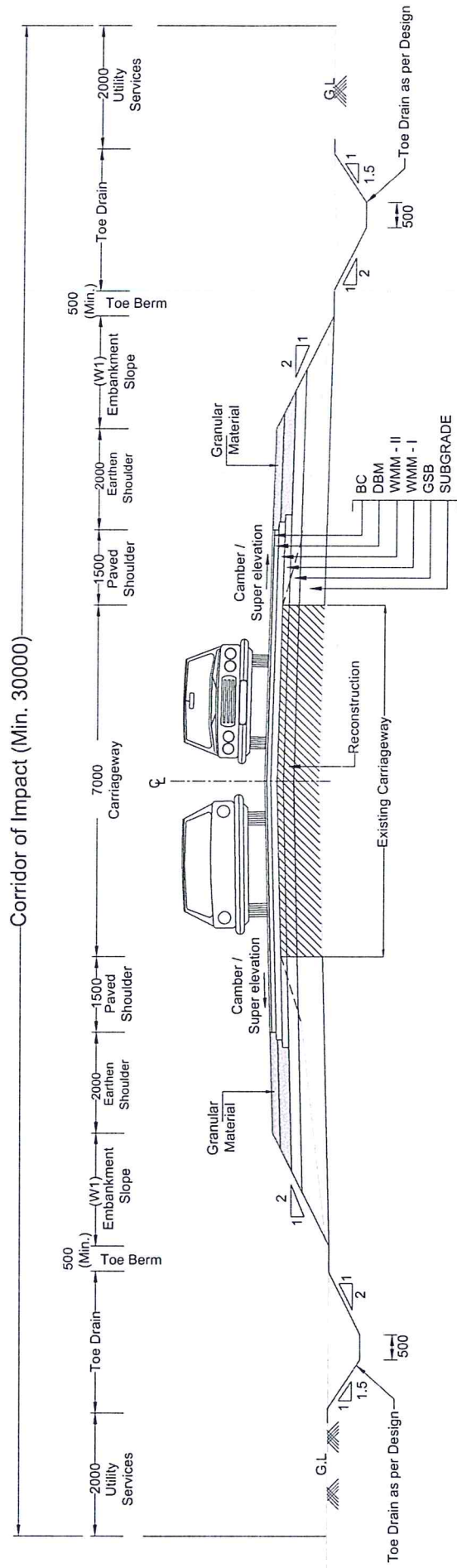


TYPICAL CROSS SECTIONS

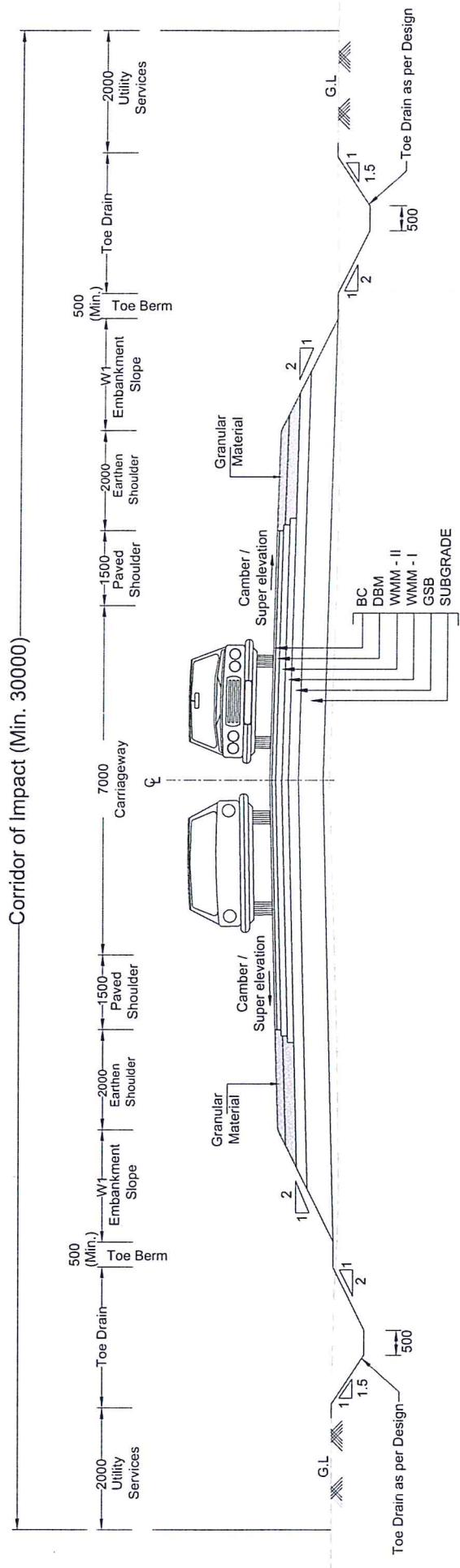


TYPICAL CROSS SECTION FOR 2-LANE WITH PAVED SHOULDER (OPEN COUNTRY)
TCS - 1 - CONCENTRIC WIDENING

Executive Engineer
KSHIP Division
TUMKUR

Note:-
1. All dimensions are in mm unless otherwise specified.

	CLIENT:- Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Final Detailed Project Report Chinlamanu to AP Border Typical Cross Section	CONSULTANT: Intercontinental