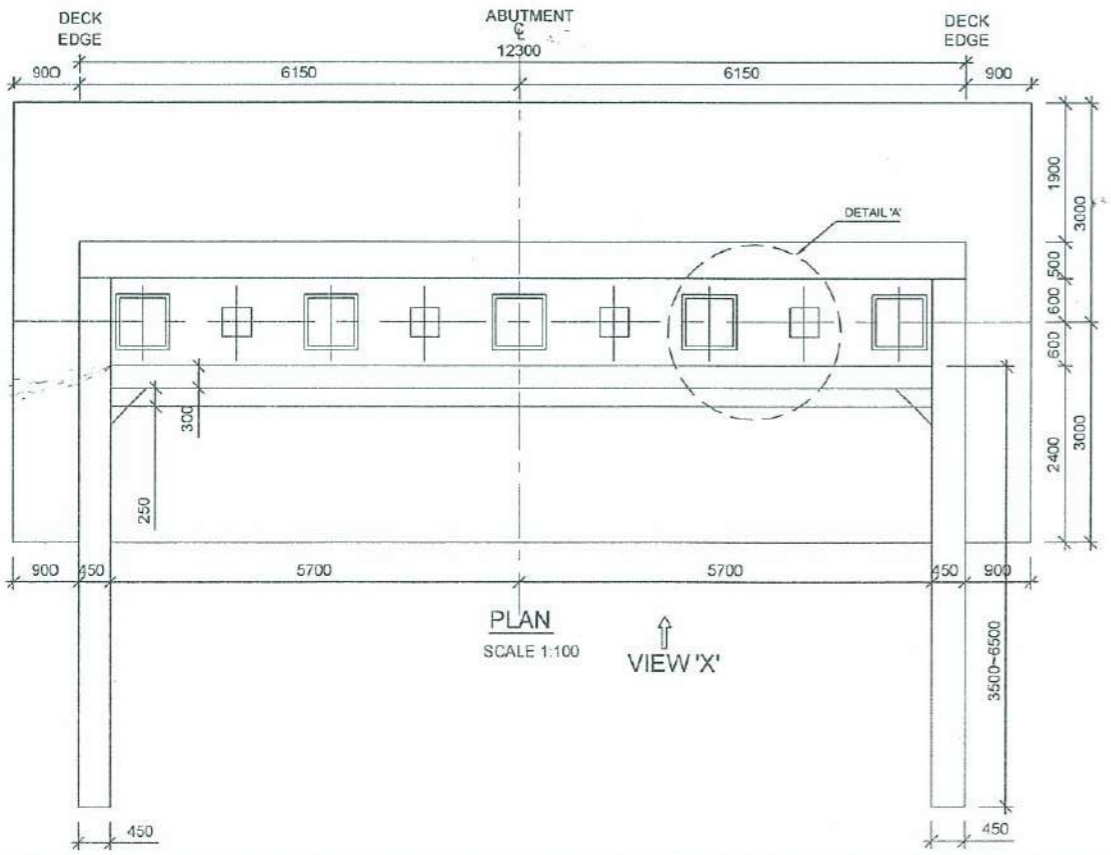
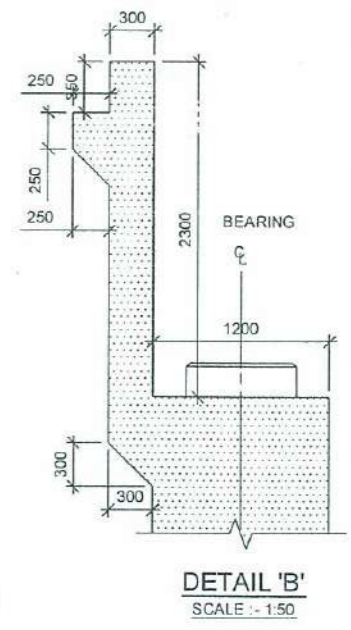
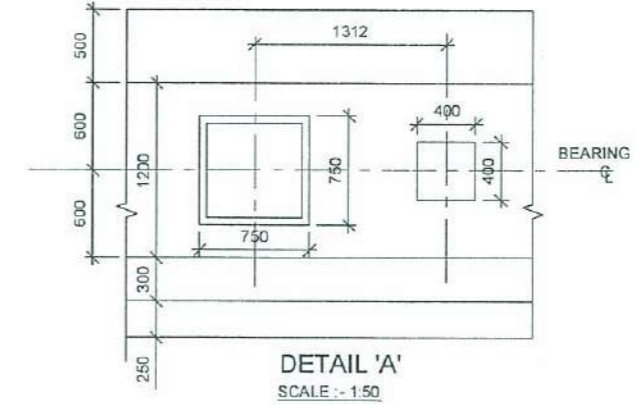
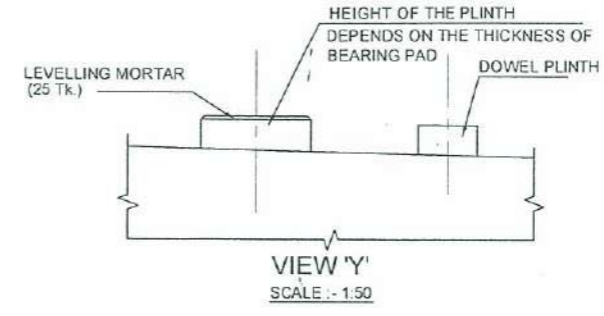
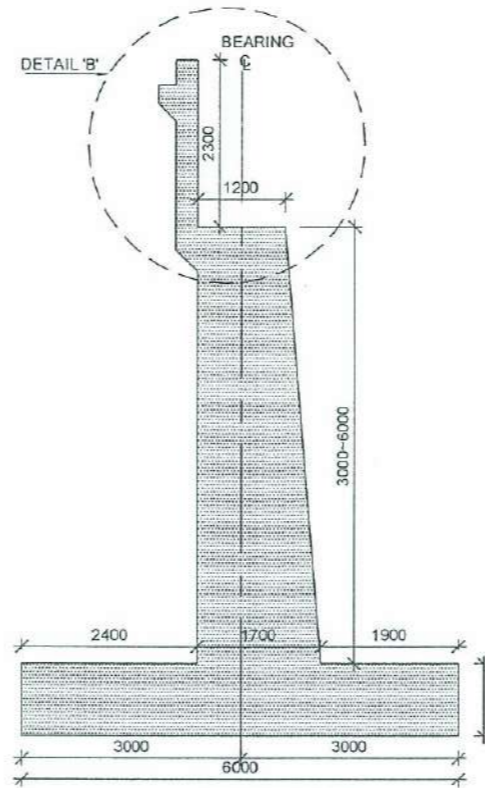
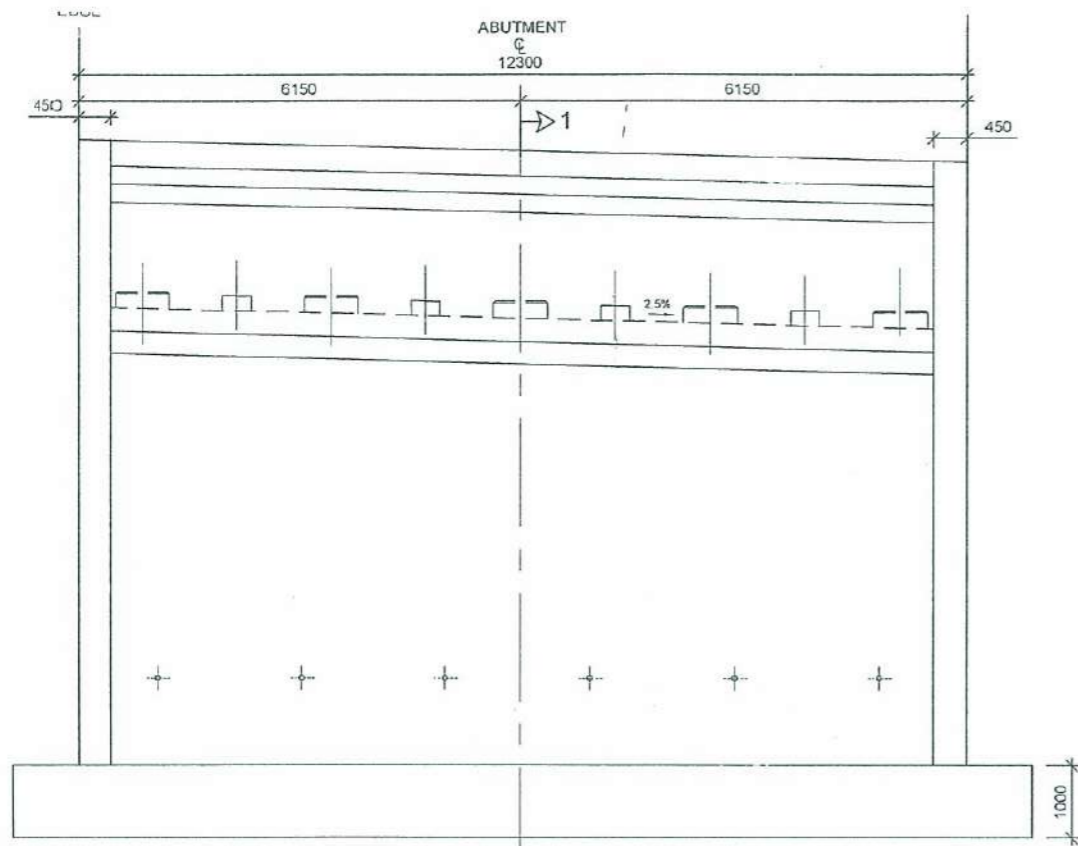


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docep@rda.gov.lk

(Handwritten signature)

DATE : 04-07-2013
Sheet 01 of 03
DRG No : DD-FWD-SF-ESE-ST-EW-FS-S3-C0-007



NOTE: CONCRETE OUTLINE OF RIGHT SIDE WING WALL (VIEW 'Y') IS SIMILAR TO ABOVE

- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20)
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

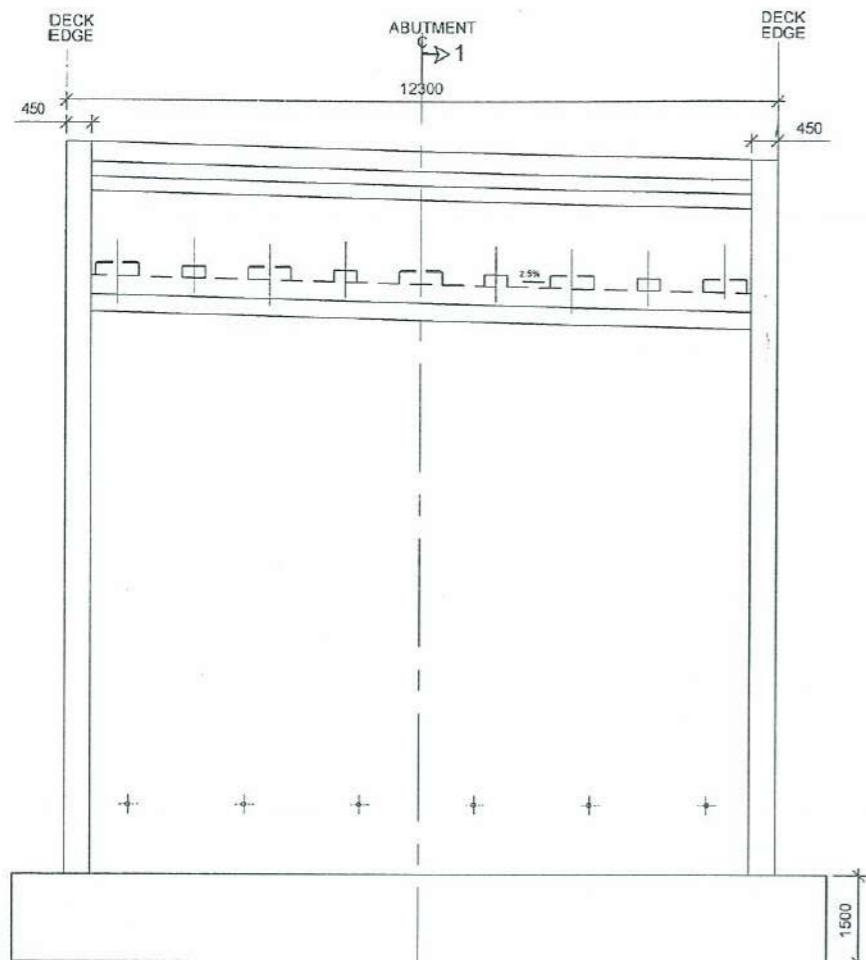
EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)



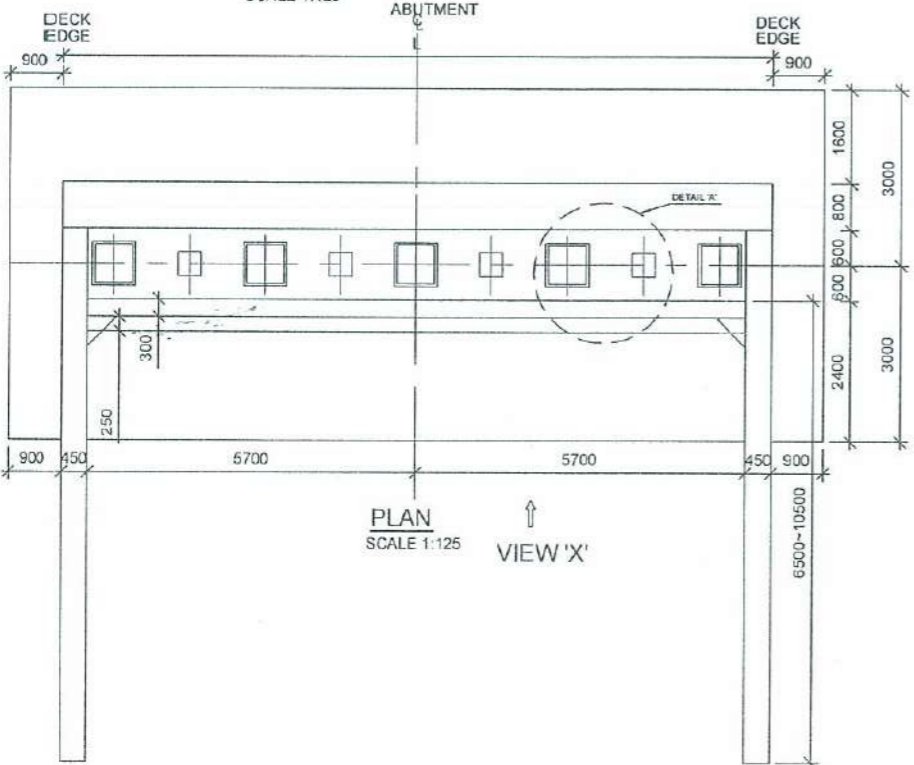
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

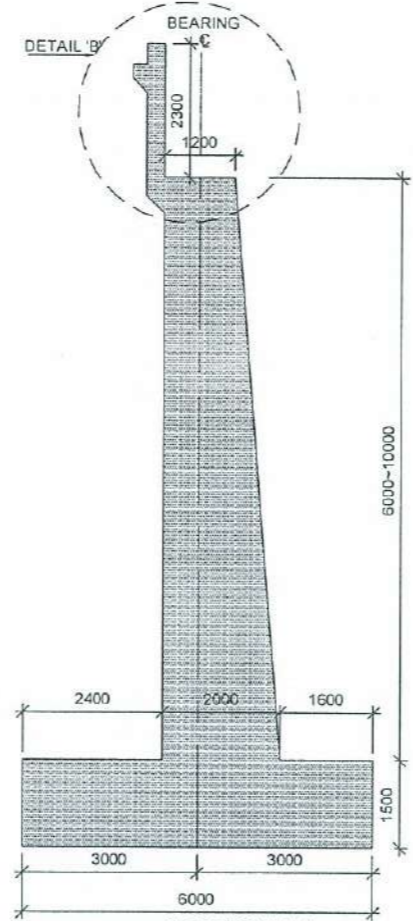
[Signature]
DATE: 04-07-2013



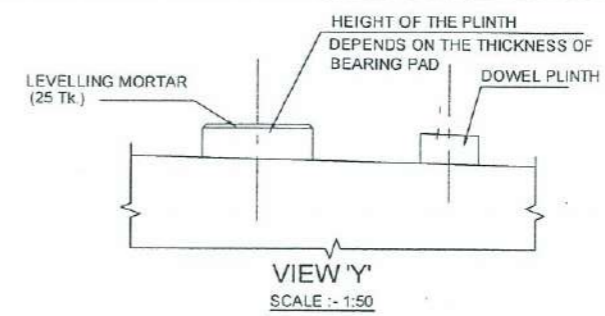
VIEW 'X'
ELEVATION
SCALE 1:125



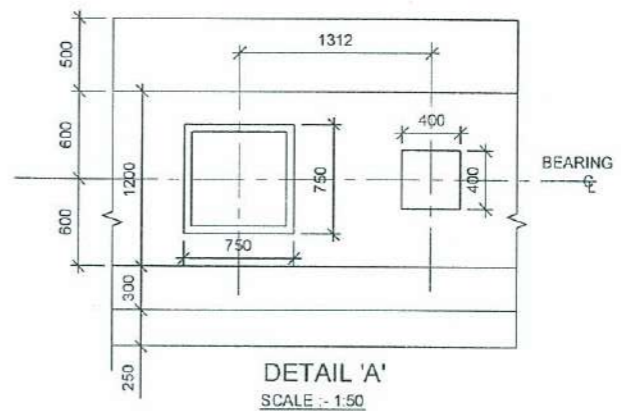
PLAN
SCALE 1:125



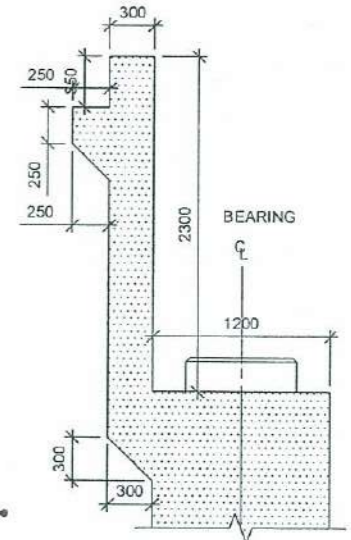
SECTION 1-1
SCALE 1:125



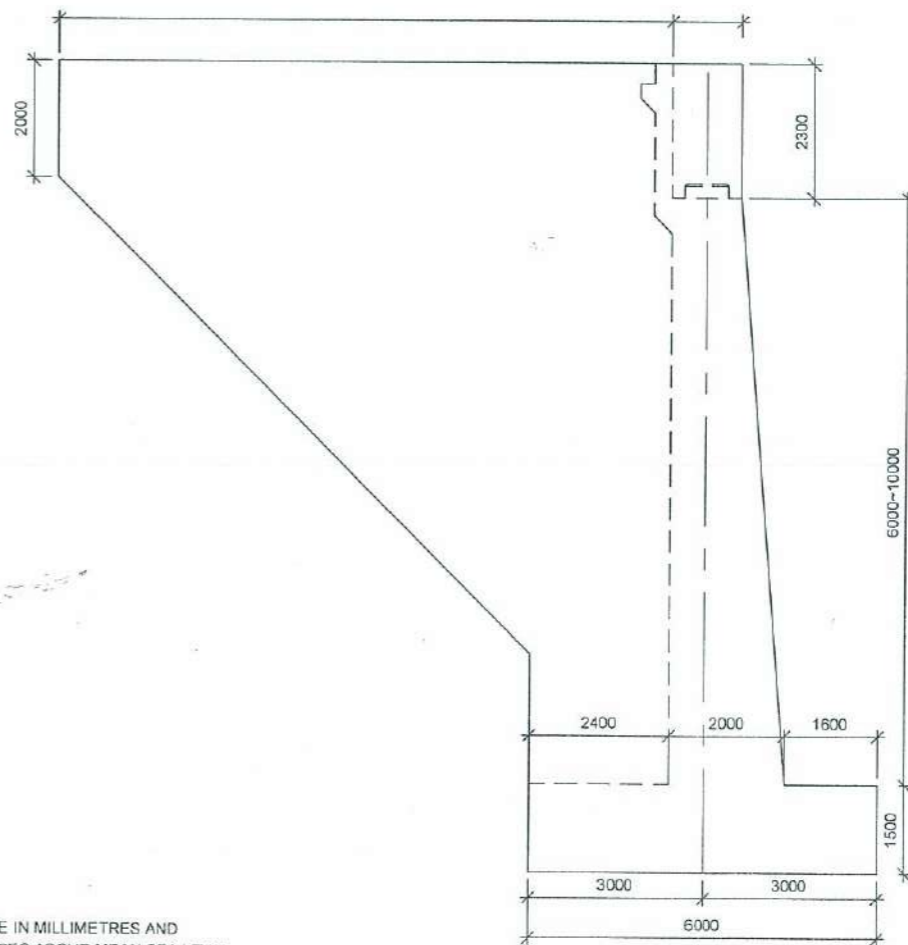
VIEW 'Y'
SCALE :- 1:50



DETAIL 'A'
SCALE :- 1:50



DETAIL 'B'
SCALE :- 1:50



LEFT WING WALL

NOTE: CONCRETE OUTLINE OF RIGHT SIDE WING WALL (VIEW 'Y') IS SIMILAR TO ABOVE
SCALE 1:125

- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL DETAILS OF VIA DUCT ,RIVER BRIDGE AND UNDERPASS BRIDGE - ABUTMENT (TYPE 03)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



