

Annex - I

(Schedule-B)

Description of the Project

1 Width of Carriageway for Four Lanning

- 1.1 Four lane divided Carriageway shall be undertaken. The paved carriageway shall be 18.0m (Eighteen) wide excluding the Median in accordance with the typical cross sections drawings in the Manual.

Provided that in the built-up areas the carriageway width is 19.0m (Nineteen) and Grade separated structures the carriageway width is 25.0m (Twenty Five) wide.

- 1.2 Except as otherwise provided in this Agreement, [but subject to the provisions of Annex-II of this Schedule-B,] the width of the paved carriageway shall conform to Clause 1.1 above.

2 Project Facilities

Project facilities shall be constructed in conformity with Annex-I of Schedule- C.

3 Specifications and Standards

The Project shall be constructed in conformity with the Specifications and Standards specified in Annex-I of Schedule-D.

4 Other Features of four laning

4.1 Cross Section

The project highway Cross sections should follow IRC: SP: 84-2014, "Manual of Standards & Specifications for Four Laning of Highways on Public Private Partnership" as per Appendix B-I

Summary of Widening Scheme

S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
1	406+030	406+105	237655	237728	73	-	Major Bridge
2	406+105	406+700	237728	238320	592	10	Approach of Elevated Structure
3	406+700	407+950	238320	239580	1260	9	Elevated Structure
4	407+950	408+215	239580	239850	270	10	Approach of Elevated Structure
5	408+215	408+298	239850	239927	77	1A	Eccentric widening in Rural Area-Right
6	408+298	408+424	239927	240053	126	-	Major Bridge
7	408+424	408+530	240053	240160	107	1A	Eccentric widening in Rural Area-Right
8	408+530	408+760	240160	240380	220	1	Eccentric widening in Rural Area-Left
9	408+760	409+040	240380	240670	290	1A	Eccentric widening in Rural Area-Right
10	409+040	409+150	240670	240770	100	1	Eccentric widening in Rural Area-Left

Rehabilitation and up-grgradation of NH-66 (Eastwide NH-17) from Km 406+030 to Km 450+170 [Kalmach - Zarap section] in 4-lane with paved shoulder in the state of Maharashtra under NHDP-IV on Hybrid Annuity Mode -13-



S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
11	409+150	409+360	240770	240990	220	1A	Eccentric widening in Rural Area-Right
12	409+360	409+500	240990	241130	140	1	Eccentric widening in Rural Area-Left
13	409+500	409+550	241130	241180	50	1B	Concentric widening in Rural area
14	409+550	409+700	241180	241330	150	1	Eccentric widening in Rural Area-Left
15	409+700	409+980	241330	241600	270	1A	Eccentric widening in Rural Area-Right
16	409+980	410+100	241600	241720	120	1B	Concentric widening in Rural area
17	410+100	410+570	241720	242190	470	1	Eccentric widening in Rural Area-Left
18	410+570	410+960	242190	242570	380	1A	Eccentric widening in Rural Area-Right
19	410+960	411+100	242570	242725	155	1	Eccentric widening in Rural Area-Left
20	411+100	411+321	242725	242940	215	1A	Eccentric widening in Rural Area-Right
21	411+321	411+342	242940	242961	21	-	Minor Bridge
22	411+342	412+574	242961	244200	1239	1A	Eccentric widening in Rural Area-Right
23	412+574	412+595	244200	244221	21	-	Minor Bridge
24	412+595	412+940	244221	244530	329	1A	Eccentric widening in Rural Area-Right
25	412+940	413+100	244530	244710	160	1	Eccentric widening in Rural Area-Left
26	413+100	413+270	244710	244870	160	1A	Eccentric widening in Rural Area-Right
27	413+270	413+580	244870	245180	310	1	Eccentric widening in Rural Area-Left
28	413+580	413+690	245180	245290	110	1A	Eccentric widening in Rural Area-Right
29	413+690	414+000	245290	245590	300	1	Eccentric widening in Rural Area-Left
30	414+000	414+070	245590	245660	70	1A	Eccentric widening in Rural Area-Right
31	414+070	414+130	245660	245740	80	1	Eccentric widening in Rural Area-Left
32	414+130	414+300	245740	245890	150	1C	New Construction for Realignment/ Reconstruction in Rural Area
33	414+300	415+170	245890	246760	870	1	Eccentric widening in Rural Area-Left
34	415+170	415+410	246760	246990	230	1A	Eccentric widening in Rural Area-Right
35	415+410	415+480	246990	247060	70	1	Eccentric widening in Rural

Rehabilitation and up-gradation of NH-66 (Formerly NH-17) from Km. 406+030 to Km 450+170 [Kalmath - Zarap section] to 4-lane with paved shoulder in the state of Maharashtra under NHDP -IV on Hybrid Annuity Mode -14-



S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
							Area-Left
36	415+480	415+620	247060	247200	140	1C	New Construction for Realignment/ Reconstruction in Rural Area
37	415+620	416+400	247200	247990	790	1	Eccentric widening in Rural Area-Left
38	416+400	416+520	247990	248090	100	1A	Eccentric widening in Rural Area-Right
39	416+520	416+860	248090	248429	339	1	Eccentric widening in Rural Area-Left
40	416+860	416+881	248429	248450	21	-	Minor Bridge
41	416+881	417+000	248450	248560	110	1	Eccentric widening in Rural Area-Left
42	417+000	417+140	248560	248700	140	1C	New Construction for Realignment/ Reconstruction in Rural Area
43	417+140	417+520	248700	249060	360	1A	Eccentric widening in Rural Area-Right
44	417+520	418-100	249060	249650	590	1	Eccentric widening in Rural Area-Left
45	418-100	418-200	249650	249760	110	1A	Eccentric widening in Rural Area-Right
46	418-200	418-580	249760	250130	370	1	Eccentric widening in Rural Area-Left
47	418-580	419-170	250130	250730	600	-	Toll Plaza
48	419-170	419-235	250730	250890	160	1A	Eccentric widening in Rural Area-Right
49	419+235	419+500	250890	251050	160	1C	New Construction for Realignment/ Reconstruction in Rural Area
50	419+500	419+820	251050	251350	310	1	Eccentric widening in Rural Area-Left
51	419+820	420+075	251350	251610	250	1A	Eccentric widening in Rural Area-Right
52	420+075	420+159	251610	251694	84	-	Major Bridge
53	420+159	420+510	251694	252450	756	1A	Eccentric widening in Rural Area-Right
54	420+510	421+460	252450	253015	565	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
55	421+460	421+480	253015	253035	20	-	VUP
56	421+480	422+000	253035	253545	510	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
57	422+000	422+295	253545	253835	290	1	Eccentric widening in Rural Area-Left

Rehabilitation and up-gradation of NH-66 (erstwhile NH-17) from Km 406/030 to Km 430/000 (Palman section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP -IV on EPC mode. Annualy Maint.

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S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
58	422+295	422+316	253835	253856	21	-	Minor Bridge
59	422+316	422+560	253856	254105	249	1	Eccentric widening in Rural Area-Left
60	422+560	422+900	254105	254445	340	1A	Eccentric widening in Rural Area-Right
61	422+900	422+970	254445	254510	65	1B	Concentric widening in Rural area
62	422+970	423+100	254510	254640	130	1A	Eccentric widening in Rural Area-Right
63	423+100	423+260	254640	254800	160	1B	Concentric widening in Rural area
64	423+260	424+020	254800	255560	760	1A	Eccentric widening in Rural Area-Right
65	424+020	424+220	255560	255760	200	1B	Concentric widening in Rural area
66	424+220	424+560	255760	256090	330	1	Eccentric widening in Rural Area-Left
67	424+560	424+700	256090	256235	145	1B	Concentric widening in Rural area
68	424+700	425+070	256235	256600	365	1	Eccentric widening in Rural Area-Left
69	425+070	425+594	256600	257124	524	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
70	425+594	425+606	257124	257136	12	-	VUP
71	425+606	426+583	257136	258102	966	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
72	426+583	426+591	258102	258110	8	-	Minor Bridge
73	426+591	427+119	258110	258639	529	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
74	427+119	427+131	258639	258651	12	-	VUP
75	427+131	427+204	258651	258725	74	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
76	427+204	427+212	258725	258733	8	-	Minor Bridge
77	427+212	427+800	258733	259320	587	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
78	427+800	428+800	259320	260320	1000	1A	Eccentric widening in Rural Area-Right
79	428+800	429+010	260320	260530	210	1	Eccentric widening in Rural Area-Left
80	429+010	429+200	260530	260715	185	1A	Eccentric widening in Rural Area-Right
81	429+200	429+391	260715	260895	180	1	Eccentric widening in Rural Area-Left
82	429+391	429+448	260895	260958	63	-	Major Bridge

Rehabilitation and up-gradation of NH-65 (erstwhile NH-17) from Km 436/050 to Km 450/120 (Kalmath - Zamp section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP -IV on Hybrid Annuity Mode.



S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
83	429+448	429+600	260958	261110	152	1	Eccentric widening in Rural Area-Left
84	429+600	431+470	261110	262980	1870	1A	Eccentric widening in Rural Area-Right
85	431+470	431+890	262980	263400	420	1	Eccentric widening in Rural Area-Left
86	431+890	432+694	263400	264209	809	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
87	432+694	432+706	264209	264221	12	-	VLP
88	432+706	433+050	264221	264560	339	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
89	433+050	433+230	264560	264750	190	1B	Concentric widening in Rural area
90	433+230	433+600	264750	265110	360	1A	Eccentric widening in Rural Area-Right
91	433+600	433+669	265110	265185	75	1C	New Construction for Realignment/ Reconstruction in Rural Area
92	433+669	433+711	265185	265227	42	-	Minor Bridge
93	433+711	434+130	265227	265590	363	1C	New Construction for Realignment/ Reconstruction in Rural Area
94	434+130	434+700	265590	266170	580	1A	Eccentric widening in Rural Area-Right
95	434+700	435+009	266170	266474	304	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
96	435+009	435+021	266474	266486	12	-	LVUP
97	435+021	435+300	266486	266760	274	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
98	435+300	435+460	266760	266920	160	1A	Eccentric widening in Rural Area-Right
99	435+460	435+780	266920	267240	320	1B	Concentric widening in Rural area
100	435+780	437+400	267240	268860	1620	1A	Eccentric widening in Rural Area-Right
101	437+400	438+110	268860	269552	692	1B	Concentric widening in Rural area
102	438+110	438+165	269552	269627	75	-	Major Bridge
103	438+165	438+785	269627	270198	571	1	Eccentric widening in Rural Area-Left
104	438+785	438+847	270198	270318	120	-	Major Bridge
105	438+847	439+152	270318	270598	280	8	Typical Cross Section of Vehicular/ Light Vehicular

Rehabilitation and up-gradation of NH-66 (erstwhile NH-17) from Km 406/023 to Km 450/170 [Kalmath - Zaran section] to 4-lane with paved shoulder in the state of Maharashtra under NHDP-III on Hybrid Annuity Mode -17-



S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
							Underpass
106	439-153	439-168	270598	270613	15	-	VUP
107	439-168	440-285	270613	271735	1122	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
108	440-285	440-305	271735	271755	20	-	VUP
109	440-305	440-579	271755	272029	274	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
110	440-579	440-591	272029	272041	12	-	VUP
111	440-591	441-900	272041	273335	1294	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
112	441-900	442-147	273335	273570	235	1A	Eccentric widening in Rural Area-Right
113	442-147	442-168	273570	273586	16	-	Minor Bridge
114	442-168	442-650	273586	274060	474	1A	Eccentric widening in Rural Area-Right
115	442-650	442-930	274060	274355	295	1B	Concentric widening in Rural area
116	442-930	443-340	274355	274760	405	1	Eccentric widening in Rural Area-Left
117	443-340	443-600	274760	275020	260	1A	Eccentric widening in Rural Area-Right
118	443-600	443-795	275020	275215	195	1	Eccentric widening in Rural Area-Left
119	443-795	443-805	275215	275225	10	-	Minor Bridge
120	443-805	444-200	275225	275630	405	1A	Eccentric widening in Rural Area-Right
121	444-200	444-594	275630	276024	394	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
122	444-594	444-606	276024	276036	12	-	LVUP
123	444-606	444-900	276036	276320	284	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
124	444-900	446-980	276320	278385	2065	1	Eccentric widening in Rural Area-Left
125	446-980	447-500	278385	278905	520	1A	Eccentric widening in Rural Area-Right
126	447-500	447-784	278905	279190	285	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
127	447-784	447-796	279190	279202	12	-	LVUP
128	447-796	448-080	279202	279480	278	8	Typical Cross Section of Vehicular/ Light Vehicular Underpass
129	448-080	448-250	279480	279640	160	1	Eccentric widening in Rural Area-Left

Rehabilitation and up-gradation of NH-66 (Estate NH-17) from Km. 465/120 to Km. 450/170 [Kalmath - Zarep section] to 4-lane with paved shoulder in the state of Maharashtra under JtSP Scheme of Public-Private Partnership Mode - 28



S. No.	Existing Chainage (Km)		Design Chainage (m)		Length (m)	Type of TCS	Widening Schedule
	From	To	From	To			
130	448+250	448+450	279640	279845	205	1A	Eccentric widening in Rural Area-Right
131	448+450	448+700	279845	280095	250	1B	Concentric widening in Rural area
132	448+700	448+840	280095	280230	135	1A	Eccentric widening in Rural Area-Right
133	448+840	449+720	280230	281115	885	1B	Concentric widening in Rural area
134	449+720	450+170	281115	281560	445	1A	Eccentric widening in Rural Area-Right
			TOTAL		43905		

Note: - Median & Carriageway width tapering shall be provided as per IRC-SP-84-2014 Clause no 2.5.4.; median width tapering details provided in clause 1.3.4 in schedule B.

Provision in various types of cross section

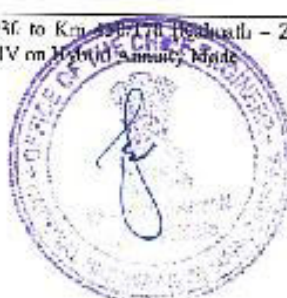
S. No.	Type of C/S	Proposed Typical Cross Sections	Length in m
1	Type-1	4 Lane Divided Carriageway - Eccentric widening in Rural Area-Left	11126
2	Type-1A	4 Lane Divided Carriageway - Eccentric widening in Rural Area-Right	15117
3	Type-1B	4 Lane Divided Carriageway - Concentric widening in Rural area	3272
4	Type-1C	4 Lane Divided Carriageway New Construction for Realignment/ Reconstruction in Rural Area	1028
5	Type-8	Typical Cross Section of Vehicular/ Light Vehicular Underpass	9692
6	Type-9	Typical Cross Section of Elevated Section	1260
7	Type-1D	Approach of Elevated Structure	862
8		Major Bridge	541
9		Minor Bridge	168
10		LVUP and VUP	139
11		Toll Plaza	600
		Total (in m)	43905

4.2 Alignment Plan and Longitudinal Section

An alignment plan and vertical profile of project highway is given at Appendix BII in soft copy. The minimum FRL given in enclosed drawing shall have to be achieved by Concessionaire. Based on site/design requirement, the Concessionaire may, however, improve/upgrade upon the alignment plans and profiles as indicated in Appendix B-II and raise the finished roadway level (FRL) with approval from the Independent Engineer within the available Right of Way.

4.3 Bypass and Realignment

Rehabilitation and up-gradation of NH-66 (erstwhile NH-17) from Km 406/030 to Km 456/170 (Bhadgaon - Zaran section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP - IV on Hybrid Annuity Mode -19-



There are 6 re-alignments in the project highway. The details of realignments to be provided are given at Appendix B-III.

4.4 Service Road/Slip Road

Service/Slip Roads shall be provided in lengths indicated in Appendix -B IV.

Cross sections should follow IRC: SP: 84-2014, "Manual of Standards & Specifications for Four Laning of Highways on Public Private Partnership".

4.5 Type of Shoulder and Footpath

(a) In built-up sections, footpaths shall be provided in the following table.

Sr. No.	Design Chainage (m)		Width of Footpath	Side	Linear Length of Footpath along the main C/W (m)
	From	To			
1	237655	237728	1.5	Both Side	146
2	237728	238320	1.5	Both Side	1184
3	238320	239580	1.5	Both Side	2520
4	239580	239850	1.5	Both Side	540
5	250130	250730	1.5	Both Side	1200
6	252450	253015	1.5	Both Side	1130
7	253015	253035	1.5	Both Side	40
8	253035	253545	1.5	Both Side	1020
9	256600	257124	1.5	Both Side	1048
10	257124	257136	1.5	Both Side	24
11	257136	258102	1.5	Both Side	1932
12	258102	258110	1.5	Both Side	15
13	258110	258639	1.5	Both Side	1058
14	258639	258651	1.5	Both Side	24
15	258651	258725	1.5	Both Side	148
16	258725	258733	1.5	Both Side	16
17	258733	259320	1.5	Both Side	1174
18	263400	264209	1.5	Both Side	1618
19	264209	264221	1.5	Both Side	24
20	264221	264560	1.5	Both Side	678
21	266170	266474	1.5	Both Side	608
22	266474	266486	1.5	Both Side	24
23	266486	266760	1.5	Both Side	548
24	270318	270598	1.5	Both Side	560
25	270598	270613	1.5	Both Side	30
26	270613	271735	1.5	Both Side	2244
27	271735	271755	1.5	Both Side	40
28	271755	272029	1.5	Both Side	548
29	272029	272041	1.5	Both Side	24
30	272041	273335	1.5	Both Side	2588
31	275630	276024	1.5	Both Side	788
32	276024	276036	1.5	Both Side	24
33	276036	276320	1.5	Both Side	568
34	278905	279190	1.5	Both Side	570
35	279190	279202	1.5	Both Side	24

Rehabilitation and up-gradation of NH-56 (Bastur NH-17) from Km 406/030 to Km 450/420 (Kalmath - Zaran section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP - IV on E 2000 Km long roads



Sr. No.	Design Chainage (m)		Width of Footpath	Side	Linear Length of Footpath along the main C/W (m)
	From	To			
36	279202	279480	1.5	Both Side	556
				Total	25284

(b) In open country, earthen shoulders of 2.0 m width shall be provided with 150 mm thick compacted layer of granular material.

4.6 Six Lane Stretches

Details of stretches to be constructed as Six Lane without paved are as indicated in Appendix BV

4.7 Proposed Right of Way (ROW)

The details of the Proposed ROW are given in Appendix B VI.

4.8 At Grade Intersection

At grade intersections shall be provided as per locations specified in Appendix-BVII for major and minor intersections.

Note: The concessionaire shall take up 'Detailed Engineering study' to ascertain further details of all intersections and treatment of the intersections shall be designed in accordance with the latest guidelines mentioned out in section-3 of Manual.

4.9 Type of Pavement

Pavement design shall be carried out in accordance with Section 5 of the Manual.

The existing 2-lane carriageway shall be widened/strengthened as flexible pavement as per manual requirements while the additional 2-lane carriageway/new 4-lane carriageway [bypass/realignment/noncentric widening stretches] shall be rigid pavement. Rigid pavement shall also be provided for bus bays and truck lay bye locations.

Notwithstanding anything to the contrary contained in this Agreement or the Manual, the minimum pavement composition for main carriageway and service road shall be as given below

Rigid pavement:

- The thickness of Pavement Quantity Concrete (PQC) shall not be less than **320 mm** and rest over Dry Lean Concrete (DLC) sub base of **150mm** thickness.
- The DLC will meet the minimum cement and compressive strength requirement as prescribed in IRC:SP:49 DLC will extend beyond the PQC (including that in shoulder, if any) 0.75 m on either side.
- Below DLC layer, a properly designed drainage layer **Granular Sub Base (GSB)** of **150 mm** thickness shall be provided throughout the road width. It shall be designed to obtain a drainage coefficient of not less than 20 m per day
- Ade-bonding interlayer of polythene sheet having a minimum thickness of 125 micron is recommended separation layer between DLC and PQC.

Existing carriageway & Service road

Rehabilitation and up-gradation of NH-56 (erstwhile NH-17) from Km. 406/030 to Km 450/120 (Kalamath - Zarap section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP -IV on EPC mode.



Existing carriageway(Flexible)		Service road (minimum)
Existing carriageway Widening (minimum)	Overlay over existing carriageway (minimum)	
200mm GSB+ 250mm WMM+ 100mm DBM + 50mm BC	100mm DBM+50mm BC	200mm GSB+ 250mm WMM+ 60mm DBM+ 40 mm BC

Note:- Thickness mentioned in above table shall be treated as minimum. Any variations in the thickness specified in this Schedule-B shall not constitute a Change of Scope, save and except any variations in the thickness arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13.

4.10 Grade Separated Intersections

The grade separated intersections shall be as provided as given at Appendix-B VIII.

4.11 Utility Structure

The details of the Utility Structure are given in Appendix BIX.

4.12 Underpasses/Elevated Structure/Flyover

Vehicular underpass and Light Vehicular Underpass shall be provided at location given at Appendix-BX(i)

Flyover/Elevated Structure shall be provided at location given at Appendix-BX(ii) and

Pedestrian /cattle underpass shall be provided at location given at Appendix-BXI.

4.13 Major bridges

Major bridges as listed in Appendix BXII shall be provided, widened, reconstructed or extended.

4.14 Minor bridges

Minor bridges as listed in Appendix BXIII shall be provided, widened, reconstructed or extended.

4.15 Culverts

Culverts shall be provided, widened, reconstructed or extended as listed in Appendix-BXIV.

4.16 ROB/RUB

Details of ROB/RUBs to be provided are given at Appendix BXV following points shall be taken care of

- The proposed span arrangements of the ROB/RUBs are tentative and subject to change as per availability of railway boundaries/ requirement of the railways.
- ROB shall be designed, constructed and maintained as per the requirements of Railway authorities. The construction plans shall be prepared in consultation with the concerned railway authority.
- The ROB/RUBs shall be constructed and maintained by the concessionaire under supervision of the Railways.



- IV) All expenditure related to construction, maintenance and supervision of ROB (except P&E charges) shall be borne by the Concessionaire.

4.17 Slope protection

The side slope shall be protected by using suitable slope protection measures wherever required along project highway.

4.18 Utilities

Various utilities like electric and telephone poles, OFC lines, water pipe lines/sewage pipes and Hand pumps are located close to the Project Highway. With the proposal of widening of the existing road from 2-lane to 4-lane with paved shoulders with divided carriageway, it will be necessary to shift the utilities falling in the widening alignment, in consultation with IE/Authority.

4.19 Rainwater Harvesting

As per Ministry of Environment and Forests Notification, New Delhi dated 14.01.1997 (as amended on 13.01.1998, 05.01.1999 & 6.11.2000), the construction of Rain water, harvesting structure is mandatory in and around Water Crisis area, notified by the Central Ground Water Board.

4.18 Type and Width of Median

The minimum width of median, subject to availability of Right of way, for various locations shall be as in **Appendix BXVI** according to clause 2.5.1 of IRC:SP:84-2009.

4.20 Location of Footpath and drains

Drain cum footpath shall be provided in urban stretches as **Appendix – BXVII**. The dimensions of the footpath and drain shall be approved by Independent engineer.

4.21 Provision for extra widening at sharp curves

Extra widening to the carriageway shall be provided at sharp curve locations. The details of extra widening locations are as given in **Appendix BXVIII**.

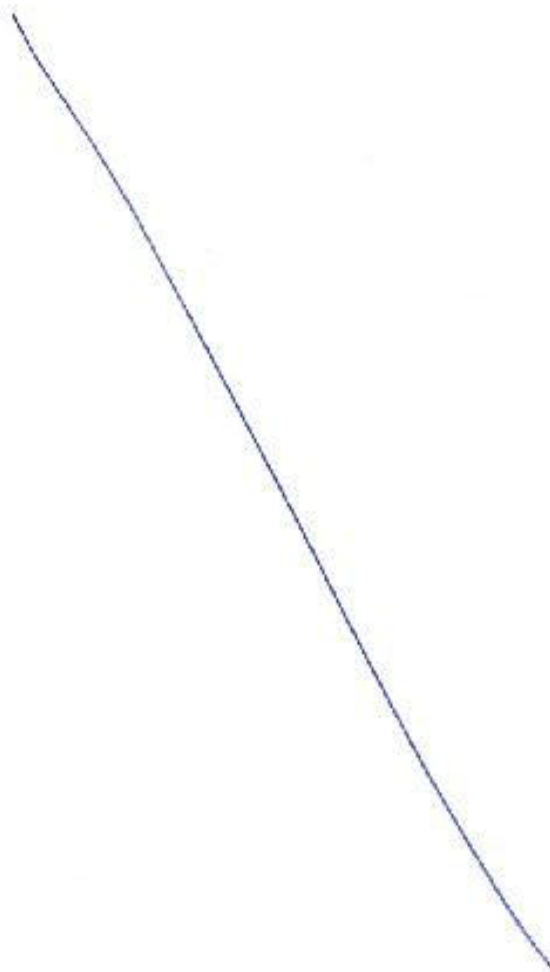
Rehabilitation and up gradation of NH 66 (erstwhile NH-17) from Km 406/020 to Km 501/000 (Kalmath - Zarp section) to 4-lane with paved shoulder in the state of Maharashtra under NHDP - IV on Hybrid Annuity Mode.



Appendix B I

Typical Cross Sections

The cross sections of the project road will be developed in accordance with the manual indicated in the Schedule D as applicable for plain/rolling terrain for rural/built up area.



Rehabilitation and up-gradation of NH 66 (erstwhile NH 17) from Km 406/030 to Km 450/171 (Kalamash - Zorap section) to 4 lane with paved shoulder in the state of Maharashtra under NHDP -IV on Hybrid Annuity Mode -24-