Consultants & Technocrats Pvt. Ltd. A-8, Green Park, New Delhi - 110016 in joint venture with PricewaterhouseCoopers Pvt. Ltd. 4th floor, Tower - D, The Millenia, 1-2, Murphy Road, Bangalore - 560 008 in association with DMR & DMR Associates (a Sub-Consultant) D-55, Defence Colony, New Delhi - 110024 Prepared by: +	DESIGNED BY: + CHECKED BY: + APPROVED BY: + DRAWING No.: KSHIP/SH-82/TCS/ 01 /R0
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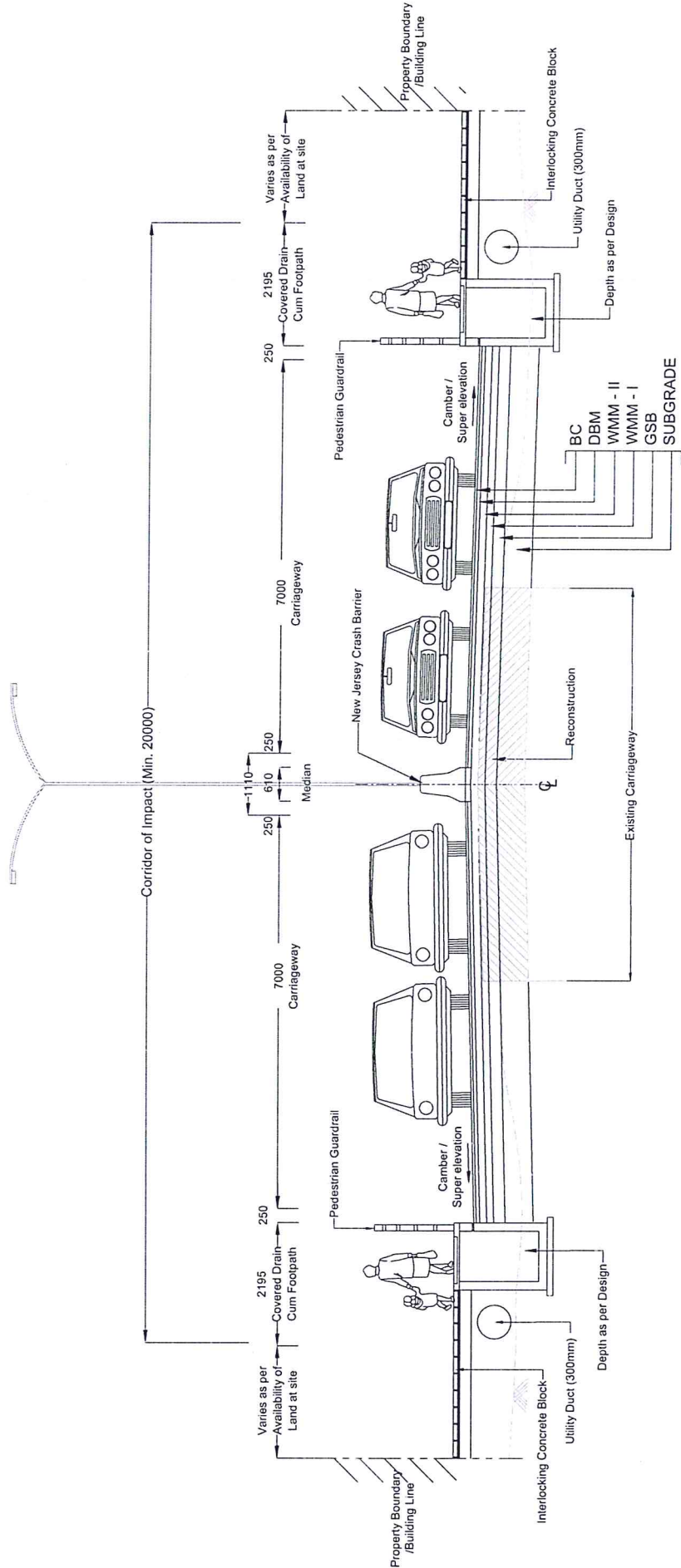