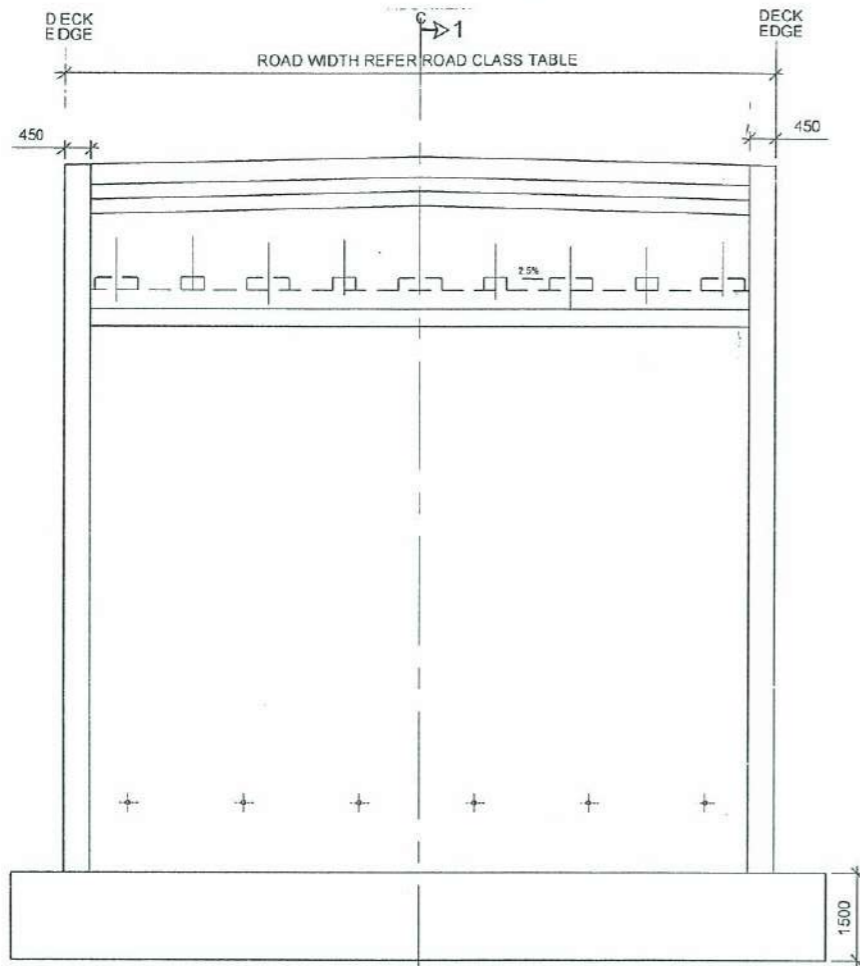
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0912234267 FAX : 0912234267 email : docep@rda.gov.lk

(Handwritten signature)

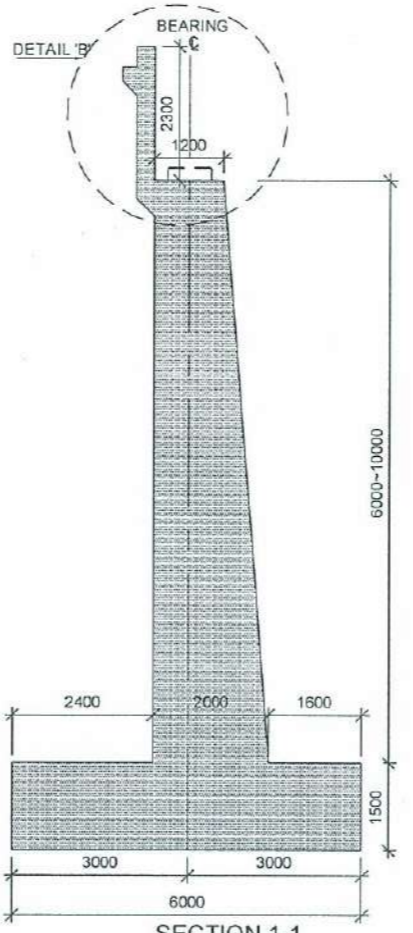
DATE : 04-07-2013

Sheet 03 of 03

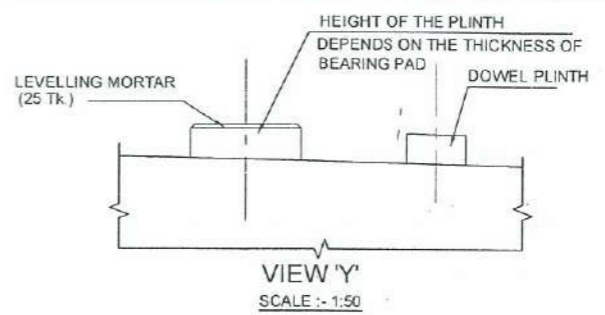
DRG No : DD-FWD-SP-ESE-ST-EW-FS-S3-C0-007



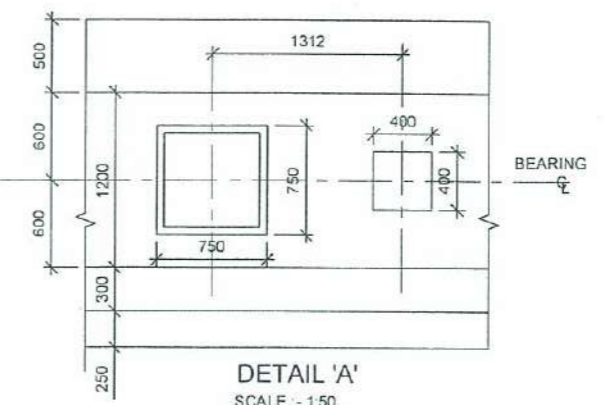
VIEW 'X' ELEVATION
SCALE 1:125



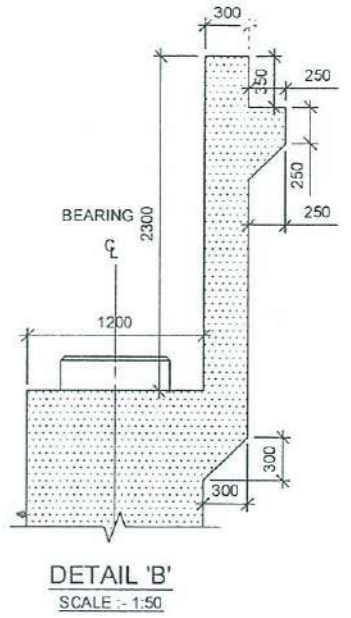
SECTION 1-1
SCALE 1:125



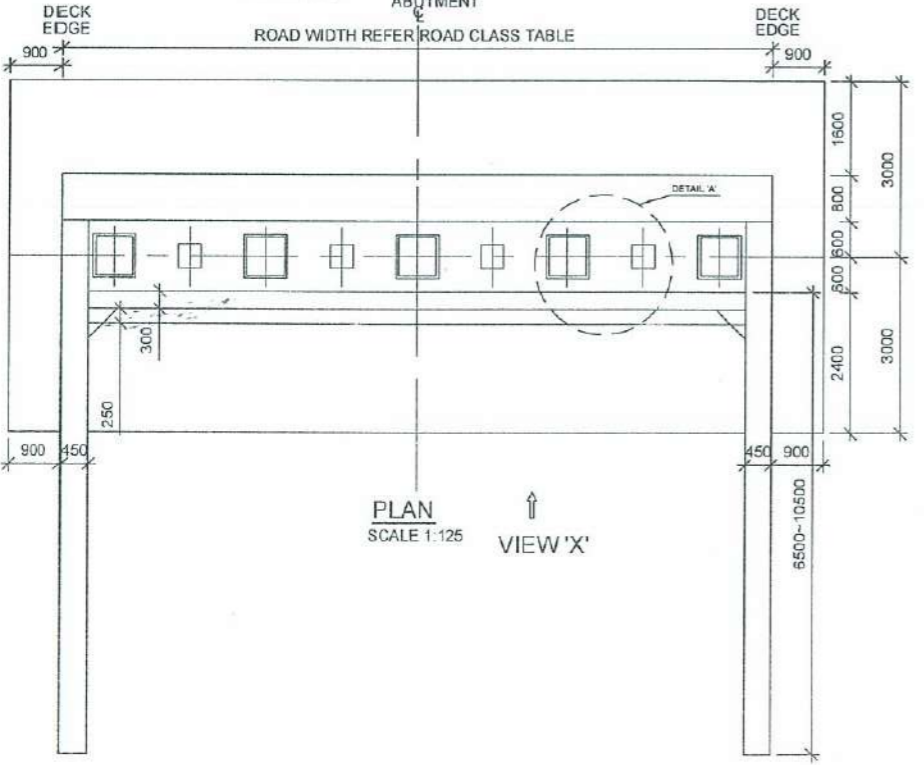
VIEW 'Y'
SCALE :- 1:50



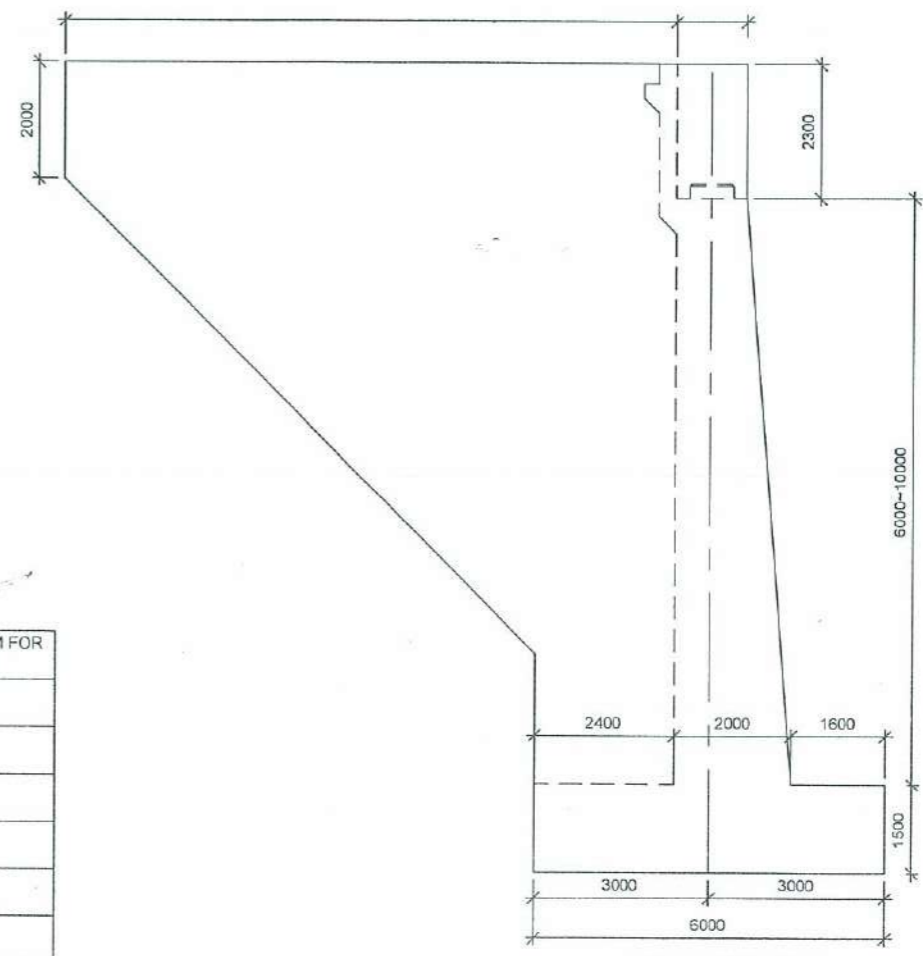
DETAIL 'A'
SCALE :- 1:50



DETAIL 'B'
SCALE :- 1:50



PLAN
SCALE 1:125
VIEW 'X'



