

Rewa-Katni-Jabalpur-Lakhnadon (All Packages- Pkg 1, Pkg-2, Pkg-4 & Pkg-JL)						
BOQ- Supply & Fixing of Stud Fixing						
S No	Item Description	Unit	All Package QTY	Rate	Amount	Remarks
1	Road Markers/Road Stud with Lense Reflector (Cat eye) Removal of existing Stud and Providing and fixing single mound twin shanked molded Road Markers/Road Stud made of poly carbonate or ABS body and shall support a load of 13635 Kg tested in accordance to ASTM D 4280 and complying lo specifications of Section-5 of IRC:35-2015 and clause 804.2.2 of MORT&H and Section-5 of IRC:35-2015. The reflecting panels shall consist of number of lenses containing single or dual prismatic cubes capable of providing total internal reflection of the light entering the lens face. The slope or retro-reflecting surface should be 35 + 5 degree to base. The reflective marker shall be fixed to the road surface using the epoxy/ adhesives and the procedure recommended by the manufacturer. No nails shall be used to affix the markers so Cubes capable of that they do not pose safety hazard on the road.. The contractor shall submit a two year replacement warranty. for satisfactory field performance including stipulated retro-reflectance of the reflecting panel. (3M Only) Colours : Yellow : 8991 Nos , White : 8991 Nos , Green : 17225 Nos , Red : 34911 Nos	Nos.	70,118			
Amount					-	
GST 18%					-	
Total Amount					-	

RKJL-Road Studs Details Junction												
S.No.	Chainage		Side	Location	Location	Shoulder Spacing 18m	Islands Spacing 6m	Pedestrain crossing	Acceleration/Decc eleration lane spacing 18m	Continuity Crossing line Spacing 1m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Red	Red	Green		
1	660.200		BHS	Pkg-1	Major Junction	42	11	200	11	18	282	
2	662.545		RHS	Pkg-1	Major Junction	21	11	100	11	9	152	
3	687.850		RHS	Pkg-1	Major Junction	21	11	100	11	9	152	
4	694.154		RHS	Pkg-1	Major Junction	21		60	11	9	101	
5	713.380		BHS	Pkg-1	Major Junction	42	11	200	11	18	282	
6	714.725		RHS	Pkg-1	Major Junction	21		60	11	9	101	
7	717.215		RHS	Pkg-1	Major Junction	21	11	100	11	9	152	
56	734.127		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
57	735.195		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
58	741.000		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
59	743.030		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
60	751.730		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
61	753.190		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
62	755.210		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
63	761.600		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
64	765.940		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
65	803.000		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
66	805.820		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
67	807.600		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
68	809.800		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
69	809.800		RHS	Pkg-2	Major Junction	21	11	101	11	9	153	
70	811.800		LHS	Pkg-2	Major Junction	21	11	101	11	9	153	
131	814.290		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
132	815.370		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
133	820.650		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	

S.No.	Chainage		Side	Location	Location	Shoulder Spacing 18m	Islands Spacing 6m	Pedestrain crossing	Acceleration/Decce eleration lane spacing 18m	Continuity Crossing line Spacing 1m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Red	Red	Green		
134	821.910		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
135	827.917		RHS	Pkg-4	Major Junction	21	11	101		9	142	
136	831.350		LHS	Pkg-4	Major Junction	21	11	101	11	9	153	
137	835.620		LHS	Pkg-4	Major Junction	21	11	101	11	9	153	
138	843.610		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
139	846.460		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
140	850.810		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
141	853.050		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
142	856.060		LHS	Pkg-4	Major Junction	21	11	101		9	142	
143	867.200		LHS	Pkg-4	Major Junction	21	11	101	11	9	153	
144	869.030		LHS	Pkg-4	Major Junction	21	11	101	11	9	153	
145	869.030		RHS	Pkg-4	Major Junction	21	11	101	11	9	153	
146	872.780		LHS	Pkg-4	Major Junction	21	11	101		9	142	
147	872.780		RHS	Pkg-4	Major Junction	21	11	101		9	142	
148	875.680		LHS	Pkg-4	Major Junction	21	11	101		9	142	
149	875.680		RHS	Pkg-4	Major Junction	21	11	101		9	142	
178	881+516		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
179	884+110		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
180	886+170		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
181	890+441		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
182	1358+060		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
183	1368+545		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
184	1370+310		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
185	1378+945		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
186	1379+975		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
187	1402+100		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	