TYPICAL CROSS SECTION FOR 2-LANE WITH PAVED SHOULDER (OPEN COUNTRY)
TCS - 2 - REALIGNMENT/NEW CONSTRUCTION

Executive Engineer
KSHIP Division
TUMKUR

Note:-
All Dimensions are in mm, unless otherwise specified.

	CLIENT:- Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Final Detailed Project Report Chindamani to AP Border Typical Cross Section	CONSULTANT: Joint venture with PricewaterhouseCoopers Pvt Ltd, A-8, Green Park, New Delhi - 110016 in association with PricewaterhouseCoopers Pvt Ltd 4th floor, Tower - D, The Millenia, 1-2 Murphy Road, Unnao, Bangalore - 560 006 in association with Dnr & Dnr Associates (a Sub-Consultant) 0-55, Defence Colony, New Delhi - 110044	Prepared by: <i>[Signature]</i> Designed by: <i>[Signature]</i> Checked by: <i>[Signature]</i> Approved by: <i>[Signature]</i>	DRAWING No.: KSHIP/SH-82/TCS 02 /R0	Revised: No. Date Description 1 01/01/16 2 01/01/16 3 01/01/16
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TYPICAL CROSS SECTION FOR 4-LANE DIVIDED HIGHWAY WITHOUT SERVICE ROAD (URBAN SECTION)
TCS - 3 - 3 - CONCENTRIC WIDENING BUILT-UP SECTION

Executive Engineer
KSHIP Division
TUMKUR

Note:-
1. All dimensions are in mm unless otherwise specified.
2. New Jersey Crash Barrier shall be as per IRC:119-2015
3. Interlocking Concrete block shall be as per IRC SP 63-2004.

CLIENT:- Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project III - KSHIP-III - (Group-II)	Final Detailed Project Report Chintamani to AP Border Typical Cross Section
Prepared by: Dr. M. S. Srinivasan	Designed by: Dr. M. S. Srinivasan	Checked by: Dr. M. S. Srinivasan	Approved by: Dr. M. S. Srinivasan
DATE: 10/01/2024	DATE: 10/01/2024	DATE: 10/01/2024	DATE: 10/01/2024
DRAWING No.: KSHIP/SH-487/CS 03 /R0	DRAWING No.: KSHIP/SH-487/CS 03 /R0	DRAWING No.: KSHIP/SH-487/CS 03 /R0	DRAWING No.: KSHIP/SH-487/CS 03 /R0

