Schedule-A

(See Clauses 2.1and 8.1)

Site of the Project

1 The Site

(i) Site of the [Two-Lane] Project Highway shall include the land, buildings, structures, and road works as described in Annex-I of this Schedule-A.

(ii) The dates of handing over the Right of Way to the Contractor are specified in Annex-II of this Schedule-A.

(iii) An inventory of the Site including the land, buildings, structures, road works, trees, and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause8.2 (i) of this Agreement.

(iv) The alignment plans of the Project Highway are specified in Annex-III. In the case of sections where no modification in the existing alignment of the Project Highway is contemplated, the alignment plan has not been provided. Alignment plans have only been given for sections where the existing alignment is proposed to be upgraded. The proposed profile of the Project Highways shall be followed by the contractor with minimum FRL as indicated in the alignment plan. The Contractor, however, improve/upgrade the Road Profile as indicated in Annex-III based onsite/design requirement.

(v) The status of the environment clearances obtained or awaited is given in Annex-IV.

Annex –I

(Schedule-A)

Site

[Note: : Through suitable drawings and description in words, the land, buildings, structures, and road works comprising the Site shall be specified briefly but precisely in this Annex-I. All the chainages /location referred to in Annex-I to Schedule-A shall be existing chainages.]

1. Site

The Site of the [Two-Lane] Project Highway comprises the section of NH-129A commencing from km 88+520 to km 114+165i.e. Liwai Khunou to Tadubi Village in the state of Manipur.
The land, carriageway and structures comprising the Site are described below.

2. Land

The Site of the Project Highway comprises the land (sum total of land already in possession and land to be possessed) as described below:

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
1	88520	88545	16.76	24	
2	88545	88570	24.14	24	
3	88570	88595	14.72	24	
4	88595	88620	6.41	24	
5	88620	88645	12.22	24	
6	88645	88670	8.30	24	
7	88670	88695	8.07	24	
8	88695	88720	7.84	24	
9	88720	88745	8.98	24	
10	88745	88770	8.01	24	
11	88770	88795	9.79	24	
12	88795	88820	7.30	24	
13	88820	88845	7.55	24	
14	88845	88870	5.22	24	
15	88870	88895	8.89	24	
16	88895	88920	9.42	24	
17	88920	88945	12.16	24	
18	88945	88970	11.03	18	
19	88970	88995	10.37	18	
20	88995	89020	12.51	18	
21	89020	89045	11.75	18	
22	89045	89070	16.43	18	
23	89070	89095	16.68	18	
24	89095	89120	12.95	18	
25	89120	89145	12.59	18	
26	89145	89170	14.12	18	
27	89170	89195	10.66	18	
28	89195	89220	10.89	18	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
29	89220	89245	11.67	18	
30	89245	89270	12.17	18	
31	89270	89295	12.26	18	
32	89295	89320	11.41	18	
33	89320	89345	8.24	18	
34	89345	89370	9.64	18	
35	89370	89395	14.59	18	
36	89395	89420	13.26	18	
37	89420	89445	22.49	18	
38	89445	89470	14.89	18	
39	89470	89495	11.31	18	
40	89495	89520	17.15	18	
41	89520	89545	14.07	18	
42	89545	89570	8.58	18	
43	89570	89595	9.07	18	
44	89595	89620	9.93	18	
45	89620	89645	7.14	18	
46	89645	89670	9.06	18	
47	89670	89695	7.71	18	
48	89695	89720	8.59	18	
49	89720	89745	5.24	18	
50	89745	89770	10.35	18	
51	89770	89795	8.51	18	
52	89795	89820	11.70	18	
53	89820	89845	18.15	18	
54	89845	89870	15.78	18	
55	89870	89895	16.76	18	
56	89895	89920	19.25	18	
57	89920	89945	11.19	18	
58	89945	89970	8.08	18	
59	89970	89995	10.87	18	
60	89995	90020	8.13	24	
61	90020	90045	7.44	24	
62	90045	90070	6.56	24	
63	90070	90095	5.85	24	
64	90095	90120	6.56	24	
65	90120	90145	6.42	24	
66	90145	90170	8.04	24	
67	90170	90195	9.26	24	
68	90195	90220	7.88	24	
69	90220	90245	8.19	24	
70	90245	90270	8.85	24	
71	90270	90295	8.63	24	
72	90295	90320	7.55	24	
73	90320	90345	6.87	24	
74	90345	90370	6.83	24	
75	90370	90395	7.08	24	
76	90395	90420	7.03	24	
77	90420	90445	12.13	24	
78	90445	90470	8.12	24	
79	90470	90495	7.51	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
80	90495	90520	8.30	24	
81	90520	90545	9.62	24	
82	90545	90570	7.51	24	
83	90570	90595	7.22	24	
84	90595	90620	7.87	24	
85	90620	90645	8.31	24	
86	90645	90670	8.42	24	
87	90670	90695	7.57	24	
88	90695	90720	5.83	24	
89	90720	90745	6.05	24	
90	90745	90770	7.52	24	
91	90770	90795	7.92	24	
92	90795	90820	10.31	24	
93	90820	90845	10.20	24	
94	90845	90870	8.11	24	
95	90870	90895	8.66	24	
96	90895	90920	8.48	24	
97	90920	90945	9.02	24	
98	90945	90970	9.09	24	
99	90970	90995	7.45	24	
100	90995	91020	13.53	24	
101	91020	91045	6.14	24	
102	91045	91070	7.93	24	
103	91070	91095	7.01	24	
104	91095	91120	6.86	24	
105	91120	91145	6.88	24	
106	91145	91170	7.65	24	
107	91170	91195	8.71	24	
108	91195	91220	8.83	24	
109	91220	91245	11.75	24	
110	91245	91270	8.91	24	
111	91270	91295	6.81	24	
112	91295	91320	8.69	24	
113	91320	91345	11.43	24	
114	91345	91370	8.96	24	
115	91370	91395	8.83	24	
116	91395	91420	8.82	24	
117	91420	91445	9.09	24	
118	91445	91470	10.98	24	
119	91470	91495	8.59	24	
120	91495	91520	13.86	24	
121	91520	91545	9.37	24	
122	91545	91570	10.32	24	
123	91570	91595	9.52	24	
124	91595	91620	11.73	24	
125	91620	91645	12.04	24	
126	91645	91670	13.77	24	
127	91670	91695	7.52	24	
128	91695	91720	8.93	24	
129	91720	91745	8.45	24	
130	91745	91770	9.24	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
131	91770	91795	10.78	24	
132	91795	91820	9.03	24	
133	91820	91845	9.55	24	
134	91845	91870	8.07	24	
135	91870	91895	7.95	24	
136	91895	91920	8.06	24	
137	91920	91945	13.71	24	
138	91945	91970	8.54	24	
139	91970	91995	8.27	24	
140	91995	92020	8.65	24	
141	92020	92045	7.50	24	
142	92045	92070	5.72	24	
143	92070	92095	8.34	24	
144	92095	92120	11.11	24	
145	92120	92145	9.40	24	
146	92145	92170	8.71	24	
147	92170	92195	7.39	24	
148	92195	92220	8.68	24	
149	92220	92245	8.80	24	
150	92245	92270	9.63	24	
151	92270	92295	8.42	24	
152	92295	92320	8.37	24	
153	92320	92345	8.73	24	
154	92345	92370	10.98	24	
155	92370	92395	8.80	24	
156	92395	92420	6.90	24	
157	92420	92445	6.73	24	
158	92445	92470	6.87	24	
159	92470	92495	6.73	24	
160	92495	92520	10.88	24	
161	92520	92545	8.78	24	
162	92545	92570	7.70	24	
163	92570	92595	8.40	24	
164	92595	92620	7.75	24	
165	92620	92645	9.15	24	
166	92645	92670	8.37	24	
167	92670	92695	8.99	24	
168	92695	92720	7.71	24	
169	92720	92745	9.52	24	
170	92745	92770	10.04	24	
171	92770	92795	6.71	24	
172	92795	92820	9.80	24	
173	92820	92845	9.97	24	
174	92845	92870	7.35	24	
175	92870	92895	5.38	24	
176	92895	92920	6.24	24	
177	92920	92945	6.04	24	
178	92945	92970	6.62	24	
179	92970	92995	6.75	24	
180	92995	93020	5.86	24	
181	93020	93045	8.47	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
182	93045	93070	5.85	24	
183	93070	93095	5.81	24	
184	93095	93120	6.41	24	
185	93120	93145	7.77	24	
186	93145	93170	7.42	24	
187	93170	93195	6.91	24	
188	93195	93220	6.62	24	
189	93220	93245	6.69	24	
190	93245	93270	7.25	24	
191	93270	93295	7.02	24	
192	93295	93320	6.41	24	
193	93320	93345	6.29	24	
194	93345	93370	8.34	24	
195	93370	93395	6.78	24	
196	93395	93420	7.29	24	
197	93420	93445	11.59	24	
198	93445	93470	8.15	24	
199	93470	93495	7.21	24	
200	93495	93520	8.07	24	
201	93520	93545	7.45	24	
202	93545	93570	7.31	24	
203	93570	93595	8.79	24	
204	93595	93620	8.83	24	
205	93620	93645	7.59	24	
206	93645	93670	7.37	24	
207	93670	93695	6.84	24	
208	93695	93720	6.84	24	
209	93720	93745	10.25	24	
210	93745	93770	8.40	24	
211	93770	93795	7.56	24	
212	93795	93820	6.85	24	
213	93820	93845	8.72	24	
214	93845	93870	9.62	24	
215	93870	93895	11.31	24	
216	93895	93920	9.48	24	
217	93920	93945	7.91	24	
218	93945	93970	8.92	24	
219	93970	93995	7.93	24	
220	93995	94020	8.38	24	
221	94020	94045	10.16	24	
222	94045	94070	9.29	24	
223	94070	94095	9.05	24	
224	94095	94120	15.34	24	
225	94120	94145	8.87	24	
226	94145	94170	8.95	24	
227	94170	94195	7.92	24	
228	94195	94220	10.44	24	
229	94220	94245	10.74	24	
230	94245	94270	12.05	24	
231	94270	94295	8.96	24	
232	94295	94320	7.15	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
233	94320	94345	6.28	24	
234	94345	94370	7.67	24	
235	94370	94395	6.86	24	
236	94395	94420	8.85	24	
237	94420	94445	8.41	24	
238	94445	94470	7.87	24	
239	94470	94495	7.40	24	Realignment
240	94495	94520	9.47	24	
241	94520	94545	7.41	24	
242	94545	94570	6.62	24	
243	94570	94595	8.33	24	
244	94595	94620	10.15	24	
245	94620	94645	9.93	24	
246	94645	94670	9.68	24	
247	94670	94695	9.80	24	
248	94695	94720	9.78	24	
249	94720	94745	11.40	24	
250	94745	94770	8.72	24	
251	94770	94795	10.21	24	
252	94795	94820	10.69	24	
253	94820	94845	9.88	24	
254	94845	94870	8.61	24	
255	94870	94895	6.98	24	
256	94895	94920	6.41	24	
257	94920	94945	10.29	24	
258	94945	94970	7.50	24	
259	94970	94995	6.72	24	
260	94995	95020	5.66	24	
261	95020	95045	5.84	24	
262	95045	95070	7.22	24	
263	95070	95095	6.87	24	
264	95095	95120	8.46	24	
265	95120	95145	6.14	24	
266	95145	95170	6.29	24	
267	95170	95195	8.57	24	
268	95195	95220	6.27	24	
269	95220	95245	7.59	24	
270	95245	95270	7.23	24	
271	95270	95295	6.68	24	
272	95295	95320	6.37	24	
273	95320	95345	6.60	24	
274	95345	95370	5.97	24	
275	95370	95395	6.16	24	
276	95395	95420	7.14	24	
277	95420	95445	5.34	24	
278	95445	95470	5.46	24	
279	95470	95495	6.29	24	
280	95495	95520	7.08	24	
281	95520	95545	9.86	24	
282	95545	95570	10.43	24	
283	95570	95595	7.94	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
284	95595	95620	7.41	24	
285	95620	95645	9.38	24	
286	95645	95670	9.46	24	
287	95670	95695	10.33	24	
288	95695	95720	7.54	24	
289	95720	95745	8.42	24	
290	95745	95770	8.72	24	
291	95770	95795	7.16	24	
292	95795	95820	6.98	24	
293	95820	95845	8.82	24	
294	95845	95870	6.36	24	
295	95870	95895	5.47	24	
296	95895	95920	6.40	24	
297	95920	95945	5.85	24	
298	95945	95970	5.94	24	
299	95970	95995	10.80	24	
300	95995	96020	6.93	24	
301	96020	96045	5.75	24	
302	96045	96070	5.43	24	
303	96070	96095	7.05	24	
304	96095	96120	8.87	24	
305	96120	96145	8.26	24	
306	96145	96170	9.01	24	
307	96170	96195	8.10	24	
308	96195	96220	10.51	24	
309	96220	96245	10.66	24	
310	96245	96270	9.04	24	
311	96270	96295	8.21	24	
312	96295	96320	8.34	24	
313	96320	96345	11.50	24	
314	96345	96370	11.88	24	
315	96370	96395	9.99	24	
316	96395	96420	8.08	24	
317	96420	96445	7.28	24	
318	96445	96470	6.86	24	
319	96470	96495	6.96	24	
320	96495	96520	7.28	24	
321	96520	96545	6.65	24	
322	96545	96570	5.77	24	
323	96570	96595	5.22	24	
324	96595	96620	9.64	24	
325	96620	96645	9.08	24	
326	96645	96670	9.06	24	
327	96670	96695	8.69	24	
328	96695	96720	8.63	24	
329	96720	96745	8.45	24	
330	96745	96770	7.26	24	
331	96770	96795	7.45	24	
332	96795	96820	9.85	24	
333	96820	96845	11.63	24	
334	96845	96870	10.23	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
335	96870	96895	8.99	24	
336	96895	96920	8.33	24	
337	96920	96945	7.66	24	
338	96945	96970	12.78	24	
339	96970	96995	9.66	24	
340	96995	97020	9.01	24	
341	97020	97045	7.89	24	
342	97045	97070	6.79	24	
343	97070	97095	7.57	24	
344	97095	97120	8.55	24	
345	97120	97145	8.02	24	
346	97145	97170	7.96	24	
347	97170	97195	7.99	24	
348	97195	97220	7.33	24	
349	97220	97245	6.54	24	
350	97245	97270	8.64	24	
351	97270	97295	7.83	24	
352	97295	97320	7.51	24	
353	97320	97345	7.00	24	
354	97345	97370	9.43	24	
355	97370	97395	9.24	24	
356	97395	97420	8.71	24	
357	97420	97445	7.34	24	
358	97445	97470	8.07	24	
359	97470	97495	7.45	24	
360	97495	97520	13.47	24	
361	97520	97545	8.23	24	
362	97545	97570	5.08	24	
363	97570	97595	8.48	24	
364	97595	97620	7.37	24	
365	97620	97645	8.63	24	
366	97645	97670	7.97	24	
367	97670	97695	9.80	24	
368	97695	97720	7.58	24	
369	97720	97745	16.55	24	
370	97745	97770	8.23	24	
371	97770	97795	11.05	24	
372	97795	97820	9.65	24	
373	97820	97845	7.38	24	
374	97845	97870	8.15	24	
375	97870	97895	11.25	24	
376	97895	97920	6.42	24	
377	97920	97945	8.86	24	
378	97945	97970	10.67	24	
379	97970	97995	9.71	24	
380	97995	98020	9.69	24	
381	98020	98045	9.26	24	
382	98045	98070	11.00	24	
383	98070	98095	7.28	24	
384	98095	98120	11.33	24	
385	98120	98145	8.42	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
386	98145	98170	8.63	24	
387	98170	98195	9.03	24	
388	98195	98220	9.23	24	
389	98220	98245	9.03	24	
390	98245	98270	7.02	24	
391	98270	98295	8.29	24	
392	98295	98320	9.25	24	
393	98320	98345	7.88	24	
394	98345	98370	7.43	24	
395	98370	98395	8.54	24	
396	98395	98420	8.34	24	
397	98420	98445	10.38	24	
398	98445	98470	14.42	24	
399	98470	98495	14.07	24	
400	98495	98520	18.47	24	
401	98520	98545	10.90	24	
402	98545	98570	12.04	24	
403	98570	98595	18.45	24	
404	98595	98620	13.11	24	
405	98620	98645	13.79	24	
406	98645	98670	12.85	24	
407	98670	98695	13.64	24	
408	98695	98720	9.80	24	
409	98720	98745	8.99	24	
410	98745	98770	9.44	24	
411	98770	98795	9.84	24	
412	98795	98820	11.11	24	
413	98820	98845	10.30	24	
414	98845	98870	8.85	24	
415	98870	98895	10.36	24	
416	98895	98920	12.77	24	
417	98920	98945	13.39	24	
418	98945	98970	10.67	24	
419	98970	98995	18.79	24	
420	98995	99020	11.36	24	
421	99020	99045	13.10	24	
422	99045	99070	8.17	24	
423	99070	99095	8.75	24	
424	99095	99120	10.19	24	
425	99120	99145	7.65	24	
426	99145	99170	15.19	24	
427	99170	99195	11.47	24	
428	99195	99220	10.14	24	
429	99220	99245	11.19	24	
430	99245	99270	11.85	24	
431	99270	99295	11.88	24	
432	99295	99320	12.90	24	
433	99320	99345	10.89	24	
434	99345	99370	12.44	24	
435	99370	99395	12.91	24	
436	99395	99420	13.08	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
437	99420	99445	14.79	24	
438	99445	99470	14.52	24	
439	99470	99495	11.18	24	
440	99495	99520	14.65	24	
441	99520	99545	9.01	24	
442	99545	99570	10.44	24	
443	99570	99595	9.27	24	
444	99595	99620	10.06	24	
445	99620	99645	11.31	24	
446	99645	99670	11.60	24	
447	99670	99695	42.37	24	
448	99695	99720	18.31	24	
449	99720	99745	17.86	24	
450	99745	99770	15.77	24	
451	99770	99795	11.03	24	
452	99795	99820	9.55	24	
453	99820	99845	9.53	24	
454	99845	99870	11.72	24	
455	99870	99895	10.34	24	
456	99895	99920	8.99	24	
457	99920	99945	10.07	24	
458	99945	99970	11.04	24	
459	99970	99995	10.39	24	
460	99995	100020	11.22	24	
461	100020	100045	11.29	24	
462	100045	100070	11.47	24	
463	100070	100095	8.81	24	
464	100095	100120	9.57	24	
465	100120	100145	12.74	24	
466	100145	100170	17.60	24	
467	100170	100195	15.24	24	
468	100195	100220	13.47	24	
469	100220	100245	13.03	24	
470	100245	100270	10.16	24	
471	100270	100295	12.29	24	
472	100295	100320	24.49	24	
473	100320	100345	15.50	24	
474	100345	100370	11.74	24	
475	100370	100395	12.56	24	
476	100395	100420	14.02	24	
477	100420	100445	23.27	24	
478	100445	100470	12.44	24	
479	100470	100495	13.59	24	
480	100495	100520	12.35	24	
481	100520	100545	13.50	24	
482	100545	100570	12.42	24	
483	100570	100595	11.70	24	
484	100595	100620	14.99	24	
485	100620	100645	12.30	24	
486	100645	100670	17.71	24	
487	100670	100695	11.16	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
488	100695	100720	11.08	24	
489	100720	100745	8.34	24	
490	100745	100770	8.96	24	
491	100770	100795	9.81	24	
492	100795	100820	10.81	24	
493	100820	100845	11.11	24	
494	100845	100870	10.55	24	
495	100870	100895	12.16	24	
496	100895	100920	11.71	24	
497	100920	100945	8.83	24	
498	100945	100970	9.04	24	
499	100970	100995	8.78	24	
500	100995	101020	8.49	24	
501	101020	101045	8.22	24	
502	101045	101070	4.74	24	
503	101070	101095	14.91	24	
504	101095	101120	9.07	24	
505	101120	101145	7.08	24	
506	101145	101170	6.94	24	
507	101170	101195	7.31	24	
508	101195	101220	7.75	24	
509	101220	101245	13.04	24	
510	101245	101270	8.92	24	
511	101270	101295	9.69	24	
512	101295	101320	15.15	24	
513	101320	101345	9.23	24	
514	101345	101370	9.00	24	
515	101370	101395	9.47	24	
516	101395	101420	7.89	24	
517	101420	101445	8.79	24	
518	101445	101470	18.54	24	
519	101470	101495	18.41	24	
520	101495	101520	9.57	24	
521	101520	101545	11.49	24	
522	101545	101570	8.87	24	
523	101570	101595	9.06	24	
524	101595	101620	8.81	24	
525	101620	101645	9.28	24	
526	101645	101670	9.04	24	
527	101670	101695	8.93	24	
528	101695	101720	8.13	24	
529	101720	101745	8.72	24	
530	101745	101770	10.01	24	
531	101770	101795	14.45	24	
532	101795	101820	14.68	24	
533	101820	101845	10.62	24	
534	101845	101870	11.43	24	
535	101870	101895	11.45	24	
536	101895	101920	11.35	24	
537	101920	101945	11.65	24	
538	101945	101970	12.81	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
539	101970	101995	9.05	24	
540	101995	102020	8.94	24	
541	102020	102045	16.88	24	
542	102045	102070	17.22	24	
543	102070	102095	12.58	24	
544	102095	102120	15.53	24	
545	102120	102145	15.45	24	
546	102145	102170	12.15	24	
547	102170	102195	12.78	24	
548	102195	102220	11.94	24	
549	102220	102245	12.82	24	
550	102245	102270	11.03	24	
551	102270	102295	12.08	24	
552	102295	102320	14.15	24	
553	102320	102345	13.92	24	
554	102345	102370	13.04	24	
555	102370	102395	14.47	24	
556	102395	102420	10.83	24	
557	102420	102445	12.92	24	
558	102445	102470	12.27	24	
559	102470	102495	14.12	24	
560	102495	102520	10.24	24	
561	102520	102545	9.76	24	
562	102545	102570	14.33	24	
563	102570	102595	11.17	24	
564	102595	102620	12.45	24	
565	102620	102645	11.32	24	
566	102645	102670	15.11	24	
567	102670	102695	12.60	24	
568	102695	102720	9.99	24	
569	102720	102745	9.64	24	
570	102745	102770	9.54	24	
571	102770	102795	9.84	24	
572	102795	102820	8.42	24	
573	102820	102845	9.10	24	
574	102845	102870	9.30	24	
575	102870	102895	6.59	24	
576	102895	102920	10.27	24	
577	102920	102945	9.82	24	
578	102945	102970	8.26	24	
579	102970	102995	9.73	24	
580	102995	103020	16.11	24	
581	103020	103045	7.86	24	
582	103045	103070	10.45	24	
583	103070	103095	8.51	24	
584	103095	103120	8.89	24	
585	103120	103145	10.16	24	
586	103145	103170	27.25	24	
587	103170	103195	12.41	24	
588	103195	103220	13.24	24	
589	103220	103245	13.43	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
590	103245	103270	10.09	24	
591	103270	103295	10.31	24	
592	103295	103320	8.25	24	
593	103320	103345	9.24	24	
594	103345	103370	8.63	24	
595	103370	103395	14.70	24	
596	103395	103420	11.01	24	
597	103420	103445	16.97	24	
598	103445	103470	14.24	24	
599	103470	103495	10.16	16	
600	103495	103520	9.97	16	
601	103520	103545	8.42	16	
602	103545	103570	8.57	16	
603	103570	103595	7.47	16	
604	103595	103620	9.03	16	
605	103620	103645	8.68	16	
606	103645	103670	6.80	16	
607	103670	103695	5.94	16	
608	103695	103720	11.45	16	
609	103720	103745	13.00	16	
610	103745	103770	9.91	16	
611	103770	103795	12.12	16	
612	103795	103820	15.38	16	
613	103820	103845	13.10	16	
614	103845	103870	10.83	16	
615	103870	103895	14.84	16	
616	103895	103920	12.23	16	
617	103920	103945	12.67	16	
618	103945	103970	15.06	16	
619	103970	103995	12.90	16	
620	103995	104020	22.59	16	
621	104020	104045	15.33	16	
622	104045	104070	15.44	16	
623	104070	104095	16.48	16	
624	104095	104120	17.35	16	
625	104120	104145	16.80	16	
626	104145	104170	17.99	16	
627	104170	104195	10.99	16	
628	104195	104220	11.80	16	
629	104220	104245	11.56	16	
630	104245	104270	12.02	16	
631	104270	104295	11.74	16	
632	104295	104320	17.56	16	
633	104320	104345	15.82	16	
634	104345	104370	9.70	16	
635	104370	104395	11.93	16	
636	104395	104420	8.76	16	
637	104420	104445	7.99	24	
638	104445	104470	11.17	24	
639	104470	104495	10.81	24	
640	104495	104520	12.68	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
641	104520	104545	7.56	24	
642	104545	104570	10.23	24	
643	104570	104595	10.61	24	
644	104595	104620	10.00	24	
645	104620	104645	10.34	24	
646	104645	104670	12.27	24	
647	104670	104695	11.24	24	
648	104695	104720	9.81	24	
649	104720	104745	9.65	24	
650	104745	104770	9.17	24	
651	104770	104795	8.71	24	
652	104795	104820	12.17	24	
653	104820	104845	21.94	24	
654	104845	104870	28.68	24	
655	104870	104895	26.92	24	
656	104895	104920	22.74	24	
657	104920	104945	10.38	24	
658	104945	104970	9.14	24	
659	104970	104995	11.10	24	
660	104995	105020	10.56	24	
661	105020	105045	11.33	24	
662	105045	105070	9.46	24	
663	105070	105095	20.07	24	
664	105095	105120	10.46	24	
665	105120	105145	11.78	24	
666	105145	105170	8.78	24	
667	105170	105195	12.78	24	
668	105195	105220	30.33	24	
669	105220	105245	11.03	24	
670	105245	105270	9.28	24	
671	105270	105295	10.65	24	
672	105295	105320	7.85	24	
673	105320	105345	10.49	24	
674	105345	105370	10.15	24	
675	105370	105395	10.36	24	
676	105395	105420	9.62	24	
677	105420	105445	10.37	24	
678	105445	105470	9.36	24	
679	105470	105495	8.93	24	
680	105495	105520	10.97	24	
681	105520	105545	13.18	24	
682	105545	105570	16.23	24	
683	105570	105595	13.71	24	
684	105595	105620	18.12	24	
685	105620	105645	18.18	24	
686	105645	105670	12.67	24	
687	105670	105695	9.23	24	
688	105695	105720	9.09	24	
689	105720	105745	7.80	24	
690	105745	105770	10.32	24	
691	105770	105795	9.70	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
692	105795	105820	11.12	24	
693	105820	105845	10.30	24	
694	105845	105870	7.43	24	
695	105870	105895	9.58	24	
696	105895	105920	9.11	24	
697	105920	105945	10.31	24	
698	105945	105970	10.18	24	
699	105970	105995	9.19	24	
700	105995	106020	7.25	24	
701	106020	106045	8.27	24	
702	106045	106070	7.02	24	
703	106070	106095	11.76	24	
704	106095	106120	6.76	24	
705	106120	106145	8.04	24	
706	106145	106170	7.55	24	
707	106170	106195	8.96	24	
708	106195	106220	12.45	24	
709	106220	106245	5.35	24	
710	106245	106270	8.72	24	
711	106270	106295	6.99	24	
712	106295	106320	6.91	24	
713	106320	106345	6.81	24	
714	106345	106370	8.47	24	
715	106370	106395	8.33	24	
716	106395	106420	10.37	24	
717	106420	106445	8.98	24	
718	106445	106470	8.93	24	
719	106470	106495	9.51	24	
720	106495	106520	14.37	24	
721	106520	106545	8.21	24	
722	106545	106570	8.35	24	
723	106570	106595	8.44	24	
724	106595	106620	10.29	24	
725	106620	106645	10.96	24	
726	106645	106670	11.71	24	
727	106670	106695	10.16	24	
728	106695	106720	11.71	24	
729	106720	106745	10.17	24	
730	106745	106770	8.64	24	
731	106770	106795	7.43	24	
732	106795	106820	10.91	24	
733	106820	106845	11.49	24	
734	106845	106870	18.79	24	
735	106870	106895	14.42	24	
736	106895	106920	6.92	24	
737	106920	106945	9.19	24	
738	106945	106970	9.66	24	
739	106970	106995	10.18	24	
740	106995	107020	18.81	24	
741	107020	107045	8.24	24	
742	107045	107070	9.49	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
743	107070	107095	10.85	24	
744	107095	107120	12.19	24	
745	107120	107145	13.27	24	
746	107145	107170	10.68	24	
747	107170	107195	11.70	24	
748	107195	107220	15.42	24	
749	107220	107245	12.36	24	
750	107245	107270	9.00	24	
751	107270	107295	9.25	24	
752	107295	107320	10.64	24	
753	107320	107345	10.80	24	
754	107345	107370	10.14	24	
755	107370	107395	9.71	24	
756	107395	107420	11.69	24	
757	107420	107445	11.07	24	
758	107445	107470	11.95	24	
759	107470	107495	9.69	24	
760	107495	107520	10.13	24	
761	107520	107545	8.46	24	
762	107545	107570	9.42	24	
763	107570	107595	10.26	24	
764	107595	107620	9.50	24	
765	107620	107645	9.38	24	
766	107645	107670	9.27	24	
767	107670	107695	8.89	24	
768	107695	107720	11.79	24	
769	107720	107745	12.47	24	
770	107745	107770	13.64	24	
771	107770	107795	8.52	24	
772	107795	107820	10.56	24	
773	107820	107845	12.33	24	
774	107845	107870	10.57	24	
775	107870	107895	9.27	24	
776	107895	107920	15.21	24	
777	107920	107945	11.83	24	
778	107945	107970	11.29	24	
779	107970	107995	12.22	24	
780	107995	108020	15.52	24	
781	108020	108045	14.30	24	
782	108045	108070	28.53	24	
783	108070	108095	27.00	24	
784	108095	108120	23.93	24	
785	108120	108145	16.45	24	
786	108145	108170	21.56	24	
787	108170	108195	25.20	24	
788	108195	108220	20.57	24	
789	108220	108245	15.23	24	
790	108245	108270	15.39	24	
791	108270	108295	14.79	24	
792	108295	108320	10.68	24	
793	108320	108345	6.45	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
794	108345	108370	11.34	24	
795	108370	108395	10.99	24	
796	108395	108420	10.83	24	
797	108420	108445	9.67	24	
798	108445	108470	13.53	24	
799	108470	108495	16.55	24	
800	108495	108520	12.60	24	
801	108520	108545	10.90	24	
802	108545	108570	12.63	24	
803	108570	108595	11.05	24	
804	108595	108620	11.50	24	
805	108620	108645	13.48	24	
806	108645	108670	12.72	24	
807	108670	108695	9.86	24	
808	108695	108720	8.85	24	
809	108720	108745	9.30	24	
810	108745	108770	9.83	24	
811	108770	108795	10.07	24	
812	108795	108820	10.31	24	
813	108820	108845	9.37	24	
814	108845	108870	9.36	24	
815	108870	108895	10.23	24	
816	108895	108920	9.42	24	
817	108920	108945	10.83	24	
818	108945	108970	11.10	24	
819	108970	108995	12.10	24	
820	108995	109020	9.29	24	
821	109020	109045	8.52	24	
822	109045	109070	9.20	24	
823	109070	109095	9.35	24	
824	109095	109120	10.40	24	
825	109120	109145	10.75	24	
826	109145	109170	10.90	24	
827	109170	109195	9.83	24	
828	109195	109220	10.30	24	
829	109220	109245	10.90	24	
830	109245	109270	11.02	24	
831	109270	109295	11.15	24	
832	109295	109320	10.63	24	
833	109320	109345	10.84	24	
834	109345	109370	13.90	24	
835	109370	109395	19.99	24	
836	109395	109420	17.33	24	
837	109420	109445	17.11	24	
838	109445	109470	12.31	24	
839	109470	109495	13.36	24	
840	109495	109520	9.82	24	
841	109520	109545	11.06	24	
842	109545	109570	11.51	24	
843	109570	109595	12.54	24	
844	109595	109620	10.67	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
845	109620	109645	11.91	24	
846	109645	109670	12.65	24	
847	109670	109695	9.99	24	
848	109695	109720	12.64	24	
849	109720	109745	11.37	24	
850	109745	109770	12.16	24	
851	109770	109795	13.03	24	
852	109795	109820	11.86	24	
853	109820	109845	10.07	24	
854	109845	109870	10.22	24	
855	109870	109895	10.33	24	
856	109895	109920	8.66	24	
857	109920	109945	21.25	24	
858	109945	109970	9.70	24	
859	109970	109995	9.10	24	
860	109995	110020	11.61	24	
861	110020	110045	9.58	24	
862	110045	110070	8.91	24	
863	110070	110095	8.95	24	
864	110095	110120	8.61	24	
865	110120	110145	8.49	24	
866	110145	110170	7.85	24	
867	110170	110195	7.49	24	
868	110195	110220	10.40	24	
869	110220	110245	10.69	24	
870	110245	110270	11.38	24	
871	110270	110295	10.18	24	
872	110295	110320	11.08	24	
873	110320	110345	9.64	24	
874	110345	110370	12.01	24	
875	110370	110395	11.86	24	
876	110395	110420	10.45	24	
877	110420	110445	9.75	24	
878	110445	110470	9.79	24	
879	110470	110495	8.75	24	
880	110495	110520	9.54	24	
881	110520	110545	10.17	24	
882	110545	110570	10.86	24	
883	110570	110595	8.77	24	
884	110595	110620	9.30	24	
885	110620	110645	8.03	24	
886	110645	110670	14.55	24	
887	110670	110695	12.32	24	
888	110695	110720	9.49	24	
889	110720	110745	10.99	24	
890	110745	110770	17.69	24	
891	110770	110795	8.63	24	
892	110795	110820	9.69	24	
893	110820	110845	10.74	24	
894	110845	110870	10.14	24	
895	110870	110895	13.04	24	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
896	110895	110920	13.30	24	
897	110920	110945	9.56	24	
898	110945	110970	8.65	24	
899	110970	110995	7.96	24	
900	110995	111020	10.40	24	
901	111020	111045	9.88	24	
902	111045	111070	8.59	24	
903	111070	111095	10.36	14	
904	111095	111120	18.76	14	
905	111120	111145	11.86	14	
906	111145	111170	13.05	14	
907	111170	111195	13.44	14	
908	111195	111220	9.68	14	
909	111220	111245	8.45	14	
910	111245	111270	9.70	14	
911	111270	111295	9.45	14	
912	111295	111320	9.49	14	
913	111320	111345	10.89	14	
914	111345	111370	15.74	14	
915	111370	111395	15.41	14	
916	111395	111420	22.24	14	
917	111420	111445	23.18	14	
918	111445	111470	15.64	14	
919	111470	111495	20.14	14	
920	111495	111520	11.02	14	
921	111520	111545	9.35	14	
922	111545	111570	9.39	14	
923	111570	111595	10.35	14	
924	111595	111620	12.67	14	
925	111620	111645	11.87	14	
926	111645	111670	14.71	14	
927	111670	111695	11.58	14	
928	111695	111720	12.17	14	
929	111720	111745	17.28	14	
930	111745	111770	12.56	14	
931	111770	111795	13.59	14	
932	111795	111820	16.14	14	
933	111820	111845	9.16	14	
934	111845	111870	4.52	14	
935	111870	111895	7.17	14	Realignment
936	111895	111920	5.80	14	
937	111920	111945	4.84	14	
938	111945	111970	4.41	14	
939	111970	111995	6.99	14	
940	111995	112020	5.09	14	
941	112020	112045	9.57	14	
942	112045	112070	10.90	14	
943	112070	112095	14.35	14	
944	112095	112120	19.99	14	
945	112120	112145	20.07	14	
946	112145	112170	17.27	14	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
947	112170	112195	18.08	14	
948	112195	112220	17.99	14	
949	112220	112245	15.36	14	
950	112245	112270	15.89	14	
951	112270	112295	19.26	14	
952	112295	112320	20.12	14	
953	112320	112345	20.02	14	
954	112345	112370	14.02	14	
955	112370	112395	14.46	14	
956	112395	112420	16.85	14	
957	112420	112445	13.85	14	
958	112445	112470	11.07	14	
959	112470	112495	10.29	18	
960	112495	112520	11.40	18	
961	112520	112545	13.74	18	
962	112545	112570	15.32	18	
963	112570	112595	10.24	18	
964	112595	112620	9.24	18	
965	112620	112645	9.97	18	
966	112645	112670	10.10	18	
967	112670	112695	16.29	18	
968	112695	112720	13.45	18	
969	112720	112745	10.63	18	
970	112745	112770	8.92	18	
971	112770	112795	11.71	18	
972	112795	112820	12.01	18	
973	112820	112845	20.36	18	
974	112845	112870	13.74	18	
975	112870	112895	13.66	18	
976	112895	112920	13.91	18	
977	112920	112945	9.30	18	
978	112945	112970	11.25	18	
979	112970	112995	14.65	18	
980	112995	113020	8.90	18	
981	113020	113045	9.23	18	
982	113045	113070	18.34	18	
983	113070	113095	11.63	18	
984	113095	113120	7.88	18	
985	113120	113145	8.27	18	
986	113145	113170	12.32	18	
987	113170	113195	13.40	18	
988	113195	113220	11.86	18	
989	113220	113245	17.78	18	
990	113245	113270	14.19	18	
991	113270	113295	10.23	18	
992	113295	113320	12.98	18	
993	113320	113345	8.04	18	
994	113345	113370	9.66	18	
995	113370	113395	18.71	18	
996	113395	113420	11.41	18	
997	113420	113445	12.43	18	