LEFT WING WALL

NOTE: CONCRETE OUTLINE OF RIGHT SIDE WING WALL (VIEW 'Y') IS SIMILAR TO ABOVE
SCALE 1:125

ROAD CLASS	ROAD WIDTH	NO OF BEAM FOR SPAN
A	22100	10
B2	22100	10
B3	13900	6
C	10900	5
D	7400	3
E	6800	3

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

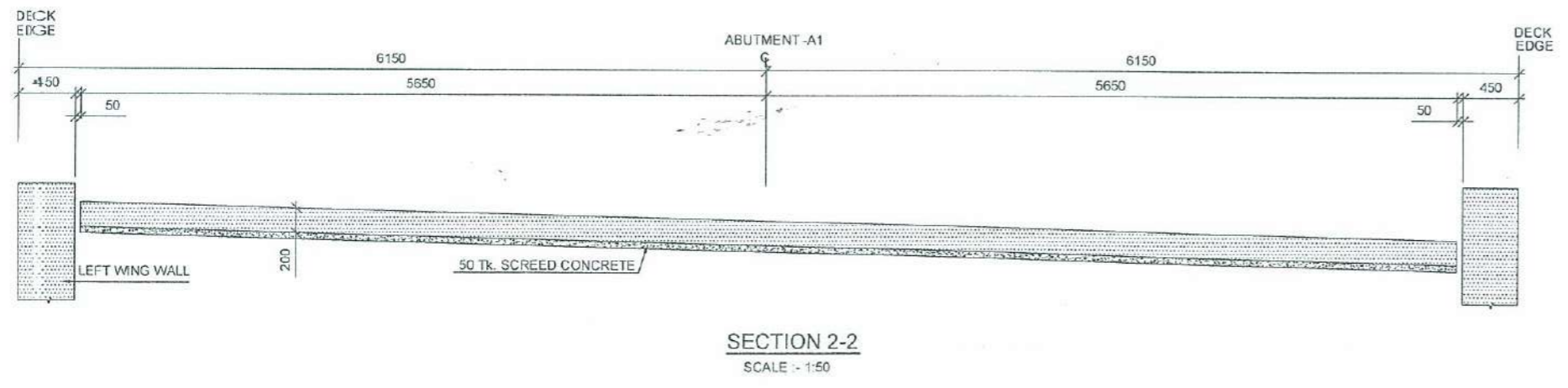
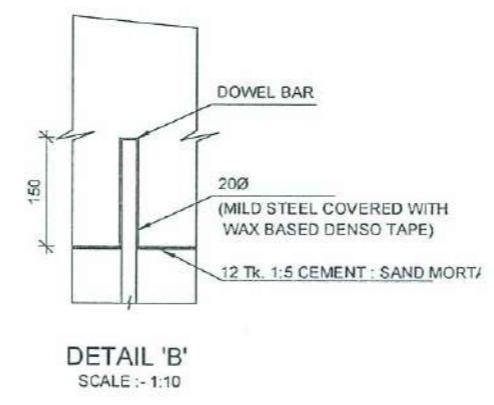
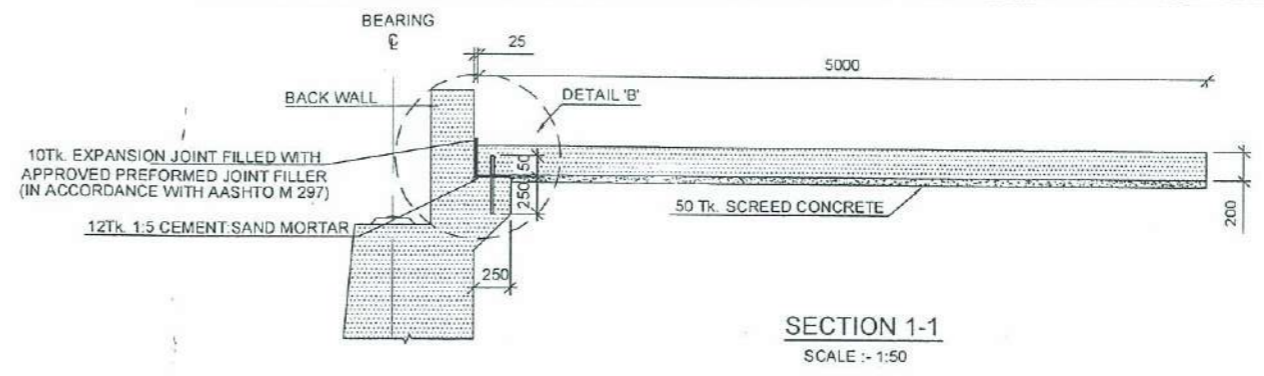
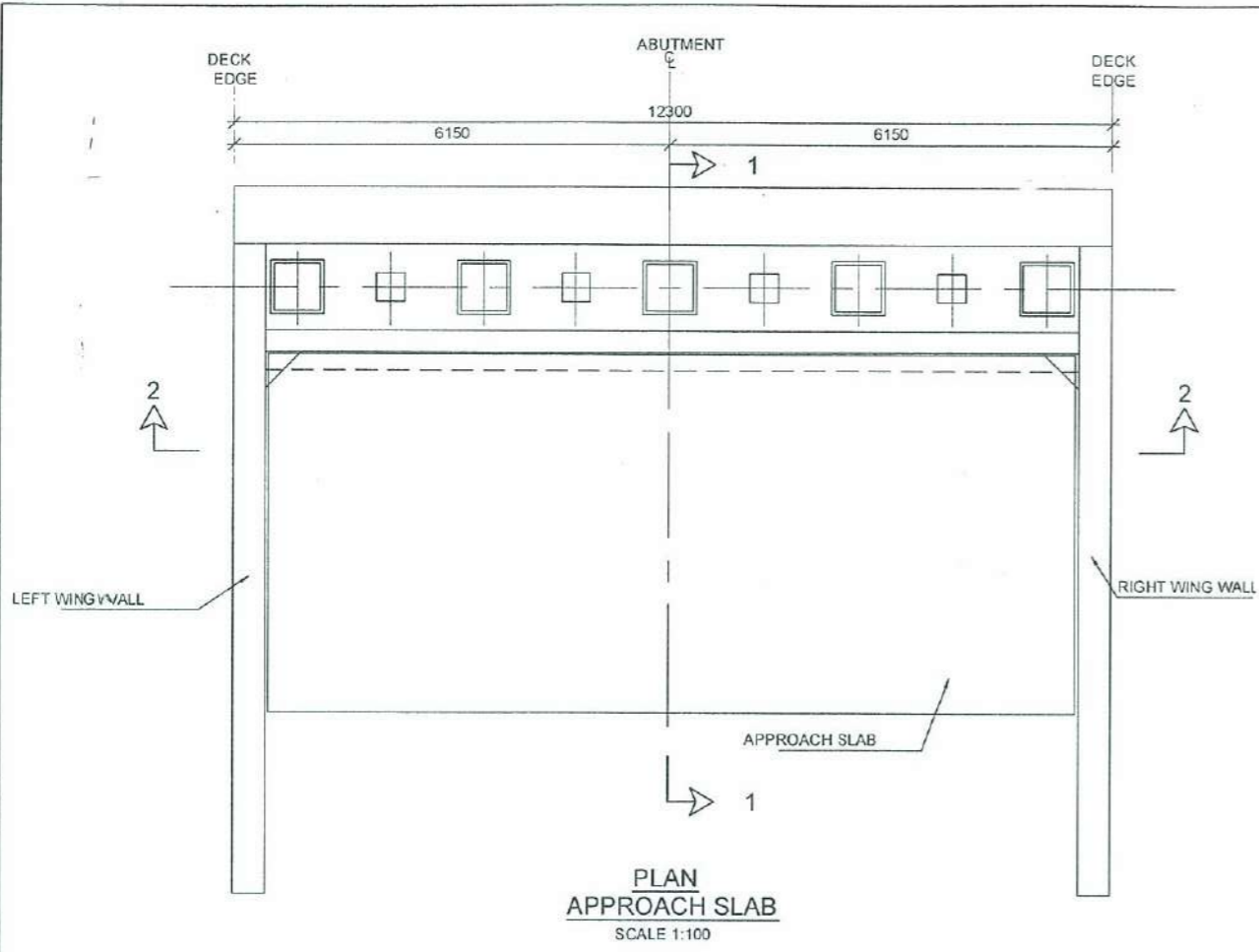
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docep@rda.gov.lk

Handwritten signature

DATE : 04-07-2013

Sheet 01 of 01

DRG No : DP-FWD-SP-ESE-ST-EW-FS-S3-CO-008



- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

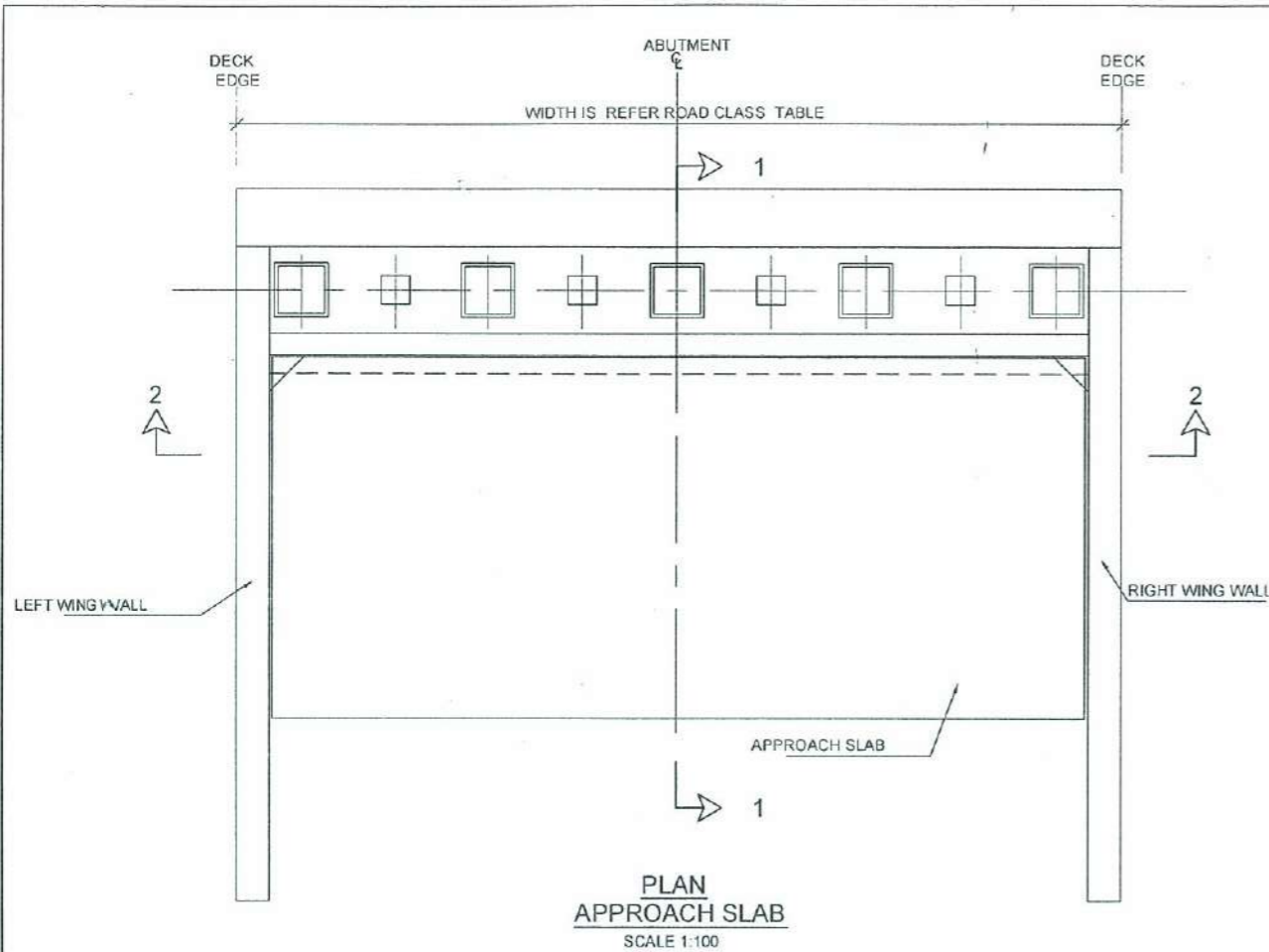
EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

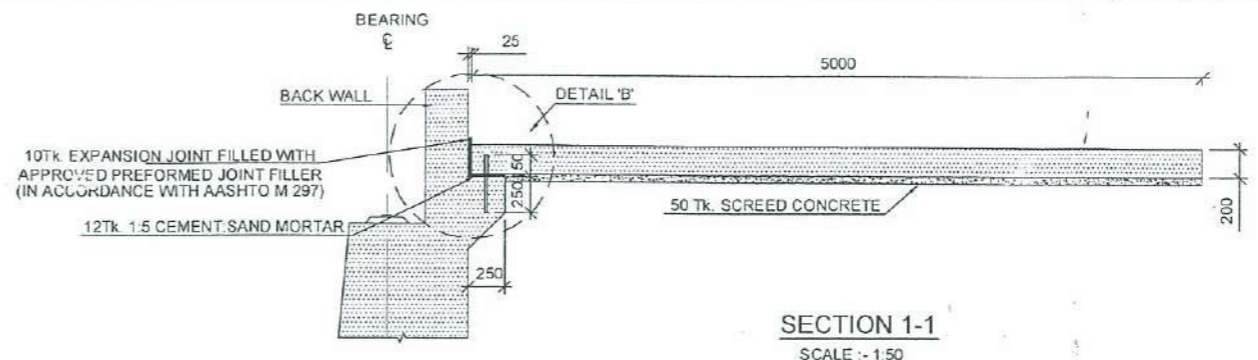
DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234267 email : doep@rda.gov.lk

(Signature)

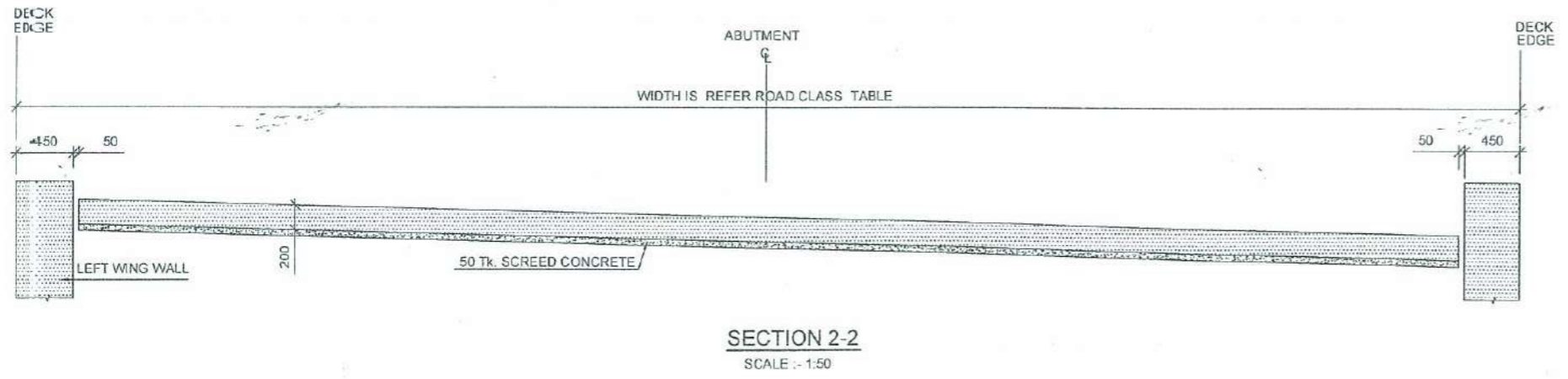
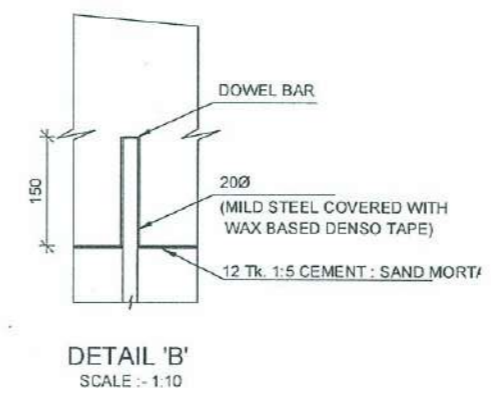
DATE : 04-07-2013
 Sheet 01 of 01
 DRG.No. : DD-FWD-SP-ESE-ST-EWF3-S3-CO-009



PLAN
APPROACH SLAB
SCALE 1:100



ROAD CLASS	ROAD WIDTH	NO OF BEAM FOR SPAN
A	22100	10
B2	22100	10
B3	13900	6
C	10900	5
D	7400	3
E	6800	3



- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

39

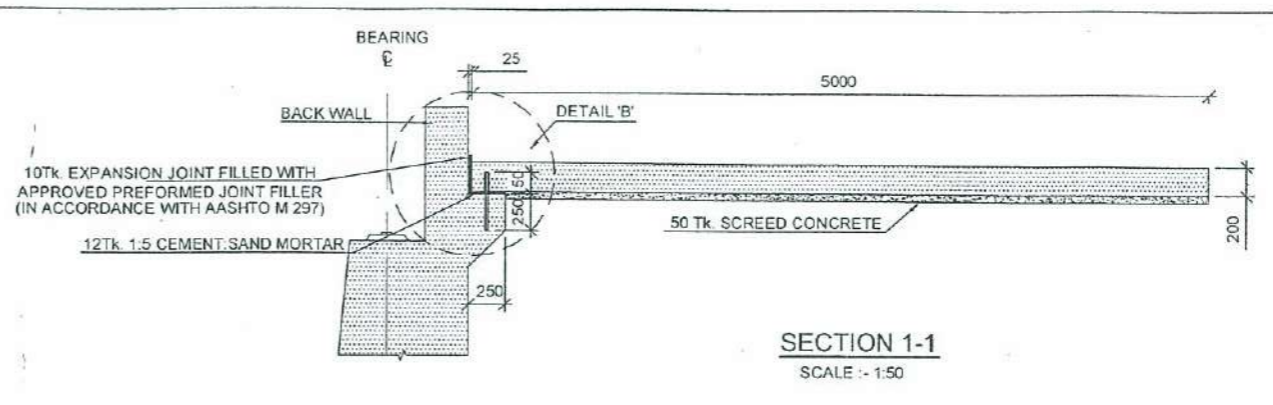
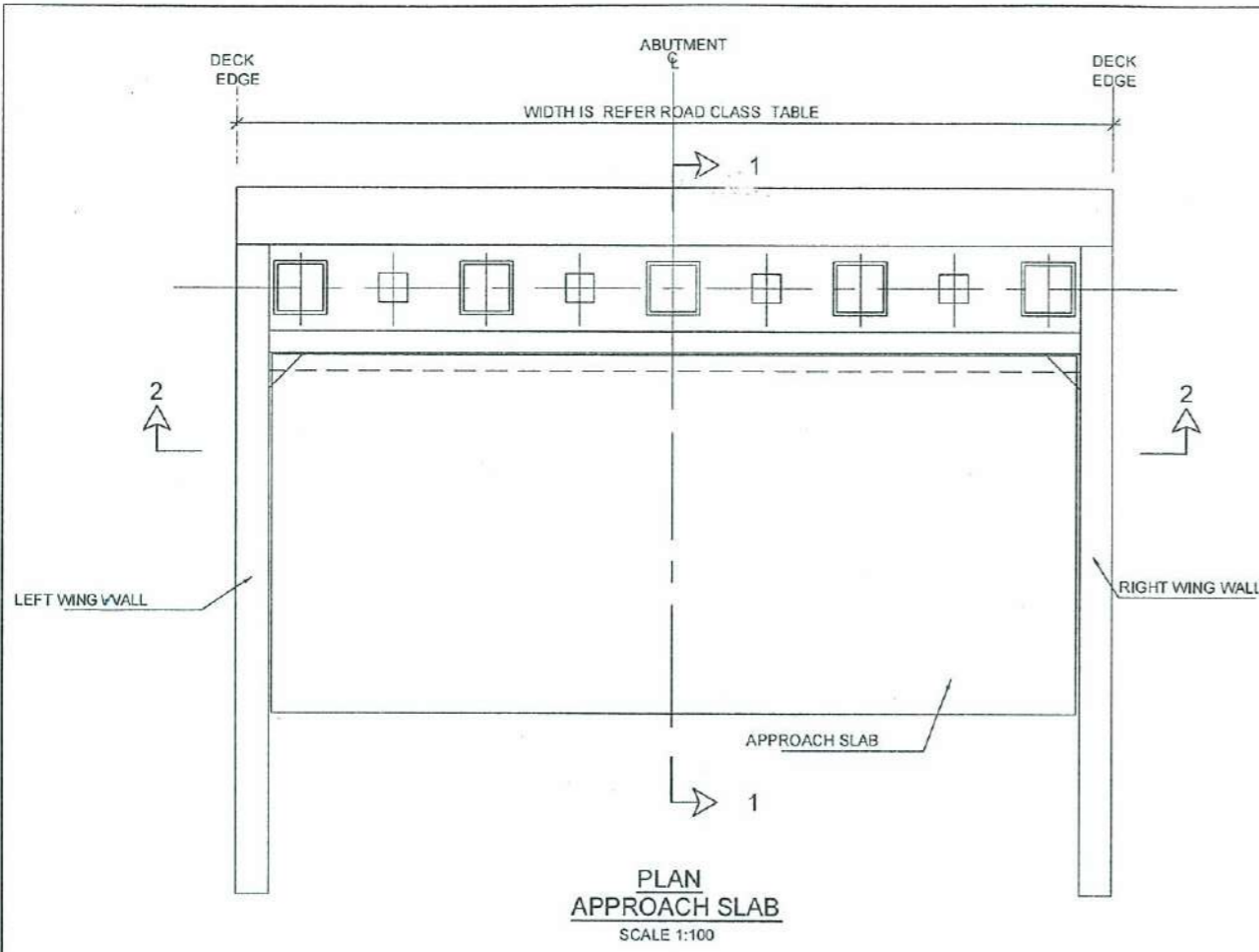