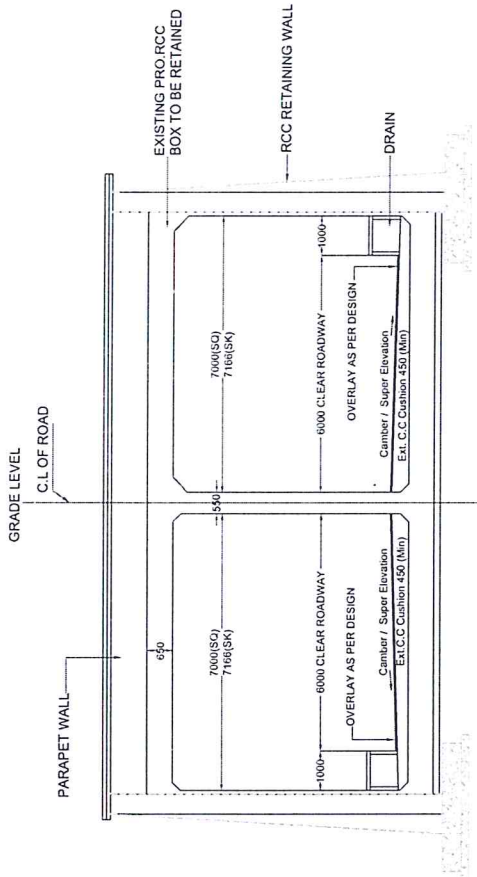


Executive Engineer
KSHIP Division
TUMKUR

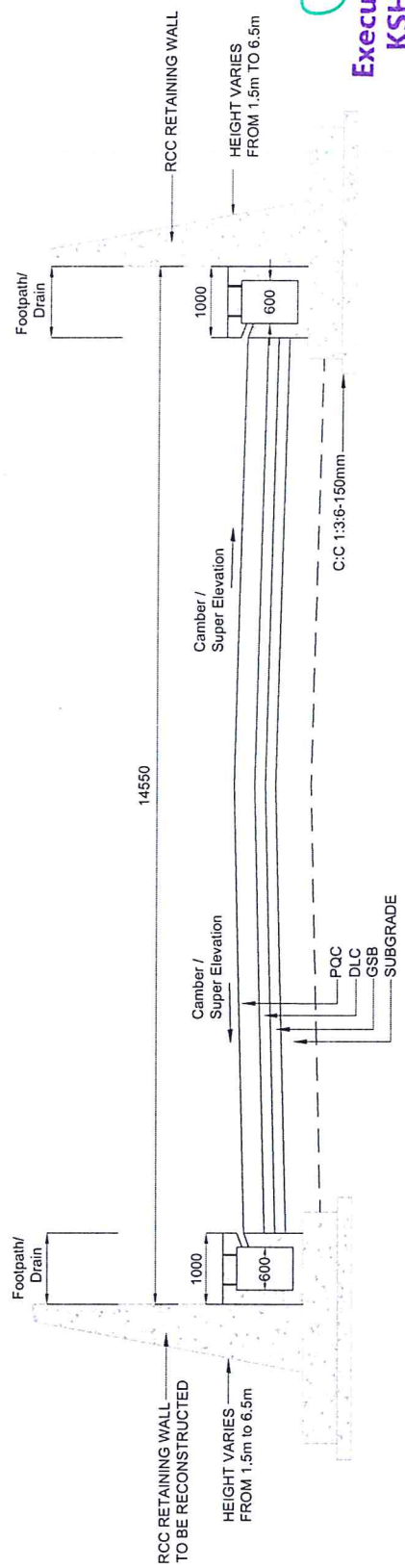
NOTE:-

1. All dimensions are in mm unless otherwise specified.
2. Interlocking Concrete block shall be as per IRC SP 63-2004.

CLIENT:  Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	CONSULTANT: Intercontinental Consultants & Technocrats Pvt.Ltd., A-8, Green Park, New Delhi - 110016 in Joint Venture with PricewaterhouseCoopers PwC Ltd 4th Floor, Tower - D, The Millenia, 1-2 Murphy Road, Udupi, Bangalore - 560 008 in Association with Dhir & Dhir Associates (a Sub-Consultant) D-55, Defence Colony, New Delhi - 110024	Date: _____ No. _____ Initials: _____		Date: _____ No. _____ Initials: _____	
				Drawing No.: KSHIP/SH-827CS/ 04 /R0			
					Date: _____ No. _____ Initials: _____		
			Final Detailed Project Report Chintamani to AP Border Typical Cross Section		Date: _____ No. _____ Initials: _____		
			 Sanyal Kumar Singh Dhir & Dhir Associates		Date: _____ No. _____ Initials: _____		
			Designed by: _____ Checked by: _____ Approved by: _____		Date: _____ No. _____ Initials: _____		