SL No.	Existing Chainage (m)		Existing Right of Way (m)	Proposed Right of Way (m)	Remarks
	From	To			
998	113445	113470	11.61	18	
999	113470	113495	16.13	18	
1000	113495	113520	13.79	18	
1001	113520	113545	12.80	18	
1002	113545	113570	20.61	18	
1003	113570	113595	15.93	18	
1004	113595	113620	17.83	18	
1005	113620	113645	13.31	18	
1006	113645	113670	17.41	18	
1007	113670	113695	21.42	18	
1008	113695	113720	25.07	18	
1009	113720	113745	22.06	18	
1010	113745	113770	12.12	18	
1011	113770	113795	14.96	18	
1012	113795	113820	13.97	18	
1013	113820	113845	16.46	18	
1014	113845	113870	24.77	18	
1015	113870	113895	25.60	18	
1016	113895	113920	29.99	18	
1017	113920	113945	22.88	18	
1018	113945	113970	16.27	18	
1019	113970	113995	20.26	18	
1020	113995	114020	9.08	18	
1021	114020	114045	16.61	18	
1022	114045	114070	16.24	18	
1023	114070	114095	19.23	18	
1024	114095	114120	20.09	18	
1025	114120	114145	17.61	18	
1026	114145	114165	11.96	18	

3. Carriageway

The present carriageway of the Project Highway is Two Lane from km 88+520 to km 114+165. The type of the existing pavement is [flexible].