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

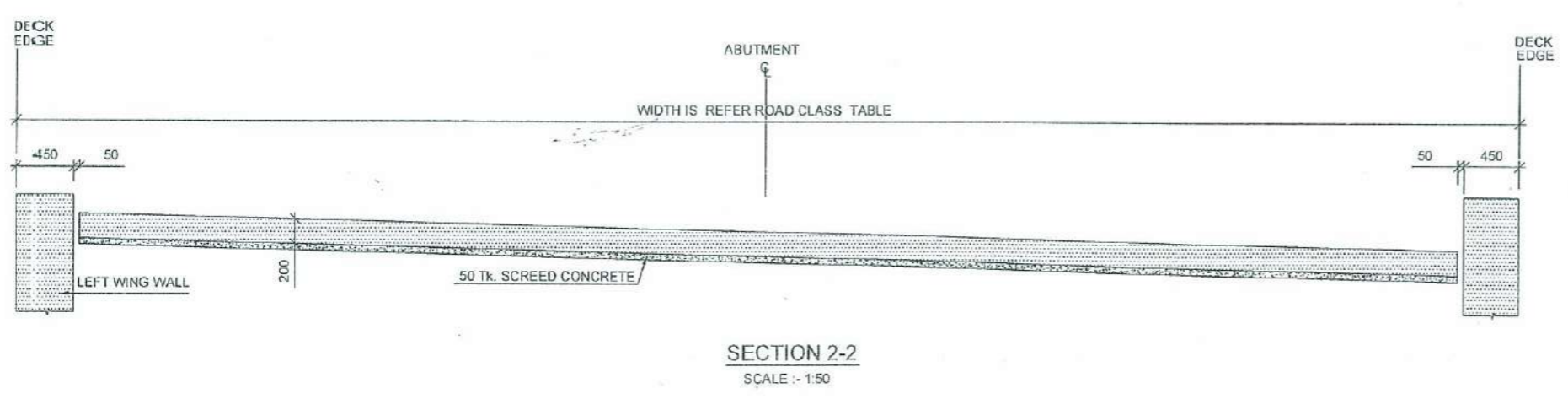
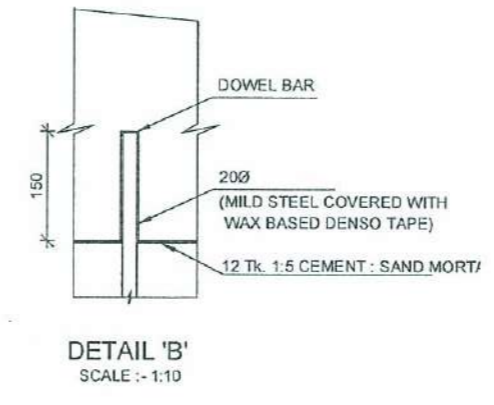
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : dcp@rda.gov.lk

Handwritten initials: SW A

DATE : 04-07-2013
Sheet 01 of 01
DRG.No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-010



ROAD CLASS	ROAD WIDTH	NO OF BEAM FOR SPAN
A	22100	10
B2	22100	10
B3	13900	6
C	10900	5
D	7400	3
E	6800	3



- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
 (SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL DETAILS OF OVER PASS BRIDGE - TYPICAL APPROACH SLAB

40

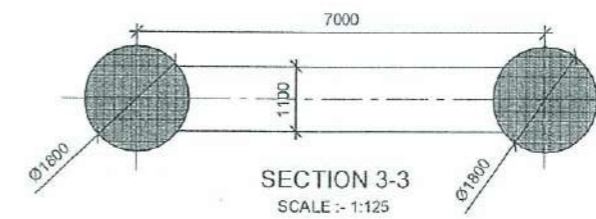
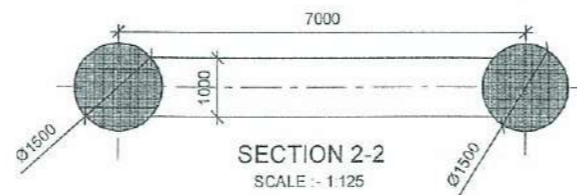
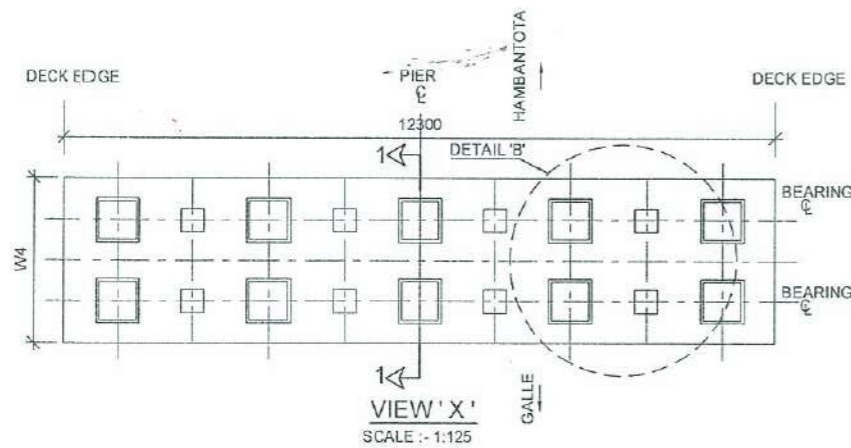
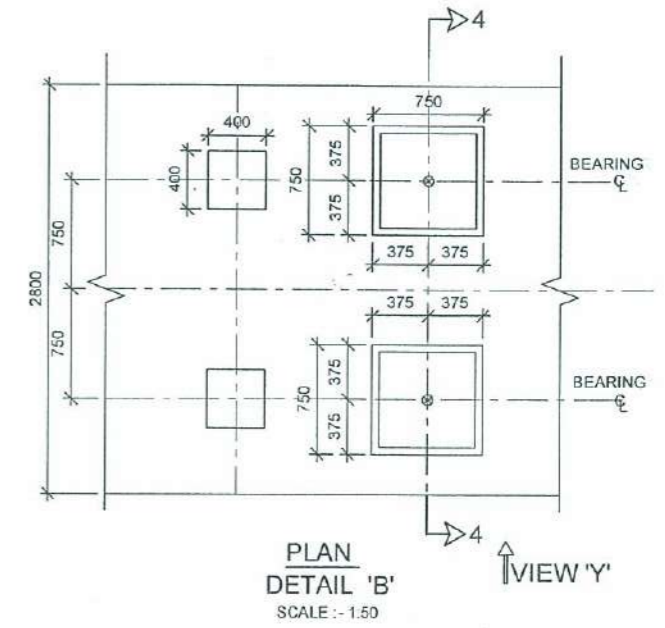
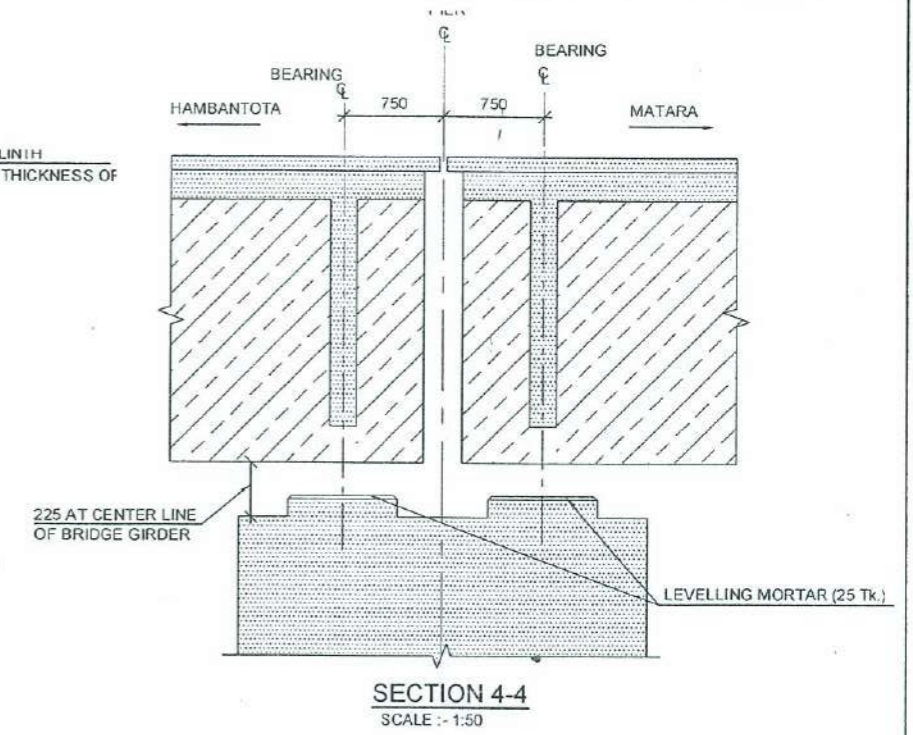
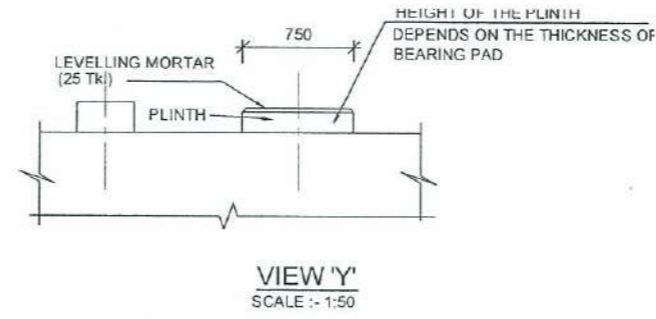
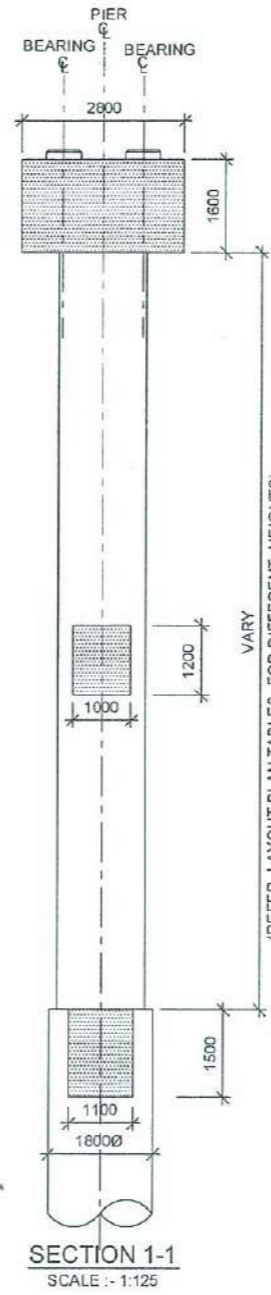
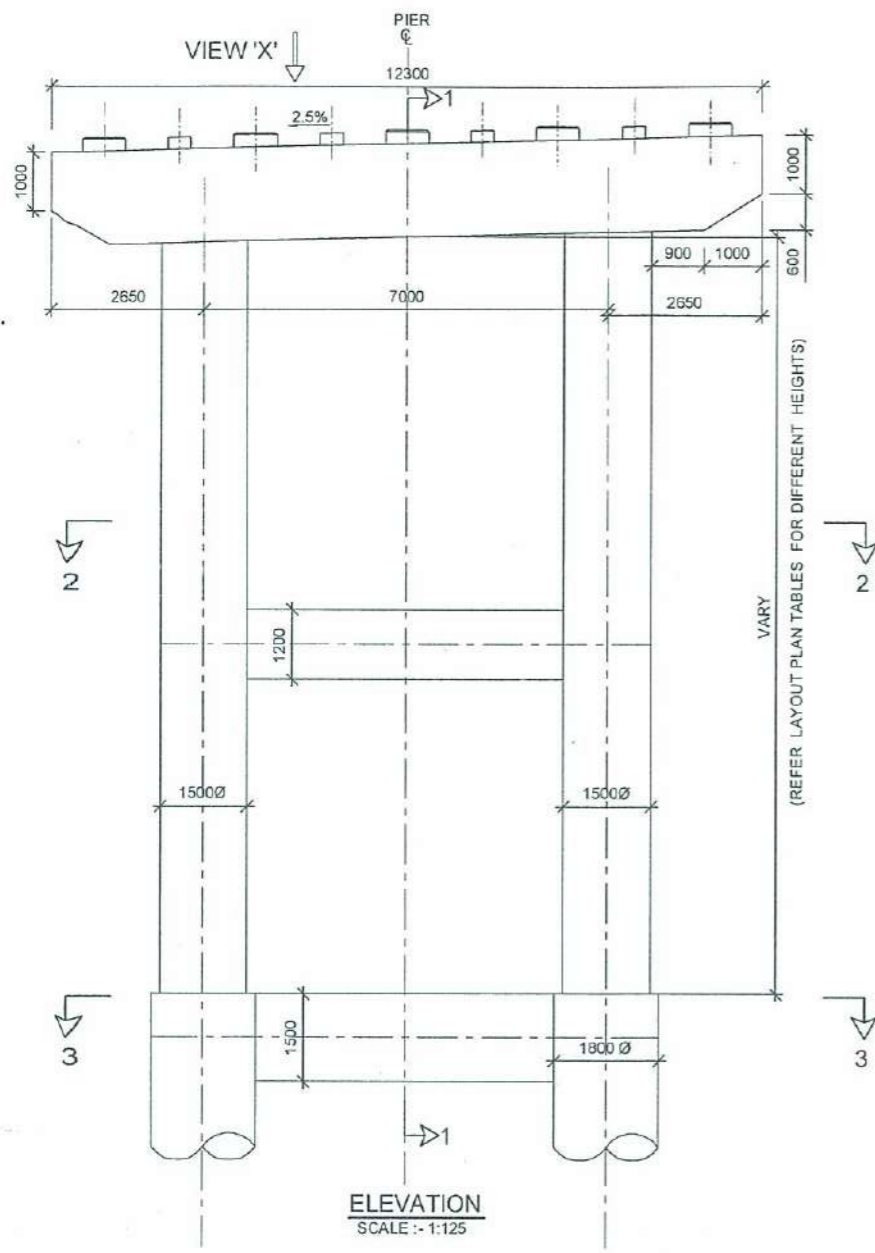


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
 MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
 ROAD DEVELOPMENT AUTHORITY
 S.W.R.D. BANDARANAIKE MAWATHA, KANDY
 TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

(Handwritten signature)

DATE : 04-07-2013
 Sheet 01 of 01
 DRG.No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-010



- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVELLING MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

CONCRETE OUT LINE OF PIER TYPE -01 (TYPICAL DETAILS)