EXISTING SECTION AT RUB LOCATION (FROM CH.48+761 TO 48+778)



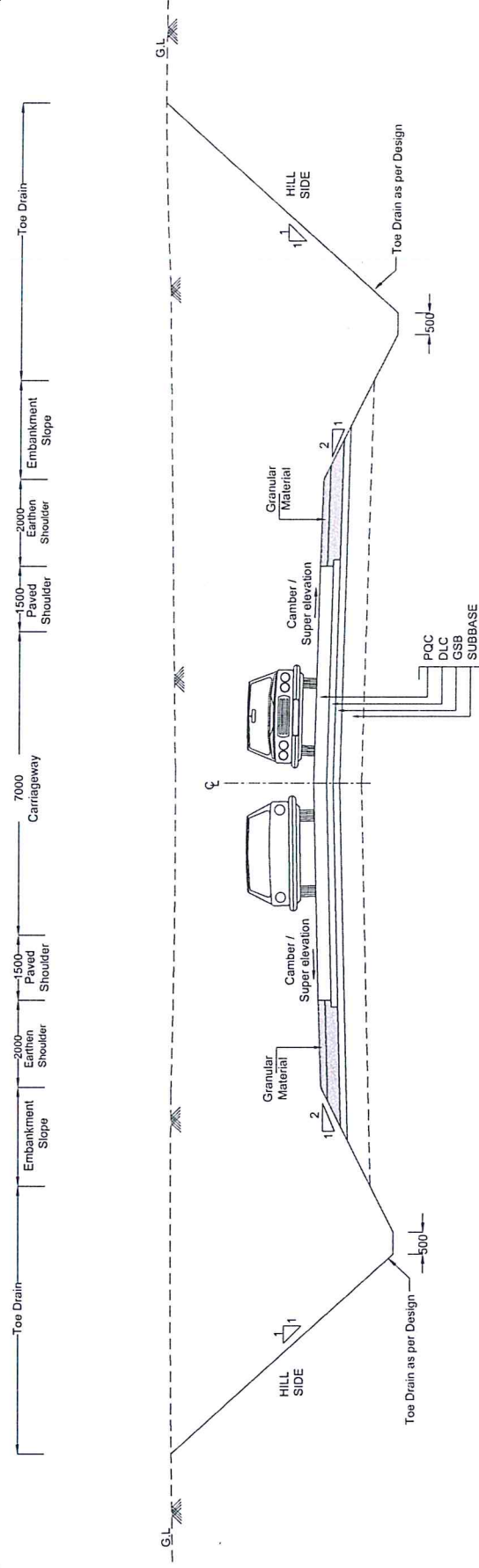
SECTION AT APPROACHES OF RUB
TCS - 5

Note:-
1. All Dimensions are in mm, unless otherwise specified.

Executive Engineer
KSHIP Division
TUMKUR

CLIENT:-  Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Final Detailed Project Report Chintamani to AP Border Typical Cross Section 	CONSULTANT: Intercontinental Consultants & Technocrats Pvt.Ltd, A-8, Green Park, New Delhi - 110016 in joint venture with PriceEstimateCoopers Pvt.Ltd 4th floor, Tower - D, The Millenia, 1-2 Murphy Road, Uthir, Bangalore - 560 008 in association with Dhir & Dhir Associates (as Sub-Consultant) D-32, Defence Colony, New Delhi - 110024				<table><thead><tr><th>NO.</th><th>DATE</th><th>REVISION</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr></tbody></table>		NO.	DATE	REVISION			
				NO.	DATE	REVISION									
Prepared by: Prashant Kumar Singh Designed by: Prashant Kumar Singh Checked by: Prashant Kumar Singh Approved by: Prashant Kumar Singh				DRAWING No.:- KSHIP/SH-82/TCS/ 05 /R0											

Corridor of Impact (Min. 25000)

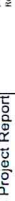


TYPICAL CROSS SECTION FOR 2-LANE WITH PAVED SHOULDER (CUTTING SECTION)