4. Major Bridges

The Site includes the following Major Bridges: -

S. No.	Chainage (km)	Type of Structure			No. of Spans with span length (m)	Width (m)
		Foundation	Sub- structure	Super-structure		
Nil						

5. Road over-bridges (ROB)/Road under-bridges (RUB)

The Site includes the following ROB (road over railway line)/RUB (road under railway line):

S. No.	Chainage	Type of Structure	No. of Spans	Width	ROB/

	(km)	Foundation	Superstructure	withspan length(m)	(m)	RUB
Nil						

6. Grade separators

The Site includes the following grade separators:

S. No.	Chainage (km)	Type of Structure		No. of Spans with span length(m)	Width (m)
		Foundation	Superstructure		
Nil					

7. Minor bridges

The Site includes the following minor bridges:

S. No.	Chainage (km)	Type of Structure			No. of Spans with span length (m)	Width (m)
		Foundation	Sub- structure	Super- structure		
1	99+750	Open	RCC	RCC	7.0mX4.8M	5.9
2	100+390	Open	RCC	RCC	5.5mX5.0M	5.8
3	101+465	Open	RCC	RCC	7.5mX5.0M	5.8
4	101+789	Open	RCC	RCC	5.5mx5.1m	6

8. Railway level crossings

The Site includes the following railway level crossings:

S. No.	Location(km)	Remarks
Nil		

9. Underpasses (vehicular, non- vehicular)

The Site includes the following underpasses:

S. No.	Chainage (km)	Type of Structure	No. of Spans with span length (m)	Width (m)
Nil				

10. Culverts

The Site has the following culverts:

Sl. No.	Chainage (km)	Type of Culvert	Span/Opening with Span Length	Width of Culvert (m)
1	88+927	Covered By Soil	-	6.8
2	89+647	Hume Pipe	1x 1.0 m Dia	8.2
3	90+183	Hume Pipe	1x 1.0 m Dia	7.5
4	90+253	Hume Pipe	1x 1.0 m Dia	8
5	90+581	Hume Pipe	1x 1.0 m Dia	10.2
6	91+081	Hume Pipe	1x 0.9m Dia	8
7	91+493	Hume Pipe	1x 1.0m Dia	7.4
8	91+686	Hume Pipe	1x 0.9m Dia	7.8
9	91+975	Hume Pipe	1x 0.9m Dia	6.2

Sl. No.	Chainage (km)	Type of Culvert	Span/Opening with Span Length	Width of Culvert (m)
10	92+482	Hume Pipe	1x 0.9m Dia	6.8
11	93+160	Hume Pipe	1x 0.9m Dia	6.2
12	93+224	Hume Pipe	1x 0.9m Dia	6.1
13	93+730	Hume Pipe	1x 0.9m Dia	7
14	93+842	Hume Pipe	1x 1.0m Dia	6.2
15	94+446	Hume Pipe	1x 1.2m Dia	6.5
16	95+319	Hume Pipe	1x 0.6m Dia	7
17	95+403	Hume Pipe	1x 0.9m Dia	6.4
18	95+478	Hume Pipe	1x 1.0m Dia	9.6
19	95+501	Hume Pipe	1x 0.9m Dia	7.1
20	95+710	Hume Pipe	1x 1.0m Dia	6.8
21	96+078	Hume Pipe	1x 1.5m Dia	7.4
22	96+170	Hume Pipe	1x 1.8m Dia	6.5
23	96+521	Hume Pipe	1x 0.75m Dia	7.4
24	97+225	Hume Pipe	1x 1.2m Dia	7
25	97+338	Slab Culvert	1.76mx6.44m	6.4
26	97+610	Hume Pipe	1x 0.9m Dia	7.3
27	97+896	Hume Pipe	1x 0.6m Dia	7.7
28	98+100	Hume Pipe	1x 0.75m Dia	7.7
29	98+640	Hume Pipe	1x 1.0m Dia	16.3
30	99+024	Hume Pipe	1x 0.75m Dia	9.8
31	99+159	Hume Pipe	1x 1.0m Dia	10.5
32	99+376	Hume Pipe	1x 1.0m Dia	7.8
33	100+022	Hume Pipe	1x 1.2m Dia	7.5
34	100+443	Hume Pipe	1x 1.0m Dia	7.8
35	100+646	Hume Pipe	1x 1.2m Dia	11
36	100+748	Hume Pipe	1x 1.0m Dia	8
37	101+076	Hume Pipe	1x 0.9m Dia	8.5
38	101+221	Hume Pipe	1x 1.0m Dia	10.5
39	102+089	Hume Pipe	1x 0.75m Dia	8
40	102+360	Hume Pipe	1x 1.0m Dia	10
41	102+629	Hume Pipe	1x 1.2m Dia	9
42	102+861	Hume Pipe	1x 1.2m Dia	7.4
43	103+143	Hume Pipe	1x 1.0m Dia	8.7
44	103+194	Hume Pipe	1x 1.0m Dia	7.5
45	103+402	Hume Pipe	1x 0.9m Dia	10
46	103+723	Hume Pipe	1x 0.9m Dia	7.2
47	104+177	Hume Pipe	1x 0.9m Dia	6.6
48	104+689	Hume Pipe	1x 0.75m Dia	7
49	105+985	Hume Pipe	1x 0.75m Dia	5.6
50	106+199	Hume Pipe	1x 0.75m Dia	7.2
51	106+893	Hume Pipe	1x 1.0m Dia	7.3
52	107+321	Hume Pipe	1x 1.0m Dia	7.7
53	107+461	Hume Pipe	1x 1.0m Dia	8.4
54	107+731	Hume Pipe	1x 1.0m Dia	8.1
55	108+316	Hume Pipe	1x 1.0m Dia	4.8
56	108+647	Hume Pipe	1x 0.9m Dia	8.6
57	109+109	Hume Pipe	1x 1.0m Dia	8.3
58	109+996	Hume Pipe	1x 1.0m Dia	10.2
59	111+329	Hume Pipe	1x 1.0m Dia	7.8

Sl. No.	Chainage (km)	Type of Culvert	Span/Opening with Span Length	Width of Culvert (m)
60	111+711	Hume Pipe	1x 1.0m Dia	8.5
61	111+949	Hume Pipe	1x 0.5m Dia	4.6
62	112+044	Hume Pipe	1x 1.0m Dia	7.8
63	112+312	Hume Pipe	1x 1.0m Dia	12.8
64	112+453	Hume Pipe	1x 0.8m Dia	8
65	112+633	Hume Pipe	1x 1.0m Dia	5
66	113+020	Hume Pipe	1x 1.0m Dia	12.2
67	113+228	Hume Pipe	1x 1.0m Dia	13.4
68	113+297	Hume Pipe	1x 0.5m Dia	7.2

11. Bus bays

The details of bus bays on the Site are as follows:

S. No.	Chainage (km)	Length (m)	Left Hand Side	Right Hand Side
Nil				

12. Truck Lay byes

The details of truck lay byes are as follows:

S. No.	Chainage (km)	Length (m)	Left Hand Side	Right HandSide
Nil				

13. Roadside drains

The details of the roadside drains are as follows:

Sl. No.	Location		Type	
	From km	To km	Masonry/cc (Pucca)	Earthen (Kutcha)
Nil				

14. Major junctions

The details of major junctions are as follows:

S. No.	Location		At grade	Separated	Category of Cross Road			
	From km	to km			NH	SH	MDR	Others
1	89+650		✓	-	-	-	-	√
2	114+165		✓	-	√	-	-	-

(NH: National Highway, SH: State Highway, MDR: Major District Road)

15. Minor junctions

The details of the minor junctions are as follows:

Sl. No.	Location		Type of intersection	
	From Km	To Km	T-Junction	Cross Road
1	98+300		Y	3-legged
2	98+500		Y	3-legged
3	99+110		Y	3-legged
4	102+470		Y	3-legged

Sl. No.	Location		Type of intersection	
	From Km	To Km	T-Junction	Cross Road
5	103+630		Y	3-legged
6	103+860		Y	3-legged
7	103+940		X	4-legged
8	104+500		Y	3-legged
9	105+500		Y	3-legged
10	105+630		Y	3-legged
11	108+000		Y	3-legged
12	108+250		Y	3-legged
13	109+370		Y	3-legged
14	111+070		Y	3-legged
15	111+310		Y	3-legged
16	111+810		Y	3-legged
17	112+330		Y	3-legged
18	113+280		Y	3-legged
19	113+830		Y	3-legged

6. Bypasses

The details of the existing road sections proposed to be bypassed are as follows:

Sl. No.	Name of bypass (town)	Chainage (km)From km to km	Length (in Km)
Nil			

17. Others structures

Existing Breast Wall

Chainage(m)		Side		Length(L)	Length (R)
From	To	Left	Right		
90875	90881	L	-	6	-
99026	99052	L	-	26	-
99026	99061	-	R	-	35
99085	99100	-	R	-	15
112564	112589	L	-	25	-
112655	112675	L	-	20	-
112715	112795	L	-	80	-
		Total Length=		**157**	**50**

Existing Retaining Wall

Chainage(m)		Side		Length(L)	Length (R)
From	To	Left	Right		
112720	112790	-	R	-	70
		Total Length			**70**

Existing utilities

(i) Electrical utilities

The site includes the following electrical utilities:-

a) Extra High-Tension Lines (EHT Lines)*

SL.	Chainage		Length (in Nos.)				Crossings			
	Fr	To	33KV	100KV	110KV	66KV	400KV	220KV	110KV	66KV

NO	om		No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length
1	81.870	105.825	4	1 km	0	0	0	0	0	0	0	0	0	0	0	0	0	0

b) High Tension/Low Tension Lines (HT/LT Lines)*

Sr. NO	Chainage		HT/LT Lines (Nos.)						Crossings						Transformer	
	From	To	33KV		11KV		LT		33KV		11KV		LT		No	Capacity
			No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length	No. of Poles	Conductor Length		
1	81.870	105.825	0	0	151	64.07 km	0	0	0	0	0	0	0	0	1	25 KVA
															1	100 KVA
															1	250 KVA
															1	363 KVA

(ii) Public Health utilities (Water/Sewage Pipe Lines)*

The site includes the following Public Health utilities:-

SL. NO	Chainage		Length (in Km)				Crossings				Water Tank	
	From	To	Water Supply Line		Sewage Line		Water Supply Line		Sewage Line		Capacity (in lts)	Nos.
			With Pumping	With Gravity Flow	With Pumping	With Gravity Flow	With Pumping	With Gravity Flow	With Pumping	With Gravity Flow		
1	81.870	105.825	18.380								6300	37

(iii) Any Other line

(* This illustrative and may change as per features of existing utilities.)

(As per Clause 8.3 (i))

(Schedule-A)

Dates for providing Right of Way of Construction Zone

The dates on which the Authority shall provide Right of Way of Construction Zone to the Contractor on different stretches of the Site is stated below:

The Construction of Project Highway will be implemented as per Manual, details of which are already given in Article-2 of Annexure – I of Schedule – A.

Annex-III

(Schedule-A)

Alignment Plans

The existing alignment of the Project Highway shall be modified in the following sections as per the alignment plan indicated below:

(i) The alignment of the Project Highway is enclosed in alignment plan. Finished road level indicated in the alignment plan shall be followed by the contractor as minimum FRL. In any case, the finished road level of the project highway shall not be less than those indicated in the alignment plan. The contractor shall, however, improve/upgrade the Road profile as indicated in Annex-III based onsite/design requirement.

(ii) Traffic Signage plan of the Project Highway showing numbers & location of traffic signs is enclosed. The contractor shall, however, improve/upgrade upon the traffic signage plan as indicated in Annex-III based on site/design requirement as per the relevant specifications/IRC Codes/Manual.

(Schedule-A)

Environment Clearances

MOEF Clearance: The project highway does not required Environmental clearance as per MoEF corrigendum dated 22.08.2013

Forest Clearance: Online proposal uploaded of Form A, Part –I on 13.07.2016.Hard copy of Form A, Part –I submitted to Chief Conservator of Forest on 2.08.2016. & Tree counting survey under Ukhrul Forest Division & Senapati Forest Division is completed on 09.09.2016. and 29.08.2016 respectively.FRA Certificate received from Deputy Commissioner of Ukhrul & Senapati district on dated 01.10.2016 & 27.09.2016 respectively & the FRA Certificate submitted to both NHIDCL & Concerned DFO. Joint Site Visit with DFO & Conservator of Forest in Ukhru & Senapati district completed on 10.12.2016 & 18.10.2016 respectively & Form A, Part-II of Forest Clearance is Uploaded by Concerned DFO of Ukhrul & Senapati District on 30.12.2016 and it is pending at Chief Conservator of Forests/Nodal officer (FCA), Govt. of Manipur.

Wildlife Clearance: The project highway does not required Wildlife Clearance as per letter no F. No.8-64/2013-FC dt.20.08.2014 of the Ministry of Environment, Forest and Climate Change (FC Division), Govt. of India.

Schedule - B

(See Clause 2.1)

1. Development of the Project Highway

Development of the Project Highway shall include design and construction of the Project Highway as described in this Schedule-B and in Schedule-C.

2. [Rehabilitation and augmentation]

[Rehabilitation and augmentation] shall include [Two-Lanning and Strengthening] of the Project Highway as described in Annex-I of this Schedule-B and in Schedule-C.

3. Specifications and Standards

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

Description of [Two-Lanning]

[[Note: Description of the Project Highway shall be given by the Authority in detail together with explanatory drawings (where necessary) to explain the Authority's requirements precisely in order to avoid subsequent changes in the Scope of the Project. The particulars that must be specified in this Schedule-B are listed below as per the requirements of the Manual of Specifications and standards for [Two Lanning of Highways (IRC: SP: 73-2015)] referred to as the Manual. If any standards specifications or details are not given in the Manual the minimum design/construction requirements shall be specified in this Schedule. In addition to these particulars all other essential project specific details as required should be provided in order to define the Scope of the Project clearly and precisely.]

1. Widening of the Existing Highway

(i) The Project Highway shall follow the existing alignment unless otherwise specified by the Authority and shown in the alignment plans specified in Annex-III of Schedule-A. Geometric deficiencies, if any, in the existing horizontal and vertical profiles shall be corrected as per the prescribed standards for hilly terrain to the extent land is available.

(ii) Width of Carriageway

(a) Two-Lanning [with] hard shoulders shall be undertaken. The paved carriageway shall be [7(seven) m] wide.

Provided that in the built-up areas: the width of the carriageway shall be as specified in the following table:

Sl. No.	Built-up stretch (Township)	Location		Width (m)	Typical Cross Section (Refer to Manual)	Remarks
1	Tungjoy & Liwai Khunou to Paomata	81+870	93+800	7	As per attached TCS drawing	7 m Carriageway
2	Paomata to Tadubi	93+800	105+825	7	As per attached TCS drawing	7 m Carriageway

(b) Except as otherwise provided in this Agreement the width of the paved carriageway and cross-sectional features shall conform to paragraph 1.1above.

2. Geometric Design and General Features

(i) General

Geometric design and general features of the Project Highway shall be in accordance with Section 2 of the Manual.

(ii) Design speed

For Mountainous terrain design speed shall be the minimum design speed of 40-60 km/hr and for sharp curve and hair pin bend locations speed reduces upto 30kmph & 20 kmph respectively.

(iii) Improvement of the existing road geometrics

The stretches where design speed reduces below 40 kmph are summarized below:

Sl. No.	HIP No.	Stretch (from km to km)	Type of Deficiency	Remarks
1	605	88+135 to 88+163	Sharp Bend	Design Speed = 30 Kmph
2	623	91+290 to 91+294	Sharp Bend	Design Speed = 30 Kmph
3	624	91+344 to 91+398	Sharp Bend	Design Speed = 20 Kmph
4	625	91+442 to 91+471	Sharp Bend	Design Speed = 20 Kmph
5	626	91+520 to 91+534	Sharp Bend	Design Speed = 20 Kmph
6	627	91+577 to 91+601	Sharp Bend	Design Speed = 20 Kmph
7	629	91+720 to 91+735	Sharp Bend	Design Speed = 30 Kmph
8	630	91+784 to 91+830	Sharp Bend	Design Speed = 30 Kmph
9	631	91+873 to 91+880	Sharp Bend	Design Speed = 20 Kmph
10	632	91+926 to 91+934	Sharp Bend	Design Speed = 20 Kmph
11	633	91+971 to 92+007	Sharp Bend	Design Speed = 20 Kmph
12	634	92+067 to 92+108	Sharp Bend	Design Speed = 20 Kmph
13	639	92+681 to 92+743	Sharp Bend	Design Speed = 20 Kmph
14	640	92+782 to 92+820	Sharp Bend	Design Speed = 20 Kmph
15	641	92+900 to 92+909	Sharp Bend	Design Speed = 25 Kmph
16	642	92+965 to 92+975	Sharp Bend	Design Speed = 25 Kmph
17	643	93+019 to 93+028	Sharp Bend	Design Speed = 25 Kmph
18	644	93+075 to 93+081	Sharp Bend	Design Speed = 25 Kmph
19	645	93+125 to 93+138	Sharp Bend	Design Speed = 30 Kmph
20	646	93+220 to 93+237	Sharp Bend	Design Speed = 20 Kmph
21	647	93+282 to 93+293	Sharp Bend	Design Speed = 30 Kmph
22	648	93+409 to 93+449	Sharp Bend	Design Speed = 20 Kmph
23	649	93+530 to 93+538	Sharp Bend	Design Speed = 30 Kmph
24	650	93+603 to 93+651	Sharp Bend	Design Speed = 30 Kmph
25	651	93+719 to 93+732	Sharp Bend	Design Speed = 30 Kmph
26	652	93+878 to 93+898	Sharp Bend	Design Speed = 30 Kmph
27	653	94+081 to 94+116	Sharp Bend	Design Speed = 25 Kmph
28	654	94+160 to 94+191	Sharp Bend	Design Speed = 30 Kmph
29	655	94+272 to 94+306	Sharp Bend	Design Speed = 30 Kmph
30	656	94+410 to 94+423	Sharp Bend	Design Speed = 30 Kmph
31	661	94+878 to 94+906	Sharp Bend	Design Speed = 30 Kmph
32	662	95+034 to 95+114	Sharp Bend	Design Speed = 30 Kmph
33	663	95+185 to 95+209	Sharp Bend	Design Speed = 30 Kmph
34	664	95+307 to 95+333	Sharp Bend	Design Speed = 30 Kmph
35	665	95+439 to 95+453	Sharp Bend	Design Speed = 30 Kmph
36	666	95+501 to 95+590	Sharp Bend	Design Speed = 30 Kmph
37	667	95+634 to 95+657	Sharp Bend	Design Speed = 30 Kmph
38	670	95+982 to 96+015	Sharp Bend	Design Speed = 30 Kmph
39	672	96+177 to 96+191	Sharp Bend	Design Speed = 30 Kmph
40	674	96+300 to 96+313	Sharp Bend	Design Speed = 30 Kmph
41	675	96+416 to 96+454	Sharp Bend	Design Speed = 30 Kmph
42	676	96+506 to 96+530	Sharp Bend	Design Speed = 30 Kmph
43	679	96+801 to 96+817	Sharp Bend	Design Speed = 25 Kmph
44	681	96+971 to 96+989	Sharp Bend	Design Speed = 20 Kmph
45	682	97+080 to 97+085	Sharp Bend	Design Speed = 25 Kmph
46	683	97+167 to 97+178	Sharp Bend	Design Speed = 30 Kmph
47	686	97+649 to 97+682	Sharp Bend	Design Speed = 20 Kmph
48	702	100+310 to 100+334	Sharp Bend	Design Speed = 30 Kmph
49	703	100+397 to 100+428	Sharp Bend	Design Speed = 30 Kmph

Sl. No.	HIP No.	Stretch (from km to km)	Type of Deficiency	Remarks
50	704	100+491 to 100+568	Sharp Bend	Design Speed = 30 Kmph
51	707	100+959 to 101+005	Sharp Bend	Design Speed = 30 Kmph
52	714	101+757 to 101+776	Sharp Bend	Design Speed = 30 Kmph
53	715	101+831 to 101+837	Sharp Bend	Design Speed = 25 Kmph
54	717	102+031 to 102+151	Sharp Bend	Design Speed = 30 Kmph
55	726	103+801 to 103+826	Sharp Bend	Design Speed = 30 Kmph
56	727	103+901 to 103+925	Sharp Bend	Design Speed = 30 Kmph
57	728	103+981 to 103+997	Sharp Bend	Design Speed = 30 Kmph
58	729	104+183 to 104+194	Sharp Bend	Design Speed = 30 Kmph
59	730	104+247 to 104+259	Sharp Bend	Design Speed = 30 Kmph
60	731	104+330 to 104+347	Sharp Bend	Design Speed = 30 Kmph
61	732	104+402 to 104+414	Sharp Bend	Design Speed = 30 Kmph
62	733	104+452 to 104+459	Sharp Bend	Design Speed = 30 Kmph
63	734	104+499 to 104+542	Sharp Bend	Design Speed = 20 Kmph
64	737	104+954 to 105+027	Sharp Bend	Design Speed = 30 Kmph
65	738	105+092 to 105+103	Sharp Bend	Design Speed = 30 Kmph
66	739	105+156 to 105+164	Sharp Bend	Design Speed = 30 Kmph
67	740	105+226 to 105+230	Sharp Bend	Design Speed = 30 Kmph
68	741	105+297 to 105+302	Sharp Bend	Design Speed = 30 Kmph
69	745	105+646 to 105+672	Sharp Bend	Design Speed = 30 Kmph

In the following sections where improvement of the existing road geometrics to the prescribed standards is not possible the existing road geometrics shall be improved to the extent possible within the existing right of way and proper road signs and safety Measures shall be provided

(iv) Right of Way

Sl. No	Design Chainage (km)		Length(km)	Width (m)
	From	To		
1	81.870	105.825	23.955	16 m - 34 m wide for construction work.

(v) Type of shoulders
[Refer to provision of relevant Manual and specify]

(a) Inbuilt-up sections. footpaths/fully paved shoulders shall be provided in the following stretches:

Sl. No.	Stretch (from Km to Km)	Fully Paved shoulders/footpaths	Reference to cross section
1	82+265 to 82+425	2 X 1.5 m width Footpath	TCS-3
2	82+425 to 82+465	2 X 1.5 m width Footpath	TCS-1B
3	82+465 to 82+505	2 X 1.5 m width Footpath	TCS-3
4	82+505 to 82+515	2 X 1.5 m width Footpath	TCS-2A
5	82+515 to 82+555	2 X 1.5 m width Footpath	TCS-3
6	82+555 to 82+585	2 X 1.5 m width Footpath	TCS-2C
7	82+585 to 82+625	2 X 1.5 m width Footpath	TCS-2A
8	82+625 to 82+645	2 X 1.5 m width Footpath	TCS-2C
9	82+645 to 82+705	2 X 1.5 m width Footpath	TCS-1B
10	82+705 to 82+725	2 X 1.5 m width Footpath	TCS-3

Sl. No.	Stretch (from Km to Km)	Fully Paved shoulders/footpaths	Reference to cross section
11	82+725 to 82+785	2 X 1.5 m width Footpath	TCS-1B
12	82+785 to 82+905	2 X 1.5 m width Footpath	TCS-1
13	82+905 to 82+915	2 X 1.5 m width Footpath	TCS-1B
14	82+915 to 82+935	2 X 1.5 m width Footpath	TCS-2C
15	82+935 to 83+045	2 X 1.5 m width Footpath	TCS-1
16	83+045 to 83+055	2 X 1.5 m width Footpath	TCS-1B
17	83+055 to 83+155	2 X 1.5 m width Footpath	TCS-2A
18	83+155 to 83+185	2 X 1.5 m width Footpath	TCS-1B
19	90+295 to 90+425	2 X 1.5 m width Footpath	TCS-1B
20	90+425 to 90+545	2 X 1.5 m width Footpath	TCS-1
21	90+545 to 90+655	2 X 1.5 m width Footpath	TCS-1B
22	90+655 to 90+705	2 X 1.5 m width Footpath	TCS-2C
23	90+705 to 90+915	2 X 1.5 m width Footpath	TCS-1B
24	90+915 to 91+545	2 X 1.5 m width Footpath	TCS-1
25	91+545 to 91+645	2 X 1.5 m width Footpath	TCS-1B
26	91+645 to 91+715	2 X 1.5 m width Footpath	TCS-1
27	91+715 to 91+765	2 X 1.5 m width Footpath	TCS-1B
28	95+575 to 95+725	2 X 1.5 m width Footpath	TCS-1B
29	95+725 to 95+785	3 X 1.5 m width Footpath	TCS-2C
30	95+785 to 95+845	4 X 1.5 m width Footpath	TCS-1B
31	95+845 to 95+895	5 X 1.5 m width Footpath	TCS-2A
32	95+895 to 95+954	6 X 1.5 m width Footpath	TCS-3
33	95+954 to 95+975	7 X 1.5 m width Footpath	TCS-1B
34	95+975 to 96+025	8 X 1.5 m width Footpath	TCS-3
35	96+025 to 96+145	9 X 1.5 m width Footpath	TCS-1
36	96+145 to 96+185	10 X 1.5 m width Footpath	TCS-1B
37	96+185 to 96+265	11 X 1.5 m width Footpath	TCS-3
38	96+265 to 96+305	12 X 1.5 m width Footpath	TCS-1B
39	96+305 to 96+325	13 X 1.5 m width Footpath	TCS-2B
40	103+135 to 103+495	14 X 1.5 m width Footpath	TCS-3
41	103+495 to 103+545	15 X 1.5 m width Footpath	TCS-1
42	103+545 to 103+565	16 X 1.5 m width Footpath	TCS-3
43	103+565 to 103+735	17 X 1.5 m width Footpath	TCS-2B
44	103+735 to 103+755	18 X 1.5 m width Footpath	TCS-2D
45	103+755 to 103+785	19 X 1.5 m width Footpath	TCS-1A
46	103+785 to 103+815	20 X 1.5 m width Footpath	TCS-3
47	103+815 to 103+855	21 X 1.5 m width Footpath	TCS-1A
48	103+855 to 103+925	22 X 1.5 m width Footpath	TCS-2B
49	103+925 to 103+975	23 X 1.5 m width Footpath	TCS-2D
50	103+975 to 104+105	24 X 1.5 m width Footpath	TCS-3
51	104+105 to 104+185	25 X 1.5 m width Footpath	TCS-1B
52	104+185 to 104+205	26 X 1.5 m width Footpath	TCS-2A
53	104+205 to 104+335	27 X 1.5 m width Footpath	TCS-1B
54	104+335 to 104+355	28 X 1.5 m width Footpath	TCS-2C
55	104+355 to 104+555	29 X 1.5 m width Footpath	TCS-3
56	104+555 to 104+615	30 X 1.5 m width Footpath	TCS-1A
57	104+615 to 104+635	31 X 1.5 m width Footpath	TCS-2A
58	104+635 to 104+685	32 X 1.5 m width Footpath	TCS-1B
59	104+685 to 104+695	33 X 1.5 m width Footpath	TCS-2A
60	104+695 to 104+705	34 X 1.5 m width Footpath	TCS-3

Sl. No.	Stretch (from Km to Km)	Fully Paved shoulders/footpaths	Reference to cross section
61	104+705 to 104+855	35 X 1.5 m width Footpath	TCS-1B
62	104+855 to 104+975	36 X 1.5 m width Footpath	TCS-1
63	104+975 to 104+995	37 X 1.5 m width Footpath	TCS-3
64	104+995 to 105+015	38 X 1.5 m width Footpath	TCS-2B
65	105+015 to 105+065	39 X 1.5 m width Footpath	TCS-3
66	105+065 to 105+265	40 X 1.5 m width Footpath	TCS-1B
67	105+265 to 105+535	41 X 1.5 m width Footpath	TCS-3
68	105+535 to 105+555	42 X 1.5 m width Footpath	TCS-1B
69	105+555 to 105+575	43 X 1.5 m width Footpath	TCS-2C
70	105+575 to 105+735	44 X 1.5 m width Footpath	TCS-1B
71	105+735 to 105+755	45 X 1.5 m width Footpath	TCS-2C
72	105+755 to 105+795	46 X 1.5 m width Footpath	TCS-3
73	105+795 to 105+825	47 X 1.5 m width Footpath	TCS-2A

(b) Hard shoulders of 1.5 m width shall be provided with selected earth wherever applicable as per TCS drawing.

(c) Design and specifications of paved shoulders and granular material shall conform to the requirements specified in the relevant Manual.

(vi) Lateral and vertical clearances at underpasses

(a) Lateral and vertical clearances at underpasses and provision of guardrails/crash barriers shall be as per requirements specified in the relevant Manual.

(b) Lateral clearance: The width of the opening at the underpasses shall be as follows:

Sl. No.	Location (Chainage) (from km to km)	Span/opening(m)	Remarks
Nil			

(vii) Lateral and vertical clearances at overpasses

(a) Lateralandverticalclearancesatoverpassesshallbeasperrequirementsspecifiedinthe relevant Manual.

(b) Lateralclearance:Thewidthoftheopeningattheoverpasses shallbeas follows:

Sl. No.	Location (Chainage) (from km to km)	Span/Opening (m)	Remarks
Nil			

(viii) Service roads

Serviceroadsshallbeconstructedatthelocationsandforthelengthsindicatedbelow: [Refer requirementsspecifiedinthe relevant Manual]

Sl. No.	Location ofservice road(fromkmtokm)	Righthandside(RHS)/Lefthand side(LHS)/orBothsides	Length(km)of service road
Nil			

(ix) Grade separatedstructures

(a) Gradeseparatedstructuresshallbeprovidedasperprovisionofthe Manual. The requisite aregivenbelow:

[Refer to requirementsspecifiedinthe relevant Manual]

Sl. No.	Location of Structure (VUP)	Length (m)	Number andlengthofspans	Approach gradient	Remarks. if any
Nil					

(b) In thecase ofgradeseparated structuresthe type ofstructure andthe level of theProjectHighwayandthecrossroads shallbeasfollows:[Referto provisionofthe Manual andspecifythetypeofvehicularunderpass/ overpassstructureandwhetherthecrossroadistobecarriedattheexisting Level. raisedorlowered]

Sl. No.	Location	Type of structure Length(m)	Cross road at			Remarks.if any
			Existing Level	Raised Level	Lowered Level	
Nil						

(x) Cattle and pedestrian underpass /overpass

Cattle and pedestrian underpass/overpass shall be constructed as follows: [Refer to provision of the relevant Manual and specify the requirements of cattle and pedestrian underpass/overpass]

Sl.No.	Location	Typeofcrossing
Nil		

(xi) Typical cross-sections of the Project Highway

[Give typical cross-sections of the Project Highway by reference to the Manual]As per attached Drawings

Sl No	TCS Type	Description
1	TCS-1:	2 -Lane carriageway with hard shoulder in cutting with both side cover drain cum footpath at built up area
2	TCS-1A:	2 -Lane carriageway with hard shoulder in cutting with both side cover drain cum footpath & Left side breast wall at built up area
3	TCS-1B:	2 -Lane carriageway with hard shoulder in cutting with both side cover drain cum footpath & right side breast wall at built up area
4	TCS-2:	2 -Lane carriageway with hard shoulder in filling with both side cover drain cum footpath at built up area with both side retaining wall
5	TCS-2A:	2 -Lane carriageway with hard shoulder in filling with both side cover drain cum footpath & left side retaining wall at built up area
6	TCS-2B:	2 -Lane carriageway with hard shoulder in filling with both side cover drain cum footpath & right side retaining wall at built up area
7	TCS-2C:	2 -Lane carriageway with hard shoulder in filling with both side cover drain cum footpath & left side retaining wall & right side breast wall at built up area
8	TCS-2D:	2 -Lane carriageway with hard shoulder in filling with both side cover drain cum footpath & left side breast wall & right side retaining wall at built up area
9	TCS-3:	2 -Lane carriageway with hard shoulder with both side cover drain in built up area
10	TCS-4A:	2 -Lane carriageway with hard shoulder with stone masonry trapezoidal drain on right side
11	TCS-4B:	2 -Lane carriageway with hard shoulder with stone masonry trapezoidal drain on left side
12	TCS-4C:	2 -Lane carriageway with hard shoulder with stone masonry trapezoidal both side drain
13	TCS-5:	2 -Lane carriageway with hard shoulder with both side retaining wall
14	TCS-6:	2 -Lane carriageway with hard shoulder with both side breast wall
15	TCS-7A:	2 -Lane carriageway with hard shoulder with left side breast wall

Sl No	TCS Type	Description
16	TCS-7B:	2 -Lane carriageway with hard shoulder with Right side breast wall
17	TCS-8A:	2 -Lane carriageway with hard shoulder with Left side breast wall with right side Trapezoidal drain
18	TCS-8B:	2 -Lane carriageway with hard shoulder with Left side Trapezoidal drain & right side breast wall
19	TCS-9A:	2 -Lane carriageway with hard shoulder with Left side Retaining wall & right side trapezoidal drain
20	TCS-9B:	2 -Lane carriageway with hard shoulder with Left side trapezoidal drain & right side Retaining wall
21	TCS-9C:	2 -Lane carriageway with hard shoulder & right side Retaining wall
22	TCS-9D:	2 -Lane carriageway with hard shoulder & Left side Retaining wall
23	TCS-10A:	2 -Lane carriageway with hard shoulder With Left side Retaining wall & right side breast wall
24	TCS-10B:	2 -Lane carriageway with hard shoulder With Left side breast wall & right side Retaining wall
25	TCS-11:	2 -Lane carriageway with hard shoulder

Chainage (Km)		Length of CD	Net Length (m)	TCS No.
From	To			
81870	82005		135	TCS-4C
82005	82165		160	TCS-4A
82165	82225		60	TCS-4C
82225	82265	2.6	37.4	TCS-4A
82265	82425		160	TCS-3
82425	82465		40	TCS-1B
82465	82505		40	TCS-3
82505	82515		10	TCS-2A
82515	82555		40	TCS-3
82555	82585		30	TCS-2C
82585	82625	2.6	37.4	TCS-2A
82625	82645		20	TCS-2C
82645	82705		60	TCS-1B
82705	82725		20	TCS-3
82725	82785		60	TCS-1B
82785	82905		120	TCS-1
82905	82915		10	TCS-1B
82915	82935	2.7	17.3	TCS-2C
82935	83045		110	TCS-1
83045	83055		10	TCS-1B
83055	83155		100	TCS-2A
83155	83185		30	TCS-1B
83185	83245		60	TCS-4A
83245	83275		30	TCS-10A
83275	83515	2.6	237.4	TCS-8B
83515	83745	2.6	227.4	TCS-4C
83745	83765		20	TCS-9A
83765	83785		20	TCS-4C
83785	83905		120	TCS-8B
83905	83995		90	TCS-4C
83995	84015		20	TCS-4A
84015	84065	2.6	47.4	TCS-9A
84065	84145		80	TCS-4C

Chainage (Km)		Length of CD	Net Length (m)	TCS No.
From	To			
84145	84205	2.6	57.4	TCS-4A
84205	84385		180	TCS-4C
84385	84515		130	TCS-4A
84515	84535		20	TCS-9A
84535	84615		80	TCS-4A
84615	84795	2.6	177.4	TCS-4C
84795	84845		50	TCS-4A
84845	84885		40	TCS-4C
84885	84925	2.6	37.4	TCS-4A
84925	84995		70	TCS-4C
84995	85005		10	TCS-4A
85005	85025		20	TCS-9A
85025	85065		40	TCS-9D
85065	85155	2.6	87.4	TCS-9A
85155	85185		30	TCS-4A
85185	85305	2.6	117.4	TCS-9A
85305	85575		270	TCS-4A
85575	85645		70	TCS-4C
85645	85735		90	TCS-4A
85735	85755		20	TCS-10A
85755	86725	13	957	TCS-4A
86725	86785	2.6	57.4	TCS-9A
86785	86855		70	TCS-4A
86855	86935	2.6	77.4	TCS-9A
86935	87015		80	TCS-4C
87015	87045		30	TCS-4A
87045	87065		20	TCS-9A
87065	87645	5.3	574.7	TCS-4A
87645	87705		60	TCS-7B
87705	87765		60	TCS-4A
87765	87835	2.7	67.3	TCS-9A
87835	87855		20	TCS-4A
87855	87875		20	TCS-9A
87875	87915		40	TCS-4A
87915	87955		40	TCS-4C
87955	88005	2.6	47.4	TCS-4A
88005	88035		30	TCS-4C
88035	88165	7.8	122.2	TCS-4A
88165	88255		90	TCS-4C
88255	88445	2.6	187.4	TCS-4A
88445	88635		190	TCS-4C
88635	88655	2.6	17.4	TCS-9A
88655	88845	2.6	187.4	TCS-4B
88845	88905		60	TCS-4C
88905	89015		110	TCS-4A
89015	89025		10	TCS-9A
89025	89095		70	TCS-4A
89095	89215		120	TCS-4C
89215	89435		220	TCS-4A
89435	89475		40	TCS-4C
89475	89825	5.2	344.8	TCS-4A
89825	89875		50	TCS-4C

Chainage (Km)		Length of CD	Net Length (m)	TCS No.
From	To			
89875	90295	5.2	414.8	TCS-4A
90295	90425	2.6	127.4	TCS-1B
90425	90545		120	TCS-1
90545	90655		110	TCS-1B
90655	90705	2.6	47.4	TCS-2C
90705	90915		210	TCS-1B
90915	91545	2.6	627.4	TCS-1
91545	91645	2.6	97.4	TCS-1B
91645	91715		70	TCS-1
91715	91765		50	TCS-1B
91765	91915	2.6	147.4	TCS-4C
91915	92045		130	TCS-4A
92045	92075		30	TCS-9A
92075	92165	18.24	71.76	TCS-4A
92165	92255		90	TCS-4A
92255	92275		20	TCS-9A
92275	92395		120	TCS-4A
92395	92495	2.6	97.4	TCS-9A
92495	92695		200	TCS-4A
92695	92725		30	TCS-4C
92725	92765		40	TCS-7B
92765	92785		20	TCS-4A
92785	92805	18.24	1.76	TCS-11
92805	93095	5.2	284.8	TCS-4A
93095	93115		20	TCS-9A
93115	93425	2.6	307.4	TCS-4A
93425	93445	2.6	17.4	TCS-11
93445	93615	2.6	167.4	TCS-4A
93615	93725		110	TCS-4C
93725	93745		20	TCS-4A
93745	93755	10	0	Bridge
93755	93785	30		Bridge
93785	93800	10.08	4.92	TCS-9B
93800	93875		75	TCS-4C
93875	93915		40	TCS-4A
93915	93975		60	TCS-7B
93975	94085		110	TCS-4A
94085	94115	18.24	11.76	Bridge
94115	94225		110	TCS-4A
94225	94235	2.6	7.4	TCS-4C
94235	94305		70	TCS-4A
94305	94625	2.6	317.4	TCS-4C
94625	94655		30	TCS-4A
94655	94715	2.6	57.4	TCS-9A
94715	94845	2.6	127.4	TCS-4A
94845	94885		40	TCS-4C
94885	95005	2.6	117.4	TCS-4A
95005	95025		20	TCS-9A
95025	95125	2.6	97.4	TCS-4A
95125	95165	2.6	37.4	TCS-9A
95165	95515	5.2	344.8	TCS-4A
95515	95545		30	TCS-4C

Chainage (Km)		Length of CD	Net Length (m)	TCS No.
From	To			
95545	95575	2.6	27.4	TCS-4A
95575	95725		150	TCS-1B
95725	95785		60	TCS-2C
95785	95845		60	TCS-1B
95845	95895	2.6	47.4	TCS-2A
95895	95954		59	TCS-3
95954	95975		21	TCS-1B
95975	96025		50	TCS-3
96025	96145		120	TCS-1
96145	96185		40	TCS-1B
96185	96265		80	TCS-3
96265	96305		40	TCS-1B
96305	96325	2.6	17.4	TCS-2B
96325	96395		70	TCS-4A
96395	96515		120	TCS-4C
96515	96815	2.6	297.4	TCS-8B
96815	97015		200	TCS-4C
97015	97085		70	TCS-4A
97085	97265		180	TCS-4C
97265	97385		120	TCS-4A
97385	98245	2.6	857.4	TCS-4C
98245	98465	2.6	217.4	TCS-4A
98465	98945	2.6	477.4	TCS-4C
98945	99215	2.6	267.4	TCS-7B
99215	99320		105	TCS-4A
99320	99345	2.6	22.4	TCS-9A
99345	99470		125	TCS-4A
99470	99585	2.6	112.4	TCS-7B
99585	99615		30	TCS-4A
99615	99765		150	TCS-4C
99765	99905		140	TCS-4A
99905	99945		40	TCS-9D
99945	99975		30	TCS-9C
99975	99995		20	TCS-4B
99995	100145		150	TCS-4C
100145	100195		50	TCS-4B
100195	100255	2.6	57.4	TCS-4C
100255	101065	7.8	802.2	TCS-4B
101065	101105		40	TCS-4C
101105	101125		20	TCS-9D
101125	101175		50	TCS-4B
101175	101345	2.6	167.4	TCS-11
101345	101585		240	TCS-4B
101585	101605		20	TCS-9B
101605	101675		70	TCS-4B
101675	101745	2.6	67.4	TCS-9B
101745	101805		60	TCS-4B
101805	101825		20	TCS-9B
101825	102045	2.6	217.4	TCS-4B
102045	102085		40	TCS-4C
102085	102105		20	TCS-4B
102105	102155	2.6	47.4	TCS-9B

Chainage (Km)		Length of CD	Net Length (m)	TCS No.
From	To			
102155	102465	2.6	307.4	TCS-4B
102465	102495	2.5	27.5	TCS-9B
102495	102515		20	TCS-4B
102515	102545		30	TCS-4C
102545	102885	2.6	337.4	TCS-4B
102885	102935		50	TCS-11
102935	103050		115	TCS-4B
103050	103115	2.7	62.3	TCS-9C
103115	103135		20	TCS-9B
103135	103495	2.6	357.4	TCS-3
103495	103545		50	TCS-1
103545	103565		20	TCS-3
103565	103735	7.9	162.1	TCS-2B
103735	103755		20	TCS-2D
103755	103785		30	TCS-1A
103785	103815	2.6	27.4	TCS-3
103815	103855		40	TCS-1A
103855	103925		70	TCS-2B
103925	103975		50	TCS-2D
103975	104105	2.6	127.4	TCS-3
104105	104185	2.6	77.4	TCS-1B
104185	104205		20	TCS-2A
104205	104335		130	TCS-1B
104335	104355		20	TCS-2C
104355	104555		200	TCS-3
104555	104615		60	TCS-1A
104615	104635		20	TCS-2A
104635	104685	2.6	47.4	TCS-1B
104685	104695		10	TCS-2A
104695	104705		10	TCS-3
104705	104855	2.6	147.4	TCS-1B
104855	104975	5.2	114.8	TCS-1
104975	104995		20	TCS-3
104995	105015		20	TCS-2B
105015	105065		50	TCS-3
105065	105265		200	TCS-1B
105265	105535		270	TCS-3
105535	105555		20	TCS-1B
105555	105575		20	TCS-2C
105575	105735		160	TCS-1B
105735	105755		20	TCS-2C
105755	105795		40	TCS-3
105795	105825		30	TCS-2A
Total Length		**326.2**	**23629**	

3. Intersections and Grade Separators

All intersections and grade separators shall be as per Section 3 of the Manual. Existing intersections which are deficient shall be improved to the prescribed standards.

[Refer to provision of the relevant Manual and specify the requirements. Explain where necessary with drawings/sketches/general arrangement]

Properly designed intersections shall be provided at the locations and of the types and features given in the tables below:

(i) At-grade intersections

Major Intersections

Sl. No.	Location of intersection (Km)	Type of intersection	Other features	Remarks
1	82+930	3 Legged	RHS- Towards Pfutsero	At-grade improvement proposed
2	105+825	3 Legged	RHS- Towards Guwahati	At-grade improvement proposed

Minor Intersections

Sl. No.	Location of intersection (Km)	Type of intersection	Other features
1	90+750	Y-Type	3-legged
2	90+940	Y-Type	3-legged
3	91+550	Y-Type	3-legged
4	94+720	Y-Type	3-legged
5	95+770	Y-Type	3-legged
6	96+000	Y-Type	3-legged
7	96+080	X-Type	4-legged
8	96+600	Y-Type	3-legged
9	97+590	Y-Type	3-legged
10	97+700	Y-Type	3-legged
11	99+955	Y-Type	3-legged
12	100+200	Y-Type	3-legged
13	101+250	Y-Type	3-legged
14	102+830	Y-Type	3-legged
15	103+070	Y-Type	3-legged
16	103+570	Y-Type	3-legged
17	104+060	Y-Type	3-legged
18	104+960	Y-Type	3-legged
19	105+500	Y-Type	3-legged

(ii) Grade separatedintersection with/without ramps

Sl. No.	Location	Salient features	Minimumlengthof viaduct tobe provided	Roadtobecarried over/underthe structures
Nil				

4. Road Embankment and Cut Section

(i) Widening and improvement of the existing road embankment/cuttings and construction of new road embankment/cuttings shall conform to the Specifications and Standards given in Section 4 of the Manual and the specified cross-sectional details. Deficiencies in theplan and profile of the existing road shall be corrected.

(ii) Raising of the existing road [Refer to provision of the relevant Manual and specify sections to be raised]

The existing road shall be raised in the following sections:

Sl. No.	Section (from km to km)	Length (km)	Extent of raising [Top of finished road level]
Nil			

5. Pavement Design

(i) Pavement design shall be carried out in accordance with provision of the relevant manual.

(ii) Type of pavement

Flexible Pavement

(iii) Design requirements

[Refer to provision of the relevant Manual and specify design requirements and strategy]

(a) Design Period and strategy

Flexible pavement for new pavement or for widening and strengthening of the existing pavement shall be designed for a minimum design period of 20 years. Stage construction shall not be permitted.

(b) Design Traffic

Surface layer has been designed for 10 MSA and Base -Subbase layer has been designed for 20 MSA as per relevant IRC Manual.

(iv) Reconstruction of stretches

[Refer to provision of the relevant Manual and specify the stretches if any to be reconstructed.]

The following stretches of the existing road shall be reconstructed. These shall be designed as new pavement.

SL NO.	Stretch from Km to Km	Remarks	TCS Type
1	81+870 to 82+005	Reconstruction	TCS-4C
2	82+005 to 82+165	Reconstruction	TCS-4A
3	82+165 to 82+225	Reconstruction	TCS-4C
4	82+225 to 82+265	Reconstruction	TCS-4A
5	82+265 to 82+425	Reconstruction	TCS-3
6	82+425 to 82+465	Reconstruction	TCS-1B
7	82+465 to 82+505	Reconstruction	TCS-3
8	82+505 to 82+515	Reconstruction	TCS-2A
9	82+515 to 82+555	Reconstruction	TCS-3
10	82+555 to 82+585	Reconstruction	TCS-2C
11	82+585 to 82+625	Reconstruction	TCS-2A
12	82+625 to 82+645	Reconstruction	TCS-2C
13	82+645 to 82+705	Reconstruction	TCS-1B
14	82+705 to 82+725	Reconstruction	TCS-3
15	82+725 to 82+785	Reconstruction	TCS-1B
16	82+785 to 82+905	Reconstruction	TCS-1
17	82+905 to 82+915	Reconstruction	TCS-1B
18	82+915 to 82+930	Reconstruction	TCS-2C

SL NO.	Stretch from Km to Km	Remarks	TCS Type
19	83+060 to 83+155	Reconstruction	TCS-2A
20	83+155 to 83+185	Reconstruction	TCS-1B
21	83+185 to 83+245	Reconstruction	TCS-4A
22	83+245 to 83+275	Reconstruction	TCS-10A
23	83+275 to 83+500	Reconstruction	TCS-8B
24	84+050 to 84+065	Reconstruction	TCS-9A
25	84+065 to 84+145	Reconstruction	TCS-4C
26	84+145 to 84+200	Reconstruction	TCS-4A
27	84+500 to 84+515	Reconstruction	TCS-4A
28	84+515 to 84+535	Reconstruction	TCS-9A
29	84+535 to 84+615	Reconstruction	TCS-4A
30	84+615 to 84+750	Reconstruction	TCS-4C
31	85+050 to 85+065	Reconstruction	TCS-9D
32	85+065 to 85+155	Reconstruction	TCS-9A
33	85+155 to 85+185	Reconstruction	TCS-4A
34	85+185 to 85+305	Reconstruction	TCS-9A
35	85+305 to 85+575	Reconstruction	TCS-4A
36	85+575 to 85+645	Reconstruction	TCS-4C
37	85+645 to 85+735	Reconstruction	TCS-4A
38	85+735 to 85+755	Reconstruction	TCS-10A
39	85+755 to 86+150	Reconstruction	TCS-4A
40	86+250 to 86+725	Reconstruction	TCS-4A
41	86+725 to 86+750	Reconstruction	TCS-9A
42	87+150 to 87+645	Reconstruction	TCS-4A
43	87+645 to 87+705	Reconstruction	TCS-7B
44	87+705 to 87+765	Reconstruction	TCS-4A
45	87+765 to 87+835	Reconstruction	TCS-9A
46	87+835 to 87+855	Reconstruction	TCS-4A
47	87+855 to 87+875	Reconstruction	TCS-9A
48	87+875 to 87+915	Reconstruction	TCS-4A
49	87+915 to 87+955	Reconstruction	TCS-4C
50	87+955 to 88+005	Reconstruction	TCS-4A
51	88+005 to 88+035	Reconstruction	TCS-4C
52	88+035 to 88+165	Reconstruction	TCS-4A
53	88+165 to 88+255	Reconstruction	TCS-4C
54	88+255 to 88+350	Reconstruction	TCS-4A
55	88+900 to 88+905	Reconstruction	TCS-4C
56	88+905 to 89+015	Reconstruction	TCS-4A
57	89+015 to 89+025	Reconstruction	TCS-9A
58	89+025 to 89+095	Reconstruction	TCS-4A
59	89+095 to 89+215	Reconstruction	TCS-4C
60	89+215 to 89+300	Reconstruction	TCS-4A
61	89+530 to 89+800	Reconstruction	TCS-4A
62	90+100 to 90+295	Reconstruction	TCS-4A
63	90+295 to 90+425	Reconstruction	TCS-1B
64	90+425 to 90+545	Reconstruction	TCS-1
65	90+545 to 90+655	Reconstruction	TCS-1B
66	90+655 to 90+705	Reconstruction	TCS-2C
67	90+705 to 90+915	Reconstruction	TCS-1B
68	90+915 to 91+545	Reconstruction	TCS-1
69	91+545 to 91+645	Reconstruction	TCS-1B

SL NO.	Stretch from Km to Km	Remarks	TCS Type
70	91+645 to 91+715	Reconstruction	TCS-1
71	91+715 to 91+765	Reconstruction	TCS-1B
72	91+765 to 91+915	Reconstruction	TCS-4C
73	91+915 to 92+045	Reconstruction	TCS-4A
74	92+045 to 92+075	Reconstruction	TCS-9A
75	92+075 to 92+165	Reconstruction	TCS-4A
76	92+165 to 92+255	Reconstruction	TCS-4A
77	92+255 to 92+275	Reconstruction	TCS-9A
78	92+275 to 92+395	Reconstruction	TCS-4A
79	92+395 to 92+495	Reconstruction	TCS-9A
80	92+495 to 92+695	Reconstruction	TCS-4A
81	92+695 to 92+725	Reconstruction	TCS-4C
82	92+725 to 92+765	Reconstruction	TCS-7B
83	92+765 to 92+785	Reconstruction	TCS-4A
84	92+785 to 92+805	Reconstruction	TCS-11
85	92+805 to 93+095	Reconstruction	TCS-4A
86	93+095 to 93+115	Reconstruction	TCS-9A
87	93+115 to 93+300	Reconstruction	TCS-4A
88	94+400 to 94+625	Reconstruction	TCS-4C
89	94+625 to 94+655	Reconstruction	TCS-4A
90	94+655 to 94+715	Reconstruction	TCS-9A
91	94+715 to 94+830	Reconstruction	TCS-4A
92	94+900 to 95+005	Reconstruction	TCS-4A
93	95+005 to 95+025	Reconstruction	TCS-9A
94	95+025 to 95+125	Reconstruction	TCS-4A
95	95+125 to 95+165	Reconstruction	TCS-9A
96	95+165 to 95+515	Reconstruction	TCS-4A
97	95+515 to 95+545	Reconstruction	TCS-4C
98	95+545 to 95+575	Reconstruction	TCS-4A
99	95+575 to 95+725	Reconstruction	TCS-1B
100	95+725 to 95+785	Reconstruction	TCS-2C
101	95+785 to 95+845	Reconstruction	TCS-1B
102	95+845 to 95+895	Reconstruction	TCS-2A
103	95+895 to 95+954	Reconstruction	TCS-3
104	95+954 to 95+975	Reconstruction	TCS-1B
105	95+975 to 96+025	Reconstruction	TCS-3
106	96+025 to 96+145	Reconstruction	TCS-1
107	96+145 to 96+185	Reconstruction	TCS-1B
108	96+185 to 96+265	Reconstruction	TCS-3
109	96+265 to 96+305	Reconstruction	TCS-1B
110	96+305 to 96+325	Reconstruction	TCS-2B
111	96+325 to 96+395	Reconstruction	TCS-4A
112	96+395 to 96+515	Reconstruction	TCS-4C
113	96+515 to 96+815	Reconstruction	TCS-8B
114	96+815 to 97+015	Reconstruction	TCS-4C
115	97+015 to 97+085	Reconstruction	TCS-4A
116	97+085 to 97+265	Reconstruction	TCS-4C
117	97+265 to 97+385	Reconstruction	TCS-4A
118	97+385 to 98+245	Reconstruction	TCS-4C
119	98+245 to 98+465	Reconstruction	TCS-4A
120	98+465 to 98+945	Reconstruction	TCS-4C

SL NO.	Stretch from Km to Km	Remarks	TCS Type
121	98+945 to 99+215	Reconstruction	TCS-7B
122	99+215 to 99+320	Reconstruction	TCS-4A
123	99+320 to 99+345	Reconstruction	TCS-9A
124	99+345 to 99+470	Reconstruction	TCS-4A
125	99+470 to 99+585	Reconstruction	TCS-7B
126	99+585 to 99+615	Reconstruction	TCS-4A
127	99+615 to 99+650	Reconstruction	TCS-4C
128	99+900 to 99+905	Reconstruction	TCS-4A
129	99+905 to 99+945	Reconstruction	TCS-9D
130	99+945 to 99+975	Reconstruction	TCS-9C
131	99+975 to 99+995	Reconstruction	TCS-4B
132	99+995 to 100+145	Reconstruction	TCS-4C
133	100+145 to 100+195	Reconstruction	TCS-4B
134	100+195 to 100+255	Reconstruction	TCS-4C
135	100+255 to 101+065	Reconstruction	TCS-4B
136	101+065 to 101+105	Reconstruction	TCS-4C
137	101+105 to 101+125	Reconstruction	TCS-9D
138	101+125 to 101+175	Reconstruction	TCS-4B
139	101+175 to 101+345	Reconstruction	TCS-11
140	101+345 to 101+585	Reconstruction	TCS-4B
141	101+585 to 101+605	Reconstruction	TCS-9B
142	101+605 to 101+675	Reconstruction	TCS-4B
143	101+675 to 101+745	Reconstruction	TCS-9B
144	101+745 to 101+805	Reconstruction	TCS-4B
145	101+805 to 101+825	Reconstruction	TCS-9B
146	101+825 to 102+045	Reconstruction	TCS-4B
147	102+045 to 102+085	Reconstruction	TCS-4C
148	102+085 to 102+105	Reconstruction	TCS-4B
149	102+105 to 102+155	Reconstruction	TCS-9B
150	102+155 to 102+465	Reconstruction	TCS-4B
151	102+465 to 102+495	Reconstruction	TCS-9B
152	102+495 to 102+515	Reconstruction	TCS-4B
153	102+515 to 102+545	Reconstruction	TCS-4C
154	102+545 to 102+885	Reconstruction	TCS-4B
155	102+885 to 102+935	Reconstruction	TCS-11
156	102+935 to 103+050	Reconstruction	TCS-4B
157	103+050 to 103+115	Reconstruction	TCS-9C
158	103+115 to 103+135	Reconstruction	TCS-9B
159	103+135 to 103+495	Reconstruction	TCS-3
160	103+495 to 103+545	Reconstruction	TCS-1
161	103+545 to 103+565	Reconstruction	TCS-3
162	103+565 to 103+735	Reconstruction	TCS-2B
163	103+735 to 103+755	Reconstruction	TCS-2D
164	103+755 to 103+785	Reconstruction	TCS-1A
165	103+785 to 103+815	Reconstruction	TCS-3
166	103+815 to 103+855	Reconstruction	TCS-1A
167	103+855 to 103+925	Reconstruction	TCS-2B
168	103+925 to 103+975	Reconstruction	TCS-2D
169	103+975 to 104+105	Reconstruction	TCS-3
170	104+105 to 104+185	Reconstruction	TCS-1B
171	104+185 to 104+205	Reconstruction	TCS-2A

SL NO.	Stretch from Km to Km	Remarks	TCS Type
172	104+205 to 104+335	Reconstruction	TCS-1B
173	104+335 to 104+355	Reconstruction	TCS-2C
174	104+355 to 104+555	Reconstruction	TCS-3
175	104+555 to 104+615	Reconstruction	TCS-1A
176	104+615 to 104+635	Reconstruction	TCS-2A
177	104+635 to 104+685	Reconstruction	TCS-1B
178	104+685 to 104+695	Reconstruction	TCS-2A
179	104+695 to 104+705	Reconstruction	TCS-3
180	104+705 to 104+855	Reconstruction	TCS-1B
181	104+855 to 104+975	Reconstruction	TCS-1
182	104+975 to 104+995	Reconstruction	TCS-3
183	104+995 to 105+015	Reconstruction	TCS-2B
184	105+015 to 105+065	Reconstruction	TCS-3
185	105+065 to 105+265	Reconstruction	TCS-1B
186	105+265 to 105+535	Reconstruction	TCS-3
187	105+535 to 105+555	Reconstruction	TCS-1B
188	105+555 to 105+575	Reconstruction	TCS-2C
189	105+575 to 105+735	Reconstruction	TCS-1B
190	105+735 to 105+755	Reconstruction	TCS-2C
191	105+755 to 105+795	Reconstruction	TCS-3
192	105+795 to 105+825	Reconstruction	TCS-2A

6. Road side Drainage

DrainagesystemincludingsurfaceandsubsurfacedrainsfortheProjectHighway has been provided in the table given below:

RR Masonry Covered Drain

CHAINAGE (M)		Side	Net Length (m)
From	To		
82265	82425	Both	320
82425	82465	Both	80
82465	82505	Both	80
82505	82515	Both	20
82515	82555	Both	80
82555	82585	Both	60
82585	82625	Both	80
82625	82645	Both	40
82645	82705	Both	120
82705	82725	Both	40
82725	82785	Both	120
82785	82905	Both	240
82905	82915	Both	20
82915	82935	Both	40
82935	83045	Both	220
83045	83055	Both	20
83055	83155	Both	200
83155	83185	Both	60
90295	90425	Both	260
90425	90545	Both	240
90545	90655	Both	220

CHAINAGE (M)		Side	Net Length (m)
From	To		
90655	90705	Both	100
90705	90915	Both	420
90915	91545	Both	1260
91545	91645	Both	200
91645	91715	Both	140
91715	91765	Both	100
95575	95725	Both	300
95725	95785	Both	120
95785	95845	Both	120
95845	95895	Both	100
95895	95954	Both	118
95954	95975	Both	42
95975	96025	Both	100
96025	96145	Both	240
96145	96185	Both	80
96185	96265	Both	160
96265	96305	Both	80
96305	96325	Both	40
103135	103495	Both	720
103495	103545	Both	100
103545	103565	Both	40
103565	103735	Both	340
103735	103755	Both	40
103755	103785	Both	60
103785	103815	Both	60
103815	103855	Both	80
103855	103925	Both	140
103925	103975	Both	100
103975	104105	Both	260
104105	104185	Both	160
104185	104205	Both	40
104205	104335	Both	260
104335	104355	Both	40
104355	104555	Both	400
104555	104615	Both	120
104615	104635	Both	40
104635	104685	Both	100
104685	104695	Both	20
104695	104705	Both	20
104705	104855	Both	300
104855	104975	Both	240
104975	104995	Both	40
104995	105015	Both	40
105015	105065	Both	100
105065	105265	Both	400
105265	105535	Both	540
105535	105555	Both	40
105555	105575	Both	40
105575	105735	Both	320
105735	105755	Both	40

CHAINAGE (M)		Side	Net Length (m)
From	To		
105755	105795	Both	80
105795	105825	Both	60
		Total=	**11660**

RR MasonryTriangular Drain

Left Side		
Chainage		Length
From	To	
81870	82005	135
82165	82225	60
83275	83515	240
83515	83745	230
83765	83785	20
83785	83905	120
83905	83995	90
84065	84145	80
84205	84385	180
84615	84795	180
84845	84885	40
84925	84995	70
85575	85645	70
86935	87015	80
87915	87955	40
88005	88035	30
88165	88255	90
88445	88635	190
88655	88845	190
88845	88905	60
89095	89215	120
89435	89475	40
89825	89875	50
91765	91915	150
92695	92725	30
93615	93725	110
93795	93800	5
93800	93875	75
94225	94235	10
94305	94625	320
94845	94885	40
95515	95545	30
95515	95545	30
96395	96515	120
96515	96815	300
96815	97015	200
97085	97265	180
97385	98245	860
98465	98945	480
99615	99765	150
99975	99995	20
99995	100145	150

Left Side		
Chainage		Length
From	To	
100145	100195	50
100195	100255	60
100255	101065	810
101065	101105	40
101125	101175	50
101345	101585	240
101585	101605	20
101605	101675	70
101675	101745	70
101745	101805	60
101805	101825	20
101825	102045	220
102045	102085	40
102085	102105	20
102105	102155	50
102155	102465	310
102465	102495	30
102495	102515	20
102515	102545	30
102545	102885	340
102935	103050	115
103115	103135	20
Total length =		**8350**

Right Side		
Chainage		Length
From	To	
81870	82005	135
82005	82165	160
82165	82225	60
82225	82265	40
83185	83245	60
83515	83745	230
83745	83765	20
83765	83785	20
83905	83995	90
83995	84015	20
84015	84065	50
84065	84145	80
84145	84205	60
84205	84385	180
84385	84515	130
84515	84535	20
84535	84615	80
84615	84795	180
84795	84845	50
84845	84885	40
84885	84925	40
84925	84995	70

Right Side		
Chainage		Length
From	To	
84995	85005	10
85005	85025	20
85065	85155	90
85155	85185	30
85185	85305	120
85305	85575	270
85575	85645	70
85645	85735	90
85755	86725	970
86725	86785	60
86785	86855	70
86855	86935	80
86935	87015	80
87015	87045	30
87045	87065	20
87065	87645	580
87705	87765	60
87765	87835	70
87835	87855	20
87855	87875	20
87875	87915	40
87915	87955	40
87955	88005	50
88005	88035	30
88035	88165	130
88165	88255	90
88255	88445	190
88445	88635	190
88635	88655	20
88845	88905	60
88905	89015	110
89015	89025	10
89025	89095	70
89095	89215	120
89215	89435	220
89435	89475	40
89475	89825	350
89825	89875	50
89875	90295	420
91765	91915	150
91915	92045	130
92045	92075	30
92075	92165	90
92165	92255	90
92255	92275	20
92275	92395	120
92395	92495	100
92495	92695	200
92695	92725	30

Right Side		
Chainage		Length
From	To	
92765	92785	20
92785	92805	20
92805	93095	290
93095	93115	20
93115	93425	310
93425	93445	20
93445	93615	170
93615	93725	110
93725	93745	20
93815	93875	60
93875	93915	40
93975	94085	110
94085	94115	30
94115	94225	110
94225	94235	10
94235	94305	70
94305	94625	320
94625	94655	30
94655	94715	60
94715	94845	130
94845	94885	40
94885	95005	120
95005	95025	20
95025	95125	100
95125	95165	40
95165	95515	350
95515	95545	30
95545	95575	30
96325	96395	70
96395	96515	120
96815	97015	200
97015	97085	70
97085	97265	180
97265	97385	120
97385	98245	860
98245	98465	220
98465	98945	480
99215	99320	105
99320	99345	25
99345	99470	125
99585	99615	30
99615	99765	150
99765	99905	140
99995	100145	150
100195	100255	60
101065	101105	40
102040	102085	45
102515	102545	30
Total length =		**13665**

Catch water Drain:

Sl No	Design Chainage (m)		Side	Length (m)	Nos. of Catch pit required	Length of Catch water Drain (m)
	From	To				
1	81970	82005	Left	35	4	140
2	84065	84145	Left	80	1	80
3	84205	84385	Left	180	2	360
4	84615	84795	Left	180	2	360
5	84845	84885	Left	40	1	40
6	84925	84995	Left	70	1	70
7	88158	88355	Right	197	1	197
8	88355	88645	Right	290	1	290
9	91765	91805	Right	40	1	40
10	92695	92704	Left	9	2	18
11	92704	92725	Left	21	2	42
12	92704	92790	Right	86	2	172
13	93795	93875	Left	80	2	160
14	95575	95858	Right	283	1	283
15	95858	95975	Right	117	1	117
Total Length (m)=						**2369**

Outlet Drain:

Sl No.	Left Side	Right Side
	Chainage (km)	Chainage (km)
1	82.005	85.025
2	82.225	99.905
3	83.185	100.145
4	83.745	100.255
5	83.995	102.515
6	84.145	
7	84.385	
8	84.795	
9	84.885	
10	84.995	
11	85.645	
12	87.015	
13	87.955	
14	88.035	
15	88.255	
16	88.445	
17	88.655	
18	88.905	
19	89.215	
20	89.475	
21	89.825	
22	91.915	
23	92.695	
24	92.725	
25	93.725	
26	93.875	
27	94.305	

Sl No.	Left Side	Right Side
	Chainage (km)	Chainage (km)
28	94.845	
29	95.515	
30	96.325	
31	97.015	
32	97.265	
33	98.245	
34	98.945	
35	99.765	
36	101.175	
37	101.345	
38	102.885	
39	103.05	
40	103.115	

Number of Left side Outlet **40**
Number of Left side Outlet **5**
Total Number of Outlet **45**
Average Length of Outet **15 m**
Total Length of Drain for Outlet = **675 m**
Total Length(incld outlet)= **22690 m**

7. Design of Structures

(i)General

(a) All bridges culverts and structures shall be designed and constructed in accordance with provision of the relevant Manual and shall conform to the cross- sectional features and other details specified there in.

(b)Width of the carriage way of new bridges and structures shall be as follows:

[Refer to provision of the relevant Manual and specify the width of carriageway of new bridges and structures of more than 60(sixty) metre length. If the carriageway width is different from 7.5 (seven point five) metres in the table below.]

Sl. No.	Bridge/Structure at km	Width of carriageway and cross-sectional features
1	92+165	7.5
2	92+790	7.5
3	93+770	7.5
4	94+095	7.5

(c) The following structures shall be provided with footpaths:

[Refer to provision of the relevant Manual and provide details of new Structures with footpath]

Sl. No.	Bridge/Structure at km	Width of carriageway and cross-sectional features
Nil		

(d) All bridges shall be high-level bridges.

[Refer to provision of the relevant Manual and state if there is any exception] (e)

Thefollowingstructuresshallbedesigned tocarryutility servicesspecifiedin Table below:

[Refer to provisionofthe relevant Manualand provide details]

Sl.No.	Bridgeat km	Utilityservice to be carried	Remarks
Nil			

(f) Cross-sectionofthenewculvertsandbridgesatdecklevelfortheproject Highwayshall conformtothetypicalcross-sectionsgiveninprovisionofthe relevant Manual.

(ii) Culverts

(a) Overall width of all culverts shall be equal to the roadway width of the approaches.
(b) Reconstruction of existing culverts:

Theexistingculvertsatthefollowinglocationsshallbere-constructedasnew culverts:

[Refer to provision of the relevant Manual and provide details]

Sl. No.	Culvert Location	Span /Opening (m)	Remarks*
1	82+245	2X2X1 Cell	Single Span
2	82+925	2 X 3 X 1 Cell	Single Span
3	83+399	2X2X1 Cell	Single Span
4	83+730	2X2X1 Cell	Single Span
5	84+188	2X2X1 Cell	Single Span
6	84+740	2X2X1 Cell	Single Span
7	84+898	2X2X1 Cell	Single Span
8	85+291	2X2X1 Cell	Single Span
9	85+955	2X2X1 Cell	Single Span
10	86+020	2X2X1 Cell	Single Span
11	86+498	2X2X1 Cell	Single Span
12	86+618	2X2X1 Cell	Single Span
13	87+138	2X3X1 Cell	Single Span
14	87+978	2X2X1 Cell	Single Span
15	88+058	2X2X1 Cell	Single Span
16	88+132	2X2X1 Cell	Single Span
17	88+158	2X2X1 Cell	Single Span
18	88+355	2X2X1 Cell	Single Span
19	88+645	2X2X1 Cell	Single Span
20	88+738	2X2X1 Cell	Single Span
21	89+685	2X2X1 Cell	Single Span
22	90+078	2X2X1 Cell	Single Span
23	90+350	2X2X1 Cell	Single Span
24	91+453	2X2X1 Cell	Single Span
25	91+595	2X2X1 Cell	Single Span
26	91+805	2X3X1 Cell	Single Span
27	92+432	2X2X1 Cell	Single Span
28	92+856	2X2X1 Cell	Single Span
29	93+025	2X2X1 Cell	Single Span
30	93+118	2X2X1 Cell	Single Span
31	93+431	2X2X1 Cell	Single Span

Sl. No.	Culvert Location	Span /Opening (m)	Remarks*
32	93+578	2X2X1 Cell	Single Span
33	94+355	2X2X1 Cell	Single Span
34	95+058	2X2X1 Cell	Single Span
35	95+318	2X2X1 Cell	Single Span
36	95+372	2X2X1 Cell	Single Span
37	95+555	2X2X1 Cell	Single Span
38	95+858	2X2X1 Cell	Single Span
39	96+312	2X2X1 Cell	Single Span
40	96+812	2X2X1 Cell	Single Span
41	98+046	2X2X1 Cell	Single Span
42	98+250	2X2X1 Cell	Single Span
43	98+917	2X2X1 Cell	Single Span
44	99+332	2X2X1 Cell	Single Span
45	99+477	2X2X1 Cell	Single Span
46	100+250	2X2X1 Cell	Single Span
47	100+995	2X2X1 Cell	Single Span
48	101+832	2X2X1 Cell	Single Span
49	103+085	2X3X1 Cell	Single Span
50	103+463	2X2X1 Cell	Single Span
51	103+695	4X4X1 Cell Earth Cushion	Single Span
52	103+786	2X2X1 Cell	Single Span
53	104+048	2X2X1 Cell	Single Span
54	104+180	2X2X1 Cell	Single Span
55	104+715	2X2X1 Cell	Single Span
56	104+975	2X2X1 Cell	Single Span

*[Specify modifications, if any, required in the road level, etc.]

(c)Widening of existing culverts:

All existing culverts which are not to be reconstructed shall be widened to the Roadway width of the Project Highway as per the typical cross section given in provision of the relevant Manual. Repairs and strengthening of existing structures where required shall be carried.

Sl. No.	Culvert location	Type, span, height and width of existing culvert(m)	Repairs to be carried out [specify]
Nil			

(d) Additional new culverts shall be constructed as per particulars given in the table below:

Sl. No.	Culvert Location	Span /Opening (m)	Remarks*
1	82+611	2X2X1 Cell	Single Span
2	84+045	2X2X1 Cell	Single Span
3	85+068	2X2X1 Cell	Single Span
4	86+248	2X2X1 Cell	Single Span
5	86+768	2X2X1 Cell	Single Span
6	86+906	2X2X1 Cell	Single Span
7	87+473	2X2X1 Cell	Single Span
8	87+800	2X3X1 Cell	Single Span
9	89+000	2X2X1 Cell	Single Span
10	89+350	2X2X1 Cell	Single Span
11	89+612	2X2X1 Cell	Single Span
12	89+790	2X2X1 Cell	Single Span
13	89+994	2X2X1 Cell	Single Span

Sl. No.	Culvert Location	Span /Opening (m)	Remarks*
14	90+663	2X2X1 Cell	Single Span
15	94+228	2X2X1 Cell	Single Span
16	94+697	2X2X1 Cell	Single Span
17	94+828	2X2X1 Cell	Single Span
18	94+908	2X2X1 Cell	Single Span
19	95+142	2X2X1 Cell	Single Span
20	99+168	2X2X1 Cell	Single Span
21	100+667	2X2X1 Cell	Single Span
22	100+692	2X2X1 Cell	Single Span
23	101+105	2X2X1 Cell	Single Span
24	101+293	2X2X1 Cell	Single Span
25	101+708	2X2X1 Cell	Single Span
26	102+040	2X2X1 Cell	Single Span
27	102+142	2X2X1 Cell	Single Span
28	102+318	2X2X1 Cell	Single Span
29	102+468	2X2X1 Cell Earth Cushion	Single Span
30	102+599	2X2X1 Cell	Single Span
31	103+568	2X3X1 Cell Earth Cushion	Single Span
32	104+668	2X2X1 Cell	Single Span
33	104+930	2X2X1 Cell	Single Span

(e) Repairs/replacementsofrailing/parapets,flooringandprotectionworksof the existing culverts shall be undertaken as follows:

[Refer provision of the relevant Manualand provide details]

Sl.No.	Location atkm	Typeofrepair required
Nil		

(f) FloorprotectionworksshallbeasspecifiedintherelevantIRCCodesandSpecifications.

(iii) Bridges

(a) Existing bridges to be re-constructed/widened

[(i) The existing bridges at the following locations shall be re-constructed as new Structures]

[Refer provision of the relevant Manualand provide details]

Sl. No.	Bridge location	Salient details of existing bridge		Adequacy or otherwise of the existing waterway, vertical clearance etc.*	Remarks
	(km)	Type of Structures	Span Arrangement and Total Vent way (No. x Length) (m)		
1	92+165	RCC Slab Bridge	1X10m		
2	92+790	RCC Slab Bridge	1X10m		
3	93+770	RCC PSC Girder Bridge	1X40m		
4	94+095	RCC Slab Bridge	1X10m		

(ii) The following narrow bridges shall bewidened:

Sl. No.	Location (km)	Existing width(m)	Extent of widening(m)	Cross-section at deck level for widening@

Nil

(b) Additional new bridges

[Specify additional new bridges if required. And attach GAD]

New bridges at the following locations on the Project Highway shall be constructed. GADs for the new bridges are attached in the drawings folder.

Sl. No.	Location (km)	Total Length (m)	Remarks.If any
Nil			

(c) The railingsof existingbridgesshall bereplacedby crash barriersat the followinglocations:

[Refer provisionofthe relevant Manualand provide details:]

Sl.No.	Location atkm	Remarks
Nil		

(d) Repairs/replacements ofrailing/parapets oftheexistingbridgesshallbe undertaken as follows:

[Refer to provisionofthe relevant Manualand providedetails]

Sl.No.	Location atkm	Remarks
Nil		

(e) Drainagesystem forbridge decks

Aneffectivedrainagesystemforbridgedecks shall beprovidedas specified in provisionofthe relevant Manual

(f) Structures in marine environment

[Refertoprovisionofthe relevant Manual andspecify thenecessarymeasures/ treatments for protecting structuresin marineenvironment.Where applicable]

(v) Rail-roadbridges

(a) DesignconstructionanddetailingofROB/RUBshallbeasspecifiedinprovisionofthe relevant Manual [Refer toprovisionofthe relevant Manual andspecify modification, if any]

(b) Road over-bridges

Roadover-bridges(roadoverrail)shall beprovidedatthefollowinglevel crossings.As per GAD drawings attached:

Sl. No.	Location ofLevelcrossing(Chainagekm)	Lengthofbridge (m)
Nil		

(c)Road under-bridges

Road under-bridges (road under railway line) shall be provided at the followinglevel crossings as per GAD drawings attached:

Sl. No.	Location ofLevelcrossing (Chainage km)	Number andlengthof span(m)
Nil		

(v) Grade separatedstructures

[Refer provisionofthe relevant Manual]

Thegradeseparatedstructuresshallbeprovidedatthelocationsandofthetypeand length specified in paragraphs 2(ix) and3 of this Annex-I.

(vi) Repairs andstrengthening of bridges andstructures

[Refer to provisionofthe relevant Manual and provide details]

Theexistingbridgesandstructurestoberepaired/strengthenedandthenatureand extent of repairs /strengtheningrequired are given below:

(a) Bridges

Sl. No.	Location of bridge (km)	Nature and extent of repairs /strengthening to be carried out
Nil		

(b)ROB / RUB

Sl. No.	Location of ROB/RUB (km)	Natureandextent ofrepairs/strengtheningtobe carriedout
Nil		

(c) Overpasses/Underpasses and other structures

Sl. No.	Location of Structure(km)	Natureandextent ofrepairs/strengtheningtobe carriedout
Nil		

(vii) List of Major Bridges and Structures

The following is the list of the Major Bridges and Structures:

Sl. No.	Location (Km)
Nil	

8. Traffic Control Devices and Road Safety Works

(i) Traffic control devices and road safety works shall be provided in accordance with provisions of relevant Manual.

Traffic Signages, Road Marking and other appurtenances	Quantity	unit
Kilometer stones=	19	Nos
5th Kilometer stones=	5	Nos
Boundary Stones=	242	Nos
Delineators (100 cm long and circular shaped)+Hazard marker =	1836	Nos
900 mm Octagonal	2	Nos
600 mm circular	1100	Nos

900 mm Tringular	628	Nos
800 mm x 600 mm rectangular	590	Nos
Direction Sign < 0.9 sqm	8	sqm
Convex Mirror for Blind Curve	8	Nos
Rumble Strip=	2.4	sqm
Painting for Traffic Marking	207.0	sqm

(ii) Specifications of the reflective sheeting. [Refer to provision of relevant Manual and specify]

9. Roadside Furniture

(i) Roadside furniture shall be provided in accordance with article 8(i) of this schedule.

(ii) Overhead traffic signs: location and size

Sl. No.	Location (Km)	Size
1	At Liwai Khunou (Ch. 81+870 km)	12 m X 1.2 m (Double Pole)

10. Compulsory Afforestation

[Refer to provision of relevant Manual and specify the number of trees which are required to be planted by the concerned department as compensatory afforestation.]

11. Hazardous Locations

The safety barriers shall also be provided at the following hazardous locations:

a) Breast Wall

Chainage		side	Length (m)
From	To		
82425	82465	Right	40
82555	82585	Right	30
82625	82645	Right	20
82645	82705	Right	60
82725	82785	Right	60
82785	82905	Both	240
82905	82915	Right	10
82915	82935	Right	20
82935	83045	Both	220
83045	83055	Right	10
83155	83185	Right	30
83245	83275	Right	30
83275	83515	Right	240
83785	83905	Right	120
85735	85755	Right	20
87645	87705	Right	60
90295	90425	Right	130
90425	90545	Both	240
90545	90655	Right	110
90655	90705	Right	50
90705	90915	Right	210
90915	91545	Both	1260
91545	91645	Right	100
91645	91715	Both	140

Chainage		side	Length (m)
From	To		
91715	91765	Right	50
92725	92765	Right	40
93915	93975	Right	60
95575	95725	Right	150
95725	95785	Right	60
95785	95845	Right	60
95954	95975	Right	21
96025	96145	Both	240
96145	96185	Right	40
96265	96305	Right	40
96515	96815	Right	300
98945	99215	Right	270
99470	99585	Right	115
103495	103545	Both	100
103735	103755	Left	20
103755	103785	Left	30
103815	103855	Left	40
103925	103975	Left	50
104105	104185	Right	80
104205	104335	Right	130
104335	104355	Right	20
104555	104615	Left	60
104635	104685	Right	50
104705	104855	Right	150
104855	104975	Both	240
105065	105265	Right	200
105535	105555	Right	20
105555	105575	Right	20
105575	105735	Right	160
105735	105755	Right	20
Total=			**6286**

b) Retaining Wall

Chainage		side	Avg. Hight	Length
From	To			
82505	82515	Left	2.0	10
82555	82585	Left	2.0	30
82585	82625	Left	2.0	40
82625	82645	Left	2.0	20
82915	82935	Left	2.0	20
83055	83155	Left	2.0	100
83245	83275	Left	2.0	30
83745	83765	Left	2.0	20
84015	84065	Left	2.0	50
84515	84535	Left	4.0	20
85005	85025	Left	4.0	20
85025	85065	Left	4.0	40
85065	85155	Left	2.0	90
85185	85305	Left	2.0	120

85735	85755	Left	4.0	20
86725	86785	Left	4.0	60
86855	86935	Left	4.0	80
87045	87065	Left	2.0	20
87765	87835	Left	3.0	70
87855	87875	Left	2.0	20
88635	88655	Left	6.0	20
89015	89025	Left	2.0	10
90655	90705	Left	2.0	50
92045	92075	Left	3.0	30
92255	92275	Left	2.0	20
92395	92495	Left	4.0	100
93095	93115	Left	2.0	20
93745	93755	Left	2.0	10
93755	93785	Both	6.0	60
93785	93800	Right	4.0	15
93800	93815	Right	4.0	15
94085	94115	Left	2.0	30
94655	94715	Left	2.0	60
95005	95025	Left	2.0	20
95125	95165	Left	2.0	40
95725	95785	Left	2.0	60
95845	95895	Left	2.0	50
96305	96325	Right	2.0	20
99320	99345	Left	2.0	25
99905	99945	Left	2.0	40
99945	99975	Right	6.0	30
101105	101125	Left	4.0	20
101585	101605	Right	2.0	20
101675	101745	Right	2.0	70
101805	101825	Right	2.0	20
102105	102155	Right	2.0	50
102465	102495	Right	4.0	30
103050	103115	Right	4.0	65
103115	103135	Right	4.0	20
103735	103755	Right	2.0	20
103565	103735	Right	6.0	170
103855	103925	Right	2.0	70
103925	103975	Right	2.0	50
104185	104205	Left	2.0	20
104335	104355	Left	5.0	20
104615	104635	Left	2.0	20
104685	104695	Left	2.0	10
104995	105015	Right	2.0	20
105555	105575	Left	2.0	20
105735	105755	Left	4.0	20

Length of 2.0m Reataining Wall=	**1415**	**m**
Length of 3.0m Reataining Wall=	**100**	**m**
Length of 4.0m Reataining Wall=	**525**	**m**
Length of 5.0m Reataining Wall=	**20**	**m**
Length of 6.0m Reataining Wall=	**280**	**m**

Metal Beam Crash Barrier:

Design Chainage (m)		Side	Length (m)
From	To		
85350	85450	Left	100
95170	95250	Left	80
95450	95568	Left	118
98500	99400	Left	900
101368	101550	Right	182
101750	101800	Right	50
101950	102250	Right	300
Total			**1730**

Total No Bridge= 4

Length For both Approch (30m for each Portion)= 480 m

Total length of crash barrier = 2210 m

Hydro seeeding

Total Area of Hydro seeding =68246

12. Special Requirement for Hill Roads

[Refer to the provision of relevant Manual and provide details where relevant and required.]

13. Change of Scope

The length of Structures and bridges specified herein above shall be treated as an approximate assessment. The actual lengths as required based on detailed investigations shall be determined by the Contractor in accordance with the Specifications and Standards. Any variations in the lengths specified in this Schedule- B shall not constitute a Change of Scope save and except any variations in the length arising out of a Change of Scope expressly undertaken in accordance with the provisions of Article 13.

(Schedule-B1)

1. The shifting ofutilities and felling of trees shall be carried out by the concerned department. The cost of the same shall be borne by the concerned department.

Sheet-II (Annexure-I to Schedule-B1)

Utility Shifting.

Shifting of obstructing existing utilities indicated in Schedule A to an appropriate location in accordance with the standards and specification of concerned Utility Owning Department is part of the scope of work of the Contractor/Concessionaire*. The bidders may visit the site and assess the quantum of shifting of utilities for the projects before submission of their bid. Copy of utility relocation plan is enclosed. The specification of concerned Utility Owning Department shall be applicable and followed.
Notes:

a) The type/spacing/size/specifications of poles/towers/lines/cables to be used in shifting work shall be as per the guidelines of utility owning department and it is to be agreed solely between the contractor/Concessionaire* and the utility owning department. No change of scope shall be admissible and no cost shall be paid for using different type/spacing/size/specifications in shifted work in comparison to those in the existing work or for making any overhead crossing to underground as per requirement of utility owning department and/or construction of project highway. The contractor/concessionaire* shall carry out joint inspection with utility owning department and get the estimates from the utility owning department. The assistance of the Authority is limited to giving forwarding letter on the proposal of contractor/concessionaire* to utility owning department whenever asked by the contractor/concessionaire*. The decision/ approval of utility owning department shall be on the contractor/concessionaire*.

b) The supervision charges at the rates/charges applicable of the utility owning department shall be paid directly by the Authority to the utility Owning department as and when contractor/concessionaire*furnishes demand of utility Owning Department along with a copy of estimated cost given by later.

c) The dismantled material/scrap of existing Utility to be shifted/Dismantled shall belong to the contractor/concessionaire* who would be free to dispose-off the dismantled material as deemed fit by them unless the contractor/concessionaire* is required to deposit the dismantled material may be availed by the contractor/concessionaire* as per estimate agreed between them.

d) The utilities shall be handed over after shifting work is completed to utility Owning Department to their entire satisfaction. The maintenance liability shall rest with the Utility Owning Department after Handing over Process is complete as far as utility shifting works are concerned.

Note –II Copy of utility shifting plans enclosed as Annexure-II to Schedule B1.

Schedule - C

(See Clause 2.1)

Project Facilities

1. Project Facilities

The Contractor shall construct the Project Facilities in accordance with the provisions of this Agreement. Such Project Facilities shall include:

(a) Toll plaza[s]

(b) Roadside furniture;

(c) Pedestrian facilities;

(d) Truck Lay byes;

(e) Bus-bays and passenger shelters;

(f) Rest areas; and

(g) Others to be specified

2. Description of Project Facilities

Each of theProject Facilities is described below:

a) TollPlaza: -

Sl. No.	Design Chainage(km)	Name of the Place
Nil		

b) Roadsidefurniture: -

Sl. No.	Description	Location	Design Standard
1	Traffic sign & pavement marking	Entire Length (As per Schedule B)	As per Manual
2	Km Stone, 5th kilometre stone	Entire Length	As per Manual
3	Boundary Stone	Entire Length	As per Manual
4	Roadside Delineator, marker & Road Stud	As per Schedule B	As per Manual
5	Metal beam crash barrier	As per Schedule B	As per Manual

C) Pedestrian Facility:-

Pedestrian facilities in the form of foot path shall be provided in the built up area (refer typical cross – section drawing). Pedestrian facilities shall be provided at the locations of urban sections in order to ensure safety of pedestrians while crossing in consultation with NHIDCL.

d) Truck Lay bye:-

Sl. No.	Truck lay bye Chainage(Both Side)	Name of the Place
Nil		

e) Bus Bay &Passenger shelter: -

Sl.	Project Facility	Location (km)	Design	Other Essential Details

No.			Requirements	
1	Bus Bay & Passenger shelter	82+020 (Both side)	Bus Bays & Passenger shelter have been placed on both side of proposed roadway	Dimension of Bus Bay (L X B = 59.0 m X 3.0 m) Dimension of Passenger Shelter (L X B = 6.0 m X 2.0 m) (Refer Passenger Shelter Drawing)
2	Bus Bay & Passenger shelter	89+750 (Both side)		
3	Bus Bay & Passenger shelter	90+250 (Both side)		
4	Bus Bay & Passenger shelter	105+525 (Both side)		

f) Rest Areas

Sl. No.	Rest Area Chainage	Name of the Place
Nil		

g) Others to be specified

Street Lighting:

Street lighting shall be provided in the built up area and bus bay locations.

Environment

The Project Highway during design, construction and maintenance during implementation period shall conform to the environmental rules and regulations in force. The Construction Contractor shall be responsible for the same.

Note: Provide adequate details of each Project Facility to ensure their design and completion in accordance with the project-specific requirements and the provisions of the Manual.

Schedule - D

(See Clause 2.1)

Specifications and Standards

1. Construction

The Contractor shall comply with the Specifications and Standards set forth in Annex- I of this Schedule-D for construction of the Project Highway.

2. Design Standards

The Project Highway including Project Facilities shall conform to design requirements set out in the following documents:

[Manual of Specifications and Standards for Two Lanning of Highways (IRC: SP: 73-2015), referred to herein as the Manual]

[Note: Specify the relevant Manual, Specifications and Standards]

Annex – I

(Schedule-D)

Specifications and Standards for Construction

1. Specifications and Standards

All Materials, works and construction operations shall conform to the Manual of Specifications and Standards for [Two-Lanning of Highways (IRC:SP:73-2015)], referred to as the Manual, and MORTH Specifications for Road and Bridge Works. Where the specification for a work is not given, Good Industry Practice shall be adopted to the satisfaction of the Authority's Engineer.

2. Deviations from the Specifications and Standards

(i) The terms "Concessionaire", "Independent Engineer" and "Concession Agreement" used in the Manual shall be deemed to be substituted by the terms "Contractor", "Authority's Engineer" and "Agreement" respectively.

(ii) [Notwithstanding anything to the contrary contained in Paragraph 1 above, the following Specifications and Standards shall apply to the Project Highway, and for purposes of this Agreement, the aforesaid Specifications and Standards shall be deemed to be amended to the extent set forth below:]

<table>
<tr><th>Item</th><th>Manual Clause Reference</th><th colspan="5">Provision as per Manual</th><th colspan="5">Modified Provision</th></tr>
<tr><td rowspan="4">Shoulder</td><td rowspan="4">2.6</td><td colspan="5"><u>Mountainous Terrain</u></td><td colspan="5"><u>Mountainous Terrain</u></td></tr>
<tr><td rowspan="2">Type of Section</td><td rowspan="2"></td><td colspan="3">Width of Shoulder (m)</td><td rowspan="2">Type of Section</td><td rowspan="2"></td><td colspan="3">Width of Shoulder (m)</td></tr>
<tr><td>Paved</td><td>Earthen</td><td>Total</td><td>Paved</td><td>Earthen</td><td>Total</td></tr>
<tr><td>Open Country with Isolated Built-up Area</td><td>Hill Side</td><td>1.5</td><td>-</td><td>1.5</td><td>Open Country with Isolated Built-up Area</td><td>Hill Side</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Valley Side</td><td>1.5</td><td>1</td><td>2.5</td><td>Valley Side</td><td>-</td><td>Up to 1.0 m</td><td>1</td></tr>
<tr><td rowspan="2">Built-up Area and Approaches to grade separated structures/ bridges</td><td>Hill Side</td><td>0.25 m + 1.5 m (Raised)</td><td>-</td><td>1.75</td><td rowspan="2">Built-up Area and Approaches to grade separated structures/ bridges</td><td>Hill Side</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Valley Side</td><td>0.25 m + 1.5 m (Raised)</td><td>-</td><td>1.75</td><td>Valley Side</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>Design Speed</td><td>2.2</td><td colspan="5"><u>Mountainous Terrain:</u>
Ruling : 60 Kmph
Minimum : 40 Kmph</td><td colspan="5"><u>Mountainous Terrain:</u>
Design Speed followed 40-60 kmph in general. However design speed has been reduced to 20 kmph due to site constraints and to accommodate the proposal within EROW.
(Refer Horizontal Alignment Drawing and Table 1.1 below)</td></tr>
<tr><td>Extra Widening</td><td>2.7</td><td colspan="5">Extra Widening has been proposed as per IRC: SP: 73-2015
Radius | Extra Widening
75-100 m | 0.9 m
101-300 m | 0.6 m</td><td colspan="5">Extra Widening has been proposed as per IRC: SP: 48-1998 (Table 6.9) of Hill Road Manual.
Radius | Extra Widening
21-40 m | 1.5 m
41-60 m | 1.2 m
61-100 m | 0.9 m</td></tr>
</table>

Item	Manual Clause Reference	Provision as per Manual	Modified Provision		
			75-100 m	0.9 m	
			101-300 m	0.6 m	
			Above 300 m	NIL	
Radii of Horizontal Curve	2.9.4	**Mountainous Terrain:** Desirable Minimum Radius: 150 m Absolute Minimum Radius: 75 m	Radius below 75 m has been provided in the location listed in table 1.		

Table 1.1: Locations where Design Speed is less than40 kmph

Sl. No.	HIP No.	Stretch (from km to km)	Type of Deficiency	Remarks
1	605	88+135 to 88+163	Sharp Bend	Design Speed = 30 Kmph
2	623	91+290 to 91+294	Sharp Bend	Design Speed = 30 Kmph
3	624	91+344 to 91+398	Sharp Bend	Design Speed = 20 Kmph
4	625	91+442 to 91+471	Sharp Bend	Design Speed = 20 Kmph
5	626	91+520 to 91+534	Sharp Bend	Design Speed = 20 Kmph
6	627	91+577 to 91+601	Sharp Bend	Design Speed = 20 Kmph
7	629	91+720 to 91+735	Sharp Bend	Design Speed = 30 Kmph
8	630	91+784 to 91+830	Sharp Bend	Design Speed = 30 Kmph
9	631	91+873 to 91+880	Sharp Bend	Design Speed = 20 Kmph
10	632	91+926 to 91+934	Sharp Bend	Design Speed = 20 Kmph
11	633	91+971 to 92+007	Sharp Bend	Design Speed = 20 Kmph
12	634	92+067 to 92+108	Sharp Bend	Design Speed = 20 Kmph
13	639	92+681 to 92+743	Sharp Bend	Design Speed = 20 Kmph
14	640	92+782 to 92+820	Sharp Bend	Design Speed = 20 Kmph
15	641	92+900 to 92+909	Sharp Bend	Design Speed = 25 Kmph
16	642	92+965 to 92+975	Sharp Bend	Design Speed = 25 Kmph
17	643	93+019 to 93+028	Sharp Bend	Design Speed = 25 Kmph
18	644	93+075 to 93+081	Sharp Bend	Design Speed = 25 Kmph
19	645	93+125 to 93+138	Sharp Bend	Design Speed = 30 Kmph
20	646	93+220 to 93+237	Sharp Bend	Design Speed = 20 Kmph
21	647	93+282 to 93+293	Sharp Bend	Design Speed = 30 Kmph
22	648	93+409 to 93+449	Sharp Bend	Design Speed = 20 Kmph
23	649	93+530 to 93+538	Sharp Bend	Design Speed = 30 Kmph
24	650	93+603 to 93+651	Sharp Bend	Design Speed = 30 Kmph
25	651	93+719 to 93+732	Sharp Bend	Design Speed = 30 Kmph
26	652	93+878 to 93+898	Sharp Bend	Design Speed = 30 Kmph
27	653	94+081 to 94+116	Sharp Bend	Design Speed = 25 Kmph
28	654	94+160 to 94+191	Sharp Bend	Design Speed = 30 Kmph
29	655	94+272 to 94+306	Sharp Bend	Design Speed = 30 Kmph
30	656	94+410 to 94+423	Sharp Bend	Design Speed = 30 Kmph
31	661	94+878 to 94+906	Sharp Bend	Design Speed = 30 Kmph
32	662	95+034 to 95+114	Sharp Bend	Design Speed = 30 Kmph
33	663	95+185 to 95+209	Sharp Bend	Design Speed = 30 Kmph
34	664	95+307 to 95+333	Sharp Bend	Design Speed = 30 Kmph
35	665	95+439 to 95+453	Sharp Bend	Design Speed = 30 Kmph
36	666	95+501 to 95+590	Sharp Bend	Design Speed = 30 Kmph
37	667	95+634 to 95+657	Sharp Bend	Design Speed = 30 Kmph
38	670	95+982 to 96+015	Sharp Bend	Design Speed = 30 Kmph
39	672	96+177 to 96+191	Sharp Bend	Design Speed = 30 Kmph

Sl. No.	HIP No.	Stretch (from km to km)	Type of Deficiency	Remarks
40	674	96+300 to 96+313	Sharp Bend	Design Speed = 30 Kmph
41	675	96+416 to 96+454	Sharp Bend	Design Speed = 30 Kmph
42	676	96+506 to 96+530	Sharp Bend	Design Speed = 30 Kmph
43	679	96+801 to 96+817	Sharp Bend	Design Speed = 25 Kmph
44	681	96+971 to 96+989	Sharp Bend	Design Speed = 20 Kmph
45	682	97+080 to 97+085	Sharp Bend	Design Speed = 25 Kmph
46	683	97+167 to 97+178	Sharp Bend	Design Speed = 30 Kmph
47	686	97+649 to 97+682	Sharp Bend	Design Speed = 20 Kmph
48	702	100+310 to 100+334	Sharp Bend	Design Speed = 30 Kmph
49	703	100+397 to 100+428	Sharp Bend	Design Speed = 30 Kmph
50	704	100+491 to 100+568	Sharp Bend	Design Speed = 30 Kmph
51	707	100+959 to 101+005	Sharp Bend	Design Speed = 30 Kmph
52	714	101+757 to 101+776	Sharp Bend	Design Speed = 30 Kmph
53	715	101+831 to 101+837	Sharp Bend	Design Speed = 25 Kmph
54	717	102+031 to 102+151	Sharp Bend	Design Speed = 30 Kmph
55	726	103+801 to 103+826	Sharp Bend	Design Speed = 30 Kmph
56	727	103+901 to 103+925	Sharp Bend	Design Speed = 30 Kmph
57	728	103+981 to 103+997	Sharp Bend	Design Speed = 30 Kmph
58	729	104+183 to 104+194	Sharp Bend	Design Speed = 30 Kmph
59	730	104+247 to 104+259	Sharp Bend	Design Speed = 30 Kmph
60	731	104+330 to 104+347	Sharp Bend	Design Speed = 30 Kmph
61	732	104+402 to 104+414	Sharp Bend	Design Speed = 30 Kmph
62	733	104+452 to 104+459	Sharp Bend	Design Speed = 30 Kmph
63	734	104+499 to 104+542	Sharp Bend	Design Speed = 20 Kmph
64	737	104+954 to 105+027	Sharp Bend	Design Speed = 30 Kmph
65	738	105+092 to 105+103	Sharp Bend	Design Speed = 30 Kmph
66	739	105+156 to 105+164	Sharp Bend	Design Speed = 30 Kmph
67	740	105+226 to 105+230	Sharp Bend	Design Speed = 30 Kmph
68	741	105+297 to 105+302	Sharp Bend	Design Speed = 30 Kmph
69	745	105+646 to 105+672	Sharp Bend	Design Speed = 30 Kmph

Table 1.2: Locations where Radii of Horizontal Curve is less than 75 m

Sl. No.	HIP No.	Stretch (from km to km)	Radius (m)
1	566	81+923 to 81+928	70
2	571	82+803 to 82+815	50
3	572	82+908 to 82+958	50
4	574	83+191 to 83+219	50
5	575	83+459 to 83+487	50
6	579	84+165 to 84+213	50
7	580	84+355 to 84+398	50
8	581	84+493 to 84+557	50
9	582	84+639 to 84+646	50
10	583	84+729 to 84+752	60
11	585	85+164 to 85+183	60
12	586	85+275 to 85+294	50
13	587	85+382 to 85+432	70
14	590	85+785 to 85+802	50
15	593	86+203 to 86+213	50

Sl. No.	HIP No.	Stretch (from km to km)	Radius (m)
16	595	86+426 to 86+435	70
17	597	86+688 to 86+694	50
18	598	86+864 to 86+929	70
19	600	87+254 to 87+275	70
20	605	88+135 to 88+163	30
21	608	88+851 to 88+899	50
22	610	89+299 to 89+378	70
23	615	90+525 to 90+538	60
24	619	90+929 to 90+938	50
25	620	91+020 to 91+024	60
26	623	91+290 to 91+294	60
27	624	91+344 to 91+398	26
28	625	91+442 to 91+471	20
29	626	91+520 to 91+534	30
30	627	91+577 to 91+601	20
31	629	91+720 to 91+735	40
32	630	91+784 to 91+830	35
33	631	91+873 to 91+880	20
34	632	91+926 to 91+934	25
35	634	92+067 to 92+108	20
36	639	92+681 to 92+743	35
37	640	92+782 to 92+820	20
38	642	92+965 to 92+975	25
39	643	93+019 to 93+028	30
40	644	93+075 to 93+081	30
41	646	93+220 to 93+237	20
42	648	93+409 to 93+449	22
43	650	93+603 to 93+651	50
44	651	93+719 to 93+732	50
45	652	93+878 to 93+898	40
46	653	94+081 to 94+116	25
47	654	94+160 to 94+191	40
48	655	94+272 to 94+306	30
49	656	94+410 to 94+423	40
50	660	94+794 to 94+826	60
51	661	94+878 to 94+906	40
52	662	95+034 to 95+114	60
53	663	95+185 to 95+209	30
54	664	95+307 to 95+333	30
55	665	95+439 to 95+453	40
56	666	95+501 to 95+590	45
57	667	95+634 to 95+657	60
58	670	95+982 to 96+015	50
59	672	96+177 to 96+191	50
60	674	96+300 to 96+313	50
61	675	96+416 to 96+454	60
62	676	96+506 to 96+530	50
63	678	96+704 to 96+742	60
64	679	96+801 to 96+817	25

Sl. No.	HIP No.	Stretch (from km to km)	Radius (m)
65	680	96+890 to 96+899	70
66	681	96+971 to 96+989	20
67	682	97+080 to 97+085	25
68	683	97+167 to 97+178	60
69	684	97+248 to 97+297	70
70	686	97+649 to 97+682	20
71	687	97+809 to 97+841	50
72	688	97+963 to 97+992	50
73	689	98+062 to 98+067	70
74	692	98+501 to 98+514	50
75	694	98+850 to 98+894	70
76	697	99+135 to 99+179	70
77	702	100+310 to 100+334	40
78	703	100+397 to 100+428	40
79	704	100+491 to 100+568	50
80	705	100+682 to 100+714	50
81	706	100+840 to 100+872	70
82	707	100+959 to 101+005	40
83	708	101+072 to 101+082	70
84	710	101+334 to 101+362	70
85	711	101+483 to 101+497	50
86	712	101+575 to 101+605	70
87	714	101+757 to 101+776	40
88	715	101+831 to 101+837	30
89	717	102+031 to 102+151	50
90	718	102+250 to 102+282	50
91	726	103+801 to 103+826	40
92	727	103+901 to 103+925	40
93	728	103+981 to 103+997	50
94	729	104+183 to 104+194	60
95	730	104+247 to 104+259	30
96	731	104+330 to 104+347	30
97	732	104+402 to 104+414	40
98	733	104+452 to 104+459	40
99	734	104+499 to 104+542	30
100	737	104+954 to 105+027	50
101	738	105+092 to 105+103	50
102	739	105+156 to 105+164	40
103	740	105+226 to 105+230	30
104	741	105+297 to 105+302	30
105	745	105+646 to 105+672	50

(iii) [Note1: Deviations fromtheaforesaidSpecificationsand Standards shallbe listedout here. Suchdeviations shall bespecified only ifthey are considered essential in viewof project-specific requirements.]

Schedule - H

(See Clauses 10.1 (iv) and 19.3)

Contract Price Weightages

1.1 The Contract Price for this Agreement is Rs. ****

1.2 Proportions of the Contract Price for different stages of Construction of the Project Highway shall be as specified below:

Item	Weightage in % of CP	Stage for Payment	Percentage
1	2	3	4
Road Works including Culverts, widening and repair of culverts	58.61 %	**A- Widening and strengthening of existing road**	
		(1) Earthwork up to top of the sub- grade	[Nil]
		(2) Sub-base Course	[Nil]
		(3) Non bituminous Base course	[Nil]
		(4) Bituminous Basecourse	[Nil]
		(5) Wearing Coat	[Nil]
		(6) Widening and repair of culverts	[Nil]
		B.1-Reconstruction/New 2-Lane Realignment /Bypass (Flexible Pavement)	
		(1) Earthwork up to top of the sub- grade	36.86%
		(2) Sub-base Course	26.92%
		(3) Non bituminous Base course	12.16%
		(4) Bituminous Basecourse	1.32%
		(5) Wearing Coat	9.12%
		B.2-Reconstruction/New 8-Lane Realignment/ Bypass (Rigid Pavement)	
		(1) Earthwork up to top of the sub- grade	[Nil]
		(2) Sub-base Course	[Nil]
		(3) Dry Lean Concrete (DLC) Course	[Nil]
		(4) Pavement Quality Control (PQC) Course	[Nil]
		C.1-Reconstruction/ New Service Road (Flexible Pavement)	
		(1) Earthwork up to top of the sub- grade	[Nil]
		(2) Sub-base Course	[Nil]
		(3) Non bituminous Base course	[Nil]
		(4) Bituminous Basecourse	[Nil]
		(5) Wearing Coat	[Nil]
		C.2- Reconstruction/New Service road (Rigid Pavement)	
		(1) Earthwork up to top of the sub- grade	[Nil]
		(2) Sub-base Course	[Nil]

Item	Weightage in % of CP	Stage for Payment	Percentage
		(3) Dry Lean Concrete (DLC) Course	[Nil]
		(4) Pavement Quality Control (PQC) Course	[Nil]
		D- Reconstruction & New Culverts on existing road, realignments, bypasses Culverts (length <6m)	13.61%
Minor bridge/ Underpasses/ Overpasses	4.54%	**A.1-widening and repairing of Minor Bridges (length >6 m&<60m)**	
		Minor Bridges	[Nil]
		A.2- New Minor bridges (length >6 mand<60m)	
		(1) Foundation + Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers up to the abutment/pier cap.	43.82%
		(2) Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road, signs & markings, tests on completion etc. complete in all respect.	45.91%
		(3) Approaches: On completion of approaches including Retaining walls, stone pitching, protection works complete in all and fit for use	10.28%
		(4) Guide Bunds and River Training Works: On completion of Guide Bunds and river training works complete in all respects	[Nil]
		B.1- Widening and repairs of underpasses/overpasses	
		Underpasses/ Overpasses	[Nil]
		B.2-NewUnderpasses/Overpasses	
		(1)Foundation + Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers upto the abutment/pier cap.	[Nil]
		(2)Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road signs & markings, tests on completion etc. complete in all respect. Wearing Coat (a) in case of Overpass-wearing coat including expansion joints complete in all respects as specified and (b) in case of underpass- rigid pavement including drainage facility complete in all respects as specified.	[Nil]
		(3) Approaches: On completion of approaches including Retaining walls/ Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.	[Nil]
Major bridge(length>60	0.00 %	**A.1- Widening and repairs of Major Bridges**	
		(1)Foundation	[Nil]

Item	Weightage in % of CP	Stage for Payment	Percentage
m) works and ROB/RUB/elevated sections/flyovers including viaducts, if any		(2)Sub-structure	[Nil]
		(3)Super-structure(including bearings)	[Nil]
		(4)Wearing Coat including expansion joints	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/return walls	[Nil]
		(7)Guide Bunds,River Training works etc.	[Nil]
		(8)Approaches(including Retaining walls, stone pitching and protection works)	[Nil]
		A.2-NewMajorBridges	
		(1)Foundation	[Nil]
		(2)Sub-structure	[Nil]
		(3)Super-structure(including bearings)	[Nil]
		(4)Wearing Coat including expansion joints	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/return walls	[Nil]
		(7)Guide Bunds, River Training works etc.	[Nil]
		(8)Approaches(including Retaining walls, stone pitching and protection works)	[Nil]
		B.1-Wideningandrepairsof (a) ROB (b) RUB	
		(1) Foundations	[Nil]
		(2) Sub-Structure	[Nil]
		(3) Super-Structure (Including bearings)	[Nil]
		(4)Wearing Coat(a)in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) In case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/Return walls	[Nil]
		(7) Approaches (Including Retaining walls, Stone Pitching and protection works)	[Nil]
		B.2-NewROB/RUB	
		(1) Foundations	[Nil]
		(2) Sub-Structure	[Nil]
		(3) Super-Structure (Including bearings)	[Nil]
		(4) Wearing Coat (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/Return walls	[Nil]
		(7)Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and	[Nil]

Item	Weightage in % of CP	Stage for Payment	Percentage
		protection works)	
		C.1- Widening and repair of Elevated Section/Flyovers/Grade Separators	
		(1) Foundations	[Nil]
		(2) Sub-Structure	[Nil]
		(3)Super-Structure(Including bearings)	[Nil]
		(4)Wearing Coat including expansion joints	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/Return walls	[Nil]
		(7)Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[Nil]
		C.2- New Elevated Section/Flyovers/Grade Separators	
		(1) Foundations	[Nil]
		(2) Sub-Structure	[Nil]
		(3)Super-Structure(Including bearings)	[Nil]
		(4)Wearing Coat including expansion joints	[Nil]
		(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]
		(6) Wing walls/Return walls	[Nil]
		(7)Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[Nil]
Other Works	36.85 %	(i) Toll Plaza	[Nil]
		(ii) Road side drains	36.86%
		(iii) Road signs, markings, km stones, safety devices etc	4.23%
		(iv) Project facilities	
		a) Bus Bays	0.92%
		b) Truck Lay-byes	[Nil]
		c) Passenger Shelter	0.25%
		d) Rest Area	[Nil]
		e) Diversion Works	[Nil]
		(v) Road side Plantation	[Nil]
		(vi) Repair of Protection Works other than approaches to the bridges, elevated sections/flyover/grade separators and ROBs/ RUBs	[Nil]
		(vii) Safety &Traffic Management during const.	[Nil]
		(viii) Breast Wall	31%
		(ix) Toe Wall	[Nil]
		(x) Retaining Wall	15.54%
		(xi) Crash Barrier	1.11%

Item	Weightage in % of CP	Stage for Payment	Percentage
		(xi) Boundary wall	[Nil]
		(xii) Site Clearance & Dismantling	0.76%
		(xiii) Protection Works	3.84%
		(xiv) Utility Shifting	5.5%

1.3 Procedure of estimating the value of work done

1.3.1 Road works

Procedure for estimating the value of road work done shall be as follows:

Table 1.3.1

Stage of Payment	Percentage weightage	Payment Procedure
A- Widening & Strengthening of road		Unit of measurement is linear length. Payment of each stage shall be made on pro-rata basis on completion of a stage in a length of not less than 5(five)percent of the total length.
(1)Earthwork up to top of the sub-grade	[Nil]	
(2) Sub-base Course	[Nil]	
(3) Non bituminous Base course	[Nil]	
(4) Bituminous Base course	[Nil]	
(5) Wearing Coat	[Nil]	
(6) Widening and repair of culverts	[Nil]	Cost of ten completed culverts shall be determined on pro-rata basis with respect to the total number of culverts.
B.1- Reconstruction/New2-Lane Realignment/Bypass(Flexible Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro-rata basis on completion of a stage in full length or 0.5(half) km length, whichever is less.
(1)Earthwork up to top of the sub-grade	36.86%	
(2) Sub-base Course	26.92%	
(3) Non bituminous Base course	12.16%	
(4) Bituminous Base course	1.32%	
(5) Wearing Coat	9.12%	
B.2- Reconstruction/New 8-Lane Realignment/Bypass (Rigid Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro-rata basis on completion of a stage in full length or 5(five) km length, whichever is less.
(1)Earthwork up to top of the sub-grade	[Nil]	
(2) Sub-base Course	[Nil]	
(3) Dry Lean Concrete (DLC) Course	[Nil]	
(4) Pavement Quality Control (PQC) Course	[Nil]	
C.1- Reconstruction/New Service Road/ Slip Road (Flexible Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro-rata basis on completion of a stage in full length or 5(five) km length, whichever is less.
(1)Earthwork up to top of the sub-grade	[Nil]	
(2) Sub-base Course	[Nil]	
(3) Non bituminous Base course	[Nil]	
(4) Bituminous Basecourse	[Nil]	
(5) Wearing Coat	[Nil]	
C.2- Reconstruction/New Service road (Rigid Pavement)		Unit of measurement is linear length. Payment of each stage shall be made on pro-rata basis on completion of a stage in full length or 5(five) km length, whichever is less.
(1)Earthwork up to top of the sub-grade	[Nil]	
(2) Sub-base Course	[Nil]	
(3) Dry Lean Concrete (DLC)Course	[Nil]	
(4) Pavement Quality Control (PQC) Course	[Nil]	
D-Reconstruction & New Culverts on existing road, realignments, bypasses		Cost of each culverts shall be determined on pro-rata basis with respect to the total number of culverts. Payment shall be made on the completion of at
Culverts (length <6m)	13.61%	

Stage of Payment	Percentage weightage	Payment Procedure
		least one culverts

@ For example, if the total length of bituminous work to be done is 100 km, the cost per km of bituminous work shall be determined as follows:

Cost per km = P x weightage for road work x weightage for bituminous work x (1/L)

Where,

P = Contract Price

L = Total length in km

Similarly, the rates per km for other stages shall be worked out accordingly.

Note: The length affected due to law and order problems or litigation during execution due to which the Contractor is unable to execute the work, may be deducted from the total project length for payment purposes. The total length calculated here is only for payment purposes and will not affect and referred in other clauses of the Contract Agreement.

1.3.2 Minor Bridges and Underpasses/Overpasses.

Procedure for estimating the value of Minor bridge and Underpasses/Overpasses shall be as stated in table 1.3.2:

Table 1.3.2

Stage of Payment	Weightage	Payment Procedure
1	2	3
A.1-Widening and repairs of Minor Bridges(length>6m&<60m)	Nil	Cost of each minor bridge shall be determined on pro-rata basis with respect to the total linear length of the minor bridges. Payment shall be made on the completion of widening & repair works of a minor bridge
A.2- New Minor Bridges (length > 6m & < 60m)		
(1)Foundation + Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers up to the abutment/pier cap.	43.82%	Foundation: Cost of each minor bridge shall be determined on pro-rata basis with respect to the total linear length (m) of the minor bridges. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. Not less than 25% of the scope of foundation of each bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2)Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road,signs & markings, tests on completion etc. complete in all respect.	45.91%	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super structure of at least one span in all respects as specified in the column of "Stage of Payment" in this sub-clause. In case of structures where pre-cast girders have been proposed by the Contractor, 50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of

Stage of Payment	Weightage	Payment Procedure
		stage specified as above
(3)Approaches :On completion of approaches including Retaining walls, stone pitching, protection works complete in all and fit for use	10.28%	Approaches: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of approaches in all respect as specified in the column of "Stage of Payment" in this sub-clause.
(4) Guide Bunds and River Training Works: On completion of Guide Bunds and river training works complete in all respects	[Nil]	Guide Bunds and River Training Works: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of Guide Bund sand River training Works in all respects as specified
B.1- Widening and repairs of underpasses/overpasses	[Nil]	Cost of each underpass/overpass shall be determined on pro-rata basis with respect to the total linear length of the underpasses/ overpasses. Payment shall be made on the completion of widening & repair works of a underpass/overpass.
B.2- New Underpasses/Overpasses		
(1)Foundation + Sub-Structure: On completion of the foundation work including foundations for wing and return walls, abutments, piers up to the abutment/pier cap.	[Nil]	Foundation: Cost of each Underpass/ Overpass shall be determined on pro- rata basis with respect to the total linear length (m) of the Underpasses/Overpasses. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. Not less than 25% of the scope of foundation of each Underpasses/ Overpasses. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2)Super-structure: On completion of the super-structure in all respects including wearing coat, bearings, expansion joints, hand rails, crash barriers, road signs & markings, tests on completion etc. complete in all respect. Wearing Coat (a) in case of Overpass-wearing coat including expansion joints complete in all respects as specified and (b) in case of underpass- rigid pavement including drainage facility complete in all respects as specified.	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure of at least one span in all respects as specified in the column of "Stage of Payment" in this sub-clause. In case of structures where pre-cast girders have been proposed by the Contractor,50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(3) Approaches: On completion of approaches including Retaining walls/ Reinforced Earth walls, stone pitching, protection works complete in all respect and fit for use.	[Nil]	Payment shall be made on pro-rata basis on completion of a stage in all respects as specified

1.3.3 Major Bridge works, ROB/RUB and Structures.

Procedure for estimating the value of Major Bridge works, ROB/RUB and Structures shall be as stated in table 1.3.3:

Table 1.3.3

Stage of Payment	Weightage	Payment Procedure
A.1- Widening and repairs of Major Bridges		
(1) Foundation	[Nil]	Foundation: Cost of each Major Bridge shall be determined on pro-rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2) Sub-structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub- structure of major bridge.
(3)Super-structure(including bearings)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor,50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4)Wearing Coat including expansion joints	[Nil]	Wearing Coat: Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings etc. complete in all respects as specified.
(6) Wing walls/return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(7)Guide Bunds, River Training works etc.	[Nil]	Guide Bunds, River Training works: Payments shall be made on completion of all guide bunds/river training works etc. complete in all respects as specified.
(8)Approaches(including Retaining walls, stone pitching and protection works)	[Nil]	Approaches: Payments shall be made on pro-rata basis on completion of 10% of the scope of each stage.
A.2-NewMajorBridges		
(1)Foundation	[Nil]	Foundation: Cost of each Major Bridge shall be determined on pro-rata basis with respect to the total linear length (m) of the Major Bridge. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the major Bridge. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2)Sub-structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. not

Stage of Payment	Weightage	Payment Procedure
		lessthan25% of the scope of sub- structure of major bridge.
(3)Super-structure(including bearings)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor, 50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4)Wearing Coat including expansion joints	[Nil]	Wearing Coat: Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings. complete in all respects as specified.
(6) Wing walls/return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(7)Guide bunds, River Training works etc.	[Nil]	Guide Bunds, River Training works: Payments shall be made on completion of all guide bunds/river training works etc. complete in all respects as specified.
(8)Approaches(including Retaining walls, stone pitching and protection works)	[Nil]	Approaches: Payments shall be made on pro-rata basis on completion of 10% of the scope of each stage.
B.1- Widening and repairs of (a)ROB (b)RUB	[Nil]	
(1) Foundations	[Nil]	Foundation: Cost of each ROB/RUB shall be determined on pro-rata basis with respect to the total linear length (m)of the ROB/RUB. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the ROB/RUB. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2) Sub-Structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub- structure of ROB/RUB.
(3) Super-Structure (Including bearings)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor,50%ofthe stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4) Wearing Coat(a)in case of ROB-wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified	[Nil]	Wearing Coat: Payment shall be made on completion (a) in case of ROB-wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified.

Stage of Payment	Weightage	Payment Procedure
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings etc. complete in all respects as specified.
(6) Wing walls/Return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(7) Approaches (Including Retaining walls, Stone Pitching and protection works)	[Nil]	Payments shall be made on pro-rata basis on completion of 20% of the total area.
B.2-NewROB/RUB		
(1) Foundation	[Nil]	Foundation: Cost of each ROB/RUB shall be determined on pro-rata basis with respect to the total linear length (m)of the ROB/RUB. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the ROB/RUB.
(2) Sub-structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. Not less than 25% of the scope of sub- structure of ROB/RUB.
(3) Super-structure (including bearing)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor,50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4)Wearing Coat (a) in case of ROB- wearing coat including expansion joints complete in all respects as specified and (b) in case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified	[Nil]	Wearing Coat: Payment shall be made on completion (a) in case of ROB-wearing coat including expansion joints complete in all respects as specified and (b) In case of RUB-rigid pavement under RUB including drainage facility complete in all respects as specified.
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings etc. Complete in all respects as specified.
(6) Wing walls/Return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(7)Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[Nil]	Payment shall be made on pro-rata basis on completion of a stage in all respects as specified
C.1-Wideningandrepairs of Elevated Section/ Flyovers/Grade Separators		
(1) Foundations	[Nil]	Foundation: Cost of each structure shall be determined on pro-rata basis with respect to the total linear length (m)of the structure. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the structure. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where

Stage of Payment	Weightage	Payment Procedure
		specified.
(2) Sub-Structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub- structure of structure.
(3) Super-Structure(Including bearings)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor,50% of the stage payment shall be due and payable on casting of girders for each span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4) Wearing Coat including expansion joints	[Nil]	Wearing Coat: Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings etc. Complete in all respects as specified.
(6) Wing walls/Return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all respects as specified.
(7) Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[Nil]	Payment shall be made on pro-rata basis on completion of a stage in all respects as specified
C.2- New Elevated Section/ Flyovers/Grade Separators		
(1) Foundations	[Nil]	Foundation: Cost of each structure shall be determined on pro-rata basis with respect to the total linear length (m)of the structure. Payment against foundation shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of foundation of the structure. In case where load testing is required for foundation, the trigger of first payment shall include load testing also where specified.
(2) Sub-Structure	[Nil]	Sub-structure: Payment against sub- structure shall be made on pro-rata basis on completion of a stage i.e. not less than 25% of the scope of sub- structure of structure.
(3)Super-Structure(Including bearings)	[Nil]	Super-structure: Payment shall be made on pro-rata basis on completion of a stage i.e. completion of super- structure including bearings of at least one span in all respects as specified. In case of structures where pre-cast girders have been proposed by the Contractor,50% of the stage payment shall be due and payable on casting of girders foreach span and balance 50% of the stage payment shall be made on completion of stage specified as above
(4)Wearing Coat including expansion joints	[Nil]	Wearing Coat: Payment shall be made on completion of wearing coat including expansion joints complete in all respects as specified.
(5) Miscellaneous Items like handrails, crash barrier, road markings etc.	[Nil]	Miscellaneous: Payments shall be made on completion of all miscellaneous works like handrails, crash barriers, road markings etc. complete in all respects as specified.
(6) Wing walls/Return walls	[Nil]	Wingwalls/return walls: Payments shall be made on completion of all wing walls/return walls complete in all

Stage of Payment	Weightage	Payment Procedure
		respects as specified.
(7)Approaches (including Retaining walls/Reinforced Earth wall, stone pitching and protection works)	[Nil]	Payments shall be made on pro-rata basis on completion of 20% of the total area.

Note: (1) In case of innovate Major Bridge projects like cable suspension/cable stayed/ Extra Dozed and exceptionally long span bridges, the schedule may be modified as per site requirements before bidding with due approval of Competent Authority.

(2) The Schedule for exclusive tunnel projects may be prepared as per site requirements before bidding with due approval of Competent Authority.

1.3.4 Other works.

Procedure for estimating the value of other works done shall be as stated in table 1.3.4.

Table 1.3.4

Stage of Payment	Weightage	Payment Procedure
1	2	3
(1) Toll Plaza	[Nil]	Unit of measurement is each completed toll plaza. Payment of each toll plaza shall be made on pro-rata basis with respect to the total of all toll plaza.
(2) Roadside drains	36.86%	Unit of measurement is linear length. Payment shall be made on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.
(3) Road signs, markings, km stones, safety devices etc.	4.23%	
(4) Project Facilities		Payment shall be made on pro-rata basis for completed facilities.
a) Bus Bays	0.92%	
b) Truck Lay-byes	[Nil]	
c) Passenger Shelter	0.25%	
d) Rest Area	[Nil]	
e) Diversion Works	[Nil]	
(5) Road side Plantation including Horticulture in Wayside Amenities	[Nil]	Unit of measurement is linear length
(6) Repair of Protection Works other than approaches to the bridges, elevated sections/flyover/grade separators and ROBs/ RUBs	[Nil]	Unit of measurement is linear length. Payment shall be made on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.
(7) Safety and traffic management during construction	[Nil]	Payment shall be made on prorate basis every six months.
(8) Protection Works		Unit of measurement is linear length. Payment shall be made
(a) Breast Wall	31%	

Stage of Payment	Weightage	Payment Procedure
(b) Toe Wall	[Nil]	on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.
(c)Retaining Wall	15.54%	
(c) Crash Barrier	1.11%	
(9) Site Clearance & Dismantling	0.76%	Unit of measurement is linear length. Payment shall be made on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.
(10) Protection Works	3.84%	Unit of measurement is linear length. Payment shall be made on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.
(11) Utility Shifting	5.5%	Unit of measurement is linear length. Payment shall be made on pro-rata basis on completion of a stage in a length of not less than 5% (five percent)of the total length.

2. Procedure for payment for Maintenance

2.1 The cost for maintenance shall be as stated in Clause 14.1.1.

2.2 Payment for Maintenance shall be made in quarterly instalments in accordance with the provisions of Clause 19.7.