41



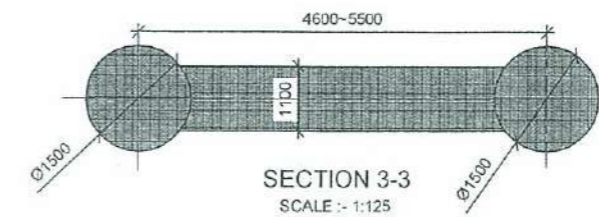
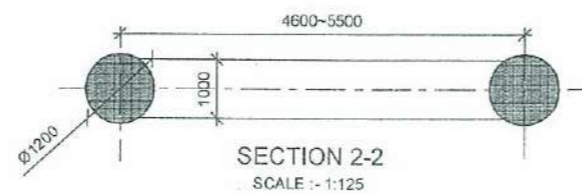
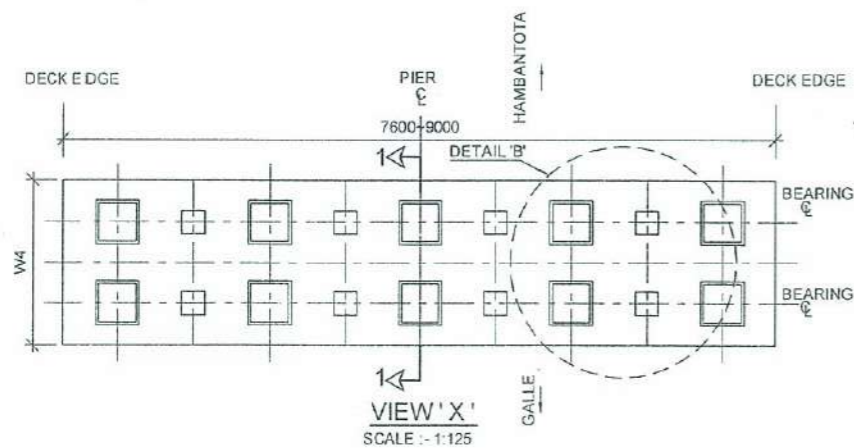
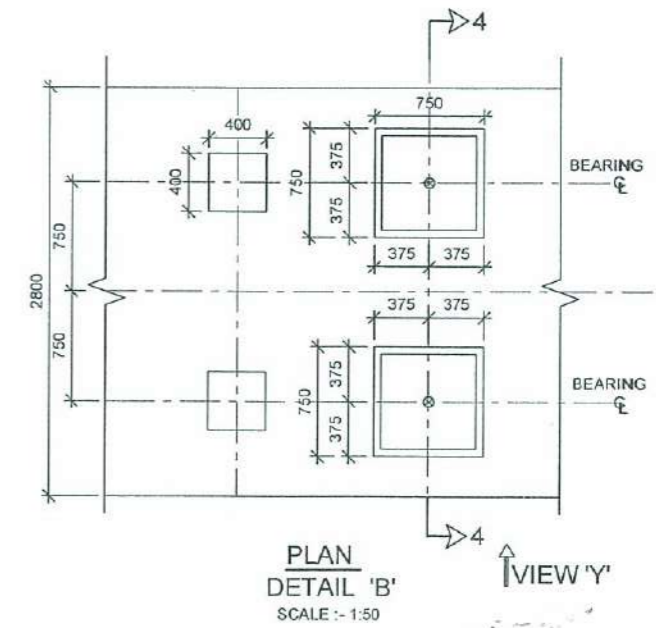
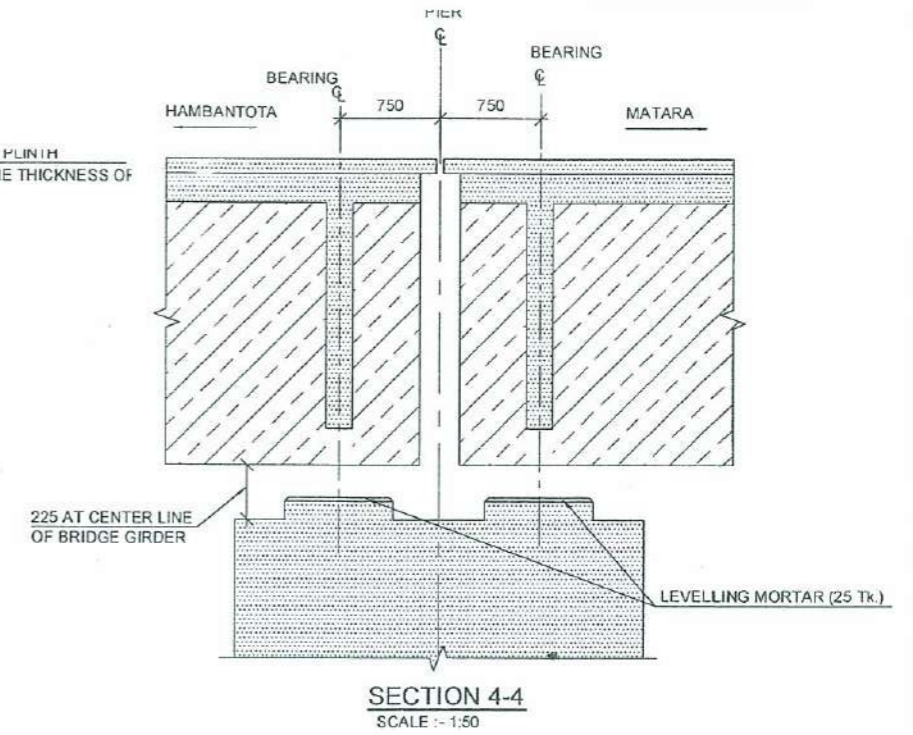
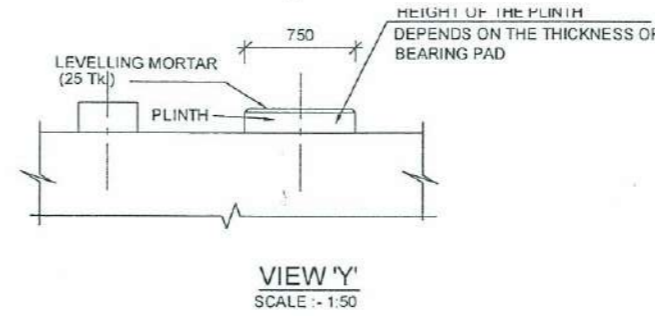
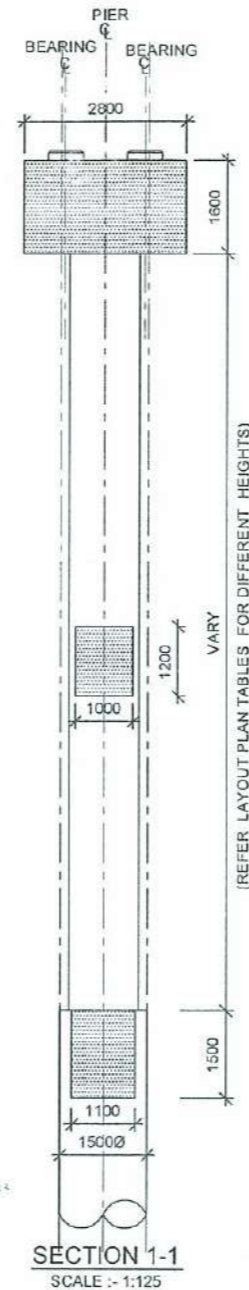
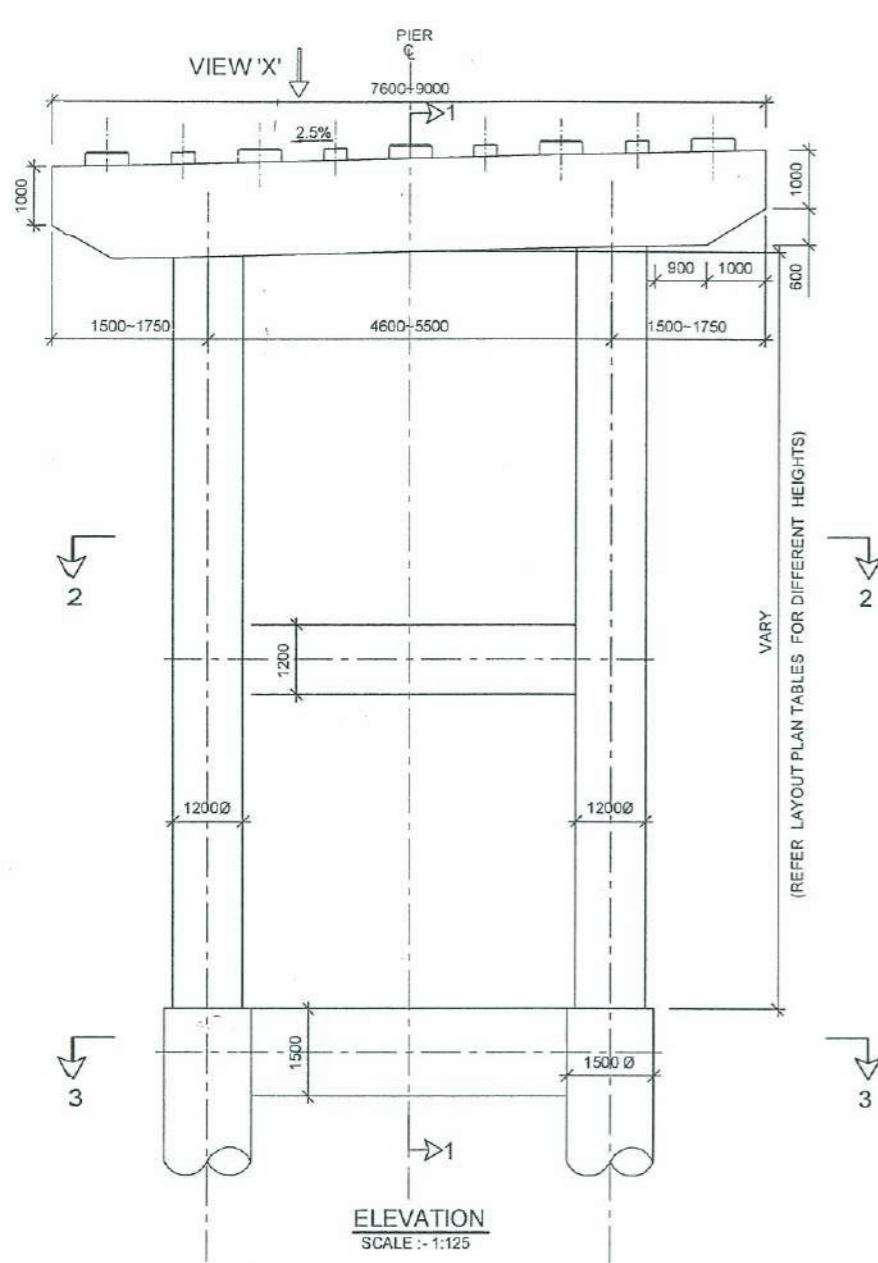
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : do.cp@rda.gov.lk

DATE : 04-07-2013

Sheet 01 of 01

DRG No. : DD-FWD-SF-ESE-ST-EW-FS-S3-CO-011



- NOTES :-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
 2. STRUCTURAL CONCRETE SHALL BE OF GRADE 30(20).
 3. FOR LEVelling MORTAR USE PROPRIETARY TYPE WITH MINIMUM STRENGTH OF 30 N/mm² AT 7 DAYS

**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

CONCRETE OUT LINE OF PIER TYPE -02 (TYPICAL DETAILS)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



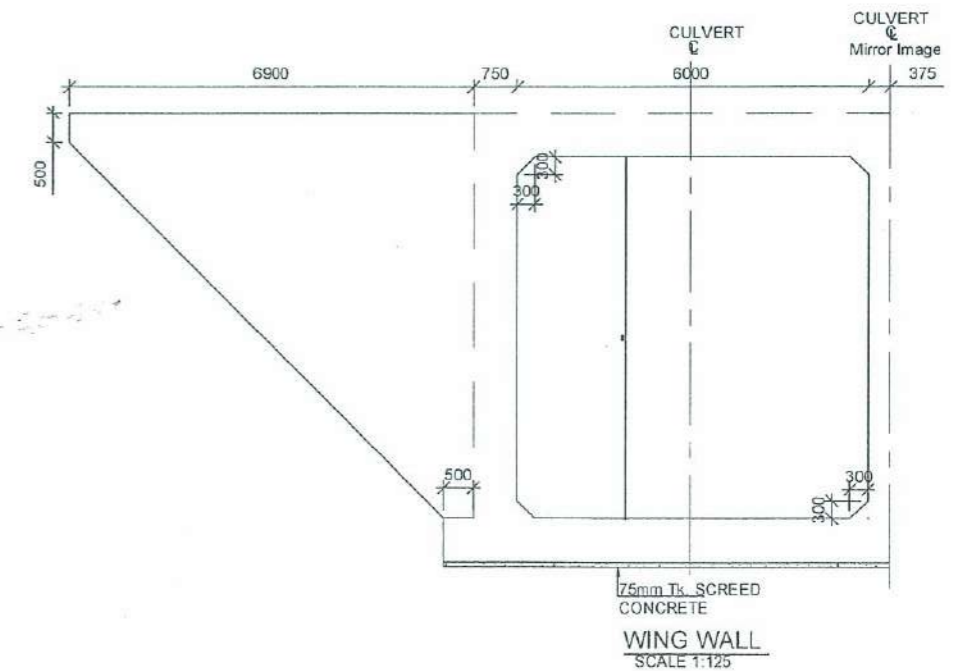
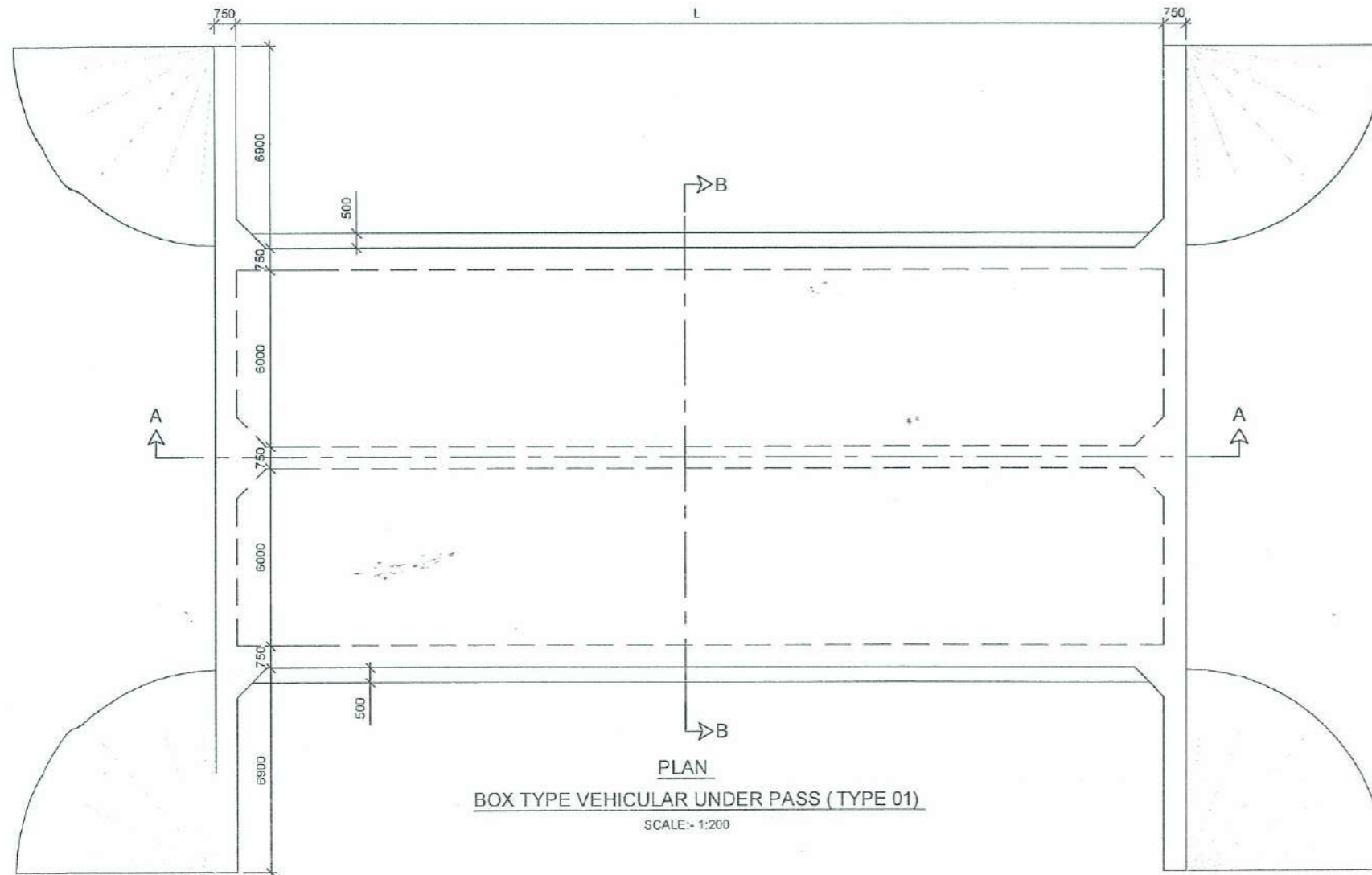
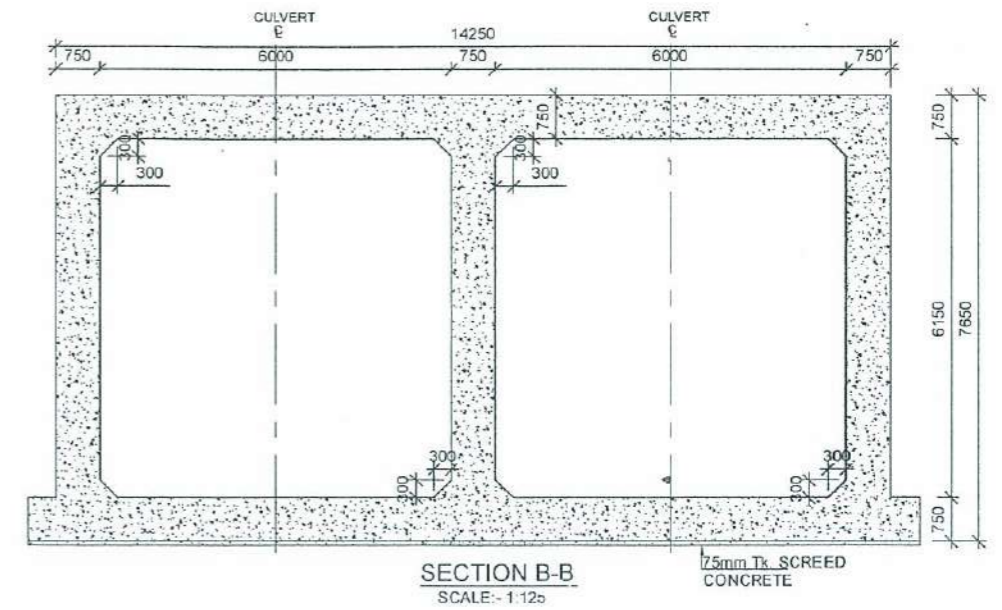
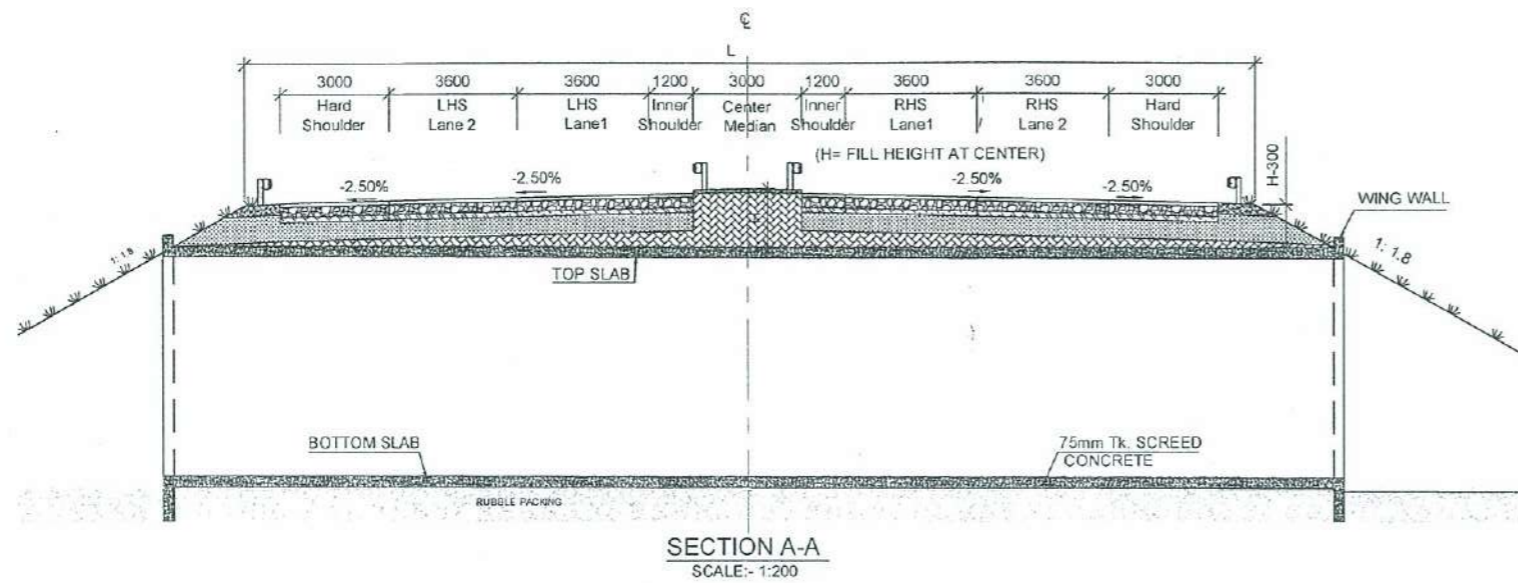
DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

[Signature]

DATE: 04-07-2013

Sheet 01 of 01

DRG No. DD-FWD-SP-ESE-ST-EWFS-S3-CO-012



NOTES:-
1 ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

43

BOX TYPE VEHICULAR UNDER PASS - CLASS 'B' & CLASS 'C' ROAD (TWO LANE)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