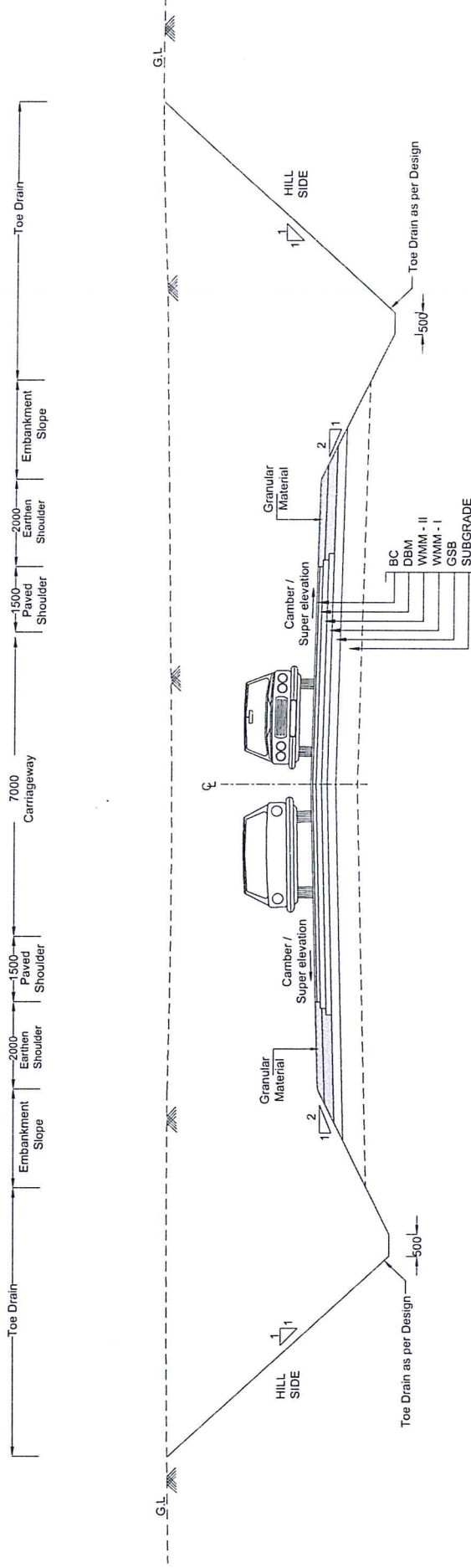
TCS - 6 - RIGID PAVEMENT - RUB APPROACHES

Executive Engineer
KSHIP Division
TUMKUR

Note:-
All Dimensions are in mm, unless otherwise specified.

CLIENT  Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE NOT TO SCALE	PROJECT TITLE Final Detailed Project Report Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Chintamani to AP Border Typical Cross Section	CONSULTANT Infraco Consultants & Technocrats Pvt.Ltd, A-8, Green Park, New Delhi - 110016 in joint venture with PricewaterhouseCoopers Pvt.Ltd 4th floor, Tower - D, The Mallika, 12 Murphy road, Unnava - 560 008 in association with DMR & DMR Associates (as Sub-consultant) D-55, Defence Colony, New Delhi - 110024		 Prepared by Bijay Mohan Designed by Srinivas Kumar Singh Checked by Harsha Chatterjee Approved by Arun Kumar		DRAWING No. - KSHIP/SH-82/TCS/ 06/R0									
				Revision <table><thead><tr><th>Rev.</th><th>Date</th><th>Rev. Description</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></tbody></table>		Rev.	Date	Rev. Description									
				Rev.	Date	Rev. Description											

Corridor of Impact (Min. 25000)