S.No.	Chainage		Side	Location	Location	Shoulder Spacing 18m	Islands Spacing 6m	Pedestrian crossing	Acceleration/Decce eleration lane spacing 18m	Continuity Crossing line Spacing 1m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Red	Red	Green		
188	1402+625		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
189	1405+425		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
190	1424+415		LHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
191	881+516		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
192	884+110		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
193	887+480		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
194	888+300		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
195	890+441		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
196	1368+545		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
197	1370+310		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
198	1402+625		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
199	1423+460		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
200	1424+415		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
201	1426+780		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
202	1427+700		RHS	Pkg-JL	Major Junction	21	11	101	11	9	153	
						1428	704	6779	660	612	10183	

RKJL-Road Studs Details Median Opening														
S.No.	Chainage		Side	Package	Location	Kerb Spacing 9m	Shoulder Spacing 9m	Center Spacing 9 m	Pedestrain crossing	3 Row of Road studs (Rumble) Spacing 1m	Continuity Crossing line Spacing 1m	Continuity Crossing line at Storage lane Spacing 9m	Normal Total Qty (Nos)	Remarks
	From	To				Yellow	Red	White	Red	Green	Green	Green		
1	663.900		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
2	672.500		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
3	675.080		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
4	677.080		Median	Pkg-1	Median Opening	81	81	81	72	55	61		431	
5	678.750		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
6	683.850		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
7	687.800		Median	Pkg-1	Median Opening	81	81	81	72	55	61		431	
8	694.150		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
9	703.200		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
10	705.400		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
11	708.100		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
12	709.960		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
13	711.700		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
14	713.000		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
15	713.350		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
16	717.200		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
17	722.550		Median	Pkg-1	Median Opening	81	81	81	96	55	61	14	469	
18	725.185		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
19	727.380		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
20	728.430		Median	Pkg-2	Median Opening	81	81	81	73	55	61		432	
21	730.920		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
22	731.940		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
23	734.120		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
24	735.920		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
25	737.030		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
26	740.990		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
27	743.030		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
28	744.440		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	

S.No.	Chainage		Side	Package	Location	Kerb Spacing 9m	Shoulder Spacing 9m	Center Spacing 9 m	Pedestrian crossing	3 Row of Road studs (Rumble) Spacing 1m	Continuity Crossing line Spacing 1m	Continuity Crossing line at Storage lane Spacing 9m	Normal Total Qty (Nos)	Remarks
	From	To				Yellow	Red	White	Red	Green	Green	Green		
29	748.920		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
30	751.730		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
31	753.190		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
32	755.270		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
33	761.620		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
34	765.940		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
35	768.300		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
36	771.440		Median	Pkg-2	Median Opening	81	81	81	73	55	61		432	
37	771.839		Median	Pkg-2	Median Opening	81	81	81	73	55	61		432	
38	801.090		Median	Pkg-2	Median Opening	81	81	81	73	55	61		432	
39	803.000		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
40	805.820		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
41	807.620		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
42	808.500		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
43	810.650		Median	Pkg-2	Median Opening	81	81	81	105	55	61	17	481	
44	811.840		Median	Pkg-2	Median Opening	81	81	81	73	55	61	9	441	
45	814.310		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
46	815.350		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
47	818.930		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
48	819.740		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
49	820.640		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
50	821.900		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
51	823.600		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
52	825.265		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
53	831.288		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
54	832.080		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
55	835.624		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
56	836.775		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
57	838.370		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	

S.No.	Chainage		Side	Package	Location	Kerb Spacing 9m	Shoulder Spacing 9m	Center Spacing 9 m	Pedestrian crossing	3 Row of Road studs (Rumble) Spacing 1m	Continuity Crossing line Spacing 1m	Continuity Crossing line at Storage lane Spacing 9m	Normal Total Qty (Nos)	Remarks
	From	To				Yellow	Red	White	Red	Green	Green	Green		
58	838.880		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
59	842.010		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
60	843.600		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
61	845.410		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
62	846.450		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
63	847.740		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
64	848.964		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
65	850.800		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
66	853.000		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
67	858.780		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
68	860.530		Median	Pkg-4	Median Opening	81	81	81	73	55	61		432	
69	862.010		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
70	865.750		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
71	867.214		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
72	869.050		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
73	878.005		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
74	880.600		Median	Pkg-4	Median Opening	81	81	81	105	55	61	17	481	
75	880.700		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
76	884.100		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
77	885.920		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
78	887.493		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
79	888.865		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
80	1359.525		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
81	1361.320		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
82	1365.120		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
83	1367.220		Median	Pkg-JL	Median Opening	81	81	81	105	55	61		464	
84	1369.520		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
85	1371.110		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
86	1373.485		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	

S.No.	Chainage		Side	Package	Location	Kerb Spacing 9m	Shoulder Spacing 9m	Center Spacing 9 m	Pedestrain crossing	3 Row of Road studs (Rumble) Spacing 1m	Continuity Crossing line Spacing 1m	Continuity Crossing line at Storage lane Spacing 9m	Normal Total Qty (Nos)	Remarks
	From	To				Yellow	Red	White	Red	Green	Green	Green		
87	1375.880		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
88	1378.900		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
89	1379.990		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
90	1381.680		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
91	1384.640		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
92	1386.420		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
93	1389.475		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
94	1392.720		Median	Pkg-JL	Median Opening	81	81	81	105	55	61		464	
95	1394.850		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
96	1396.525		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
97	1398.910		Median	Pkg-JL	Median Opening	81	81	81	105	55	61		464	
98	1401.065		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
99	1402.050		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
100	1402.650		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
101	1405.480		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
102	1407.420		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
103	1409.450		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
104	1411.700		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
105	1415.595		Median	Pkg-JL	Median Opening	81	81	81	105	55	61		464	
106	1418.200		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
107	1420.720		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
108	1423.450		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
109	1425.455		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
110	1426.800		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
111	1428.300		Median	Pkg-JL	Median Opening	81	81	81	105	55	61	17	481	
						8991	8991	8991	10814	6105	6771	1490	52153	

Normal Stud Summary

Metal Stud Summary

S.No.	Chainage		Side	Package	Location	Kerb Spacing 9m	Shoulder Spacing 9m	Center Spacing 9 m	Pedestrain crossing	3 Row of Road studs (Rumble) Spacing 1m	Continuity Crossing line Spacing 1m	Continuity Crossing line at Storage lane Spacing 9m	Normal Total Qty (Nos)	Remarks	
	From	To				Yellow	Red	White	Red	Green	Green	Green			
Package	Qty (Nos)			Package	Qty (Nos)										
Pkg-1	7,897			Pkg-1	#REF!										
Pkg-2	12,391			Pkg-2	#REF!										
Pkg-4	14,136			Pkg-4	#REF!										
Pkg-JL	17,729			Pkg-JL	#REF!										
Total	52,153			Total	#REF!										

RKJL-Road Studs Details Bus Bay										
S.No.	Chainage		Side	Package	Location	Shoulder Spacing 9m	Chevron/Diagonal Spacing 6m on Edge line and 2 Studs/ Chevron strip	Continuity Crossing line Spacing 9m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Green		
1	658.200		RHS	Pkg-1	BUS Bay	31	20	21	72	
2	664.710		LHS	Pkg-1	BUS Bay	31	20	21	72	
3	664.750		RHS	Pkg-1	BUS Bay	31	20	21	72	
4	668.555		LHS	Pkg-1	BUS Bay	31	20	21	72	
5	668.600		RHS	Pkg-1	BUS Bay	31	20	21	72	
6	672.700		RHS	Pkg-1	BUS Bay	31	20	21	72	
7	672.700		LHS	Pkg-1	BUS Bay	31	20	21	72	
8	675.020		LHS	Pkg-1	BUS Bay	31	20	21	72	
9	675.100		RHS	Pkg-1	BUS Bay	31	20	21	72	
10	676.950		RHS	Pkg-1	BUS Bay	31	20	21	72	
11	677.150		LHS	Pkg-1	BUS Bay	31	20	21	72	
12	678.050		LHS	Pkg-1	BUS Bay	31	20	21	72	
13	678.200		RHS	Pkg-1	BUS Bay	31	20	21	72	
14	681.818		RHS	Pkg-1	BUS Bay	31	20	21	72	
15	686.800		RHS	Pkg-1	BUS Bay	31	20	21	72	
16	686.800		LHS	Pkg-1	BUS Bay	31	20	21	72	
17	695.550		LHS	Pkg-1	BUS Bay	31	20	21	72	
18	698.050		RHS	Pkg-1	BUS Bay	31	20	21	72	
19	698.400		LHS	Pkg-1	BUS Bay	31	20	21	72	
20	703.000		RHS	Pkg-1	BUS Bay	31	20	21	72	
21	705.250		LHS	Pkg-1	BUS Bay	31	20	21	72	
22	705.250		RHS	Pkg-1	BUS Bay	31	20	21	72	
23	707.200		LHS	Pkg-1	BUS Bay	31	20	21	72	
24	707.200		RHS	Pkg-1	BUS Bay	31	20	21	72	
25	708.650		LHS	Pkg-1	BUS Bay	31	20	21	72	
26	708.700		RHS	Pkg-1	BUS Bay	31	20	21	72	
27	665.100		LHS	Pkg-1	TRUCK LAY	31	20	21	72	
28	677.610		RHS	Pkg-1	TRUCK LAY	31	20	21	72	
29	712.700		LHS	Pkg-1	TRUCK LAY	31	20	21	72	

S.No.	Chainage		Side	Package	Location	Shoulder Spacing 9m	Chevron/Diagonal Spacing 6m on Edge line and 2 Studs/ Chevron strip	Continuity Crossing line Spacing 9m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Green		
30	728.300		RHS	Pkg-2	BUS Bay	31	21	21	73	
31	728.550		LHS	Pkg-2	BUS Bay	31	21	21	73	
32	731.850		RHS	Pkg-2	BUS Bay	31	21	21	73	
33	732.060		LHS	Pkg-2	BUS Bay	31	21	21	73	
34	736.250		RHS	Pkg-2	BUS Bay	31	21	21	73	
35	736.350		LHS	Pkg-2	BUS Bay	31	21	21	73	
36	740.530		RHS	Pkg-2	BUS Bay	31	21	21	73	
37	740.540		LHS	Pkg-2	BUS Bay	31	21	21	73	
38	744.640		LHS	Pkg-2	BUS Bay	31	21	21	73	
39	744.640		RHS	Pkg-2	BUS Bay	31	21	21	73	
40	751.050		RHS	Pkg-2	BUS Bay	31	21	21	73	
41	751.050		LHS	Pkg-2	BUS Bay	31	21	21	73	
42	758.600		LHS	Pkg-2	BUS Bay	31	21	21	73	
43	758.580		RHS	Pkg-2	BUS Bay	31	21	21	73	
44	761.030		RHS	Pkg-2	BUS Bay	31	21	21	73	
45	761.030		LHS	Pkg-2	BUS Bay	31	21	21	73	
46	767.780		LHS	Pkg-2	BUS Bay	31	21	21	73	
47	768.190		RHS	Pkg-2	BUS Bay	31	21	21	73	
48	769.550		RHS	Pkg-2	BUS Bay	31	21	21	73	
49	769.700		LHS	Pkg-2	BUS Bay	31	21	21	73	
50	778.565		LHS	Pkg-2	BUS Bay	31	21	21	73	
51	778.565		RHS	Pkg-2	BUS Bay	31	21	21	73	
52	782.260		RHS	Pkg-2	BUS Bay	31	21	21	73	
53	782.310		LHS	Pkg-2	BUS Bay	31	21	21	73	
54	787.830		LHS	Pkg-2	BUS Bay	31	21	21	73	
55	788.281		RHS	Pkg-2	BUS Bay	31	21	21	73	
56	794.350		LHS	Pkg-2	BUS Bay	31	21	21	73	
57	795.900		RHS	Pkg-2	BUS Bay	31	21	21	73	
58	798.150		RHS	Pkg-2	BUS Bay	31	21	21	73	
59	798.180		LHS	Pkg-2	BUS Bay	31	21	21	73	

S.No.	Chainage		Side	Package	Location	Shoulder Spacing 9m	Chevron/Diagonal Spacing 6m on Edge line and 2 Studs/ Chevron strip	Continuity Crossing line Spacing 9m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Green		
60	806.250		RHS	Pkg-2	BUS Bay	31	21	21	73	
61	806.270		LHS	Pkg-2	BUS Bay	31	21	21	73	
62	816.180		LHS	Pkg-4	BUS Bay	31	21	21	73	
63	816.180		RHS	Pkg-4	BUS Bay	31	21	21	73	
64	820.195		LHS	Pkg-4	BUS Bay	31	21	21	73	
65	822.205		RHS	Pkg-4	BUS Bay	31	21	21	73	
66	836.370		LHS	Pkg-4	BUS Bay	31	21	21	73	
67	838.630		RHS	Pkg-4	BUS Bay	31	21	21	73	
68	838.960		LHS	Pkg-4	BUS Bay	31	21	21	73	
69	842.682		LHS	Pkg-4	BUS Bay	31	21	21	73	
70	842.682		RHS	Pkg-4	BUS Bay	31	21	21	73	
71	848.310		LHS	Pkg-4	BUS Bay	31	21	21	73	
72	854.150		LHS	Pkg-4	BUS Bay	31	21	21	73	
73	854.950		RHS	Pkg-4	BUS Bay	31	21	21	73	
74	856.250		RHS	Pkg-4	BUS Bay	31	21	21	73	
75	856.900		LHS	Pkg-4	BUS Bay	31	21	21	73	
76	859.150		LHS	Pkg-4	BUS Bay	31	21	21	73	
77	859.150		RHS	Pkg-4	BUS Bay	31	21	21	73	
78	862.220		LHS	Pkg-4	BUS Bay	31	21	21	73	
79	862.220		RHS	Pkg-4	BUS Bay	31	21	21	73	
80	881+300		RHS	Pkg-JL	BUS Bay	31	21	21	73	
81	881+520		LHS	Pkg-JL	BUS Bay	31	21	21	73	
82	883+925		RHS	Pkg-JL	BUS Bay	31	21	21	73	
83	888+990		BHS	Pkg-JL	BUS Bay	31	21	21	73	
84	1363+775		LHS	Pkg-JL	BUS Bay	31	21	21	73	
85	1363+825		RHS	Pkg-JL	BUS Bay	31	21	21	73	
86	1369+640		RHS	Pkg-JL	BUS Bay	31	21	21	73	
87	1369+775		LHS	Pkg-JL	BUS Bay	31	21	21	73	
88	1375+775		RHS	Pkg-JL	BUS Bay	31	21	21	73	
89	1375+875		LHS	Pkg-JL	BUS Bay	31	21	21	73	

S.No.	Chainage		Side	Package	Location	Shoulder Spacing 9m	Chevron/Diagonal Spacing 6m on Edge line and 2 Studs/ Chevron strip	Continuity Crossing line Spacing 9m	Total Qty (Nos)	Remarks
	From	To				Red	Red	Green		
90	1378+050		BHS	Pkg-JL	BUS Bay	31	21	21	73	
91	1384+025		LHS	Pkg-JL	BUS Bay	31	21	21	73	
92	1384+160		RHS	Pkg-JL	BUS Bay	31	21	21	73	
93	1386+275		BHS	Pkg-JL	BUS Bay	31	21	21	73	
94	1388+340		LHS	Pkg-JL	BUS Bay	31	21	21	73	
95	1388+360		RHS	Pkg-JL	BUS Bay	31	21	21	73	
96	1394+625		LHS	Pkg-JL	BUS Bay	31	21	21	73	
97	1394+775		RHS	Pkg-JL	BUS Bay	31	21	21	73	
98	1398+470		RHS	Pkg-JL	BUS Bay	31	21	21	73	
99	1398+720		LHS	Pkg-JL	BUS Bay	31	21	21	73	
100	1401+570		LHS	Pkg-JL	BUS Bay	31	21	21	73	
101	1401+660		RHS	Pkg-JL	BUS Bay	31	21	21	73	
102	1402+450		RHS	Pkg-JL	BUS Bay	31	21	21	73	
103	1402+825		LHS	Pkg-JL	BUS Bay	31	21	21	73	
104	1411+760		RHS	Pkg-JL	BUS Bay	31	21	21	73	
105	1412+000		LHS	Pkg-JL	BUS Bay	31	21	21	73	
106	1421+675		RHS	Pkg-JL	BUS Bay	31	21	21	73	
107	1421+680		LHS	Pkg-JL	BUS Bay	31	21	21	73	
						3317	2218	2247	7782	

9.5 Reflective Pavement Markers (Road Studs)

The Reflective Pavement Markers (RRPM) i.e. road studs shall be provided to improve the visibility in night time and wet weather conditions. These shall be prismatic retro-reflective type conforming to ASTM D-4280. RRPM shall be provided on curves, approaches to bridges/grade separated structures and junction influence area. The RRPM on shoulder edge line shall be Red in colour and that on median edge line shall be Amber colour. RRPM shall be provided for traffic lane for all curves less than 400 m radii and shall be white in colour. The RRPM on traffic lane line shall be placed at the centre of gap of lane line marking. The RRPM shall be provided for pedestrian crossing to make them visible and shall be red colour. The details of road studs are provided in Table 9.1.

Table 9.1 Warrants for Road Studs

Sl. No.	Description of section		Length	Spacing	Location & Color
1)	All sections of Project Highway having horizontal curves	Curve radii upto 450 m	Curve length including transition with 20 m on either side	9 m	For shoulder and median side edge lines. (Red colour on shoulder side and Amber colour for median side)
2)		Curve radii 451 to 750 m		18 m	
3)		Curve radii 751 to 2000 m and critical section		27 m	
4)	All sections of Project Highway on vertical grade	Length of Highway where vertical gradient is 2.5% and above and its vertical curves	Length including vertical grade and curves and adjoining 180 m portion on either side	18 m	
5)	All sections of Project Highway where overtaking prohibited	Sections where overtaking prohibited	Length of no overtaking zone	18 m	For shoulder and median side edge lines and traffic lane line. (Red colour on shoulder side, Amber colour for median side and white colour for traffic lane line)
6)	All Major/ Minor Bridge, ROB and all structures (Interchange/ Flyover/ VUP)	Structure	Structure portion and adjoining 180 m on either side	9 m	For shoulder and median side edge lines. (Red colour on shoulder side and Amber colour for median side)
7)		Approaches	Approach length including the length of acceleration/ deceleration length if any and 180 m adjoining on either side	18 m	
8)		Built-up areas	Built up area/ settlement / villages	Length of built up from the start to end.	

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Sl. No.	Description of section		Length	Spacing	Location & Color
9)	All entry/exit slip roads/ramps and its acceleration/ deceleration lanes	Entry/exit slip roads and ramps	Length of both side edge lines of slip roads/ ramp+ edge line of acceleration/ deceleration lane	9 m	Red colour on edge lines
10)		Continuity line for acceleration/ deceleration lane	Chevron/diagonal markings on gorge	6 m	Red color for Chevrons/ diagonal markings
11)		for entry/exit of slip		8 m	Green color for crossable continuity line
12)	All junctions and median openings	Storage lane and acceleration/ deceleration lanes including 180 m on either side	Length of shoulder and median edge lines	18 m	Red colour on shoulder side and Amber color for median side
13)			Chevron/ diagonal markings	6 m	Red colour for Chevrons
14)		Across the carriageway	At the start of the acceleration lane	3 rows at 1m apart	Green colour
15)	P e d e s t r i a n Crossing	For Zebra crossing marking	At four corners of all block of Zebra crossing markings	2 rows & at 0.5 m spacing	Amber colour

Alternatively, Solar Powered Road Markers are more effective and draw attention of drivers and shall be provided at locations like at Sl. 6 & 8 and also other locations where performance of normal road studs are not that effective due to street lightings and other roadside activities.