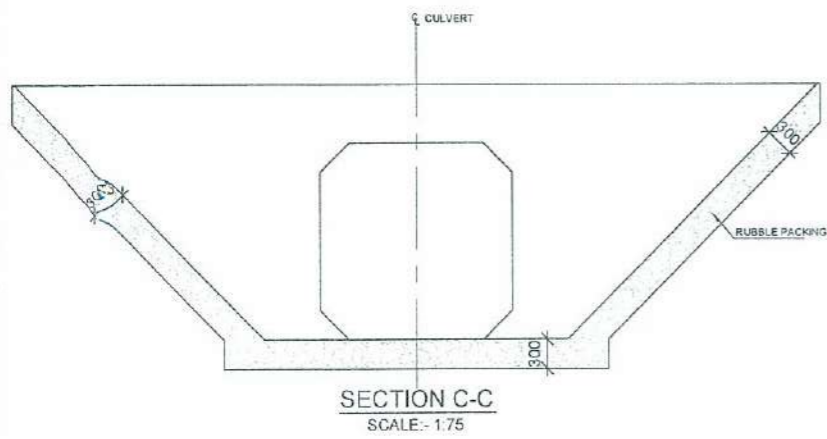
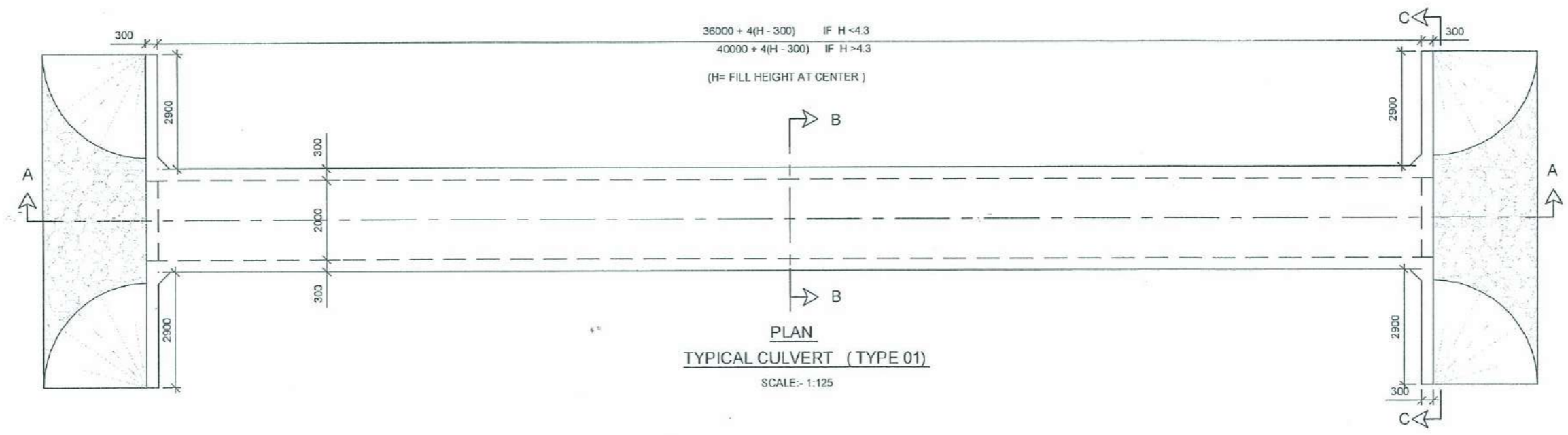
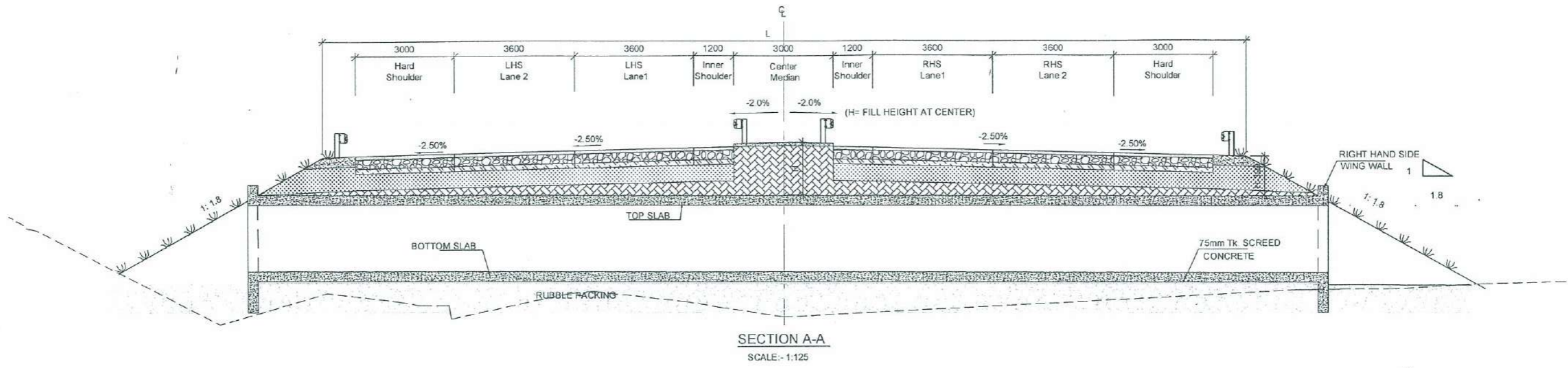
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: doocp@rda.gov.lk

[Handwritten Signature]

DATE: 04-07-2013

Sheet 02 of 02

DRG No.: DD-FWD-SP-ESE-ST-EWFS-S1-CO-013



NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL CULVERT TYPE 01-(2.0m x2.0m SINGLE CELL)

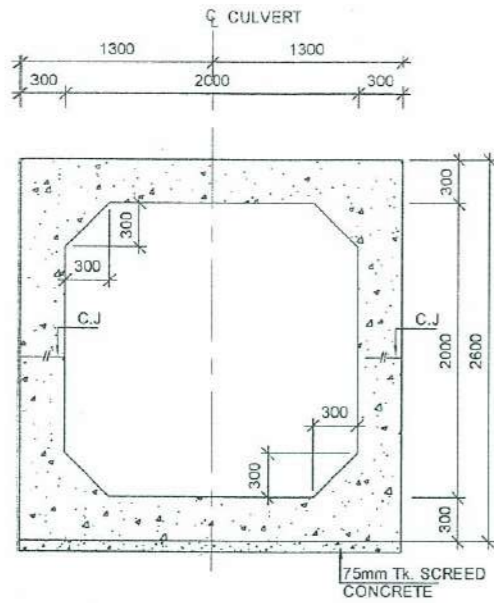


DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

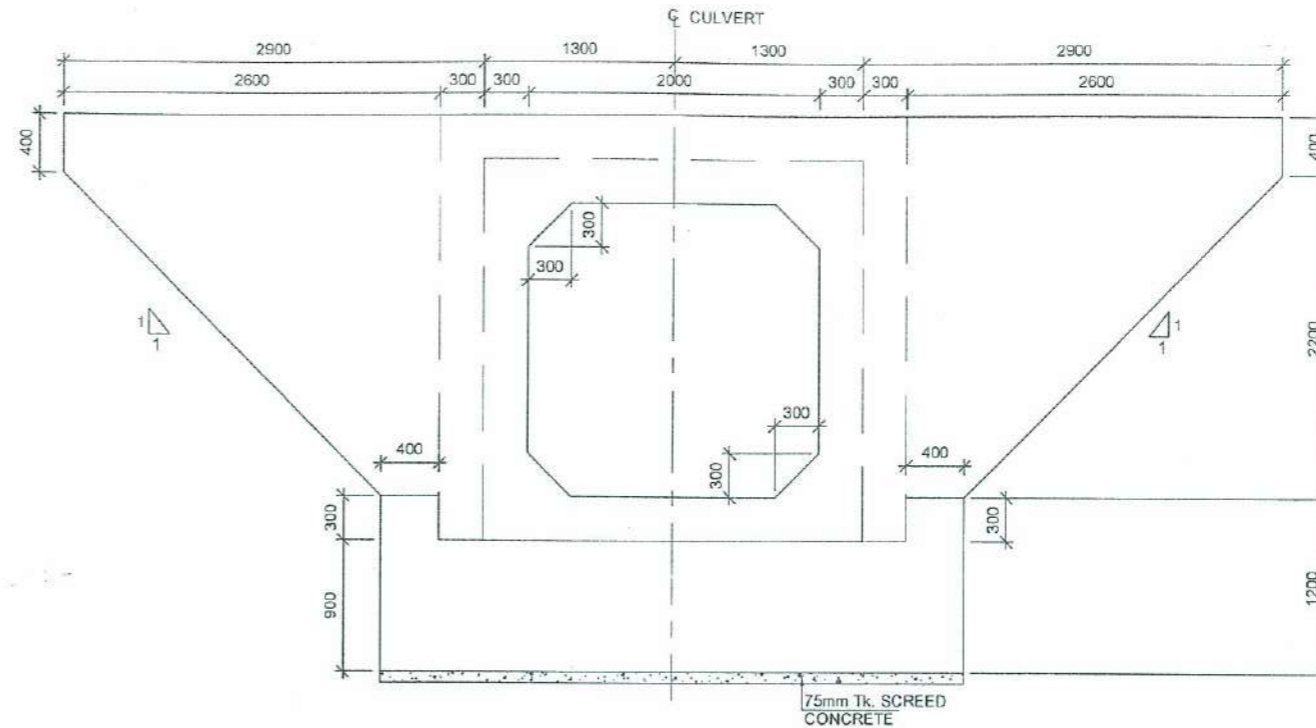
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

Handwritten initials/signature

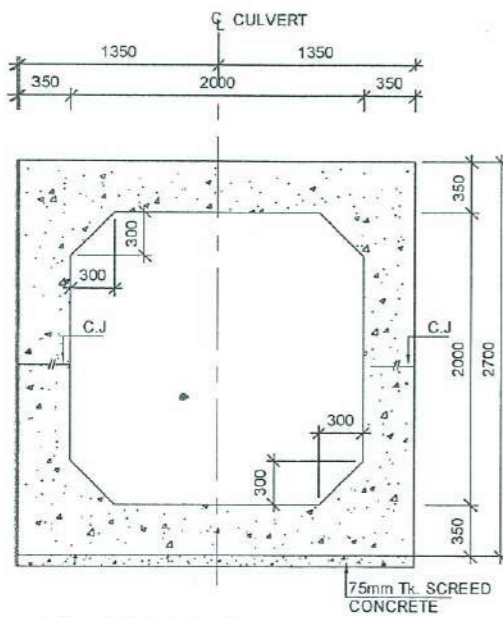
DATE: 04-07-2013
DRG No: DD-FWD-SP-ESE-ST-EWFS-S1-CO-014
Sheet 01 of 06



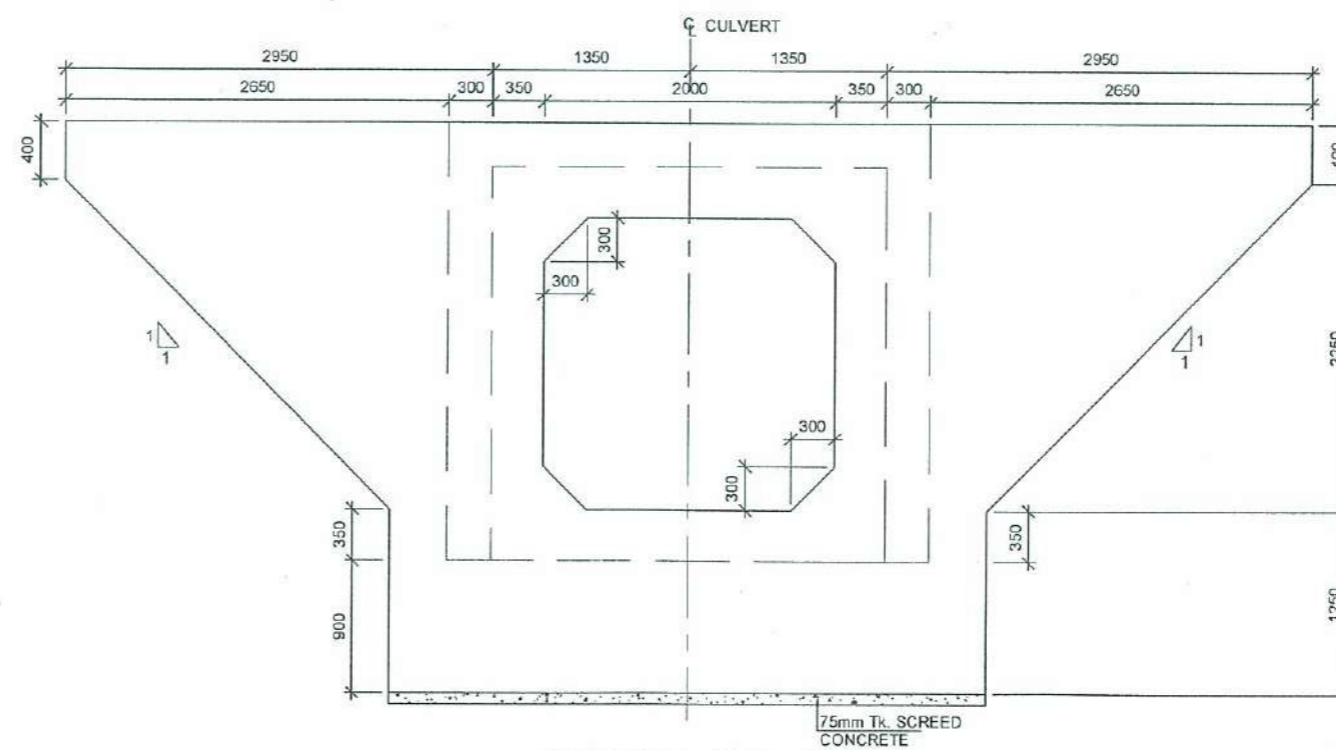
SECTION B-B (IF H < 4.0m)
SCALE:- 1:50



WING WALL (IF H < 4.0m)
SCALE 1:50



SECTION B-B (IF H > 4.0m)
SCALE:- 1:50



WING WALL (IF H > 4.0m)
SCALE 1:50

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

**EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)**

45



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

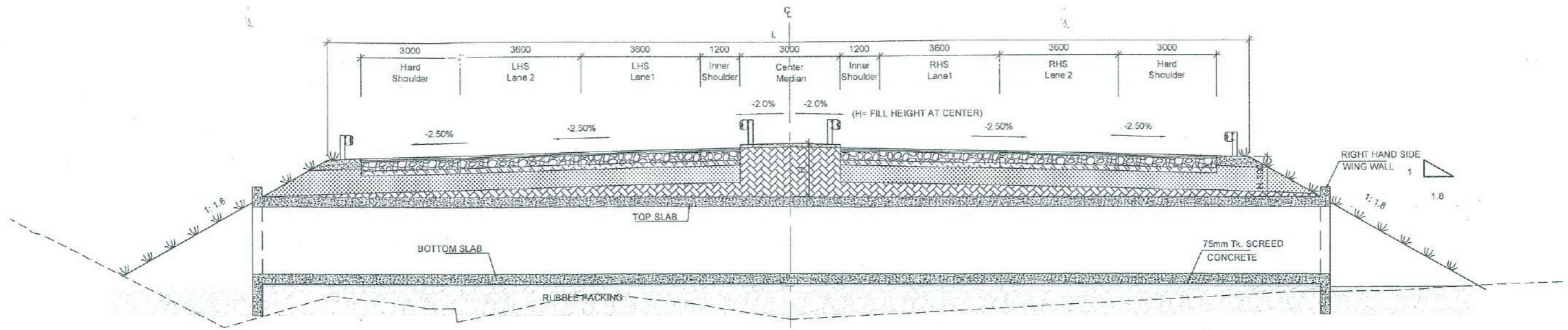
Handwritten signature



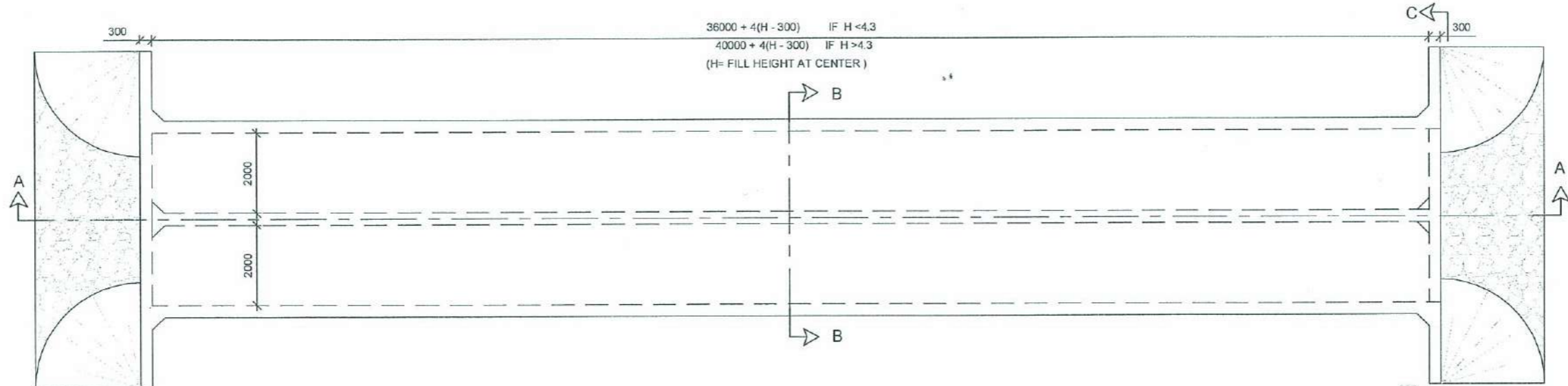
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: dcp@rda.gov.lk

DATE: 04-07-2013
Sheet 02 of 05
DRG No.: DD-FWD-SP-ESE-ST-EWFS-S3-CO-014

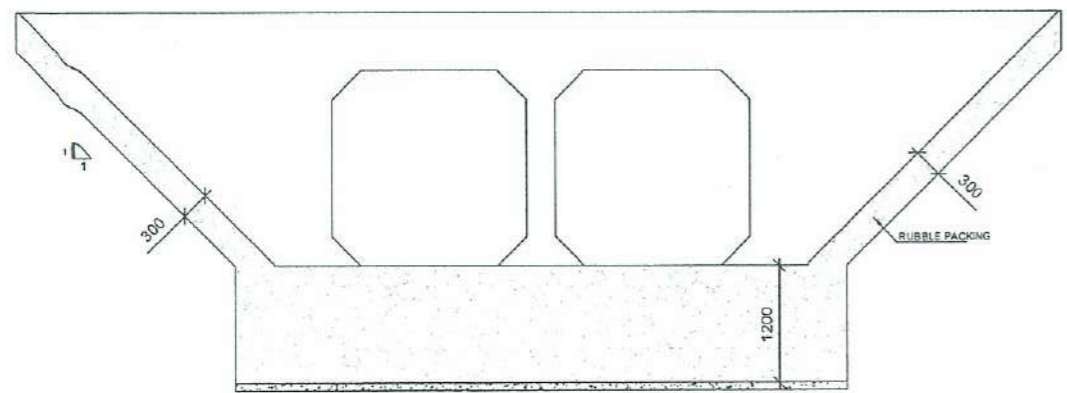
TYPICAL CULVERT TYPE 01-(2.0m x2.0m SINGLE CELL)



SECTION A-A
SCALE:- 1:125



PLAN
SCALE:- 1:125
TYPICAL CULVERT (TYPE 02)



SECTION C-C
SCALE:- 1:75

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

46



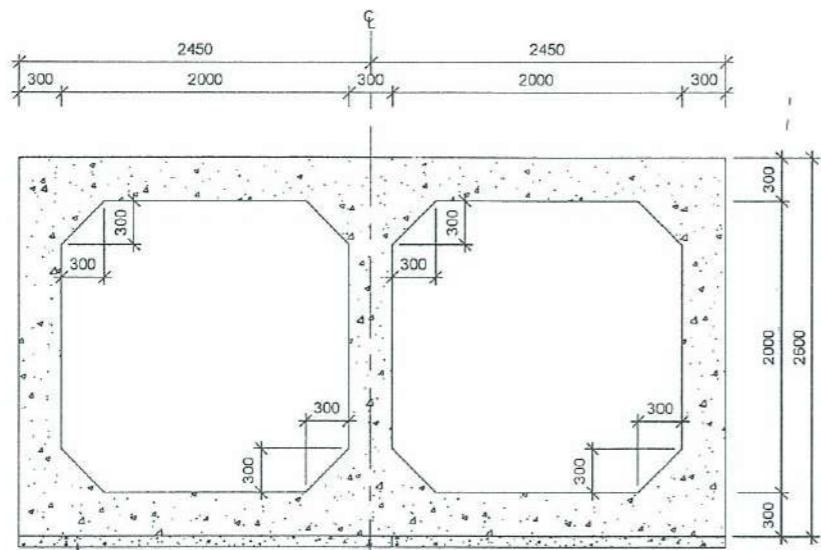
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL. 0812234267 FAX. 0812234267 email. docp@rdta.gov.lk

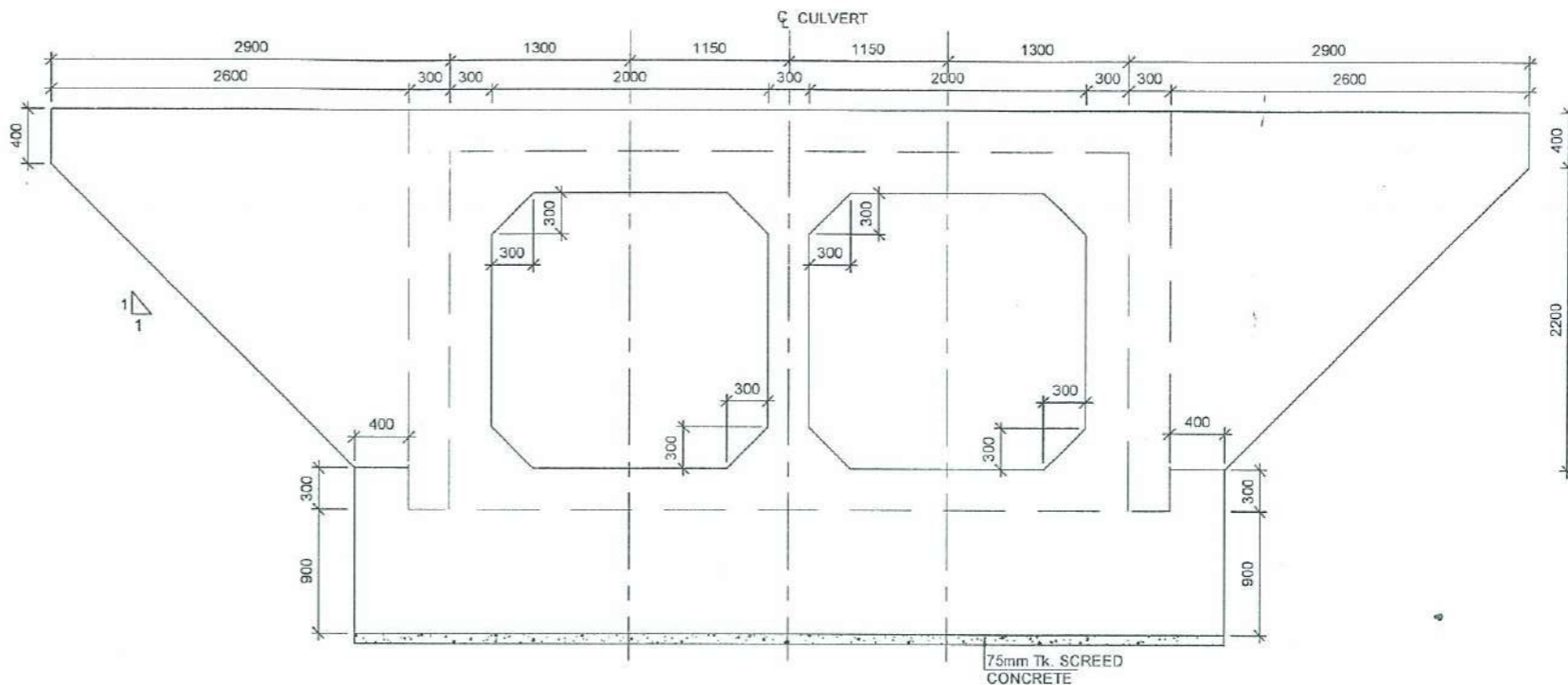
Handwritten initials/signature

DATE: 04-07-2013
Sheet 03 of 06
DRG.No.: 00-FWD-SP-ESE-ST-EW-FS-S3-CO-014

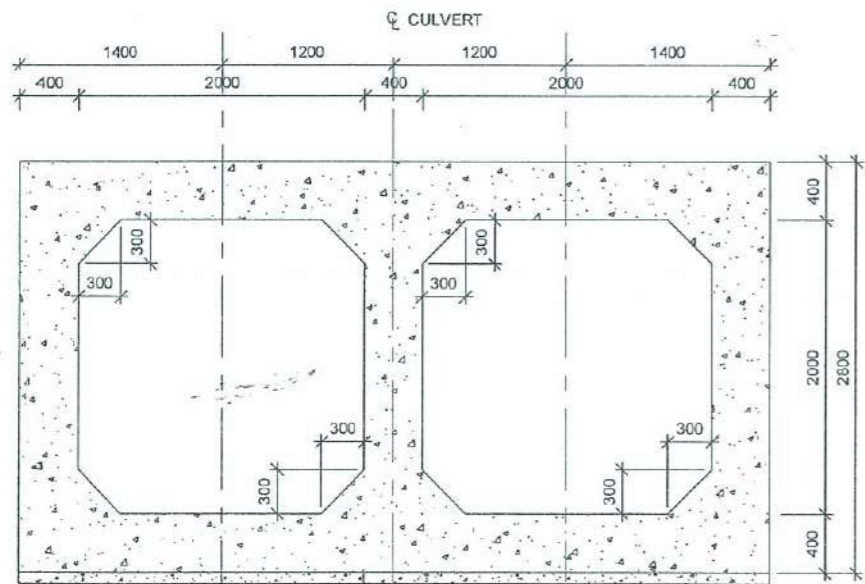
TYPICAL CULVERT TYPE 02-(2.0m x2.0m TWO CELL)



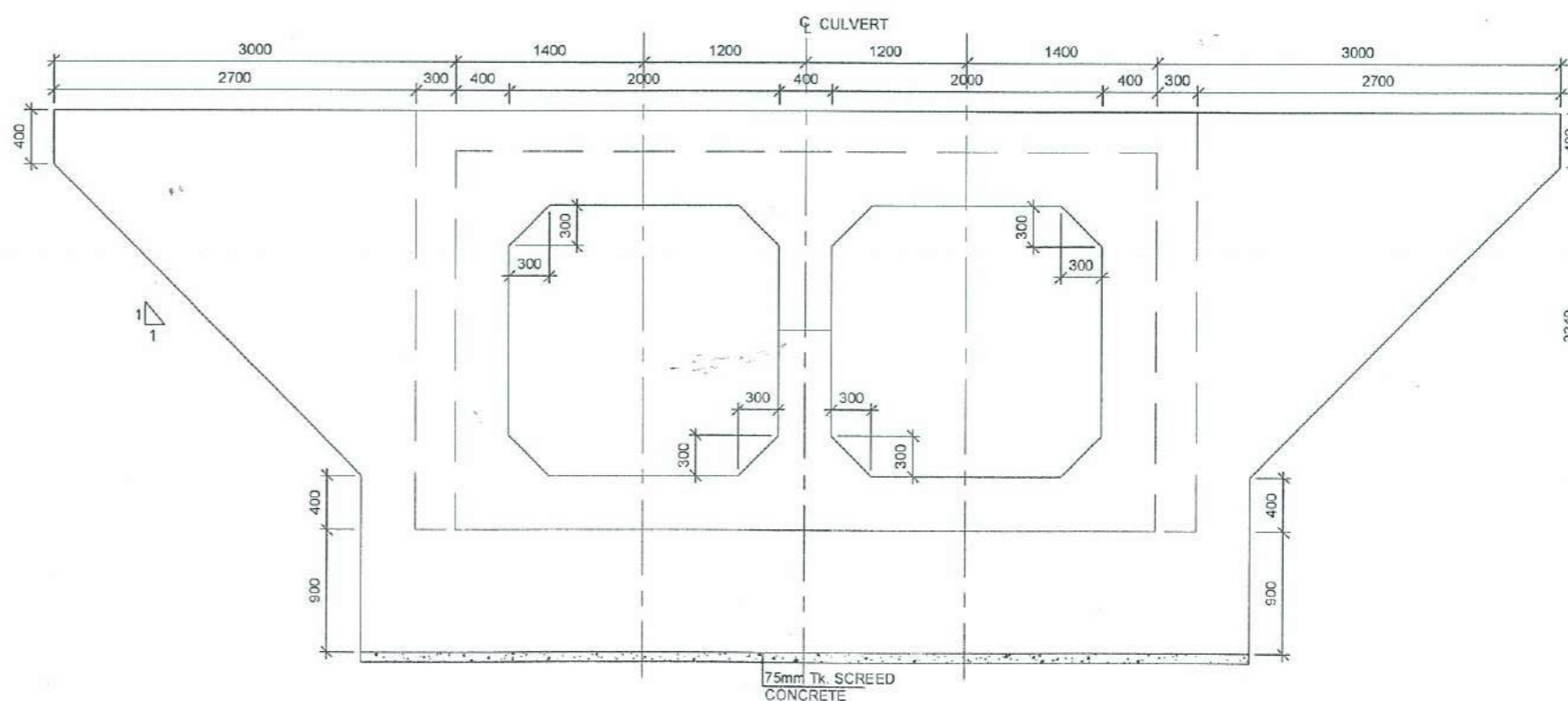
SECTION B-B (IF H < 4.0m)
SCALE: 1:50



WING WALL (IF H < 4.0m)
SCALE 1:50



SECTION B-B (IF H > 4.0m)
SCALE: 1:50



WING WALL (IF H > 4.0m)
SCALE 1:50

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL CULVERT TYPE 02-(2.0m x2.0m TWO CELL)

47



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS

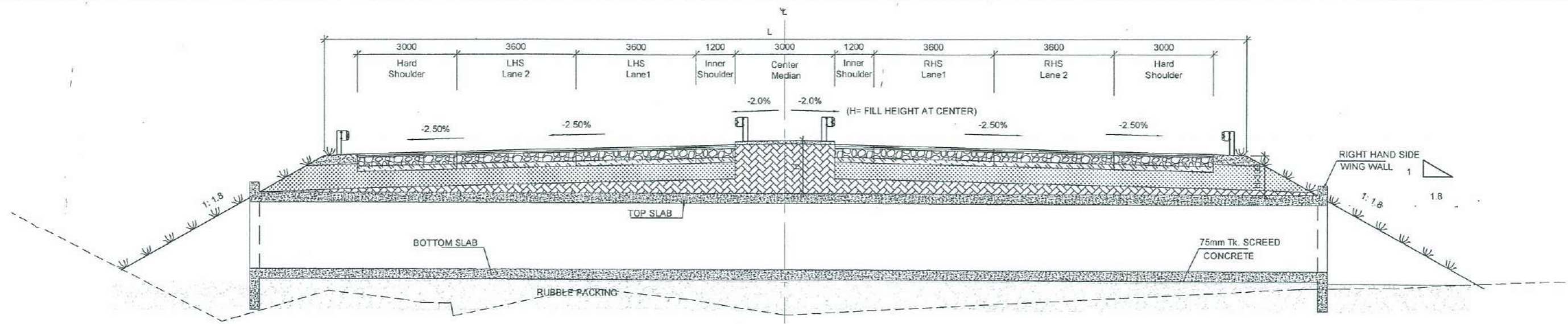
DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: dosp@rta.gov.lk

[Handwritten Signature]

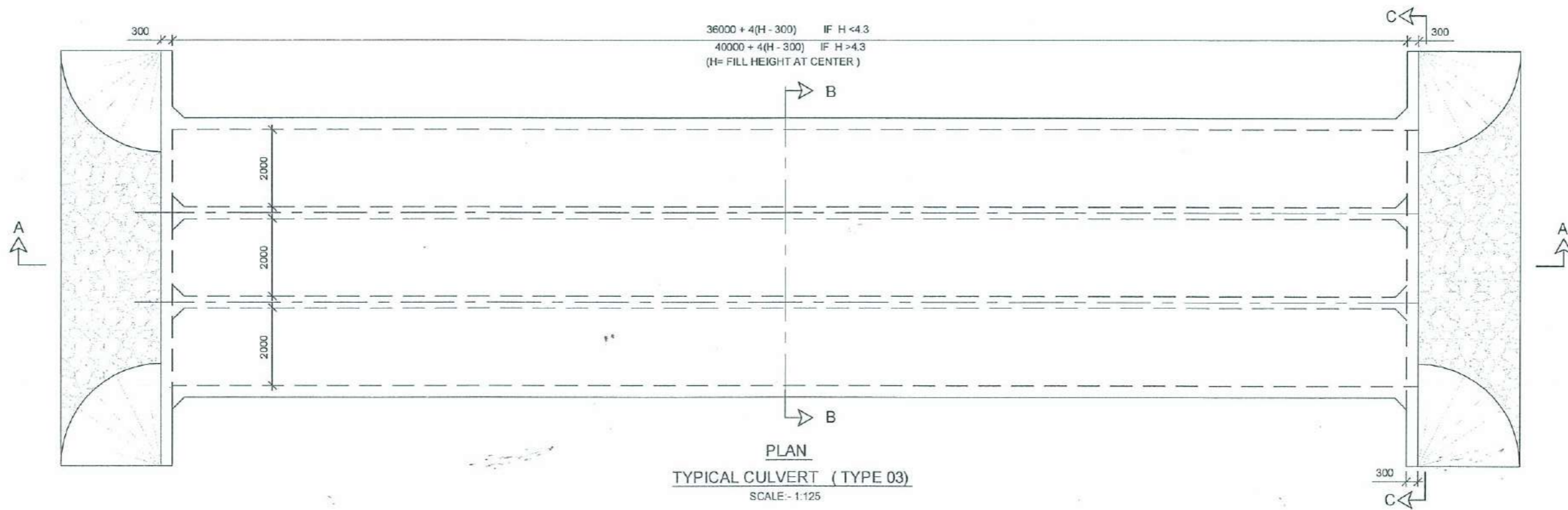
DATE: 04-07-2013

Sheet 04 of 05

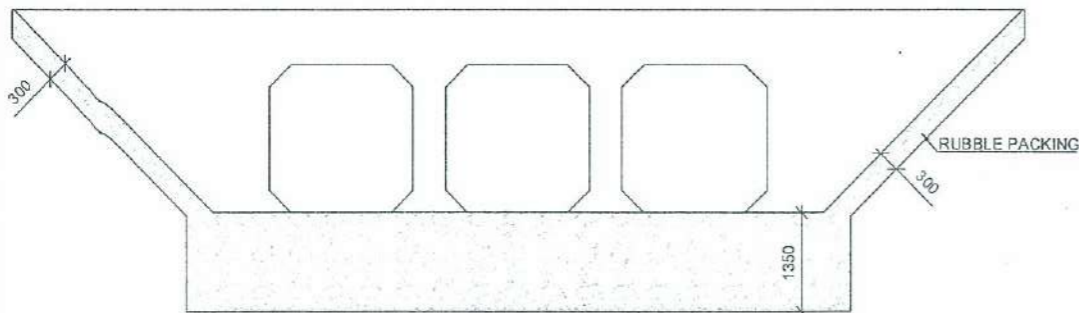
DRG No: DD-FWD-SP-ESE-ST EW-FS-S3-CO-014



SECTION A-A
SCALE: 1:125



PLAN
TYPICAL CULVERT (TYPE 03)
SCALE: 1:125



SECTION C-C
SCALE: 1:100

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

48



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.)
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL: 0812234267 FAX: 0812234267 email: docp@rda.gov.lk

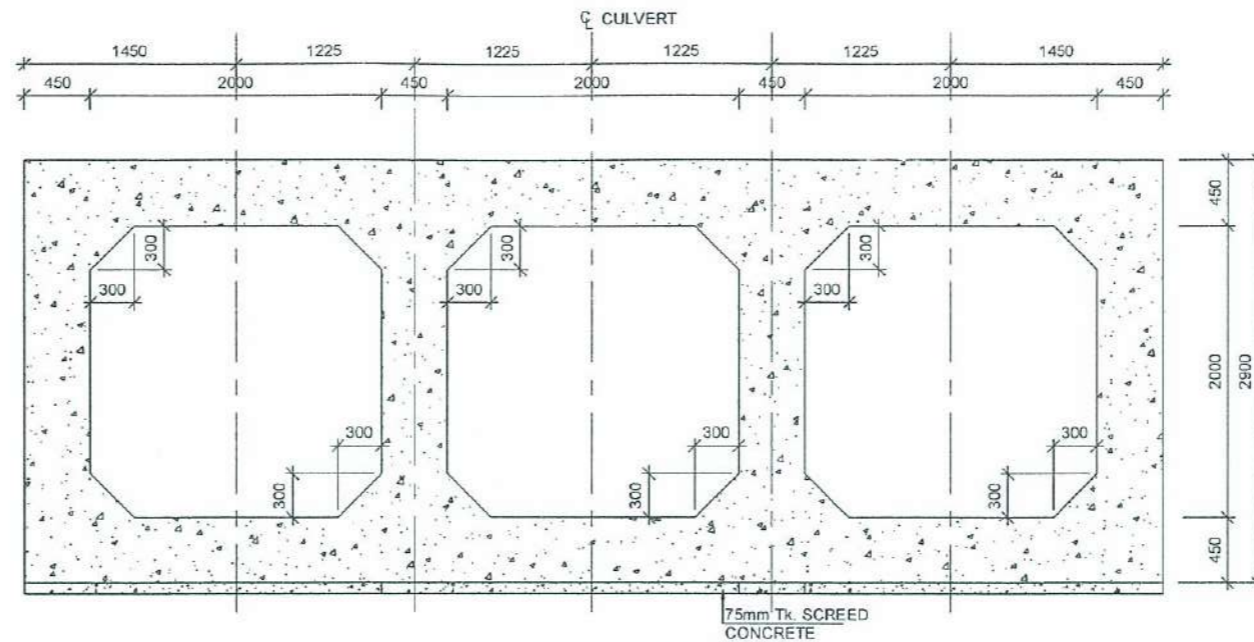
[Handwritten Signature]

DATE: 04-07-2013

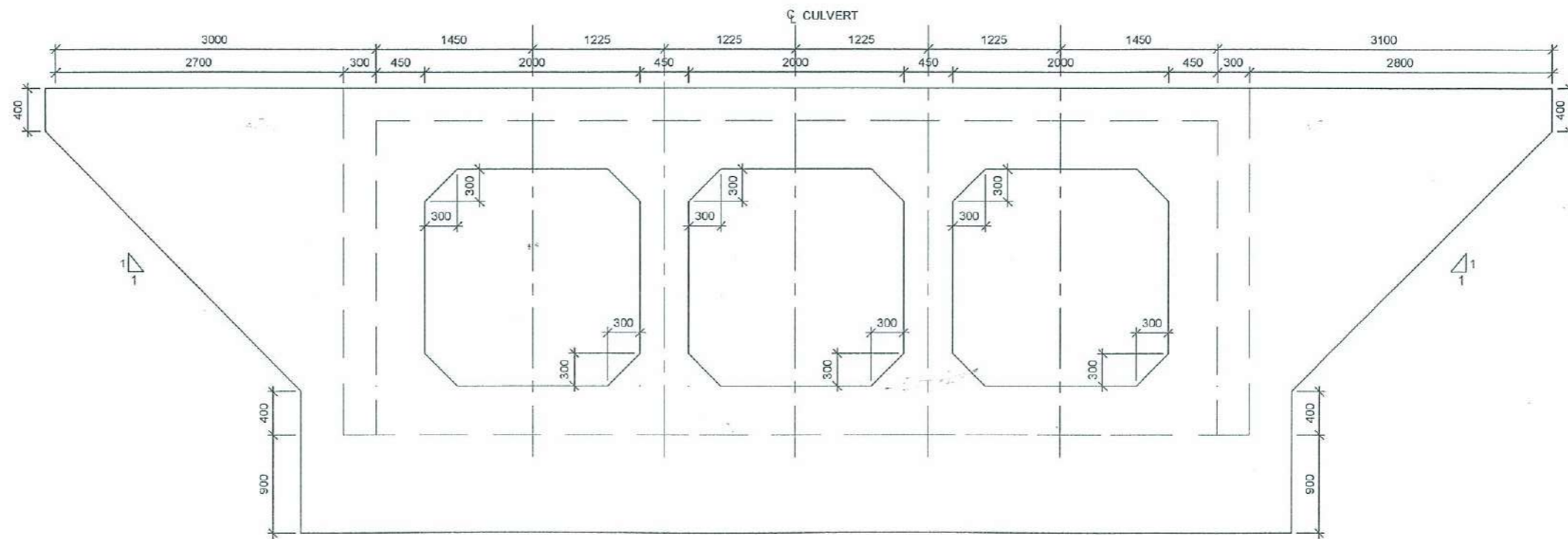
Sheet 05 of 05

TYPICAL CULVERT TYPE 03-(2.0m X2.0m THREE CELL)

DRG No.: DD-FWC-SP-ESE-ST-EW-FS-S3-CO-014



SECTION B-B
SCALE:- 1:50



WING WALL
SCALE 1:50

NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS IN METRES

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

TYPICAL CULVERT TYPE 03-(2.0m X2.0m THREE CELL)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.V.V.R.D. BANDARANAIKE MAWATHA, KANDY
TEL 0812234267 FAX 0812234267 e-mail: docp@rda.gov.lk

QWA

DATE: 04-07-2013

Sheet 06 of 08

DRG No.: DO-FWD-SP-ESE-ST-EW-FS-S3-CO-014

CONCRETE IN THIS PART OF PILE TO BE REMOVED LATER WITHOUT DAMAGING REINFORCEMENT

BOTTOM LEVEL OF THE PILE CAP

1600

CUT OFF LEVEL

75

X

36T32-01
EQUALLY SPACED
VERTICAL RF

T12-02-150
SPIRAL LINK

Y

36T32-02
EQUALLY SPACED
VERTICAL RF

SPIRAL LINK PITCH = 150mm

DEPTH VARIES (D)

HARD BED ROCK LEVEL
CORE RECOVERY > 80%
RQD > 75%

SOCKET LENGTH
3000mm MINIMUM

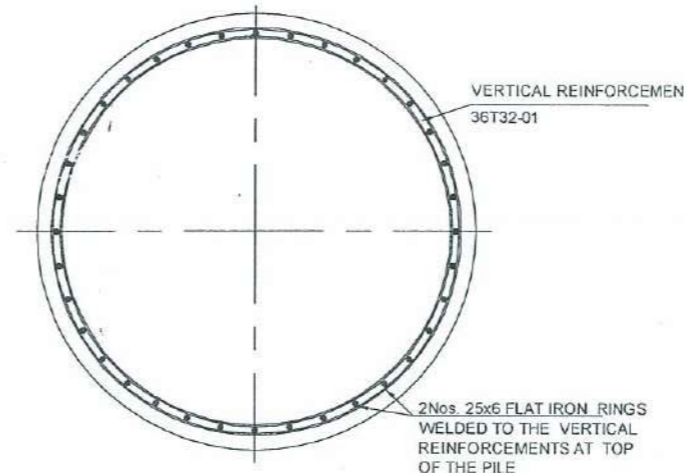
36T25-03
EQUALLY SPACED
VERTICAL RF

150

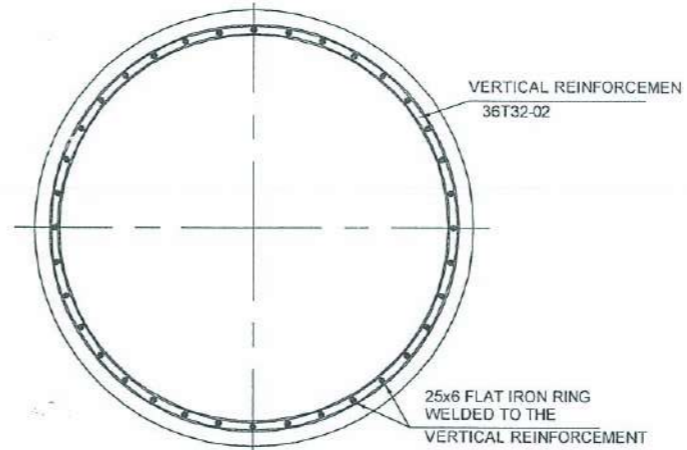
Z 1800 Z

TYPICAL ELEVATION OF A PILE

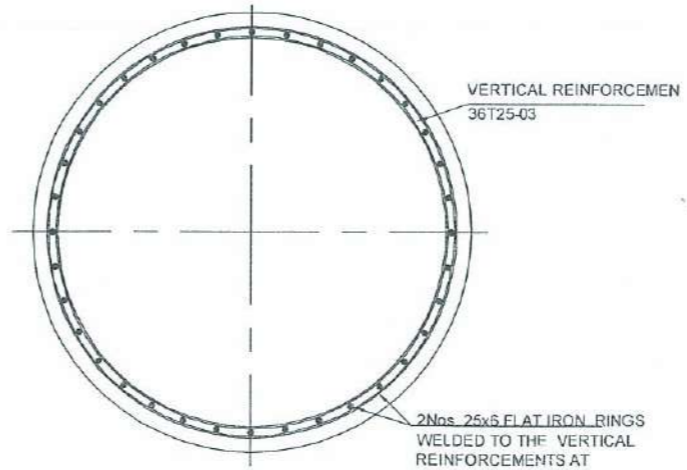
SCALE: 1:25



SECTION X-X
SCALE: 1:25



SECTION Y-Y
SCALE: 1:25



SECTION Z-Z
SCALE: 1:25

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES AND ALL ELEVATIONS ARE IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
- STRUCTURAL CONCRETE SHALL BE OF GRADE 30 (20).
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 45 mm UNLESS OTHERWISE INDICATED.
- CLEAR CONCRETE COVER FOR REINFORCEMENT SHOULD BE 50 mm UNLESS OTHERWISE SPECIFIED
- BAR NOTATION
5 T 20 - 02 - 175 BF

BAR LOCATION (BF -Both Face, NF-Near Face)
BAR SPACING
BAR MARK
BAR DIAMETER
BAR TYPE (T- HIGH YIELD STEEL OF CHARACTERISTIC STRENGTH OF 460N/sq.mm TO BS 4449)
NUMBER OF BARS
- LEVELS GIVEN IN THE DRAWING ARE AT PIER CENTER LINE

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

50



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : dcpp@rda.gov.lk

Handwritten signature

DATE : 04-07-2013

Sheet 01 of 02

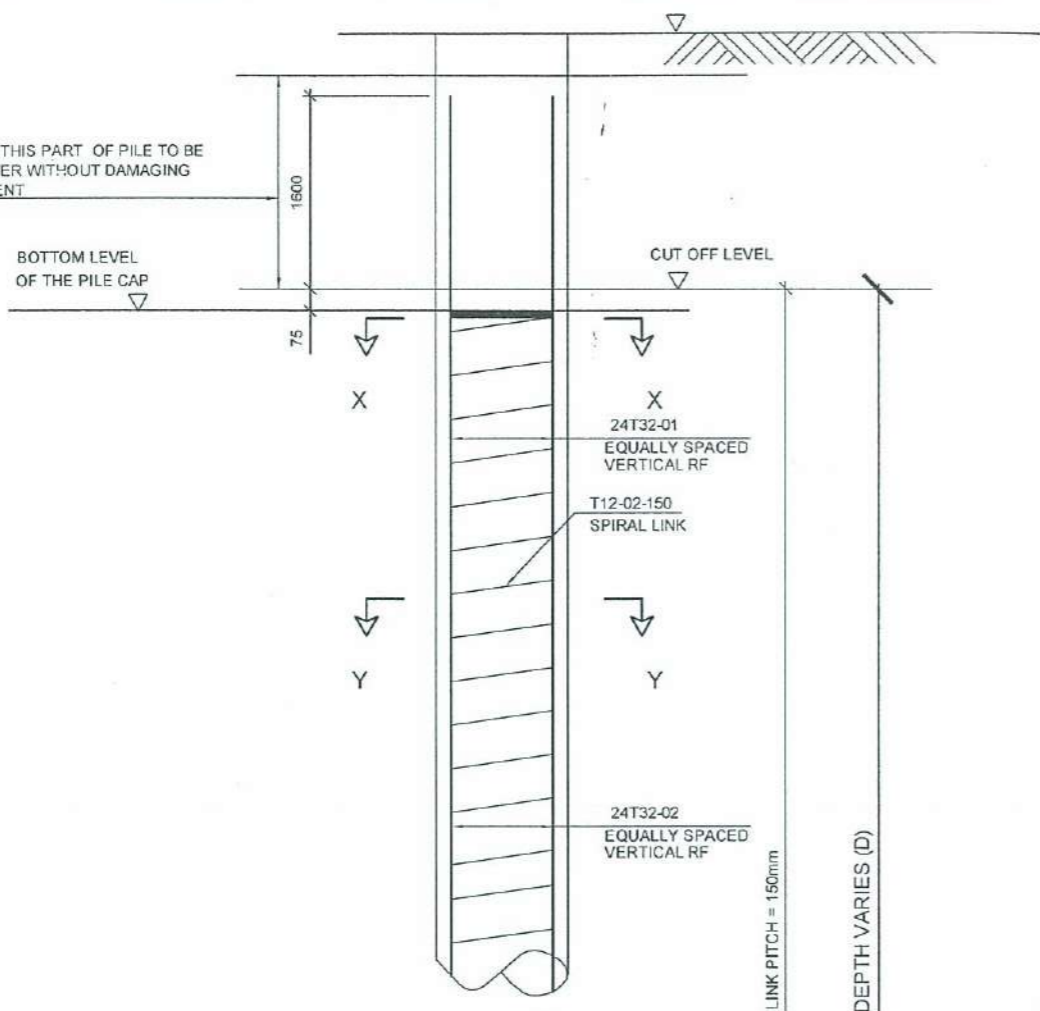
TYPICAL PILE DETAILS (1800mm Diameter)

DRG No. : DD-FWD-SP-ESE-ST-EW-FS-S3-CO-015

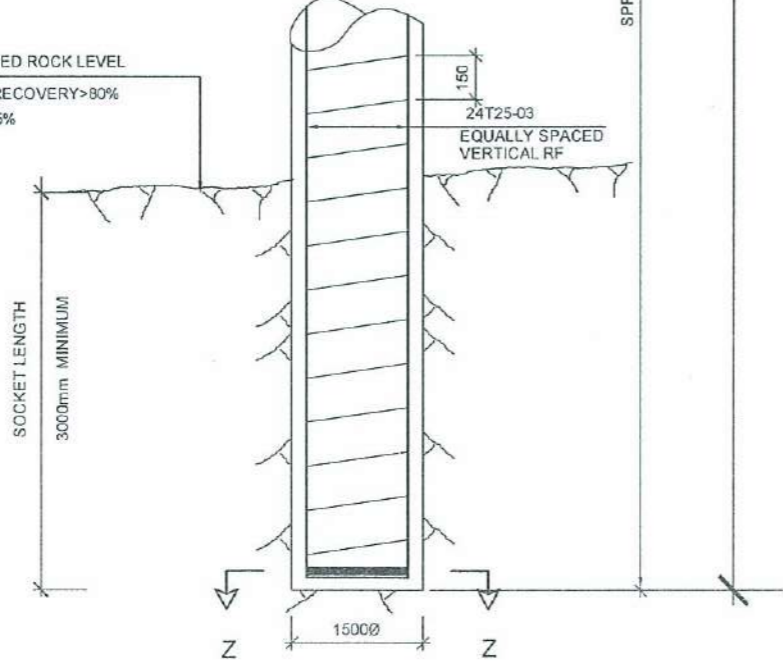
CONCRETE IN THIS PART OF PILE TO BE REMOVED LATER WITHOUT DAMAGING REINFORCEMENT

BOTTOM LEVEL OF THE PILE CAP

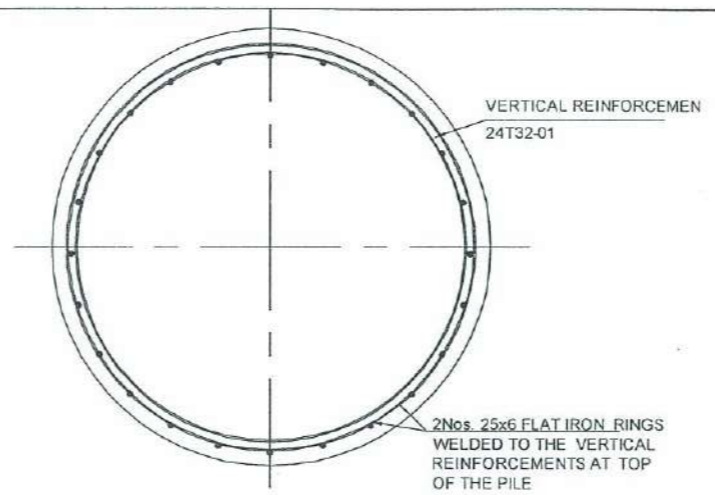
CUT OFF LEVEL



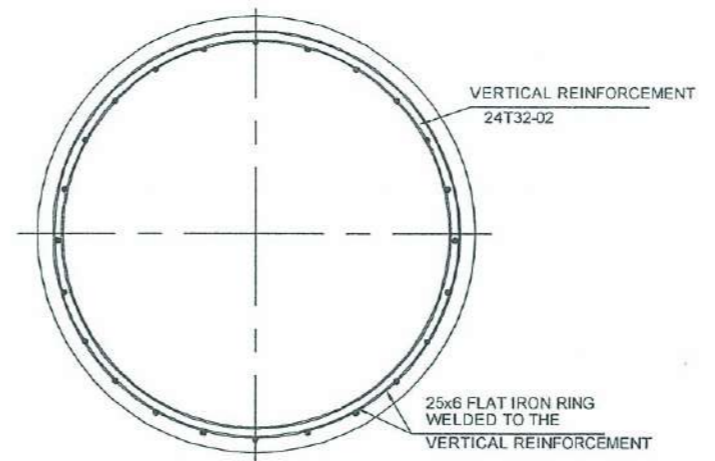
HARD BED ROCK LEVEL
CORE RECOVERY > 80%
ROD > 75%



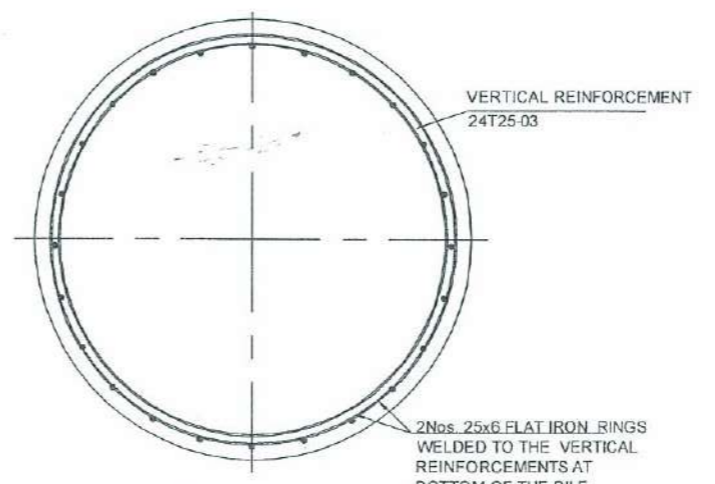
TYPICAL ELEVATION OF A PILE
SCALE: 1:25



SECTION X-X
SCALE: 1:25



SECTION Y-Y
SCALE: 1:25



SECTION Z-Z
SCALE: 1:25

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES AND ALL ELEVATIONS ARE IN METRES ABOVE MEAN SEA LEVEL UNLESS OTHERWISE STATED.
- STRUCTURAL CONCRETE SHALL BE OF GRADE 30 (20).
- MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 45 mm UNLESS OTHERWISE INDICATED.
- CLEAR CONCRETE COVER FOR REINFORCEMENT SHOULD BE 50 mm UNLESS OTHERWISE SPECIFIED
- BAR NOTATION
5 T 20 - 02 - 175 BF

5	BAR LOCATION (BF -Both Face, NF-Near Face)
T	BAR SPACING
20	BAR MARK
02	BAR DIAMETER
175	BAR TYPE (T- HIGH YIELD STEEL OF CHARACTERISTIC STRENGTH OF 460N/sq.mm TO BS 4449)
BF	NUMBER OF BARS
- LEVELS GIVEN IN THE DRAWING ARE AT PIER CENTER LINE

EXTENSION TO SOUTHERN EXPRESS WAY FROM MATARA TO HAMBANTOTA
(SECTION 3 - FROM CH 56+000 - CH 71+000)

51

TYPICAL PILE DETAILS (1500mm Diameter)



DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA
MINISTRY OF PORTS & HIGHWAYS



DESIGN OFFICE (C.P.),
ROAD DEVELOPMENT AUTHORITY
S.W.R.D. BANDARANAIKE MAWATHA, KANDY
TEL : 0812234267 FAX : 0812234267 email : docp@rda.gov.lk

Handwritten signature

DATE : 04-07-2013

Sheet 02 of 02

DRG.No : DD-FWD-SP-ESE-ST-EW-FS-03-CO-016