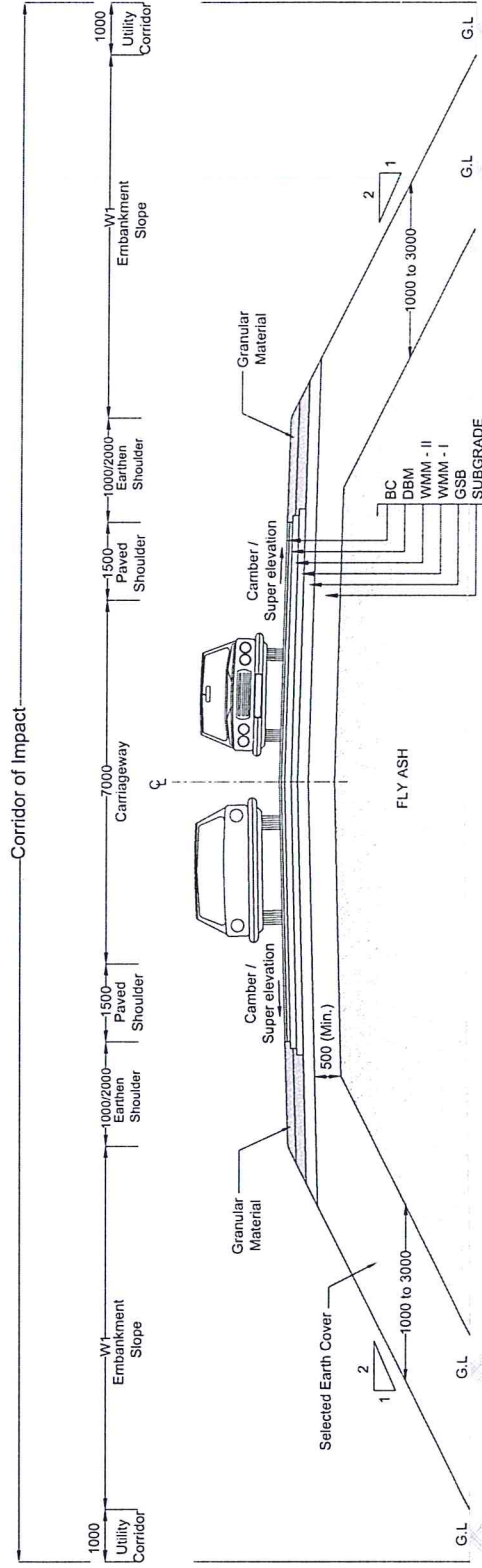


TYPICAL CROSS SECTION FOR 2-LANE WITH PAVED SHOULDER (CUTTING SECTION)
TCS - 7

Executive Engineer
KSHIP Division
TUMKUR

Note:-
All Dimensions are in mm, unless otherwise specified.

CLIENT:-  Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Final Detailed Project Report Chintamani to AP Border Typical Cross Section	CONSULTANT:- Joint Venture with PricewaterhouseCoopers PwC Ltd. 4th floor, Tower - D, The Mile, 1-2 Murphy Road, Ulsoor, Bangalore - 560 008 in association with DHR & DH Associates (as Sub-Consultant) D-55, Defence Colony, New Delhi - 110024	 + 		Prepared by Designed by Checked by Approved by	DRAWING No.:- KSHIP/SH-02/TCS/ 07/R0	Revisions <table><thead><tr><th>No.</th><th>Rev.</th><th>By</th><th>Date</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>	No.	Rev.	By	Date				
				No.	Rev.				By	Date						
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TCS - 9 : CONSTRUCTION OF EMBANKMENT WITH POND ASH

Executive Engineer
KSHIP Division
TUMKUR

Note:-

1. All dimensions are in mm unless otherwise specified.
2. Pond Ash shall be used for embankment construction (Where ever required) in pursuance of the Ministry of Environment, Forests and Climate Change Notification, New Delhi dated 14.09.1999 (as amended on 27.08.2003, 3.11.2009 and 25.01.2016) in accordance with IRC SP 58.

	Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE: NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Final Detailed Project Report Chintamani to AP Border Typical Cross Section	CONSULTANT: Intercontinental Consultants & Technocrats Pvt.Ltd., A-8, Green Park, New Delhi - 110016 In Joint Venture with PricewaterhouseCoopers Pvt.Ltd 4th Floor, Tower - D, The Millenia, 1-2 Murphy Road, Chaur, Bangalore - 560 008 in association with Dhir & Dhir Associates (as Sub-Consultant) D-55, Defence Colony, New Delhi - 110024	Prepared by: Sanjay Kumar Singh Brij Mohan	Checked by: Harsha Chatterjee Ajay Prabhakar	Approved by: KSHIP/SH-82/TCS/9/IR0	DRAWING No:- KSHIP/SH-82/TCS/9/IR0
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APPLICABLE CHAINAGES

SL. No	Stretch (Km)		Length (Km)	TCS Type
	From	To		
1	47+203	48+250	1.047	TCS 1
2	48+250	48+475	0.225	TCS 6
3	48+475	48+910	0.435	TCS 5
4	48+910	49+100	0.190	TCS 6
5	49+100	61+350	12.250	TCS 1
6	61+350	61+600	0.250	TCS 2
7	61+600	61+970	0.370	TCS 1
8	61+970	62+230	0.260	TCS 2
9	62+230	63+300	1.070	TCS 1
10	63+300	63+470	0.170	TCS 2
11	63+470	64+045	0.575	TCS 2
12	64+045	64+280	0.235	TCS 7
13	64+280	64+370	0.090	TCS 8
14	64+370	64+500	0.130	TCS 1
15	64+500	64+830	0.330	TCS 7
16	64+830	65+140	0.310	TCS 2
17	65+140	65+260	0.120	TCS 1
18	65+260	65+440	0.180	TCS 7
19	65+440	65+480	0.040	TCS 8
20	65+480	65+960	0.480	TCS 1
21	65+960	66+120	0.160	TCS 2
22	66+120	66+600	0.480	TCS 1
23	66+600	66+820	0.220	TCS 2
24	66+820	67+870	1.050	TCS 1
25	67+870	68+200	0.330	TCS 2
26	68+200	68+326	0.126	TCS 1
27	68+326	68+726	0.400	TCS 4
28	68+726	70+830	2.104	TCS 1
29	70+830	71+130	0.300	TCS 3
30	71+130	72+750	1.620	TCS 1

SL. No	Stretch (Km)		Length (Km)	TCS Type
	From	To		
31	72+750	73+100	0.350	TCS 2
32	73+100	73+150	0.050	TCS 1
33	73+150	73+450	0.300	TCS 3
34	73+450	74+900	1.450	TCS 1
35	74+900	75+300	0.400	TCS 2
36	75+300	78+290	2.990	TCS 1
37	78+290	78+460	0.170	TCS 2
38	78+460	79+120	0.660	TCS 1
39	79+120	79+260	0.140	TCS 8
40	79+260	79+320	0.060	TCS 7
41	79+320	79+460	0.140	TCS 2
42	79+460	80+300	0.840	TCS 1
43	80+300	80+380	0.080	TCS 8
44	80+380	80+530	0.150	TCS 7
45	80+530	81+990	1.460	TCS 1
46	81+990	82+130	0.140	TCS 8
47	82+130	82+350	0.220	TCS 1
48	82+350	82+460	0.110	TCS 8
49	82+460	82+600	0.140	TCS 7
50	82+600	84+140	1.540	TCS 1
51	84+140	84+740	0.600	TCS 7
52	84+740	85+860	1.120	TCS 1
53	85+860	86+000	0.140	TCS 7
54	86+000	86+100	0.100	TCS 8
55	86+100	86+510	0.410	TCS 1
56	86+510	86+760	0.250	TCS 1
57	86+760	86+977	0.217	TCS 1


 Executive Engineer
 KSHIP Division
 TUMKUR

 Government of Karnataka Public Works, Ports & IWT Department Karnataka State Highways Improvement Project	SCALE:	NOT TO SCALE	PROJECT TITLE: Consultancy Services for Detailed Project Report cum Transaction Advisory Services for Karnataka State Highway Improvement Project-III - KSHIP-III - (Group-II)	Final Detailed Project Report Chintamani to AP Border Typical Cross Section	CONSULTANT: Intercontinental Consultants & Technocrats Pvt. Ltd., A-8, Green Park, New Delhi - 110016 in joint venture with PricewaterhouseCoopers Pvt. Ltd. 4th floor, Tower - D, The Millenia, 1-2 Murphy Road, Ulsoor, Bangalore - 560 004 in association with Dhir & Dhir Associates (as Sub-consultant) D-55, Defence Colony, New Delhi - 110024	DRAWING No.: KSHIP/SH-82/TCS/ 10/R0
	CLIENT:	PREPARED BY: Sanjay Kumar Singh	DESIGNED BY: Harsha Chatterjee	CHECKED BY: Approved by	REVISIONS: No. Date Description	DATE: