



National Highways Authority of India

(Ministry of Shipping, Road Transport & Highways)

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, **Section-2:** Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Technical Schedules

November - 2025



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**National Highways Authority of India
(Ministry of Road, Transport & Highways)
Government of India**

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and,

Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O)

TECHNICAL SCHEDULES (A to D)

November 2025

**G-5&6, Sector-10, Dwarka,
New Delhi – 110075**

SCHEDULE – A

(See Clause 10.1)

SITE OF THE PROJECT

1 The Site

- 1.1 Site of the Project Highway shall include the land, buildings, structures and road works as described in Annex-I of this Schedule-A.
- 1.2 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 Concessionaire, and such inventory shall form part of the memorandum referred to in Clause 10.3.1 of the Agreement.
- 1.3 Additional land required for Toll Plazas, Traffic Aid Posts, Medical Aid Posts and vehicle rescue posts or for construction of works specified in the Change of Scope Order issued under Clause 16.2.3 of this Agreement shall be acquired in accordance with the provisions of Clause 10.3.6 of this Agreement. Upon acquisition, such land shall form part of the Site and vest in the Authority.

Annex – I
(Schedule-A)

SITE FOR THE PROJECT

1. The Site

1.1 Project Highway

Proposal is for Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) Scheme.

The alignment traverses through majorly from Kanpur, Hamirpur & Mahoba districts

The distribution of alignment among the above provinces is given:

Chainage (Km)			District/UT/State	Remarks
Start	End	Length (Km)		
0+000	117+700	117.70km	Kanpur, Hamirpur & Mahoba / Uttar Pradesh	Greenfield
7+430	130+100	123.860	Kanpur, Hamirpur & Mahoba / Uttar Pradesh	Existing

1.2 Alignment

The proposed Kanpur to Kabrai project road alignment is Greenfield alignment and starts at Kanpur Ring Road near Sarneyat Pur 00+000 and ends at Junction with NH-35 near Baghwa village 117+700 (length 117.70Km).

This Section of the project highway is a Greenfield alignment passing through Villages of Magrasa, Ramaipur, Jahanpur, Harbanspur, Jamu, Shivrampur, Matiyara, Bidhnu, Jamrahi, Gandeawa (Majhawan), Gadhwara, Mohasinpur, Shambhua-1, Shambhua-2, Katheruwa, Kathara-1, Kathara-2, Kathara-3 under Kanpur Sadar Tehsil, (**Kanpur Nagar district**), Kasigawan under Narwal Tehsil (**Kanpur Nagar district**),

Aldadpur, Kakharia, Chappa, Balrampur, Bhadras, Dhuraupur, Ismailpur, Jadid, Jajpur, Jaitipur, Katra, Marha, Mawai Bhachhan, Patara, Siromanpur, Sukhapur, Jalala, Bibipur, Tikwapur, Hamiramaur, Rampur, Sanchitpur, Gaura Chhajmal, Itaura, Raipur, Mohata, Chak Adam, Dahilar Awwal, Maunkhat, Akbarpur Birbal Bangar, Balaha Para Khurd, Sargaon under Ghatampur Tehsil (**Kanpur Nagar district**), anjhoopur, Daria, Manjhoopur Danda, Badanpur Kalauli Teer Daria, Kalauli Teer Danda, Helapur Danda, Amirta, Kuchhechha Danda, Surajpur Danda, Chanduli Teer, Chandauxhi, Bhakaul, Dariapur, Banki, Bilhadi Bank, Sumerpur, Dehat, Palra, Ingohata under Hamirpur Tehsil (**Hamirpur District**), Behrela, Acchrela, Makrawn, Ragol, Sichauli, Silauli, Fhatepur, Nrayach, Bhabhaura, Larrod, Chhirka, Chamar Khanna, Bhavani, Gehbra, Reevan, Ratwa under Maudaha Tehsil (**Hamirpur District**)

Latitude and longitude of this package of project corridor lie between 26°21'38.19"N, 80°17'13.92"E and 25°23'33.89"N, 80° 1'40.59"E.

An index map of the Project Highway is given at Appendix A-I.

The Proposed center line coordinates are given in Annex II and the alignment plan and profile is given in Annex III of this schedule.

2. Land

The Site of the Project Highway (Section-1) comprises the land described below:

S. No.	Chainage(km)		ROW(m)	Remarks
	From	To		
NIL				Since the project is a Green field alignment, there is no Existing ROW. The details of PROW has been given in Schedule B.

The Site of the Existing Highway (Section-2) comprises the land described below:

S. No.	Project Chainage		Available ROW(m)
	Chainage From	Chainage To	
1	1.100	1.200	24.80
2	1.260	1.325	24.20
3	1.355	1.600	32.70
4	2.400	2.665	39.30
5	2.665	8.300	39.30
6	13.350	13.550	39.00
7	13.550	13.800	39.00
8	15.835	16.135	30.60
9	17.600	17.760	38.80
10	18.160	18.350	32.20
11	20.300	20.500	28.00
12	20.770	21.040	34.20
13	21.450	21.670	52.40
14	24.600	24.750	35.30
15	25.100	28.150	35.40
16	37.755	38.100	34.00
17	39.700	40.000	39.90
18	40.000	40.400	61.40
19	40.655	40.700	28.40
20	40.900	42.600	28.40
21	44.160	44.200	18.50
22	44.250	44.350	25.30
23	44.400	44.550	31.40
24	45.900	46.300	26.80
25	46.700	46.850	27.60
26	47.200	47.250	26.90
27	50.900	51.200	32.00
28	51.200	51.800	40.50
29	52.700	59.500	40.50
30	61.400	64.300	40.50
31	66.000	66.200	49.10
32	72.840	72.960	43.20
33	78.150	78.660	48.20
34	80.850	84.300	48.20
35	84.300	84.420	36.90
36	89.600	89.930	46.10
37	91.000	123.863	46.00

3. Carriageway

Since the project is a Green field alignment (Section-1), there is no existing Carriageway.

Existing Carriageway (Section-2):

Chainage		LANE
From	To	
0	4.25	4
4.25	123.860	2

4. Major Bridges

The Site (Section-1), includes the following Major Bridges:

S. No.	Chainage (km)	Type of Structure			No. o Spans with span length(m)	Width (m)
		Foundation	Sub-structure	Superstructure		
1	48+875	Well	Wall type with Circular Pier	PSC box	1x53.45+14x54+1x53.45	2x9.5
2	51+668	Well	Wall type with Circular Pier	PSC box	1x53.45+11x54+1x53.45	2x9.5

The Site (Section-2), includes the following Major Bridges:

Sl. No.	Design Chainage	Existing Chainage	Type of structure	Span Arrangement	No of Span	Total Length in (m)
1	56+225	63+655	Major Bridge-Slab	19x29.2, 18x6.8	37	677.2
2	58+355	65+785	Major Bridge-Slab	11x46.5, 2x54.5	13	620.5
3	92+770	100+200	Major Bridge-Slab	4x30.0	4	120

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

The Site(Section-1), includes the following ROB (road over railway line)/RUB (road under railway line):

S. No.	Chainage (km)	Type of Structure		No. of Spans with span length(m)	Width (m)	ROB/ RUB
		Foundation	Superstructure			
NIL						

Railway level crossings

The Site includes the following railway level crossings:

S. No.	Location(km)	Remarks
NIL		

The Site (Section-2), includes the following ROB (road over bridge/railway line):

Sl. No.	Design Chainage	Existing Chainage	Type of structure	Span Arrangement
1	18+872	26+302	ROB	6 X 24m + 1 X 36.0m

6. Grade separators

The Site (Section-1), includes the following grade separators:

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

The Site (Section-2), includes the following grade separators:

Sl. No.	Design Chainage	Existing Chainage	Type of structure	Span Arrangement
1	34+700	42+130	Flyover	

7. Underpasses (vehicular, non-vehicular)

Sl. No.	Design Chainage	Existing Chainage	Type of structure	Span Arrangement	No. of Span	Remark
1	57+782	65+212	Underpass-Slab	1x4.50M	1	PUP

8. Minor bridges

The Site Section-1 includes the following minor bridges:

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

The Site Section-2 includes the following minor bridges:

Sl. No.	Design Chainage	Existing Chainage	Type of structure	Span Arrangement	Total Length
1	2+180	9+610	Minor Bridge	1x6.0M	6
2	5+752	13+182	Minor Bridge	3x15.0M RCC Girder	45
3	8+594	16+024	Minor Bridge	2x4.3M	9
4	13+310	20+740	Minor Bridge	4x10.5M	42
5	16+617	24+047	Minor Bridge	1x7.0M	7
6	21+545	28+975	Minor Bridge	3x15.0M RCC Girder	45
7	22+245	29+675	Minor Bridge	3x3.6M	11
8	24+392	31+822	Minor Bridge	2x4.0M	8
9	40+233	47+663	Minor Bridge	3x15.0M RCC Girder	45
10	55+285	62+715	Minor Bridge	1x25.0M	25
11	66+035	73+465	Minor Bridge	1x15.0M RCC Girder	15
12	72+885	80+315	Minor Bridge	3x15.0M RCC Girder	45
13	78+291	85+721	Minor Bridge	3x5.0M Box Type	15
14	89+635	97+065	Minor Bridge	1x15.0M RCC Girder	15

9. River Crossing: The site Includes Following River Crossing:-

Sl.No	Design Chainage(m)	Name of River
1	12+920	Rind River
2	48+875	Yamuna River
3	51+668	Betwa River

10. Canal/Channel/Nala/Khal Crossing:-

Sl.No	Design Chainage(m)	Name of River
1	0+823	Nala
2	1+008	Canal Crossing
3	2+764	Canal
4	2+895	Khal
5	3+030	Canal
6	4+990	Canal
7	5+425	Khal
8	7+417	Canal
9	8+515	Khal
10	10+110	Local Stream
11	11+540	Canal
12	14+900	Canal
13	15+990	Khal
14	16+860	Khal
15	18+045	Canal
16	18+269	Khal
17	19+525	Canal
18	21+394	Khal
19	22+150	Khal
20	22+463	Canal
21	22+860	Canal
22	24+340	Khal
23	32+031	Khal
24	33+536	Tributary
25	34+095	Khal
26	34+625	Khal
27	35+732	Khal
28	36+800	Khal
29	37+245	Khal
30	39+720	Khal
31	39+960	Khal
32	41+650	Khal
33	42+135	Khal
34	42+380	Tributary
35	42+720	Tributary
36	43+035	Local Stream
37	43+970	Tributary

Sl.No	Design Chainage(m)	Name of River
38	46+900	Nala
39	50+810	Rohain Nala
40	77+500	Khal
41	77+830	Khal
42	79+556	Khal
43	80+990	Khal
44	81+988	Khal
45	82+810	Tributary
46	83+008	Tributary
47	84+640	Khal
48	84+890	Canal
49	85+377	Khal
50	85+903	Khal
51	86+465	Khal
52	86+700	Khal
53	87+050	Tributary
54	88+940	Tributary
55	89+690	Khal
56	90+370	Khal
57	90+690	Khal
58	91+010	Tributary
59	91+350	Tributary
60	92+980	Khal
61	93+737	Canal
62	94+745	Canal
63	96+050	Canal
64	96+400	Canal
65	98+170	Khal
66	98+670	Khal
67	99+300	Khal
68	99+800	Khal
69	100+470	Khal
70	104+200	Khal
71	104+817	Canal/Khal
72	106+195	Canal/Khal
73	108+500	Khal
74	109+030	Khal
75	109+220	Khal
76	111+167	Khal
77	112+170	Khal
78	113+790	Khal
79	114+310	Tributary
80	114+650	Khal
81	115+900	Canal
82	116+100	Khal
83	116+200	Khal
84	116+300	Khal

Sl.No	Design Chainage(m)	Name of River
85	116+600	Khal

11. Cross Roads:

The site (Section-1) includes following Major and Minor Cross Roads:-

S. No.	Design Chainage (Km)	Leads To		Category of Cross Road
		Left	Right	
1	0+000	Kurauna Bahadur Nagar	Kurauna Bahadur Nagar	Starting Point
2	0+100	Kurauna Bahadur Nagar	Kurauna Bahadur Nagar	Village Road (BT Road)
3	0+800	Magrasa	Kurauna Bahadur Nagar	Village Road(Earthern Road)
4	1+000	Saiyangojha	Saiyangojha	Village Road(Earthern Road)
5	1+200	Saiyangojha	Saiyangojha	Village Road(Earthern Road)
6	1+520	Saiyangojha	Saiyangojha	Village Road(Earthern Road)
7	2+110	Jahanpur	Jamoo	Village Road (BT Road)
8	2+800	Shivrampur	Shivrampur	Village Road (BT Road)
9	2+900	Shivrampur	Shivrampur	Village Road(Earthern Road)
10	4+260	Jamoo	Jamoo	Village Road (BT Road)
11	5+000	Jamarehi	Harbanspur	MDR (BT Road)
12	7+360	GadhewaMajhawan	GadhewaMajhawan	Village Road (BT Road)
13	8+780	Kathara	Haraha	Village Road (BT Road)
14	9+520	Kathara	Khadesar	Mud Road
15	10+620	Kathara	Khadesar	Village Road (BT Road)
16	11+215	Daheliujagar	Khadesar	Village Road (BT Road)
17	11+540	Daheliujagar	Khadesar	Mud Road
18	12+180	Daheliujagar	Shambhua	Village Road (BT Road)
19	12+480	Daheliujagar	Shambhua	Mud Road
20	13+690	Kakrahiya	Chhapa	Mud Road
21	14+520	Kadri Champatpur	Chak Dargahi	Mud Road
22	14+900	Narsingpur	Chak Dargahi	Village Road (BT Road)
23	15+319	Narsingpur	Sanchitpur	Mud Road
24	15+660	Narsingpur	Sanchitpur	Mud Road
25	16+000	Chaturipur	Sanchitpur	Mud Road
26	16+855	Chaturipur	Dharampur	Village Road (BT Road)
27	17+845	Gauranpur	Patara	Village Road (BT Road)
28	18+270	Patara	Patara	Village Road (BT Road)
29	19+520	Kewadiya	Kewadiya	Mud Road
30	19+870	Kewadiya	Kewadiya	Village Road (BT Road)
31	21+394	Balaha para khurd	Balaha para khurd	Mud Road
32	22+460	Balaha para kalan	Katra	Village Road (BT Road)
33	23+440	Ratanpur	Katra	Mud Road
34	24+340	Ratanpur	Bhadras	Village Road (BT Road)
35	25+420	Laukaha	Bhadras	Mud Road
36	26+275	Jalala	Ismailpur jadid	Mud Road
37	27+060	Raha	Ismailpur jadid	Village Road (BT Road)
38	28+550	Aladadpur	Aladadpur	Village Road (BT Road)
39	29+010	Hatheruwa	Narayanapur	Mud Road
40	29+940	Hatheruwa	Hatheruwa	Village Road (BT Road)
41	30+300	Hatheruwa	Hatheruwa	Mud Road
42	30+515	Hatheruwa	Jajpur	Mud Road

S. No.	Design Chainage (Km)	Leads To		Category of Cross Road
		Left	Right	
43	31+140	Sukhapur	Mawai bacchan	Mud Road
44	32+128	Sukhapur	Itaura	Mud Road
45	32+562	Tihali	Itaura	Village Road (BT Road)
46	33+310	Tihali	Itaura	Mud Road
47	33+880	Chak Adam	Chak Adam	Mud Road
48	34+100	Chak Adam	Raipura	Village Road (BT Road)
49	34+910	Marha	Raipura	Mud Road
50	35+725	Marha	Raipura	Mud Road
51	36+232	Marha	Sargaon	Mud Road
52	36+250	Bahman Tikri	Bahman Tikri	Mud Road
53	37+020	Sargaon	Sargaon	Mud Road
54	37+833	Akbarpur	Sargaon	Mud Road
55	39+240	Dharmangadpur	Dharmangadpur	Mud Road
56	39+955	Gaura Chhajmal	Gaura Chhajmal	Mud Road
57	40+800	Sajeti	Gaura chhajmal	Village Road (Concrete Road)
58	41+420	tikwapur	Mau	Mud road
59	41+435			
60	43+453	hamirmau	Bibipur	Mud road
61	44+300	Anupur	Bibipur	Mud road
62	44+515	Anupur	Bibipur	Mud road
63	45+340	Anupur	Bibipur	Village Road (Concrete Road)
64	46+260	Dahilar avval	Dahilar avval	Mud road
65	47+160	Kalyanpur	Kalyanpur	Mud road
66	47+240	Kalyanpur	Kalyanpur	Mud road
67	48+700	Kasimpur	Dahilarsani	Yamuna river
68	49+715	Hamirpur	Badanpur	Village Road (BT Road)
69	50+980	Hamirpur	Badanpur	MDR (Concrete road)
70	51+540	Hamirpur	Badanpur	Betwa river
71	53+140	Amirta	Helapur	MDR (Concrete road)
72	53+920	Amirta	Helapur	Village Road (Bituminous road)
73	54+770	Kuchecha	Kuchecha	Mud road
74	54+900	Kuchecha	Kuchecha	Mud road
75	55+328	Chandauki	Keeratpur	Mud road
76	55+950	Chandauki	Keeratpur	Mud road
77	56+570	Chandauki	Keeratpur	Mud road
78	56+800	Chandauki	Keeratpur	Mud road
79	56+900	Chandauki	Keeratpur	Mud road
80	57+695	Chandauki	Keeratpur	Mud road
81	58+620	Dariapur	Mehmoodpur	Village Road (Bituminous road)
82	59+110	Dariapur	Mehmoodpur	Mud road
83	59+380	Dariapur	Mehmoodpur	Mud road
84	59+418			
85	59+540	Dariapur	Mehmoodpur	Mud road
86	60+080	Dariapur	Sikri	Mud road
87	61+260			
88	61+540	Kundara	Sikri	Mud road
89	63+160	Babina	Babina	Mud road
90	63+380	Babina	Babina	Mud road
91	63+720	Babina	Babina	Mud road
92	64+050	Bihadi	Bihadi	Mud road
93	64+900	Bihadi	Bihadi	Mud road

S. No.	Design Chainage (Km)	Leads To		Category of Cross Road
		Left	Right	
94	65+340	Bihadi	Bihadi	Mud road
95	65+780	Keeratpur	Banki	Village Road(BT Road)
96	66+140	Keeratpur	Banki	Canal
97	66+450	Keeratpur	Banki	Mud road
98	66+640	Keeratpur	Banki	Mud road
99	67+696			
100	67+720	Keeratpur	Banki	Mud road
101	68+970	Palra	Palra	Mud road
102	69+060	Palra	Palra	Mud road
103	69+830	Palra	Palra	Mud road
104	70+850	Palra	Palra	Mud road
105	70+920	Palra	Palra	Mud road
106	71+140	Palra	Palra	Mud road
107	71+172	Palra	Palra	Mud road
108	71+847	Vidokhar Purai	Ingohata	Mud road
109	72+523	Vidokhar Purai	Ingohata	Mud road
110	73+120	Ingohata	Vidokhar purai	Village Road (Bituminous road)
111	73+390	Ingohata	Vidokhar purai	Mud road
112	74+860	Kusmela	Rohari	Mud road
113	75+750	Kusmela	Rohari	Mud road
114	76+560	Kusmela	Achhrela	Mud road
115	76+980	Kusmela	Achhrela	Village Road(BT Road)
116	77+857	Achhrela	Makrown	Mud Road
117	78+250	Kusmela	Achhrela	Mud road
118	79+080	Piparaunda	Piparaunda	Mud road
119	80+140	Pipraunda	Makrown	mud road
120	80+280	Pipraunda	Makrown	Village Road (BT Road)
121	80+760	Pipraunda	Makrown	mud road
122	81+740	Silauli	Sichauli	Village Road (BT Road)
123	82+500	Silauli	Sichauli	mud road
124	83+622	Silauli	Sichauli	mud road
125	83+850	Silauli	Sichauli	mud road
126	84+320	Silauli	Sichauli	mud road
127	84+820	Kishunpur	Bhabhaura	mud road
128	84+900	Kishunpur	Bhabhaura	Village Road (BT Road)
129	85+360	Kishunpur	Bhabhaura	mud road
130	85+900	Gadariya Khera	Bhabhaura	mud road
131	86+400	Gadariya Khera	Bhabhaura	mud road
132	87 +825	Chek Daha	Bhabhaura	mud road
133	87+971	Chek Daha	Bhabhaura	mud road
134	88+000	Chek Daha	Bhabhaura	mud road
135	88+100	Chek Daha	Bhabhaura	mud road
136	88+593	Chek Daha	Bhabhaura	mud road
137	89+300	Laraund	Bhabhaura	mud road
138	89+400	Laraund	Bhabhaura	mud road
139	89+940	Laraund	Bhabhaura	mud road
140	91+180	Bhabhani	Chamar Khanna	mud road
141	91+207	Bhabhani	Chamar Khanna	mud road
142	92+240	Gehbra	Chhirka	mud road
143	92+333	Gehbra	Chhirka	mud road
144	93+010	Gehbra	Chhirka	mud road
145	93+450	Gehbra	Chhirka	mud road
146	93+616	Gehbra	Chhirka	Village Road (BT Road)

S. No.	Design Chainage (Km)	Leads To		Category of Cross Road
		Left	Right	
147	94+260	Gurha	Chhirka	MDR (BT Road)
148	96+100	Khanna	Reevan	mud road
149	96+400	Khanna	Reevan	mud road
150	96+640	Khanna	Reevan	Expressway
151	97+115	Khanna	Reevan	mud road
152	97+680	Khanna	Reevan	mud road
153	97+729	Khanna	Reevan	mud road
154	98+520	Khanna	Reevan	mud road
155	100+750	Barhmaui	ratwa	mud road
156	101+072	Barhmaui	ratwa	mud road
157	101+582	Barhmaui	ratwa	mud road
158	101+820	Barhmaui	ratwa	mud road
159	102+080	Barhmaui	ratwa	Village Road (BT Road)
160	102+820	Barhmaui	ratwa	mud road
161	104+650	Barhmaui	ratwa	mud road
162	104+800	kahra	chichara	Village Road (BT Road)
163	105+060	kahra	chichara	Village Road (BT Road)
164	105+550	kahra	chichara	mud road
165	106+200	kahra	chichara	mud road
166	107+050	kahra	chichara	Village Road (BT Road)
167	108+100	rewai sunecha	barbai	mud road
168	109+000	rewai sunecha	barbai	mud road
169	110+140	rewai sunecha	barbai	Village Road (BT Road)
170	110+420	rewai sunecha	barbai	mud road
171	110+770	rewai sunecha	barbai	mud road
172	111+200	rewai sunecha	barbai	mud road
173	112+120	kaimaha	barbai	mud road
174	112+145	kaimaha	barbai	mud road
175	112+375	kaimaha	barbai	mud road
176	112+860	kaimaha	barbai	mud road
177	113+085	kaimaha	barbai	mud road
178	113+822	Maraththi	Beela	
179	114+650	baghwa	marathai	mud road
180	115+200	baghwa	marathai	mud road
181	115+900	baghwa	marathai	mud road
182	116+370	baghwa	marathai	mud road
183	116+629	baghwa	marathai	mud road
184	117+130	bila dakshin	kabrai	MDR (BT Road)
185	117+700	bila dakshin	kabrai	MDR (BT Road)
186	117+900	bila dakshin	kabrai	MDR (BT Road)
187	118+200	bila dakshin	kabrai	mud road

The site (Section-2) includes following Major and Minor Junctions:-

S.no	Chainage	Type of Junctiuon	SIDE	Remarks
1	0+300	T junction	LHS	Minor Junction
2	0+500	T junction	LHS	Minor Junction
3	2+200	T junction	LHS	Minor Junction
4	2+600	T junction	RHS	Minor Junction
5	3+000	T junction	LHS	Minor Junction
6	4+000	T junction	LHS	Minor Junction
7	4+700	T junction	LHS	Minor Junction

S.no	Chainage	Type of Junction	SIDE	Remarks
8	5+200	T junction	LHS	Minor Junction
9	6+500	Cross road	LHS	Major Junction
10	8+800	y-junction	LHS	Minor Junction
11	8+900	Cross road	LHS	Major Junction
12	10+200	T junction	LHS	Minor Junction
13	13+300	y-junction	LHS	Minor Junction
14	15+300	T junction	LHS	Minor Junction
15	16+300	y-junction	LHS	Minor Junction
16	18+600	y-junction	LHS	Minor Junction
17	19+100	T junction	LHS	Minor Junction
18	19+700	T junction	RHS	Minor Junction
19	19+800	T junction	RHS	Minor Junction
20	22+00	T junction	RHS	Minor Junction
21	22+200	Cross road	RHS	Major Junction
22	23+500	T junction	RHS	Minor Junction
23	24+300	T junction	RHS	Minor Junction
24	24+900	T junction	LHS	Minor Junction
25	25+700	y-junction	LHS	Minor Junction
26	27+800	T junction	LHS	Minor Junction
27	29+600	T junction	LHS	Minor Junction
28	32+800	y-junction	RHS	Minor Junction
29	39+300	T junction	RHS	Minor Junction
30	39+800	y-junction	RHS	Minor Junction
31	41+100	T junction	LHS	Minor Junction
32	45+200	y-junction	LHS	Minor Junction
33	45+400	T junction	RHS	Minor Junction
34	46+600	y-junction	LHS	Minor Junction
35	47+400	y-junction	RHS	Minor Junction
36	47+000	T junction	LHS	Minor Junction
37	50+800	y-junction	RHS	Minor Junction
38	52+700	y-junction	RHS	Minor Junction
39	53+200	y-junction	BOTH SIDE	Minor Junction
40	54+500	y-junction	LHS	Minor Junction
41	54+400	y-junction	LHS	Minor Junction
42	56+700	Cross road	BOTH SIDE	Major Junction
43	57+000	y-junction	RHS	Minor Junction
44	57+300	INTERCHANGE	BOTH SIDE	Major Junction
45	59+600	INTERCHANGE	BOTH SIDE	Major Junction
46	60+000	Cross road	BOTH SIDE	Major Junction
47	60+300	T junction	LHS	Minor Junction
48	63+200	y-junction	LHS	Minor Junction
49	69+600	y-junction	LHS	Minor Junction
50	72+000	Cross road	BOTH SIDE	Major Junction
51	72+600	T junction	LHS	Minor Junction
52	73+000	Cross road	BOTH SIDE	Major Junction
53	76+900	T junction	LHS	Minor Junction
54	80+900	T junction	RHS	Minor Junction
55	81+600	T junction	LHS	Minor Junction
56	82+800	Cross road	BOTH SIDE	Major Junction

S.no	Chainage	Type of Junction	SIDE	Remarks
57	86+000	T junction	RHS	Major Junction
58	86+300	T junction	RHS	Minor Junction
59	87+800	Cross road	BOTH SIDE	Major Junction
60	88+900	Cross road	BOTH SIDE	Major Junction
61	90+000	Cross road	BOTH SIDE	Major Junction
62	91+900	y-junction	RHS	Minor Junction
63	92+500	y-junction	RHS	Minor Junction
64	93+500	y-junction	LHS	Minor Junction
65	96+600	Cross road	BOTH SIDE	Major Junction
66	98+800	y-junction	RHS	Minor Junction
67	99+500	T junction	LHS	Minor Junction
68	103+200	Cross road	BOTH SIDE	Major Junction
69	104+500	T junction	RHS	Minor Junction
70	105+000	Cross road	BOTH SIDE	Major Junction
71	105+900	y-junction	LHS	Minor Junction
72	112+300	Cross road	BOTH SIDE	Major Junction
73	113+100	y-junction	LHS	Minor Junction
74	116+500	T junction	RHS	Minor Junction
75	121+000	T junction	LHS	Minor Junction
76	122+000	y-junction	RHS	Minor Junction
77	123+000	y-junction	RHS	Minor Junction

12. Total number of structures

The total number of structures on the Site is noted below:

(a)	No. of Major Bridges	05
(b)	No. of Railway Over Bridges	01
(c)	No. of Grade Separators	01
(d)	No. of Minor Bridges	14
(e)	No. of Vehicular and Non-Vehicular Underpasses	01
(f)	No. of Box / Slab Culverts	46
(g)	No. of Pipe Culverts	63
(h)	No. of PUP	01

13. Bus bays and Truck Lay byes

The total number of bus bays and truck lay byes on the Project is noted below:

(a)	No. of Bus bays on LHS	-	18
(b)	No. of Bus bays on RHS	-	17
(c)	No. of Truck lay-byes on LHS	-	01
(d)	No. of Truck lay-byes on RHS	-	02

14. Permanent Bridge, Bye Pass or Tunnel costing Rs.50 crore or more

The Site includes the following permanent bridge/bypass/ tunnel which was Constructed at the cost noted below:

The project is a green field project hence there is no existing structures. The new structures shall be

constructed as per Schedules.

15. Wayside Amenities / Truck Parking

The Site includes the parcels of land for provision of wayside Amenities / truck parking as given in Schedule C.

16. Electrical and Other Utilities:

The site includes the following electrical and other utilities:

a) EHT (Extra High Tension) Lines Details:-

S No	Design		Conductor Length (in Km)				Nos. of EHT Line Crossing			
	From	To	765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV*	132 KV*
1	TRUMPET	000+000	-	-	-	1.5	-	-	-	1
2	001+000	002+000	-	-	1.75	-	-	-	1	-
3	002+000	003+000	-	-	1.75	-	-	-	1	-
4	008+000	009+000	-	3	-	-	-	1	-	-
5	010+000	011+000	5	-	-	-	1	-	-	-
6	011+000	012+000	5	-	-	-	1	-	-	-
7	012+000	013+000	5	-	-	-	1	-	-	-
8	013+000	014+000	-	-	-	1.5	-	-	-	1
9	015+000	016+000	-	3	-	-	-	1	-	-
10	016+000	017+000	5	-	-	-	1	-	-	-
11	018+000	019+000	5	-	-	-	1	-	-	-
12	019+000	020+000	-	3	-	1.5	-	1	-	1
13	030+000	031+000	-	3	-	-	-	1	-	-
14	034+000	035+000	-	3	-	-	-	1	-	-
15	041+000	042+000	-	3	-	-	-	1	-	-
16	044+000	045+000	-	-	-	1.5	-	-	-	1
17	045+000	046+000	-	-	-	1.5	-	-	-	1
18	067+000	068+000	-	3	-	-	-	1	-	-
19	073+000	074+000	-	-	-	1.5	-	-	-	1
20	113+000	114+000	-	-	-	1.5	-	-	-	1
21	116+000	117+000	-	-	-	1.5	-	-	-	1
22	117+000	117+700	-	-	-	1.5	-	-	-	1
Total			25.00	21.00	3.50	15.00	5	7	2	9

Note: At 12+300 and 117+700 high tension transmission line are currently under construction

b) Distribution Electric Lines up to LT & HT (11 &33 KV):-

Sr. No.	Design		Rough Length (in Km.)			No. of Crossings			Transformers (KVA)	
	From	To	33 KV	11 KV	LT	33 KV	11 KV	LT	No	Capacity
1	0+000	001+000	-	-	-	-	-	-	-	-
2	001+000	002+000	-	0.49	-	-	1	-	-	-
3	002+000	003+000	-	0.25	-	-	1	-	-	-
4	003+000	004+000	-	0.65	0.1	-	2	1	-	-

Sr. No.	Design		Routh Length (in Km.)			No. of Crossings			Transformers (KVA)	
	From	To	33 KV	11 KV	LT	33 KV	11 KV	LT	No	Capacity
5	004+000	005+000	-	-	0.37	-	-	1	-	-
6	005+000	006+000	-	0.19	-	-	1	-	-	-
7	006+000	007+000	-	-	-	-	-	-	-	-
8	007+000	008+000	-	0.13	-	-	1	-	-	-
9	008+000	009+000	-	0.28	0.04	-	1	1	-	-
10	009+000	010+000	-	-	-	-	-	-	-	-
11	010+000	011+000	0.27	-	0.44	1	-	1	-	-
12	011+000	012+000	-	-	0.5	-	-	2	-	-
13	012+000	013+000	-	-	0.19	-	-	1	-	-
14	013+000	014+000	-	-	0.19	-	-	1	-	-
15	014+000	015+000	-	0.13	-	-	1	-	-	-
16	015+000	016+000	-	-	0.25	-	-	1	-	-
17	016+000	017+000	-	-	0.06	-	-	-	-	-
18	017+000	018+000	-	0.69	0.18	-	2	1	-	-
19	018+000	019+000	0.36	0.2	0.83	1	2	2	-	-
20	019+000	020+000	-	-	0.5	-	-	2	-	-
21	020+000	021+000	-	-	0.69	-	-	3	-	-
22	021+000	022+000	-	0.12	0.2	-	1	1	-	-
23	022+000	023+000	-	0.5	0.32	-	2	2	-	-
24	023+000	024+000	-	-	0.13	-	-	1	-	-
25	024+000	025+000	-	-	0.13	-	-	1	-	-
26	025+000	026+000	-	-	0.38	-	-	2	-	-
27	026+000	027+000	-	0.19	-	-	1	-	-	-
28	027+000	028+000	-	0.59	0.37	-	2	4	-	-
29	028+000	029+000	-	0.12	0.2	-	1	1	-	-
30	029+000	030+000	-	-	0.31	-	-	1	-	-
31	030+000	031+000	-	0.4	0.48	-	1	3	-	-
32	031+000	032+000	-	0.13	-	-	1	-	-	-
33	032+000	033+000	0.23	0.18	1.07	1	1	3	-	-
34	033+000	034+000	-	-	-	-	-	-	-	-
35	034+000	035+000	-	-	0.45	-	-	3	-	-
36	035+000	036+000	-	0.18	0.2	-	1	1	-	-
37	036+000	037+000	-	-	1.01	-	-	5	-	-
38	037+000	038+000	-	0.87	0.44	-	2	3	-	-
39	038+000	039+000	-	-	0.06	-	-	-	-	-
40	039+000	040+000	-	-	0.44	-	-	2	-	-
41	040+000	041+000	-	0.67	0.34	-	2	3	-	-
42	041+000	042+000	-	0.25	-	-	1	-	-	-
43	042+000	043+000	-	-	0.13	-	-	1	-	-
44	043+000	044+000	-	-	0.38	-	-	2	-	-
45	044+000	045+000	-	-	-	-	-	-	-	-
46	045+000	046+000	-	-	0.56	-	-	2	-	-
47	046+000	047+000	-	-	0.19	-	-	1	-	-
48	047+000	048+000	-	-	1.9	-	-	4	-	-
49	048+000	049+000	-	-	-	-	-	-	-	-
50	049+000	050+000	-	-	0.55	-	-	1	-	-

Sr. No.	Design		Routh Length (in Km.)			No. of Crossings			Transformers (KVA)	
	From	To	33 KV	11 KV	LT	33 KV	11 KV	LT	No	Capacity
51	050+000	051+000	-	-	0.36	-	-	-	-	-
52	051+000	052+000	-	-	0.68	-	-	2	-	-
53	052+000	053+000	-	-	0.63	-	-	3	-	-
54	053+000	054+000	-	0.26	1.05	-	1	4	-	-
55	054+000	055+000	0.18	-	1.25	1	-	4	-	-
56	055+000	056+000	-	-	-	-	-	-	-	-
57	056+000	057+000	-	-	-	-	-	-	-	-
58	057+000	058+000	-	0.13	-	-	1	-	-	-
59	058+000	059+000	-	-	-	-	-	-	-	-
60	059+000	060+000	-	-	0.13	-	-	1	-	-
61	060+000	061+000	-	-	0	-	-	-	-	-
62	061+000	062+000	-	-	0.44	-	-	2	-	-
63	062+000	063+000	-	-	0.32	-	-	2	-	-
64	063+000	064+000	-	-	0.32	-	-	2	-	-
65	064+000	065+000	-	-	0.25	-	-	1	-	-
66	065+000	066+000	-	0.16	0.54	-	1	3	-	-
67	066+000	067+000	-	0.17	0.58	-	2	1	-	-
68	067+000	068+000	-	-	0.19	-	-	1	-	-
69	068+000	069+000	-	-	-	-	-	-	-	-
70	069+000	070+000	-	-	0.32	-	-	2	-	-
71	070+000	071+000	-	-	0.13	-	-	1	-	-
72	071+000	072+000	-	-	0.13	-	-	1	-	-
73	072+000	073+000	-	0.19	-	-	1	-	-	-
74	073+000	074+000	-	0.74	0.31	-	2	1	-	-
75	074+000	075+000	-	0.13	-	-	1	-	-	-
76	075+000	076+000	-	-	0.06	-	-	-	-	-
77	076+000	077+000	-	0.19	-	-	1	-	-	-
78	077+000	078+000	-	0.23	0.15	-	1	1	-	-
79	078+000	079+000	-	0.32	-	-	2	-	-	-
80	079+000	080+000	-	-	0.06	-	-	-	-	-
81	080+000	081+000	-	-	0.31	-	-	1	-	-
82	081+000	082+000	-	-	0.13	-	-	1	-	-
83	082+000	083+000	-	-	-	-	-	-	-	-
84	083+000	084+000	-	0.38	-	-	2	-	-	-
85	084+000	085+000	-	0.24	0.2	-	1	1	-	-
86	085+000	086+000	-	-	0.13	-	-	1	-	-
87	086+000	087+000	-	-	0.19	-	-	1	-	-
88	087+000	088+000	-	-	-	-	-	-	-	-
89	088+000	089+000	-	-	-	-	-	-	-	-
90	089+000	090+000	-	-	-	-	-	-	-	-
91	090+000	091+000	-	-	0.07	-	-	1	-	-
92	091+000	092+000	0.13	0.08	0.45	1	1	1	-	-
93	092+000	093+000	-	-	0.13	-	-	1	-	-
94	093+000	094+000	-	-	0.13	-	-	1	-	-
95	094+000	095+000	-	0.86	-	-	2	-	-	-
96	095+000	096+000	-	-	-	-	-	-	-	-

Sr. No.	Design		Rough Length (in Km.)			No. of Crossings			Transformers (KVA)	
	From	To	33 KV	11 KV	LT	33 KV	11 KV	LT	No	Capacity
97	096+000	097+000	-	-	-	-	-	-	-	-
98	097+000	098+000	-	-	-	-	-	-	-	-
99	098+000	099+000	-	-	-	-	-	-	-	-
100	099+000	100+000	-	-	-	-	-	-	-	-
101	100+000	101+000	-	-	-	-	-	-	-	-
102	101+000	102+000	-	-	-	-	-	-	-	-
103	102+000	103+000	0.19	-	0.38	1	-	1	-	-
104	103+000	104+000	-	-	-	-	-	-	-	-
105	104+000	105+000	-	-	-	-	-	-	-	-
106	105+000	106+000	-	-	-	-	-	-	-	-
107	106+000	107+000	-	-	-	-	-	-	-	-
108	107+000	108+000	-	-	0.13	-	-	1	-	-
109	108+000	109+000	-	-	-	-	-	-	-	-
110	109+000	110+000	-	-	-	-	-	-	-	-
111	110+000	111+000	-	-	-	-	-	-	-	-
112	111+000	112+000	-	-	-	-	-	-	-	-
113	112+000	113+000	-	-	-	-	-	-	-	-
114	113+000	114+000	-	-	0.13	-	-	1	-	-
115	114+000	115+000	-	-	0.13	-	-	1	-	-
116	115+000	116+000	-	-	-	-	-	-	-	-
117	116+000	117+000	-	-	-	-	-	-	-	-
118	117+000	117+700	-	0.34	0.54	-	1	3	-	-
Total			1.36	11.63	25.53	6	48	112	0	0

(c) Electric Poles, Transformer and Lamp

Sr. No.	Design		Electric Pole (Nos.)		Transformers (KVA)		Lamp (Nos.)	
	From	To	LHS	RHS	No	Capacity	LHS	RHS
1	0+000	001+000	-	-	-	-	-	-
2	001+000	002+000	4	3	-	-	-	-
3	002+000	003+000	2	1	-	-	-	-
4	003+000	004+000	6	3	-	-	-	-
5	004+000	005+000	3	2	-	-	-	-
6	005+000	006+000	1	1	-	-	-	-
7	006+000	007+000	-	-	-	-	-	-
8	007+000	008+000	1	-	-	-	-	-
9	008+000	009+000	2	1	-	-	-	-
10	009+000	010+000	-	-	-	-	-	-
11	010+000	011+000	2	3	-	-	-	-
12	011+000	012+000	2	4	-	-	-	-
13	012+000	013+000	1	1	-	-	-	-
14	013+000	014+000	1	1	-	-	-	-
15	014+000	015+000	-	1	-	-	-	-
16	015+000	016+000	2	1	-	-	-	-
17	016+000	017+000	-	1	-	-	-	-

Sr. No.	Design		Electric Pole (Nos.)		Transformers (KVA)		Lamp (Nos.)	
	From	To	LHS	RHS	No	Capacity	LHS	RHS
18	017+000	018+000	5	6	-	-	-	-
19	018+000	019+000	3	5	-	-	-	-
20	019+000	020+000	2	4	-	-	-	-
21	020+000	021+000	2	6	-	-	-	-
22	021+000	022+000	1	2	-	-	-	-
23	022+000	023+000	3	6	-	-	-	-
24	023+000	024+000	1	-	-	-	-	-
25	024+000	025+000	-	1	-	-	-	-
26	025+000	026+000	1	3	-	-	-	-
27	026+000	027+000	-	2	-	-	-	-
28	027+000	028+000	4	5	-	-	-	-
29	028+000	029+000	2	1	-	-	-	-
30	029+000	030+000	2	2	-	-	-	-
31	030+000	031+000	2	8	-	-	-	-
32	031+000	032+000	1	-	-	-	-	-
33	032+000	033+000	5	7	-	-	-	-
34	033+000	034+000	-	-	-	-	-	-
35	034+000	035+000	2	2	-	-	-	-
36	035+000	036+000	3	1	-	-	-	-
37	036+000	037+000	8	3	-	-	-	-
38	037+000	038+000	7	9	-	-	-	-
39	038+000	039+000	-	1	-	-	-	-
40	039+000	040+000	1	4	-	-	-	-
41	040+000	041+000	5	6	-	-	-	-
42	041+000	042+000	1	2	-	-	-	-
43	042+000	043+000	-	1	-	-	-	-
44	043+000	044+000	2	2	-	-	-	-
45	044+000	045+000	-	-	-	-	-	-
46	045+000	046+000	4	3	-	-	-	-
47	046+000	047+000	1	1	-	-	-	-
48	047+000	048+000	12	15	-	-	-	-
49	048+000	049+000	-	-	-	-	-	-
50	049+000	050+000	8	-	-	-	-	-
51	050+000	051+000	2	4	-	-	-	-
52	051+000	052+000	2	7	-	-	-	-
53	052+000	053+000	3	4	-	-	-	-
54	053+000	054+000	10	6	-	-	-	-
55	054+000	055+000	2	13	-	-	-	-
56	055+000	056+000	-	-	-	-	-	-
57	056+000	057+000	-	-	-	-	-	-
58	057+000	058+000	1	-	-	-	-	-
59	058+000	059+000	-	-	-	-	-	-
60	059+000	060+000	-	1	-	-	-	-
61	060+000	061+000	-	-	-	-	-	-
62	061+000	062+000	1	4	-	-	-	-
63	062+000	063+000	3	-	-	-	-	-

Sr. No.	Design		Electric Pole (Nos.)		Transformers (KVA)		Lamp (Nos.)	
	From	To	LHS	RHS	No	Capacity	LHS	RHS
64	063+000	064+000	1	2	-	-	-	-
65	064+000	065+000	3	-	-	-	-	-
66	065+000	066+000	5	2	-	-	-	-
67	066+000	067+000	4	5	-	-	-	-
68	067+000	068+000	-	2	-	-	-	-
69	068+000	069+000	-	-	-	-	-	-
70	069+000	070+000	1	2	-	-	-	-
71	070+000	071+000	-	1	-	-	-	-
72	071+000	072+000	1	-	-	-	-	-
73	072+000	073+000	1	1	-	-	-	-
74	073+000	074+000	7	7	-	-	-	-
75	074+000	075+000	-	1	-	-	-	-
76	075+000	076+000	-	1	-	-	-	-
77	076+000	077+000	-	2	-	-	-	-
78	077+000	078+000	3	1	-	-	-	-
79	078+000	079+000	3	-	-	-	-	-
80	079+000	080+000	-	1	-	-	-	-
81	080+000	081+000	2	2	-	-	-	-
82	081+000	082+000	-	1	-	-	-	-
83	082+000	083+000	-	-	-	-	-	-
84	083+000	084+000	2	2	-	-	-	-
85	084+000	085+000	4	1	-	-	-	-
86	085+000	086+000	1	-	-	-	-	-
87	086+000	087+000	2	-	-	-	-	-
88	087+000	088+000	-	-	-	-	-	-
89	088+000	089+000	-	-	-	-	-	-
90	089+000	090+000	-	-	-	-	-	-
91	090+000	091+000	-	-	-	-	-	-
92	091+000	092+000	2	2	-	-	-	-
93	092+000	093+000	1	-	-	-	-	-
94	093+000	094+000	-	1	-	-	-	-
95	094+000	095+000	8	4	-	-	-	-
96	095+000	096+000	-	-	-	-	-	-
97	096+000	097+000	-	-	-	-	-	-
98	097+000	098+000	-	-	-	-	-	-
99	098+000	099+000	-	-	-	-	-	-
100	099+000	100+000	-	-	-	-	-	-
101	100+000	101+000	-	-	-	-	-	-
102	101+000	102+000	-	-	-	-	-	-
103	102+000	103+000	2	2	-	-	-	-
104	103+000	104+000	-	-	-	-	-	-
105	104+000	105+000	-	-	-	-	-	-
106	105+000	106+000	-	-	-	-	-	-
107	106+000	107+000	-	-	-	-	-	-
108	107+000	108+000	1	-	-	-	-	-
109	108+000	109+000	-	-	-	-	-	-

Sr. No.	Design		Electric Pole (Nos.)		Transformers (KVA)		Lamp (Nos.)	
	From	To	LHS	RHS	No	Capacity	LHS	RHS
110	109+000	110+000	-	-	-	-	-	-
111	110+000	111+000	-	-	-	-	-	-
112	111+000	112+000	-	-	-	-	-	-
113	112+000	113+000	-	-	-	-	-	-
114	113+000	114+000	1	-	-	-	-	-
115	114+000	115+000	1	-	-	-	-	-
116	115+000	116+000	-	-	-	-	-	-
117	116+000	117+000	-	-	-	-	-	-
118	117+000	117+700	5	5	-	-	-	-
Total			200	218	0	0	0	0

(ii)) a) Public Health Utilities (Water/Sewage Pipe Lines)

The Site includes the following Public Health Utilities:

Sl. No.	Chainage (Km)		Length (in Km)				Water Pipe line Crossings			
	From	To	Water Supply Line		Sewage Line		Water Supply Line		Sewage Line	
			With Pumping	With gravity flow	With Pumping	With gravity flow	With Pumping 3, 4" & 18" & others sizes pipe line	With gravity flow	With Pumping	With gravity flow
1	0+000	117+700	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	-	-	-

b) HAND PUMP, BORE WELL and WELL details:-

SL.NO.	DESIGN CHAINAGE		Bore well (Nos.)
	From	To	
1	000+000	117+700	17
Total			17

(iii) Any Other Lines

(a) TP & OFC Crossings:-

SI. No.	Design		Telephone Mobile Towers	OFC Length(Km)	Nos. of OFC Crossing
	From	To			
1	0+000	117+700	-	-	-
Total			-	-	-

(b) Oil/Gas (GAIL) Pipe line Crossing:

Sl. No.	Design		Agency Name	Nos. of Oil/Gas Pipeline Crossing	Remarks
	From	To			
1	3+000	4+000	TGPL	1	
2	4+000	5+000	IOCL	1	
3	94+000	95+000	IGL	1	Gas pipeline proposed at crossing point 94+000 and 117+000
4	117+000	117+700	IGL	1	
	Total			4	

Note:

- 1) All utility relocations, both above and below ground, will fall within the Concessionaire's purview. For any variation over/under ground utility shifting activities, no COS is allowed. The LT-11/33KV & EHT transmission line crossings' & OH/UG utilities Chainage/quantity details as mentioned above may be varied & differ, It will be subjected to concern utility departments. It may be varied as per department cost. RMU Panels & Distribution boxes/Transformers are already installed and are in operation at site, therefore if required, they need to be shifted as per actual site /project requirement. If any underground or over ground utilities are identified during construction, it will fall under the Concessionaire's scope, and the concessionaire will relocate them as per the project requirements.
- 2) All the necessary permission and clearances for executing the utilities like EHT/HT, LT lines, Gas-Oil, water pipeline shifting works will be arranged by the Concessionaire.
- 3) The Concessionaire will provide all necessary safety framework/ protection like Structure etc. for all but not limited to utilities such as Gas/oil, water, OFCs & electric cable lines etc.
- 4) The Concessionaire should verify all the utilities falling in the project ROW using GPR survey/latest techniques available. Any quantity variations in the under/over ground utilities specified in this schedule A/B and Utility Relocation Plan shall not constitute any Change of Scope.
- 5) Any quantity variations up to +5% in the specified underground utilities in Schedule A/B and utility plan shall not constitute a Change of Scope.
- 6) Utility Relocation Plan (URP) Drawing enclosed.
- 7) For the above affected utilities, the required NOC conditions during execution shall be the under the scope of concessionaire's and for any required conditions in accordance with specifications of utility owing agencies shall be complied.

16. Slab/Box Culverts

The Site has the following culverts:

Sl. No.	Design Chainage	Existing Chainage	Type of Culvert(Pipe ,Slab,Box,Arch)	Span Arrangement and Total Vent way (No.x Length) (m)
1	1+582	9+012	Slab Culvert	1x1.6M
2	3+604	11+034	Box Culvert	1x2.0M
3	4+180	11+610	Box Culvert	1x2.0M
4	4+975	12+405	Box Culvert	1x6.0M
5	11+265	18+695	Box Culvert	1x2.0M
6	15+805	23+235	Box Culvert	1x2.0M

Sl. No.	Design Chainage	Existing Chainage	Type of Culvert(Pipe ,Slab,Box,Arch)	Span Arrangement and Total Vent way (No.x Length) (m)
7	26+657	34+087	Box Culvert	1x2.0M
8	30+233	37+663	Box Culvert	1x3.0M
9	36+300	43+730	Box Culvert	1x3.0M
10	38+982	46+412	Box Culvert	1x2.0M
11	40+508	47+938	Box Culvert	1x3.0M
12	41+840	49+270	Box Culvert	1x2.0M
13	41+991	49+421	Box Culvert	1x3.0M
14	42+695	50+125	Box Culvert	1x3.0M
15	43+345	50+775	Box Culvert	1x2.0M
16	48+995	56+425	Box Culvert	1x2.0M
17	51+310	58+740	Box Culvert	1x4.0M
18	51+684	59+114	Box Culvert	1x3.0M
19	53+575	61+005	Box Culvert	1x4.0M
20	53+790	61+220	Box Culvert	1x3.0M
21	54+190	61+620	Box Culvert	1x3.0M
22	59+790	67+220	Box Culvert	1x6.0M
23	63+423	70+853	Box Culvert	1x3.0M
24	65+335	72+765	Box Culvert	1x6.0M
25	67+145	74+575	Box Culvert	1x2.0M
26	68+580	76+010	Box Culvert	1x2.0M
27	72+405	79+835	Box Culvert	1x2.0M
28	72+485	79+915	Box Culvert	1x2.0M
29	77+260	84+690	Box Culvert	1x2.0M
30	78+050	85+480	Box Culvert	1x2.0M
31	78+210	85+640	Box Culvert	1x4.0M
32	90+711	98+141	Box Culvert	1x2.0M
33	91+000	98+430	Box Culvert	1x2.0M
34	95+310	102+740	Box Culvert	1x2.0M
35	101+040	108+470	Box Culvert	1x4.0M
36	103+015	110+445	Slab Culvert	1x2.1M
37	105+040	112+470	Box Culvert	1x3.0M
38	106+257	113+687	Box Culvert	1x2.0M
39	107+495	114+925	Box Culvert	1x4.0M
40	108+485	115+915	Box Culvert	1x6.0M
41	108+865	116+295	Box Culvert	1x4.0M
42	113+985	121+415	Box Culvert	1x2.0M
43	115+390	122+820	Box Culvert	1x2.0M
44	118+332	125+762	Box Culvert	1x2.0M
45	119+318	126+748	Box Culvert	1x2.0M
46	123+440	130+870	Box Culvert	1x3.0M

17. Pipe Culvert

The details of Pipe Culverts on the Site are as follows:

Sl. No.	Design Chainage	Existing Chainage	Type of Culvert(Pipe ,Slab,Box,Arch)	Span Arrangement and Total Vent way (No.x Length) (m)
1	4+405	11+835	HPC	1x1.0M Dia
2	7+020	14+450	HPC	1x1.2M Dia
3	9+850	17+280	HPC	1x1.2M Dia
4	12+075	19+505	HPC	1x1.2M Dia
5	12+522	19+952	HPC	1x1.2M Dia
6	12+932	20+362	HPC	1x1.2M Dia
7	13+180	20+610	HPC	1x1.2M Dia
8	13+740	21+170	HPC	1x1.2M Dia
9	14+362	21+792	HPC	2x1.2M Dia
10	15+850	23+280	HPC	1x1.2M Dia
11	18+065	25+495	HPC	1x1.2M Dia
12	19+718	27+148	HPC	1x1.2M Dia
13	25+310	32+740	HPC	2x1.2M Dia
14	27+788	35+218	HPC	1x1.2M Dia
15	28+170	35+600	HPC	1x1.2M Dia
16	29+233	36+663	HPC	1x1.2M Dia
17	31+105	38+535	HPC	1x1.2M Dia
18	32+175	39+605	HPC	1x1.2M Dia
19	33+639	41+069	HPC	1x1.2M Dia
20	34+015	41+445	HPC	1x1.2M Dia
21	37+244	44+674	HPC	1x1.2M Dia
22	39+308	46+738	HPC	1x1.2M Dia
23	45+273	52+703	HPC	1x1.2M Dia
24	45+492	52+922	HPC	1x1.2M Dia
25	46+638	54+068	HPC	3x1.2M Dia
26	47+235	54+665	HPC	1x1.2M Dia
27	52+754	60+184	HPC	1x1.2M Dia
28	60+301	67+731	HPC	1x1.2M Dia
29	61+277	68+707	HPC	1x1.2M Dia
30	63+015	70+445	HPC	1x1.2M Dia
31	64+452	71+882	HPC	1x1.2M Dia
32	64+545	71+975	HPC	1x1.2M Dia
33	66+395	73+825	HPC	1x1.2M Dia
34	66+990	74+420	HPC	1x1.2M Dia
35	71+575	79+005	HPC	2x1.2M Dia
36	71+875	79+305	HPC	1x1.2M Dia
37	73+225	80+655	HPC	1x1.2M Dia
38	73+550	80+980	HPC	1x1.2M Dia
39	80+015	87+445	HPC	1x1.2M Dia
40	85+675	93+105	HPC	1x1.2M Dia
41	86+085	93+515	HPC	1x1.2M Dia
42	88+345	95+775	HPC	2x1.2M Dia
43	89+255	96+685	HPC	2x1.2M Dia

Sl. No.	Design Chainage	Existing Chainage	Type of Culvert(Pipe ,Slab,Box,Arch)	Span Arrangement and Total Vent way (No.x Length) (m)
44	91+538	98+968	HPC	1x1.2M Dia
45	91+715	99+145	HPC	2x1.2M Dia
46	97+217	104+647	HPC	1x1.2M Dia
47	100+490	107+920	HPC	2x1.2M Dia
48	101+758	109+188	HPC	1x1.2M Dia
49	102+483	109+913	HPC	1x1.2M Dia
50	106+940	114+370	HPC	2x1.2M Dia
51	107+975	115+405	HPC	2x1.2M Dia
52	108+150	115+580	HPC	2x1.2M Dia
53	109+340	116+770	HPC	2x1.2M Dia
54	110+265	117+695	HPC	1x1.2M Dia
55	111+075	118+505	HPC	2x1.2M Dia
56	111+840	119+270	HPC	1x1.2M Dia
57	112+925	120+355	HPC	1x1.2M Dia
58	114+540	121+970	HPC	1x1.2M Dia
59	117+355	124+785	HPC	1x1.2M Dia
60	120+943	128+373	HPC	1x1.2M Dia
61	121+308	128+738	HPC	2x1.2M Dia
62	121+975	129+405	HPC	1x1.2M Dia
63	122+915	130+345	HPC	1x1.2M Dia

18. Loops

S. No.	Project Chainage		Side
	From	To	
1	101.410	102.188	BHS

19. Foot Over Bridge

S. No.	Project Chainage	New Chainage of NH-44	Nos.
NIL			

23. Toilet Blocks

S. No.	Project Chainage	Side	Nos
1	43.423	RHS	1
2	105.364	RHS	1
3	105.609	LHS	1

24. Street Lighting

(i) The locations of the High Mast are as under: -

S. No.	Project Chainage	Nos.
1	43.550	1
2	43.424	1
2	105.562	1
3	105.400	1

Note: -

In addition to above, High Mast are installed and Operational at both Toll Plaza which shall also be in scope of the Concessionaire.

(ii) The details of the Highway Street Lighting are as under: -

S.No.	Project Chainage		Length (in m)
	From	To	
1	4.200	2.950	1.25
2	34.160	35.180	1.02
	43.700	43.230	0.470
3	105.761	105.239	0.522

Note:

1. In addition to the above, Highway Lighting is installed on either side of both Toll Plazas which shall also be in scope of the Concessionaire.

25. Shelter Lane

S. No.	Project Chainage	Side	Nos
1	6.050	BHS	2
2	9.100	LHS	2
3	9.100	RHS	2
	12.800	LHS	2
4	12.800	RHS	2
5	16.236	LHS	2
6	16.236	RHS	2
7	19.633	LHS	2
8	19.633	RHS	2
9	21.963	RHS	2
10	22.621	LHS	2
11	25.421	BHS	2
12	29.000	RHS	2
13	29.855	LHS	2
14	32.905	LHS	2
15	32.905	RHS	2
16	35.869	LHS	2
17	35.869	RHS	2
18	42.866	RHS	2
19	43.072	LHS	2
21	46.287	LHS	2
22	46.287	RHS	2
23	60.562	RHS	2
24	60.665	LHS	2
25	70.740	RHS	2
26	70.802	LHS	2
28	89.422	LHS	2
29	91.966	LHS	2
30	91.822	RHS	2
32	103.264	LHS	2
33	103.398	RHS	2
36	123.210	LHS	2
37	123.615	RHS	2

26. Toll Plazas

S.No.	Project Chainage	No of Lanes
1	43+446	8
2	105+562	6

Note: -

1. The Toll Plazas have ETC infrastructures and Weight in Motions in all lanes, SWB on either side with High Mast and Street Light on either side of the Toll Plazas.
2. Both Toll Plazas have Highway Nest Mini on either side i.e One on LHS and One on RHS.

27. Bus Stops

The details of bus stop on the Site are as follows: -

S. No.	Project Chainage	Side	Nos
1	6.050	BHS	1
2	9.100	LHS	1
3	9.100	RHS	1
	12.800	LHS	1
4	12.800	RHS	1
5	16.236	LHS	1
6	16.236	RHS	1
7	19.633	LHS	1
8	19.633	RHS	1
9	21.963	RHS	1
10	22.621	LHS	1
11	25.421	BHS	1
12	29.000	RHS	1
13	29.855	LHS	1
14	32.905	LHS	1
15	32.905	RHS	1
16	35.869	LHS	1
17	35.869	RHS	1
18	42.866	RHS	1
19	43.072	LHS	1
21	46.287	LHS	1
22	46.287	RHS	1
23	60.562	RHS	1
24	60.665	LHS	1
25	70.740	RHS	1
26	70.802	LHS	1
28	89.422	LHS	1
29	91.966	LHS	1
30	91.822	RHS	1
32	103.264	LHS	1
33	103.398	RHS	1
36	123.210	LHS	1

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O)

S. No.	Project Chainage	Side	Nos
37	123.615	RHS	1

28. Truck Lay byes

The details of truck lay byes are as follows:

S. No.	Project Chainage	Side	Nos
1	75.469	BHS	1
2	95.871	RHS	1

29. Road Side Drainge

The details of Road Side Drainge are as follows:

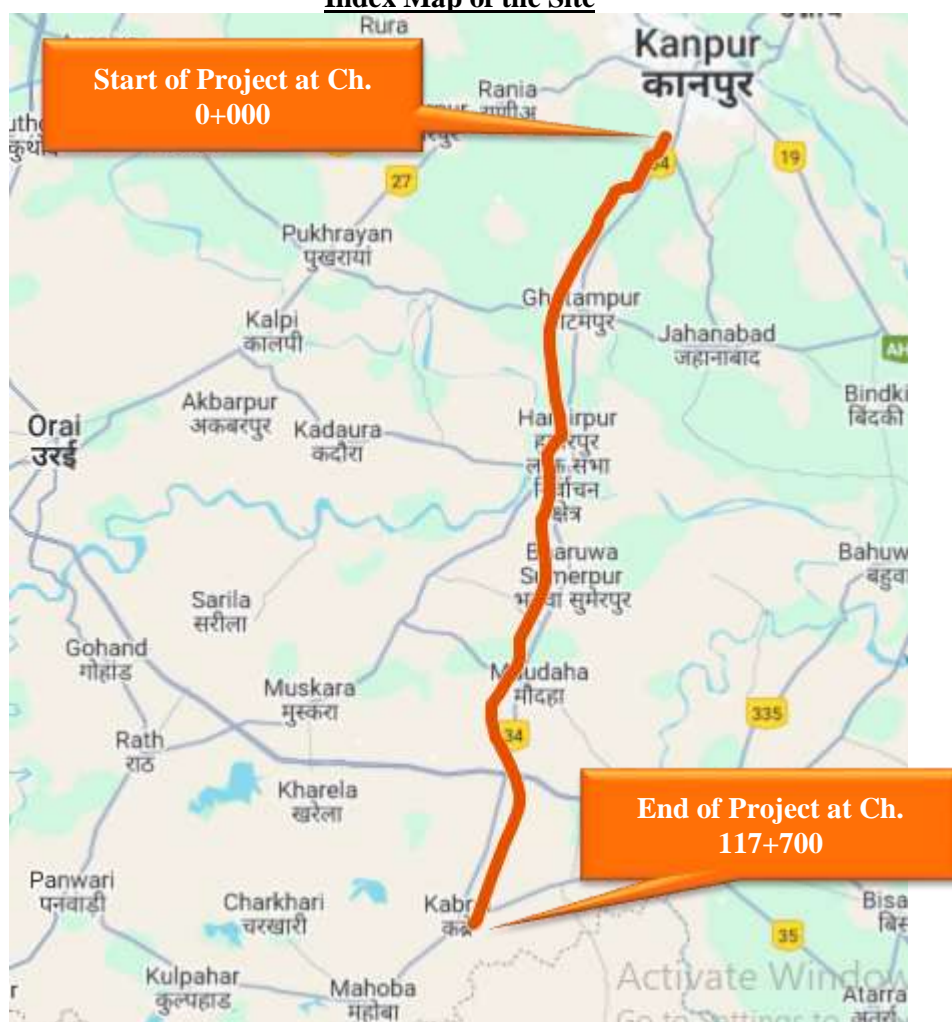
Chainage		Side
From	To	
8+610	8+726	BHS
8+736	8+814	BHS
8+835	8+907	BHS
8+930	8+973	BHS
11+878	11+984	BHS
12+000	12+121	BHS
12+160	12+410	BHS
12+460	12+550	BHS
16+008	16+089	BHS
24+660	24+834	LHS
24+834	24+895	BHS
24+925	25+012	BHS
25+012	25+290	BHS
29+195	29+240	RHS
29+255	29+470	RHS
29+480	29+530	RHS
29+540	29+570	RHS
29+570	29+740	BHS
29+740	29+810	LHS
45+462	45+784	LHS
45+824	46+022	LHS
60+000	60+302	BHS
60+302	60+575	LHS
65+540	66+020	BHS
68+668	69+055	BHS
71+146	71+384	RHS
85+761	86+072	BHS

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O)

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O)

Annex – II
(Schedule-A)

Index Map of the Site



(Schedule-A)

**COORDINATE SYSTEM- UNIVERSAL TRANSVERSE MERCATOR (UTM)-WGS84
(Zone 44R)**

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1	0+050	428860.8	2915770	40	40
2	0+100	428842.9	2915724	40	40
3	0+150	428825	2915677	40	40
4	0+200	428807.1	2915630	40	40
5	0+250	428789.2	2915584	40	40
6	0+300	428771.3	2915537	40	40

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-4

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
7	0+350	428753.3	2915490	40	40
8	0+400	428735.4	2915444	40	40
9	0+450	428717.5	2915397	40	40
10	0+500	428699.6	2915350	40	40
11	0+550	428681.7	2915303	40	40
12	0+600	428663.8	2915257	40	40
13	0+650	428645.9	2915210	40	40
14	0+700	428627.9	2915163	40	40
15	0+750	428609.2	2915117	40	40
16	0+800	428589.2	2915071	40	40
17	0+850	428568.2	2915026	30	30
18	0+900	428546	2914981	30	30
19	0+950	428522.7	2914937	30	30
20	1+000	428498.9	2914893	30	30
21	1+050	428475.2	2914849	30	30
22	1+100	428451.4	2914805	30	30
23	1+150	428427.7	2914761	30	30
24	1+200	428403.9	2914717	30	30
25	1+250	428380.2	2914673	30	30
26	1+300	428356.4	2914629	30	30
27	1+350	428332.6	2914585	30	30
28	1+400	428308.9	2914541	30	30
29	1+450	428285.1	2914497	30	30
30	1+500	428261.4	2914453	30	30
31	1+550	428237.6	2914409	30	30
32	1+600	428213.9	2914365	30	30
33	1+650	428190.1	2914321	30	30
34	1+700	428166.3	2914277	30	30
35	1+750	428142.6	2914233	30	30
36	1+800	428118.8	2914189	30	30
37	1+850	428095.1	2914145	30	30
38	1+900	428071.3	2914101	30	30
39	1+950	428047.6	2914057	30	30
40	2+000	428023.8	2914013	30	30
41	2+050	428000	2913969	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
42	2+100	427975.5	2913925	30	30
43	2+150	427949.1	2913883	30	30
44	2+200	427921.1	2913842	30	30
45	2+250	427891.3	2913801	30	30
46	2+300	427859.9	2913762	30	30
47	2+350	427826.9	2913725	30	30
48	2+400	427792.3	2913689	30	30
49	2+450	427756.3	2913654	30	30
50	2+500	427718.9	2913621	30	30
51	2+550	427680.1	2913589	30	30
52	2+600	427640	2913559	30	30
53	2+650	427598.8	2913531	30	30
54	2+700	427556.3	2913505	30	30
55	2+750	427512.9	2913480	30	30
56	2+800	427468.5	2913457	30	30
57	2+850	427423.8	2913435	30	30
58	2+900	427379.2	2913412	30	30
59	2+950	427334.5	2913390	30	30
60	3+000	427289.9	2913367	30	30
61	3+050	427245.2	2913345	30	30
62	3+100	427200.6	2913322	30	30
63	3+150	427156.5	2913298	30	30
64	3+200	427113.5	2913273	30	30
65	3+250	427071.6	2913246	30	30
66	3+300	427030.8	2913217	30	30
67	3+350	426991.3	2913186	30	30
68	3+400	426953	2913154	30	30
69	3+450	426916.2	2913120	30	30
70	3+500	426880.8	2913085	30	30
71	3+550	426846.9	2913048	30	30
72	3+600	426814.5	2913010	30	30
73	3+650	426783.8	2912971	30	30
74	3+700	426754.7	2912930	30	30
75	3+750	426727.4	2912888	30	30
76	3+800	426701.8	2912845	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
77	3+850	426678.1	2912801	30	30
78	3+900	426656.2	2912756	30	30
79	3+950	426635.5	2912711	30	30
80	4+000	426615	2912665	30	30
81	4+050	426594.1	2912620	30	30
82	4+100	426572.1	2912575	30	30
83	4+150	426548.9	2912530	30	30
84	4+200	426524.7	2912487	30	30
85	4+250	426499.4	2912444	30	30
86	4+300	426473	2912401	30	30
87	4+350	426445.6	2912359	30	30
88	4+400	426417.1	2912318	30	30
89	4+450	426387.6	2912278	30	30
90	4+500	426357.7	2912238	30	30
91	4+550	426327.8	2912198	30	30
92	4+600	426297.8	2912158	30	30
93	4+650	426267.9	2912118	30	30
94	4+700	426238	2912077	30	30
95	4+750	426208	2912037	30	30
96	4+800	426178.1	2911997	30	30
97	4+850	426148.2	2911957	30	30
98	4+900	426118.3	2911917	30	30
99	4+950	426088.3	2911877	30	30
100	5+000	426058.4	2911837	30	30
101	5+050	426028.5	2911797	30	30
102	5+100	425999.5	2911756	30	30
103	5+150	425972.3	2911714	30	30
104	5+200	425946.8	2911671	30	30
105	5+250	425923.1	2911627	30	30
106	5+300	425901.3	2911582	30	30
107	5+350	425881.4	2911537	30	30
108	5+400	425863.4	2911490	30	30
109	5+450	425847.3	2911443	30	30
110	5+500	425832.6	2911395	30	30
111	5+550	425817.9	2911347	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-7

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
112	5+600	425803.1	2911299	30	30
113	5+650	425788.4	2911251	30	30
114	5+700	425773.7	2911204	30	30
115	5+750	425759	2911156	30	30
116	5+800	425744.3	2911108	30	30
117	5+850	425729.6	2911060	30	30
118	5+900	425714.9	2911012	30	30
119	5+950	425700.2	2910965	30	30
120	6+000	425685.5	2910917	30	30
121	6+050	425670.8	2910869	30	30
122	6+100	425656.1	2910821	30	30
123	6+150	425641.4	2910774	30	30
124	6+200	425626.7	2910726	30	30
125	6+250	425612	2910678	30	30
126	6+300	425597.3	2910630	30	30
127	6+350	425582.6	2910582	30	30
128	6+400	425567.6	2910535	30	30
129	6+450	425551.4	2910487	30	30
130	6+500	425534.1	2910440	30	30
131	6+550	425515.6	2910394	30	30
132	6+600	425495.9	2910348	30	30
133	6+650	425475.2	2910303	30	30
134	6+700	425453.2	2910258	30	30
135	6+750	425430.8	2910213	30	30
136	6+800	425408.4	2910168	30	30
137	6+850	425386	2910124	30	30
138	6+900	425363.6	2910079	30	30
139	6+950	425341.2	2910034	30	30
140	7+000	425318.7	2909989	30	30
141	7+050	425296.3	2909945	30	30
142	7+100	425273.9	2909900	30	30
143	7+150	425251.5	2909855	30	30
144	7+200	425229.1	2909811	30	30
145	7+250	425206.7	2909766	30	30
146	7+300	425184.3	2909721	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-8

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
147	7+350	425161.9	2909677	30	30
148	7+400	425139.4	2909632	30	30
149	7+450	425117	2909587	30	30
150	7+500	425094.5	2909543	30	30
151	7+550	425070.7	2909499	30	30
152	7+600	425045.1	2909456	30	30
153	7+650	425017.7	2909414	30	30
154	7+700	424988.6	2909373	30	30
155	7+750	424957.9	2909334	30	30
156	7+800	424925.5	2909296	30	30
157	7+850	424891.6	2909259	30	30
158	7+900	424856.1	2909224	30	30
159	7+950	424819.3	2909190	30	30
160	8+000	424781	2909158	30	30
161	8+050	424741.5	2909127	30	30
162	8+100	424700.7	2909098	30	30
163	8+150	424658.7	2909071	30	30
164	8+200	424615.6	2909046	30	30
165	8+250	424571.6	2909022	30	30
166	8+300	424526.5	2909000	30	30
167	8+350	424480.7	2908980	30	30
168	8+400	424434	2908963	30	30
169	8+450	424386.6	2908947	30	30
170	8+500	424338.6	2908933	30	30
171	8+550	424290	2908921	30	30
172	8+600	424241	2908911	30	30
173	8+650	424191.7	2908903	30	30
174	8+700	424142	2908897	30	30
175	8+750	424092.2	2908893	30	30
176	8+800	424042.3	2908890	30	30
177	8+850	423992.4	2908886	30	30
178	8+900	423942.5	2908883	30	30
179	8+950	423892.6	2908880	30	30
180	9+000	423842.7	2908876	30	30
181	9+050	423792.9	2908873	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
182	9+100	423743	2908869	30	30
183	9+150	423693.1	2908866	30	30
184	9+200	423643.2	2908862	30	30
185	9+250	423593.3	2908859	30	30
186	9+300	423543.4	2908856	30	30
187	9+350	423493.6	2908852	30	30
188	9+400	423443.7	2908849	30	30
189	9+450	423393.8	2908845	30	30
190	9+500	423343.9	2908842	30	30
191	9+550	423294	2908839	30	30
192	9+600	423244.1	2908835	30	30
193	9+650	423194.2	2908832	30	30
194	9+700	423144.4	2908828	30	30
195	9+750	423094.5	2908825	30	30
196	9+800	423044.6	2908822	30	30
197	9+850	422994.7	2908818	30	30
198	9+900	422944.8	2908815	30	30
199	9+950	422894.9	2908811	30	30
200	10+000	422845.1	2908808	30	30
201	10+050	422795.2	2908804	30	30
202	10+100	422745.6	2908798	30	30
203	10+150	422696.3	2908790	30	30
204	10+200	422647.4	2908779	30	30
205	10+250	422598.9	2908767	30	30
206	10+300	422551	2908753	30	30
207	10+350	422503.7	2908737	30	30
208	10+400	422457.1	2908718	30	30
209	10+450	422411.4	2908698	30	30
210	10+500	422366.5	2908676	30	30
211	10+550	422322.5	2908652	30	30
212	10+600	422279.6	2908627	30	30
213	10+650	422237.8	2908599	30	30
214	10+700	422197.2	2908570	30	30
215	10+750	422157.9	2908539	30	30
216	10+800	422119.8	2908507	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
217	10+850	422083.2	2908473	30	30
218	10+900	422048	2908437	30	30
219	10+950	422014.3	2908400	30	30
220	11+000	421982.1	2908362	30	30
221	11+050	421951.6	2908322	30	30
222	11+100	421922.8	2908282	30	30
223	11+150	421895.7	2908240	30	30
224	11+200	421870.3	2908197	30	30
225	11+250	421846	2908153	30	30
226	11+300	421821.6	2908109	30	30
227	11+350	421797.3	2908065	30	30
228	11+400	421773	2908022	30	30
229	11+450	421748.7	2907978	30	30
230	11+500	421724.4	2907934	30	30
231	11+550	421700.1	2907891	30	30
232	11+600	421675.7	2907847	30	30
233	11+650	421651.4	2907803	30	30
234	11+700	421627.1	2907760	30	30
235	11+750	421602.8	2907716	30	30
236	11+800	421578.5	2907672	30	30
237	11+850	421554.2	2907629	30	30
238	11+900	421529.9	2907585	30	30
239	11+950	421505.5	2907541	30	30
240	12+000	421481.2	2907498	30	30
241	12+050	421456.9	2907454	30	30
242	12+100	421432.6	2907410	30	30
243	12+150	421408.3	2907366	30	30
244	12+200	421384	2907323	30	30
245	12+250	421359.6	2907279	30	30
246	12+300	421335.3	2907235	30	30
247	12+350	421311	2907192	30	30
248	12+400	421286.7	2907148	30	30
249	12+450	421262.4	2907104	30	30
250	12+500	421238.1	2907061	30	30
251	12+550	421213.7	2907017	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
252	12+600	421189.4	2906973	30	30
253	12+650	421165.1	2906930	30	30
254	12+700	421140.8	2906886	30	30
255	12+750	421116.5	2906842	30	30
256	12+800	421092.2	2906798	30	30
257	12+850	421067.8	2906755	30	30
258	12+900	421043.5	2906711	30	30
259	12+950	421019.2	2906667	30	30
260	13+000	420994.9	2906624	30	30
261	13+050	420970.6	2906580	30	30
262	13+100	420946.3	2906536	30	30
263	13+150	420921.9	2906493	30	30
264	13+200	420897.6	2906449	30	30
265	13+250	420873.3	2906405	30	30
266	13+300	420849	2906362	30	30
267	13+350	420824.7	2906318	30	30
268	13+400	420800.4	2906274	30	30
269	13+450	420776	2906231	30	30
270	13+500	420751.7	2906187	30	30
271	13+550	420727.4	2906143	30	30
272	13+600	420703.1	2906099	30	30
273	13+650	420678.8	2906056	30	30
274	13+700	420654.5	2906012	30	30
275	13+750	420630.1	2905968	30	30
276	13+800	420605.8	2905925	30	30
277	13+850	420581.5	2905881	30	30
278	13+900	420557.2	2905837	30	30
279	13+950	420532.9	2905794	30	30
280	14+000	420508.6	2905750	30	30
281	14+050	420484.3	2905706	30	30
282	14+100	420459.9	2905663	30	30
283	14+150	420435.6	2905619	30	30
284	14+200	420411.3	2905575	30	30
285	14+250	420387	2905532	30	30
286	14+300	420362.7	2905488	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
287	14+350	420338.4	2905444	30	30
288	14+400	420314	2905400	30	30
289	14+450	420289.7	2905357	30	30
290	14+500	420265.4	2905313	30	30
291	14+550	420241.1	2905269	30	30
292	14+600	420216.8	2905226	30	30
293	14+650	420192.5	2905182	30	30
294	14+700	420168.1	2905138	30	30
295	14+750	420143.8	2905095	30	30
296	14+800	420119.5	2905051	30	30
297	14+850	420095.2	2905007	30	30
298	14+900	420070.9	2904964	30	30
299	14+950	420046.6	2904920	30	30
300	15+000	420022.2	2904876	30	30
301	15+050	419997.9	2904832	30	30
302	15+100	419973.6	2904789	30	30
303	15+150	419949.3	2904745	30	30
304	15+200	419925	2904701	30	30
305	15+250	419900.7	2904658	30	30
306	15+300	419876.3	2904614	30	30
307	15+350	419852	2904570	30	30
308	15+400	419827.7	2904527	30	30
309	15+450	419803.4	2904483	30	30
310	15+500	419779.1	2904439	30	30
311	15+550	419754.8	2904396	30	30
312	15+600	419730.4	2904352	30	30
313	15+650	419706.1	2904308	30	30
314	15+700	419681.8	2904265	30	30
315	15+750	419657.5	2904221	30	30
316	15+800	419633.6	2904177	30	30
317	15+850	419611.4	2904132	30	30
318	15+900	419591	2904086	30	30
319	15+950	419572.6	2904040	30	30
320	16+000	419556.2	2903993	30	30
321	16+050	419541.7	2903945	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
322	16+100	419529.2	2903896	30	30
323	16+150	419518.8	2903848	30	30
324	16+200	419510.1	2903798	30	30
325	16+250	419501.7	2903749	30	30
326	16+300	419493.3	2903700	30	30
327	16+350	419485	2903650	30	30
328	16+400	419476.6	2903601	30	30
329	16+450	419468.2	2903552	30	30
330	16+500	419459.8	2903503	30	30
331	16+550	419451.5	2903453	30	30
332	16+600	419443.1	2903404	30	30
333	16+650	419434.7	2903355	30	30
334	16+700	419426.3	2903305	30	30
335	16+750	419418	2903256	30	30
336	16+800	419409.5	2903207	30	30
337	16+850	419399.8	2903158	30	30
338	16+900	419388.1	2903109	30	30
339	16+950	419374.3	2903061	30	30
340	17+000	419358.6	2903014	30	30
341	17+050	419340.8	2902967	30	30
342	17+100	419321.2	2902921	30	30
343	17+150	419299.7	2902876	30	30
344	17+200	419276.3	2902832	30	30
345	17+250	419251	2902788	30	30
346	17+300	419224.3	2902746	30	30
347	17+350	419197.3	2902704	30	30
348	17+400	419170.4	2902662	30	30
349	17+450	419143.4	2902620	30	30
350	17+500	419116.4	2902578	30	30
351	17+550	419089.4	2902536	30	30
352	17+600	419062.5	2902494	30	30
353	17+650	419035.5	2902452	30	30
354	17+700	419008.5	2902409	30	30
355	17+750	418981.5	2902367	30	30
356	17+800	418954.6	2902325	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
357	17+850	418927.6	2902283	30	30
358	17+900	418900.6	2902241	30	30
359	17+950	418873.6	2902199	30	30
360	18+000	418846.7	2902157	30	30
361	18+050	418819.7	2902115	30	30
362	18+100	418792.7	2902073	30	30
363	18+150	418765.7	2902031	30	30
364	18+200	418738.7	2901988	30	30
365	18+250	418711.8	2901946	30	30
366	18+300	418684.8	2901904	30	30
367	18+350	418657.8	2901862	30	30
368	18+400	418630.7	2901820	30	30
369	18+450	418603.5	2901778	30	30
370	18+500	418576	2901736	30	30
371	18+550	418548.4	2901695	30	30
372	18+600	418520.6	2901653	30	30
373	18+650	418492.7	2901612	30	30
374	18+700	418464.6	2901570	30	30
375	18+750	418436.3	2901529	30	30
376	18+800	418407.8	2901488	30	30
377	18+850	418379.1	2901447	30	30
378	18+900	418350.3	2901406	30	30
379	18+950	418321.4	2901365	30	30
380	19+000	418292.2	2901325	30	30
381	19+050	418262.9	2901284	30	30
382	19+100	418233.4	2901244	30	30
383	19+150	418203.7	2901204	30	30
384	19+200	418173.9	2901164	30	30
385	19+250	418143.9	2901124	30	30
386	19+300	418113.8	2901084	30	30
387	19+350	418083.4	2901044	30	30
388	19+400	418052.9	2901004	30	30
389	19+450	418022.3	2900965	30	30
390	19+500	417991.5	2900925	30	30
391	19+550	417960.5	2900886	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
392	19+600	417929.3	2900847	30	30
393	19+650	417898	2900808	30	30
394	19+700	417866.6	2900769	30	30
395	19+750	417834.9	2900731	30	30
396	19+800	417803.1	2900692	30	30
397	19+850	417771.2	2900653	30	30
398	19+900	417739.1	2900615	30	30
399	19+950	417706.8	2900577	30	30
400	20+000	417674.4	2900539	30	30
401	20+050	417641.8	2900501	30	30
402	20+100	417609	2900463	30	30
403	20+150	417576.1	2900426	30	30
404	20+200	417543	2900388	30	30
405	20+250	417509.8	2900351	30	30
406	20+300	417476.5	2900313	30	30
407	20+350	417442.9	2900276	30	30
408	20+400	417409.3	2900239	30	30
409	20+450	417375.7	2900202	30	30
410	20+500	417342	2900165	30	30
411	20+550	417308.4	2900128	30	30
412	20+600	417274.8	2900091	30	30
413	20+650	417241.2	2900054	30	30
414	20+700	417207.7	2900017	30	30
415	20+750	417175.1	2899979	30	30
416	20+800	417143.5	2899941	30	30
417	20+850	417112.8	2899901	30	30
418	20+900	417083.2	2899861	30	30
419	20+950	417054.5	2899820	30	30
420	21+000	417026.9	2899778	30	30
421	21+050	417000.4	2899736	30	30
422	21+100	416974.9	2899693	30	30
423	21+150	416950.5	2899649	30	30
424	21+200	416927.2	2899605	30	30
425	21+250	416904.6	2899560	30	30
426	21+300	416882.1	2899516	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
427	21+350	416859.5	2899471	30	30
428	21+400	416837	2899426	30	30
429	21+450	416814.4	2899382	30	30
430	21+500	416791.9	2899337	30	30
431	21+550	416769.3	2899292	30	30
432	21+600	416746.8	2899248	30	30
433	21+650	416724.2	2899203	30	30
434	21+700	416701.7	2899159	30	30
435	21+750	416679.2	2899114	30	30
436	21+800	416656.6	2899069	30	30
437	21+850	416634.1	2899025	30	30
438	21+900	416611.5	2898980	30	30
439	21+950	416589	2898935	30	30
440	22+000	416566.4	2898891	30	30
441	22+050	416543.9	2898846	30	30
442	22+100	416521.3	2898802	30	30
443	22+150	416498.8	2898757	30	30
444	22+200	416476.3	2898712	30	30
445	22+250	416453.7	2898668	30	30
446	22+300	416431.2	2898623	30	30
447	22+350	416408.6	2898578	30	30
448	22+400	416386.1	2898534	30	30
449	22+450	416363.5	2898489	30	30
450	22+500	416341	2898445	30	30
451	22+550	416318.4	2898400	30	30
452	22+600	416295.9	2898355	30	30
453	22+650	416273.3	2898311	30	30
454	22+700	416250.8	2898266	30	30
455	22+750	416228.3	2898221	30	30
456	22+800	416205.7	2898177	30	30
457	22+850	416183.2	2898132	30	30
458	22+900	416160.6	2898088	30	30
459	22+950	416138.1	2898043	30	30
460	23+000	416115.5	2897998	30	30
461	23+050	416093	2897954	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
462	23+100	416070.4	2897909	30	30
463	23+150	416047.9	2897864	30	30
464	23+200	416025.4	2897820	30	30
465	23+250	416002.8	2897775	30	30
466	23+300	415980.3	2897730	30	30
467	23+350	415957.7	2897686	30	30
468	23+400	415935.2	2897641	30	30
469	23+450	415912.6	2897597	30	30
470	23+500	415890.1	2897552	30	30
471	23+550	415867.5	2897507	30	30
472	23+600	415845	2897463	30	30
473	23+650	415822.5	2897418	30	30
474	23+700	415799.9	2897373	30	30
475	23+750	415777.4	2897329	30	30
476	23+800	415754.8	2897284	30	30
477	23+850	415732.3	2897240	30	30
478	23+900	415709.7	2897195	30	30
479	23+950	415687.2	2897150	30	30
480	24+000	415664.6	2897106	30	30
481	24+050	415642.1	2897061	30	30
482	24+100	415619.5	2897016	30	30
483	24+150	415597	2896972	30	30
484	24+200	415574.5	2896927	30	30
485	24+250	415551.9	2896883	30	30
486	24+300	415529.4	2896838	30	30
487	24+350	415506.8	2896793	30	30
488	24+400	415484.3	2896749	30	30
489	24+450	415461.7	2896704	30	30
490	24+500	415439.2	2896659	30	30
491	24+550	415416.6	2896615	30	30
492	24+600	415394.1	2896570	30	30
493	24+650	415371.6	2896525	30	30
494	24+700	415349	2896481	30	30
495	24+750	415326.5	2896436	30	30
496	24+800	415303.9	2896392	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
497	24+850	415281.4	2896347	30	30
498	24+900	415258.8	2896302	30	30
499	24+950	415236.3	2896258	30	30
500	25+000	415213.7	2896213	30	30
501	25+050	415191.2	2896168	30	30
502	25+100	415168.6	2896124	30	30
503	25+150	415146.1	2896079	30	30
504	25+200	415123.6	2896035	30	30
505	25+250	415101	2895990	30	30
506	25+300	415078.5	2895945	30	30
507	25+350	415055.9	2895901	30	30
508	25+400	415033.4	2895856	30	30
509	25+450	415010.8	2895811	30	30
510	25+500	414988.3	2895767	30	30
511	25+550	414965.7	2895722	30	30
512	25+600	414943.2	2895678	30	30
513	25+650	414920.7	2895633	30	30
514	25+700	414898.1	2895588	30	30
515	25+750	414875.6	2895544	30	30
516	25+800	414853	2895499	30	30
517	25+850	414830.5	2895454	30	30
518	25+900	414807.9	2895410	30	30
519	25+950	414785.4	2895365	30	30
520	26+000	414762.8	2895321	30	30
521	26+050	414740.3	2895276	30	30
522	26+100	414717.8	2895231	30	30
523	26+150	414695.2	2895187	30	30
524	26+200	414672.7	2895142	30	30
525	26+250	414650.1	2895097	30	30
526	26+300	414627.6	2895053	30	30
527	26+350	414605	2895008	30	30
528	26+400	414582.5	2894963	30	30
529	26+450	414559.9	2894919	30	30
530	26+500	414537.4	2894874	30	30
531	26+550	414514.8	2894830	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
532	26+600	414492.3	2894785	30	30
533	26+650	414469.8	2894740	30	30
534	26+700	414447.2	2894696	30	30
535	26+750	414424.7	2894651	30	30
536	26+800	414402.2	2894606	30	30
537	26+850	414380.1	2894562	30	30
538	26+900	414358.4	2894517	30	30
539	26+950	414337	2894471	30	30
540	27+000	414316.1	2894426	30	30
541	27+050	414295.5	2894380	30	30
542	27+100	414275.3	2894335	30	30
543	27+150	414255.4	2894289	30	30
544	27+200	414236	2894243	30	30
545	27+250	414216.9	2894196	30	30
546	27+300	414198.2	2894150	30	30
547	27+350	414180	2894104	30	30
548	27+400	414162.1	2894057	30	30
549	27+450	414144.5	2894010	30	30
550	27+500	414127.4	2893963	30	30
551	27+550	414110.7	2893916	30	30
552	27+600	414094.4	2893869	30	30
553	27+650	414078.4	2893821	30	30
554	27+700	414062.9	2893774	30	30
555	27+750	414047.7	2893726	30	30
556	27+800	414033	2893678	35	35
557	27+850	414018.6	2893630	35	35
558	27+900	414004.7	2893582	35	35
559	27+950	413991.1	2893534	35	35
560	28+000	413978	2893486	35	35
561	28+050	413965.2	2893438	35	35
562	28+100	413952.9	2893389	35	35
563	28+150	413940.9	2893341	35	35
564	28+200	413929.4	2893292	35	35
565	28+250	413918.3	2893243	35	35
566	28+300	413907.5	2893194	35	35

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-20

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
567	28+350	413897.1	2893146	35	35
568	28+400	413886.8	2893097	35	35
569	28+450	413876.4	2893048	35	35
570	28+500	413866	2892999	35	35
571	28+550	413855.7	2892950	35	35
572	28+600	413845.3	2892901	35	35
573	28+650	413834.6	2892852	35	35
574	28+700	413822.8	2892804	35	35
575	28+750	413810.5	2892755	35	35
576	28+800	413798.1	2892707	35	35
577	28+850	413785.7	2892658	35	35
578	28+900	413773.4	2892610	35	35
579	28+950	413761	2892561	35	35
580	29+000	413748.6	2892513	35	35
581	29+050	413736.3	2892464	35	35
582	29+100	413723.9	2892416	35	35
583	29+150	413711.5	2892368	35	35
584	29+200	413699.2	2892319	35	35
585	29+250	413686.8	2892271	30	30
586	29+300	413674.4	2892222	30	30
587	29+350	413662.1	2892174	30	30
588	29+400	413649.7	2892125	30	30
589	29+450	413637.3	2892077	30	30
590	29+500	413625	2892028	30	30
591	29+550	413612.6	2891980	30	30
592	29+600	413600.2	2891932	30	30
593	29+650	413587.8	2891883	30	30
594	29+700	413575.5	2891835	30	30
595	29+750	413563.1	2891786	30	30
596	29+800	413550.7	2891738	30	30
597	29+850	413538.4	2891689	30	30
598	29+900	413526	2891641	30	30
599	29+950	413513.6	2891592	30	30
600	30+000	413501.3	2891544	30	30
601	30+050	413488.9	2891496	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
602	30+100	413476.5	2891447	30	30
603	30+150	413464.2	2891399	30	30
604	30+200	413451.8	2891350	30	30
605	30+250	413439.4	2891302	30	30
606	30+300	413427.1	2891253	30	30
607	30+350	413414.7	2891205	30	30
608	30+400	413402.3	2891156	30	30
609	30+450	413390	2891108	30	30
610	30+500	413377.6	2891059	30	30
611	30+550	413365.2	2891011	30	30
612	30+600	413352.9	2890963	30	30
613	30+650	413340.5	2890914	30	30
614	30+700	413328.1	2890866	30	30
615	30+750	413315.8	2890817	30	30
616	30+800	413303.4	2890769	30	30
617	30+850	413291	2890720	30	30
618	30+900	413278.6	2890672	30	30
619	30+950	413266.3	2890623	30	30
620	31+000	413253.9	2890575	30	30
621	31+050	413241.5	2890527	30	30
622	31+100	413229.2	2890478	30	30
623	31+150	413216.8	2890430	30	30
624	31+200	413204.4	2890381	30	30
625	31+250	413192.1	2890333	30	30
626	31+300	413179.7	2890284	30	30
627	31+350	413167.3	2890236	30	30
628	31+400	413155	2890187	30	30
629	31+450	413142.6	2890139	30	30
630	31+500	413130.2	2890091	30	30
631	31+550	413117.9	2890042	30	30
632	31+600	413105.5	2889994	30	30
633	31+650	413093.1	2889945	30	30
634	31+700	413080.9	2889897	30	30
635	31+750	413069.2	2889848	30	30
636	31+800	413058	2889799	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
637	31+850	413047.2	2889751	30	30
638	31+900	413037	2889702	30	30
639	31+950	413027.2	2889653	30	30
640	32+000	413017.9	2889603	30	30
641	32+050	413009.2	2889554	30	30
642	32+100	413000.9	2889505	30	30
643	32+150	412993.1	2889456	30	30
644	32+200	412985.8	2889406	30	30
645	32+250	412979	2889357	30	30
646	32+300	412972.6	2889307	30	30
647	32+350	412966.8	2889257	30	30
648	32+400	412961.5	2889208	30	30
649	32+450	412956.7	2889158	30	30
650	32+500	412952.4	2889108	30	30
651	32+550	412948.5	2889058	30	30
652	32+600	412945.2	2889008	30	30
653	32+650	412942.4	2888958	30	30
654	32+700	412940.1	2888908	30	30
655	32+750	412938.2	2888858	30	30
656	32+800	412936.9	2888808	30	30
657	32+850	412936.1	2888758	30	30
658	32+900	412935.7	2888708	30	30
659	32+950	412935.9	2888658	30	30
660	33+000	412936.6	2888608	30	30
661	33+050	412937.8	2888558	30	30
662	33+100	412939.4	2888509	30	30
663	33+150	412941.6	2888459	30	30
664	33+200	412944.1	2888409	30	30
665	33+250	412946.7	2888359	30	30
666	33+300	412949.2	2888309	30	30
667	33+350	412951.7	2888259	30	30
668	33+400	412954.3	2888209	30	30
669	33+450	412956.8	2888159	30	30
670	33+500	412959.4	2888109	30	30
671	33+550	412961.9	2888059	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
672	33+600	412964.4	2888009	30	30
673	33+650	412967	2887959	30	30
674	33+700	412969.5	2887909	30	30
675	33+750	412972	2887859	30	30
676	33+800	412974.6	2887809	30	30
677	33+850	412977.1	2887759	30	30
678	33+900	412979.7	2887710	30	30
679	33+950	412982.2	2887660	30	30
680	34+000	412984.7	2887610	30	30
681	34+050	412987.3	2887560	30	30
682	34+100	412989.8	2887510	30	30
683	34+150	412992.4	2887460	30	30
684	34+200	412994.9	2887410	30	30
685	34+250	412997.4	2887360	30	30
686	34+300	413000	2887310	30	30
687	34+350	413002.5	2887260	30	30
688	34+400	413005	2887210	30	30
689	34+450	413007.6	2887160	30	30
690	34+500	413010.1	2887110	30	30
691	34+550	413012.7	2887060	30	30
692	34+600	413015.2	2887010	30	30
693	34+650	413017.7	2886960	30	30
694	34+700	413020.3	2886911	30	30
695	34+750	413022.8	2886861	30	30
696	34+800	413025.4	2886811	30	30
697	34+850	413027.9	2886761	30	30
698	34+900	413030.4	2886711	30	30
699	34+950	413033	2886661	30	30
700	35+000	413035.5	2886611	30	30
701	35+050	413038	2886561	30	30
702	35+100	413040.6	2886511	30	30
703	35+150	413043.1	2886461	30	30
704	35+200	413045.7	2886411	30	30
705	35+250	413048.2	2886361	30	30
706	35+300	413050.7	2886311	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
707	35+350	413053.3	2886261	30	30
708	35+400	413055.8	2886211	30	30
709	35+450	413058.4	2886162	30	30
710	35+500	413060.9	2886112	30	30
711	35+550	413063.4	2886062	30	30
712	35+600	413066	2886012	30	30
713	35+650	413068.5	2885962	30	30
714	35+700	413071	2885912	30	30
715	35+750	413073.6	2885862	30	30
716	35+800	413076.1	2885812	30	30
717	35+850	413078.7	2885762	30	30
718	35+900	413081.2	2885712	30	30
719	35+950	413083.7	2885662	30	30
720	36+000	413086.3	2885612	30	30
721	36+050	413088.8	2885562	30	30
722	36+100	413091.4	2885512	30	30
723	36+150	413093.9	2885462	30	30
724	36+200	413096.4	2885412	30	30
725	36+250	413099	2885363	30	30
726	36+300	413101.5	2885313	30	30
727	36+350	413104	2885263	30	30
728	36+400	413106.6	2885213	30	30
729	36+450	413109.1	2885163	30	30
730	36+500	413111.7	2885113	30	30
731	36+550	413114.2	2885063	30	30
732	36+600	413116.7	2885013	30	30
733	36+650	413119.3	2884963	30	30
734	36+700	413121.8	2884913	30	30
735	36+750	413124.4	2884863	30	30
736	36+800	413126.9	2884813	30	30
737	36+850	413129.4	2884763	30	30
738	36+900	413132	2884713	30	30
739	36+950	413134.5	2884663	30	30
740	37+000	413137	2884614	30	30
741	37+050	413139.6	2884564	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
742	37+100	413142.1	2884514	30	30
743	37+150	413144.7	2884464	30	30
744	37+200	413147.2	2884414	30	30
745	37+250	413149.7	2884364	30	30
746	37+300	413152.3	2884314	30	30
747	37+350	413154.8	2884264	30	30
748	37+400	413157.4	2884214	30	30
749	37+450	413159.9	2884164	30	30
750	37+500	413162.5	2884114	30	30
751	37+550	413165.6	2884064	30	30
752	37+600	413169.6	2884014	30	30
753	37+650	413174.5	2883965	30	30
754	37+700	413180.1	2883915	30	30
755	37+750	413186.3	2883865	30	30
756	37+800	413192.5	2883816	30	30
757	37+850	413198.7	2883766	30	30
758	37+900	413204.9	2883717	30	30
759	37+950	413211.1	2883667	30	30
760	38+000	413217.2	2883617	30	30
761	38+050	413223.4	2883568	30	30
762	38+100	413229.6	2883518	30	30
763	38+150	413235.8	2883468	30	30
764	38+200	413242	2883419	30	30
765	38+250	413248.2	2883369	30	30
766	38+300	413254.4	2883320	30	30
767	38+350	413260.5	2883270	30	30
768	38+400	413266.7	2883220	30	30
769	38+450	413272.9	2883171	30	30
770	38+500	413279.1	2883121	30	30
771	38+550	413285.3	2883072	30	30
772	38+600	413291.5	2883022	30	30
773	38+650	413297.6	2882972	30	30
774	38+700	413303.8	2882923	30	30
775	38+750	413310	2882873	30	30
776	38+800	413316.2	2882823	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
777	38+850	413322.4	2882774	30	30
778	38+900	413328.6	2882724	30	30
779	38+950	413334.8	2882675	30	30
780	39+000	413340.9	2882625	30	30
781	39+050	413347.1	2882575	30	30
782	39+100	413353.3	2882526	30	30
783	39+150	413359.5	2882476	30	30
784	39+200	413365.7	2882427	30	30
785	39+250	413371.9	2882377	30	30
786	39+300	413378	2882327	30	30
787	39+350	413384.2	2882278	30	30
788	39+400	413390.4	2882228	30	30
789	39+450	413396.6	2882178	30	30
790	39+500	413402.8	2882129	30	30
791	39+550	413409	2882079	30	30
792	39+600	413415.2	2882030	30	30
793	39+650	413421.3	2881980	30	30
794	39+700	413427.5	2881930	30	30
795	39+750	413433.7	2881881	30	30
796	39+800	413439.9	2881831	30	30
797	39+850	413446.1	2881781	30	30
798	39+900	413452.3	2881732	30	30
799	39+950	413458.4	2881682	30	30
800	40+000	413464.6	2881633	30	30
801	40+050	413470.8	2881583	30	30
802	40+100	413477	2881533	30	30
803	40+150	413483.2	2881484	30	30
804	40+200	413489.3	2881434	30	30
805	40+250	413494.8	2881384	30	30
806	40+300	413500.1	2881335	30	30
807	40+350	413505.4	2881285	30	30
808	40+400	413510.7	2881235	30	30
809	40+450	413515.9	2881186	30	30
810	40+500	413521.2	2881136	30	30
811	40+550	413526.5	2881086	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
812	40+600	413531.8	2881036	30	30
813	40+650	413537	2880987	30	30
814	40+700	413542.3	2880937	30	30
815	40+750	413547.6	2880887	30	30
816	40+800	413552.9	2880838	30	30
817	40+850	413558.1	2880788	30	30
818	40+900	413563.4	2880738	30	30
819	40+950	413568.7	2880688	30	30
820	41+000	413574	2880639	30	30
821	41+050	413579.3	2880589	30	30
822	41+100	413584.5	2880539	30	30
823	41+150	413589.8	2880490	30	30
824	41+200	413595.1	2880440	30	30
825	41+250	413600.4	2880390	30	30
826	41+300	413605.6	2880340	30	30
827	41+350	413610.9	2880291	30	30
828	41+400	413616.2	2880241	30	30
829	41+450	413621.5	2880191	30	30
830	41+500	413626.7	2880141	30	30
831	41+550	413632	2880092	30	30
832	41+600	413637.3	2880042	30	30
833	41+650	413642.6	2879992	30	30
834	41+700	413647.9	2879943	30	30
835	41+750	413653.1	2879893	30	30
836	41+800	413658.4	2879843	30	30
837	41+850	413663.7	2879793	30	30
838	41+900	413669	2879744	30	30
839	41+950	413674.3	2879694	30	30
840	42+000	413680.5	2879644	30	30
841	42+050	413688	2879595	30	30
842	42+100	413696.8	2879546	30	30
843	42+150	413706.7	2879497	30	30
844	42+200	413717.9	2879448	30	30
845	42+250	413729.7	2879399	30	30
846	42+300	413741.4	2879351	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
847	42+350	413753.2	2879302	30	30
848	42+400	413764.9	2879254	30	30
849	42+450	413776.7	2879205	30	30
850	42+500	413788.5	2879156	30	30
851	42+550	413800.2	2879108	30	30
852	42+600	413812	2879059	30	30
853	42+650	413823.8	2879011	30	30
854	42+700	413835.5	2878962	30	30
855	42+750	413847.3	2878913	30	30
856	42+800	413859	2878865	30	30
857	42+850	413870.8	2878816	30	30
858	42+900	413882.6	2878768	30	30
859	42+950	413894.3	2878719	30	30
860	43+000	413906.1	2878670	30	30
861	43+050	413917.9	2878622	30	30
862	43+100	413929.6	2878573	30	30
863	43+150	413941.4	2878525	30	30
864	43+200	413953.1	2878476	30	30
865	43+250	413964.9	2878427	30	30
866	43+300	413976.7	2878379	30	30
867	43+350	413988.4	2878330	30	30
868	43+400	414000.2	2878282	30	30
869	43+450	414012	2878233	30	30
870	43+500	414023.7	2878184	30	30
871	43+550	414035.5	2878136	30	30
872	43+600	414047.2	2878087	30	30
873	43+650	414059	2878039	30	30
874	43+700	414070.8	2877990	30	30
875	43+750	414082.5	2877941	30	30
876	43+800	414094.3	2877893	30	30
877	43+850	414106.1	2877844	30	30
878	43+900	414117.8	2877796	30	30
879	43+950	414129.6	2877747	30	30
880	44+000	414141.3	2877698	30	30
881	44+050	414153.1	2877650	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
882	44+100	414164.9	2877601	30	30
883	44+150	414176.6	2877553	30	30
884	44+200	414188.2	2877504	30	30
885	44+250	414198.7	2877455	30	30
886	44+300	414208.3	2877406	30	30
887	44+350	414217.8	2877357	30	30
888	44+400	414227.4	2877308	30	30
889	44+450	414236.9	2877259	30	30
890	44+500	414246.5	2877210	30	30
891	44+550	414256.1	2877161	30	30
892	44+600	414265.6	2877112	30	30
893	44+650	414275.2	2877063	30	30
894	44+700	414284.7	2877013	30	30
895	44+750	414294.3	2876964	30	30
896	44+800	414303.9	2876915	30	30
897	44+850	414313.4	2876866	30	30
898	44+900	414323	2876817	30	30
899	44+950	414332.5	2876768	30	30
900	45+000	414342.1	2876719	30	30
901	45+050	414351.7	2876670	30	30
902	45+100	414361.2	2876621	30	30
903	45+150	414370.8	2876572	30	30
904	45+200	414380.3	2876523	30	30
905	45+250	414389.9	2876474	30	30
906	45+300	414399.5	2876425	30	30
907	45+350	414409	2876375	30	30
908	45+400	414418.6	2876326	30	30
909	45+450	414428.2	2876277	30	30
910	45+500	414437.7	2876228	30	30
911	45+550	414447.3	2876179	30	30
912	45+600	414456.8	2876130	30	30
913	45+650	414466.4	2876081	30	30
914	45+700	414476	2876032	30	30
915	45+750	414485.5	2875983	30	30
916	45+800	414495.1	2875934	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
917	45+850	414504.6	2875885	30	30
918	45+900	414514.2	2875836	30	30
919	45+950	414523.8	2875787	30	30
920	46+000	414533.3	2875737	30	30
921	46+050	414542.1	2875688	30	30
922	46+100	414548.4	2875639	30	30
923	46+150	414552	2875589	30	30
924	46+200	414552.7	2875539	30	30
925	46+250	414550.7	2875489	30	30
926	46+300	414545.9	2875439	30	30
927	46+350	414538.4	2875390	30	30
928	46+400	414528.1	2875341	30	30
929	46+450	414515.2	2875292	30	30
930	46+500	414499.5	2875245	30	30
931	46+550	414481.5	2875198	30	30
932	46+600	414462.5	2875152	30	30
933	46+650	414443.1	2875106	30	30
934	46+700	414421.4	2875061	30	30
935	46+750	414396.2	2875018	30	30
936	46+800	414367.4	2874977	30	30
937	46+850	414335.4	2874939	30	30
938	46+900	414300.2	2874903	30	30
939	46+950	414262.3	2874871	30	30
940	47+000	414221.8	2874841	30	30
941	47+050	414179.8	2874814	30	30
942	47+100	414137.6	2874787	30	30
943	47+150	414095.3	2874760	30	30
944	47+200	414053.1	2874734	30	30
945	47+250	414010.9	2874707	30	30
946	47+300	413969.3	2874679	30	30
947	47+350	413929.2	2874649	30	30
948	47+400	413890.8	2874617	30	30
949	47+450	413854.3	2874583	30	30
950	47+500	413819.7	2874547	30	30
951	47+550	413787.2	2874509	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
952	47+600	413756.8	2874469	30	30
953	47+650	413728.6	2874428	30	30
954	47+700	413701.6	2874386	30	30
955	47+750	413674.6	2874344	30	30
956	47+800	413647.6	2874302	30	30
957	47+850	413620.7	2874260	30	30
958	47+900	413593.7	2874218	42.75	42.75
959	47+950	413566.7	2874176	42.75	42.75
960	48+000	413539.8	2874133	42.75	42.75
961	48+050	413512.8	2874091	42.75	42.75
962	48+100	413485.8	2874049	42.75	42.75
963	48+150	413458.8	2874007	42.75	42.75
964	48+200	413431.9	2873965	42.75	42.75
965	48+250	413404.9	2873923	42.75	42.75
966	48+300	413377.9	2873881	42.75	42.75
967	48+350	413351	2873839	42.75	42.75
968	48+400	413324	2873797	42.75	42.75
969	48+450	413297	2873754	42.75	42.75
970	48+500	413270	2873712	42.75	42.75
971	48+550	413243.1	2873670	42.75	42.75
972	48+600	413216.1	2873628	42.75	42.75
973	48+650	413189.1	2873586	42.75	42.75
974	48+700	413162.2	2873544	42.75	42.75
975	48+750	413135.2	2873502	42.75	42.75
976	48+800	413108.2	2873460	42.75	42.75
977	48+850	413081.2	2873418	42.75	42.75
978	48+900	413054.3	2873376	42.75	42.75
979	48+950	413027.3	2873333	42.75	42.75
980	49+000	413000.3	2873291	42.75	42.75
981	49+050	412973.4	2873249	42.75	42.75
982	49+100	412946.4	2873207	42.75	42.75
983	49+150	412919.4	2873165	42.75	42.75
984	49+200	412892.4	2873123	42.75	42.75
985	49+250	412865.9	2873081	42.75	42.75
986	49+300	412840.5	2873038	42.75	42.75

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
987	49+350	412816.1	2872994	42.75	42.75
988	49+400	412792.9	2872950	42.75	42.75
989	49+450	412770.2	2872905	42.75	42.75
990	49+500	412747.6	2872860	42.75	42.75
991	49+550	412724.9	2872816	42.75	42.75
992	49+600	412702.3	2872771	42.75	42.75
993	49+650	412679.7	2872727	42.75	42.75
994	49+700	412657	2872682	42.75	42.75
995	49+750	412634.4	2872638	42.75	42.75
996	49+800	412613.4	2872592	42.75	42.75
997	49+850	412597.7	2872545	42.75	42.75
998	49+900	412588.1	2872496	42.75	42.75
999	49+950	412584.5	2872446	42.75	42.75
1000	50+000	412584.1	2872396	42.75	42.75
1001	50+050	412583.9	2872346	42.75	42.75
1002	50+100	412583.7	2872296	42.75	42.75
1003	50+150	412583.5	2872246	42.75	42.75
1004	50+200	412583.3	2872196	42.75	42.75
1005	50+250	412583.1	2872146	42.75	42.75
1006	50+300	412582.9	2872096	42.75	42.75
1007	50+350	412581.8	2872046	42.75	42.75
1008	50+400	412577.4	2871996	42.75	42.75
1009	50+450	412569.3	2871947	42.75	42.75
1010	50+500	412559.7	2871898	42.75	42.75
1011	50+550	412549.9	2871849	42.75	42.75
1012	50+600	412540.4	2871800	42.75	42.75
1013	50+650	412534.7	2871750	42.75	42.75
1014	50+700	412537.9	2871700	42.75	42.75
1015	50+750	412551.4	2871652	42.75	42.75
1016	50+800	412573.8	2871607	42.75	42.75
1017	50+850	412600.7	2871565	42.75	42.75
1018	50+900	412628.2	2871524	42.75	42.75
1019	50+950	412655.5	2871482	42.75	42.75
1020	51+000	412681.9	2871439	42.75	42.75
1021	51+050	412706.5	2871396	42.75	42.75

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-33

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1022	51+100	412729.3	2871351	42.75	42.75
1023	51+150	412750.2	2871306	42.75	42.75
1024	51+200	412769.2	2871260	42.75	42.75
1025	51+250	412786.2	2871212	42.75	42.75
1026	51+300	412801.3	2871165	42.75	42.75
1027	51+350	412814.3	2871117	42.75	42.75
1028	51+400	412825.4	2871068	42.75	42.75
1029	51+450	412834.4	2871019	42.75	42.75
1030	51+500	412842.3	2870969	42.75	42.75
1031	51+550	412850.3	2870920	42.75	42.75
1032	51+600	412858.2	2870871	42.75	42.75
1033	51+650	412866.1	2870821	42.75	42.75
1034	51+700	412874	2870772	42.75	42.75
1035	51+750	412882	2870722	42.75	42.75
1036	51+800	412889.9	2870673	42.75	42.75
1037	51+850	412897.8	2870624	42.75	42.75
1038	51+900	412904.5	2870574	42.75	42.75
1039	51+950	412907.6	2870524	42.75	42.75
1040	52+000	412907.2	2870474	42.75	42.75
1041	52+050	412905.6	2870424	42.75	42.75
1042	52+100	412903.9	2870374	42.75	42.75
1043	52+150	412902.3	2870324	42.75	42.75
1044	52+200	412900.6	2870274	42.75	42.75
1045	52+250	412899	2870224	42.75	42.75
1046	52+300	412897.4	2870174	42.75	42.75
1047	52+350	412895.7	2870124	42.75	42.75
1048	52+400	412894.1	2870074	42.75	42.75
1049	52+450	412892.4	2870025	42.75	42.75
1050	52+500	412890.8	2869975	42.75	42.75
1051	52+550	412889.2	2869925	42.75	42.75
1052	52+600	412887.5	2869875	42.75	42.75
1053	52+650	412885.9	2869825	42.75	42.75
1054	52+700	412884.2	2869775	42.75	42.75
1055	52+750	412882.6	2869725	42.75	42.75
1056	52+800	412881	2869675	42.75	42.75

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-34

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1057	52+850	412879.3	2869625	42.75	42.75
1058	52+900	412877.7	2869575	42.75	42.75
1059	52+950	412876	2869525	30	30
1060	53+000	412874.4	2869475	30	30
1061	53+050	412872.8	2869425	30	30
1062	53+100	412871.6	2869375	30	30
1063	53+150	412871.7	2869325	30	30
1064	53+200	412873	2869275	30	30
1065	53+250	412874.5	2869225	30	30
1066	53+300	412876	2869175	30	30
1067	53+350	412877.5	2869125	30	30
1068	53+400	412879	2869075	30	30
1069	53+450	412880.5	2869025	30	30
1070	53+500	412882	2868975	30	30
1071	53+550	412883.5	2868925	30	30
1072	53+600	412885.1	2868875	30	30
1073	53+650	412886.6	2868825	30	30
1074	53+700	412888.1	2868775	30	30
1075	53+750	412889.6	2868725	30	30
1076	53+800	412891.1	2868675	30	30
1077	53+850	412892.6	2868625	30	30
1078	53+900	412894.1	2868575	30	30
1079	53+950	412895.6	2868525	30	30
1080	54+000	412897.1	2868475	30	30
1081	54+050	412898.4	2868425	30	30
1082	54+100	412898.5	2868375	30	30
1083	54+150	412898.5	2868325	30	30
1084	54+200	412898.4	2868275	30	30
1085	54+250	412898.4	2868225	30	30
1086	54+300	412898.3	2868175	30	30
1087	54+350	412898.3	2868125	30	30
1088	54+400	412898.2	2868075	30	30
1089	54+450	412898.2	2868025	30	30
1090	54+500	412898.1	2867975	30	30
1091	54+550	412898.1	2867925	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1092	54+600	412898	2867875	30	30
1093	54+650	412898	2867825	30	30
1094	54+700	412897.9	2867775	30	30
1095	54+750	412897.9	2867725	30	30
1096	54+800	412897.8	2867675	30	30
1097	54+850	412897.8	2867625	30	30
1098	54+900	412897.7	2867575	30	30
1099	54+950	412897.7	2867525	30	30
1100	55+000	412897	2867475	30	30
1101	55+050	412895.1	2867425	30	30
1102	55+100	412891.9	2867375	30	30
1103	55+150	412887.5	2867326	30	30
1104	55+200	412881.9	2867276	30	30
1105	55+250	412875	2867226	30	30
1106	55+300	412866.8	2867177	30	30
1107	55+350	412857.5	2867128	30	30
1108	55+400	412846.9	2867079	30	30
1109	55+450	412835.1	2867030	30	30
1110	55+500	412822.1	2866982	30	30
1111	55+550	412807.9	2866934	30	30
1112	55+600	412792.9	2866887	30	30
1113	55+650	412777.8	2866839	30	30
1114	55+700	412762.8	2866791	30	30
1115	55+750	412747.8	2866744	30	30
1116	55+800	412732.8	2866696	30	30
1117	55+850	412717.8	2866648	30	30
1118	55+900	412702.8	2866600	30	30
1119	55+950	412687.7	2866553	30	30
1120	56+000	412672.7	2866505	30	30
1121	56+050	412657.7	2866457	30	30
1122	56+100	412642.7	2866410	30	30
1123	56+150	412627.7	2866362	30	30
1124	56+200	412612.7	2866314	30	30
1125	56+250	412597.6	2866267	30	30
1126	56+300	412582.6	2866219	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1127	56+350	412567.6	2866171	30	30
1128	56+400	412552.6	2866124	30	30
1129	56+450	412537.6	2866076	30	30
1130	56+500	412522.6	2866028	30	30
1131	56+550	412507.5	2865980	30	30
1132	56+600	412492.5	2865933	30	30
1133	56+650	412477.5	2865885	30	30
1134	56+700	412462.5	2865837	30	30
1135	56+750	412447.5	2865790	30	30
1136	56+800	412432.5	2865742	30	30
1137	56+850	412417.4	2865694	30	30
1138	56+900	412402.4	2865647	30	30
1139	56+950	412387.4	2865599	30	30
1140	57+000	412372.4	2865551	30	30
1141	57+050	412357.4	2865504	30	30
1142	57+100	412342.4	2865456	30	30
1143	57+150	412327.3	2865408	30	30
1144	57+200	412312.3	2865360	30	30
1145	57+250	412297.3	2865313	30	30
1146	57+300	412282.3	2865265	30	30
1147	57+350	412267.3	2865217	30	30
1148	57+400	412252.3	2865170	30	30
1149	57+450	412237.2	2865122	30	30
1150	57+500	412222.2	2865074	30	30
1151	57+550	412207.2	2865027	30	30
1152	57+600	412192.2	2864979	30	30
1153	57+650	412177.2	2864931	30	30
1154	57+700	412162.1	2864884	30	30
1155	57+750	412147.1	2864836	30	30
1156	57+800	412132.1	2864788	30	30
1157	57+850	412117.1	2864740	30	30
1158	57+900	412102.1	2864693	30	30
1159	57+950	412087.1	2864645	30	30
1160	58+000	412072	2864597	30	30
1161	58+050	412057	2864550	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1162	58+100	412042	2864502	30	30
1163	58+150	412027	2864454	30	30
1164	58+200	412012	2864407	30	30
1165	58+250	411997	2864359	30	30
1166	58+300	411981.9	2864311	30	30
1167	58+350	411966.9	2864264	30	30
1168	58+400	411951.9	2864216	30	30
1169	58+450	411936.9	2864168	30	30
1170	58+500	411921.9	2864120	30	30
1171	58+550	411906.9	2864073	30	30
1172	58+600	411891.8	2864025	30	30
1173	58+650	411876.8	2863977	30	30
1174	58+700	411861.8	2863930	30	30
1175	58+750	411846.8	2863882	30	30
1176	58+800	411831.8	2863834	30	30
1177	58+850	411816.8	2863787	30	30
1178	58+900	411801.7	2863739	30	30
1179	58+950	411786.9	2863691	30	30
1180	59+000	411772.5	2863643	30	30
1181	59+050	411758.6	2863595	30	30
1182	59+100	411745.2	2863547	30	30
1183	59+150	411732.2	2863499	30	30
1184	59+200	411719.8	2863450	30	30
1185	59+250	411707.8	2863402	30	30
1186	59+300	411696.3	2863353	30	30
1187	59+350	411685.3	2863304	30	30
1188	59+400	411674.8	2863256	30	30
1189	59+450	411664.8	2863207	30	30
1190	59+500	411655.2	2863157	30	30
1191	59+550	411646.2	2863108	30	30
1192	59+600	411637.6	2863059	30	30
1193	59+650	411629.6	2863010	30	30
1194	59+700	411622	2862960	30	30
1195	59+750	411614.9	2862911	30	30
1196	59+800	411608.4	2862861	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1197	59+850	411602.3	2862812	30	30
1198	59+900	411596.7	2862762	30	30
1199	59+950	411591.6	2862712	30	30
1200	60+000	411587	2862662	30	30
1201	60+050	411582.9	2862613	30	30
1202	60+100	411579.3	2862563	30	30
1203	60+150	411576.3	2862513	30	30
1204	60+200	411573.7	2862463	30	30
1205	60+250	411571.6	2862413	30	30
1206	60+300	411570	2862363	30	30
1207	60+350	411568.9	2862313	30	30
1208	60+400	411568.3	2862263	30	30
1209	60+450	411568.2	2862213	30	30
1210	60+500	411568.6	2862163	30	30
1211	60+550	411569.5	2862113	30	30
1212	60+600	411570.9	2862063	30	30
1213	60+650	411572.8	2862013	30	30
1214	60+700	411575.2	2861963	30	30
1215	60+750	411578.1	2861913	30	30
1216	60+800	411581.5	2861863	30	30
1217	60+850	411585.4	2861813	30	30
1218	60+900	411589.8	2861764	30	30
1219	60+950	411594.7	2861714	30	30
1220	61+000	411600.1	2861664	30	30
1221	61+050	411606	2861614	30	30
1222	61+100	411612.4	2861565	30	30
1223	61+150	411618.8	2861515	30	30
1224	61+200	411625.2	2861466	30	30
1225	61+250	411631.6	2861416	30	30
1226	61+300	411638.1	2861367	30	30
1227	61+350	411644.5	2861317	30	30
1228	61+400	411650.9	2861267	30	30
1229	61+450	411657.3	2861218	30	30
1230	61+500	411663.8	2861168	30	30
1231	61+550	411670.2	2861119	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-39

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1232	61+600	411676.6	2861069	30	30
1233	61+650	411683	2861019	30	30
1234	61+700	411689.5	2860970	30	30
1235	61+750	411695.9	2860920	30	30
1236	61+800	411702.3	2860871	30	30
1237	61+850	411708.7	2860821	30	30
1238	61+900	411715.2	2860771	30	30
1239	61+950	411721.6	2860722	30	30
1240	62+000	411728	2860672	30	30
1241	62+050	411734.4	2860623	30	30
1242	62+100	411740.8	2860573	30	30
1243	62+150	411747.3	2860524	30	30
1244	62+200	411753.7	2860474	30	30
1245	62+250	411760.1	2860424	30	30
1246	62+300	411766.5	2860375	30	30
1247	62+350	411773	2860325	30	30
1248	62+400	411779.4	2860276	30	30
1249	62+450	411785.8	2860226	30	30
1250	62+500	411792.2	2860176	30	30
1251	62+550	411798.7	2860127	30	30
1252	62+600	411805.1	2860077	30	30
1253	62+650	411811.5	2860028	30	30
1254	62+700	411817.9	2859978	30	30
1255	62+750	411824.4	2859929	30	30
1256	62+800	411830.8	2859879	30	30
1257	62+850	411837.2	2859829	30	30
1258	62+900	411843.6	2859780	30	30
1259	62+950	411850.1	2859730	30	30
1260	63+000	411856.5	2859681	30	30
1261	63+050	411862.9	2859631	30	30
1262	63+100	411869.3	2859581	30	30
1263	63+150	411875.8	2859532	30	30
1264	63+200	411882.2	2859482	30	30
1265	63+250	411888.6	2859433	30	30
1266	63+300	411895	2859383	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-40

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1267	63+350	411901.5	2859333	30	30
1268	63+400	411907.9	2859284	30	30
1269	63+450	411914.3	2859234	30	30
1270	63+500	411920.7	2859185	30	30
1271	63+550	411927.2	2859135	30	30
1272	63+600	411933.6	2859086	30	30
1273	63+650	411940	2859036	30	30
1274	63+700	411946.4	2858986	30	30
1275	63+750	411952.8	2858937	30	30
1276	63+800	411959.3	2858887	30	30
1277	63+850	411965.7	2858838	30	30
1278	63+900	411972.1	2858788	30	30
1279	63+950	411978.5	2858738	30	30
1280	64+000	411985	2858689	30	30
1281	64+050	411991.4	2858639	30	30
1282	64+100	411997.8	2858590	30	30
1283	64+150	412004.2	2858540	30	30
1284	64+200	412010.7	2858491	30	30
1285	64+250	412017.1	2858441	30	30
1286	64+300	412023.5	2858391	30	30
1287	64+350	412029.9	2858342	30	30
1288	64+400	412036.4	2858292	30	30
1289	64+450	412042.8	2858243	30	30
1290	64+500	412049.2	2858193	30	30
1291	64+550	412055.6	2858143	30	30
1292	64+600	412062.1	2858094	30	30
1293	64+650	412068.5	2858044	30	30
1294	64+700	412074.9	2857995	30	30
1295	64+750	412081	2857945	30	30
1296	64+800	412086.9	2857895	30	30
1297	64+850	412092.5	2857846	30	30
1298	64+900	412097.9	2857796	30	30
1299	64+950	412103.1	2857746	30	30
1300	65+000	412108	2857697	30	30
1301	65+050	412112.6	2857647	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-41

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1302	65+100	412117	2857597	30	30
1303	65+150	412121.2	2857547	30	30
1304	65+200	412125.1	2857497	30	30
1305	65+250	412128.7	2857447	30	30
1306	65+300	412132.1	2857398	30	30
1307	65+350	412135.3	2857348	30	30
1308	65+400	412138.2	2857298	30	30
1309	65+450	412140.8	2857248	30	30
1310	65+500	412143.2	2857198	30	30
1311	65+550	412145.4	2857148	30	30
1312	65+600	412147.3	2857098	30	30
1313	65+650	412149	2857048	30	30
1314	65+700	412150.4	2856998	30	30
1315	65+750	412151.5	2856948	30	30
1316	65+800	412152.4	2856898	30	30
1317	65+850	412153.1	2856848	30	30
1318	65+900	412153.5	2856798	30	30
1319	65+950	412153.7	2856748	30	30
1320	66+000	412153.6	2856698	30	30
1321	66+050	412153.2	2856648	30	30
1322	66+100	412152.6	2856598	30	30
1323	66+150	412151.8	2856548	30	30
1324	66+200	412150.7	2856498	30	30
1325	66+250	412149.3	2856448	30	30
1326	66+300	412147.7	2856398	30	30
1327	66+350	412145.9	2856348	30	30
1328	66+400	412143.8	2856298	30	30
1329	66+450	412141.5	2856248	30	30
1330	66+500	412138.9	2856198	30	30
1331	66+550	412136	2856148	30	30
1332	66+600	412132.9	2856098	30	30
1333	66+650	412129.6	2856049	30	30
1334	66+700	412126	2855999	30	30
1335	66+750	412122.2	2855949	30	30
1336	66+800	412118.1	2855899	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-42

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1337	66+850	412113.7	2855849	30	30
1338	66+900	412109.1	2855799	30	30
1339	66+950	412104.3	2855750	30	30
1340	67+000	412099.2	2855700	30	30
1341	67+050	412093.9	2855650	30	30
1342	67+100	412088.3	2855600	30	30
1343	67+150	412082.5	2855551	30	30
1344	67+200	412076.4	2855501	30	30
1345	67+250	412070.1	2855452	30	30
1346	67+300	412063.5	2855402	30	30
1347	67+350	412056.7	2855352	30	30
1348	67+400	412049.6	2855303	30	30
1349	67+450	412042.3	2855254	30	30
1350	67+500	412034.7	2855204	30	30
1351	67+550	412026.9	2855155	30	30
1352	67+600	412018.9	2855105	30	30
1353	67+650	412010.5	2855056	30	30
1354	67+700	412002	2855007	30	30
1355	67+750	411993.2	2854958	30	30
1356	67+800	411984.2	2854908	30	30
1357	67+850	411974.9	2854859	30	30
1358	67+900	411965.3	2854810	30	30
1359	67+950	411955.5	2854761	30	30
1360	68+000	411945.5	2854712	30	30
1361	68+050	411935.2	2854663	30	30
1362	68+100	411924.7	2854614	30	30
1363	68+150	411914	2854566	30	30
1364	68+200	411903	2854517	30	30
1365	68+250	411891.7	2854468	30	30
1366	68+300	411880.2	2854419	30	30
1367	68+350	411868.5	2854371	30	30
1368	68+400	411856.5	2854322	30	30
1369	68+450	411844.3	2854274	30	30
1370	68+500	411831.8	2854225	30	30
1371	68+550	411819.1	2854177	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-43

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1372	68+600	411806.2	2854129	30	30
1373	68+650	411793	2854080	30	30
1374	68+700	411779.6	2854032	30	30
1375	68+750	411765.9	2853984	30	30
1376	68+800	411752	2853936	30	30
1377	68+850	411737.9	2853888	30	30
1378	68+900	411723.5	2853840	30	30
1379	68+950	411708.8	2853793	30	30
1380	69+000	411694	2853745	30	30
1381	69+050	411678.9	2853697	30	30
1382	69+100	411663.5	2853650	30	30
1383	69+150	411648	2853602	30	30
1384	69+200	411632.1	2853555	30	30
1385	69+250	411616.1	2853507	30	30
1386	69+300	411599.8	2853460	30	30
1387	69+350	411583.3	2853413	30	30
1388	69+400	411566.5	2853366	30	30
1389	69+450	411549.5	2853319	30	30
1390	69+500	411532.3	2853272	30	30
1391	69+550	411514.8	2853225	30	30
1392	69+600	411497.1	2853178	30	30
1393	69+650	411479.2	2853131	30	30
1394	69+700	411461	2853085	30	30
1395	69+750	411442.6	2853038	30	30
1396	69+800	411424	2852992	30	30
1397	69+850	411405.1	2852946	30	30
1398	69+900	411386	2852899	30	30
1399	69+950	411366.7	2852853	30	30
1400	70+000	411347.1	2852807	30	30
1401	70+050	411327.3	2852761	30	30
1402	70+100	411307.3	2852716	30	30
1403	70+150	411287.1	2852670	30	30
1404	70+200	411266.6	2852624	30	30
1405	70+250	411245.9	2852579	30	30
1406	70+300	411225	2852533	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1407	70+350	411203.8	2852488	30	30
1408	70+400	411182.4	2852443	30	30
1409	70+450	411160.8	2852398	30	30
1410	70+500	411139	2852353	30	30
1411	70+550	411116.9	2852308	30	30
1412	70+600	411094.6	2852263	30	30
1413	70+650	411072.1	2852218	30	30
1414	70+700	411049.4	2852174	30	30
1415	70+750	411026.5	2852129	30	30
1416	70+800	411003.3	2852085	30	30
1417	70+850	410979.9	2852041	30	30
1418	70+900	410956.3	2851997	30	30
1419	70+950	410932.4	2851953	30	30
1420	71+000	410908.4	2851909	30	30
1421	71+050	410884.1	2851865	30	30
1422	71+100	410859.6	2851822	30	30
1423	71+150	410834.9	2851778	30	30
1424	71+200	410810	2851735	30	30
1425	71+250	410784.9	2851692	30	30
1426	71+300	410759.9	2851648	30	30
1427	71+350	410734.8	2851605	30	30
1428	71+400	410709.8	2851562	30	30
1429	71+450	410684.7	2851519	30	30
1430	71+500	410659.6	2851475	30	30
1431	71+550	410634.6	2851432	30	30
1432	71+600	410609.5	2851389	30	30
1433	71+650	410584.5	2851346	30	30
1434	71+700	410559.4	2851302	30	30
1435	71+750	410534.3	2851259	30	30
1436	71+800	410509.3	2851216	30	30
1437	71+850	410484.2	2851173	30	30
1438	71+900	410459.2	2851129	30	30
1439	71+950	410434.1	2851086	30	30
1440	72+000	410409	2851043	30	30
1441	72+050	410384	2850999	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1442	72+100	410358.9	2850956	30	30
1443	72+150	410333.9	2850913	30	30
1444	72+200	410308.8	2850870	30	30
1445	72+250	410283.8	2850826	30	30
1446	72+300	410258.7	2850783	30	30
1447	72+350	410233.6	2850740	30	30
1448	72+400	410208.6	2850697	30	30
1449	72+450	410183.5	2850653	30	30
1450	72+500	410158.5	2850610	30	30
1451	72+550	410133.4	2850567	30	30
1452	72+600	410108.3	2850524	30	30
1453	72+650	410083.3	2850480	30	30
1454	72+700	410058.2	2850437	30	30
1455	72+750	410033.2	2850394	30	30
1456	72+800	410008.1	2850350	30	30
1457	72+850	409983	2850307	30	30
1458	72+900	409958	2850264	30	30
1459	72+950	409932.9	2850221	30	30
1460	73+000	409907.9	2850177	30	30
1461	73+050	409882.8	2850134	30	30
1462	73+100	409857.7	2850091	30	30
1463	73+150	409832.7	2850048	30	30
1464	73+200	409807.6	2850004	30	30
1465	73+250	409782.6	2849961	30	30
1466	73+300	409757.5	2849918	30	30
1467	73+350	409732.5	2849875	30	30
1468	73+400	409707.4	2849831	30	30
1469	73+450	409682.3	2849788	30	30
1470	73+500	409657.3	2849745	30	30
1471	73+550	409632.2	2849701	30	30
1472	73+600	409607.2	2849658	30	30
1473	73+650	409582.1	2849615	30	30
1474	73+700	409557	2849572	30	30
1475	73+750	409532	2849528	30	30
1476	73+800	409506.9	2849485	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-46

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1477	73+850	409481.9	2849442	30	30
1478	73+900	409456.8	2849399	30	30
1479	73+950	409431.7	2849355	30	30
1480	74+000	409406.7	2849312	30	30
1481	74+050	409381.6	2849269	30	30
1482	74+100	409356.6	2849226	30	30
1483	74+150	409331.5	2849182	30	30
1484	74+200	409306.4	2849139	30	30
1485	74+250	409281.4	2849096	30	30
1486	74+300	409256.3	2849052	30	30
1487	74+350	409231.3	2849009	30	30
1488	74+400	409206.2	2848966	30	30
1489	74+450	409181.2	2848923	30	30
1490	74+500	409156.1	2848879	30	30
1491	74+550	409131	2848836	30	30
1492	74+600	409106	2848793	30	30
1493	74+650	409080.9	2848750	30	30
1494	74+700	409055.9	2848706	30	30
1495	74+750	409030.8	2848663	30	30
1496	74+800	409005.7	2848620	30	30
1497	74+850	408980.7	2848577	30	30
1498	74+900	408955.6	2848533	30	30
1499	74+950	408930.6	2848490	30	30
1500	75+000	408905.5	2848447	30	30
1501	75+050	408880.4	2848403	30	30
1502	75+100	408855.4	2848360	30	30
1503	75+150	408830.3	2848317	30	30
1504	75+200	408805.3	2848274	30	30
1505	75+250	408780.5	2848230	30	30
1506	75+300	408756.9	2848186	30	30
1507	75+350	408734.3	2848142	30	30
1508	75+400	408712.9	2848096	30	30
1509	75+450	408692.6	2848051	30	30
1510	75+500	408673.4	2848004	30	30
1511	75+550	408655.4	2847958	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1512	75+600	408638.6	2847911	30	30
1513	75+650	408623	2847863	30	30
1514	75+700	408608.5	2847815	30	30
1515	75+750	408595.3	2847767	30	30
1516	75+800	408583.3	2847719	30	30
1517	75+850	408572.4	2847670	30	30
1518	75+900	408562.9	2847621	30	30
1519	75+950	408554.5	2847571	30	30
1520	76+000	408547.4	2847522	30	30
1521	76+050	408541.5	2847472	30	30
1522	76+100	408536.8	2847423	30	30
1523	76+150	408533.4	2847373	30	30
1524	76+200	408531.3	2847323	30	30
1525	76+250	408530	2847273	30	30
1526	76+300	408528.7	2847223	30	30
1527	76+350	408527.4	2847173	30	30
1528	76+400	408526.2	2847123	30	30
1529	76+450	408524.9	2847073	30	30
1530	76+500	408523.6	2847023	30	30
1531	76+550	408522.4	2846973	30	30
1532	76+600	408521.1	2846923	30	30
1533	76+650	408519.8	2846873	30	30
1534	76+700	408518.5	2846823	30	30
1535	76+750	408517.3	2846773	30	30
1536	76+800	408516	2846723	30	30
1537	76+850	408514.7	2846673	30	30
1538	76+900	408513.5	2846623	30	30
1539	76+950	408512.2	2846573	30	30
1540	77+000	408510.9	2846523	30	30
1541	77+050	408509.7	2846473	30	30
1542	77+100	408508.4	2846423	30	30
1543	77+150	408507.1	2846373	30	30
1544	77+200	408505.8	2846323	30	30
1545	77+250	408504.6	2846273	30	30
1546	77+300	408503.3	2846223	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1547	77+350	408502	2846173	30	30
1548	77+400	408500.8	2846123	30	30
1549	77+450	408499.5	2846073	30	30
1550	77+500	408498.2	2846023	30	30
1551	77+550	408496.9	2845973	30	30
1552	77+600	408495.7	2845923	30	30
1553	77+650	408494.4	2845873	30	30
1554	77+700	408493.1	2845823	30	30
1555	77+750	408491.9	2845773	30	30
1556	77+800	408490.6	2845723	30	30
1557	77+850	408489.3	2845673	30	30
1558	77+900	408488.1	2845623	30	30
1559	77+950	408486.8	2845573	30	30
1560	78+000	408485.5	2845523	30	30
1561	78+050	408484.2	2845473	30	30
1562	78+100	408483	2845423	30	30
1563	78+150	408481.7	2845373	30	30
1564	78+200	408480.4	2845323	30	30
1565	78+250	408479.2	2845273	30	30
1566	78+300	408477.9	2845223	30	30
1567	78+350	408476.6	2845173	30	30
1568	78+400	408475.4	2845123	30	30
1569	78+450	408474.1	2845073	30	30
1570	78+500	408472.8	2845023	30	30
1571	78+550	408471.5	2844973	30	30
1572	78+600	408470.3	2844923	30	30
1573	78+650	408469	2844874	30	30
1574	78+700	408467.7	2844824	30	30
1575	78+750	408465.4	2844774	30	30
1576	78+800	408461.8	2844724	30	30
1577	78+850	408457	2844674	30	30
1578	78+900	408451	2844624	30	30
1579	78+950	408443.7	2844575	30	30
1580	79+000	408435.2	2844526	30	30
1581	79+050	408425.4	2844477	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-49

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1582	79+100	408414.4	2844428	30	30
1583	79+150	408402.3	2844379	30	30
1584	79+200	408388.9	2844331	30	30
1585	79+250	408374.3	2844283	30	30
1586	79+300	408358.5	2844236	30	30
1587	79+350	408341.5	2844189	30	30
1588	79+400	408323.4	2844142	30	30
1589	79+450	408304.1	2844096	30	30
1590	79+500	408283.7	2844050	30	30
1591	79+550	408262.1	2844005	30	30
1592	79+600	408239.4	2843961	30	30
1593	79+650	408215.6	2843917	30	30
1594	79+700	408190.7	2843873	30	30
1595	79+750	408164.7	2843831	30	30
1596	79+800	408137.7	2843789	30	30
1597	79+850	408110.3	2843747	30	30
1598	79+900	408082.9	2843705	30	30
1599	79+950	408055.5	2843663	30	30
1600	80+000	408028.1	2843621	30	30
1601	80+050	408000.7	2843580	30	30
1602	80+100	407973.3	2843538	30	30
1603	80+150	407946	2843496	30	30
1604	80+200	407918.6	2843454	30	30
1605	80+250	407891.2	2843412	30	30
1606	80+300	407863.8	2843370	30	30
1607	80+350	407836.4	2843329	30	30
1608	80+400	407809	2843287	30	30
1609	80+450	407781.6	2843245	30	30
1610	80+500	407754.2	2843203	30	30
1611	80+550	407726.8	2843161	30	30
1612	80+600	407699.4	2843119	30	30
1613	80+650	407672	2843078	30	30
1614	80+700	407644.6	2843036	30	30
1615	80+750	407617.2	2842994	30	30
1616	80+800	407589.9	2842952	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-50

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1617	80+850	407562.5	2842910	30	30
1618	80+900	407535.1	2842868	30	30
1619	80+950	407507.7	2842827	30	30
1620	81+000	407480.3	2842785	30	30
1621	81+050	407452.9	2842743	30	30
1622	81+100	407425.5	2842701	30	30
1623	81+150	407398.1	2842659	30	30
1624	81+200	407370.7	2842617	30	30
1625	81+250	407343.3	2842576	30	30
1626	81+300	407315.9	2842534	30	30
1627	81+350	407288.5	2842492	30	30
1628	81+400	407261.2	2842450	30	30
1629	81+450	407233.8	2842408	30	30
1630	81+500	407206.4	2842366	30	30
1631	81+550	407179	2842325	30	30
1632	81+600	407151.6	2842283	30	30
1633	81+650	407124.2	2842241	30	30
1634	81+700	407096.8	2842199	30	30
1635	81+750	407069.4	2842157	30	30
1636	81+800	407042	2842115	30	30
1637	81+850	407014.6	2842074	30	30
1638	81+900	406987.2	2842032	30	30
1639	81+950	406959.8	2841990	30	30
1640	82+000	406932.5	2841948	30	30
1641	82+050	406905.1	2841906	30	30
1642	82+100	406877.7	2841865	30	30
1643	82+150	406850.3	2841823	30	30
1644	82+200	406822.9	2841781	30	30
1645	82+250	406795.5	2841739	30	30
1646	82+300	406768.1	2841697	30	30
1647	82+350	406740.7	2841655	30	30
1648	82+400	406713.3	2841614	30	30
1649	82+450	406685.9	2841572	30	30
1650	82+500	406658.5	2841530	30	30
1651	82+550	406631.1	2841488	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1652	82+600	406603.7	2841446	30	30
1653	82+650	406576.4	2841404	30	30
1654	82+700	406549	2841363	30	30
1655	82+750	406521.6	2841321	30	30
1656	82+800	406494.2	2841279	30	30
1657	82+850	406466.8	2841237	30	30
1658	82+900	406439.4	2841195	30	30
1659	82+950	406412	2841153	30	30
1660	83+000	406384.6	2841112	30	30
1661	83+050	406357.2	2841070	30	30
1662	83+100	406329.8	2841028	30	30
1663	83+150	406302.4	2840986	30	30
1664	83+200	406275	2840944	30	30
1665	83+250	406247.7	2840902	30	30
1666	83+300	406220.3	2840861	30	30
1667	83+350	406192.9	2840819	30	30
1668	83+400	406165.5	2840777	30	30
1669	83+450	406138.1	2840735	30	30
1670	83+500	406110.7	2840693	30	30
1671	83+550	406083.3	2840651	30	30
1672	83+600	406055.9	2840610	30	30
1673	83+650	406028.5	2840568	30	30
1674	83+700	406001.1	2840526	30	30
1675	83+750	405973.7	2840484	30	30
1676	83+800	405946.3	2840442	30	30
1677	83+850	405918.9	2840400	30	30
1678	83+900	405891.6	2840359	30	30
1679	83+950	405864.2	2840317	30	30
1680	84+000	405836.8	2840275	30	30
1681	84+050	405809.4	2840233	30	30
1682	84+100	405782	2840191	30	30
1683	84+150	405754.6	2840150	30	30
1684	84+200	405727.2	2840108	30	30
1685	84+250	405699.8	2840066	30	30
1686	84+300	405672.4	2840024	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1687	84+350	405645	2839982	30	30
1688	84+400	405617.6	2839940	30	30
1689	84+450	405590.2	2839899	30	30
1690	84+500	405562.9	2839857	30	30
1691	84+550	405535.5	2839815	30	30
1692	84+600	405508.1	2839773	30	30
1693	84+650	405480.7	2839731	30	30
1694	84+700	405453.3	2839689	30	30
1695	84+750	405425.9	2839648	30	30
1696	84+800	405398.5	2839606	30	30
1697	84+850	405371.1	2839564	30	30
1698	84+900	405343.7	2839522	30	30
1699	84+950	405316.3	2839480	30	30
1700	85+000	405288.9	2839438	30	30
1701	85+050	405261.5	2839397	30	30
1702	85+100	405234.1	2839355	30	30
1703	85+150	405206.8	2839313	30	30
1704	85+200	405179.4	2839271	30	30
1705	85+250	405152	2839229	30	30
1706	85+300	405124.6	2839187	30	30
1707	85+350	405097.2	2839146	30	30
1708	85+400	405069.8	2839104	30	30
1709	85+450	405042.4	2839062	30	30
1710	85+500	405015	2839020	30	30
1711	85+550	404987.6	2838978	30	30
1712	85+600	404960.2	2838936	30	30
1713	85+650	404933	2838895	30	30
1714	85+700	404906.8	2838852	30	30
1715	85+750	404881.7	2838809	30	30
1716	85+800	404857.7	2838765	30	30
1717	85+850	404834.7	2838720	30	30
1718	85+900	404812.9	2838675	30	30
1719	85+950	404792.2	2838630	30	30
1720	86+000	404772.7	2838584	30	30
1721	86+050	404754.3	2838537	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1722	86+100	404737.1	2838490	30	30
1723	86+150	404721	2838443	30	30
1724	86+200	404706.2	2838395	30	30
1725	86+250	404692.5	2838347	30	30
1726	86+300	404680.1	2838299	30	30
1727	86+350	404668.8	2838250	30	30
1728	86+400	404658.8	2838201	30	30
1729	86+450	404650	2838152	30	30
1730	86+500	404642.5	2838103	30	30
1731	86+550	404636.2	2838053	30	30
1732	86+600	404631.1	2838003	30	30
1733	86+650	404627.3	2837953	30	30
1734	86+700	404624.7	2837903	30	30
1735	86+750	404623.4	2837853	30	30
1736	86+800	404623.3	2837803	30	30
1737	86+850	404624.5	2837753	30	30
1738	86+900	404626.6	2837703	30	30
1739	86+950	404628.9	2837654	30	30
1740	87+000	404631.1	2837604	30	30
1741	87+050	404633.4	2837554	30	30
1742	87+100	404635.6	2837504	30	30
1743	87+150	404637.9	2837454	30	30
1744	87+200	404640.1	2837404	30	30
1745	87+250	404642.4	2837354	30	30
1746	87+300	404644.6	2837304	30	30
1747	87+350	404646.9	2837254	30	30
1748	87+400	404649.1	2837204	30	30
1749	87+450	404651.4	2837154	30	30
1750	87+500	404653.6	2837104	30	30
1751	87+550	404655.9	2837054	30	30
1752	87+600	404658.1	2837004	30	30
1753	87+650	404660.4	2836954	30	30
1754	87+700	404662.6	2836904	30	30
1755	87+750	404664.9	2836854	30	30
1756	87+800	404667.1	2836804	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1757	87+850	404669.4	2836754	30	30
1758	87+900	404671.6	2836704	30	30
1759	87+950	404673.9	2836655	30	30
1760	88+000	404676.1	2836605	30	30
1761	88+050	404678.4	2836555	30	30
1762	88+100	404680.6	2836505	30	30
1763	88+150	404682.9	2836455	30	30
1764	88+200	404685.1	2836405	30	30
1765	88+250	404687.4	2836355	30	30
1766	88+300	404689.6	2836305	30	30
1767	88+350	404691.9	2836255	30	30
1768	88+400	404694.1	2836205	30	30
1769	88+450	404696.4	2836155	30	30
1770	88+500	404698.6	2836105	30	30
1771	88+550	404700.9	2836055	30	30
1772	88+600	404703.1	2836005	30	30
1773	88+650	404705.4	2835955	30	30
1774	88+700	404707.6	2835905	30	30
1775	88+750	404709.9	2835855	30	30
1776	88+800	404712.1	2835805	30	30
1777	88+850	404714.4	2835755	30	30
1778	88+900	404716.6	2835705	30	30
1779	88+950	404718.9	2835656	30	30
1780	89+000	404721.1	2835606	30	30
1781	89+050	404723.4	2835556	30	30
1782	89+100	404725.6	2835506	30	30
1783	89+150	404727.9	2835456	30	30
1784	89+200	404730.1	2835406	30	30
1785	89+250	404732.4	2835356	30	30
1786	89+300	404734.6	2835306	30	30
1787	89+350	404736.9	2835256	30	30
1788	89+400	404739.1	2835206	30	30
1789	89+450	404741.4	2835156	30	30
1790	89+500	404743.6	2835106	30	30
1791	89+550	404745.9	2835056	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1792	89+600	404748.1	2835006	30	30
1793	89+650	404750.4	2834956	30	30
1794	89+700	404752.8	2834906	30	30
1795	89+750	404756.2	2834856	30	30
1796	89+800	404761	2834807	30	30
1797	89+850	404766.9	2834757	30	30
1798	89+900	404774.1	2834708	30	30
1799	89+950	404782.5	2834658	30	30
1800	90+000	404792.2	2834609	30	30
1801	90+050	404803.1	2834560	30	30
1802	90+100	404815.2	2834512	30	30
1803	90+150	404828.5	2834464	30	30
1804	90+200	404843	2834416	30	30
1805	90+250	404858.7	2834368	30	30
1806	90+300	404875.6	2834321	30	30
1807	90+350	404893.6	2834275	30	30
1808	90+400	404912.9	2834229	30	30
1809	90+450	404933.2	2834183	30	30
1810	90+500	404954.7	2834138	30	30
1811	90+550	404977.3	2834093	30	30
1812	90+600	405001.1	2834049	30	30
1813	90+650	405025.9	2834006	30	30
1814	90+700	405051.8	2833963	30	30
1815	90+750	405078.2	2833920	30	30
1816	90+800	405104.6	2833878	30	30
1817	90+850	405131	2833836	30	30
1818	90+900	405157.4	2833793	30	30
1819	90+950	405183.9	2833751	30	30
1820	91+000	405210.3	2833708	30	30
1821	91+050	405236.7	2833666	30	30
1822	91+100	405263.1	2833623	30	30
1823	91+150	405289.5	2833581	30	30
1824	91+200	405316	2833538	30	30
1825	91+250	405342.4	2833496	30	30
1826	91+300	405368.8	2833454	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1827	91+350	405395.2	2833411	30	30
1828	91+400	405421.6	2833369	30	30
1829	91+450	405447.9	2833326	30	30
1830	91+500	405474	2833283	30	30
1831	91+550	405500	2833241	30	30
1832	91+600	405525.8	2833198	30	30
1833	91+650	405551.5	2833155	30	30
1834	91+700	405577.1	2833112	30	30
1835	91+750	405602.5	2833069	30	30
1836	91+800	405627.7	2833026	30	30
1837	91+850	405652.9	2832983	30	30
1838	91+900	405677.8	2832939	30	30
1839	91+950	405702.7	2832896	33.5	33.5
1840	92+000	405727.4	2832852	33.5	33.5
1841	92+050	405751.9	2832809	33.5	33.5
1842	92+100	405776.3	2832765	33.5	33.5
1843	92+150	405800.6	2832721	33.5	33.5
1844	92+200	405824.7	2832678	33.5	33.5
1845	92+250	405848.6	2832634	33.5	33.5
1846	92+300	405872.4	2832590	33.5	33.5
1847	92+350	405896.1	2832546	33.5	33.5
1848	92+400	405919.6	2832502	33.5	33.5
1849	92+450	405943	2832457	33.5	33.5
1850	92+500	405966.2	2832413	33.5	33.5
1851	92+550	405989.3	2832369	33.5	33.5
1852	92+600	406012.2	2832324	33.5	33.5
1853	92+650	406035	2832280	33.5	33.5
1854	92+700	406057.6	2832235	33.5	33.5
1855	92+750	406080.1	2832191	33.5	33.5
1856	92+800	406102.5	2832146	33.5	33.5
1857	92+850	406124.6	2832101	33.5	33.5
1858	92+900	406146.7	2832056	33.5	33.5
1859	92+950	406168.6	2832011	33.5	33.5
1860	93+000	406190.3	2831966	33.5	33.5
1861	93+050	406211.9	2831921	33.5	33.5

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1862	93+100	406233.3	2831876	33.5	33.5
1863	93+150	406254.6	2831831	33.5	33.5
1864	93+200	406275.7	2831785	33.5	33.5
1865	93+250	406296.7	2831740	33.5	33.5
1866	93+300	406317.6	2831695	33.5	33.5
1867	93+350	406338.2	2831649	33.5	33.5
1868	93+400	406358.8	2831603	33.5	33.5
1869	93+450	406379.1	2831558	33.5	33.5
1870	93+500	406399.4	2831512	33.5	33.5
1871	93+550	406419.4	2831466	33.5	33.5
1872	93+600	406439.4	2831420	33.5	33.5
1873	93+650	406459.1	2831374	33.5	33.5
1874	93+700	406478.7	2831328	33.5	33.5
1875	93+750	406498.2	2831282	33.5	33.5
1876	93+800	406517.5	2831236	33.5	33.5
1877	93+850	406536.7	2831190	33.5	33.5
1878	93+900	406555.7	2831144	33.5	33.5
1879	93+950	406574.6	2831098	33.5	33.5
1880	94+000	406593.5	2831051	33.5	33.5
1881	94+050	406612.5	2831005	33.5	33.5
1882	94+100	406631.4	2830959	33.5	33.5
1883	94+150	406650.4	2830913	33.5	33.5
1884	94+200	406669.3	2830866	33.5	33.5
1885	94+250	406688.2	2830820	33.5	33.5
1886	94+300	406707.2	2830774	33.5	33.5
1887	94+350	406726.1	2830727	33.5	33.5
1888	94+400	406745.1	2830681	33.5	33.5
1889	94+450	406764	2830635	33.5	33.5
1890	94+500	406782.9	2830589	33.5	33.5
1891	94+550	406801.9	2830542	33.5	33.5
1892	94+600	406820.8	2830496	33.5	33.5
1893	94+650	406839.8	2830450	33.5	33.5
1894	94+700	406858.7	2830403	33.5	33.5
1895	94+750	406877.6	2830357	33.5	33.5
1896	94+800	406896.6	2830311	33.5	33.5

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1897	94+850	406915.5	2830265	33.5	33.5
1898	94+900	406934.5	2830218	33.5	33.5
1899	94+950	406953.4	2830172	33.5	33.5
1900	95+000	406972.4	2830126	33.5	33.5
1901	95+050	406991.3	2830080	33.5	33.5
1902	95+100	407010.2	2830033	33.5	33.5
1903	95+150	407029.2	2829987	33.5	33.5
1904	95+200	407048.1	2829941	33.5	33.5
1905	95+250	407067.1	2829894	33.5	33.5
1906	95+300	407086	2829848	33.5	33.5
1907	95+350	407104.9	2829802	33.5	33.5
1908	95+400	407123.9	2829756	33.5	33.5
1909	95+450	407142.8	2829709	33.5	33.5
1910	95+500	407161.8	2829663	33.5	33.5
1911	95+550	407180.7	2829617	33.5	33.5
1912	95+600	407199.6	2829571	33.5	33.5
1913	95+650	407218.6	2829524	33.5	33.5
1914	95+700	407237.5	2829478	33.5	33.5
1915	95+750	407256.5	2829432	33.5	33.5
1916	95+800	407275.4	2829385	33.5	33.5
1917	95+850	407294.3	2829339	33.5	33.5
1918	95+900	407313.3	2829293	33.5	33.5
1919	95+950	407332.2	2829247	33.5	33.5
1920	96+000	407351.2	2829200	33.5	33.5
1921	96+050	407370.1	2829154	33.5	33.5
1922	96+100	407389	2829108	33.5	33.5
1923	96+150	407408	2829062	30	30
1924	96+200	407426.9	2829015	30	30
1925	96+250	407445.9	2828969	30	30
1926	96+300	407464.8	2828923	30	30
1927	96+350	407483.7	2828876	30	30
1928	96+400	407502.7	2828830	30	30
1929	96+450	407521.6	2828784	30	30
1930	96+500	407540.6	2828738	30	30
1931	96+550	407559.5	2828691	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-59

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1932	96+600	407578.5	2828645	30	30
1933	96+650	407597.4	2828599	30	30
1934	96+700	407616.3	2828553	30	30
1935	96+750	407635.3	2828506	30	30
1936	96+800	407654.2	2828460	30	30
1937	96+850	407673.2	2828414	30	30
1938	96+900	407692.1	2828367	30	30
1939	96+950	407711	2828321	30	30
1940	97+000	407730	2828275	30	30
1941	97+050	407748.9	2828229	30	30
1942	97+100	407767.9	2828182	30	30
1943	97+150	407786.8	2828136	30	30
1944	97+200	407805.7	2828090	30	30
1945	97+250	407824.7	2828044	30	30
1946	97+300	407843.6	2827997	30	30
1947	97+350	407862.6	2827951	30	30
1948	97+400	407881.5	2827905	30	30
1949	97+450	407900.2	2827858	30	30
1950	97+500	407918.6	2827812	30	30
1951	97+550	407936.5	2827765	30	30
1952	97+600	407954.1	2827718	30	30
1953	97+650	407971.2	2827671	30	30
1954	97+700	407988	2827624	30	30
1955	97+750	408004.4	2827577	30	30
1956	97+800	408020.4	2827530	30	30
1957	97+850	408036	2827482	30	30
1958	97+900	408051.2	2827435	30	30
1959	97+950	408066	2827387	30	30
1960	98+000	408080.4	2827339	30	30
1961	98+050	408094.4	2827291	30	30
1962	98+100	408108	2827243	30	30
1963	98+150	408121.2	2827195	30	30
1964	98+200	408134	2827146	30	30
1965	98+250	408146.4	2827098	30	30
1966	98+300	408158.3	2827049	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-60

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
1967	98+350	408169.9	2827001	30	30
1968	98+400	408181.1	2826952	30	30
1969	98+450	408191.9	2826903	30	30
1970	98+500	408202.2	2826854	30	30
1971	98+550	408212.2	2826805	30	30
1972	98+600	408221.7	2826756	30	30
1973	98+650	408230.9	2826707	30	30
1974	98+700	408239.6	2826658	30	30
1975	98+750	408247.9	2826608	30	30
1976	98+800	408255.8	2826559	30	30
1977	98+850	408263.3	2826510	30	30
1978	98+900	408270.4	2826460	30	30
1979	98+950	408277.1	2826411	30	30
1980	99+000	408283.3	2826361	30	30
1981	99+050	408289.2	2826311	30	30
1982	99+100	408294.6	2826262	30	30
1983	99+150	408299.6	2826212	30	30
1984	99+200	408304.2	2826162	30	30
1985	99+250	408308.4	2826112	30	30
1986	99+300	408312.2	2826062	30	30
1987	99+350	408315.5	2826012	30	30
1988	99+400	408318.5	2825963	30	30
1989	99+450	408321	2825913	30	30
1990	99+500	408323.1	2825863	30	30
1991	99+550	408324.8	2825813	30	30
1992	99+600	408326.1	2825763	30	30
1993	99+650	408326.9	2825713	30	30
1994	99+700	408327.4	2825663	30	30
1995	99+750	408327.4	2825613	30	30
1996	99+800	408327	2825563	30	30
1997	99+850	408326.2	2825513	30	30
1998	99+900	408325	2825463	30	30
1999	99+950	408323.3	2825413	30	30
2000	100+000	408321.3	2825363	30	30
2001	100+050	408318.8	2825313	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2002	100+100	408315.9	2825263	30	30
2003	100+150	408312.6	2825213	30	30
2004	100+200	408308.9	2825163	30	30
2005	100+250	408304.7	2825113	30	30
2006	100+300	408300.2	2825064	30	30
2007	100+350	408295.2	2825014	30	30
2008	100+400	408289.8	2824964	30	30
2009	100+450	408284	2824914	30	30
2010	100+500	408277.8	2824865	30	30
2011	100+550	408271.2	2824815	30	30
2012	100+600	408264.1	2824766	30	30
2013	100+650	408256.7	2824716	30	30
2014	100+700	408248.8	2824667	30	30
2015	100+750	408240.6	2824618	30	30
2016	100+800	408231.9	2824568	30	30
2017	100+850	408222.8	2824519	30	30
2018	100+900	408213.3	2824470	30	30
2019	100+950	408203.4	2824421	30	30
2020	101+000	408193.1	2824372	30	30
2021	101+050	408182.3	2824323	30	30
2022	101+100	408171.2	2824275	30	30
2023	101+150	408159.7	2824226	30	30
2024	101+200	408147.7	2824177	30	30
2025	101+250	408135.4	2824129	30	30
2026	101+300	408122.6	2824081	30	30
2027	101+350	408109.5	2824032	30	30
2028	101+400	408095.9	2823984	30	30
2029	101+450	408082	2823936	30	30
2030	101+500	408067.6	2823888	30	30
2031	101+550	408052.9	2823841	30	30
2032	101+600	408037.7	2823793	30	30
2033	101+650	408022.2	2823745	30	30
2034	101+700	408006.2	2823698	30	30
2035	101+750	407989.9	2823651	30	30
2036	101+800	407973.1	2823604	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2037	101+850	407956	2823557	30	30
2038	101+900	407938.5	2823510	30	30
2039	101+950	407920.6	2823463	30	30
2040	102+000	407902.3	2823417	30	30
2041	102+050	407883.9	2823370	30	30
2042	102+100	407865.5	2823324	30	30
2043	102+150	407847	2823277	30	30
2044	102+200	407828.6	2823231	30	30
2045	102+250	407810.2	2823184	30	30
2046	102+300	407791.8	2823138	30	30
2047	102+350	407773.3	2823091	30	30
2048	102+400	407754.9	2823045	30	30
2049	102+450	407736.5	2822998	30	30
2050	102+500	407718.1	2822952	30	30
2051	102+550	407699.6	2822905	30	30
2052	102+600	407681.2	2822859	30	30
2053	102+650	407662.8	2822812	30	30
2054	102+700	407644.3	2822766	30	30
2055	102+750	407625.9	2822719	30	30
2056	102+800	407607.5	2822673	30	30
2057	102+850	407589.1	2822626	30	30
2058	102+900	407570.6	2822580	30	30
2059	102+950	407552.2	2822533	30	30
2060	103+000	407533.8	2822487	30	30
2061	103+050	407515.4	2822441	30	30
2062	103+100	407496.9	2822394	30	30
2063	103+150	407478.5	2822348	30	30
2064	103+200	407460.1	2822301	30	30
2065	103+250	407441.7	2822255	30	30
2066	103+300	407423.2	2822208	30	30
2067	103+350	407404.8	2822162	30	30
2068	103+400	407386.4	2822115	30	30
2069	103+450	407368	2822069	30	30
2070	103+500	407349.5	2822022	30	30
2071	103+550	407331.1	2821976	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-63

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2072	103+600	407312.7	2821929	30	30
2073	103+650	407294.2	2821883	30	30
2074	103+700	407275.8	2821836	30	30
2075	103+750	407257.4	2821790	30	30
2076	103+800	407239	2821743	30	30
2077	103+850	407220.5	2821697	30	30
2078	103+900	407202.1	2821650	30	30
2079	103+950	407183.7	2821604	30	30
2080	104+000	407165.3	2821557	30	30
2081	104+050	407146.8	2821511	30	30
2082	104+100	407128.4	2821464	30	30
2083	104+150	407110	2821418	30	30
2084	104+200	407091.6	2821371	30	30
2085	104+250	407073.1	2821325	30	30
2086	104+300	407054.7	2821278	30	30
2087	104+350	407036.3	2821232	30	30
2088	104+400	407017.8	2821186	30	30
2089	104+450	406999.4	2821139	30	30
2090	104+500	406981	2821093	30	30
2091	104+550	406962.6	2821046	30	30
2092	104+600	406944.1	2821000	30	30
2093	104+650	406925.7	2820953	30	30
2094	104+700	406907.3	2820907	30	30
2095	104+750	406888.9	2820860	30	30
2096	104+800	406870.4	2820814	30	30
2097	104+850	406852	2820767	30	30
2098	104+900	406833.6	2820721	30	30
2099	104+950	406815.2	2820674	30	30
2100	105+000	406796.7	2820628	30	30
2101	105+050	406778.3	2820581	30	30
2102	105+100	406759.9	2820535	30	30
2103	105+150	406741.5	2820488	30	30
2104	105+200	406723	2820442	30	30
2105	105+250	406704.6	2820395	30	30
2106	105+300	406686.2	2820349	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2107	105+350	406667.7	2820302	30	30
2108	105+400	406649.3	2820256	30	30
2109	105+450	406630.9	2820209	30	30
2110	105+500	406612.5	2820163	30	30
2111	105+550	406594	2820116	30	30
2112	105+600	406575.6	2820070	30	30
2113	105+650	406557.2	2820023	30	30
2114	105+700	406538.8	2819977	30	30
2115	105+750	406520.3	2819931	30	30
2116	105+800	406501.9	2819884	30	30
2117	105+850	406483.5	2819838	30	30
2118	105+900	406465.1	2819791	30	30
2119	105+950	406446.6	2819745	30	30
2120	106+000	406428.2	2819698	30	30
2121	106+050	406409.8	2819652	30	30
2122	106+100	406391.4	2819605	30	30
2123	106+150	406372.9	2819559	30	30
2124	106+200	406354.5	2819512	30	30
2125	106+250	406336.1	2819466	30	30
2126	106+300	406317.6	2819419	30	30
2127	106+350	406299.2	2819373	30	30
2128	106+400	406280.8	2819326	30	30
2129	106+450	406262.4	2819280	30	30
2130	106+500	406243.9	2819233	30	30
2131	106+550	406225.5	2819187	30	30
2132	106+600	406207.1	2819140	30	30
2133	106+650	406188.7	2819094	30	30
2134	106+700	406170.2	2819047	30	30
2135	106+750	406151.8	2819001	30	30
2136	106+800	406133.4	2818954	30	30
2137	106+850	406115	2818908	30	30
2138	106+900	406096.5	2818861	30	30
2139	106+950	406078.1	2818815	30	30
2140	107+000	406059.7	2818769	30	30
2141	107+050	406041.3	2818722	30	30

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-65

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2142	107+100	406022.8	2818676	30	30
2143	107+150	406004.4	2818629	30	30
2144	107+200	405986	2818583	30	30
2145	107+250	405967.5	2818536	30	30
2146	107+300	405949.1	2818490	30	30
2147	107+350	405930.7	2818443	30	30
2148	107+400	405912.3	2818397	30	30
2149	107+450	405893.8	2818350	30	30
2150	107+500	405875.4	2818304	30	30
2151	107+550	405857	2818257	30	30
2152	107+600	405838.6	2818211	30	30
2153	107+650	405820.1	2818164	30	30
2154	107+700	405801.7	2818118	30	30
2155	107+750	405783.3	2818071	30	30
2156	107+800	405764.9	2818025	30	30
2157	107+850	405746.4	2817978	30	30
2158	107+900	405728	2817932	30	30
2159	107+950	405709.6	2817885	30	30
2160	108+000	405691.2	2817839	30	30
2161	108+050	405672.7	2817792	30	30
2162	108+100	405654.3	2817746	30	30
2163	108+150	405635.9	2817699	30	30
2164	108+200	405617.4	2817653	30	30
2165	108+250	405599	2817606	30	30
2166	108+300	405580.6	2817560	30	30
2167	108+350	405562.2	2817514	30	30
2168	108+400	405543.7	2817467	30	30
2169	108+450	405525.3	2817421	30	30
2170	108+500	405506.9	2817374	30	30
2171	108+550	405488.5	2817328	30	30
2172	108+600	405470	2817281	30	30
2173	108+650	405451.6	2817235	30	30
2174	108+700	405433.2	2817188	30	30
2175	108+750	405414.8	2817142	30	30
2176	108+800	405396.3	2817095	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2177	108+850	405377.9	2817049	30	30
2178	108+900	405359.5	2817002	30	30
2179	108+950	405341.1	2816956	30	30
2180	109+000	405322.6	2816909	30	30
2181	109+050	405304.2	2816863	30	30
2182	109+100	405285.8	2816816	30	30
2183	109+150	405267.3	2816770	30	30
2184	109+200	405248.9	2816723	30	30
2185	109+250	405230.5	2816677	30	30
2186	109+300	405212.1	2816630	30	30
2187	109+350	405193.6	2816584	30	30
2188	109+400	405175.2	2816537	30	30
2189	109+450	405156.8	2816491	30	30
2190	109+500	405138.4	2816444	30	30
2191	109+550	405119.9	2816398	30	30
2192	109+600	405101.5	2816352	30	30
2193	109+650	405083.1	2816305	30	30
2194	109+700	405064.7	2816259	30	30
2195	109+750	405046.2	2816212	30	30
2196	109+800	405027.8	2816166	30	30
2197	109+850	405009.4	2816119	30	30
2198	109+900	404991	2816073	30	30
2199	109+950	404972.5	2816026	30	30
2200	110+000	404954.1	2815980	30	30
2201	110+050	404935.7	2815933	30	30
2202	110+100	404917.2	2815887	30	30
2203	110+150	404898.8	2815840	30	30
2204	110+200	404880.4	2815794	30	30
2205	110+250	404862	2815747	30	30
2206	110+300	404843.5	2815701	30	30
2207	110+350	404825.1	2815654	30	30
2208	110+400	404806.7	2815608	30	30
2209	110+450	404788.3	2815561	30	30
2210	110+500	404769.8	2815515	30	30
2211	110+550	404751.4	2815468	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2212	110+600	404733	2815422	30	30
2213	110+650	404714.6	2815375	30	30
2214	110+700	404696.1	2815329	30	30
2215	110+750	404677.7	2815282	30	30
2216	110+800	404659.3	2815236	30	30
2217	110+850	404640.9	2815189	30	30
2218	110+900	404622.4	2815143	30	30
2219	110+950	404604	2815097	30	30
2220	111+000	404585.6	2815050	30	30
2221	111+050	404567.1	2815004	30	30
2222	111+100	404548.7	2814957	30	30
2223	111+150	404530.3	2814911	30	30
2224	111+200	404511.9	2814864	30	30
2225	111+250	404493.4	2814818	30	30
2226	111+300	404475	2814771	30	30
2227	111+350	404456.6	2814725	30	30
2228	111+400	404438.2	2814678	30	30
2229	111+450	404419.7	2814632	30	30
2230	111+500	404401.3	2814585	30	30
2231	111+550	404382.9	2814539	30	30
2232	111+600	404364.5	2814492	30	30
2233	111+650	404346	2814446	30	30
2234	111+700	404327.6	2814399	30	30
2235	111+750	404309.2	2814353	30	30
2236	111+800	404290.7	2814306	30	30
2237	111+850	404272.3	2814260	30	30
2238	111+900	404253.9	2814213	30	30
2239	111+950	404235.5	2814167	30	30
2240	112+000	404217	2814120	30	30
2241	112+050	404198.6	2814074	30	30
2242	112+100	404180.2	2814027	30	30
2243	112+150	404161.8	2813981	30	30
2244	112+200	404143.3	2813935	30	30
2245	112+250	404124.9	2813888	30	30
2246	112+300	404106.5	2813842	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2247	112+350	404088.1	2813795	30	30
2248	112+400	404069.6	2813749	30	30
2249	112+450	404051.2	2813702	30	30
2250	112+500	404032.8	2813656	30	30
2251	112+550	404014.4	2813609	30	30
2252	112+600	403995.9	2813563	30	30
2253	112+650	403977.5	2813516	30	30
2254	112+700	403959.1	2813470	30	30
2255	112+750	403940.6	2813423	30	30
2256	112+800	403922.2	2813377	30	30
2257	112+850	403903.8	2813330	30	30
2258	112+900	403885.4	2813284	30	30
2259	112+950	403866.9	2813237	30	30
2260	113+000	403848.5	2813191	30	30
2261	113+050	403830.1	2813144	30	30
2262	113+100	403811.7	2813098	30	30
2263	113+150	403793.2	2813051	30	30
2264	113+200	403774.8	2813005	30	30
2265	113+250	403756.4	2812958	30	30
2266	113+300	403738	2812912	30	30
2267	113+350	403719.5	2812865	30	30
2268	113+400	403701.1	2812819	30	30
2269	113+450	403682.7	2812772	30	30
2270	113+500	403664.3	2812726	30	30
2271	113+550	403645.8	2812680	30	30
2272	113+600	403627.4	2812633	30	30
2273	113+650	403609	2812587	30	30
2274	113+700	403590.5	2812540	30	30
2275	113+750	403572.1	2812494	30	30
2276	113+800	403553.7	2812447	30	30
2277	113+850	403535.3	2812401	30	30
2278	113+900	403516.8	2812354	30	30
2279	113+950	403498.4	2812308	30	30
2280	114+000	403480	2812261	30	30
2281	114+050	403461.6	2812215	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2282	114+100	403443.1	2812168	30	30
2283	114+150	403424.7	2812122	30	30
2284	114+200	403406.3	2812075	30	30
2285	114+250	403387.9	2812029	30	30
2286	114+300	403369.4	2811982	30	30
2287	114+350	403351	2811936	30	30
2288	114+400	403332.6	2811889	30	30
2289	114+450	403314.2	2811843	30	30
2290	114+500	403295.7	2811796	30	30
2291	114+550	403277.3	2811750	30	30
2292	114+600	403258.9	2811703	30	30
2293	114+650	403240.5	2811657	30	30
2294	114+700	403222.8	2811610	30	30
2295	114+750	403206.3	2811563	30	30
2296	114+800	403190.4	2811516	30	30
2297	114+850	403174.4	2811468	30	30
2298	114+900	403158.4	2811421	30	30
2299	114+950	403142.5	2811373	30	30
2300	115+000	403126.5	2811326	30	30
2301	115+050	403110.5	2811279	30	30
2302	115+100	403094.6	2811231	30	30
2303	115+150	403078.6	2811184	30	30
2304	115+200	403062.6	2811137	30	30
2305	115+250	403046.7	2811089	30	30
2306	115+300	403030.7	2811042	30	30
2307	115+350	403014.7	2810994	30	30
2308	115+400	402998.8	2810947	30	30
2309	115+450	402982.8	2810900	30	30
2310	115+500	402966.8	2810852	30	30
2311	115+550	402950.8	2810805	30	30
2312	115+600	402934.8	2810757	30	30
2313	115+650	402918.7	2810710	30	30
2314	115+700	402901.9	2810663	30	30
2315	115+750	402884	2810616	30	30
2316	115+800	402865.9	2810570	30	30

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2317	115+850	402847.9	2810523	30	30
2318	115+900	402829.8	2810477	30	30
2319	115+950	402811.7	2810430	30	30
2320	116+000	402793	2810384	30	30
2321	116+050	402773.1	2810338	30	30
2322	116+100	402753.1	2810292	30	30
2323	116+150	402733	2810246	30	30
2324	116+200	402712.9	2810200	30	30
2325	116+250	402692.8	2810154	30	30
2326	116+300	402672.7	2810109	30	30
2327	116+350	402652.6	2810063	30	30
2328	116+400	402632.5	2810017	30	30
2329	116+450	402612.5	2809971	30	30
2330	116+500	402592.4	2809926	33.80035	33.80035
2331	116+550	402572.3	2809880	37.47835	37.47835
2332	116+600	402552.2	2809834	46.89915	46.89915
2333	116+650	402532.5	2809788	98.72265	98.72265
2334	116+700	402515.1	2809741	149.66	149.66
2335	116+750	402501.5	2809693	165.3558	165.3558
2336	116+800	402492.1	2809644	181.1718	181.1718
2337	116+850	402486	2809594	211.666	211.666
2338	116+900	402481.2	2809545	366.3537	366.3537
2339	116+950	402476.5	2809495	359.6078	359.6078
2340	117+000	402471.6	2809445	332.629	332.629
2341	117+050	402464.8	2809396	303.954	303.954
2342	117+100	402453.4	2809347	297.908	297.908
2343	117+150	402437	2809300	315.7533	315.7533
2344	117+200	402418	2809253	317.761	317.761
2345	117+250	402398.6	2809207	295.5449	295.5449
2346	117+300	402379.1	2809161	274.8522	274.8522
2347	117+350	402359.7	2809115	253.8775	253.8775
2348	117+400	402340.2	2809069	199.2039	199.2039
2349	117+450	402320.8	2809023	197.0594	197.0594
2350	117+500	402301.3	2808977	211.4853	211.4853
2351	117+550	402281.9	2808931	123.2518	123.2518

S.no	Chainage	Latitude	Longitude	Centreline to PROW(LHS)	Centreline to PROW(RHS)
				(m)	(m)
2352	117+600	402262.4	2808885	60.65925	60.65925
2353	117+650	402242.7	2808839	38.93165	38.93165
2354	117+700	402221.2	2808794	34.4604	34.4604

Existing (Section-2) Centre Line Coordinates

Sl. No.	Chainage	Easting	Northing
1	7+430	432103.08	2922492.99
2	7+530	432085.35	2922394.59
3	7+630	432068.25	2922296.07
4	7+730	432050.48	2922197.66
5	7+830	432032.58	2922099.27
6	7+930	432015.08	2922000.82
7	8+030	432001.95	2921901.71
8	8+130	431991.07	2921802.31
9	8+230	431980.43	2921702.88
10	8+330	431971.21	2921603.33
11	8+430	431961.01	2921503.85
12	8+530	431946.93	2921404.88
13	8+630	431928.21	2921306.66
14	8+730	431909.51	2921208.42
15	8+830	431883.22	2921112.1
16	8+930	431848.06	2921018.49
17	9+030	431813.5	2920924.67
18	9+130	431779.93	2920830.48
19	9+230	431745.23	2920736.78
20	9+330	431710.43	2920643.07
21	9+430	431678.78	2920548.21
22	9+530	431650.38	2920452.41
23	9+630	431625.91	2920355.57
24	9+730	431604.61	2920257.86
25	9+830	431583.31	2920160.16
26	9+930	431561.77	2920062.51
27	10+030	431537.31	2919965.56
28	10+130	431513.44	2919868.46
29	10+230	431485.21	2919772.53
30	10+330	431456.31	2919676.8
31	10+430	431425.56	2919581.65
32	10+530	431394.15	2919486.71

Sl. No.	Chainage	Easting	Northing
33	10+630	431362.74	2919391.77
34	10+730	431334.43	2919295.88
35	10+830	431310.77	2919198.79
36	10+930	431292.75	2919100.43
37	11+030	431273.89	2919002.23
38	11+130	431254.99	2918904.03
39	11+230	431236.22	2918805.81
40	11+330	431217.45	2918707.58
41	11+430	431198.68	2918609.36
42	11+530	431180.17	2918511.09
43	11+630	431165.25	2918412.21
44	11+730	431146.12	2918314.13
45	11+830	431129.74	2918215.49
46	11+930	431113.01	2918116.9
47	12+030	431096.29	2918018.31
48	12+130	431079.85	2917919.69
49	12+230	431063.5	2917821.05
50	12+330	431046.4	2917722.52
51	12+430	431030.86	2917623.75
52	12+530	431016.29	2917524.82
53	12+630	430997.64	2917426.58
54	12+730	430975.6	2917329.05
55	12+830	430947.53	2917233.09
56	12+930	430922.45	2917136.29
57	13+030	430898.75	2917039.16
58	13+130	430886.85	2916939.91
59	13+230	430852.91	2916846.17
60	13+330	430811.24	2916755.3
61	13+430	430782.3	2916659.71
62	13+530	430754.51	2916563.65
63	13+630	430725.84	2916467.86
64	13+730	430697.55	2916371.94
65	13+830	430668.96	2916276.12
66	13+930	430639.98	2916180.41
67	14+030	430612.2	2916084.35
68	14+130	430585.08	2915988.11
69	14+230	430557.97	2915891.85
70	14+330	430531.02	2915795.55
71	14+430	430504.5	2915699.14
72	14+530	430477.79	2915602.77
73	14+630	430450.01	2915506.71
74	14+730	430424.65	2915409.98

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-73

Sl. No.	Chainage	Easting	Northing
75	14+830	430397.09	2915313.86
76	14+930	430367.48	2915218.37
77	15+030	430336.26	2915123.38
78	15+130	430305.58	2915028.2
79	15+230	430274.96	2914933.01
80	15+330	430239.08	2914839.86
81	15+430	430194.86	2914750.17
82	15+530	430151.48	2914660.06
83	15+630	430108.35	2914569.85
84	15+730	430063.73	2914480.36
85	15+830	430018.81	2914391.02
86	15+930	429974.13	2914301.56
87	16+030	429929.16	2914212.24
88	16+130	429882.8	2914123.63
89	16+230	429835.17	2914035.72
90	16+330	429787.98	2913947.58
91	16+430	429743.32	2913858.11
92	16+530	429699.46	2913768.24
93	16+630	429643.39	2913685.94
94	16+730	429571.35	2913616.59
95	16+830	429498.37	2913548.23
96	16+930	429425.49	2913479.75
97	17+030	429354.6	2913409.26
98	17+130	429282.71	2913339.76
99	17+230	429211.47	2913269.58
100	17+330	429143.79	2913196.01
101	17+430	429078.18	2913120.54
102	17+530	429012.6	2913045.05
103	17+630	428945.92	2912970.53
104	17+730	428878.74	2912896.47
105	17+830	428811.23	2912822.7
106	17+930	428743.71	2912748.93
107	18+030	428676.64	2912674.84
108	18+130	428610.79	2912599.61
109	18+230	428546.25	2912523.22
110	18+330	428481.49	2912447.02
111	18+430	428416.71	2912370.85
112	18+530	428351.14	2912295.34
113	18+630	428286.34	2912219.18
114	18+730	428221.47	2912143.08
115	18+830	428157.03	2912066.61
116	18+930	428093	2911989.8

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-74

Sl. No.	Chainage	Easting	Northing
117	19+030	428028.57	2911913.32
118	19+130	427964.14	2911836.85
119	19+230	427899.63	2911760.44
120	19+330	427835.11	2911684.04
121	19+430	427771.93	2911606.53
122	19+530	427709	2911528.81
123	19+630	427646.33	2911450.9
124	19+730	427577.91	2911378.21
125	19+830	427502.53	2911312.5
126	19+930	427432.86	2911241.24
127	20+030	427396.08	2911148.52
128	20+130	427365.88	2911053.19
129	20+230	427336.06	2910957.74
130	20+330	427305.14	2910862.64
131	20+430	427272.22	2910768.23
132	20+530	427230.07	2910677.73
133	20+630	427180.79	2910590.73
134	20+730	427127.93	2910505.87
135	20+830	427077.33	2910419.71
136	20+930	427028.05	2910332.73
137	21+030	426975.13	2910247.89
138	21+130	426921.63	2910163.41
139	21+230	426868.24	2910078.85
140	21+330	426812.31	2909995.97
141	21+430	426755.98	2909913.34
142	21+530	426698.47	2909831.57
143	21+630	426640.77	2909749.92
144	21+730	426580.94	2909669.8
145	21+830	426522.72	2909588.5
146	21+930	426476.81	2909500.12
147	22+030	426441.98	2909406.38
148	22+130	426403.58	2909314.08
149	22+230	426358.43	2909224.87
150	22+330	426311.78	2909136.42
151	22+430	426265	2909048.04
152	22+530	426217.57	2908960.01
153	22+630	426169.79	2908872.18
154	22+730	426117.18	2908787.19
155	22+830	426057.6	2908706.88
156	22+930	425996.85	2908627.45
157	23+030	425936.05	2908548.06
158	23+130	425873.9	2908469.72

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-75

Sl. No.	Chainage	Easting	Northing
159	23+230	425811.35	2908391.71
160	23+330	425749.45	2908313.17
161	23+430	425687.47	2908234.7
162	23+530	425625.37	2908156.32
163	23+630	425563.15	2908078.03
164	23+730	425500.67	2907999.97
165	23+830	425437.2	2907922.7
166	23+930	425373.88	2907845.3
167	24+030	425311.02	2907767.53
168	24+130	425247.95	2907689.92
169	24+230	425184.27	2907612.82
170	24+330	425121.16	2907535.26
171	24+430	425058.21	2907457.56
172	24+530	424995.01	2907380.05
173	24+630	424931.76	2907302.6
174	24+730	424868.42	2907225.22
175	24+830	424804.85	2907148.02
176	24+930	424741.05	2907071.02
177	25+030	424676.61	2906994.56
178	25+130	424610.39	2906919.62
179	25+230	424544.48	2906844.42
180	25+330	424478.24	2906769.5
181	25+430	424411.26	2906695.25
182	25+530	424344.3	2906620.97
183	25+630	424277.93	2906546.18
184	25+730	424210.41	2906472.42
185	25+830	424142.9	2906398.65
186	25+930	424075.37	2906324.9
187	26+030	424006.76	2906252.16
188	26+130	423938.91	2906178.7
189	26+230	423871.51	2906104.84
190	26+330	423802.96	2906032.04
191	26+430	423734.03	2905959.59
192	26+530	423665.81	2905886.48
193	26+630	423597.76	2905813.2
194	26+730	423528.9	2905740.69
195	26+830	423460.56	2905667.69
196	26+930	423392.84	2905594.11
197	27+030	423324.64	2905520.99
198	27+130	423255.21	2905449.03
199	27+230	423187.69	2905375.28
200	27+330	423119.59	2905302.08

Sl. No.	Chainage	Easting	Northing
201	27+430	423050.62	2905229.7
202	27+530	422982.43	2905156.56
203	27+630	422913.58	2905084.06
204	27+730	422845.04	2905011.24
205	27+830	422776.33	2904938.58
206	27+930	422707.29	2904866.29
207	28+030	422638.44	2904793.77
208	28+130	422569.61	2904721.23
209	28+230	422501.14	2904648.36
210	28+330	422434.98	2904573.48
211	28+430	422375.7	2904493.02
212	28+530	422316.04	2904412.85
213	28+630	422251.95	2904336.09
214	28+730	422187.4	2904259.71
215	28+830	422122.61	2904183.54
216	28+930	422048.16	2904117.33
217	29+030	421964.53	2904062.59
218	29+130	421883.99	2904003.84
219	29+230	421814.58	2903931.89
220	29+330	421745.09	2903859.98
221	29+430	421675.72	2903787.95
222	29+530	421607	2903715.31
223	29+630	421538.25	2903642.69
224	29+730	421470.6	2903569.06
225	29+830	421401.88	2903496.41
226	29+930	421334.1	2903422.88
227	30+030	421265.04	2903350.56
228	30+130	421197.01	2903277.27
229	30+230	421129.22	2903203.75
230	30+330	421061.45	2903130.22
231	30+430	420993.69	2903056.68
232	30+530	420925.24	2902983.78
233	30+630	420857.25	2902910.45
234	30+730	420789.23	2902837.15
235	30+830	420721.39	2902763.68
236	30+930	420653.74	2902690.04
237	31+030	420585.99	2902616.51
238	31+130	420517.75	2902543.43
239	31+230	420449.6	2902470.25
240	31+330	420381.54	2902397
241	31+430	420313.38	2902323.83
242	31+530	420245.23	2902250.64

Sl. No.	Chainage	Easting	Northing
243	31+630	420177.61	2902176.97
244	31+730	420109.9	2902103.39
245	31+830	420042.45	2902029.56
246	31+930	419975.58	2901955.22
247	32+030	419909.88	2901879.91
248	32+130	419858.1	2901794.53
249	32+230	419810.5	2901706.6
250	32+330	419762.22	2901619.03
251	32+430	419714.86	2901530.96
252	32+530	419667.06	2901443.15
253	32+630	419619.58	2901355.17
254	32+730	419572.51	2901266.96
255	32+830	419525.8	2901178.54
256	32+930	419478.27	2901090.56
257	33+030	419431.08	2901002.4
258	33+130	419383.65	2900914.36
259	33+230	419336.71	2900826.07
260	33+330	419289.88	2900737.71
261	33+430	419243.75	2900649
262	33+530	419196.58	2900560.83
263	33+630	419151.76	2900471.46
264	33+730	419105.76	2900382.67
265	33+830	419059.33	2900294.11
266	33+930	419012.62	2900205.68
267	34+030	418965.99	2900117.23
268	34+130	418919.64	2900028.63
269	34+230	418873.3	2899940.03
270	34+330	418826.79	2899851.51
271	34+430	418780.86	2899762.68
272	34+530	418734.93	2899673.85
273	34+630	418689.12	2899584.96
274	34+730	418643.51	2899495.97
275	34+830	418597.3	2899407.29
276	34+930	418552.19	2899318.04
277	35+030	418506.88	2899228.9
278	35+130	418462.02	2899139.53
279	35+230	418416.82	2899050.33
280	35+330	418373.15	2898960.38
281	35+430	418329.39	2898870.46
282	35+530	418285.33	2898780.71
283	35+630	418241.95	2898690.61
284	35+730	418197.64	2898600.97

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-78

Sl. No.	Chainage	Easting	Northing
285	35+830	418154.21	2898510.89
286	35+930	418111.61	2898420.43
287	36+030	418068.08	2898330.42
288	36+130	418025.54	2898239.92
289	36+230	417982.39	2898149.73
290	36+330	417939.28	2898059.52
291	36+430	417901.42	2897966.98
292	36+530	417871.61	2897871.55
293	36+630	417844.46	2897775.31
294	36+730	417817.99	2897678.88
295	36+830	417790.72	2897582.67
296	36+930	417763.52	2897486.44
297	37+030	417737.63	2897389.85
298	37+130	417713.68	2897292.77
299	37+230	417691.67	2897195.25
300	37+330	417673.22	2897097.01
301	37+430	417657	2896998.33
302	37+530	417645.76	2896898.99
303	37+630	417637.24	2896799.35
304	37+730	417629.36	2896699.66
305	37+830	417621.57	2896599.97
306	37+930	417613.71	2896500.27
307	38+030	417605.5	2896400.61
308	38+130	417597.21	2896300.96
309	38+230	417588.59	2896201.33
310	38+330	417579.85	2896101.71
311	38+430	417571.12	2896002.09
312	38+530	417562.26	2895902.49
313	38+630	417553.32	2895802.89
314	38+730	417544.67	2895703.26
315	38+830	417535.81	2895603.66
316	38+930	417526.79	2895504.06
317	39+030	417518.13	2895404.44
318	39+130	417509.66	2895304.8
319	39+230	417499.94	2895205.28
320	39+330	417489.9	2895105.8
321	39+430	417479.95	2895006.32
322	39+530	417469.17	2894906.91
323	39+630	417455.91	2894807.8
324	39+730	417443.59	2894708.56
325	39+830	417431.32	2894609.32
326	39+930	417418.96	2894510.09

Sl. No.	Chainage	Easting	Northing
327	40+030	417406.17	2894410.91
328	40+130	417393.71	2894311.69
329	40+230	417381.14	2894212.48
330	40+330	417367.54	2894113.42
331	40+430	417353.91	2894014.35
332	40+530	417338.75	2893915.52
333	40+630	417322.27	2893816.89
334	40+730	417306.45	2893718.34
335	40+830	417288.93	2893619.89
336	40+930	417271.74	2893521.38
337	41+030	417253.85	2893422.99
338	41+130	417235.8	2893324.64
339	41+230	417219.14	2893226.04
340	41+330	417202.26	2893127.47
341	41+430	417182.87	2893029.92
342	41+530	417164.57	2892931.61
343	41+630	417149.59	2892832.8
344	41+730	417133.36	2892734.12
345	41+830	417114.47	2892635.95
346	41+930	417096.47	2892537.61
347	42+030	417080.9	2892438.83
348	42+130	417064.71	2892340.15
349	42+230	417050.83	2892241.12
350	42+330	417038.07	2892141.94
351	42+430	417028.31	2892042.48
352	42+530	417017.92	2891943.02
353	42+630	417004.7	2891843.92
354	42+730	416990.21	2891744.97
355	42+830	416978.65	2891645.65
356	42+930	416968.86	2891546.13
357	43+030	416956.59	2891446.9
358	43+130	416945.78	2891347.5
359	43+230	416938.07	2891247.85
360	43+330	416926.88	2891148.47
361	43+430	416915.69	2891049.1
362	43+530	416904.5	2890949.73
363	43+630	416893.32	2890850.36
364	43+730	416882.31	2890750.97
365	43+830	416871.25	2890651.59
366	43+930	416859.75	2890552.25
367	44+030	416848.76	2890452.85
368	44+130	416838.26	2890353.41

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-80

Sl. No.	Chainage	Easting	Northing
369	44+230	416828.05	2890253.93
370	44+330	416817.82	2890154.46
371	44+430	416807.77	2890054.96
372	44+530	416798.01	2889955.44
373	44+630	416788.26	2889855.92
374	44+730	416778.77	2889756.37
375	44+830	416769.28	2889656.82
376	44+930	416758.73	2889557.38
377	45+030	416749.45	2889457.83
378	45+130	416740.81	2889358.2
379	45+230	416731.31	2889258.66
380	45+330	416721.8	2889159.11
381	45+430	416712.3	2889059.56
382	45+530	416702.79	2888960.02
383	45+630	416693.29	2888860.47
384	45+730	416683.67	2888760.93
385	45+830	416674.26	2888661.38
386	45+930	416665.21	2888561.79
387	46+030	416656.16	2888462.2
388	46+130	416646.22	2888362.69
389	46+230	416636.22	2888263.19
390	46+330	416627.25	2888163.6
391	46+430	416618.27	2888064.01
392	46+530	416608.41	2887964.49
393	46+630	416599.12	2887864.93
394	46+730	416590.33	2887765.31
395	46+830	416580.81	2887665.78
396	46+930	416573.19	2887566.07
397	47+030	416565.75	2887466.35
398	47+130	416559.59	2887366.54
399	47+230	416552.59	2887266.79
400	47+330	416544.82	2887167.1
401	47+430	416529.96	2887068.33
402	47+530	416490.58	2886976.79
403	47+630	416437.04	2886892.38
404	47+730	416383.51	2886807.93
405	47+830	416335.48	2886720.29
406	47+930	416295.86	2886628.59
407	48+030	416264.77	2886533.61
408	48+130	416245.64	2886435.52
409	48+230	416235.13	2886336.1
410	48+330	416226.48	2886236.49

Sl. No.	Chainage	Easting	Northing
411	48+430	416223.09	2886136.61
412	48+530	416230.89	2886037.03
413	48+630	416249.87	2885938.92
414	48+730	416279.21	2885843.33
415	48+830	416309.65	2885748.08
416	48+930	416334.96	2885651.36
417	49+030	416352.46	2885552.92
418	49+130	416371.03	2885454.67
419	49+230	416387.63	2885356.06
420	49+330	416399.1	2885256.86
421	49+430	416399.79	2885156.88
422	49+530	416393.48	2885057.11
423	49+630	416386.33	2884957.36
424	49+730	416378.39	2884857.68
425	49+830	416372.59	2884757.85
426	49+930	416364.69	2884658.19
427	50+030	416355.33	2884558.63
428	50+130	416346.1	2884459.06
429	50+230	416337.79	2884359.4
430	50+330	416332.47	2884259.56
431	50+430	416324.56	2884159.87
432	50+530	416315.66	2884060.27
433	50+630	416307.62	2883960.6
434	50+730	416300.62	2883860.84
435	50+830	416293.23	2883761.11
436	50+930	416290.47	2883661.92
437	51+030	416279.22	2883563.52
438	51+130	416271.72	2883463.81
439	51+230	416264.21	2883364.09
440	51+330	416256.16	2883264.42
441	51+430	416246.47	2883164.89
442	51+530	416236.86	2883065.35
443	51+630	416227.25	2882965.81
444	51+730	416217.65	2882866.28
445	51+830	416207.7	2882766.77
446	51+930	416197.39	2882667.31
447	52+030	416187.3	2882567.82
448	52+130	416177.27	2882468.32
449	52+230	416167.12	2882368.84
450	52+330	416156.97	2882269.36
451	52+430	416147.71	2882169.79
452	52+530	416138.56	2882070.22

Sl. No.	Chainage	Easting	Northing
453	52+630	416122.75	2881971.49
454	52+730	416106.4	2881872.84
455	52+830	416088.6	2881774.44
456	52+930	416073.47	2881675.59
457	53+030	416054.49	2881577.42
458	53+130	416025.94	2881481.85
459	53+230	415978.33	2881394.03
460	53+330	415943.55	2881300.42
461	53+430	415912.85	2881205.26
462	53+530	415883.05	2881109.85
463	53+630	415855.16	2881013.87
464	53+730	415830.02	2880917.08
465	53+830	415804.19	2880820.48
466	53+930	415776.84	2880724.33
467	54+030	415752.08	2880627.44
468	54+130	415721.57	2880532.33
469	54+230	415682.46	2880440.33
470	54+330	415642.08	2880348.85
471	54+430	415602.61	2880256.97
472	54+530	415563.08	2880165.11
473	54+630	415528.17	2880071.51
474	54+730	415511.02	2879973.09
475	54+830	415499	2879873.82
476	54+930	415487.27	2879774.51
477	55+030	415475.98	2879675.15
478	55+130	415464.85	2879575.77
479	55+230	415453.57	2879476.41
480	55+330	415442.36	2879377.04
481	55+430	415431.09	2879277.68
482	55+530	415419.76	2879178.32
483	55+630	415408.55	2879078.95
484	55+730	415397.79	2878979.53
485	55+830	415386.49	2878880.17
486	55+930	415373.67	2878781.01
487	56+030	415361.89	2878681.7
488	56+130	415350.14	2878582.39
489	56+230	415338.23	2878483.11
490	56+330	415327.17	2878383.72
491	56+430	415322.65	2878283.95
492	56+530	415328.4	2878184.12
493	56+630	415334.65	2878084.32
494	56+730	415340.28	2877984.47

Sl. No.	Chainage	Easting	Northing
495	56+830	415345.88	2877884.63
496	56+930	415351.09	2877784.77
497	57+030	415356.08	2877684.89
498	57+130	415361.43	2877585.04
499	57+230	415367.17	2877485.2
500	57+330	415372.84	2877385.36
501	57+430	415378.38	2877285.52
502	57+530	415383.72	2877185.66
503	57+630	415388.3	2877085.77
504	57+730	415391.4	2876985.82
505	57+830	415396.72	2876885.96
506	57+930	415403.21	2876786.18
507	58+030	415409.71	2876686.39
508	58+130	415414.87	2876586.52
509	58+230	415411.51	2876486.61
510	58+330	415404.34	2876386.86
511	58+430	415398.07	2876287.06
512	58+530	415391.11	2876187.31
513	58+630	415383.85	2876087.57
514	58+730	415376.68	2875987.83
515	58+830	415369.5	2875888.09
516	58+930	415362.33	2875788.35
517	59+030	415354.97	2875688.62
518	59+130	415347.33	2875588.91
519	59+230	415339.71	2875489.2
520	59+330	415331.6	2875389.53
521	59+430	415324.09	2875289.81
522	59+530	415316.62	2875190.09
523	59+630	415308.27	2875090.45
524	59+730	415299.75	2874990.86
525	59+830	415293.48	2874891.09
526	59+930	415285.52	2874791.41
527	60+030	415277.73	2874691.73
528	60+130	415275.87	2874591.77
529	60+230	415283.69	2874492.18
530	60+330	415305.04	2874394.53
531	60+430	415336.3	2874299.61
532	60+530	415377.64	2874208.67
533	60+630	415426.37	2874121.37
534	60+730	415476.45	2874034.81
535	60+830	415527.27	2873948.69
536	60+930	415577.8	2873862.4

Sl. No.	Chainage	Easting	Northing
537	61+030	415627.92	2873775.86
538	61+130	415674.57	2873687.43
539	61+230	415717.62	2873597.18
540	61+330	415760.3	2873506.74
541	61+430	415802.88	2873416.26
542	61+530	415844.92	2873325.53
543	61+630	415886.35	2873234.52
544	61+730	415928.09	2873143.65
545	61+830	415970.25	2873052.97
546	61+930	416012.63	2872962.39
547	62+030	416054.32	2872871.5
548	62+130	416095.83	2872780.53
549	62+230	416139.2	2872690.43
550	62+330	416180.56	2872599.4
551	62+430	416222.29	2872508.56
552	62+530	416264.92	2872418.1
553	62+630	416306.57	2872327.19
554	62+730	416345.42	2872235.07
555	62+830	416366.61	2872137.66
556	62+930	416359.07	2872038.42
557	63+030	416322.31	2871945.69
558	63+130	416275.89	2871857.12
559	63+230	416225.29	2871770.89
560	63+330	416173.21	2871685.53
561	63+430	416121.25	2871600.08
562	63+530	416068.36	2871515.45
563	63+630	416016.83	2871429.75
564	63+730	415966.26	2871343.48
565	63+830	415916.22	2871256.91
566	63+930	415866.56	2871170.11
567	64+030	415824.57	2871080.07
568	64+130	415774.46	2870993.54
569	64+230	415724.51	2870906.91
570	64+330	415684.92	2870815.32
571	64+430	415668.49	2870717.06
572	64+530	415671.77	2870617.28
573	64+630	415687.72	2870519.12
574	64+730	415698.37	2870419.69
575	64+830	415708.44	2870320.2
576	64+930	415709.69	2870220.37
577	65+030	415687.89	2870123.17
578	65+130	415647.48	2870032.07

Sl. No.	Chainage	Easting	Northing
579	65+230	415588.47	2869951.54
580	65+330	415516.59	2869882.09
581	65+430	415442.98	2869814.41
582	65+530	415366.25	2869750.64
583	65+630	415292.89	2869682.69
584	65+730	415219.83	2869614.43
585	65+830	415147.24	2869545.66
586	65+930	415074.83	2869476.69
587	66+030	415002.87	2869407.29
588	66+130	414934.23	2869334.76
589	66+230	414857.52	2869270.79
590	66+330	414770.78	2869221.52
591	66+430	414676.53	2869188.65
592	66+530	414577.8	2869173.32
593	66+630	414478.67	2869160.48
594	66+730	414383.71	2869130.2
595	66+830	414299.49	2869077.07
596	66+930	414233.02	2869002.8
597	67+030	414188.69	2868913.59
598	67+130	414167.29	2868816.21
599	67+230	414159.03	2868716.6
600	67+330	414153.43	2868616.75
601	67+430	414147.3	2868516.94
602	67+530	414136.64	2868417.54
603	67+630	414123.67	2868318.38
604	67+730	414110.47	2868219.26
605	67+830	414097.31	2868120.14
606	67+930	414084.04	2868021.03
607	68+030	414069.52	2867922.1
608	68+130	414057.04	2867822.88
609	68+230	414045.01	2867723.6
610	68+330	414032.98	2867624.33
611	68+430	414020.48	2867525.12
612	68+530	414007.62	2867425.95
613	68+630	413994.34	2867326.83
614	68+730	413981.42	2867227.67
615	68+830	413969.5	2867128.39
616	68+930	413957.72	2867029.08
617	69+030	413946.1	2866929.76
618	69+130	413934.01	2866830.5
619	69+230	413921.64	2866731.26
620	69+330	413909.64	2866631.99

Sl. No.	Chainage	Easting	Northing
621	69+430	413898	2866532.67
622	69+530	413886.19	2866433.37
623	69+630	413874.19	2866334.09
624	69+730	413862.11	2866234.82
625	69+830	413849.99	2866135.56
626	69+930	413837.87	2866036.3
627	70+030	413826.48	2865936.95
628	70+130	413814.97	2865837.62
629	70+230	413801.61	2865738.52
630	70+330	413790.65	2865639.12
631	70+430	413779.23	2865539.77
632	70+530	413767.54	2865440.46
633	70+630	413756.11	2865341.11
634	70+730	413745.71	2865241.66
635	70+830	413734.88	2865142.25
636	70+930	413724.46	2865042.8
637	71+030	413714.13	2864943.33
638	71+130	413703.52	2864843.9
639	71+230	413692.39	2864744.52
640	71+330	413682.03	2864645.06
641	71+430	413671.97	2864545.57
642	71+530	413661.49	2864446.12
643	71+630	413651.3	2864346.64
644	71+730	413641.22	2864247.15
645	71+830	413631.24	2864147.65
646	71+930	413621.12	2864048.17
647	72+030	413611.29	2863948.65
648	72+130	413601.59	2863849.12
649	72+230	413591.88	2863749.6
650	72+330	413582.07	2863650.08
651	72+430	413571.64	2863550.62
652	72+530	413560.46	2863451.25
653	72+630	413549.6	2863351.84
654	72+730	413538.85	2863252.42
655	72+830	413528.36	2863152.99
656	72+930	413517.76	2863053.57
657	73+030	413506.69	2862954.18
658	73+130	413498.34	2862854.54
659	73+230	413490.28	2862754.88
660	73+330	413480.74	2862655.34
661	73+430	413471.94	2862555.74
662	73+530	413466.42	2862456

Sl. No.	Chainage	Easting	Northing
663	73+630	413485.42	2862358.14
664	73+730	413523.17	2862265.58
665	73+830	413562.23	2862173.52
666	73+930	413601.37	2862081.5
667	74+030	413641.75	2861990.02
668	74+130	413680.2	2861897.75
669	74+230	413719.59	2861805.83
670	74+330	413758.74	2861713.81
671	74+430	413798.44	2861622.04
672	74+530	413837.25	2861529.88
673	74+630	413876.69	2861437.98
674	74+730	413916.22	2861346.12
675	74+830	413955.74	2861254.27
676	74+930	413995.03	2861162.31
677	75+030	414034.12	2861070.27
678	75+130	414073.44	2860978.32
679	75+230	414112.76	2860886.37
680	75+330	414152.11	2860794.44
681	75+430	414191.59	2860702.56
682	75+530	414231.06	2860610.69
683	75+630	414269.19	2860518.24
684	75+730	414308.46	2860426.28
685	75+830	414347.59	2860334.25
686	75+930	414386.73	2860242.23
687	76+030	414425.94	2860150.24
688	76+130	414464.86	2860058.13
689	76+230	414503.33	2859965.85
690	76+330	414541.99	2859873.64
691	76+430	414579.7	2859781.02
692	76+530	414617.61	2859688.48
693	76+630	414654.87	2859595.68
694	76+730	414692.14	2859502.89
695	76+830	414729.4	2859410.09
696	76+930	414766.53	2859317.24
697	77+030	414803.09	2859224.16
698	77+130	414839.32	2859130.96
699	77+230	414875.16	2859037.6
700	77+330	414912.48	2858944.83
701	77+430	414948.82	2858851.67
702	77+530	414984.37	2858758.2
703	77+630	415021.93	2858665.53
704	77+730	415056.97	2858571.87

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-88

Sl. No.	Chainage	Easting	Northing
705	77+830	415094.36	2858479.14
706	77+930	415130.09	2858385.74
707	78+030	415166.38	2858292.56
708	78+130	415203.5	2858199.71
709	78+230	415239.36	2858106.36
710	78+330	415275.26	2858013.03
711	78+430	415311.26	2857919.73
712	78+530	415347.27	2857826.45
713	78+630	415384.08	2857733.47
714	78+730	415420.52	2857640.36
715	78+830	415455.9	2857546.83
716	78+930	415492.31	2857453.76
717	79+030	415529.86	2857361.08
718	79+130	415566.62	2857268.1
719	79+230	415572.4	2857171.69
720	79+330	415538.56	2857077.61
721	79+430	415502.82	2856984.29
722	79+530	415466.02	2856891.4
723	79+630	415420.89	2856802.23
724	79+730	415371.74	2856715.19
725	79+830	415343.11	2856619.76
726	79+930	415317.92	2856522.99
727	80+030	415293.41	2856426.05
728	80+130	415268.12	2856329.3
729	80+230	415244.89	2856232.04
730	80+330	415219.45	2856135.35
731	80+430	415178.93	2856044.07
732	80+530	415135.4	2855954.04
733	80+630	415090.05	2855864.94
734	80+730	415044.12	2855776.12
735	80+830	414998.7	2855687.03
736	80+930	414953.51	2855597.82
737	81+030	414908.26	2855508.65
738	81+130	414863.02	2855419.47
739	81+230	414817.77	2855330.29
740	81+330	414771.17	2855241.82
741	81+430	414725.83	2855152.69
742	81+530	414680.49	2855063.57
743	81+630	414634.6	2854974.71
744	81+730	414588.21	2854886.13
745	81+830	414542.79	2854797.04
746	81+930	414496.34	2854708.49

Sl. No.	Chainage	Easting	Northing
747	82+030	414450.86	2854619.43
748	82+130	414405.16	2854530.49
749	82+230	414359.96	2854441.28
750	82+330	414314.76	2854352.08
751	82+430	414269.64	2854262.84
752	82+530	414224.94	2854173.39
753	82+630	414179.28	2854084.42
754	82+730	414133.79	2853995.38
755	82+830	414088.59	2853906.18
756	82+930	414042.56	2853817.4
757	83+030	413995.92	2853728.95
758	83+130	413950.73	2853639.76
759	83+230	413905.96	2853550.34
760	83+330	413861.33	2853460.86
761	83+430	413816.95	2853371.25
762	83+530	413772.2	2853281.82
763	83+630	413727.47	2853192.38
764	83+730	413682.22	2853103.21
765	83+830	413636.91	2853014.06
766	83+930	413592.41	2852924.51
767	84+030	413548.02	2852834.9
768	84+130	413504.78	2852744.74
769	84+230	413460.1	2852655.27
770	84+330	413413.11	2852567
771	84+430	413366.76	2852478.4
772	84+530	413320.81	2852389.58
773	84+630	413275.49	2852300.44
774	84+730	413229.58	2852211.61
775	84+830	413183.81	2852122.7
776	84+930	413138.49	2852033.55
777	85+030	413093.53	2851944.23
778	85+130	413048.57	2851854.91
779	85+230	413004.76	2851765.02
780	85+330	412959.81	2851675.69
781	85+430	412914.67	2851586.46
782	85+530	412869.49	2851497.25
783	85+630	412824.31	2851408.04
784	85+730	412778.57	2851319.11
785	85+830	412734.03	2851229.6
786	85+930	412689.27	2851140.18
787	86+030	412644.33	2851050.85
788	86+130	412599.49	2850961.47

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-90

Sl. No.	Chainage	Easting	Northing
789	86+230	412554.65	2850872.08
790	86+330	412509.81	2850782.7
791	86+430	412464.91	2850693.35
792	86+530	412420	2850604
793	86+630	412375.09	2850514.65
794	86+730	412330.18	2850425.3
795	86+830	412286.2	2850335.49
796	86+930	412242.5	2850245.55
797	87+030	412196.67	2850156.67
798	87+130	412150.78	2850067.82
799	87+230	412105.05	2849978.89
800	87+330	412060.71	2849889.26
801	87+430	412016.37	2849799.63
802	87+530	411972.02	2849710
803	87+630	411927.68	2849620.36
804	87+730	411883.04	2849530.88
805	87+830	411837.28	2849441.97
806	87+930	411791.63	2849353
807	88+030	411746.49	2849263.76
808	88+130	411701.12	2849174.65
809	88+230	411655.83	2849085.5
810	88+330	411611.1	2848996.06
811	88+430	411566.5	2848906.56
812	88+530	411522.37	2848816.82
813	88+630	411478.52	2848726.95
814	88+730	411434.67	2848637.07
815	88+830	411390.02	2848547.59
816	88+930	411345.9	2848457.86
817	89+030	411301.97	2848368.02
818	89+130	411258.11	2848278.15
819	89+230	411214.26	2848188.28
820	89+330	411170.4	2848098.41
821	89+430	411126.55	2848008.54
822	89+530	411082.7	2847918.66
823	89+630	411039.14	2847828.65
824	89+730	410995.58	2847738.64
825	89+830	410952.58	2847648.35
826	89+930	410910.74	2847557.53
827	90+030	410869.46	2847466.45
828	90+130	410830.24	2847374.47
829	90+230	410789.93	2847282.95
830	90+330	410749.86	2847191.33

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-91

Sl. No.	Chainage	Easting	Northing
831	90+430	410710.47	2847099.41
832	90+530	410671.32	2847007.4
833	90+630	410632.65	2846915.17
834	90+730	410592.73	2846823.49
835	90+830	410552.56	2846731.91
836	90+930	410512.38	2846640.34
837	91+030	410472.01	2846548.85
838	91+130	410432.14	2846457.14
839	91+230	410392.61	2846365.29
840	91+330	410352.99	2846273.47
841	91+430	410313.07	2846181.79
842	91+530	410273.15	2846090.1
843	91+630	410233.23	2845998.41
844	91+730	410193.31	2845906.73
845	91+830	410153.57	2845814.96
846	91+930	410114.34	2845722.98
847	92+030	410075.11	2845631
848	92+130	410036.14	2845538.9
849	92+230	409997.75	2845446.56
850	92+330	409959.37	2845354.22
851	92+430	409920.99	2845261.88
852	92+530	409882.83	2845169.45
853	92+630	409844.92	2845076.91
854	92+730	409807.01	2844984.38
855	92+830	409768.86	2844891.94
856	92+930	409730.17	2844799.73
857	93+030	409694.82	2844706.2
858	93+130	409659	2844612.84
859	93+230	409626.28	2844518.36
860	93+330	409594	2844423.72
861	93+430	409561.52	2844329.14
862	93+530	409528.95	2844234.59
863	93+630	409498.26	2844139.43
864	93+730	409468.98	2844043.81
865	93+830	409441.15	2843947.77
866	93+930	409415.35	2843851.15
867	94+030	409389.19	2843754.64
868	94+130	409361.69	2843658.5
869	94+230	409335.54	2843561.98
870	94+330	409309.14	2843465.54
871	94+430	409283.52	2843368.89
872	94+530	409257.1	2843272.44

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-92

Sl. No.	Chainage	Easting	Northing
873	94+630	409231.83	2843175.69
874	94+730	409205.06	2843079.34
875	94+830	409179.12	2842982.77
876	94+930	409153.6	2842886.08
877	95+030	409128.09	2842789.39
878	95+130	409102.58	2842692.7
879	95+230	409077.07	2842596.01
880	95+330	409051.52	2842499.32
881	95+430	409025.73	2842402.71
882	95+530	409000.75	2842305.88
883	95+630	408975.33	2842209.17
884	95+730	408949.57	2842112.54
885	95+830	408924.86	2842015.65
886	95+930	408900.36	2841918.69
887	96+030	408875.6	2841821.81
888	96+130	408850.83	2841724.92
889	96+230	408826.09	2841628.03
890	96+330	408799.59	2841531.61
891	96+430	408776.79	2841434.25
892	96+530	408754.39	2841336.8
893	96+630	408730.93	2841239.6
894	96+730	408706.96	2841142.53
895	96+830	408681.85	2841045.73
896	96+930	408657.42	2840948.76
897	97+030	408631.46	2840852.19
898	97+130	408606.26	2840755.42
899	97+230	408580.75	2840658.73
900	97+330	408556.67	2840561.68
901	97+430	408532.83	2840464.56
902	97+530	408508.45	2840367.58
903	97+630	408484.35	2840270.53
904	97+730	408460.24	2840173.48
905	97+830	408436.14	2840076.43
906	97+930	408412.03	2839979.38
907	98+030	408387.93	2839882.32
908	98+130	408363.76	2839785.29
909	98+230	408339.01	2839688.4
910	98+330	408313.67	2839591.67
911	98+430	408288.08	2839495
912	98+530	408262.88	2839398.22
913	98+630	408237.68	2839301.45
914	98+730	408212.11	2839204.78

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-93

Sl. No.	Chainage	Easting	Northing
915	98+830	408185.77	2839108.31
916	98+930	408160.39	2839011.59
917	99+030	408134.97	2838914.87
918	99+130	408109.48	2838818.18
919	99+230	408082.78	2838721.81
920	99+330	408056.47	2838625.33
921	99+430	408028.41	2838529.36
922	99+530	407987.86	2838438.2
923	99+630	407933.17	2838354.59
924	99+730	407869.78	2838277.3
925	99+830	407820.8	2838190.8
926	99+930	407798.05	2838093.72
927	100+030	407795.29	2837993.82
928	100+130	407780.32	2837895.54
929	100+230	407758.9	2837797.95
930	100+330	407723.38	2837704.97
931	100+430	407695.32	2837610.39
932	100+530	407702.88	2837510.71
933	100+630	407713.38	2837411.28
934	100+730	407730.57	2837312.77
935	100+830	407748.84	2837214.45
936	100+930	407767.15	2837116.15
937	101+030	407785.87	2837017.92
938	101+130	407803.56	2836919.49
939	101+230	407821.65	2836821.14
940	101+330	407839.88	2836722.82
941	101+430	407859.09	2836624.68
942	101+530	407880.14	2836526.97
943	101+630	407881.3	2836427.11
944	101+730	407872.88	2836327.48
945	101+830	407864.2	2836227.85
946	101+930	407855.99	2836128.19
947	102+030	407848.07	2836028.51
948	102+130	407841.31	2835928.74
949	102+230	407817.76	2835831.86
950	102+330	407779.56	2835739.46
951	102+430	407755.11	2835642.6
952	102+530	407732.08	2835545.29
953	102+630	407710.19	2835447.71
954	102+730	407687.87	2835350.24
955	102+830	407665.22	2835252.84
956	102+930	407642.83	2835155.39

Sl. No.	Chainage	Easting	Northing
957	103+030	407620.85	2835057.84
958	103+130	407598.68	2834960.32
959	103+230	407576.7	2834862.77
960	103+330	407554.73	2834765.21
961	103+430	407533	2834667.6
962	103+530	407512.11	2834569.81
963	103+630	407490.17	2834472.25
964	103+730	407467.75	2834374.79
965	103+830	407445.33	2834277.34
966	103+930	407422.99	2834179.87
967	104+030	407401.73	2834082.16
968	104+130	407379.82	2833984.59
969	104+230	407356.95	2833887.24
970	104+330	407333.85	2833789.95
971	104+430	407311.8	2833692.42
972	104+530	407290.81	2833594.65
973	104+630	407268.91	2833497.08
974	104+730	407246.7	2833399.58
975	104+830	407223.92	2833302.21
976	104+930	407201.14	2833204.83
977	105+030	407179.53	2833107.2
978	105+130	407156.89	2833009.81
979	105+230	407136.19	2832911.98
980	105+330	407115.17	2832814.21
981	105+430	407093.45	2832716.6
982	105+530	407070.85	2832619.19
983	105+630	407049.51	2832521.49
984	105+730	407028.59	2832423.71
985	105+830	407008.96	2832325.65
986	105+930	406987.13	2832228.08
987	106+030	406966.59	2832130.21
988	106+130	406945.52	2832032.45
989	106+230	406924.33	2831934.72
990	106+330	406903.01	2831837.02
991	106+430	406881.69	2831739.32
992	106+530	406860.43	2831641.61
993	106+630	406839.75	2831543.77
994	106+730	406819.61	2831445.82
995	106+830	406799.47	2831347.87
996	106+930	406778.08	2831250.19
997	107+030	406757.2	2831152.4
998	107+130	406736.33	2831054.6

Sl. No.	Chainage	Easting	Northing
999	107+230	406716.82	2830956.52
1000	107+330	406697.77	2830858.36
1001	107+430	406678.07	2830760.31
1002	107+530	406658.06	2830662.34
1003	107+630	406638.04	2830564.36
1004	107+730	406619.59	2830466.08
1005	107+830	406605.28	2830367.15
1006	107+930	406602.35	2830267.3
1007	108+030	406608.49	2830167.58
1008	108+130	406623.81	2830068.84
1009	108+230	406638.57	2829969.94
1010	108+330	406641.66	2829870.25
1011	108+430	406633.75	2829770.58
1012	108+530	406633.29	2829671.67
1013	108+630	406618.62	2829572.9
1014	108+730	406596.83	2829475.3
1015	108+830	406574.88	2829377.75
1016	108+930	406551.95	2829280.42
1017	109+030	406531.69	2829182.49
1018	109+130	406506.63	2829085.7
1019	109+230	406484.01	2828988.29
1020	109+330	406461.23	2828890.92
1021	109+430	406439.95	2828793.21
1022	109+530	406417.51	2828695.78
1023	109+630	406392.71	2828598.9
1024	109+730	406367.08	2828502.25
1025	109+830	406344.11	2828404.95
1026	109+930	406314.53	2828311
1027	110+030	406290.82	2828213.85
1028	110+130	406266.51	2828116.85
1029	110+230	406242.76	2828019.73
1030	110+330	406221.16	2827922.09
1031	110+430	406197.9	2827824.84
1032	110+530	406174.13	2827727.7
1033	110+630	406148.43	2827631.06
1034	110+730	406123.35	2827534.26
1035	110+830	406098.75	2827437.33
1036	110+930	406074.22	2827340.39
1037	111+030	406049.39	2827243.52
1038	111+130	406024.55	2827146.65
1039	111+230	405999.7	2827049.79
1040	111+330	405975.79	2826952.69

Sl. No.	Chainage	Easting	Northing
1041	111+430	405950.98	2826855.82
1042	111+530	405925.41	2826759.15
1043	111+630	405899.84	2826662.47
1044	111+730	405874.31	2826565.79
1045	111+830	405849.19	2826468.99
1046	111+930	405824.1	2826372.19
1047	112+030	405799.01	2826275.39
1048	112+130	405773.92	2826178.59
1049	112+230	405748.83	2826081.79
1050	112+330	405723.74	2825984.99
1051	112+430	405698.84	2825888.14
1052	112+530	405674.1	2825791.26
1053	112+630	405648.38	2825694.62
1054	112+730	405622.66	2825597.98
1055	112+830	405602.09	2825500.8
1056	112+930	405579.83	2825403.35
1057	113+030	405549.01	2825308.92
1058	113+130	405523.27	2825212.29
1059	113+230	405497.53	2825115.66
1060	113+330	405472.74	2825018.78
1061	113+430	405448.39	2824921.79
1062	113+530	405423.29	2824824.99
1063	113+630	405398.19	2824728.19
1064	113+730	405373.09	2824631.4
1065	113+830	405347.99	2824534.6
1066	113+930	405322.89	2824437.8
1067	114+030	405297.79	2824341
1068	114+130	405272.69	2824244.2
1069	114+230	405247.52	2824147.42
1070	114+330	405222.2	2824050.68
1071	114+430	405196.87	2823953.94
1072	114+530	405171.55	2823857.2
1073	114+630	405146.23	2823760.46
1074	114+730	405121.38	2823663.59
1075	114+830	405096.8	2823566.66
1076	114+930	405072.21	2823469.73
1077	115+030	405047.62	2823372.8
1078	115+130	405023.04	2823275.87
1079	115+230	404994.74	2823180.08
1080	115+330	404942.65	2823095.16
1081	115+430	404883.34	2823014.65
1082	115+530	404823.56	2822934.53

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-97

Sl. No.	Chainage	Easting	Northing
1083	115+630	404765.72	2822852.96
1084	115+730	404711.28	2822769.24
1085	115+830	404678.97	2822674.86
1086	115+930	404657.9	2822577.12
1087	116+030	404638.12	2822479.09
1088	116+130	404627.3	2822379.92
1089	116+230	404634.36	2822280.17
1090	116+330	404645.52	2822180.83
1091	116+430	404656.78	2822081.47
1092	116+530	404667.21	2821982.02
1093	116+630	404667.93	2821882.33
1094	116+730	404642.79	2821785.61
1095	116+830	404616.48	2821689.14
1096	116+930	404590.43	2821592.59
1097	117+030	404564.41	2821496.03
1098	117+130	404538.47	2821399.46
1099	117+230	404513	2821302.75
1100	117+330	404487.37	2821206.1
1101	117+430	404461.06	2821109.62
1102	117+530	404434.08	2821013.33
1103	117+630	404407.35	2820916.97
1104	117+730	404380.95	2820820.52
1105	117+830	404355.7	2820723.75
1106	117+930	404330.66	2820626.94
1107	118+030	404305.18	2820530.24
1108	118+130	404279.14	2820433.69
1109	118+230	404253.09	2820337.15
1110	118+330	404226.9	2820240.64
1111	118+430	404200.36	2820144.22
1112	118+530	404173.5	2820047.9
1113	118+630	404146.56	2819951.59
1114	118+730	404119.63	2819855.29
1115	118+830	404093.2	2819758.85
1116	118+930	404066.84	2819662.38
1117	119+030	404040.54	2819565.9
1118	119+130	404014.6	2819469.33
1119	119+230	403988.67	2819372.75
1120	119+330	403962.66	2819276.19
1121	119+430	403936.16	2819179.76
1122	119+530	403910.47	2819083.12
1123	119+630	403884.6	2818986.53
1124	119+730	403858.65	2818889.95

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-98

Sl. No.	Chainage	Easting	Northing
1125	119+830	403832.96	2818793.31
1126	119+930	403806.89	2818696.77
1127	120+030	403780.83	2818600.22
1128	120+130	403754.48	2818503.75
1129	120+230	403727.93	2818407.35
1130	120+330	403692	2818314.06
1131	120+430	403647.01	2818224.76
1132	120+530	403601.11	2818135.92
1133	120+630	403556.75	2818046.31
1134	120+730	403510.81	2817957.49
1135	120+830	403466.25	2817867.97
1136	120+930	403421.66	2817778.46
1137	121+030	403375.59	2817689.72
1138	121+130	403330.71	2817600.36
1139	121+230	403285.59	2817511.12
1140	121+330	403240.8	2817421.73
1141	121+430	403196.55	2817332.05
1142	121+530	403151.99	2817242.53
1143	121+630	403107.66	2817152.89
1144	121+730	403063.68	2817063.08
1145	121+830	403019.38	2816973.43
1146	121+930	402975.09	2816883.77
1147	122+030	402931	2816794.02
1148	122+130	402886.29	2816704.57
1149	122+230	402842.42	2816614.71
1150	122+330	402798.01	2816525.11
1151	122+430	402753.8	2816435.41
1152	122+530	402709.7	2816345.66
1153	122+630	402665.95	2816255.75
1154	122+730	402621.54	2816166.15
1155	122+830	402577.58	2816076.33
1156	122+930	402533.14	2815986.75
1157	123+030	402488.89	2815897.07
1158	123+130	402444.83	2815807.3
1159	123+230	402400.26	2815717.78
1160	123+330	402356.37	2815627.93
1161	123+430	402312.11	2815538.26
1162	123+530	402268.17	2815448.43
1163	123+630	402226.41	2815357.6
1164	123+730	402185.78	2815266.24
1165	123+830	402145.26	2815174.82
1166	123+930	402104.78	2815083.38

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-99

Sl. No.	Chainage	Easting	Northing
1167	124+030	402064.32	2814991.94
1168	124+130	402023.05	2814900.85
1169	124+230	401981.86	2814809.73
1170	124+330	401940.74	2814718.57
1171	124+430	401899.3	2814627.57
1172	124+530	401858.35	2814536.34
1173	124+630	401816.39	2814445.57
1174	124+730	401774.8	2814354.63
1175	124+830	401733.6	2814263.51
1176	124+930	401692.16	2814172.51
1177	125+030	401651.68	2814081.07
1178	125+130	401610.43	2813989.98
1179	125+230	401568.69	2813899.11
1180	125+330	401526.69	2813808.36
1181	125+430	401484.43	2813717.72
1182	125+530	401442	2813627.17
1183	125+630	401399.58	2813536.61
1184	125+730	401358.23	2813445.57
1185	125+830	401315.7	2813355.07
1186	125+930	401274.25	2813264.06
1187	126+030	401233.05	2813172.94
1188	126+130	401192.31	2813081.62
1189	126+230	401150.86	2812990.62
1190	126+330	401108.24	2812900.17
1191	126+430	401065.93	2812809.56
1192	126+530	401023.55	2812718.98
1193	126+630	400981.28	2812628.36
1194	126+730	400940.05	2812537.26
1195	126+830	400898.41	2812446.34
1196	126+930	400856.79	2812355.42
1197	127+030	400815.35	2812264.41
1198	127+130	400774.57	2812173.1
1199	127+230	400734.56	2812081.45
1200	127+330	400694.64	2811989.76
1201	127+430	400652.21	2811899.23
1202	127+530	400610.69	2811808.26
1203	127+630	400569.37	2811717.2
1204	127+730	400527.8	2811626.25
1205	127+830	400486.63	2811535.11
1206	127+930	400446.1	2811443.7
1207	128+030	400405.95	2811352.11
1208	128+130	400363.58	2811261.53

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) A-100

Sl. No.	Chainage	Easting	Northing
1209	128+230	400322.58	2811170.33
1210	128+330	400281.61	2811079.11
1211	128+430	400241	2810987.73
1212	128+530	400199.41	2810896.82
1213	128+630	400157.11	2810806.23
1214	128+730	400116	2810715.07
1215	128+830	400076	2810623.45
1216	128+930	400033.98	2810532.72
1217	129+030	399994.6	2810440.82
1218	129+130	399953.36	2810349.71
1219	129+230	399912.66	2810258.38
1220	129+330	399870.86	2810167.54
1221	129+430	399827.85	2810077.28
1222	129+530	399785.16	2809986.85
1223	129+630	399746.43	2809894.66
1224	129+730	399730.06	2809796.66
1225	129+830	399726.22	2809696.73
1226	129+930	399724.45	2809596.75
1227	130+030	399722.04	2809496.78
1228	130+130	399727.94	2809397.3
1229	130+230	399771.99	2809308.08
1230	130+330	399825.61	2809223.67
1231	130+430	399879.82	2809139.64
1232	130+530	399932.69	2809054.76
1233	130+630	399986.49	2808970.47
1234	130+730	400040.03	2808886.02
1235	130+830	400092.82	2808801.1
1236	130+930	400145.82	2808716.3
1237	131+030	400198.35	2808631.22
1238	131+130	400254.85	2808548.73
1239	131+230	400310.66	2808466.25

Annex – II
(Schedule-A)
(As per Clause 8.3 (i))
(Schedule-A)

Dates for providing Right of Way

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

S. No.	Chainage (Km)		Length (m)	Width (m)	Date of providing ROW*
	From	To			
1	2		3	4	5
Full Right of Way (full width) Along main Project Highway (NH-131G)					
Stretch	0+000	117+700	117.700	60-80	80% of the RoW to be handed over on appointed date and balance within 150days from Appointed Date.

Additional land at interchanges, toll plaza/booths shall be provided within 150 days of the appointed date as per Agreement.

Annex – III
(Schedule-A)

Alignment Plans

- (i) The alignment of the Project Highway is enclosed in Alignment Plan. Finished road level indicated in the alignment plan shall be treated as an approximate assessment. The concessionaire shall design the road profile of the project highway based on site/design requirement specified in Schedule-D. (Difference of Level from FRL to NGL (Natural Ground Level) to be maintained in profile design by the concessionaire)
- (ii) Traffic Signage plan of the Project Highway showing numbers & location of traffic signs is enclosed. The concessionaire shall, however, improve/upgrade upon the traffic signage plan as indicated in Annex-III based on site/design requirement as per IRC: SP: 87-2019 & IRC: 67-2022 and as per requirement of safety auditor.

**Annex - IV
(Schedule-A)**

Environment Clearances is under Progress

Wildlife Clearance is not Applicable for this package

SCHEDULE – B*(See Clause 2.1)***DEVELOPMENT OF THE PROJECT HIGHWAY****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. Project Highway

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and,

Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme as described in Annexure-I of **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 **Schedule-D**.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Annexure-I*(Schedule-B)***Description of the Project****1. Development of the Project Highway**

The Project Highway shall generally follow the horizontal alignment shown in the plan specified in Annexure- III of Schedule-A, unless otherwise specified by the Authority. Notwithstanding anything to the contrary contained in this Agreement or IRC:SP:84-2019 (Manual), the proposed plan & profile, locations of different structures/drains/service & slip road/RS walls, chainages of different structures/drains/service & slip road/RS walls, length of different structures/drains/service & slip road/RS walls etc. of the project highway as indicated in the Schedule A, Schedule B, Schedule C and their Annexures shall be treated as minimum requirement. Based on site/design requirement, the Concessionaire shall finalize their Detailed Designs (Development Stage) including plan & profile of the project highway and submit the same to Authority & its Engineer for its Consent/Approval and Safety Audit by Safety Auditor, before the start of the execution of project. The designs so approved shall not be in contradiction with the scope of project. For avoidance of doubt, the provisions mentioned in schedule B & C cannot be changed, only the design of the components is to be submitted for consent/approval.

The Concessionaire shall deploy at its own Cost and Expenses, the Grading/Paving/Compaction Equipment fitted with System of Automated & Intelligent Machine-aided Construction (AI-MC) for finishing of all Grades including Embankment, Subgrade, GSB, WMM. The System of Automated & Intelligent Machine-aided Construction (AI-MC) used by the Concessionaire shall be capable of delivering accuracy as per the applicable IRC specifications. During the Construction Period, the Concessionaire shall furnish all the Physical Progress Data (All desired type of Surface Grading Data, Compaction and Temperature Data etc.) obtained through System of Automated & Intelligent Machine-aided Construction (AI-MC)/CMS to Authority for monitoring of Construction on Daily Basis. These Digital Data and desired output shall be made available at the Location (Server/Cloud) finalized by Authority.

NHAI reserves the right to Check/Verify Design Calculations and Drawings of all components of the Stretch of National Highway including the Structures Falling within the Scope of Work. The Concessionaire shall be required to furnish all Data pertaining to detailed Designs, Drawings, Calculations, Design Basis Report, Input Files of Design Software used in the Project, etc. to the Authority and/or the Independent Engineer Free of Cost within a time as specified by the Authority and/or the Independent Engineer.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

1.1 . Width of Carriageway

- 1.1.1 Four laning with granular shoulders of 3.5m shall be undertaken. The paved carriageway shall be 22m (for flush median including 0.5m shyness/edge strip width on median side and granular shoulder side) in open country with isolated built - up areas and approaches to grade separated structures bridges / ROBs with free slope. The paved carriageway width is indicated in Annexure - II of this Schedule B.
- 1.1.2 In built - up sections/areas/approaches to grade separated structures/bridges/ROBs with RS wall/retaining wall, the width of paved carriageway shall be 27 m (for flush median) (including 2.5m paved shoulder and 0.5m shyness/edge strip width) for six laning.
- 1.1.3 Except as otherwise provided in this Agreement, the width shall be adjusted to fit into appropriate plans and cross sections developed in accordance with TCS enclosed.
- 1.1.4 The entire cross-sectional elements shall be accommodated in the available/proposed ROW. If required, suitable retaining structures shall be provided to accommodate the highway cross sections within the available/ proposed ROW. The details of such sections are mentioned in schedule-B. Any increase in the length of retaining structures up to 5 percent of the length specified in Schedule-B shall not constitute a Change of Scope.
- 1.1.5 In addition to the width of paved carriageway mentioned in above clauses, additional lanes shall be provided as acceleration/deceleration lane and taper to the required length at entry/exit locations as per manual.

1.2 Width of Median

- 1.2.1 The width of median including kerb shyness/edge strip width shall be 5 meter for flush median.
- 1.2.2 The metal beam (Thrie Beam) crash barrier shall be provided on either side of the median.
- 1.2.3 100 mm raised 200 mm X 230 mm suitable mountable kerb (as per IRC 86:2018) shall be proposed in case of flush median to prevent spreading of soil on carriageway. The MBCB (Metal beam crash barrier) face to match with paving face for the carriageway on the median side.
- 1.2.4 **Suitable antiglare measures shall be proposed.**
- 1.2.5 In open country, median openings shall not be spaced closer than 2 km. Additional controlled openings shall also be provided for inspection and diversion of traffic during repair and rehabilitation. In built up area, median opening shall be provided as per site requirement and the spacing between two medians opening in built up area shall not be less than 500 m.

2. Geometric Design And General Features

2.1 General: Geometric design and general features of the Project Highway shall be in

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

accordance with Section 2 of the Manual. Intermediate Sight distance (Desirable Minimum Sight Distance) shall be followed for design of all vertical curves including structures as well as highways.

2.2 Design Speed: The Project road shall be designed for 100 Kmph design speed in entire length. Extra widening shall be provided as per Clause 2.7.2 of the IRC SP 84-2019 Manual at location with radius of Horizontal curve less than 300m.

2.3 Improvement of the existing road geometrics

2.3.1 The existing road geometrics shall be improved as per the codal provisions. In the 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 given right of way and appropriate road signs, pavement markings and safety measures shall be provided.

The deficient stretches are as follows:-

S. No.	Stretch (from Km to Km)	Type of deficiency	Remarks
NIL			

2.3.2 The entire cross sectional elements shall be accommodated in the available/proposed ROW. If required, suitable full height retaining structures shall be provided to accommodate the highway cross section within the available/proposed ROW. The details of such sections are mentioned in Schedule-B. In case of any other section not included in Schedule-B, where retaining structures are to be provided, shall constitute a Change of Scope.

2.3.3 Realignments:

The existing road shall be improved to the standards as specified in the Manual at the following locations:-

Sr. No.	Existing Chainage (Km)		Design Chainage (Km)		Length (Km)
	From	To	From	To	
Nil					

2.3.3.1 The existing Canal/ Nala/ Streams shall be realigned to the standards in the following locations:

S.no	Design Chainage(Km)		Side	Length(m)	Remarks
1	54+260	54+700	RHS	440	Irrigation Canal and Inspection Road
2	62+350	62+450	LHS	100	NALA
3	93+620	93+960	RHS	340	Irrigation Canal and Inspection Road
4	94+800	94+840	RHS	40	Irrigation Canal and Inspection Road
5	0+500	0+900	LHS	400	Irrigation Canal and Inspection Road at Slip Road LHS-2 of Interchange at 94+000

2.3.4 Bypasses:

The existing road shall be bypassed to the standards as specified in the Manual at the following locations:

Sr. No.	Name of bypass	Existing Chainage (Km)	Design Chainage (Km)	Length (Km)
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Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

		From	To	From	To	
NIL						

2.3.5 The existing geometry of the crossroads at Vehicular overpass/underpass/interchange locations shall be improved as shown in Plan & Profile drawings and Schedule D. Deficiencies; if any shall be corrected as per prescribed standards to the extent land is available.

2.4 Right of Way:

Details of the Proposed Right of Way along Project Highways and Side Roads are given in Annexure- II of Schedule-A.

2.5 Type of shoulders

2.5.1 The Design Specification of paved shoulder shall conform to the requirements specified in paragraph 5.10 of the Manual.

2.5.2 Paved shoulders and strip on median side shall be of same specification and pavement composition as of main carriageway (clause No. 5.10 IRC:SP:84-2019)

2.5.3 The overlay on the main carriageway pavement and on the paved shoulders shall be uniform in thickness and composition. (clause No. 5.10 IRC:SP:84-2019).

2.5.4 In Built-up sections, footpath/fully paved shoulder shall be provided with width 1.5m/2.5m respectively.(Clause No. 2.15 & clause No. 2.6 IRC:SP:84-2019)

2.5.5 Deleted

2.5.6 Deleted

2.5.7 The Design specification of paved shoulder shall conform to the requirements specified in paragraph 5.11 of the manual.

2.5.8 3.5 m wide hard granular shoulder on each side as shown in TCS, Schedule B, shall be compacted with 200mm thick granular sub-base quality material at the top duly stabilized with cement/suitable admixtures to prevent erosion as well as to provide a stable platform for occasional parking of errant vehicles. Hard granular shoulders shall meet the following strength parameters:

- Unconfined Compressive Strength (UCS) equivalent to the strength defined for the bound sub-base layers as per IRC: 37.
- CBR of laboratory mix at 97% MDD and 7 days cure+7 days soak: Minimum CBR 60.

2.5.9 Deleted

2.6 Lateral and Vertical Clearance at Underpasses

2.6.1 In case of VUP/ LVUP/ SVUP/flyovers and other proposed structure, the finish road level (FRL) of crossroad beneath the structure (VUP/ LVUP/ SVUP/flyover etc.) shall be kept 150 mm above the ground level/service road/cross road level (whichever is higher) to

ensure that these structures (VUP/ LVUP/ SVUP/flyovers) don't become water accumulation points.

2.6.2 The vertical and horizontal clearance at the underpasses shall be as specified in section 2.9 of this Schedule B.

2.7 Lateral and vertical clearances at Overpasses

2.7.1 Lateral and vertical clearances for overpasses shall be as per paragraph 2.11 of the Manual.

2.8 Service roads/Slip roads/Connecting Roads:

2.8.1 Service Road: The height of embankment of service road shall confirm to clause 4.2.1 of IRC: SP: 84-2019.

2.8.2 The Service roads/Connecting Roads (Speed = 40 Kmph) shall be constructed at the locations and for the lengths indicated below:-

Connecting Road

S. No.	Design Chainage (Km)		Side [LHS/RHS]	Minimum Length (m)	Width (m)	Remarks
	To	From				
1	1+200	1+240	LHS	40	5.5	TCS-6A
2	3+825	3+895	RHS	70	5.5	TCS-7A
3	3+920	3+940	LHS	20	5.5	TCS-6A
4	3+940	4+254	LHS	314	5.5	TCS-6B
5	10+580	10+635	RHS	55	5.5	TCS-7A
6	11+590	11+745	LHS	155	5.5	TCS-6B
7	12+420	12+480	LHS	60	5.5	TCS-6A
8	14+524	14+590	LHS	66	5.5	TCS-6A
9	21+220	21+394	LHS	174	5.5	TCS-6A
10	23+440	23+520	LHS	80	5.5	TCS-6A
11	27+060	27+300	BHS	480	5.5	TCS-5
12	29+900	29+980	RHS	80	5.5	TCS-7A
13	31+040	31+140	LHS	100	5.5	TCS-6A
14	32+500	32+562	RHS	62	5.5	TCS-7A
15	33+880	33+920	LHS	40	5.5	TCS-6A
16	34+870	34+920	RHS	50	5.5	TCS-7A
17	36+200	36+300	RHS	100	5.5	TCS-7A
18	36+740	37+018	LHS	278	5.5	TCS-6A
19	37+022	37+232	LHS	210	5.5	TCS-6A

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S. No.	Design Chainage (Km)		Side [LHS/RHS]	Minimum Length (m)	Width (m)	Remarks
	To	From				
20	37+700	37+833	RHS	133	5.5	TCS-7A
21	37+833	37+920	LHS	87	5.5	TCS-6A
22	39+200	39+240	LHS	40	5.5	TCS-6A
23	40+220	40+300	BHS	160	5.5	TCS-5
24	40+800	40+910	BHS	220	5.5	TCS-5
25	41+380	41+435	LHS	55	5.5	TCS-6A
26	41+435	41+640	RHS	205	5.5	TCS-7A
27	43+453	43+620	LHS	167	5.5	TCS-6A
28	44+280	44+515	BHS	470	5.5	TCS-5
29	44+515	44+600	RHS	170	5.5	TCS-7A
30	45+355	45+515	BHS	320	5.5	TCS-5
31	55+238	55+420	RHS	182	5.5	TCS7A
32	56+760	56+946	LHS	186	5.5	TCS-6A
33	60+118	60+170	LHS	52	5.5	TCS-6
34	63+380	63+530	LHS	300	5.5	TCS-6/6A
35	65+365	65+400	RHS	35	5.5	TCS-7A
36	66+475	66+580	RHS	105	5.5	TCS-7A
37	67+220	67+300	RHS	80	5.5	TCS-7A
38	67+670	67+740	RHS	70	5.5	TCS-7A
39	71+650	71+847	LHS	394	5.5	TCS-6A
40	73+160	73+390	BHS	460	5.5	TCS-5
41	75+340	75+500	RHS	160	5.5	TCS-7A
42	75+795	75+880	LHS	85	5.5	TCS-6A
43	76+585	76+660	RHS	75	5.5	TCS-7A
44	76+980	77+080	LHS	200	5.5	TCS-6A
45	77+780	77+860	LHS	80	5.5	TCS-6A
46	77+860	77+940	RHS	80	5.5	TCS-7A
47	78+880	79+100	LHS	220	5.5	TCS-6A
48	80+100	80+315	RHS	215	5.5	TCS-7A
49	80+900	81+015	RHS	230	5.5	TCS-7/7A
50	81+015	81+130	LHS	115	5.5	TCS-6
51	82+580	82+750	BHS	340	5.5	TCS-5
52	82+560	82+600	LHS	40	5.5	TCS-6A

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S. No.	Design Chainage (Km)		Side [LHS/RHS]	Minimum Length (m)	Width (m)	Remarks
	To	From				
53	86+300	86+442	LHS	142	5.5	TCS-6
54	87+983	88+040	RHS	114	5.5	TCS-7A
55	90+660	90+720	BHS	120	5.5	TCS-5
56	92+260	92+353	LHS	93	5.5	TCS-6A
57	93+000	93+045	BHS	90	5.5	TCS-5
58	97+140	97+300	RHS	160	5.5	TCS-7/7A
59	97+695	97+740	RHS	90	5.5	TCS-7A
60	99+000	99+310	LHS	310	5.5	TCS-6A
61	99+310	99+360	RHS	50	5.5	TCS-7A
62	99+820	99+860	RHS	40	5.5	TCS-7A
63	99+860	99+900	LHS	40	5.5	TCS-6A
64	102+845	102+960	BHS	230	5.5	TCS-5
65	102+960	103+040	RHS	80	5.5	TCS-7A
66	103+580	104+250	LHS	670	5.5	TCS-6A
67	104+700	104+860	RHS	160	5.5	TCS-7
68	106+160	106+235	BHS	150	5.5	TCS-5
69	110+120	110+170	RHS	100	5.5	TCS-7A
70	110+170	110+460	LHS	290	5.5	TCS-6A

Note: In addition to above 5 km Connecting Road of 3.75m width shall be constructed. The location of the same shall be finalized in consultation with IE/NHAI. Any retaining structure/toe wall required to achieve the cross section will not constitute any Change of Scope.

2.8.3 The Parking bays shall be provided along service road:

Sr. No.	Design Chainage of Parking Bay		Remarks
	LHS Service Road	RHS Service Road	
NIL			

2.8.4 Slip Road: The height of embankment of slip road shall confirm to clause 4.2.1 of Manual.

The Slip roads (Speed = 60 Kmph) shall be constructed at the locations and for the lengths indicated below:

Slip Roads-Main Project Highway

Sl. No.	Design Chainage (Km)		Side [LHS/RHS]	Minimum Length (m)	Width (m)
	From	To			
1	70+900	72+100	LHS	1200	7.5

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

2	69+500	70+700	RHS	1200	7.5
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2.8.5 Separator between Main Carriageway and Service/Slip Road (clause no 2.15.1 IRC SP 84-2019)

Note:

- (i) Above length of the service/slip roads is minimum specified. The actual length of the service/slip/connecting roads shall be determined by the Concessionaire in accordance with the approved plan & profile and design approved from the Independent Engineer. Any increase/decrease up to 5 percent length from the length specified in this Clause of Schedule-B shall not constitute a Change of Scope. For increase and decrease beyond 5% COS shall be given on incremental basis.

For example, if the total length of service roads for the project to be constructed is 100 km, and the total length of service roads for the project constructed is 130 km, then the COS length for the above mentioned work shall be determined as follows:

$L = \text{total length of service roads for the project to be constructed} = 100 \text{ Kms}$

$L1 = \text{total length of service roads for the project constructed} = 130 \text{ Kms}$

$DL = (L1-L)/L = (130-100)/100 = 30\%$

Net total length of service road for COS = $DL' = (30\% - 5\%) * 100 \text{ i.e. } 25\% * 100 = 25 \text{ Kms.}$

- (ii) The Acceleration, deceleration lane, right turning storage lane, entry/exit lanes shall be constructed in addition to length given in above table and shall be deemed to be part of the scope and no Change of Scope shall be considered for the same. (Clause No 2.12.2 IRC SP84-2019)
- (iii) Any structures falling within acceleration / deceleration lane /taper shall be constructed to the required width. This increase in width shall not be treated as change of scope.

2.9 Grade Separated Structures

Grade separated structures shall be constructed as per paragraph 2.13 of the Manual. Proposed levels at structure locations as shown in plan & profile specified in Annexure-III of schedule-A are minimum requirement and only for guidance and any increase in levels shall not constitute any change of scope. However in case of any discrepancy in TBM/OGL/ existing road level, minimum relative height between OGL/existing road level and Proposed FRL as specified in Annexure-III of schedule-A shall be maintained. Entry/Exit arrangement from main carriageway shall be 50m before/after the start/end of approach road to grade separator i.e. start/end of valley curve (Clause No.2.12.2.2 IRC SP:84-2019).RCC barrier shall start from start of valley curve and end after grade separator at end of valley curve.

The sub-structure/abutment wall/RS Wall shall be continued in the median portion with RCC barrier wherever superstructure has not been proposed in median portion. (Clause

No. 7.1(vii) IRC SP: 84-2019).

Where crash barrier on the median side is not continuous along the project highway, 50m long MBCB Safety barriers on median side shall be provided on both sides approaches of the structures. MBCB provided towards median side of each of the structure with corresponding end treatment.

Where crash barrier on the shoulder sides are not continuous along the project highway, 50m long MBCB Safety barriers on shoulder side shall be provided on both sides approaches of the bridge/ structures or till 3m embankment height whichever is more.

1.5m(For VUP/Flyover), 0.75m (For LVUP/ SVUP) wide footpaths shall be provided at grade intersection below structures for each direction of pedestrian movement.

The requisite particulars are given below:-

2.9.1 Vehicle Overpass (VOP)

S.No	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement (c/c of Exp. in Square direction) (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
NIL								

2.9.2 Vehicular Underpass (VUP)

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement (Clear Span in square direction) (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	18+045	14.5	14.5	Open to Sky	1x20	5.5	0	-
2	58+668	14.5	14.5	Open to Sky	1x20	5.5	0	-
3	65+820	14.5	14.5	Open to Sky	1x20	5.5	10	-
4	81+770	14.5	14.5	Open to Sky	1x20	5.5	24	-

2.9.3 Light Vehicle Underpasses (LVUP)

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Clear Span in square direction (m)	Minimum Vertical Clearance (m)	Skew Angle	Remarks
							(degree)	
1	2+110	14.5	14.5	Yes	1x12	4.5	39	-
2	4+260	14.5	14.5	Open to Sky	1x12	4.5	20	-
3	5+858	14.5	14.5	Open to Sky	1x12	4.5	19	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

4	8+780	14.5	14.5	Open to Sky	1x12	4.5	17	-
5	10+63 5	14.5	14.5	Yes	1x12	4.5	30	-
6	17+84 5	14.5	14.5	Open to Sky	1x12	4.5	0	-
7	40+79 1	14.5	14.5	Open to Sky	1x12	4.5	0	-
8	45+35 5	14.5	14.5	Open to Sky	1x12	4.5	27	-
9	53+95 5	14.5	14.5	Open to Sky	1x12	4.5	17	-
10	77+05 7	14.5	14.5	Yes	1x12	4.5	42	-
11	79+10 2	14.5	14.5	Open to Sky	1x12	4.5	11	-
12	80+31 6	14.5	14.5	Open to Sky	1x12	4.5	12	-
13	98+54 7	14.5	14.5	Yes	1x12	4.5	32	-
14	102+1 04	14.5	14.5	Open to Sky	1x12	4.5	0	-
15	107+0 80	14.5	14.5	Open to Sky	1x12	4.5	24	-
16	110+2 75	14.5	14.5	Open to Sky	1x12	4.5	0	-
17	114+6 75	14.5	14.5	Open to Sky	1x12	4.5	30	-

2.9.4 Small Vehicle Underpasses (SVUP)

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Clear Span in square direction (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	0+823	14.5	14.5	Open to Sky	1x7	4	0	-
2	7+354	14.5	14.5	Open to Sky	1x7	4	10	-
3	11+215	14.5	14.5	Open to Sky	1x7	4	0	-
4	12+180	14.5	14.5	Open to Sky	1x7	4	0	-
5	12+480	14.5	14.5	Open to	1x7	4	0	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Clear Span in square direction (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
				Sky				
6	13+690	14.5	14.5	Yes	1x7	4	41	-
7	18+273	14.5	14.5	Open to Sky	1x7	4	0	
8	19+870	14.5	14.5	Yes	1x7	4	38	-
9	23+440	14.5	14.5	Open to Sky	1x7	4	30	-
10	27+060	14.5	14.5	Open to Sky	1x7	4	13	-
11	30+300	14.5	14.5	Open to Sky	1x7	4	21	-
12	31+140	14.5	14.5	Open to Sky	1x7	4	25	-
13	32+562	14.5	14.5	Yes	1x7	4	45	-
14	35+732	14.5	14.5	Open to Sky	1x7	4	30	-
15	56+942	14.5	14.5	Open to Sky	1x7	4	0	-
16	63+755	14.5	14.5	Open to Sky	1x7	4	23	-
17	65+374	14.5	14.5	Open to Sky	1x7	4	30	-
18	66+475	14.5	14.5	Open to Sky	1x7	4	19	-
19	69+087	14.5	14.5	Open to Sky	1x7	4	9	-
20	76+235	14.5	14.5	Open to Sky	1x7	4	30	-
21	83+882	14.5	14.5	Open to Sky	1x7	4	7	-
22	87+997	14.5	14.5	Open to Sky	1x7	4	30	-
23	89+452	14.5	14.5	Open to Sky	1x7	4	30	-
24	102+846	14.5	14.5	Open to Sky	1x7	4	0	-
25	105+582	14.5	14.5	Open to Sky	1x7	4	0	-
26	112+889	14.5	14.5	Open to Sky	1x7	4	0	

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

2.9.4.1 Cross Road Structures:

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Clear Span in square direction (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	1+200	14.5	14.5	Open to Sky	1x4	4	0	
2	15+319	14.5	14.5	Open to Sky	1x4	4	11	-
3	15+660	14.5	14.5	Open to Sky	1x4	4	0	-
4	21+394	14.5	14.5	Open to Sky	1x4	4	0	
5	26+275	14.5	14.5	Open to Sky	1x4	4	10	-
6	30+515	14.5	14.5	Open to Sky	1x4	4	0	
7	33+310	14.5	14.5	Open to Sky	1x4	4	19	-
8	33+880	14.5	14.5	Open to Sky	1x4	4	30	-
9	34+910	14.5	14.5	Open to Sky	1x4	4	30	-
10	36+232	14.5	14.5	Open to Sky	1x4	4	30	-
11	37+020	14.5	14.5	Open to Sky	1x4	4	30	-
12	37+833	14.5	14.5	Open to Sky	1x4	4	22	-
13	39+240	14.5	14.5	Open to Sky	1x4	4	30	-
14	41+435	14.5	14.5	Open to Sky	1x4	4	30	-
15	43+453	14.5	14.5	Open to Sky	1x4	4	25	-
16	44+515	14.5	14.5	Open to Sky	1x4	4	27	-
17	55+320	14.5	14.5	Open to Sky	1x4	4	30	-
18	56+570	14.5	14.5	Open to Sky	1x4	4	0	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

19	57+695	14.5	14.5	Open to Sky	1x4	4	0	-
20	59+418	14.5	14.5	Open to Sky	1x4	4	0	-
21	61+260	14.5	14.5	Open to Sky	1x4	4	0	-
22	67+696	14.5	14.5	Open to Sky	1x4	4	30	-
23	69+830	14.5	14.5	Open to Sky	1x4	4	0	-
24	71+172	14.5	14.5	Open to Sky	1x4	4	5	-
25	71+847	14.5	14.5	Open to Sky	1x4	4	0	-
26	72+523	14.5	14.5	Open to Sky	1x4	4	0	-
27	73+390	14.5	14.5	Open to Sky	1x4	4	0	-
28	77+857	14.5	14.5	Open to Sky	1x4	4	30	-
29	78+250	14.5	14.5	Open to Sky	1x4	4	20	-
30	83+622	14.5	14.5	Open to Sky	1x4	4	10	-
31	87+825	14.5	14.5	Open to Sky	1x4	4	20	-
32	88+593	14.5	14.5	Open to Sky	1x4	4	19	-
33	91+203	14.5	14.5	Open to Sky	1x4	4	30	-
34	97+729	14.5	14.5	Open to Sky	1x4	4	30	-
35	101+072	14.5	14.5	Open to Sky	1x4	4	11	-
36	101+582	14.5	14.5	Open to Sky	1x4	4	0	-
37	108+151	14.5	14.5	Open to Sky	1x4	4	0	-
38	112+145	14.5	14.5	Open to Sky	1x4	4	0	
39	112+375	14.5	14.5	Open to Sky	1x4	4	0	

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

40	113+822	14.5	14.5	Open to Sky	1x4	4	0	-
41	116+629	14.5	14.5	Open to Sky	1x4	4	0	-

2.9.5 Structure over bund Road

S.No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement / Clear Span in square direction (m)	Minimum Vertical Clearance (m)	Skew Angle	Remarks
NIL								

2.9.5.1 Flyovers

S. No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Square span (c/c. of exp. joint) (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	53+190	14.5	14.5	No	1x35	5.5	27	SH-42

2.9.5.2 Elevated /Viaduct

S. No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Square span (c/c. of exp. joint) (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	96+312 to 96+941	14.5	14.5	No	LHS: 5x30+2x23+4x30+2x56+1x21+6x30 RHS:4x30+1x24+1x30+1x29+1x23+3x30+1x21+2x56+6x30	5.5 at Bundelkhand Expressway Crossing only	0	-

2.9.5.3 Cattle and Pedestrian Underpasses

Sr. No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Square clear" Span Arrangement (m)	Minimum Vertical Clearance (m)	Skew Angle	Remarks
NIL								

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

2.9.5.4 Structure over Oil/gas pipe line crossing

S. No.	Design Chainage (Km)	LHS Roadway Width (m)	RHS Roadway Width (m)	Super Structure Provision in Median	Span Arrangement/ Square span (c/c. of exp. joint) (m)	Minimum Vertical Clearance (m)	Skew Angle (degree)	Remarks
1	3+907	14.5	14.5	No	1x25	4.5	-	-
2	94+255	14.5	14.5	No	Utility/Gas pipe line shall be accommodated within structure provided under interchange clause 2.9.6.			
3	105+091	14.5	14.5	No	1x30	4.5	10	-
4	117+132	14.5	14.5	No	Utility/Gas pipe line shall be accommodated within structure provided under interchange clause 2.9.6.			

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Notes applicable for structures under clause 2.9 :-

1. All underpasses without slip roads shall be provided with steps for accessing the bottom in alternate two-cone filling portion.
2. 2 (two) height barriers on either sides of the underpasses for height less than 5.5m to be provided.
3. The length of structures as mentioned above in Tables shall be treated as minimum requirement. However, the location of structures as mentioned in above Tables may vary as per actual site requirement with prior approval from IE / NHAI. Any increase in span arrangement and change in location shall not be considered as change of scope.
4. Special vehicle loading is to be considered in Design of structures. Since the subject project is Access Controlled, therefore, Congestion factor need not to be considered in calculation of live load.
5. Any Change in skew angle as per site requirement shall not be treated as change of scope.
6. Any other structure falling within acceleration/deceleration lane and taper portion shall be constructed to the required width. These changes shall not be treated as change of scope.
7. Crash barriers shall be provided on abutments side and on sides of pier as a protection barrier in accordance with IRC SP: 84-2019.
8. Construction/Up-gradation of Cross road approaches for all Vehicle Over Passes (VOP) is in the scope of concessionaire.
9. Staircase (with Stone Masonry/Concrete) in the approaches to Box/Slab Culverts (near the end of Return Wall)/ Minor and Major Structures by the side of Abutments on Either side of Carriageway to access the underneath of Box/Slab/Culverts/Bridges/Structures.

2.9.6 Interchange (IC)

Following Structure (Elevated/VUP/LVUP/SVUP/Bridges) are part of interchange and shall be constructed at the location indicated below:

S. No.	Design Chainage (km)	Name of Structure	Span Arrangement (m)	Total Width (m)	Typical Cross Section	Skew (Degree)	Remarks
1	0+000	Elevated	LHS(MCW):35.262+2x28.7 14+31.095+31.725+26.225 +8x30 RHS(MCW):35.262+2x28.7 14+21.129+31.725+41.12 2+8x30 Loop-1: 1x35.262+1x19.8+11x20 Loop-2: 1x35.262+1x22.3+2x20+1x 17.1+1x17.3+1x15.8+1x16. 7+1x16.8+2x17+2x16.5	2x14.5	As per Annexure-II	0	At Km 0+000 on main carriageway

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Design Chainage (km)	Name of Structure	Span Arrangement (m)	Total Width (m)	Typical Cross Section	Skew (Degree)	Remarks
		VUP	1x25x5.5	1x10.5	As per Annexure-II	38	At Km 0+650 on Slip Road LHS
2	28+500	SVUP	1x7x4	LHS:26 RHS:28.3	As per Annexure-II	60	At Km 28+160 on main carriageway and slip road
		Cross Road Structure	1x4x4	2x23	As per Annexure-II	25	At Km 29+010 on main carriageway and slip road
		Flyover	1x20+1x30+1x20	2x14.5	As per Annexure-II	16	At Km 28+550 on main carriageway
3	46+260	SVUP	1x7x4	2x18+10.5	As per Annexure-II		At Km 47+174 on Main Carriageway
		Elevated	Loop-1: 11x4+14x20+1x19+2x35+1x27+3x28+1x29+3x30 Loop-2: 14x20+1x19+2x35+8x30	2x10.5	As per Annexure-II	0	Loop-1: Km 0+590 to 1+050 Loop-2: Km 0+576 to 1+185
4	51+000	MJB	1x53.45+14x54+1x53.45	2x14.5 (New) + 2x10.5 (Existing)	As per Annexure-II	0	At Km 48+900 on Main Carriageway
		Cross Road Structure	1x4x4	14.5+10.5 +10.5+14.5	As per Annexure-II	0	At Km 49+715 on MCW
		MJB	3x26	Existing Bridge to be retained as it is		0	At Km 50+850 on MCW
		Viaduct	LHS:1x35+10x54+3x26+2x32.5+2x30+1x35+1x45+18x54+1x18+1x34+7x54	2x14.5	As per Annexure-II	0	LHS:Km 2+175 to 4+435
			RHS:12x54+3x26+2x36+2x30+1x45+18x54+1x18+1x34+7x54				RHS:Km 2+185 to 4+490
		MJB	Existing Bridge (1x53.45+11x54+1x53.45) shall be retained as it is + Viaduct on A2 Side (20+34+ 7x54) to be constructed	2x10.5	As per Annexure-II	0	At Km 51+650

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Design Chainage (km)	Name of Structure	Span Arrangement (m)	Total Width (m)	Typical Cross Section	Skew (Degree)	Remarks
5	54+000	MNB cum UP	1x25	14.5+14.5+8.5	As per Annexure-II	14	At Km 54+290 on MCW
		Flyover	1x35	14.5+20	As per Annexure-II	21	At Km 54+698 on MCW
		SVUP	1x7x4	2x20	As per Annexure-II	10	At Km 54+937 on MCW
		LVUP	1x12x4.5	4x10.5	As per Annexure-II	0	At 1+720 on Loop-1 and Loop-2 and LHS/RHS Slip Road
		Viaduct	10x30+1x27+2x35	1x10.5	As per Annexure-II	0	Km 1+584 to 1+981 on Loop-1
		Viaduct	11x30+2x35	1x10.5	As per Annexure-II	0	Km 0+875 to 1+275 on Loop-2
6	94+000	LVUP	1x12x4.5	2x14.5	As per Annexure-II	43	At Km 92+360
		VUP	1x12x5.5	2x14.5	As per Annexure-II	0	At Km 93+000
		MNB cum UP	1x15 + 1x20	10.5+2x14.5+10.5	As per Annexure-II	0	Irrigation Canal (Minimum 5.5M vertical clearance above inspectin road) (At Km 93+655)
		Flyover	2x54	2x14.5	As per Annexure-II	30	At Km 94+284
		MNB cum UP	1x7+1x10+1x7	2x41.0	As per Annexure-II	0	Irrigation Canal (Minimum 5.5M vertical clearance above inspectin road) At Km 94+900
		VUP	1x12x5.5	2x14.5	As per Annexure-II	0	At Km 95+420

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Design Chainage (km)	Name of Structure	Span Arrangement (m)	Total Width (m)	Typical Cross Section	Skew (Degree)	Remarks
7	117+132	MNB	1x12	20+14.5	As per Annexure-II	28	At Km 116+350
		MNB cum SVUP	2x7	14.5+20	As per Annexure-II	0	At Km 116+629
		Flyover	2x40	2x20	As per Annexure-II	30	At Km 117+162
		MNB cum SVUP	2x7	1x10.5	As per Annexure-II	30	At Km 0+240 on Ramp-1
		VUP	1x12x5.5	1x10.5	As per Annexure-II	0	At Km 0+310 on Ramp-1
		VUP	1x12x5.5	1x10.5	As per Annexure-II	0	At Km 0+467 on Loop-1

Note:

- Layout, Geometric Design and Typical Cross Sections of Interchange are included in Annexure II to schedule-B.
- Any utility line falling within interchange area including ramps , loops and slip roads shall be shifted/ accommodated in consultation with IE/AE/NHAI/concerned utility authorities. Any change in arrangement due to same shall not be treated as Change of Scope.

2.9.7 Details of Loops, Ramps, Cross Roads and Connecting Roads at Interchanges (IC)

S.No	Chainage (Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
1	0+000	9.5	800	Loop-1	Towards Kanpur
		9.5	560	Loop-2	Towards Kabrai
		9.5	1120	Slip Road LHS	Towards Kabrai
		9.5	1500	Slip Road RHS	Towards Bithor
2	28+500	9.5	735	Slip Road LHS-1	Towards Kabrai
		9.5	760	Slip Road RHS-1	Towards Kanpur
		9.5	665	Slip Road LHS-2	Towards Kabrai
		9.5	645	Slip Road RHS-2	Towards Kanpur
3	46+260	9.5	1630	Loop-1	Towards Hamirpur
		9.5	1700	Loop-2	Towards Kanpur
		9.5	1105	Slip Road-1	Towards Hamirpur
		9.5	1740	Slip Road-2	Towards Kabrai

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	Chainage (Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
4	51+000	9.5	4930	Right Bridge	Towards Kanpur
		9.5	4870	Left Bridge	Towards Kabrai
5	54+000	9.5	2573	Loop-1	Exit Towards Project Road
		9.5	2831	Loop-2	Exit Towards Kanpur
		9.5	1431	Slip Road LHS	Exit Towards Hamirpur
		9.5	1661	Slip Road RHS	Exit Towards Kabrai
6	94+000	9.5	1780	Loop-1	Entry from Kabrai
		9.5	1726	Loop-2	Entry from Kanpur
		9.5	2255	Ramp-1	Exit towards Kanpur
		9.5	1980	Ramp-2	Exit towards Hamirpur
		9.5	2110	Ramp-3	Exit towards Bumdekhand Expressway
		9.5	1850	Ramp-4	Exit towards Kabrai
7	117+132	9.5	735	Loop-1	Exit towards Mahoba
		9.5	845	Loop-2	Entry from Mahoba Exit towards Baghwa
		9.5	870	Loop-3	Entry from Kanpur
		9.5	600	Loop-4	Entry From Baghwa Exit towards Kanpur
		9.5	860	Ramp-1	Entry from Kanpur Exit towards Baghwa
		9.5	910	Ramp-2	Entry From Kabrai Village Exit toward Kanpur
		9.5	1080	Ramp-3	Entry From Baghwa Exit towards Mahoba
		9.5	650	Ramp-4	Entry from Mahoba Exit towards Kabrai village
		9.5	640	Slip Road	Exit towards Baghwa

Note:

- Layout, Geometric Design and Typical Cross Sections of Ramps, Cross Roads and Connecting Roads of Interchange is included in Annexure II to schedule-B.
- Above length of loops/ramps/crossroads is minimum specified. The actual length shall be determined by the Concessionaire in accordance with the approved plan profile and design approved from the Independent Engineer. Any increase/decrease in length from the length specified in this Clause of Schedule-B shall not constitute a Change of Scope.
- The Acceleration, deceleration lane, right turning storage lane, entry/exit lanes shall be constructed in addition to length given in above table and shall be deemed to be part of the scope and no Change of Scope shall be considered for the same.
- All structures falling along crossroads shall be widened/ reconstructed as per site/design requirement in accordance with manual.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

- e. The Grade Separated Structures shall be constructed using such construction material/methods/technologies so as to ensure uninterrupted flow of traffic on crossroads. The diversion road shall have paved width not less than the width of the existing crossroad. The diversion road shall be constructed and maintained in good condition to the satisfaction of Independent Engineer, during the construction of Structures. The cost of the diversion road shall be borne by Concessionaire.
- f. Special vehicle loading is to be considered in Design of structures. Since the subject project is Access Controlled, therefore, Congestion factor need not to be considered in calculation of live load.
- g. In addition to above, in case of structure, damage caused to existing NH (if any) over which structure has been proposed shall be repaired and NH shall be restored to original condition to the satisfaction of the IE/NHAI. There will be no COS in this regard.
- h. The width of Paved Carriageway shall be minimum as given above in table and shown in TCS. However, where toll plaza has to be constructed on Loop/Ramp, the width of Paved Carriageway shall be as per the width of toll plaza lane configuration given in Schedule C including taper length as per IRC Manual (as specified in Schedule D).
- i. The Concessionaire shall take up detailed engineering study to ascertain further details of all interchanges and treatment of the interchanges shall be designed in accordance with IRC SP:84-2019 and IRC 92-2017. The same shall not constitute a COS, save and except any variation arising out of a change of scope expressly undertaken in accordance with the provision of Article-16.
- j. The length of structures as mentioned above in Tables shall be treated as minimum requirement. However, the location of structures as mentioned in above Tables may vary as per actual site requirement with prior approval from IE / NHAI. Any increase in span arrangement and change in location shall not be considered as change of scope.
- k. Any Change in skew angle as per site requirement shall not be treated as change of scope.
- l. Staircase (with Stone Masonry/Concrete) in the approaches to Box/Slab Culverts (near the end of Return Wall)/ Minor and Major Structures by the side of Abutments on Either side of Carriageway to access the underneath of Box/Slab/Culverts/Bridges/Structures.

2.10 Typical Cross Section (TCS) of the Project Highway (Clause 2.17 IRC: SP: 84-2019)

The Project Highway shall be constructed to Six lane configuration. Typical cross sections required to be developed in different sections of the Project Highway are given below and in Annexure-II of this Schedule-B:

Applicable Stretches of Typical Cross Section

Sr. no.	Design Chainage (Km)		Length(m)	TCS Description	TCS Type
	From	To			
1	0+000	0+820	820	Junction Development	As per Plan
2	0+820	0+827	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/ Cross Road Structure/MJB/MNB)	TCS 4
3	0+827	1+105	278	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
4	1+105	1+135	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/ Cross Road Structure/MJB/MNB)	TCS 4
5	1+135	1+198	63	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
6	1+198	1+202	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/ Cross Road Structure/MJB/MNB)	TCS 4
7	1+202	1+240	38	6-Lane Divided Highway Approach VUP/Flyover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
8	1+240	2+104	864	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
9	2+104	2+116	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
10	2+116	2+570	454	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
11	2+570	2+754	184	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
12	2+754	2+774	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
13	2+774	3+011	237	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
14	3+011	3+150	139	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B23**

15	3+150	3+590	440	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
16	3+590	3+825	235	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
17	3+825	3+895	70	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 7A
18	3+895	3+920	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
19	3+920	3+940	20	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
20	3+940	4+254	314	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 3.5M)	TCS 6B
21	4+254	4+266	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
22	4+266	4+630	364	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 3.5M)	TCS 6B
23	4+630	4+740	110	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 3.5M)	TCS 6
24	4+740	4+948	208	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
25	4+948	5+033	85	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
26	5+033	5+220	187	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
27	5+220	5+852	632	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
28	5+852	5+864	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
29	5+864	6+370	506	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
30	6+370	6+720	350	Toll Plaza	Toll Plaza
31	6+720	7+260	540	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
32	7+260	7+350	90	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
33	7+350	7+357	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
34	7+357	7+405	48	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B24**

				Road/ Slip Road (Height 8 to 10M)	
35	7+405	7+430	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
36	7+430	8+774	1344	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
37	8+774	8+786	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
38	8+786	9+200	414	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
39	9+200	9+502	302	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
40	9+502	9+609	107	ROB	As per GAD
41	9+609	9+940	331	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
42	9+940	10+098	158	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
43	10+098	10+123	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
44	10+123	10+580	457	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
45	10+580	10+629	49	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
46	10+629	10+641	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
47	10+641	11+212	571	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
48	11+212	11+219	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
49	11+219	11+430	211	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
50	11+430	11+528	98	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
51	11+528	11+553	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
52	11+553	11+590	37	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
53	11+590	11+745	155	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 3.5M)	TCS 6B
54	11+745	12+177	432	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
55	12+177	12+184	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B25**

56	12+184	12+420	236	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
57	12+420	12+477	57	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
58	12+477	12+484	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
59	12+484	12+770	286	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
60	12+770	12+875	105	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
61	12+875	12+965	90	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
62	12+965	13+090	125	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
63	13+090	13+440	350	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
64	13+440	13+687	247	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
65	13+687	13+694	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
66	13+694	14+030	336	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
67	14+030	14+210	180	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
68	14+210	14+524	314	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
69	14+524	14+590	66	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
70	14+590	14+640	50	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
71	14+640	14+883	243	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
72	14+883	14+918	35	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
73	14+918	15+110	192	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
74	15+110	15+317	207	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
75	15+317	15+321	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
76	15+321	15+668	347	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
77	15+668	15+672	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
78	15+672	15+983	311	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
79	15+983	15+997	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B26**

80	15+997	16+850	853	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
81	16+850	16+870	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
82	16+870	17+420	550	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
83	17+420	17+560	140	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
84	17+560	17+839	279	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
85	17+839	17+851	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
86	17+851	17+980	129	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
87	17+980	18+035	55	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
88	18+035	18+055	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
89	18+055	18+110	55	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
90	18+110	18+270	160	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
91	18+270	18+277	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
92	18+277	19+370	1093	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
93	19+370	19+513	143	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
94	19+513	19+538	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
95	19+538	19+867	329	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
96	19+867	19+874	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
97	19+874	19+950	76	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
98	19+950	20+048	98	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
99	20+048	20+153	105	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
100	20+153	21+392	1239	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
101	21+392	21+396	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
102	21+396	22+453	1057	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B27**

103	22+453	22+473	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
104	22+473	22+839	366	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
105	22+839	22+882	43	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
106	22+882	23+110	228	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
107	23+110	23+436	326	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
108	23+436	23+443	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
109	23+443	23+520	77	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
110	23+520	24+321	801	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
111	24+321	24+349	28	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
112	24+349	25+414	1065	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
113	25+414	25+426	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
114	25+426	26+273	847	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
115	26+273	26+277	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
116	26+277	27+057	780	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
117	27+057	27+064	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
118	27+064	27+304	240	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
119	27+304	27+400	96	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
120	27+400	27+800	400	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
121	27+800	29+200	1400	Junction Development	As per Plan
122	29+200	29+580	380	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
123	29+580	29+680	100	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
124	29+680	29+900	220	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
125	29+900	29+930	30	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb	TCS 7A

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B28**

				height upto 8M)	
126	29+930	29+951	21	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
127	29+951	29+980	29	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
128	29+980	30+297	317	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
129	30+297	30+304	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
130	30+304	30+513	209	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
131	30+513	30+517	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
132	30+517	31+040	523	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
133	31+040	31+137	97	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
134	31+137	31+144	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
135	31+144	31+930	786	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
136	31+930	32+021	91	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
137	32+021	32+041	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
138	32+041	32+500	459	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
139	32+500	32+560	60	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
140	32+560	32+564	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
141	32+564	33+150	586	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
142	33+150	33+250	100	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
143	33+250	33+308	58	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
144	33+308	33+312	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
145	33+312	33+496	184	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
146	33+496	33+577	81	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
147	33+577	33+650	73	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
148	33+650	33+760	110	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B29**

				Road/ Slip Road (Height 8 to 10M)	
149	33+760	33+878	118	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
150	33+878	33+882	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
151	33+882	34+085	203	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
152	34+085	34+105	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
153	34+105	34+870	765	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
154	34+870	34+908	38	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
155	34+908	34+912	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
156	34+912	35+729	817	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
157	35+729	35+736	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
158	35+736	36+200	464	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
159	36+200	36+230	30	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
160	36+230	36+234	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
161	36+234	36+300	66	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
162	36+300	36+740	440	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
163	36+740	37+018	278	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
164	37+018	37+022	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
165	37+022	37+232	210	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
166	37+232	37+258	26	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
167	37+258	37+700	442	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
168	37+700	37+831	131	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
169	37+831	37+835	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B30**

170	37+835	37+920	85	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
171	37+920	39+200	1280	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
172	39+200	39+238	38	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
173	39+238	39+242	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
174	39+242	39+953	711	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
175	39+953	39+967	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
176	39+967	40+220	253	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
177	40+220	40+300	80	6-Lane Divided Highway Approach VUP/FLYOVER/LVUP/SVUP with Connecting Road on Both Sides	TCS 5
178	40+300	40+785	485	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
179	40+785	40+797	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
180	40+797	40+910	113	6-Lane Divided Highway Approach VUP/FLYOVER/LVUP/SVUP with Connecting Road on Both Sides	TCS 5
181	40+910	41+380	470	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
182	41+380	41+433	53	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
183	41+433	41+437	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
184	41+437	41+640	203	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
185	41+640	41+650	10	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
186	41+650	42+125	475	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
187	42+125	42+145	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
188	42+145	42+270	125	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
189	42+270	42+303	33	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
190	42+303	42+317	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
191	42+317	42+360	43	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B31**

192	42+360	42+680	320	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
193	42+680	42+712	32	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
194	42+712	42+728	16	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
195	42+728	42+790	62	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
196	42+790	43+000	210	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
197	43+000	43+030	30	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
198	43+030	43+040	10	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
199	43+040	43+451	411	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
200	43+451	43+455	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
201	43+455	43+620	165	6-Lane Divided Highway Approach VUP/Flyover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
202	43+620	43+965	345	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
203	43+965	43+975	10	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
204	43+975	44+280	305	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
205	44+280	44+513	233	6-Lane Divided Highway Approach VUP/Flyover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
206	44+513	44+517	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
207	44+517	44+600	83	6-Lane Divided Highway Approach VUP/Flyover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
208	44+600	45+349	749	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
209	45+349	45+361	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
210	45+361	45+513	152	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
211	45+513	45+517	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
212	45+517	46+200	683	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
213	46+200	47+400	1200	Junction Development	As per Plan
214	47+400	47+490	90	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
215	47+490	47+900	410	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B32**

216	47+900	53+000	5100	Junction Development	As per Plan
217	53+000	53+173	173	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
218	53+173	53+208	35	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
219	53+208	53+300	92	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
220	53+300	53+390	90	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
221	53+390	53+670	280	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
222	53+670	53+949	279	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
223	53+949	53+961	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
224	53+961	54+100	139	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
225	54+100	55+100	1000	Junction Development	As per Plan
226	55+100	55+170	70	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
227	55+170	55+238	68	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
228	55+238	55+326	88	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
229	55+326	55+330	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
230	55+330	55+420	90	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
231	55+420	56+568	1148	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
232	56+568	56+572	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
233	56+572	56+760	188	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
234	56+760	56+943	183	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on LHS (Emb height upto 8M)	TCS 6A
235	56+943	56+950	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B33**

236	56+950	57+693	743	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
237	57+693	57+697	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
238	57+697	58+510	813	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
239	58+510	58+658	148	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
240	58+658	58+678	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
241	58+678	59+050	372	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
242	59+050	59+108	58	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
243	59+108	59+112	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
244	59+112	59+310	198	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
245	59+310	59+416	106	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
246	59+416	59+420	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
247	59+420	59+580	160	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
248	59+580	59+620	40	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
249	59+620	59+670	50	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
250	59+670	60+030	360	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
251	60+030	60+098	68	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
252	60+098	60+138	40	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
253	60+138	60+160	22	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6
254	60+160	60+180	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
255	60+180	60+250	70	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
256	60+250	60+270	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B34**

257	60+270	60+300	30	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
258	60+300	60+464	164	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
259	60+464	60+509	45	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
260	60+509	60+520	11	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
261	60+520	60+730	210	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
262	60+730	60+830	100	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
263	60+830	60+959	129	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
264	60+959	60+971	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
265	60+971	61+258	287	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
266	61+258	61+262	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
267	61+262	61+670	408	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
268	61+670	61+748	78	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
269	61+748	62+380	632	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
270	62+380	62+722	342	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
271	62+722	62+747	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
272	62+747	63+010	263	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
273	63+010	63+160	150	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
274	63+160	63+196	36	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
275	63+196	63+250	54	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
276	63+250	63+380	130	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
277	63+380	63+420	40	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B35**

278	63+420	63+530	110	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
279	63+530	63+751	221	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
280	63+751	63+758	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
281	63+758	65+370	1612	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
282	65+370	65+377	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
283	65+377	65+400	23	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
284	65+400	65+690	290	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
285	65+690	65+815	125	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
286	65+815	65+835	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
287	65+835	66+171	336	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
288	66+171	66+231	60	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
289	66+231	66+471	240	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
290	66+471	66+478	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
291	66+478	66+580	102	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
292	66+580	67+220	640	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
293	67+220	67+300	80	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
294	67+300	67+670	370	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
295	67+670	67+694	24	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
296	67+694	67+698	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
297	67+698	67+740	42	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B36**

298	67+740	69+083	1343	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
299	69+083	69+090	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
300	69+090	69+828	738	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
301	69+828	69+832	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
302	69+832	71+170	1338	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
303	71+170	71+174	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
304	71+174	71+650	476	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
305	71+650	71+845	195	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
306	71+845	71+849	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
307	71+849	72+521	672	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
308	72+521	72+525	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
309	72+525	72+990	465	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
310	72+990	73+145	155	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
311	73+145	73+175	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
312	73+175	73+388	213	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
313	73+388	73+393	5	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
314	73+393	73+400	7	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
315	73+400	73+830	430	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
316	73+830	73+876	46	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
317	73+876	73+884	8	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
318	73+884	73+900	16	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
319	73+900	74+020	120	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
320	74+020	74+060	40	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B37**

				Road/ Slip Road (Height 8 to 10M)	
321	74+060	74+090	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
322	74+090	74+140	50	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
323	74+140	74+448	308	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
324	74+448	74+462	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
325	74+462	74+715	253	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
326	74+715	74+725	10	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
327	74+725	75+340	615	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
328	75+340	75+500	160	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
329	75+500	75+777	277	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
330	75+777	75+802	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
331	75+802	75+880	78	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
332	75+880	76+231	351	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
333	76+231	76+238	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
334	76+238	76+585	347	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
335	76+585	76+600	15	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
336	76+600	76+604	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
337	76+604	76+660	56	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
338	76+660	76+980	320	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
339	76+980	77+051	71	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
340	77+051	77+063	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
341	77+063	77+080	17	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B38**

342	77+080	77+526	446	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
343	77+526	77+540	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
344	77+540	77+780	240	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
345	77+780	77+855	75	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
346	77+855	77+859	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
347	77+859	77+940	81	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
348	77+940	78+248	308	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
349	78+248	78+252	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
350	78+252	78+880	628	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
351	78+880	79+096	216	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
352	79+096	79+108	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
353	79+108	79+400	292	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
354	79+400	79+566	166	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
355	79+566	79+606	40	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
356	79+606	79+770	164	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
357	79+770	80+100	330	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
358	80+100	80+310	210	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
359	80+310	80+322	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
360	80+322	80+900	578	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
361	80+900	80+950	50	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
362	80+950	81+003	53	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on RHS (Emb Height 8 to 10M)	TCS 7

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B39**

363	81+003	81+028	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
364	81+028	81+130	102	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6
365	81+130	81+160	30	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
366	81+160	81+760	600	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
367	81+760	81+780	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
368	81+780	81+960	180	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
369	81+960	81+998	38	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
370	81+998	82+023	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
371	82+023	82+500	477	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
372	82+500	82+560	60	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
373	82+560	82+600	40	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
374	82+600	82+738	138	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
375	82+738	82+752	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
376	82+752	82+840	88	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
377	82+840	82+870	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
378	82+870	82+880	10	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
379	82+880	83+018	138	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
380	83+018	83+043	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
381	83+043	83+620	577	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
382	83+620	83+624	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
383	83+624	83+878	254	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
384	83+878	83+885	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B40**

385	83+885	84+470	585	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
386	84+470	84+653	183	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
387	84+653	84+678	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
388	84+678	84+844	166	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
389	84+844	84+996	152	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
390	84+996	85+387	391	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
391	85+387	85+427	40	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
392	85+427	85+915	488	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
393	85+915	85+940	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
394	85+940	86+300	360	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
395	86+300	86+430	130	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6
396	86+430	86+450	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
397	86+450	86+483	33	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
398	86+483	86+508	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
399	86+508	86+728	220	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
400	86+728	86+743	15	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
401	86+743	87+090	347	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
402	87+090	87+130	40	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
403	87+130	87+823	693	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
404	87+823	87+827	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
405	87+827	87+993	166	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
406	87+993	88+000	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B41**

407	88+000	88+040	40	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
408	88+040	88+270	230	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
409	88+270	88+360	90	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
410	88+360	88+591	231	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
411	88+591	88+595	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
412	88+595	88+957	362	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
413	88+957	89+062	105	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
414	89+062	89+100	38	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
415	89+100	89+190	90	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
416	89+190	89+448	258	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
417	89+448	89+455	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
418	89+455	89+714	259	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
419	89+714	89+726	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
420	89+726	89+940	214	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
421	89+940	89+971	31	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
422	89+971	89+975	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
423	89+975	90+520	545	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
424	90+520	90+570	50	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
425	90+570	90+660	90	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
426	90+660	90+705	45	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
427	90+705	90+735	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
428	90+735	90+760	25	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B42**

429	90+760	90+987	227	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
430	90+987	91+092	105	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
431	91+092	91+201	109	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
432	91+201	91+205	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
433	91+205	91+370	165	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
434	91+370	91+390	20	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
435	91+390	91+600	210	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
436	91+600	91+830	230	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
437	91+830	92+000	170	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
438	92+000	95+700	3700	Junction Development	As per Plan
439	95+700	96+030	330	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
440	96+030	96+067	37	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
441	96+067	96+092	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
442	96+092	96+312	220	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
443	96+312	96+941	629	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
444	96+941	97+210	269	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
445	97+210	97+300	90	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
446	97+300	97+695	395	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
447	97+695	97+727	32	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
448	97+727	97+731	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
449	97+731	98+120	389	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B43**

450	98+120	98+187	67	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
451	98+187	98+212	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
452	98+212	98+320	108	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
453	98+320	98+541	221	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
454	98+541	98+553	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
455	98+553	98+695	142	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
456	98+695	98+705	10	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
457	98+705	99+000	295	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
458	99+000	99+298	298	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
459	99+298	99+323	25	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
460	99+323	99+360	37	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
461	99+360	99+820	460	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
462	99+820	99+853	33	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
463	99+853	99+867	14	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
464	99+867	99+900	33	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
465	99+900	100+47 5	575	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
466	100+47 5	100+52 5	50	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
467	100+52 5	101+07 0	545	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
468	101+07 0	101+07 4	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
469	101+07	101+25	182	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B44**

	4	6			
470	101+25 6	101+36 4	108	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
471	101+36 4	101+58 0	216	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
472	101+58 0	101+58 4	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
473	101+58 4	102+09 8	514	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
474	102+09 8	102+11 0	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
475	102+11 0	102+84 3	733	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
476	102+84 3	102+85 0	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
477	102+85 0	102+96 0	110	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
478	102+96 0	103+04 0	80	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
479	103+04 0	103+58 0	540	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
480	103+58 0	104+17 0	590	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
481	104+17 0	104+25 1	81	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
482	104+25 1	104+57 0	319	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
483	104+57 0	104+70 0	130	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
484	104+70 0	104+86 0	160	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on RHS (Emb Height 8 to 10M)	TCS 7
485	104+86	105+05	190	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B45**

	0	0		Road/ Slip Road (Height 8 to 10M)	
486	105+05 0	105+08 5	35	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
487	105+08 5	105+09 7	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
488	105+09 7	105+58 0	483	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
489	105+58 0	105+58 4	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
490	105+58 4	105+92 0	336	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
491	105+92 0	106+16 0	240	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
492	106+16 0	106+21 0	50	6-Lane Divided Highway Approach VUP/Fluover/LVUP/SVUP with Connecting Road on Both Side	TCS 5
493	106+21 0	106+24 0	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
494	106+24 0	106+52 3	283	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
495	106+52 3	106+57 7	54	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
496	106+57 7	106+62 0	43	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
497	106+62 0	107+07 4	454	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
498	107+07 4	107+08 6	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
499	107+08 6	108+14 9	1063	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
500	108+14 9	108+15 3	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
501	108+15	108+55	397	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B46**

	3	0			
502	108+55 0	108+61 0	60	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
503	108+61 0	109+04 9	439	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
504	109+04 9	109+07 0	21	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
505	109+07 0	109+18 5	115	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
506	109+18 5	109+21 5	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
507	109+21 5	110+12 0	905	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
508	110+12 0	110+17 0	50	6-Lane Divided Highway Approach VUP/Flyover/LVUP/SVUP with Connecting Road on RHS (Emb height upto 8M)	TCS 7A
509	110+17 0	110+26 9	99	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
510	110+26 9	110+28 1	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
511	110+28 1	110+46 0	179	6-Lane Divided Highway Approach VUP/ FLYOVER/ LVUP/SVUP with Connecting Road on LHS (Emb Height 8 to 10M)	TCS 6A
512	110+46 0	111+02 0	560	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
513	111+02 0	111+18 2	162	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
514	111+18 2	111+21 2	30	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
515	111+21 2	111+43 0	218	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
516	111+43 0	112+14 3	713	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
517	112+14	112+14	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and,Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B47**

	3	7			
518	112+14 7	112+37 3	226	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
519	112+37 3	112+37 7	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
520	112+37 7	112+88 5	508	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
521	112+88 5	112+89 2	7	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
522	112+89 2	113+82 0	928	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
523	113+82 0	113+82 4	4	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
524	113+82 4	114+66 9	845	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
525	114+66 9	114+68 1	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
526	114+68 1	115+26 0	579	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
527	115+26 0	115+49 0	230	4/6-Lane Divided Highway for Embankment Height Upto 3M	TCS 1
528	115+49 0	115+82 0	330	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
529	115+82 0	115+89 0	70	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
530	115+89 0	115+97 0	80	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
531	115+97 0	116+12 5	155	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service Road/ Slip Road (Height 8 to 10M)	TCS 3
532	116+12 5	116+13 5	10	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
533	116+13	116+23	97	6-Lane Divided Highway on RE Wall Approach of VUP/ FLYOVER/ Elevated without Service	TCS 3

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. **B48**

	5	2		Road/ Slip Road (Height 8 to 10M)	
534	116+23 2	116+24 7	15	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
535	116+24 7	116+34 4	97	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
536	116+34 4	116+35 6	12	6-Lane Divided Highway at All Structure Portion (Elevated/Flyover/VUP/LVUP/MJB/MNB)	TCS 4
537	116+35 6	116+40 0	44	4/6-Lane Divided Highway with Toe/Retaining wall for Embankment Height 3 to 8M	TCS 2
538	116+40 0	117+70 0	1300	Junction Development	As per Plan

Note:-

- 1) Any variations in the lengths specified in the above table shall not constitute a Change of Scope.
- 2) Lengths mentioned in the above list for cross section types concerned to structures are inclusive of structure length.
- 3) Retaining wall/ RE wall shall be provided for full height on all structures or as provided in Annexure-III of Schedule A
- 4) Toe wall (0.6m height) or retaining wall above 0.6m height shall be provided to maintain the slope of filling wherever restriction in ROW is required leaving space for utility corridor/ drain/ service road etc. as applicable and water bodies along the proposed highway on the sections specified in Schedule-B.
- 5) Chainages may be adjusted according to location of structures as per site conditions and drawing.
- 6) Carriageway width tapering shall be provided 1 in 50 as per Manual.
- 7) Intermediate Sight Distance (Desirable Minimum Sight Distance) shall be followed for design of all vertical curves (Summit and Valley Curves) including structures as well as highways (Clause No. 2.9.5 IRC:SP84-2019).
- 8) A 2m wide utility corridor, along with earthen Drain/ Lined drain/Covered Drain as per TCS shall be accommodated in the ROW. Suitable Earth Retaining Structures (Toe Wall/ RS Wall & Retaining Wall shall be provided as per TCS maintain required slope of embankment as mentioned in TCS)

- 9) At the approach locations of MJB/MNB/LVUP/SVUP, where the embankment height is less than 8 m and the section follows TCS-2, the paved carriageway width shall be maintained equal to the width of the structure (i.e., 13.5 m excluding kerb shyness) for a minimum length of 15 m on both approaches. Beyond this length, the paved carriageway shall be transitioned to match the subsequent TCS paved carriageway width as per guidelines specified in IRC manuals.
- 10) At locations where the embankment height is greater than 8 m and the section involves RE wall construction, and is required to match with the width of a TCS section having an embankment height less than 8 m, the paved carriageway shall be transitioned to match the subsequent TCS paved carriageway width as per guidelines specified in IRC manuals.

3 Intersections and Grade Separated Intersections

All at-grade intersections and grade separated intersections shall be as per Section 3 of the Manual. Existing at-grade intersections shall be improved to the prescribed standards.

The service road pavement composition shall be continued on crossroads of the intersections for the length specified for at-grade and grade separated intersections.

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

3.1 At-grade intersections:

(a) Major Junctions:-

S.No	Chainage(Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
1	0+000	9.5	800	Loop-1	Towards Kanpur
		9.5	560	Loop-2	Towards Kabrai
		9.5	1120	Slip Road LHS	Towards Kabrai
		9.5	1500	Slip Road RHS	Towards Bithor
2	28+500	9.5	735	Slip Road LHS-1	Towards Kabrai
		9.5	760	Slip Road RHS-1	Towards Kanpur
		9.5	665	Slip Road LHS-2	Towards Kabrai
		9.5	645	Slip Road RHS-2	Towards Kanpur
3	46+260	9.5	1630	Loop-1	Towards Hamirpur
		9.5	1700	Loop-2	Towards Kanpur
		9.5	1105	Slip Road-1	Towards Hamirpur
		9.5	1740	Slip Road-2	Towards Kabrai
4	51+000	9.5	4930	Right Bridge	Towards Kanpur
		9.5	4870	Left Bridge	Towards Kabrai
5	54+000	9.5	2573	Loop-1	Exit Towards Project Road
		9.5	2831	Loop-2	Exit Towards Kanpur
		9.5	1431	Slip Road LHS	Exit Towards Hamirpur
		9.5	1661	Slip Road RHS	Exit Towards Kabrai
6	94+000	9.5	1780	Loop-1	Entry from Kabrai
		9.5	1726	Loop-2	Entry from Kanpur
		9.5	2255	Ramp-1	Exit towards Kanpur
		9.5	1980	Ramp-2	Exit towards Hamirpur
		9.5	2110	Ramp-3	Exit towards Bumdekhanda Expressway
		9.5	1850	Ramp-4	Exit towards Kabrai
7	117+132	9.5	735	Loop-1	Exit towards Mahoba
		9.5	845	Loop-2	Entry from Mahoba Exit towards Baghwa
		9.5	870	Loop-3	Entry from Kanpur
		9.5	600	Loop-4	Entry From Baghwa Exit towards Kanpur

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	Chainage(Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
		9.5	860	Ramp-1	Entry from Kanpur Exit towards Baghwa
		9.5	910	Ramp-2	Entry From Kabrai Village Exit toward Kanpur
		9.5	1080	Ramp-3	Entry From Baghwa Exit towards Mahoba
		9.5	650	Ramp-4	Entry from Mahoba Exit towards Kabrai village
		9.5	640	Slip Road	Exit towards Baghwa

(b) Minor Junctions:

Sl. No.	Existing Ch.	Type of Junction	Direction	Surface Type	Carriageway Width (m)	Type of Cross road
NIL						

Note:-

- (i) Type of Junction to be improved as per manual .
- (ii) The Concessionaire shall take up 'Detailed Engineering study' to ascertain further details of all intersections and treatment of the intersections shall be designed in accordance with the latest guidelines mentioned out in section-3 of the Manual. Auxiliary lanes including storage, acceleration and deceleration lane along with physical islands to be provided.
- The cross road at the junctions which are having a level difference from the main carriageway, are to be improved at the level of main carriageway for the length of 30 meter and then to be merged with the cross road at the gradient not more than 1:50.
- (iii) For minor / major layout for left-in / left out arrangement with physical islands with hazard marking. Where there is space constraint to provide physical islands, the effect of junction kept wide opened can be avoided by Ghost Island with marking.
- (iv) For U-turn, Self-Regulated U-Turn facility shall be created.

3.2 At-Grade Intersections below Grade Separators/Interchanges: These shall be provided as given at para 2.9 of this Annexure-I of the Schedule B.

S.No	Chainage (Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
1	0+000	9.5	800	Loop-1	Towards Kanpur
		9.5	560	Loop-2	Towards Kabrai
		9.5	1120	Slip Road LHS	Towards Kabrai
		9.5	1500	Slip Road RHS	Towards Bithor
2	28+500	9.5	735	Slip Road LHS-1	Towards Kabrai

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	Chainage (Km)	Carriageway Widths including Kerb Shyness	Length (m)	Description of Ramps, Crossroads and Connecting Roads	Remarks
		9.5	760	Slip Road RHS-1	Towards Kanpur
		9.5	665	Slip Road LHS-2	Towards Kabrai
		9.5	645	Slip Road RHS-2	Towards Kanpur
3	46+260	9.5	1630	Loop-1	Towards Hamirpur
		9.5	1700	Loop-2	Towards Kanpur
		9.5	1105	Slip Road-1	Towards Hamirpur
		9.5	1740	Slip Road-2	Towards Kabrai
4	51+000	9.5	4930	Right Bridge	Towards Kanpur
		9.5	4870	Left Bridge	Towards Kabrai
5	54+000	9.5	2573	Loop-1	Exit Towards Project Road
		9.5	2831	Loop-2	Exit Towards Kanpur
		9.5	1431	Slip Road LHS	Exit Towards Hamirpur
		9.5	1661	Slip Road RHS	Exit Towards Kabrai
6	94+000	9.5	1780	Loop-1	Entry from Kabrai
		9.5	1726	Loop-2	Entry from Kanpur
		9.5	2255	Ramp-1	Exit towards Kanpur
		9.5	1980	Ramp-2	Exit towards Hamirpur
		9.5	2110	Ramp-3	Exit towards Bumdekhand Expressway
		9.5	1850	Ramp-4	Exit towards Kabrai
7	117+132	9.5	735	Loop-1	Exit towards Mahoba
		9.5	845	Loop-2	Entry from Mahoba Exit towards Baghwa
		9.5	870	Loop-3	Entry from Kanpur
		9.5	600	Loop-4	Entry From Baghwa Exit towards Kanpur
		9.5	860	Ramp-1	Entry from Kanpur Exit towards Baghwa
		9.5	910	Ramp-2	Entry From Kabrai Village Exit toward Kanpur
		9.5	1080	Ramp-3	Entry From Baghwa Exit towards Mahoba
		9.5	650	Ramp-4	Entry from Mahoba Exit towards Kabrai village
		9.5	640	Slip Road	Exit towards Baghwa

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Note:-

1. The Concessionaire shall take up 'Detailed Engineering study' to ascertain further details of all intersections and treatment of the intersections shall be designed in accordance with the latest guidelines mentioned out in section-3 of Manual.
2. Junction improvement under grade separators shall be carried out as per Manual with proper entry/exit to crossroads and slip/service roads, etc. Auxiliary lanes including storage, acceleration and deceleration lane along with physical islands to be provided.
3. The location of grade-separated structures is indicative. Exact location should be decided in consultation with Independent Engineer/Authority Engineer.
4. Intersection Layout, Entry/Exit, Right Turning Lane, U-Turns, Geometric Design and Typical Cross Sections of Interchange is included in Annexure II of schedule-B.
5. Only Entry or Exit shall be designed at any location (provision of entry/exit by Ghost Island not permitted) (Clause No 2.13.1 IRC:SP:84-2019)

4 Road Embankment and Cut Section

Construction of road embankment/cuttings shall conform to the Specifications and Standards given in section 4 of the manual. Notwithstanding anything to the contrary contained in this Agreement or Manual, the difference of the proposed profile and the existing ground level of the project highway as indicated in the Annexure-III of Schedule A shall be treated as minimum requirement.

Based on site/design requirement, the Concessionaire shall design the alignment plans and profiles of the project highway based on site/design requirement mentioned in Schedule B with approval from the Independent Engineer within the available Right of Way. However, it is clarified that in case of greenfield stretches / realignments stretches/ bypass/ full reconstruction of existing stretches (if the existing stretches have been overtopped in past during rains / floods) ,the bottom of subgrade shall be at least 1500mm above Highest Flood Level (HFL)/ ground water table /Natural ground level/ pond level, whichever is higher.

The side slopes shall not be steeper than 2H: 1V with adequate slope protection measures. In case, there is a ROW constraint then, suitable soil retaining structures shall be provided.

For stability of slope up to 3-meter height, turfing can be adapted. For the slope from 3-6 meter height, Geocell, geo-grid, geo-green etc. shall be provided with suitable drainage chutes and suitable energy dissipaters as per IRC 56. For the slopes more than 6-meter height, a complete slope stability analysis as per IRC:75 shall be done and the slopes shall be compulsory protected as per Annexure II of schedule B and suitable drains/chutes and energy dissipaters etc. shall be provided for effective drainage of the water.

Utilization of Fly ash/pond ash shall be as per MOEF&CC notification dated 31st December 2021 & Ministry of Power letter no. 9/7/2011-St-Th (Vol. IV) dated 22.02.2022 as and when amended.

It is the responsibility of the Concessionaire to carry out due diligence of the project at bid stage regarding availability of fly ash/pond ash from the nearby TPPs keeping in mind that in case of non-availability of fly ash/pond ash from TPPs, alternate material such as soil, sand etc. shall have to be arranged on its own by the Concessionaire for construction of embankment and/or approaches to the structures. The Authority shall not bear the cost of fly ash/pond ash & its transportation/cost of alternate material & its cost of transportation etc.

Where Pond Ash/Fly Ash is used for the Embankment construction, the embankment shall be designed and constructed in accordance with section 4.2.4 and 4.4.4 i(d) of the Manual.

The Concessionaire shall deploy Grading, Paving and Compaction Equipment equipped with System of Automated & Intelligent Machine-aided Construction (AI-MC) for finishing of all Grades including Embankment, and Subgrade. The System of Automated & Intelligent Machine-aided Construction (AI-MC) for Motor Graders/Paver and the same in Compactors and Dozers shall be done with help of 3D Digital Model generated from Design to ensure Quality Standards as per IRC Specifications and Productivity improvement. Further, Contractor shall ensure the Generation of measurable Digital Records that can be shared on a Digital Drive or can viewed in real time. The Hardware and Software used by the Contractor shall have Features and Specifications mentioned at Schedule D.

5 Pavement design

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

5.1.1 Concessionaire shall develop 3D Digital Models and use suitable System of Automated & Intelligent Machine-aided Construction (AI-MC) for Motor Graders and Paver and the same in Compactors and Dozers to ensure Quality Standards as per IRC Specifications and Productivity improvement. Further, Contractor shall generate measurable Digital Records that can be shared on a Digital Drive or can viewed in real time. The Hardware and Software used by the Contractor shall have Features and Specifications mentioned at Schedule D.

5.2 Type of Pavement and Design requirement

The pavement shall be flexible pavement type for entire length of project highway except for toll plaza/Ramp Plaza locations where rigid pavement shall be provided.

- 5.2.1** Design Period and Strategy: - Flexible Pavement shall be constructed for the entire length of main Project Highway including paved shoulders from Kanpur to Kabrai and Rigid Pavement shall be constructed for the entire length of the Project Highway including paved shoulders from Kabrai to Kanpur, loops/ramps at interchange locations and slip roads for access to wayside amenities. Flexible pavement is pavement typically designed for a minimum design period of 20 years and minimum effective subgrade CBR of 10 % alongwith appropriate ground improvement wherever required as per IRC standards and designed for minimum 100 MSA. Whereas rigid pavement shall be designed for a minimum design period of 30 years for 5000 CVPD. Stage construction shall not be permitted.
- 5.2.2** Recommended Pavement Design:- Not withstanding anything to the contrary contained in this Agreement or the manual, the Concessionaire shall design the pavement of main carriageway including paved shoulders, edge strips, loop/ramps at interchange locations and slip roads for access to wayside amenities for design traffic of 100 MSA for flexible pavement and for 5000 CVPD for rigid pavement.
- 5.2.3** The pavement for service roads/crossroads at minor junctions/interchange shall be designed for projected traffic (as per the survey done by contractor at the time of design of project highway), subject to minimum as follows:
- Connecting/Service Roads in rural areas for minimum 20 MSA.
 - Pavement for improvement of crosses roads beneath the interchange locations shall be designed for minimum 50MSA traffic.
- 5.2.4** If Plastic waste material is available it shall be used for construction of Bituminous Concrete pavement in service road in confirmation to IRC SP 98-2020.
- 5.2.5** For widening of existing carriageway, thickness of pavement layers for new pavement shall match with the layer thicknesses of existing layers with special attention to CTSB layer.
- 5.2.6** In case of widening of existing Highway retaining the existing pavement with overlay of top layer, the CTSB layer of widened portion should be proposed matching the same level of existing CTSB level.
- 5.3** In order to meet the intended functional requirement of respective pavement layers on main carriageway, the minimum thickness of respective pavement layers for main carriageway and connecting crossroads/ service roads/ slip roads/loops/ramps entry/exit locations, acceleration/ deceleration lane, right turning lanes shall, however, in no case be less than as given below:-

5.3.1 Main carriageway, paved shoulder, Slip Roads, Interchange location, Loops/Ramps Road median side paved strip, entry/ exit locations, acceleration/ deceleration lane, right turning lanes (Flexible)-

Pavement Composition		Minimum Crust Thickness(mm)
BC	Flexible	50
DBM		130
WMM		250
GSB		200

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Subgrade		500
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5.3.2 Main carriageway, paved shoulder, median side paved strip entry/exit location, acceleration/ deceleration lane, right turning lanes (Flexible) with CTB/CTSB

Pavement Composition	Flexible	Minimum Crust Thickness(mm)
BC		50
DBM		50
AIL		100
CTB		130
CTSB		200
Sub Grade		500

5.3.3 Main carriageway, paved shoulder, median side paved strip (Rigid)- For Toll Plaza Location (including tapering section)

Pavement Composition	Minimum Crust Thickness(mm)
PQC	280
DLC	150
GSB	150
Subgrade	500

5.3.4 Main carriageway, paved shoulder, Slip Roads, Interchange location, Loops/Ramps Road median side paved strip, entry/ exit locations, acceleration/ deceleration lane, right turning lanes

Pavement Composition	Minimum Crust Thickness(mm)
BC	50
DBM	90
WMM	150
CTSB	200
Subgrade	500

5.3.5 Service roads/Connecting road (flexible) –

Pavement Composition	Minimum Crust Thickness(mm)
BC	30
DBM	50
WMM	150
CTSB	200
Subgrade	500

Note: -

- (1) De-bonding interlayer of polythene sheet having a minimum thickness of 125 micron shall be provided as separation layer between DLC and PQC.
- (2) Tack Coat shall be used before laying of each bituminous layer as per clause 500.4.3 of MoRTH specifications.

5.4 Reconstruction of Stretches with New pavement

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

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Design Chainage		Pavement Composition (minimum)	Remarks
	From	To		
NIL				

5.5 Bituminous Mix for Overlay

The following stretches of the existing road shall be provided bituminous overlay as follows:

S.No.	Chainage		Pavement Composition	Remarks
	From	To		
1	25+760	30+020	30 mm BC	Thin overlay — usually a wearing course.
2	34+590	40+010	30 mm BC	Thin overlay — usually a wearing course.
3	46+010	49+240	30 mm BC	Thin overlay — usually a wearing course.
4	49+240	55+250	30 mm BC	Thin overlay — usually a wearing course.
5	55+250	62+010	30 mm BC	Thin overlay — usually a wearing course.
6	62+010	67+520	30 mm BC ,50 mm DBM	Strengthening overlay — for high distress or heavy traffic.
7	71+760	76+270	45mm BC	Slightly thicker surface layer for moderate distress.
8	76+270	79+730	30 mm BC	Thin overlay — usually a wearing course.
9	90+270	96+720	30 mm BC	Thin overlay — usually a wearing course.
10	96+720	101+300	30 mm BC ,50mm DBM	Strengthening overlay — for high distress or heavy traffic.
11	101+300	108+450	30 mm BC	Thin overlay — usually a wearing course.
12	115+270	118+510	40 mm BC	Slightly thicker surface layer for moderate distress.
13	118+510	121+500	30 mm BC	Thin overlay — usually a wearing course.
14	108+450	109+950	35 mm BC	Thin overlay — usually a wearing course.

6 Roadside Drainage

6.1 Drainage system

Drainage system including surface and subsurface drains for the Project Highway including crossroads shall be provided as per section 6 of the Manual.

RCC Drain cum footpaths shall conform to the cross- sectional features and other details as given in Annexures-II (Schedule-B) and shall be provided as under:-

Details of RCC Drain Cum Footpath/Traffic Load

Sr. No.	Design Chainage (Km)		Length (m)		Width of Drain (m)	Total Length (m)
	From	To	LHS	RHS		
1	1+206	1+240	34	34	1.5	68
2	2+570	2+754	184	184	1.5	368

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Design Chainage (Km)		Length (m)		Width of Drain (m)	Total Length (m)
	From	To	LHS	RHS		
3	2+774	2+888	114	114	1.5	228
4	2+903	2+955	52	52	1.5	104
5	3+214	3+590	376	376	1.5	752
6	3+831	3+895	64	64	1.5	128
7	3+920	3+940	20	20	1.5	40
8	4+630	4+734	104	104	1.5	208
9	4+746	4+948	202	202	1.5	404
10	5+033	5+220	187	187	1.5	374
11	7+260	7+348	88	88	1.5	176
12	7+360	7+405	45	45	1.5	90
13	9+200	9+502	302	302	1.5	604
14	9+609	9+940	331	331	1.5	662
15	10+580	10+629	49	49	1.5	98
16	11+430	11+528	98	98	1.5	196
17	11+553	11+590	37	37	1.5	74
18	12+420	12+474	54	54	1.5	108
19	14+524	14+560	36	36	1.5	72
20	14+640	14+883	243	243	1.5	486
21	14+918	15+110	192	192	1.5	384
22	17+980	18+035	55	55	1.5	110
23	18+055	18+110	55	55	1.5	110
24	19+370	19+513	143	143	1.5	286
25	19+538	19+864	326	326	1.5	652
26	19+876	19+950	74	74	1.5	148
27	22+473	22+839	366	366	1.5	732
28	22+882	23+110	228	228	1.5	456
29	23+443	23+520	77	77	1.5	154
30	27+304	27+400	96	96	1.5	192
31	29+900	29+930	30	30	1.5	60
32	29+951	29+980	29	29	1.5	58
33	31+040	31+137	97	97	1.5	194
34	31+930	32+021	91	91	1.5	182
35	32+500	32+556	56	56	1.5	112
36	33+650	33+760	110	110	1.5	220
37	33+883	33+920	37	37	1.5	74
38	34+870	34+907	37	37	1.5	74
39	36+200	36+227	27	27	1.5	54
40	36+234	36+300	66	66	1.5	132
41	36+740	37+017	277	277	1.5	554
42	37+700	37+830	130	130	1.5	260
43	37+837	37+920	83	83	1.5	166
44	39+200	39+237	37	37	1.5	74
45	41+380	41+431	51	51	1.5	102
46	41+438	41+640	202	202	1.5	404
47	43+457	43+620	163	163	1.5	326
48	44+280	44+512	232	232	1.5	464
49	44+519	44+600	81	81	1.5	162
50	45+361	45+513	152	152	1.5	304

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Sr. No.	Design Chainage (Km)		Length (m)		Width of Drain (m)	Total Length (m)
	From	To	LHS	RHS		
51	53+000	53+173	173	173	1.5	346
52	53+208	53+300	92	92	1.5	184
53	53+390	53+670	280	280	1.5	560
54	55+100	55+170	70	70	1.5	140
55	55+238	55+324	86	86	1.5	172
56	55+331	55+420	89	89	1.5	178
57	56+760	56+936	176	176	1.5	352
58	58+510	58+656	146	146	1.5	292
59	58+680	59+050	370	370	1.5	740
60	59+310	59+408	98	98	1.5	196
61	59+428	59+580	152	152	1.5	304
62	59+620	59+670	50	50	1.5	100
63	60+030	60+098	68	68	1.5	136
64	60+138	60+160	22	22	1.5	44
65	60+180	60+250	70	70	1.5	140
66	60+270	60+300	30	30	1.5	60
67	60+509	60+520	11	11	1.5	22
68	61+670	61+748	78	78	1.5	156
69	62+380	62+722	342	342	1.5	684
70	62+747	63+010	263	263	1.5	526
71	63+160	63+196	36	36	1.5	72
72	63+250	63+380	130	130	1.5	260
73	63+380	63+420	40	40	1.5	80
74	63+420	63+530	110	110	1.5	220
75	65+377	65+400	23	23	1.5	46
76	65+690	65+815	125	125	1.5	250
77	65+835	66+171	336	336	1.5	672
78	66+231	66+471	240	240	1.5	480
79	66+478	66+580	102	102	1.5	204
80	67+220	67+300	80	80	1.5	160
81	67+670	67+692	22	22	1.5	44
82	67+699	67+740	41	41	1.5	82
83	71+650	71+843	193	193	1.5	386
84	72+990	73+145	155	155	1.5	310
85	73+175	73+386	211	211	1.5	422
86	73+393	73+400	7	7	1.5	14
87	73+830	73+876	46	46	1.5	92
88	73+884	73+900	16	16	1.5	32
89	74+020	74+060	40	40	1.5	80
90	74+090	74+140	50	50	1.5	100
91	75+340	75+500	160	160	1.5	320
92	75+802	75+880	78	78	1.5	156
93	76+585	76+598	13	13	1.5	26
94	76+605	76+660	55	55	1.5	110
95	76+980	77+051	71	71	1.5	142
96	77+063	77+080	17	17	1.5	34
97	77+780	77+853	73	73	1.5	146
98	77+860	77+940	80	80	1.5	160

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Design Chainage (Km)		Length (m)		Width of Drain (m)	Total Length (m)
	From	To	LHS	RHS		
99	78+880	79+096	216	216	1.5	432
100	79+400	79+566	166	166	1.5	332
101	79+606	79+770	164	164	1.5	328
102	80+100	80+310	210	210	1.5	420
103	80+900	80+950	50	50	1.5	100
104	80+950	81+003	53	53	1.5	106
105	81+028	81+130	102	102	1.5	204
106	81+160	81+760	600	600	1.5	1200
107	81+780	81+960	180	180	1.5	360
108	82+500	82+518	18	18	1.5	36
109	82+532	82+560	28	28	1.5	56
110	82+560	82+600	40	40	1.5	80
111	82+752	82+840	88	88	1.5	176
112	82+870	82+880	10	10	1.5	20
113	84+470	84+653	183	183	1.5	366
114	84+678	84+844	166	166	1.5	332
115	84+996	85+387	391	391	1.5	782
116	85+427	85+915	488	488	1.5	976
117	85+940	86+300	360	360	1.5	720
118	86+300	86+430	130	130	1.5	260
119	86+450	86+483	33	33	1.5	66
120	88+000	88+040	40	40	1.5	80
121	88+270	88+360	90	90	1.5	180
122	89+100	89+190	90	90	1.5	180
123	89+940	89+969	29	29	1.5	58
124	89+976	90+350	374	374	1.5	748
125	90+390	90+520	130	130	1.5	260
126	90+570	90+660	90	90	1.5	180
127	90+660	90+705	45	45	1.5	90
128	90+735	90+760	25	25	1.5	50
129	91+092	91+203	111	111	1.5	222
130	91+390	91+600	210	210	1.5	420
131	96+030	96+073	43	43	1.5	86
132	96+098	96+150	52	52	1.5	104
133	97+100	97+138	38	38	1.5	76
134	97+145	97+210	65	65	1.5	130
135	97+210	97+300	90	90	1.5	180
136	97+695	97+725	30	30	1.5	60
137	98+120	98+187	67	67	1.5	134
138	98+212	98+320	108	108	1.5	216
139	99+000	99+298	298	298	1.5	596
140	99+323	99+360	37	37	1.5	74
141	99+820	99+853	33	33	1.5	66
142	99+867	99+900	33	33	1.5	66
143	102+850	102+960	110	110	1.5	220
144	102+960	103+040	80	80	1.5	160
145	103+580	104+170	590	590	1.5	1180
146	104+570	104+700	130	130	1.5	260

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Design Chainage (Km)		Length (m)		Width of Drain (m)	Total Length (m)
	From	To	LHS	RHS		
147	104+700	104+860	160	160	1.5	320
148	104+860	105+050	190	190	1.5	380
149	105+920	106+160	240	240	1.5	480
150	106+160	106+210	50	50	1.5	100
151	106+240	106+523	283	283	1.5	566
152	106+577	106+620	43	43	1.5	86
153	110+120	110+170	50	50	1.5	100
154	110+170	110+269	99	99	1.5	198
155	110+281	110+460	179	179	1.5	358
156	111+020	111+182	162	162	1.5	324
157	111+212	111+430	218	218	1.5	436
158	115+820	115+890	70	70	1.5	140
159	115+970	116+125	155	155	1.5	310
160	116+135	116+232	97	97	1.5	194

Details of RCC cover Drain

Sr. No.	Design Chainage (Km)		Length (m)		Min bottom Width x Min Depth of Drain	Total Length (m)	Remarks
	From	To	LHS	RHS			
NIL							

Details of PCC lined drain: PCC lined drain shall be provided at the interchange locations shown in typical cross sections (refer Annexure-II Schedule –B) as per clause 6.2.5 of IRC: SP: 84-2019.

Note: A variation of $\pm 10\%$ in the length of the PCC line drain shall not constitute a change in scope.

Details of Longitudinal Drain - Longitudinal Drain of minimum 0.4 m width shall be provided at the locations shown in typical cross sections (refer Annexure-II Schedule –B).

6.2 Unlined Drains

Unlined Drains other than above mentioned locations shall be provided in the entire project length which gets terminated at all crossroad locations. In case, the definite outfall is not available, a rainwater harvesting system shall be provided at the deepest location for dispersal of water.

The size of Unlined drain should have a minimum width of 0.6m at bottom, minimum depth of 0.6m and a minimum side slope of 2H to 1V. The Bed slope should be based on drainage profile.

The drainage plan shall account for the water from the ROW area along with the area outside the ROW as well.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

6.3 Median Drain (Clause No. 6.3 IRC: SP: 84-2019)

Lined drain shall be provided in the center of the median at super elevation locations and depressed median. Draining of storm water from one carriageway to other carriageway is not permitted. The Concessionaire shall design the median drain based on site/design requirement mentioned in Schedule D with approval from the Independent Engineer and shall be connected with the nearest culvert/ outfall.

6.4 Drainage arrangement between Main Carriageway and Service/Slip Roads

A suitable drainage arrangement for draining storm water of main carriageway shall be provided. Storm water of main carriageway to service road/slip road is not permitted.

6.5 Drainage where Embankment Height is more than 3m

Drainage chutes shall be provided at suitable interval on embankment slopes in entire length irrespective of embankment height. The drainage arrangement shall include kerb, cement concrete drainage channel at the edge roadway, Cement Concrete Chutes, CC bedding, energy dissipation basin, etc. Mountable Kerb shall be provided beyond the post of Thrie Beam MBCB to channelize storm water into chute drain. Clause No. 6.8.2.4 of IRC: SP: 84-2019). The space between paved shoulder and kerb shall be paved with 200mm thick PCC M20.

6.6 Drainage for Structure

A suitable drainage arrangement for draining storm water from deck slab shall be provided. Water shall not fall on any surface of the structures, or remain standing or flowing over the road below structure.

6.7 Drainage for Underpass and Subways Structures

A suitable drainage arrangement for draining storm water from Underpass and Subways shall be provided.

6.8 Drainage arrangement of Retaining Structures

Vertical Drop-down drainage pipes with suitable cleaning provision shall be provided at suitable interval. Drainage fixtures and dropdown pipes shall be of rigid, corrosion resistant material not less than 100mm dia. The Storm water of main carriageway draining on service road is not permitted. RCC chamber/Energy dissipation chamber with drainpipe shall be provided at suitable intervals.

- 6.9** At Crossroads/Connecting roads/other locations necessary drainage arrangements shall be provided as per site condition and the same shall not constitute a Change of Scope.

7 Design of Structures**7.1 General**

Project Highway is proposed to be constructed to Four-lane configuration with provision for widening to six-lane configuration in future. As such, superstructure of all bridges, culverts and structures is to be designed for edge movement of the vehicle considering stitching of

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

new superstructure in future due to widening for additional lane. **Special vehicle loading is to be considered in design of all bridges, culverts and structures (IRC: 6).**

All structures except wherever expansion joints and approach slabs have been provided, the pavement layers WMM, DBM & BC shall be continued over the structures for smooth riding quality of the project highway. These structures shall be designed considering the dead load of pavement (WMM, DBM, BC, etc.) layers.

All major structures shall be designed preferably as continuous slab to reduce the number of expansion joints on the MJB/ ROBs/ flyover/ Interchange etc.

7.1.1 All bridges, culverts and structures shall be designed for IRC class Special Vehicle (SV) loading as per IRC: 6 and constructed in accordance with section-7 of the Manual and shall conform to the cross-sectional features and other details specified therein.

7.1.2 Clear deck width of bridges/grade separated structures/RoBs (measured from inside to inside of crash barrier) shall be equal to the roadway width (carriageway width+ paved shoulder width+ earthen shoulder width+ width of median including shyness for raised median /depressed median as applicable) in their approaches. Wherever footpath is provided on bridge/RoB, RCC crash barrier should be provided between footpath and carriageway and pedestrian guard rail at outer edges of the bridge/RoB. In case of footpath on bridge/RoB, the width of earthen shoulder shall be tapered at the rate of 1:15.

7.1.3 The safety barrier and footpath on Bridges and RoB shall continue on approaches. The footpath shall be provided with paved surface and railing till the embankment height is more than 3m.

Details of Structures with footpaths

S.No	Chainage (Km)	Footpath Width (m)		REMARKS
		LHS	RHS	
NIL				

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

7.1.4 All bridges shall be high level bridges.

7.1.5 All structures shall be designed to carry utility services on outer side of RCC barrier/Railing as per site requirement.

7.1.6 Cross section of the new culverts and bridges at deck level for the Project Highway shall conform to the typical cross sections given in Section 2.10 & Annexure-II of this Schedule-B.

7.2 Culverts

7.2.1 Overall width of all culverts shall be equal to the roadway width of the approaches. The overall width of culverts shall be including width of main carriageway and slip/service roads/Entry Ramps/Exit Ramps/ Acceleration/Deceleration lanes, etc. All culverts shall also be continued in median and in gap between main carriageway and service road.

7.2.2 New/ Reconstruction of existing RCC pipe culverts:

The existing culverts at the following locations shall be re-constructed as new culverts:

Sl. No.	Design Ch.	Existing Span (m)	Existing Type	New Span/Opening No. x Width (m) x Height (m)	New Type of culvert
NIL					

7.2.3 Widening of existing RCC pipe culverts

All existing culverts which are to be retained shall be widened to the proposed roadway width of the Project Highway as per the typical cross section given in section 7 of the Manual. Repairs and strengthening of existing structures where required shall be carried out.

Sr. No	Design Chainage	Culvert Type	Skew Angle	Span/Opening (m)	Repairs / Rehabilitation proposals	Culvert Crossing Type (Balancing/ Stream, etc)	Remarks
NIL							

7.2.4 Construction of Box Culverts:

New Box culverts (given in table below) shall be constructed for width equal to the proposed roadway width of the Project Highway & as per typical cross-section given in schedule B. The details are given as under:

LIST OF CULVERTS FOR CROSS DRAINAGE

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
1	1+440	Balancing	1x3x3	RCC BOX
2	1+620	Drain	1x3x3	RCC BOX
3	2+245	Balancing	1x3x3	RCC BOX
4	2+650	Canal	1x3x3	RCC BOX
5	3+335	Canal	1x3x3	RCC BOX
6	3+540	Balancing	1x3x3	RCC BOX
7	4+025	Balancing	1x3x3	RCC BOX
8	4+580	Balancing	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
9	5+425	Canal	1x5x3	RCC BOX
10	5+760	Balancing	1x3x3	RCC BOX
11	6+210	Drain	1x3x3	RCC BOX
12	6+720	Drain	1x3x3	RCC BOX
13	7+080	Drain	1x3x3	RCC BOX
14	7+670	Drain	1x3x3	RCC BOX
15	7+990	Drain	1x3x3	RCC BOX
16	8+220	Balancing	1x3x3	RCC BOX
17	8+620	Drain	1x3x3	RCC BOX
18	9+350	Balancing	1x3x3	RCC BOX
19	9+840	Balancing	1x3x3	RCC BOX
20	10+380	Balancing	1x3x3	RCC BOX
21	10+710	Drain	1x3x3	RCC BOX
22	11+350	Drain	1x3x3	RCC BOX
23	11+640	Drain	1x3x3	RCC BOX
24	12+770	Drain	1x3x3	RCC BOX
25	13+040	Drain	1x3x3	RCC BOX
26	13+500	Drain	1x3x3	RCC BOX
27	13+760	Balancing	1x3x3	RCC BOX
28	14+400	Balancing	1x3x3	RCC BOX
29	14+740	Balancing	1x3x3	RCC BOX
30	15+220	Balancing	1x3x3	RCC BOX
31	15+550	Balancing	1x3x3	RCC BOX
32	16+150	Balancing	1x3x3	RCC BOX
33	16+540	Balancing	1x3x3	RCC BOX
34	17+270	Drain	1x3x3	RCC BOX
35	17+680	Balancing	1x3x3	RCC BOX
36	18+500	Drain	1x3x3	RCC BOX
37	18+680	Drain	1x3x3	RCC BOX
38	19+220	Drain	1x3x3	RCC BOX
39	20+340	Balancing	1x3x3	RCC BOX
40	20+540	Balancing	1x3x3	RCC BOX
41	21+090	Balancing	1x3x3	RCC BOX
42	21+490	Balancing	1x3x3	RCC BOX
43	22+020	Balancing	1x3x3	RCC BOX
44	22+580	Balancing	1x3x3	RCC BOX
45	23+040	Drain	1x3x3	RCC BOX
46	23+280	Balancing	1x3x3	RCC BOX
47	23+690	Balancing	1x3x3	RCC BOX
48	23+940	Balancing	1x3x3	RCC BOX
49	24+660	Drain	1x3x3	RCC BOX
50	24+840	Drain	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
51	25+060	Drain	1x3x3	RCC BOX
52	25+590	Drain	1x3x3	RCC BOX
53	26+080	Drain	1x3x3	RCC BOX
54	26+420	Drain	1x3x3	RCC BOX
55	26+780	Drain	1x3x3	RCC BOX
56	27+460	Balancing	1x3x3	RCC BOX
57	27+820	Balancing	1x3x3	RCC BOX
58	27+975	Drain	1x3x3	RCC BOX
59	28+420	Balancing	1x3x3	RCC BOX
60	28+760	Balancing	1x3x3	RCC BOX
61	29+340	Drain	1x3x3	RCC BOX
62	29+600	Drain	1x3x3	RCC BOX
63	30+080	Balancing	1x3x3	RCC BOX
64	30+670	Balancing	1x3x3	RCC BOX
65	31+420	Drain	1x3x3	RCC BOX
66	31+700	Balancing	1x3x3	RCC BOX
67	32+220	Balancing	1x3x3	RCC BOX
68	32+960	Balancing	1x3x3	RCC BOX
69	33+030	Balancing	1x3x3	RCC BOX
70	33+340	Balancing	1x3x3	RCC BOX
71	33+750	Drain	1x3x3	RCC BOX
72	34+260	Balancing	1x3x3	RCC BOX
73	34+625	Balancing	1x3x3	RCC BOX
74	35+120	DRAIN	1x3x3	RCC BOX
75	36+040	Balancing	1x3x3	RCC BOX
76	36+400	Balancing	1x3x3	RCC BOX
77	37+680	Balancing	1x3x3	RCC BOX
78	38+280	Balancing	1x3x3	RCC BOX
79	38+800	Drain	1x3x3	RCC BOX
80	39+000	DRAIN	1x3x3	RCC BOX
81	39+717	Balancing	1x4x3	RCC BOX
82	40+220	Balancing	1x3x3	RCC BOX
83	40+680	Balancing	1x3x3	RCC BOX
84	41+050	Balancing	1x3x3	RCC BOX
85	41+650	Balancing	1x5x3	RCC BOX
86	41+870	Balancing	1x3x3	RCC BOX
87	41+950	Balancing	1x3x3	RCC BOX
88	42+500	DRAIN	1x3x3	RCC BOX
89	42+873	Balancing	1x3x3	RCC BOX
90	43+253	DRAIN	1x3x3	RCC BOX
91	43+680	Balancing	1x3x3	RCC BOX
92	43+925	Balancing	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
93	44+180	Balancing	1x3x3	RCC BOX
94	44+850	Balancing	1x3x3	RCC BOX
95	45+100	Balancing	1x3x3	RCC BOX
96	45+390	DRAIN	1x3x3	RCC BOX
97	45+810	Balancing	1x3x3	RCC BOX
98	46+360	Balancing	1x3x3	RCC BOX
99	46+680	Balancing	1x3x3	RCC BOX
100	49+965	Balancing	1x3x3	RCC BOX
101	50+025	Balancing	1x3x3	RCC BOX
102	50+270	Balancing	1x3x3	RCC BOX
103	50+450	Balancing	1x3x3	RCC BOX
104	50+590	Balancing	1x3x3	RCC BOX
105	52+230	Balancing	1x3x3	RCC BOX
106	52+430	Balancing	1x3x3	RCC BOX
107	52+590	Balancing	1x3x3	RCC BOX
108	52+820	Balancing	1x3x3	RCC BOX
109	52+980	Balancing	1x3x3	RCC BOX
110	53+780	Balancing	1x3x3	RCC BOX
111	54+400	Balancing	1x3x3	RCC BOX
112	55+567	Balancing	1x3x3	RCC BOX
113	56+010	Balancing	1x3x3	RCC BOX
114	56+300	Balancing	1x3x3	RCC BOX
115	56+485	Drain	1x3x3	RCC BOX
116	57+160	Balancing	1x3x3	RCC BOX
117	57+900	Balancing	1x3x3	RCC BOX
118	58+320	Drain	1x3x3	RCC BOX
119	58+865	Drain	1x3x3	RCC BOX
120	59+010	Balancing	1x3x3	RCC BOX
121	59+910	Balancing	1x3x3	RCC BOX
122	60+000	Balancing	1x3x3	RCC BOX
123	60+630	Drain	1x3x3	RCC BOX
124	61+995	Balancing	1x3x3	RCC BOX
125	62+360	Balancing	1X5X3	RCC BOX
126	62+875	Balancing	1x3x3	RCC BOX
127	63+530	Balancing	1x3x3	RCC BOX
128	64+080	Balancing	1x3x3	RCC BOX
129	64+270	Balancing	1x3x3	RCC BOX
130	64+450	Balancing	1x3x3	RCC BOX
131	64+920	Balancing	1X5X3	RCC BOX
132	65+220	Balancing	1x3x3	RCC BOX
133	65+540	Balancing	1x5x3	RCC BOX
134	65+880	Balancing	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
135	66+095	Balancing	1x3x3	RCC BOX
136	66+740	Balancing	1x5x3	RCC BOX
137	66+910	Balancing	1x3x3	RCC BOX
138	67+130	Drain	1x3x3	RCC BOX
139	67+450	Balancing	1x3x3	RCC BOX
140	68+230	Balancing	1x3x3	RCC BOX
141	68+460	Balancing	1x3x3	RCC BOX
142	68+710	Balancing	1x3x3	RCC BOX
143	69+315	Balancing	1x3x3	RCC BOX
144	69+520	Balancing	1X5X3	RCC BOX
145	69+710	Drain	1x3x3	RCC BOX
146	70+030	Drain	1x3x3	RCC BOX
147	70+220	Balancing	1x3x3	RCC BOX
148	70+700	Balancing	1x3x3	RCC BOX
149	71+450	Balancing	1x3x3	RCC BOX
150	71+650	Drain	1x3x3	RCC BOX
151	72+110	Balancing	1x3x3	RCC BOX
152	72+720	Drain	1x3x3	RCC BOX
153	73+070	Balancing	1x3x3	RCC BOX
154	73+600	Balancing	1x3x3	RCC BOX
155	74+150	Balancing	1x3x3	RCC BOX
156	74+790	Drain	1x3x3	RCC BOX
157	75+100	Balancing	1x3x3	RCC BOX
158	75+450	Balancing	1X5X3	RCC BOX
159	75+860	Balancing	1x4x3	RCC BOX
160	76+420	Balancing	1x3x3	RCC BOX
161	76+780	Balancing	1x3x3	RCC BOX
162	77+270	Balancing	1x3x3	RCC BOX
163	78+030	Balancing	1x3x3	RCC BOX
164	78+640	Balancing	1x3x3	RCC BOX
165	78+900	Balancing	1x4x3	RCC BOX
166	79+320	Balancing	1x3x3	RCC BOX
167	80+590	Drain	1x3x3	RCC BOX
168	81+130	Balancing	1x3x3	RCC BOX
169	81+450	Balancing	1x3x3	RCC BOX
170	82+070	Balancing	1x3x3	RCC BOX
171	82+430	Balancing	1x3x3	RCC BOX
172	83+370	Drain	1x3x3	RCC BOX
173	84+187	Balancing	1x3x3	RCC BOX
174	84+365	Balancing	1X5X3	RCC BOX
175	85+170	Balancing	1x3x3	RCC BOX
176	85+540	Balancing	1X5X3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
177	86+000	Balancing	1x3x3	RCC BOX
178	86+250	Drain	1x3x3	RCC BOX
179	86+895	Balancing	1x3x3	RCC BOX
180	87+300	Drain	1x3x3	RCC BOX
181	87+500	Balancing	1x3x3	RCC BOX
182	88+140	Balancing	1x4x3	RCC BOX
183	88+280	Balancing	1x4x3	RCC BOX
184	88+410	Drain	1x3x3	RCC BOX
185	88+700	Balancing	1x3x3	RCC BOX
186	88+810	Balancing	1x3x3	RCC BOX
187	89+170	Balancing	1x3x3	RCC BOX
188	89+600	Balancing	1x3x3	RCC BOX
189	89+820	Balancing	1x3x3	RCC BOX
190	90+130	Balancing	1x3x3	RCC BOX
191	90+530	Balancing	1x3x3	RCC BOX
192	91+290	Balancing	1x3x3	RCC BOX
193	91+510	Balancing	1x3x3	RCC BOX
194	91+770	Balancing	1x3x3	RCC BOX
195	92+130	Balancing	1x3x3	RCC BOX
196	92+530	Balancing	1x3x3	RCC BOX
197	92+665	Balancing	1x3x3	RCC BOX
198	93+170	Drain	1x3x3	RCC BOX
199	93+330	Balancing	1x3x3	RCC BOX
200	93+560	Balancing	1x3x3	RCC BOX
201	93+840	Balancing	1X5X3	RCC BOX
202	94+670	Balancing	1x3x3	RCC BOX
203	95+330	Balancing	1x3x3	RCC BOX
204	95+680	Balancing	1x3x3	RCC BOX
205	97+130	Balancing	1x3x3	RCC BOX
206	97+540	Balancing	1x3x3	RCC BOX
207	97+790	Balancing	1x3x3	RCC BOX
208	98+810	Balancing	1x3x3	RCC BOX
209	99+010	Balancing	1x3x3	RCC BOX
210	99+240	Balancing	1x3x3	RCC BOX
211	99+500	Balancing	1x3x3	RCC BOX
212	99+990	Balancing	1x3x3	RCC BOX
213	100+170	Balancing	1x3x3	RCC BOX
214	100+590	Drain	1x3x3	RCC BOX
215	101+480	Balancing	1x3x3	RCC BOX
216	101+840	Balancing	1x5x3	RCC BOX
217	102+230	Balancing	1x3x3	RCC BOX
218	102+890	Balancing	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)	Type of Culvert	Span (m)	Remarks
219	103+280	Drain	1x3x3	RCC BOX
220	103+520	Balancing	1x3x3	RCC BOX
221	103+850	Balancing	1x3x3	RCC BOX
222	104+490	Balancing	1x3x3	RCC BOX
223	104+950	Balancing	1x3x3	RCC BOX
224	105+290	Drain	1x3x3	RCC BOX
225	105+803	Balancing	1x3x3	RCC BOX
226	106+430	Drain	1x3x3	RCC BOX
227	106+640	Drain	1x3x3	RCC BOX
228	106+930	Drain	1x3x3	RCC BOX
229	107+300	Balancing	1x3x3	RCC BOX
230	107+650	Balancing	1x3x3	RCC BOX
231	108+430	Drain	1x3x3	RCC BOX
232	108+730	Drain	1x3x3	RCC BOX
233	109+450	Balancing	1x3x3	RCC BOX
234	109+720	Drain	1x3x3	RCC BOX
235	109+870	Drain	1x3x3	RCC BOX
236	110+530	Balancing	1x3x3	RCC BOX
237	110+930	Balancing	1x3x3	RCC BOX
238	111+250	Balancing	1x3x3	RCC BOX
239	111+400	Balancing	1x3x3	RCC BOX
240	111+720	Balancing	1x3x3	RCC BOX
241	112+180	Balancing	1x3x3	RCC BOX
242	112+610	Balancing	1x3x3	RCC BOX
243	113+210	Balancing	1x3x3	RCC BOX
244	113+540	Balancing	1X5X3	RCC BOX
245	113+740	Balancing	1X5X3	RCC BOX
246	114+030	Balancing	1x3x3	RCC BOX
247	114+340	Drain	1x3x3	RCC BOX
248	114+590	Balancing	1x3x3	RCC BOX
249	114+855	Drain	1x3x3	RCC BOX
250	115+130	Balancing	1x3x3	RCC BOX
251	115+530	Balancing	1x3x3	RCC BOX
252	115+830	Balancing	1x3x3	RCC BOX
253	116+450	Drain	1x3x3	RCC BOX
254	116+880	Drain	1x3x3	RCC BOX
255	117+000	Balancing	1x3x3	RCC BOX
256	117+610	Balancing	1x3x3	RCC BOX

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

LIST OF CULVERTS FOR INTERCHNAGE

Chainage(Km)	Span Arrangement (m)	Type	Skew	Remarks
Interchange at Km 0+000	1x1.2	Pipe	0	Km 0+520 on Loop-1
	1x3x3	RCC BOX	0	Km 0+420 on Loop-1 and Extended in Loop-2 at Km 0+360
	1x3x3	RCC BOX	0	Km 0+460 on Loop-2
	1x3x3	RCC BOX	0	Km 0+750 on Slip Road LHS
	1X3X3	RCC BOX	0	Km 1+135 on Slip Road RHS
Interchange at Km 46+720	1x3x3	RCC BOX	0	Km 0+360 on Slip Road-1
	1x3x3	RCC BOX	0	Km 0+770 on Slip Road-2
	1x3x3	RCC BOX	0	Km 1+300 on Loop-1
	1x3x3	RCC BOX	0	Km 1+350 on Loop-2
Interchange at Km 54+668	1x3x3	RCC BOX	0	Km 2+630 on Loop-2
	1x3x3	RCC BOX	0	Km 0+290 on Loop-1
	1x3x3	RCC BOX	0	Km 0+665 on Loop-1
	1x3x3	RCC BOX	0	Km 0+340 on Slip Road LHS
	1x3x3	RCC BOX	0	Km 0+800 on Slip Road LHS
	1x3x3	RCC BOX	0	Km 1+040 on Slip Road LHS
	1x3x3	RCC BOX	0	Km 2+330 on Loop-1
	1x3x3	RCC BOX	0	Km 0+450 on Loop-2
	1x3x3	RCC BOX	0	Km 0+070 on Slip Road LHS
	1x3x3	RCC BOX	0	Km 1+250 on Slip Road LHS
	1x3x3	RCC BOX	0	Km 0+320 on Loop-2
	1x3x3	RCC BOX	0	Km 2+110 on Loop-1
Interchange at Km 94+284	1x3x3	RCC BOX	0	Km 0+470 on Loop-1
	1x3x3	RCC BOX	0	Km 0+650 on Ramp-1
	1x3x3	RCC BOX	0	Km 1+430 on Ramp-1
	1x3x3	RCC BOX	0	Km 1+270 on Ramp-1
	1x3x3	RCC BOX	0	Km 1+740 on Ramp-1
	1x3x3	RCC BOX	0	Km 0+790 on Ramp-2
	1x3x3	RCC BOX	0	Km 0+980 on Ramp-2
	1x1.2	PIPE	0	Km 1+700 on Ramp-2
	1x3x3	RCC BOX	0	Km 0+500 on Ramp-3
	1x3x3	RCC BOX	0	Km 1+100 on Ramp-3
	1x3x3	RCC BOX	0	Km 1+550 on Ramp-3
Interchange at Km 117+162	1x3x3	RCC BOX	0	Km 0+500 on Ramp-4
	1x3x3	RCC BOX	0	Km 0+900 on Ramp-4
	1x3x3	RCC BOX	0	Km 0+400 on Ramp-4
	1x3x3	RCC BOX	0	Km 0+265 on Ramp-4
	1x3x3	RCC BOX	0	Km 0+160 on Ramp-4
	1x1.2	Pipe	0	Km 0+190 on Loop-4
	1x3x3	RCC BOX	0	Km 0+380 on Loop-4
	1x1.2	RCC BOX	0	Km 0+390 on Ramp-3
	1x3x3	RCC BOX	0	Km 0+680 on Ramp-3
	1x3x3	RCC BOX	0	Km 0+940 on Ramp-3
	1x3x3	RCC BOX	0	Km 0+180 on Loop-3
	1x1.2	Pipe	0	Km 0+660 on Loop-3
	1x3x3	RCC BOX	0	Km 0+270 on Ramp-1

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Chainage(Km)	Span Arrangement (m)	Type	Skew	Remarks
	1x1.2	Pipe	0	Km 0+445 on Ramp-1
	1x3x3	RCC BOX	0	Km 0+600 on Ramp-1
	1x1.2	Pipe	0	Km 0+170 on Loop-1
	1x3x3	RCC BOX	0	Km 0+540 on Loop-1
	1x1.2	Pipe	0	Km 0+200 on Ramp-2
	1x3x3	RCC BOX	0	Km 0+440 on Ramp-2
	1x3x3	RCC BOX	0	Km 0+720 on Ramp-2
	1x3x3	RCC BOX	0	Km 0+200 on Loop-2

Note:-

- In addition to above 25 numbers of Box culvert of size 1x3x3m shall be provided across the Highway as per the site condition/requirement in accordance with the manual. Location for such culverts shall be finalized in consultation with Independent Engineer and NHAI.
- Non-construction of the additional culverts, as referenced in the preceding point, shall be treated as a negative Change of Scope.
- The locations of the above culverts are indicative and span arrangement/length/skew is minimum specified. The exact location of these culverts shall be decided as per site condition in consultation with Independent Engineer. The actual vent way/span arrangements of culverts shall be determined on the basis of detailed investigations by the Concessionaire in accordance with the Specifications and Standards. Any variations in vent way/span arrangement/length/skew/location shall not constitute a Change of Scope.
- At Crossroads/Connecting roads culverts shall be provided as per site condition in accordance with the manual. Also, Culverts required for the disposal of median drain/longitudinal drains are to be constructed in accordance with the manual and site requirement. Construction of these culverts is deemed to be part of the project.
- It is mandatory to use Pre Cast Culvert as per Ministry Circular EFile No. RW/NH-34049/01/2020-S&R (B) dated 24.06.2025 in discussion with IE/ Authority

7.2.5 Widening of existing box culverts

All existing culverts which are to be retained, shall be widened to the proposed roadway width of the Project Highway as per the typical cross section given in Schedule-B. Repairs and strengthening of existing structures where required shall be carried out. The Size of opening shall match the existing culvert size. No change of scope shall be considered in case of variations as per site conditions.

S. No.	Design Chainage (Km)	Culvert Type	Skew Angle	Span Arrangement Square Span /Opening (m) Nos. X Width X Depth	Repairs/ Rehabilitation proposals	Culvert Crossing Type	Remarks (Proposed minimum Width (m))
NIL							

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Note: The existing box structure is being widened; same shall be verified with as built drawings. Any variation found in existing data during widening shall not be treated as COS.

7.2.6 Culverts on Crossroads: - These are required for continuing the water flow in longitudinal drains at the junction where traffic movement is expected. The locations of cross road culverts shall be in line with longitudinal drains as shown in TCS. Box Culverts of 1x1.5x1.5 shall be provided at all cross roads.

7.2.7 Culverts on Interchanges: As per Drainage plan for Interchange minimum 20 (Twenty) number of Pipe culverts of 1200mm (min) diameter along with Rainwater Harvesting arrangement shall be provided for cross drainage. Further, if required, additional culverts on Interchange shall be provided as per site conditions in accordance with the manual and drainage plan in discussion with AE/Independent Engineer and Authority considering existing features and future developments and Construction of these culverts is deemed to be part of the project.

7.2.8 Utility ducts in bypasses

Utility ducts in form of NP-4 RCC Pipe dia 600 mm shall be provided across the Project Highway @ 0.50 km c/c and along with inspection chamber where directed for crossing of utilities anywhere as per Manual(clause 2.16) requirements.

Location for Utility Ducts

Sr. No	Design Chainage (km)		Remark (No. of Utility ducts)
	From	To	
Utility duct shall be provided in entire length of the highway			

Note:- Location of utility ducts shall be finalized in consultation with Independent Engineer/Authority Engineer and NHAI.

7.3 Bridges

7.3.1 Existing bridges to be re-constructed/widened:-

1) Existing bridges proposed for reconstructed as new structures:-

Sr. No	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square direction	Type of Crossing	Total Proposed width (m)		Typical Cross Section	Skew Angle	Remarks
				MCW	SR			
1	50+810	1x100	Stream	2x14.5		TCS 7	0	-
		3x27	Stream		2x8.5			-

2) All Major and Minor Bridges to be designed for approach protection with concrete Toe wall with filter media and stone/ block pitching up to HFL of bridge +0.6 m with full height stone/ block pitching in cone filling portion of all four sides of abutments.

3) All river bridges & underpasses without slip roads shall be provided with steps for accessing the bottom in all four-cone filling portion for easy assessable bridges and approaches.

4) Existing narrow bridges proposed to be retained and widened:-

S. No.	Chainage (Km)	Super Structure	No. of Spans with span length (m)	Existing Deck Width (m)	Remarks
NIL					

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

- 5) In GAD of River ridges the hydraulic aspect considered in design of GAD such as catchment area, design discharge, HFL, stream velocity & scour depth, bearing capacity of the founding strata etc. should be stipulated by the Concessionaire.
- 6) In case of canal crossings Bridges the service road or canal bund roads should be accommodated in the proposed span with appropriate Vertical clearance of 4.5m and location of abutment shall be out of canal banks.

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

- All Major and Minor Bridges to be designed for approach protection with concrete Toe wall with filter media and stone/ block pitching up to HFL of bridge +0.6 m with full height stone/ block pitching in cone filling portion of all four sides of abutments.
- All river bridges & underpasses without slip roads shall be provided with steps for accessing the bottom in all four-cone filling portion for easy assessable bridges and approaches.

7.3.2.1 New Major Bridges

S. No.	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square direction	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	SKEW Angle (Deg.)
				MCW	SR		
1	12+920	3x30	Rind River	2x14.5	-	TCS-4	0
2	33+536	3x27	Stream	2x14.5	-	TCS-4	0
3	89+010	3x35	Stream	2x14.5	-	TCS-4	0
4	91+040	3x35	Stream	2x14.5	-	TCS-4	0
5	101+310	4x27	Pond	2x14.5	-	TCS-4	0
6	104+210	3x27	Pond	2x14.5	-	TCS-4	0

7.3.2.2 New Major Bridges cum Underpasses (across River/Stream/Nala/Pond) along Main Highway

S. No.	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square direction	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	Skew Angle (Degree)	Vertical Clearance (m)
				MCW	SR			
1	20+100	3x35	Pond and Crossroad	2x14.5	-	TCS-4	0	4.0 (MJB cum SVUP)
2	53+375	3x30	Pond	2x14.5	-	TCS-4	0	4.0 (MJB cum SVUP)

7.3.2.3 New Major Bridges cum Underpasses (across Irrigation Canal) along Main Highway

S. No.	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	Skew Angle (Degree)	Vertical Clearance (m)
				MCW	SR			

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

		direction						
1	3+080	LHS:1x112 RHS:1x112+1x26.65	Canal and Road	2x14.5	-	TCS-4	0	5.5
2	4+990	1x15+1x55+1x15	Canal and Road	2x14.5	-	TCS-4	0	5.5
3	84+916	LHS: 20+38.359+76 RHS:2x20+1x45+ 1x33+1x34.5	Canal with Pond and Crossroad	2x14.5	-	TCS-4	0	5.5
4	104+850	1x43+1x20	Canal & Road	2x14.5	-	TCS-4	30	5.5
5	115+925	1x43+1x20	Canal and Road	2x14.5	-	TCS-4	30	5.5

7.3.2.4 New Minor Bridges (across River/Streams/Nala) along Main Highway

S. No.	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square direction /Square clear Span Arrangement (m)	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	SKEW Angle (Deg.)
				MCW	SR		
1	1+025	1x20	Nala	2x20	-	TCS-4	30
2	10+110	1x25	Stream	2x14.5	-	TCS-4	22
3	42+135	2x10 (Box Structure)	Local Stream	2x14.5	-	TCS-4	29
4	42+310	2x7 (Box Structure)	Local Stream	2x14.5		TCS-4	22
5	42+720	2x8 (Box Structure)	Local Stream	2x14.5		TCS-4	0
6	43+035	1x10 (Box Structure)	Local Stream	2x14.5		TCS-4	0
7	43+970	1x10 (Box Structure)	Local Stream	2x14.5		TCS-4	0
8	60+170	1x20	Pond	2x14.5		TCS-4	0
9	60+260	2x10 (Box Structure)	Local Stream	2x14.5		TCS-4	52
10	60+965	1x12 (Box Structure)	Stream	2x14.5	-	TCS-4	0
11	66+201	2x30	Stream	2x14.5	-	TCS-4	30
12	73+880	1x8 (Box Structure)	Local Stream	2x14.5	-	TCS-4	0
13	74+075	1x30	Local Stream	2x14.5	-	TCS-4	30
14	74+720	1x10 (Box Structure)	Local Stream	2x14.5	-	TCS-4	26
15	82+855	1x30	Local Stream	2x14.5	-	TCS-4	0
16	83+030	1x25	Local Stream	2x14.5	-	TCS-4	20
17	86+735	2x7.5 (Box Structure)	Local Stream	2x14.5	-	TCS-4	52

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Design Chainage (Km)	Exp. To Exp. Span Arrangement (m) in square direction /Square clear Span Arrangement (m)	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	SKEW Angle (Deg.)
				MCW	SR		
18	87+127	2x20	Local Stream	2x14.5	-	TCS-4	27
19	90+720	1x30	Local Stream	2x14.5	-	TCS-4	0
20	91+363	1x20	Pond	2x14.5	-	TCS-4	0
21	93+010	2x6 (Box Structure)	Local Stream	2x14.5	-	TCS-4	52
22	98+700	1x10 (Box Structure)	Drain	2x14.5	-	TCS-4	35
23	100+500	2x25	Local Stream	2x14.5	-	TCS-4	0
24	106+550	2x27	Pond	2x14.5	-	TCS-4	0
25	108+580	2x30	Pond	2x14.5	-	TCS-4	0
26	109+242	1x30	Nala	2x14.5	-	TCS-4	30
27	116+130	1x10 (Box Structure)	Local Stream	2x14.5	-	TCS-4	0
28	116+240	1x15 (Box Structure)	Local Stream	2x14.5	-	TCS-4	14

7.3.2.5 Minor bridge cum Underpasses (over rivers , streams , nallas,Ponds)

S. No.	Design Chainage (Km)	Span Arrangement (c/c of Exp. in Square direction / Clear Span in square direction) (m)	Type of Crossing	Total Proposed Width (m)		Typical Cross Section	Skew Angle (Degree)	Vertical Clearance (m)
				MCW	SR			
1	15+990	2x7 (Box Structure)	Nala & Road	2x14.5	-	TCS-4	65	4 (MNB cum SVUP)
2	16+860	1x20	Nala & Road	2x14.5	-	TCS-4	18	4.5 (MNB cum LVUP)
3	22+463	1x20	Nala & Road	2x14.5	-	TCS-4	30	4.5 (MNB cum LVUP)
4	24+335	8+12+8	Nala & Road	2x14.5	-	TCS-4	23	4.5 (MNB cum LVUP)
5	25+420	1x12	Nala & Road	2x14.5	-	TCS-4		4 (MNB cum SVUP)

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

6	29+940	3x7	Nala & Road	2x14.5	-	TCS-4	57	4 (MNB cum SVUP)
7	34+095	1x8+1x12 (Box Structure)	Nala & Road	2x16.5	-	TCS-4	54	4.5 (MNB cum LVUP)
8	37+245	1x7+1x12+1x7	Nala & Road	2x14.5	-	TCS-4	43	4.5 (MNB cum LVUP)
9	39+960	2x7 (Box Structure)	Local Stream	2x14.5	-	TCS-4	40	4 (MNB cum SVUP)
10	59+600	2x20	Pond and Road	2x14.5	-	TCS-4	0	4.5
11	60+118	2x20	Pond and Road	2x14.5	-	TCS-4	0	4.5
12	60+487	3x15	Stream and Road	2x14.5	-	TCS-4	38	4 (MNB cum SVUP)
13	73+160	1x30	Cross Road	2x14.5	-	TCS-4	18	5.5 (MNB cum VUP)
14	74+454	2x7 (Box Structure)	Cross Road	2x14.5	-	TCS-4	22	4 (MNB cum SVUP)
15	77+533	2x7 (Box Structure)	Drain and Cross Road	2x14.5	-	TCS-4	19	4 (MNB cum SVUP)
16	82+747	2x7 (Box Structure)	Drain and Cross Road	2x14.5	-	TCS-4	30	4 (MNB cum SVUP)
17	86+442	1x20	Drain and Cross Road	2x14.5	-	TCS-4	29	4 (MNB cum SVUP)
18	99+859	2x7 (Box Structure)	Stream and Crossroad	2x14.5	-	TCS-4	51	4 (MNB cum SVUP)
19	109+068	3x7	Nala & Road	2x14.5	-	TCS-4	49	4 (MNB cum SVUP)

7.3.2.6 Minor bridge cum Underpasses (over Irrigation Canal)

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Design Chainage (Km)	Span Arrangement (c/c of Exp. in Square direction / Clear Span in square direction) (m)	Type of crossing	Total Proposed width (m)		Typical Cross Section	SKEW Angle (Deg.)	Vertical Clearance (m)
				MCW	SR			
1	2+764	1x20	Canal & Road	2x14.5	-	TCS-4	0	5.5
2	7+417	1x25	Canal & Road	2x14.5	-	TCS-4	0	5.5
3	11+540	1x25	Canal & Road	2x14.5	-	TCS-4	20	5.5
4	14+900	1x35	Canal & Road	2x14.5	-	TCS-4	18	5.5
5	19+525	1x25	Canal & Road	2x14.5	-	TCS-4	30	5.5
6	22+860	1x43	Canal & Road	2x14.5	-	TCS-4	30	5.5
7	32+031	1x20	Canal & Road	2x14.5	-	TCS-4	18	5.5
8	62+735	1x25	Canal & Road	2x14.5	-	TCS-4	20	5.5
9	63+223	LHS: 3x18 RHS: 2x18	Canal & Road	2x14.5	-	TCS-4	0	5.5
10	75+791	1x25	Canal & Road	2x14.5	-	TCS-4	30	5.5
11	79+585	1x40	Canal & Road	2x14.5	-	TCS-4	0	5.5
12	81+015	1x25	Canal & Road	2x14.5	-	TCS-4	9	5.5
13	82+010	1x25	Canal & Road	2x14.5	-	TCS-4	16	5.5
14	84+680	1x54	Canal & Road	2x14.5	-	TCS-4	30	5.5
15	85+402	1x52	Canal & Road	2x14.5	-	TCS-4	30	5.5
16	85+929	1x25	Canal & Road	2x14.5	-	TCS-4	14	5.5
17	86+494	1x25	Canal & Road	2x14.5	-	TCS-4	28	5.5
18	89+717	1x12	Canal & Road	2x14.5	-	TCS-4	18	5.5
19	96+080	1x25	Canal & Road	2x14.5	-	TCS-4	18	5.5
20	98+200	1x25	Canal & Road	2x14.5	-	TCS-4	30	5.5
21	106+232	1x32	Canal & Road	2x14.5	-	TCS-4	30	5.5
22	111+197	1x32	Canal & Road	2x14.5	-	TCS-4	23	5.5

Notes applicable for structures under clause 7.3.2.1, 7.3.2.2, 7.3.2.3, 7.3.2.4, 7.3.2.5, 7.3.2.6 :-

- For Structures mentioned above the span arrangement shall be as follows :
 - For Box Structures – Clear span in square direction
 - For others- Square Span Centre to Centre of Expansion Joint /pier as mentioned in drawings.-
- Total length of all above structures and also the length of the single span of the bridge mentioned above is minimum specified. Any increase in span arrangement and change in location shall not be considered as Change of Scope.
- The sub-structure shall be continued in the median portion with RCC barrier wherever superstructure has not been proposed in median portion.
- 50m long MBCB Safety barriers on structure approaches shall be provided on all four faces of each structure. MBCB provided towards median side of each structure shall be joined on ends in semi-circular shape.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

- Any Change in skew angle as per site requirement shall not be treated as change of scope.
- The bearings shall be of such type which does not require replacement for at least 50 years for major bridges, vehicular underpasses and rail road structures and 25 years for other structures.
- Structures shall have minimum number of expansion joints. Expansion joints shall conform to IRC:SP:69.
- Individual Span length mentioned above is minimum and any reduction in span length is not permitted.
- All reinforcement bars shall have minimum percentage elongation of 14.5% as per section-18 of IRC: 112.
- Construction of crash barrier and friction slab should be monolithic (separate casting of these two elements is not permitted) for approaches of grade separators.
- Proposed deck width mentioned is excluding Median gap and the gap between Main Carriageway & Service Road.
- Deck continuity along with pre-cast elements should be used for construction of structural elements as per MoRT&H circular file no. RW/NH-34049/01/2020-S&R (P&B) pt. dated 30-08-2022.
- All bridges, culverts and structures shall be designed for IRC class Special Vehicle (SV) loading and congestion factor as per IRC: 6 and constructed in accordance with section-7 of the manual and shall conform to the cross-sectional features and other details specified therein.
- The Safety Barrier and Footpath on Bridges and ROBs shall continue on approaches. The footpath shall be provided with paved surface & railing till the embankment height is more than 3m.
- Structures proposed at Irrigation/Tank/ Pond/ Navigational canal crossing locations shall be designed, constructed and maintained as per the requirement of Irrigation Department/ Inland waterway authority of India/concerned authorities. Designs and Drawings shall be prepared in consultation with concerned authorities and concurrence shall be obtained from concerned authorities before construction. Any change in length shall not be treated as change of scope.
- The Span arrangement and Deck level of bridges should be governed by HFL of stream/Canal FSL and clearance as per the guidelines/approved GAD by the concern
- Irrigation Authority/Water Resources Department and any change shall not be treated as change in scope of work.
- Staircase (with Stone Masonry/Concrete) in the approaches to Box/Slab Culverts (near the end of Return Wall)/ Minor and Major Structures by the side of Abutments on Either side of Carriageway to access the underneath of Box/Slab/Culverts/Bridges/Structures.

7.3.3 The railings of existing bridges shall be replaced by crash barriers at the following locations:

Sr.No	Design Chainage		Length (km)	Remarks
	From	To		
NIL				

7.3.4 The existing bridges/ RoB/ Grade Separators/ RUB retained on the project highway shall be upgraded and rehabilitation measures/proposals shall be specified as

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

follows:

S.No.	Location at km	Rehabilitation Proposals	Remarks
1	48+900	Repair and strengthening of the retained bridges shall be carried out based on detailed investigations by the Concessionaire in accordance with the IRC Manual (as specified in Schedule D) with consultation of Authority/NHAI.	Yamuna River
2	51+600	Repair and strengthening of the retained bridges shall be carried out based on detailed investigations by the Concessionaire in accordance with the IRC Manual (as specified in Schedule D) with consultation of Authority/NHAI.	Betwa River

7.3.5 Structures in Marine Environment:-

Sr. No	Design Chainage (Km)	Total Proposed length (m)	Total Proposed width (m)	Typical Cross Section of Manual	Skew Angle
NIL					

7.4 Railroad Bridges (ROB/RUB)

7.4.1 Design, construction & detailing of ROB/RUB shall be as specified in Section 7 of the Manual.

7.4.2 Road over bridges (road over rail) shall be provided at the following locations, as per GAD drawings attached:-

Sr. No.	Design Chainage (Km)	Proposed Span Arrangement (m)	Type of super-structure (i.e. Bow string, simply supported composite structure etc.	Name of crossing	Total Width (m)	Skew Angle	Remarks
1	9+555	1x15+1x76.104+1x15	RCC Girder + Steel Bow String	Railway	2x17	-	ROB

Note:-

- ROB shall be designed, constructed, and maintained as per the requirements of Railway authorities. The construction plan shall be prepared in consultation with the concerned railway authority.
- ROB shall be constructed as per GAD approved by Railway authorities.
- The ROB shall be constructed and maintained by the Concessionaire under supervision of the Railways.
- All charges payable to the Railways like D&G, Capitalized maintenance, signaling, cabling, OHE modification, any other Utility Shifting pertains to Railway Department, earthing etc. except P&E charges shall be borne by the Concessionaire.
- As per NHAI GM (ROB/RUB) Letter No. 139024, dated 06.08.2019, the instrumentation for measurement of vibration shall be installed.

7.4.3 All bridges/structures shall be designed for sever exposure condition as per IRC:112-2020.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

7.4.4 Road under bridges (road under railway line) shall be provided at the following level crossings, as per GAD drawings attached:

Sr. No.	Design Chainage	Proposed Span Arrangement (m)	Name of crossing	Total Width (m)	Skew Angle	Remarks
NIL						

7.5 Grade Separated Structures

The grade separated structures shall be provided at the locations and of the type and length specified in paragraphs 2.9 and 3 of Annexure-I of Schedule-B.

7.6 FoB/ Skywalks

FoB/Skywalks shall be provided at the locations and of the type as per details given below:-

Sr. No.	Location at km	FoB Type/ Clear Span (m)	Remarks
NIL			

Note: - The locations of FOBs as mentioned above are tentative and same shall be finalized in consultation with IE/NHAI. Any change in location of above FoBs shall not be treated as Change in scope of work.

7.7 A summary of Culverts, Bridges and Structures shall be presented as follows:

S. No.	Name of the Structure	Total Numbers	Remarks
1	Major Bridge	9	Refer clause 2.9.6 and 7.3.2.1 of Schedule-B
2	Major bridge cum Underpasses	2	Refer clause 7.3.2.2 of Schedule-B
3	Major Bridge cum Underpass (Irrigation Canal)	5	Refer clause 7.3.2.3 of Schedule-B
4	Minor Bridge	29	Refer clause 2.9.6 , 7.3.2.4 of Schedule-B
5	Minor bridge cum Underpasses	24	Refer clause 2.9.6 and 7.3.2.5 of Schedule-B
6	Minor Bridge cum Underpass (Irrigation Canal)	22	Refer clause 2.9.6 and 7.3.2.6 of Schedule-B
7	Vehicular Over Pass (VOP)	NIL	Refer clause 2.9.1 of Schedule-B
8	Vehicular Under Pass (VUP)	09	Refer clause 2.9.2 and 2.9.6 of Schedule-B
9	Light Vehicular Underpass (LVUP)	19	Refer clause 2.9.3 and 2.9.6 of Schedule-B
10	Small Vehicular Underpass (SVUP)	29	Refer clause 2.9.4 and 2.9.6 of Schedule-B
11	Cross Road Structure	43	Refer clause 2.9.4 and 2.9.6 of Schedule-B
12	Flyovers	5	Refer clause 2.9.5.1 and 2.9.6 of Schedule-B
13	Structure over Oil/gas pipe line crossing	4	Refer clause 2.9.5.4 of Schedule-B
14	ROB	1	Refer clause 7.4.2 of Schedule-B
15	Elevated Viaduct	7	Refer clause 2.9.5.1.1 and 2.9.6 of Schedule-B
16	Box Culverts	317(256+46+15)	Refer clause 7.2.5 of Schedule-B
17	Pipe Culverts	07	Refer clause 7.2.5 of Schedule-B

Details of Major Bridges over any river/stream are as follows:

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

CHAINAGE (KM)		12+920	33+536	89+010	91+040
Type of Structure		MJB	MJB	MJB	MJB
	Type of Crossing	Rind River	Stream	Stream	Stream
a	Minimum Design Discharge for 100 years return period (cumecs)	527.29	556.32	484.72	578.2
b	Maximum Silt Factor	0.8	2	2	2
c	Minimum Velocity of water at bridge location (m/s)	1.406	2.019	1.75	1.86
d	Type of Foundation	Pile	Pile	Pile	Pile
e	Total length of structure(minimum) (m)	90	81	105	105
f	Founding level of foundation(Piers) (m)	86	86	84.7	86.1
	Founding level of foundation(Abutment)(m)	92.5	90	92.4	94.2
g	Well/Pile cap top level (Pier)(m)	112.8	112.8	111.5	112.9
	Well/Pile cap top level (Abutment)(m)	116.3	113.8	114.2	116
h	Diameter of well foundation	-	-	-	-
i	Span Arrangement(m)	3x30	3x27	3x35	3x35
j	Deleted	-	-	-	-
k	All Structures designed for Special Vehicle(SV) loading, Class 70R,Class A as per latest IRC provisions	Yes	Yes	Yes	Yes
l	Individual length of spans proposed in GAD are not to be reduced	Yes	Yes	Yes	Yes
m	Maximum Scour Level for Piers(m)	107.353	107.384	109.786	111.98
n	Maximum Scour Lever for abutments(m)	111.693	110.965	112.489	114.238
o	Provision for widening in future	Widening may be possible with appropriate strenthening proposal	Widening may be possible with appropriate strenthening proposal	Widening may be possible with appropriate strenthening proposal	Widening may be possible with appropriate strenthening proposal

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and,Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

8 Traffic Control Devices and Road Safety Works

8.1 Traffic control devices and road safety works shall be provided in accordance with Section 9 of the IRC: SP: 84-2019.

8.2 Traffic Signs:

Traffic signs shall be provided as per IRC 67 & MoRTH circular no. RT-25035/07/2023-RS (Part) (221534) dated 24th December 2024 as mentioned in Schedule-C.

8.3 Pavement Marking:

Pavement markings shall be completed as per IRC 35 & MoRTH circular no. RT-25035/07/2023-RS (Part) (221534) dated 24th December 2024 as mentioned in Schedule-C.

8.4 Safety Barrier:

The safety barriers shall be provided in accordance with Section-9 of the Clause 9.7 of the Manual and MoRTH circular no RW/NH-2923/02/2019-S&R (P&B) dated 01.01.2020.

The Safety Barrier length proposed are excluding the safety barrier already proposed on Culverts, Grade Separated Structures, Interchange, Bridges, RoB and RUB as per applicable cross sections respectively.

End Treatment of Steel barriers/Rope Barrier shall be Modified Eccentric Loader Terminal (MELT) or P-4 confirming to EN 1317-4 (Clause No. 9.7.2 (b) IRC: SP:84-2019). MBCB barrier to Concrete Barrier at structures shall be as per Fig. 9.14 of IRC: SP: 84-2019.

End Treatment to Concrete barrier shall be done as specified in Clause No. 9.7.3 (b) IRC: SP: 84-2019.

The details of the location are as below:-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Thrie Beam Crash Barrier at Median and Edge of Highway

S.No.	Item	At Earthen Shoulder					At Median				
		LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
		(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
1	Thrie beam crash barrier at median and both edge of Highway	0+827	1+105	0+827	1+105	556	0+827	1+105	0+827	1+105	556
2		1+135	1+198	1+135	1+198	126	1+135	1+198	1+135	1+198	126
3		1+240	2+104	1+240	2+104	1728	1+240	2+104	1+240	2+104	1728
4		2+116	2+570	2+116	2+570	908	2+116	2+570	2+116	2+570	908
5		3+590	3+825	3+590	3+825	470	3+590	3+825	3+590	3+825	470
6		5+220	5+852	5+220	5+852	1264	5+220	5+852	5+220	5+852	1264
7		5+864	6+370	5+864	6+370	1012	5+864	6+370	5+864	6+370	1012
8		6+720	7+260	6+720	7+260	1080	6+720	7+260	6+720	7+260	1080
9		7+430	8+774	7+430	8+774	2688	7+430	8+774	7+430	8+774	2688
10		8+786	9+200	8+786	9+200	828	8+786	9+200	8+786	9+200	828
11		9+940	10+098	9+940	10+098	316	9+940	10+098	9+940	10+098	316
12		10+123	10+580	10+123	10+580	914	10+123	10+580	10+123	10+580	914
13		10+641	11+212	10+641	11+212	1142	10+641	11+212	10+641	11+212	1142
14		11+219	11+430	11+219	11+430	422	11+219	11+430	11+219	11+430	422
15		11+745	12+177	11+745	12+177	864	11+745	12+177	11+745	12+177	864
16		12+184	12+420	12+184	12+420	472	12+184	12+420	12+184	12+420	472
17		12+484	12+770	12+484	12+770	572	12+484	12+770	12+484	12+770	572
18		12+770	12+875	12+770	12+875	210	12+770	12+875	12+770	12+875	210
19		12+965	13+090	12+965	13+090	250	12+965	13+090	12+965	13+090	250
20		13+090	13+440	13+090	13+440	700	13+090	13+440	13+090	13+440	700
21		13+440	13+687	13+440	13+687	494	13+440	13+687	13+440	13+687	494
22		13+694	14+030	13+694	14+030	672	13+694	14+030	13+694	14+030	672
23		14+030	14+210	14+030	14+210	360	14+030	14+210	14+030	14+210	360
24		14+210	14+524	14+210	14+524	628	14+210	14+524	14+210	14+524	628
25		14+590	14+640	14+590	14+640	100	14+590	14+640	14+590	14+640	100
26		15+110	15+317	15+110	15+317	414	15+110	15+317	15+110	15+317	414
27		15+321	15+668	15+321	15+668	694	15+321	15+668	15+321	15+668	694
28		15+672	15+983	15+672	15+983	622	15+672	15+983	15+672	15+983	622
29		15+997	16+850	15+997	16+850	1706	15+997	16+850	15+997	16+850	1706
30		16+870	17+420	16+870	17+420	1100	16+870	17+420	16+870	17+420	1100
31		17+420	17+560	17+420	17+560	280	17+420	17+560	17+420	17+560	280
32		17+560	17+839	17+560	17+839	558	17+560	17+839	17+560	17+839	558
33		17+851	17+980	17+851	17+980	258	17+851	17+980	17+851	17+980	258
34		18+110	18+270	18+110	18+270	320	18+110	18+270	18+110	18+270	320
35		18+277	19+370	18+277	19+370	2186	18+277	19+370	18+277	19+370	2186
36		19+950	20+048	19+950	20+048	196	19+950	20+048	19+950	20+048	196
37		20+153	21+392	20+153	21+392	2478	20+153	21+392	20+153	21+392	2478
38		21+396	22+453	21+396	22+453	2114	21+396	22+453	21+396	22+453	2114
39		23+110	23+436	23+110	23+436	652	23+110	23+436	23+110	23+436	652
40		23+520	24+321	23+520	24+321	1602	23+520	24+321	23+520	24+321	1602
41		24+349	25+414	24+349	25+414	2130	24+349	25+414	24+349	25+414	2130
42		25+426	26+273	25+426	26+273	1694	25+426	26+273	25+426	26+273	1694
43		26+277	27+057	26+277	27+057	1560	26+277	27+057	26+277	27+057	1560
44		27+400	27+800	27+400	27+800	800	27+400	27+800	27+400	27+800	800
45		29+200	29+580	29+200	29+580	760	29+200	29+580	29+200	29+580	760
46		29+580	29+680	29+580	29+680	200	29+580	29+680	29+580	29+680	200
47		29+680	29+900	29+680	29+900	440	29+680	29+900	29+680	29+900	440

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No.	Item	At Earthen Shoulder				At Median					
		LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
		(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
48		29+980	30+297	29+980	30+297	634	29+980	30+297	29+980	30+297	634
49		30+304	30+513	30+304	30+513	418	30+304	30+513	30+304	30+513	418
50		30+517	31+040	30+517	31+040	1046	30+517	31+040	30+517	31+040	1046
51		31+144	31+930	31+144	31+930	1572	31+144	31+930	31+144	31+930	1572
52		32+041	32+500	32+041	32+500	918	32+041	32+500	32+041	32+500	918
53		32+564	33+150	32+564	33+150	1172	32+564	33+150	32+564	33+150	1172
54		33+150	33+250	33+150	33+250	200	33+150	33+250	33+150	33+250	200
55		33+250	33+308	33+250	33+308	116	33+250	33+308	33+250	33+308	116
56		33+312	33+496	33+312	33+496	368	33+312	33+496	33+312	33+496	368
57		33+577	33+650	33+577	33+650	146	33+577	33+650	33+577	33+650	146
58		33+760	33+878	33+760	33+878	236	33+760	33+878	33+760	33+878	236
59		34+105	34+870	34+105	34+870	1530	34+105	34+870	34+105	34+870	1530
60		34+912	35+729	34+912	35+729	1634	34+912	35+729	34+912	35+729	1634
61		35+736	36+200	35+736	36+200	928	35+736	36+200	35+736	36+200	928
62		36+300	36+740	36+300	36+740	880	36+300	36+740	36+300	36+740	880
63		37+258	37+700	37+258	37+700	884	37+258	37+700	37+258	37+700	884
64		37+920	39+200	37+920	39+200	2560	37+920	39+200	37+920	39+200	2560
65		39+242	39+953	39+242	39+953	1422	39+242	39+953	39+242	39+953	1422
66		39+967	40+220	39+967	40+220	506	39+967	40+220	39+967	40+220	506
67		40+300	40+785	40+300	40+785	970	40+300	40+785	40+300	40+785	970
68		40+910	41+380	40+910	41+380	940	40+910	41+380	40+910	41+380	940
69		41+640	41+650	41+640	41+650	20	41+640	41+650	41+640	41+650	20
70		41+650	42+125	41+650	42+125	950	41+650	42+125	41+650	42+125	950
71		42+145	42+270	42+145	42+270	250	42+145	42+270	42+145	42+270	250
72		42+270	42+303	42+270	42+303	66	42+270	42+303	42+270	42+303	66
73		42+317	42+360	42+317	42+360	86	42+317	42+360	42+317	42+360	86
74		42+360	42+680	42+360	42+680	640	42+360	42+680	42+360	42+680	640
75		42+680	42+712	42+680	42+712	64	42+680	42+712	42+680	42+712	64
76		42+728	42+790	42+728	42+790	124	42+728	42+790	42+728	42+790	124
77		42+790	43+000	42+790	43+000	420	42+790	43+000	42+790	43+000	420
78		43+000	43+030	43+000	43+030	60	43+000	43+030	43+000	43+030	60
79		43+040	43+451	43+040	43+451	822	43+040	43+451	43+040	43+451	822
80		43+620	43+965	43+620	43+965	690	43+620	43+965	43+620	43+965	690
81		43+975	44+280	43+975	44+280	610	43+975	44+280	43+975	44+280	610
82		44+600	45+349	44+600	45+349	1498	44+600	45+349	44+600	45+349	1498
83		45+517	46+200	45+517	46+200	1366	45+517	46+200	45+517	46+200	1366
84		47+400	47+490	47+400	47+490	180	47+400	47+490	47+400	47+490	180
85		47+490	47+900	47+490	47+900	820	47+490	47+900	47+490	47+900	820
86		53+670	53+949	53+670	53+949	558	53+670	53+949	53+670	53+949	558
87		53+961	54+100	53+961	54+100	278	53+961	54+100	53+961	54+100	278
88		55+170	55+238	55+170	55+238	136	55+170	55+238	55+170	55+238	136
89		55+420	56+568	55+420	56+568	2296	55+420	56+568	55+420	56+568	2296
90		56+572	56+760	56+572	56+760	376	56+572	56+760	56+572	56+760	376
91		56+950	57+693	56+950	57+693	1486	56+950	57+693	56+950	57+693	1486
92		57+697	58+510	57+697	58+510	1626	57+697	58+510	57+697	58+510	1626
93		59+050	59+108	59+050	59+108	116	59+050	59+108	59+050	59+108	116
94		59+112	59+310	59+112	59+310	396	59+112	59+310	59+112	59+310	396
95		59+670	60+030	59+670	60+030	720	59+670	60+030	59+670	60+030	720
96		60+300	60+464	60+300	60+464	328	60+300	60+464	60+300	60+464	328

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No.	Item	At Earthen Shoulder				At Median					
		LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
		(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
97		60+520	60+730	60+520	60+730	420	60+520	60+730	60+520	60+730	420
98		60+730	60+830	60+730	60+830	200	60+730	60+830	60+730	60+830	200
99		60+830	60+959	60+830	60+959	258	60+830	60+959	60+830	60+959	258
100		60+971	61+258	60+971	61+258	574	60+971	61+258	60+971	61+258	574
101		61+262	61+670	61+262	61+670	816	61+262	61+670	61+262	61+670	816
102		63+010	63+160	63+010	63+160	300	63+010	63+160	63+010	63+160	300
103		63+530	63+751	63+530	63+751	442	63+530	63+751	63+530	63+751	442
104		63+758	65+370	63+758	65+370	3224	63+758	65+370	63+758	65+370	3224
105		65+400	65+690	65+400	65+690	580	65+400	65+690	65+400	65+690	580
106		66+580	67+220	66+580	67+220	1280	66+580	67+220	66+580	67+220	1280
107		67+300	67+670	67+300	67+670	740	67+300	67+670	67+300	67+670	740
108		67+740	69+083	67+740	69+083	2686	67+740	69+083	67+740	69+083	2686
109		69+090	69+828	69+090	69+828	1476	69+090	69+828	69+090	69+828	1476
110		69+832	71+170	69+832	71+170	2676	69+832	71+170	69+832	71+170	2676
111		71+174	71+650	71+174	71+650	952	71+174	71+650	71+174	71+650	952
112		71+849	72+521	71+849	72+521	1344	71+849	72+521	71+849	72+521	1344
113		72+525	72+990	72+525	72+990	930	72+525	72+990	72+525	72+990	930
114		73+400	73+830	73+400	73+830	860	73+400	73+830	73+400	73+830	860
115		73+900	74+020	73+900	74+020	240	73+900	74+020	73+900	74+020	240
116		74+140	74+448	74+140	74+448	616	74+140	74+448	74+140	74+448	616
117		74+462	74+715	74+462	74+715	506	74+462	74+715	74+462	74+715	506
118		74+725	75+340	74+725	75+340	1230	74+725	75+340	74+725	75+340	1230
119		75+500	75+777	75+500	75+777	554	75+500	75+777	75+500	75+777	554
120		75+880	76+231	75+880	76+231	702	75+880	76+231	75+880	76+231	702
121		76+238	76+585	76+238	76+585	694	76+238	76+585	76+238	76+585	694
122		76+660	76+980	76+660	76+980	640	76+660	76+980	76+660	76+980	640
123		77+080	77+526	77+080	77+526	892	77+080	77+526	77+080	77+526	892
124		77+540	77+780	77+540	77+780	480	77+540	77+780	77+540	77+780	480
125		77+940	78+248	77+940	78+248	616	77+940	78+248	77+940	78+248	616
126		78+252	78+880	78+252	78+880	1256	78+252	78+880	78+252	78+880	1256
127		79+108	79+400	79+108	79+400	584	79+108	79+400	79+108	79+400	584
128		79+770	80+100	79+770	80+100	660	79+770	80+100	79+770	80+100	660
129		80+322	80+900	80+322	80+900	1156	80+322	80+900	80+322	80+900	1156
130		81+130	81+160	81+130	81+160	60	81+130	81+160	81+130	81+160	60
131		81+960	81+998	81+960	81+998	76	81+960	81+998	81+960	81+998	76
132		82+023	82+500	82+023	82+500	954	82+023	82+500	82+023	82+500	954
133		82+600	82+738	82+600	82+738	276	82+600	82+738	82+600	82+738	276
134		82+880	83+018	82+880	83+018	276	82+880	83+018	82+880	83+018	276
135		83+043	83+620	83+043	83+620	1154	83+043	83+620	83+043	83+620	1154
136		83+624	83+878	83+624	83+878	508	83+624	83+878	83+624	83+878	508
137		83+885	84+470	83+885	84+470	1170	83+885	84+470	83+885	84+470	1170
138		86+508	86+728	86+508	86+728	440	86+508	86+728	86+508	86+728	440
139		86+743	87+090	86+743	87+090	694	86+743	87+090	86+743	87+090	694
140		87+130	87+823	87+130	87+823	1386	87+130	87+823	87+130	87+823	1386
141		87+827	87+993	87+827	87+993	332	87+827	87+993	87+827	87+993	332
142		88+040	88+270	88+040	88+270	460	88+040	88+270	88+040	88+270	460
143		88+360	88+591	88+360	88+591	462	88+360	88+591	88+360	88+591	462
144		88+595	88+957	88+595	88+957	724	88+595	88+957	88+595	88+957	724
145		89+062	89+100	89+062	89+100	76	89+062	89+100	89+062	89+100	76

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No.	Item	At Earthen Shoulder					At Median				
		LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
		(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
146		89+190	89+448	89+190	89+448	516	89+190	89+448	89+190	89+448	516
147		89+455	89+714	89+455	89+714	518	89+455	89+714	89+455	89+714	518
148		89+726	89+940	89+726	89+940	428	89+726	89+940	89+726	89+940	428
149		90+520	90+570	90+520	90+570	100	90+520	90+570	90+520	90+570	100
150		90+760	90+987	90+760	90+987	454	90+760	90+987	90+760	90+987	454
151		91+209	91+370	91+209	91+370	322	91+209	91+370	91+209	91+370	322
152		91+600	91+830	91+600	91+830	460	91+600	91+830	91+600	91+830	460
153		91+830	92+000	91+830	92+000	340	91+830	92+000	91+830	92+000	340
154		95+700	96+030	95+700	96+030	660	95+700	96+030	95+700	96+030	660
155		97+300	97+695	97+300	97+695	790	97+300	97+695	97+300	97+695	790
156		97+731	98+120	97+731	98+120	778	97+731	98+120	97+731	98+120	778
157		98+320	98+541	98+320	98+541	442	98+320	98+541	98+320	98+541	442
158		98+553	98+695	98+553	98+695	284	98+553	98+695	98+553	98+695	284
159		98+705	99+000	98+705	99+000	590	98+705	99+000	98+705	99+000	590
160		99+360	99+820	99+360	99+820	920	99+360	99+820	99+360	99+820	920
161		99+900	100+475	99+900	100+475	1150	99+900	100+475	99+900	100+475	1150
162		100+525	101+070	100+525	101+070	1090	100+525	101+070	100+525	101+070	1090
163		101+074	101+256	101+074	101+256	364	101+074	101+256	101+074	101+256	364
164		101+364	101+580	101+364	101+580	432	101+364	101+580	101+364	101+580	432
165		101+584	102+098	101+584	102+098	1028	101+584	102+098	101+584	102+098	1028
166		102+110	102+843	102+110	102+843	1466	102+110	102+843	102+110	102+843	1466
167		103+040	103+580	103+040	103+580	1080	103+040	103+580	103+040	103+580	1080
168		104+251	104+570	104+251	104+570	638	104+251	104+570	104+251	104+570	638
169		105+050	105+085	105+050	105+085	70	105+050	105+085	105+050	105+085	70
170		105+097	105+580	105+097	105+580	966	105+097	105+580	105+097	105+580	966
171		105+584	105+920	105+584	105+920	672	105+584	105+920	105+584	105+920	672
172		106+620	107+074	106+620	107+074	908	106+620	107+074	106+620	107+074	908
173		107+086	108+149	107+086	108+149	2126	107+086	108+149	107+086	108+149	2126
174		108+153	108+550	108+153	108+550	794	108+153	108+550	108+153	108+550	794
175		108+610	109+049	108+610	109+049	878	108+610	109+049	108+610	109+049	878
176		109+070	109+185	109+070	109+185	230	109+070	109+185	109+070	109+185	230
177		109+215	110+120	109+215	110+120	1810	109+215	110+120	109+215	110+120	1810
178		110+460	111+020	110+460	111+020	1120	110+460	111+020	110+460	111+020	1120
179		111+430	112+143	111+430	112+143	1426	111+430	112+143	111+430	112+143	1426
180		112+147	112+373	112+147	112+373	452	112+147	112+373	112+147	112+373	452
181		112+377	112+885	112+377	112+885	1016	112+377	112+885	112+377	112+885	1016
182		112+892	113+820	112+892	113+820	1856	112+892	113+820	112+892	113+820	1856
183		113+824	114+669	113+824	114+669	1690	113+824	114+669	113+824	114+669	1690
184		114+681	115+260	114+681	115+260	1158	114+681	115+260	114+681	115+260	1158
185		115+260	115+490	115+260	115+490	460	115+260	115+490	115+260	115+490	460
186		115+490	115+820	115+490	115+820	660	115+490	115+820	115+490	115+820	660
187		116+247	116+344	116+247	116+344	194	116+247	116+344	116+247	116+344	194
188		116+356	116+400	116+356	116+400	88	116+356	116+400	116+356	116+400	88

Thrie Beam Crash Barrier at Median Only

S.No	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)	
1	2+570	2+754	2+570	2+754	368
2	2+774	2+955	2+774	2+955	362

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)	
3	3+214	3+590	3+214	3+590	752
4	4+630	4+740	4+630	4+740	220
5	4+740	4+948	4+740	4+948	416
6	5+033	5+220	5+033	5+220	374
7	7+260	7+350	7+260	7+350	180
8	7+357	7+405	7+357	7+405	96
9	9+200	9+502	9+200	9+502	604
10	9+609	9+940	9+609	9+940	662
11	11+430	11+528	11+430	11+528	196
12	11+553	11+590	11+553	11+590	74
13	14+640	14+883	14+640	14+883	486
14	14+918	15+110	14+918	15+110	384
15	17+980	18+035	17+980	18+035	110
16	18+055	18+110	18+055	18+110	110
17	19+370	19+513	19+370	19+513	286
18	19+538	19+867	19+538	19+867	658
19	19+874	19+950	19+874	19+950	152
20	22+473	22+839	22+473	22+839	732
21	22+882	23+110	22+882	23+110	456
22	27+304	27+400	27+304	27+400	192
23	31+930	32+021	31+930	32+021	182
24	33+650	33+760	33+650	33+760	220
25	40+220	40+300	40+220	40+300	160
26	40+797	40+910	40+797	40+910	226
27	44+280	44+513	44+280	44+513	466
28	45+361	45+513	45+361	45+513	304
29	53+000	53+173	53+000	53+173	346
30	53+208	53+300	53+208	53+300	184
31	53+390	53+670	53+390	53+670	560
32	55+100	55+170	55+100	55+170	140
33	58+510	58+658	58+510	58+658	296
34	58+678	59+050	58+678	59+050	744
35	59+310	59+416	59+310	59+416	212
36	59+420	59+580	59+420	59+580	320
37	59+620	59+670	59+620	59+670	100
38	60+030	60+098	60+030	60+098	136
39	60+138	60+160	60+138	60+160	44
40	60+180	60+250	60+180	60+250	140
41	60+270	60+300	60+270	60+300	60
42	60+509	60+520	60+509	60+520	22
43	61+670	61+748	61+670	61+748	156
44	62+380	62+722	62+380	62+722	684
45	62+747	63+010	62+747	63+010	526
46	63+160	63+196	63+160	63+196	72
47	63+250	63+380	63+250	63+380	260
48	63+380	63+420	63+380	63+420	80

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)	
49	65+690	65+815	65+690	65+815	250
50	65+835	66+171	65+835	66+171	672
51	66+231	66+471	66+231	66+471	480
52	72+990	73+145	72+990	73+145	310
53	73+175	73+388	73+175	73+388	426
54	73+393	73+400	73+393	73+400	14
55	73+830	73+876	73+830	73+876	92
56	73+884	73+900	73+884	73+900	32
57	74+020	74+060	74+020	74+060	80
58	74+090	74+140	74+090	74+140	100
59	79+400	79+566	79+400	79+566	332
60	79+606	79+770	79+606	79+770	328
61	80+950	81+003	80+950	81+003	106
62	81+028	81+130	81+028	81+130	204
63	81+160	81+760	81+160	81+760	1200
64	81+780	81+960	81+780	81+960	360
65	82+500	82+560	82+500	82+560	120
66	82+752	82+840	82+752	82+840	176
67	82+870	82+880	82+870	82+880	20
68	84+470	84+653	84+470	84+653	366
69	84+678	84+844	84+678	84+844	332
70	84+996	85+387	84+996	85+387	782
71	85+427	85+915	85+427	85+915	976
72	85+940	86+300	85+940	86+300	720
73	86+300	86+430	86+300	86+430	260
74	86+450	86+483	86+450	86+483	66
75	88+270	88+360	88+270	88+360	180
76	89+100	89+190	89+100	89+190	180
77	89+940	89+971	89+940	89+971	62
78	89+975	90+520	89+975	90+520	1090
79	90+570	90+660	90+570	90+660	180
80	90+660	90+705	90+660	90+705	90
81	90+735	90+760	90+735	90+760	50
82	91+092	91+205	91+092	91+205	226
83	91+390	91+600	91+390	91+600	420
84	96+030	96+073	96+030	96+073	86
85	96+098	96+150	96+098	96+150	104
86	97+100	97+210	97+100	97+210	220
87	98+120	98+187	98+120	98+187	134
88	98+212	98+320	98+212	98+320	216
89	102+850	102+960	102+850	102+960	220
90	104+570	104+700	104+570	104+700	260
91	104+700	104+860	104+700	104+860	320
92	104+860	105+050	104+860	105+050	380
93	105+920	106+160	105+920	106+160	480
94	106+160	106+210	106+160	106+210	100

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.No	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)	
95	106+240	106+523	106+240	106+523	566
96	106+577	106+620	106+577	106+620	86
97	111+020	111+182	111+020	111+182	324
98	111+212	111+430	111+212	111+430	436
99	115+820	115+890	115+820	115+890	140
100	115+970	116+125	115+970	116+125	310
101	116+135	116+232	116+135	116+232	194

Thrie Beam Crash Barrier at Median and One edge of Highway

S.No.	At Shoulder					At Median				
	LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
1	-	-	1+202	1+240	38	1+202	1+240	1+202	1+240	76
2	3+825	3+895	-	-	70	3+825	3+895	3+825	3+895	140
3	-	-	3+920	3+940	20	3+920	3+940	3+920	3+940	40
4	-	-	3+940	4+254	314	3+940	4+254	3+940	4+254	628
5	-	-	4+266	4+630	364	4+266	4+630	4+266	4+630	728
6	10+580	10+629	-	-	49	10+580	10+629	10+580	10+629	98
7	-	-	11+590	11+745	155	11+590	11+745	11+590	11+745	310
8	-	-	12+420	12+477	57	12+420	12+477	12+420	12+477	114
9	-	-	14+524	14+590	66	14+524	14+590	14+524	14+590	132
10	-	-	23+443	23+520	77	23+443	23+520	23+443	23+520	154
11	27+064	27+304	-	-	240	27+064	27+304	27+064	27+304	480
12	29+900	29+930	-	-	30	29+900	29+930	29+900	29+930	60
13	29+951	29+980	-	-	29	29+951	29+980	29+951	29+980	58
14	-	-	31+040	31+137	97	31+040	31+137	31+040	31+137	194
15	32+500	32+560	-	-	60	32+500	32+560	32+500	32+560	120
16	-	-	33+882	34+085	203	33+882	34+085	33+882	34+085	406
17	34+870	34+908	-	-	38	34+870	34+908	34+870	34+908	76
18	36+200	36+230	-	-	30	36+200	36+230	36+200	36+230	60
19	36+234	36+300	-	-	66	36+234	36+300	36+234	36+300	132
20	-	-	36+740	37+018	278	36+740	37+018	36+740	37+018	556
21	-	-	37+022	37+232	210	37+022	37+232	37+022	37+232	420
22	37+700	37+831	-	-	131	37+700	37+831	37+700	37+831	262
23	-	-	37+835	37+920	85	37+835	37+920	37+835	37+920	170
24	-	-	39+200	39+238	38	39+200	39+238	39+200	39+238	76
25	-	-	41+380	41+433	53	41+380	41+433	41+380	41+433	106
26	41+437	41+640	-	-	203	41+437	41+640	41+437	41+640	406
27	-	-	43+455	43+620	165	43+455	43+620	43+455	43+620	330
28	44+517	44+600	-	-	83	44+517	44+600	44+517	44+600	166
29	55+238	55+326	-	-	88	55+238	55+326	55+238	55+326	176
30	55+330	55+420	-	-	90	55+330	55+420	55+330	55+420	180
31	-	-	56+760	56+943	183	56+760	56+943	56+760	56+943	366
32	-	-	63+420	63+530	110	63+420	63+530	63+420	63+530	220

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S.No.	At Shoulder					At Median				
	LHS		RHS		Total Length (m)	LHS		RHS		Total Length (m)
	(From)	(To)	(From)	(To)		(From)	(To)	(From)	(To)	
33	65+377	65+400	-	-	23	65+377	65+400	65+377	65+400	46
34	66+478	66+580	-	-	102	66+478	66+580	66+478	66+580	204
35	67+220	67+300	-	-	80	67+220	67+300	67+220	67+300	160
36	67+670	67+694	-	-	24	67+670	67+694	67+670	67+694	48
37	67+698	67+740	-	-	42	67+698	67+740	67+698	67+740	84
38	-	-	71+650	71+845	195	71+650	71+845	71+650	71+845	390
39	75+340	75+500	-	-	160	75+340	75+500	75+340	75+500	320
40	-	-	75+802	75+880	78	75+802	75+880	75+802	75+880	156
41	76+585	76+600	-	-	15	76+585	76+600	76+585	76+600	30
42	76+604	76+660	-	-	56	76+604	76+660	76+604	76+660	112
43	-	-	76+980	77+051	71	76+980	77+051	76+980	77+051	142
44	-	-	77+063	77+080	17	77+063	77+080	77+063	77+080	34
45	-	-	77+780	77+855	75	77+780	77+855	77+780	77+855	150
46	77+859	77+940	-	-	81	77+859	77+940	77+859	77+940	162
47	-	-	78+880	79+096	216	78+880	79+096	78+880	79+096	432
48	80+100	80+310	-	-	210	80+100	80+310	80+100	80+310	420
49	80+900	80+950	-	-	50	80+900	80+950	80+900	80+950	100
50	-	-	82+560	82+600	40	82+560	82+600	82+560	82+600	80
51	88+000	88+040	-	-	40	88+000	88+040	88+000	88+040	80
52	97+210	97+300	-	-	90	97+210	97+300	97+210	97+300	180
53	97+695	97+727	-	-	32	97+695	97+727	97+695	97+727	64
54	-	-	99+000	99+298	298	99+000	99+298	99+000	99+298	596
55	99+323	99+360	-	-	37	99+323	99+360	99+323	99+360	74
56	99+820	99+853	-	-	33	99+820	99+853	99+820	99+853	66
57	-	-	99+867	99+900	33	99+867	99+900	99+867	99+900	66
58	102+960	103+040	-	-	80	102+960	103+040	102+960	103+040	160
59	-	-	103+580	104+170	590	103+580	104+170	103+580	104+170	1180
60	110+120	110+170	-	-	50	110+120	110+170	110+120	110+170	100
61	-	-	110+170	110+269	99	110+170	110+269	110+170	110+269	198
62	-	-	110+281	110+460	179	110+281	110+460	110+281	110+460	358

9 Roadside Furniture

9.1 It shall be provided as per the details mentioned in Schedule-C.

10 Hazardous Locations

The safety barriers shall be provided at the following hazardous location such as ponds, well, electric sub-station, Electric tower, split carriageway, etc.

Sr. No.	Location Stretch		Type of Safety Barrier	LHS/ RHS
	From (Km)	To (Km)		
NIL				

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

11 Special Requirement

Retaining Structure and protection works shall be provided at locations as indicated below and as provided in TCS schedule in Cl. 2.10 of schedule-B.

11.1 Stretches for provision of RCC Toe Wall/Retaining Wall**A. Stretched for provision of Toe wall/ RCC Retainigg Wall on Highway**

Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
1	0+827	1+105	278	0+827	1+105	278	556	-
2	1+135	1+198	63	1+135	1+198	63	126	-
3	-	-	-	1+202	1+240	38	38	-
4	1+240	2+104	864	1+240	2+104	864	1728	-
5	2+116	2+570	454	2+116	2+570	454	908	-
6	3+590	3+825	235	3+590	3+825	235	470	-
7	3+825	3+895	70	-	-	-	70	-
8	-	-	-	3+920	3+940	20	20	-
9	5+220	5+852	632	5+220	5+852	632	1264	-
10	5+864	6+370	506	5+864	6+370	506	1012	-
11	6+720	7+260	540	6+720	7+260	540	1080	-
12	7+430	8+774	1344	7+430	8+774	1344	2688	-
13	8+786	9+200	414	8+786	9+200	414	828	-
14	9+940	10+098	158	9+940	10+098	158	316	-
15	10+123	10+580	457	10+123	10+580	457	914	-
16	10+580	10+629	49	-	-	-	49	-
17	10+641	11+212	571	10+641	11+212	571	1142	-
18	11+219	11+430	211	11+219	11+430	211	422	-
19	11+745	12+177	432	11+745	12+177	432	864	-
20	12+184	12+420	236	12+184	12+420	236	472	-
21	-	-	-	12+420	12+477	57	57	-
22	12+484	12+770	286	12+484	12+770	286	572	-
23	12+965	13+090	125	12+965	13+090	125	250	-
24	13+440	13+687	247	13+440	13+687	247	494	-
25	13+694	14+030	336	13+694	14+030	336	672	-
26	14+210	14+524	314	14+210	14+524	314	628	-
27	-	-	-	14+524	14+590	66	66	-
28	14+590	14+640	50	14+590	14+640	50	100	-
29	15+110	15+317	207	15+110	15+317	207	414	-
30	15+321	15+668	347	15+321	15+668	347	694	-
31	15+672	15+983	311	15+672	15+983	311	622	-
32	15+997	16+850	853	15+997	16+850	853	1706	-
33	16+870	17+420	550	16+870	17+420	550	1100	-
34	17+560	17+839	279	17+560	17+839	279	558	-
35	17+851	17+980	129	17+851	17+980	129	258	-

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Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
36	18+110	18+270	160	18+110	18+270	160	320	-
37	18+277	19+370	1093	18+277	19+370	1093	2186	-
38	19+950	20+048	98	19+950	20+048	98	196	-
39	20+153	21+392	1239	20+153	21+392	1239	2478	-
40	21+396	22+453	1057	21+396	22+453	1057	2114	-
41	23+110	23+436	326	23+110	23+436	326	652	-
42	-	-	-	23+443	23+520	77	77	-
43	23+520	24+321	801	23+520	24+321	801	1602	-
44	24+349	25+414	1065	24+349	25+414	1065	2130	-
45	25+426	26+273	847	25+426	26+273	847	1694	-
46	26+277	27+057	780	26+277	27+057	780	1560	-
47	27+064	27+304	240	-	-	-	240	-
48	27+400	27+800	400	27+400	27+800	400	800	-
49	29+200	29+580	380	29+200	29+580	380	760	-
50	29+680	29+900	220	29+680	29+900	220	440	-
51	29+900	29+930	30	-	-	-	30	-
52	29+951	29+980	29	-	-	-	29	-
53	29+980	30+297	317	29+980	30+297	317	634	-
54	30+304	30+513	209	30+304	30+513	209	418	-
55	30+517	31+040	523	30+517	31+040	523	1046	-
56	-	-	-	31+040	31+137	97	97	-
57	31+144	31+930	786	31+144	31+930	786	1572	-
58	32+041	32+500	459	32+041	32+500	459	918	-
59	32+500	32+560	60	-	-	-	60	-
60	32+564	33+150	586	32+564	33+150	586	1172	-
61	33+250	33+308	58	33+250	33+308	58	116	-
62	33+312	33+496	184	33+312	33+496	184	368	-
63	33+577	33+650	73	33+577	33+650	73	146	-
64	33+760	33+878	118	33+760	33+878	118	236	-
65	-	-	-	33+882	34+085	203	203	-
66	34+105	34+870	765	34+105	34+870	765	1530	-
67	34+870	34+908	38	-	-	-	38	-
68	34+912	35+729	817	34+912	35+729	817	1634	-
69	35+736	36+200	464	35+736	36+200	464	928	-
70	36+200	36+230	30	-	-	-	30	-
71	36+234	36+300	66	-	-	-	66	-
72	36+300	36+740	440	36+300	36+740	440	880	-
73	-	-	-	36+740	37+018	278	278	-
74	-	-	-	37+022	37+232	210	210	-
75	37+258	37+700	442	37+258	37+700	442	884	-
76	37+700	37+831	131	-	-	-	131	-
77	-	-	-	37+835	37+920	85	85	-
78	37+920	39+200	1280	37+920	39+200	1280	2560	-
79	-	-	-	39+200	39+238	38	38	-

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Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
80	39+242	39+953	711	39+242	39+953	711	1422	-
81	39+967	40+220	253	39+967	40+220	253	506	-
82	40+300	40+785	485	40+300	40+785	485	970	-
83	40+910	41+380	470	40+910	41+380	470	940	-
84	-	-	-	41+380	41+433	53	53	-
85	41+437	41+640	203	-	-	-	203	-
86	41+640	41+650	10	41+640	41+650	10	20	-
87	42+270	42+303	33	42+270	42+303	33	66	-
88	42+317	42+360	43	42+317	42+360	43	86	-
89	42+680	42+712	32	42+680	42+712	32	64	-
90	42+728	42+790	62	42+728	42+790	62	124	-
91	43+000	43+030	30	43+000	43+030	30	60	-
92	43+040	43+451	411	43+040	43+451	411	822	-
93	-	-	-	43+455	43+620	165	165	-
94	43+620	43+965	345	43+620	43+965	345	690	-
95	43+975	44+280	305	43+975	44+280	305	610	-
96	44+517	44+600	83	-	-	-	83	-
97	44+600	45+349	749	44+600	45+349	749	1498	-
98	45+517	46+200	683	45+517	46+200	683	1366	-
99	47+400	47+490	90	47+400	47+490	90	180	-
100	53+670	53+949	279	53+670	53+949	279	558	-
101	53+961	54+100	139	53+961	54+100	139	278	-
102	55+170	55+238	68	55+170	55+238	68	136	-
103	55+238	55+326	88	-	-	-	88	-
104	55+330	55+420	90	-	-	-	90	-
105	55+420	56+568	1148	55+420	56+568	1148	2296	-
106	56+572	56+760	188	56+572	56+760	188	376	-
107	-	-	-	56+760	56+943	183	183	-
108	56+950	57+693	743	56+950	57+693	743	1486	-
109	57+697	58+510	813	57+697	58+510	813	1626	-
110	59+050	59+108	58	59+050	59+108	58	116	-
111	59+112	59+310	198	59+112	59+310	198	396	-
112	59+670	60+030	360	59+670	60+030	360	720	-
113	60+300	60+464	164	60+300	60+464	164	328	-
114	60+520	60+730	210	60+520	60+730	210	420	-
115	60+830	60+959	129	60+830	60+959	129	258	-
116	60+971	61+258	287	60+971	61+258	287	574	-
117	61+262	61+670	408	61+262	61+670	408	816	-
118	63+010	63+160	150	63+010	63+160	150	300	-
119	-	-	-	63+420	63+530	110	110	-
120	63+530	63+751	221	63+530	63+751	221	442	-
121	63+758	65+370	1612	63+758	65+370	1612	3224	-
122	65+377	65+400	23	-	-	-	23	-
123	65+400	65+690	290	65+400	65+690	290	580	-

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Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
124	66+478	66+580	102	-	-	-	102	-
125	66+580	67+220	640	66+580	67+220	640	1280	-
126	67+220	67+300	80	-	-	-	80	-
127	67+300	67+670	370	67+300	67+670	370	740	-
128	67+670	67+694	24	-	-	-	24	-
129	67+698	67+740	42	-	-	-	42	-
130	67+740	69+083	1343	67+740	69+083	1343	2686	-
131	69+090	69+828	738	69+090	69+828	738	1476	-
132	69+832	71+170	1338	69+832	71+170	1338	2676	-
133	71+174	71+650	476	71+174	71+650	476	952	-
134	-	-	-	71+650	71+845	195	195	-
135	71+849	72+521	672	71+849	72+521	672	1344	-
136	72+525	72+990	465	72+525	72+990	465	930	-
137	73+400	73+830	430	73+400	73+830	430	860	-
138	73+900	74+020	120	73+900	74+020	120	240	-
139	74+140	74+448	308	74+140	74+448	308	616	-
140	74+462	74+715	253	74+462	74+715	253	506	-
141	74+725	75+340	615	74+725	75+340	615	1230	-
142	75+340	75+500	160	-	-	-	160	-
143	75+500	75+777	277	75+500	75+777	277	554	-
144	-	-	-	75+802	75+880	78	78	-
145	75+880	76+231	351	75+880	76+231	351	702	-
146	76+238	76+585	347	76+238	76+585	347	694	-
147	76+585	76+600	15	-	-	-	15	-
148	76+604	76+660	56	-	-	-	56	-
149	76+660	76+980	320	76+660	76+980	320	640	-
150	-	-	-	76+980	77+051	71	71	-
151	-	-	-	77+063	77+080	17	17	-
152	77+080	77+526	446	77+080	77+526	446	892	-
153	77+540	77+780	240	77+540	77+780	240	480	-
154	-	-	-	77+780	77+855	75	75	-
155	77+859	77+940	81	-	-	-	81	-
156	77+940	78+248	308	77+940	78+248	308	616	-
157	78+252	78+880	628	78+252	78+880	628	1256	-
158	-	-	-	78+880	79+096	216	216	-
159	79+108	79+400	292	79+108	79+400	292	584	-
160	79+770	80+100	330	79+770	80+100	330	660	-
161	80+100	80+310	210	-	-	-	210	-
162	80+322	80+900	578	80+322	80+900	578	1156	-
163	80+900	80+950	50	-	-	-	50	-
164	81+130	81+160	30	81+130	81+160	30	60	-
165	81+960	81+998	38	81+960	81+998	38	76	-
166	82+023	82+500	477	82+023	82+500	477	954	-
167	-	-	-	82+560	82+600	40	40	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
168	82+600	82+738	138	82+600	82+738	138	276	-
169	82+880	83+018	138	82+880	83+018	138	276	-
170	83+043	83+620	577	83+043	83+620	577	1154	-
171	83+624	83+878	254	83+624	83+878	254	508	-
172	83+885	84+470	585	83+885	84+470	585	1170	-
173	86+508	86+728	220	86+508	86+728	220	440	-
174	86+743	87+090	347	86+743	87+090	347	694	-
175	87+130	87+823	693	87+130	87+823	693	1386	-
176	87+827	87+993	166	87+827	87+993	166	332	-
177	88+000	88+040	40	-	-	-	40	-
178	88+040	88+270	230	88+040	88+270	230	460	-
179	88+360	88+591	231	88+360	88+591	231	462	-
180	88+595	88+957	362	88+595	88+957	362	724	-
181	89+062	89+100	38	89+062	89+100	38	76	-
182	89+190	89+448	258	89+190	89+448	258	516	-
183	89+455	89+714	259	89+455	89+714	259	518	-
184	89+726	89+940	214	89+726	89+940	214	428	-
185	90+520	90+570	50	90+520	90+570	50	100	-
186	90+760	90+987	227	90+760	90+987	227	454	-
187	91+209	91+370	161	91+209	91+370	161	322	-
188	91+600	91+830	230	91+600	91+830	230	460	-
189	95+700	96+030	330	95+700	96+030	330	660	-
190	97+210	97+300	90	-	-	-	90	-
191	97+300	97+695	395	97+300	97+695	395	790	-
192	97+695	97+727	32	-	-	-	32	-
193	97+731	98+120	389	97+731	98+120	389	778	-
194	98+320	98+541	221	98+320	98+541	221	442	-
195	98+553	98+695	142	98+553	98+695	142	284	-
196	98+705	99+000	295	98+705	99+000	295	590	-
197	-	-	-	99+000	99+298	298	298	-
198	99+323	99+360	37	-	-	-	37	-
199	99+360	99+820	460	99+360	99+820	460	920	-
200	99+820	99+853	33	-	-	-	33	-
201	-	-	-	99+867	99+900	33	33	-
202	99+900	100+475	575	99+900	100+475	575	1150	-
203	100+525	101+070	545	100+525	101+070	545	1090	-
204	101+074	101+256	182	101+074	101+256	182	364	-
205	101+364	101+580	216	101+364	101+580	216	432	-
206	101+584	102+098	514	101+584	102+098	514	1028	-
207	102+110	102+843	733	102+110	102+843	733	1466	-
208	102+960	103+040	80	-	-	-	80	-
209	103+040	103+580	540	103+040	103+580	540	1080	-
210	-	-	-	103+580	104+170	590	590	-
211	104+251	104+570	319	104+251	104+570	319	638	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sr. No.	Chainage(Km)-LHS		Length (m)	Chainage(Km)-RHS		Length (m)	Total Length including Both Sides (m)	Remarks
	From	To		From	To			
212	105+050	105+085	35	105+050	105+085	35	70	-
213	105+097	105+580	483	105+097	105+580	483	966	-
214	105+584	105+920	336	105+584	105+920	336	672	-
215	106+620	107+074	454	106+620	107+074	454	908	-
216	107+086	108+149	1063	107+086	108+149	1063	2126	-
217	108+153	108+550	397	108+153	108+550	397	794	-
218	108+610	109+049	439	108+610	109+049	439	878	-
219	109+070	109+185	115	109+070	109+185	115	230	-
220	109+215	110+120	905	109+215	110+120	905	1810	-
221	110+120	110+170	50	-	-	-	50	-
222	-	-	-	110+170	110+269	99	99	-
223	-	-	-	110+281	110+460	179	179	-
224	110+460	111+020	560	110+460	111+020	560	1120	-
225	111+430	112+143	713	111+430	112+143	713	1426	-
226	112+147	112+373	226	112+147	112+373	226	452	-
227	112+377	112+885	508	112+377	112+885	508	1016	-
228	112+892	113+820	928	112+892	113+820	928	1856	-
229	113+824	114+669	845	113+824	114+669	845	1690	-
230	114+681	115+260	579	114+681	115+260	579	1158	-
231	115+490	115+820	330	115+490	115+820	330	660	-
232	116+247	116+344	97	116+247	116+344	97	194	-
233	116+356	116+400	44	116+356	116+400	44	88	-

A1. Stretch for provision of RCC Retaining/Toe Wall on Interchange

S.no	Interchange Location	Ramp Location	From	To	Length	Side(LHS/RHS)	Total Length
1	00+000	Loop 2	00+360	00+600	240	Outer Loop	240
		Loop 1	00+390	00+700	310	Inner Loop	310
		Slip Road RHS	00+000	1+230	1230	RHS	1230
		Slip Road LHS	00+670	00+860	190	LHS	190
			00+000	00+260	260	LHS	260
2	28+500	Slip Road RHS 2	00+330	00+644	314	RHS 2	314
		Slip Road RHS 1	00+000	00+390	390	RHS 1	390
		Slip Road LHS 2	00+280	00+660	380	LHS 2	380
		Slip Road LHS 1	00+000	00+730	730	LHS 1	730
3	46+720	Slip Road 1	00+910	1+020	110	LHS	110
			00+000	00+530	530		530
		Loop 2	1+260	1+590	330	Outer Loop	330

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.no	Interchange Location	Ramp Location	From	To	Length	Side(LHS/RHS)	Total Length
4	51+000	Loop 1	00+260	00+440	180	Inner Loop	180
			1+280	1+620	340		340
			00+420	00+660	240		240
		Loop 1	00+220	00+360	140	-	140
5	54+000	Loop 1	2+190	2+410	220	Inner Loop	220
			00+830	1+510	680		680
			00+350	00+580	230		230
		Loop 2	00+380	00+680	300	Near Hamirpur Road	300
			1+430	2+060	630		630
			2+310	2+550	240		240
		Slip Road LHS	1+000	1+880	880	LHS	880
			00+330	00+880	550		550
		Slip Road RHS	00+990	1+390	400	RHS	400
			00+360	00+850	490		490
6	94+000	Ramp 2	1+430	1+640	210	LHS	210
			00+770	1+140	370		370
			00+000	00+240	240		240
		Ramp 1	00+470	00+770	300	RHS	300
			1+060	1+630	570		570
			2+000	2+253	253		253
		Loop 2	00+000	00+600	600	-	600
			1+150	1+725	575		575
		Loop 1	00+260	1+480	1220	-	1220
		Ramp 3	00+500	2+100	1600	LHS	1600
7	117+162	Ramp 4	00+000	1+590	1590	RHS	1590
		Loop 1	00+230	00+730	500	-	500
		Loop 2	00+100	00+480	380	-	380
		Loop 3	00+430	00+630	200	-	200
		Loop 4	00+230	00+380	150	-	150
		Ramp 1	00+000	00+570	570	LHS	570
		Ramp 2	00+230	00+910	680	RHS	680
		Ramp 3	00+415	00+580	165	LHS	165
		Ramp 4	00+230	00+390	160	RHS	160

B. Stretches for provision of RE wall on Interchange

S.no	Interchange Location	Ramp Location	From	To	Length (m)	Side(LH S/RHS)	Total Length (m)
1	0+000	Loop 1	0+280	0+470	190	LHS	190
		Slip Road LHS	0+000	0+700	700	LHS	700
		Slip Road RHS	0+000	0+700	700	RHS	700
2	28+500	Slip Road LHS-1	0+000	0+450	450	LHS	450
		Slip Road LHS-2	0+500	1+000	500	LHS	500
		Slip Road RHS-1	0+000	0+450	450	RHS	450
		Slip Road RHS-2	0+500	1+000	500	RHS	500
3	46+260	Loop-1	0+630	0+690	40	BHS	80

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.no	Interchange Location	Ramp Location	From	To	Length (m)	Side(LH S/RHS)	Total Length (m)
6	54+000	Loop-2	1+180	1+270	90	BHS	180
			0+450	0+580	130	BHS	260
			1+180	1+250	90	BHS	180
		Loop-1	0+000	0+340	340	RHS	340
		Loop-2	0+710	0+830	120	LHS	120
			1+280	1+360	80	LHS	80
			2+575	2+830	255	LHS	255
		Slip Road LHS	0+235	0+330	95	LHS	95
			0+880	0+990	110	LHS	110
		Slip Road RHS	0+290	0+350	60	LHS	60
			0+850	0+980	130	LHS	130
7	94+000	Loop-1	0+000	0+250	250	LHS	250
			1+470	1+778	308	LHS	308
		Ramp-1	0+780	1+070	290	LHS	290
			1+630	2+000	370	LHS	370
		Ramp-2	0+245	0+415	170	LHS	170
			0+620	0+750	130	LHS	130
			1+140	1+460	320	LHS	320
8	117+132	Ramp-3	0+590	0+680	90	BHS	180
			1+040	1+080	40	BHS	80
		Ramp-4	0+000	0+230	230	LHS	230
		Loop-2	0+000	0+100	100	RHS	100
		Loop-4	0+390	0+490	100	RHS	100
		Loop-3	0+310	0+420	110	RHS	110

Note:

- The location of RE wall / retaining wall along main carriageway shall be placed in such a way that lane addition could be done without recasting/ reconstruction. The design and construction of retaining wall shall be done considering future widening.
- In addition to above RCC Retaining wall/RCC Toe wall of suitable height (as per site requirement) shall be provided to accommodate the highway cross section within the available/proposed ROW and the same shall not constitute a Change of Scope.
- In addition to above RE wall/ retaining wall mentioned above, cross wall shall be provided behind each abutment.
- In addition to above, RE wall/Retaining wall shall be provided at toll plaza and other locations to restrict the embankment slope within the right of way.
- Any variation in lengths upto 10% specified in the above table shall not constitute a change of scope.

○ **Stretches for provision of Full Height RE wall on both side of Highway**

Sl.	Design Chainage	Length	Chainage	Length	Minimum	Total
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Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

No.	From	To	(m)	From	To	(m)	Height (m)	Length including Both Sides (m)
	LHS			RHS				
1	2+570	2+754	184	2+570	2+754	184	8 to 10	368
2	2+774	2+955	181	2+774	2+955	181	8 to 10	362
3	3+214	3+590	376	3+214	3+590	376	8 to 10	752
4	4+630	4+740	110	4+630	4+740	110	8 to 10	220
5	4+740	4+948	208	4+740	4+948	208	8 to 10	416
6	5+033	5+220	187	5+033	5+220	187	8 to 10	374
7	7+260	7+350	90	7+260	7+350	90	8 to 10	180
8	7+357	7+405	48	7+357	7+405	48	8 to 10	96
9	9+200	9+502	302	9+200	9+502	302	8 to 10	604
10	9+609	9+940	331	9+609	9+940	331	8 to 10	662
11	11+430	11+528	98	11+430	11+528	98	8 to 10	196
12	11+553	11+590	37	11+553	11+590	37	8 to 10	74
13	14+640	14+883	243	14+640	14+883	243	8 to 10	486
14	14+918	15+110	192	14+918	15+110	192	8 to 10	384
15	17+980	18+035	55	17+980	18+035	55	8 to 10	110
16	18+055	18+110	55	18+055	18+110	55	8 to 10	110
17	19+370	19+513	143	19+370	19+513	143	8 to 10	286
18	19+538	19+867	329	19+538	19+867	329	8 to 10	658
19	19+874	19+950	76	19+874	19+950	76	8 to 10	152
20	22+473	22+839	366	22+473	22+839	366	8 to 10	732
21	22+882	23+110	228	22+882	23+110	228	8 to 10	456
22	27+304	27+400	96	27+304	27+400	96	8 to 10	192
23	31+930	32+021	91	31+930	32+021	91	8 to 10	182
24	33+650	33+760	110	33+650	33+760	110	8 to 10	220
25	40+220	40+300	80	40+220	40+300	80	8 to 10	160
26	40+797	40+910	113	40+797	40+910	113	8 to 10	226
27	44+280	44+513	233	44+280	44+513	233	8 to 10	466
28	45+361	45+513	152	45+361	45+513	152	8 to 10	304
29	53+000	53+173	173	53+000	53+173	173	8 to 10	346
30	53+208	53+300	92	53+208	53+300	92	8 to 10	184
31	53+390	53+670	280	53+390	53+670	280	8 to 10	560
32	55+100	55+170	70	55+100	55+170	70	8 to 10	140
33	58+510	58+658	148	58+510	58+658	148	8 to 10	296
34	58+678	59+050	372	58+678	59+050	372	8 to 10	744
35	59+310	59+416	106	59+310	59+416	106	8 to 10	212
36	59+420	59+580	160	59+420	59+580	160	8 to 10	320
37	59+620	59+670	50	59+620	59+670	50	8 to 10	100
38	60+030	60+098	68	60+030	60+098	68	8 to 10	136
39	60+138	60+160	22	60+138	60+160	22	8 to 10	44
40	60+180	60+250	70	60+180	60+250	70	8 to 10	140
41	60+270	60+300	30	60+270	60+300	30	8 to 10	60
42	60+509	60+520	11	60+509	60+520	11	8 to 10	22
43	61+670	61+748	78	61+670	61+748	78	8 to 10	156
44	62+380	62+722	342	62+380	62+722	342	8 to 10	684

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Sl. No.	Design Chainage		Length (m)	Chainage		Length (m)	Minimum Height (m)	Total Length including Both Sides (m)
	From	To		From	To			
	LHS			RHS				
45	62+747	63+010	263	62+747	63+010	263	8 to 10	526
46	63+160	63+196	36	63+160	63+196	36	8 to 10	72
47	63+250	63+380	130	63+250	63+380	130	8 to 10	260
48	63+380	63+420	40	63+380	63+420	40	8 to 10	80
49	65+690	65+815	125	65+690	65+815	125	8 to 10	250
50	65+835	66+171	336	65+835	66+171	336	8 to 10	672
51	66+231	66+471	240	66+231	66+471	240	8 to 10	480
52	72+990	73+145	155	72+990	73+145	155	8 to 10	310
53	73+175	73+388	213	73+175	73+388	213	8 to 10	426
54	73+393	73+400	7	73+393	73+400	7	8 to 10	14
55	73+830	73+876	46	73+830	73+876	46	8 to 10	92
56	73+884	73+900	16	73+884	73+900	16	8 to 10	32
57	74+020	74+060	40	74+020	74+060	40	8 to 10	80
58	74+090	74+140	50	74+090	74+140	50	8 to 10	100
59	79+400	79+566	166	79+400	79+566	166	8 to 10	332
60	79+606	79+770	164	79+606	79+770	164	8 to 10	328
61	80+950	81+003	53	80+950	81+003	53	8 to 10	106
62	81+028	81+130	102	81+028	81+130	102	8 to 10	204
63	81+160	81+760	600	81+160	81+760	600	8 to 10	1200
64	81+780	81+960	180	81+780	81+960	180	8 to 10	360
65	82+500	82+560	60	82+500	82+560	60	8 to 10	120
66	82+752	82+840	88	82+752	82+840	88	8 to 10	176
67	82+870	82+880	10	82+870	82+880	10	8 to 10	20
68	84+470	84+653	183	84+470	84+653	183	8 to 10	366
69	84+678	84+844	166	84+678	84+844	166	8 to 10	332
70	84+996	85+387	391	84+996	85+387	391	8 to 10	782
71	85+427	85+915	488	85+427	85+915	488	8 to 10	976
72	85+940	86+300	360	85+940	86+300	360	8 to 10	720
73	86+300	86+430	130	86+300	86+430	130	8 to 10	260
74	86+450	86+483	33	86+450	86+483	33	8 to 10	66
75	88+270	88+360	90	88+270	88+360	90	8 to 10	180
76	89+100	89+190	90	89+100	89+190	90	8 to 10	180
77	89+940	89+971	31	89+940	89+971	31	8 to 10	62
78	89+975	90+520	545	89+975	90+520	545	8 to 10	1090
79	90+570	90+660	90	90+570	90+660	90	8 to 10	180
80	90+660	90+705	45	90+660	90+705	45	8 to 10	90
81	90+735	90+760	25	90+735	90+760	25	8 to 10	50
82	91+092	91+205	113	91+092	91+205	113	8 to 10	226
83	91+390	91+600	210	91+390	91+600	210	8 to 10	420
84	96+030	96+073	43	96+030	96+073	43	8 to 10	86
85	96+098	96+150	52	96+098	96+150	52	8 to 10	104
86	97+100	97+210	110	97+100	97+210	110	8 to 10	220
87	98+120	98+187	67	98+120	98+187	67	8 to 10	134

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Sl. No.	Design Chainage		Length (m)	Chainage		Length (m)	Minimum Height (m)	Total Length including Both Sides (m)
	From	To		From	To			
	LHS			RHS				
88	98+212	98+320	108	98+212	98+320	108	8 to 10	216
89	102+850	102+960	110	102+850	102+960	110	8 to 10	220
90	104+570	104+700	130	104+570	104+700	130	8 to 10	260
91	104+700	104+860	160	104+700	104+860	160	8 to 10	320
92	104+860	105+050	190	104+860	105+050	190	8 to 10	380
93	105+920	106+160	240	105+920	106+160	240	8 to 10	480
94	106+160	106+210	50	106+160	106+210	50	8 to 10	100
95	106+240	106+523	283	106+240	106+523	283	8 to 10	566
96	106+577	106+620	43	106+577	106+620	43	8 to 10	86
97	111+020	111+182	162	111+020	111+182	162	8 to 10	324
98	111+212	111+430	218	111+212	111+430	218	8 to 10	436
99	115+820	115+890	70	115+820	115+890	70	8 to 10	140
100	115+970	116+125	155	115+970	116+125	155	8 to 10	310
101	116+135	116+232	97	116+135	116+232	97	8 to 10	194

○ Stretches for provision of Full Height RE wall on one side of Highway

Sl. No .	Design Chainage		Length (m)	Chainage		Length (m)	Minimum Height (m)	Total Length including Both Sides (m)
	From	To		From	To			
	LHS			RHS				
1	1+202	1+240	38	-	-	-	5 to 8	38
2	-	-	-	3+825	3+895	70	5 to 8	70
3	3+920	3+940	20	-	-	-	5 to 8	20
4	3+940	4+254	314	-	-	-	5 to 8	314
5	4+266	4+630	364	-	-	-	5 to 8	364
6	-	-	-	10+580	10+629	49	5 to 8	49
7	11+590	11+745	155	-	-	-	5 to 8	155
8	12+420	12+477	57	-	-	-	5 to 8	57
9	14+524	14+590	66	-	-	-	5 to 8	66
10	23+443	23+520	77	-	-	-	5 to 8	77
11	-	-	-	27+064	27+304	240	5 to 8	240
12	-	-	-	29+900	29+930	30	5 to 8	30
13	-	-	-	29+951	29+980	29	5 to 8	29
14	31+040	31+137	97	-	-	-	5 to 8	97
15	-	-	-	32+500	32+560	60	5 to 8	60
16	33+882	34+085	203	-	-	-	5 to 8	203
17	-	-	-	34+870	34+908	38	5 to 8	38
18	-	-	-	36+200	36+230	30	5 to 8	30
19	-	-	-	36+234	36+300	66	5 to 8	66
20	36+740	37+018	278	-	-	-	5 to 8	278

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sl. No.	Design Chainage		Length (m)	Chainage		Length (m)	Minimum Height (m)	Total Length including Both Sides (m)
	From	To		From	To			
	LHS			RHS				
21	37+022	37+232	210	-	-	-	5 to 8	210
22	-	-	-	37+700	37+831	131	5 to 8	131
23	37+835	37+920	85	-	-	-	5 to 8	85
24	39+200	39+238	38	-	-	-	5 to 8	38
25	41+380	41+433	53	-	-	-	5 to 8	53
26	-	-	-	41+437	41+640	203	5 to 8	203
27	43+455	43+620	165	-	-	-	5 to 8	165
28	-	-	-	44+517	44+600	83	5 to 8	83
29	-	-	-	55+238	55+326	88	5 to 8	88
30	-	-	-	55+330	55+420	90	5 to 8	90
31	56+760	56+943	183	-	-	-	5 to 8	183
32	63+420	63+530	110	-	-	-	5 to 8	110
33	-	-	-	65+377	65+400	23	5 to 8	23
34	-	-	-	66+478	66+580	102	5 to 8	102
35	-	-	-	67+220	67+300	80	5 to 8	80
36	-	-	-	67+670	67+694	24	5 to 8	24
37	-	-	-	67+698	67+740	42	5 to 8	42
38	71+650	71+845	195	-	-	-	5 to 8	195
39	-	-	-	75+340	75+500	160	5 to 8	160
40	75+802	75+880	78	-	-	-	5 to 8	78
41	-	-	-	76+585	76+600	15	5 to 8	15
42	-	-	-	76+604	76+660	56	5 to 8	56
43	76+980	77+051	71	-	-	-	5 to 8	71
44	77+063	77+080	17	-	-	-	5 to 8	17
45	77+780	77+855	75	-	-	-	5 to 8	75
46	-	-	-	77+859	77+940	81	5 to 8	81
47	78+880	79+096	216	-	-	-	5 to 8	216
48	-	-	-	80+100	80+310	210	5 to 8	210
49	-	-	-	80+900	80+950	50	5 to 8	50
50	82+560	82+600	40	-	-	-	5 to 8	40
51	-	-	-	88+000	88+040	40	5 to 8	40
52	-	-	-	97+210	97+300	90	5 to 8	90
53	-	-	-	97+695	97+727	32	5 to 8	32
54	99+000	99+298	298	-	-	-	5 to 8	298
55	-	-	-	99+323	99+360	37	5 to 8	37
56	-	-	-	99+820	99+853	33	5 to 8	33
57	99+867	99+900	33	-	-	-	5 to 8	33
58	-	-	-	102+960	103+040	80	5 to 8	80
59	103+580	104+170	590	-	-	-	5 to 8	590
60	-	-	-	110+120	110+170	50	5 to 8	50
61	110+170	110+269	99	-	-	-	5 to 8	99
62	110+281	110+460	179	-	-	-	5 to 8	179

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

12 Open Well within ROW

The Open well shall be identified and appropriate treatment shall be provided.

Sr. No.	Design Chainage	Well Dimension	Well Depth	Filling Material for Well	Slab on Top of Well Yes/No	Remarks
NIL						

13 Shifting of Utilities

The Concessionaire shall undertake the work of shifting of any utility (including electric lines, water pipes, gas pipelines and telephone cables) to an appropriate location or alignment, in accordance with the provisions of Concession Agreement.

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

13.2 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 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 crossings to underground as per requirement of Utility owning Department and/or construction of project highway. The Concessionaire shall carry out joint inspection with Utility Owning Department and get the estimates from Utility Owning Department. The assistance of the Authority is limited to giving forwarding letter on the proposal of Concessionaire to Utility Owning Department whenever asked by the Concessionaire. The decision/approval of Utility owning Department shall be binding on the Concessionaire.

13.3 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 Concessionaire/Contractor furnished demand of Utility Owning Department along with a copy of estimated cost given by the latter.

13.4 The dismantled material/scrap of existing Utility to be shifted/dismantled shall belong to the Concessionaire/Contractor who would be free to dispose-off the dismantled material as deemed fit by them unless the Concessionaire/Contractor is required to deposit the dismantled material to Utility Owning Department as per the norms and practice and, in that case the amount of credit for dismantled material may be availed by the Concessionaire/Contractor as per the estimate agreed between them.

13.5 The utilities shall be handed over after shifting work is completed to Utility Owning Department up to their entire satisfaction. The maintenance liability shall rest with the Utility Owning Department after handing over process is complete as far as utility

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

shifting works are concerned.

- 13.6** Existing lights, junction boxes, connection to individual properties along the affected section shall be disconnected and reconnected as part of utility relocation and the same shall be in the scope of the Concessionaire/ Contractor.

Note I: - Copy of Utility shifting plans enclosed.

14 Work Zone Traffic Management Plans (Clause No. 7.19 IRC: SP: 84-2019)

The traffic diversion plans shall be prepared as per IRC SP 55 for smooth flow of traffic and safety. A diversion plan shall be proposed for construction of Grade Separated Structures. It should also be ensured that at all times during construction minimum 5.5 width equivalent to temporary carriageway width be available for movement of traffic.

Sl. No.	Type Of Structure	Construction Activity	Diversion	Traffic Management Plan	Barri- cading Type – III/IV/ CC Barrie- r with Lighti- ng along barrie- r	Deployment of Flagman in Habitation/ Schools/Hospital, etc.
1	Flyover	Flyover Construction	Bituminous service road will be used	As per Annex IV of Schedule B fig no. 14.1 and 14.2.	III/ CC	-
2	LVUP	LVUP Construction	Bituminous service road will be used	As per Annex IV of Schedule B fig no. 14.1 and 14.2.	III/ CC	-
3	SVUP	SVUP Construction	Bituminous service road will be used	As per Annex IV of Schedule B fig no. 14.1 and 14.2.	III/ CC	-

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sl. No.	Type Of Structure	Construction Activity	Diversion	Traffic Management Plan	Barriaging Type – III/IV/ CC Barrier with Lighting along barrier	Deployment of Flagman in Habitation/ Schools/Hospital, etc.
4	VOP	VOP Construction	Bituminous service road will be used	As per Annex IV of Schedule B fig no. 14.1 and 14.2.	IV/ CC	-
5	VUP	VUP Construction	Bituminous service road will be used	As per Annex IV of Schedule B fig no. 14.1 and 14.2.	III	

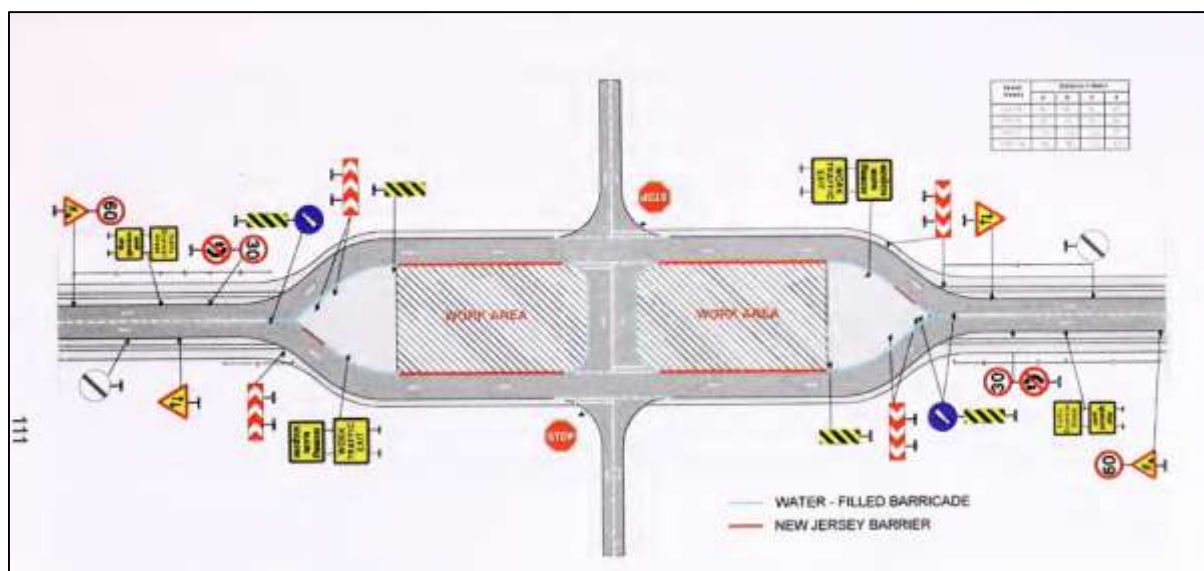


Fig no. 14.1 - Stage 1 Flyover/VUP construction

The layout shows the Stage-1 in flyover/VUP construction. In the first stage, the traffic will be diverted to a service road or temporary road. The turning movements

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

would continue at the existing intersection and construction of piers/embankment/RE wall would be taken up in the cordoned portion. Carefully planned pedestrian markings on the roads and protected safe passage for crossing of pedestrians shall be provided through work area.

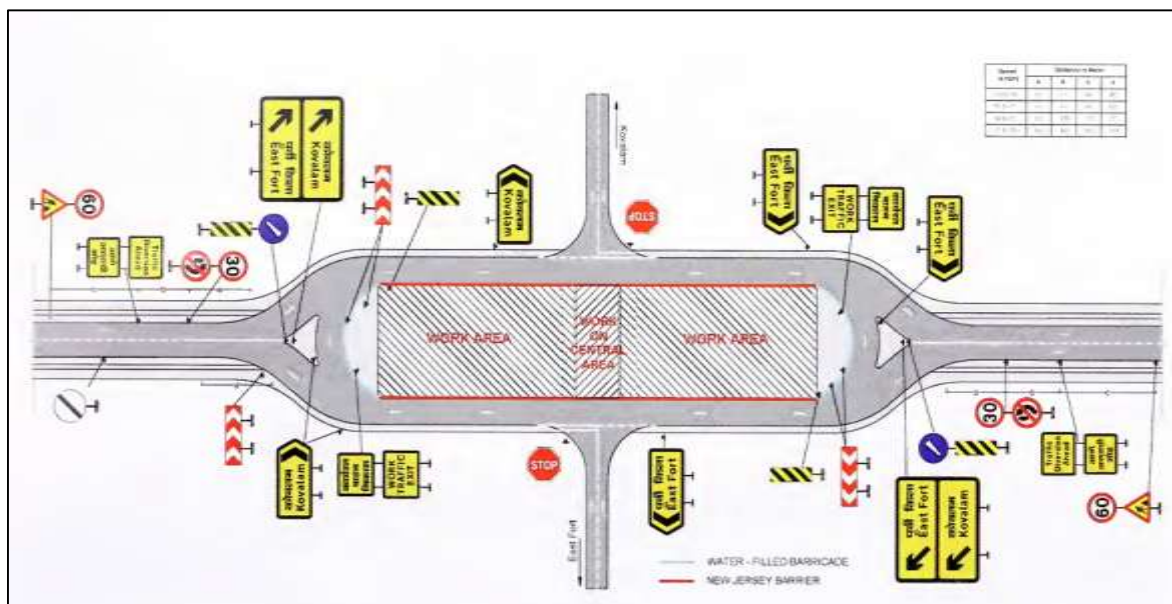
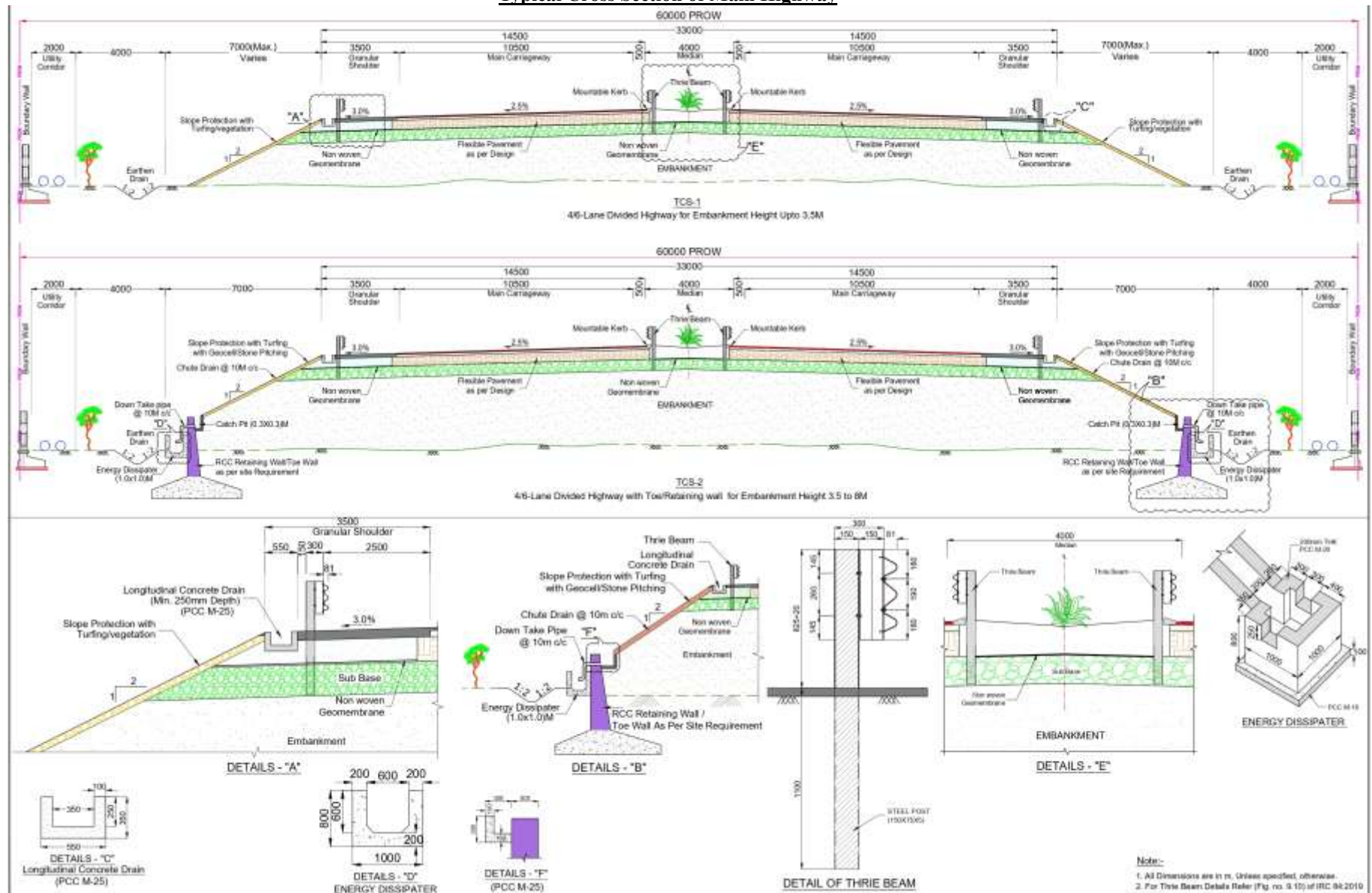


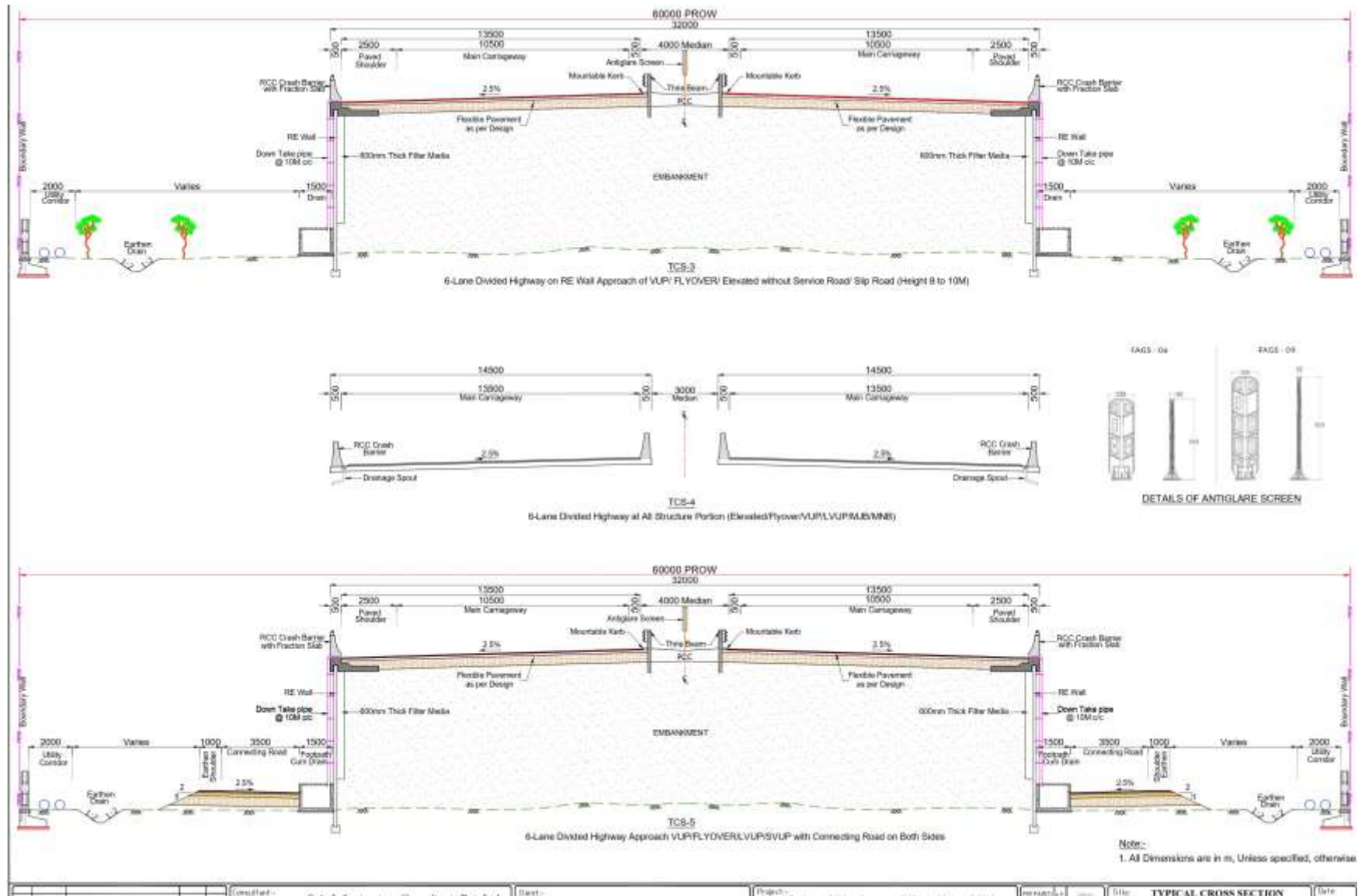
Fig no. 14.2 - Stage 2 Flyover/VUP construction

The layout shows Stage-2 of flyover/VUP construction. In the second stage, the central portion will be taken up and junction will be blocked for direct cross road movement. During this short period of time, cross road movement will be accommodated like a circulatory movement using U-turn, whereas the through traffic will continue to ply through service road/temporary road. Direction signs would be carefully planned and installed. Carefully planned pedestrian markings on the roads and protected safe passage for crossing of pedestrians shall be provided through work area.

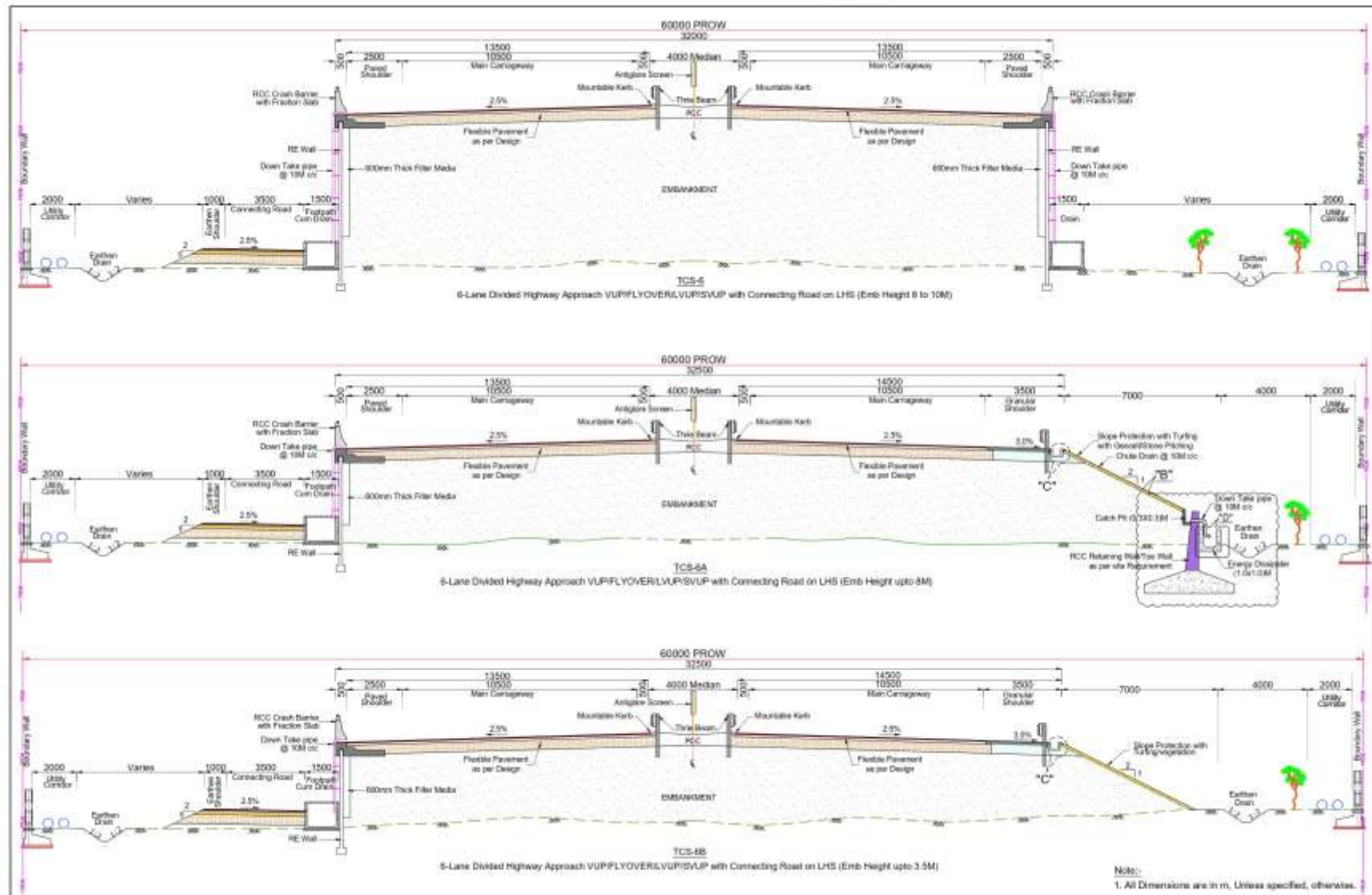
Annexure – II (Schedule – B)
Typical Cross Section of Main Highway



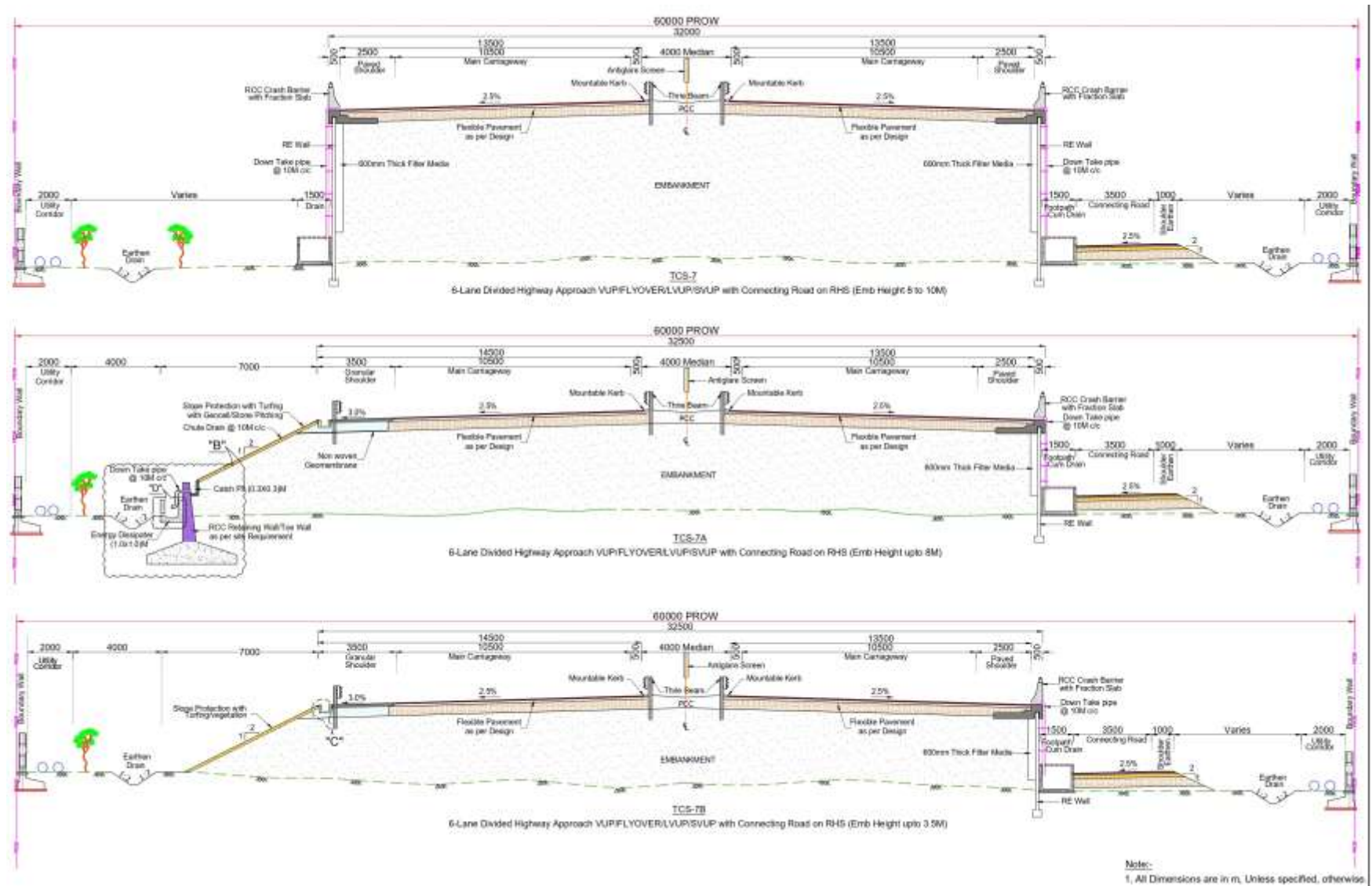
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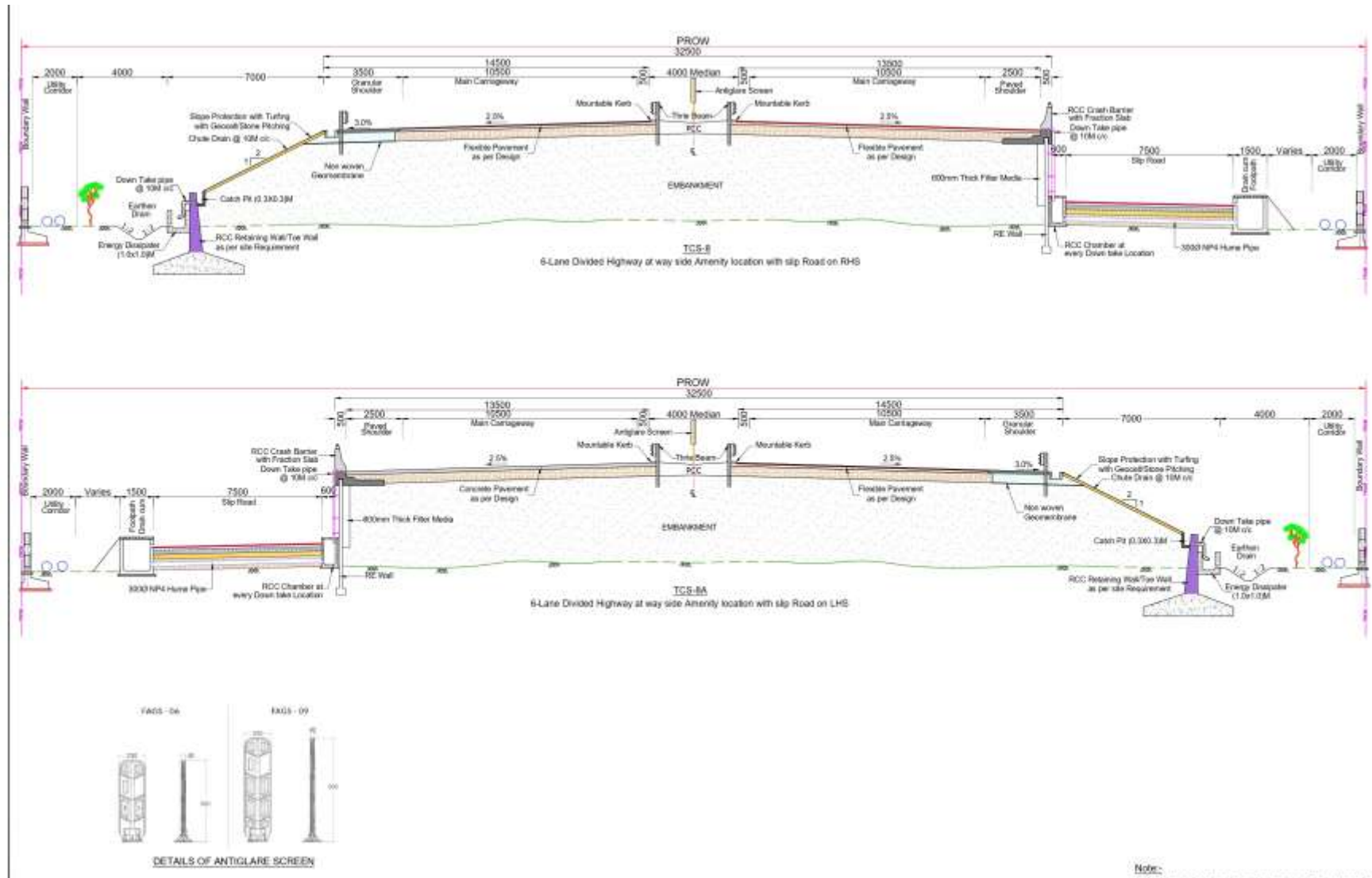
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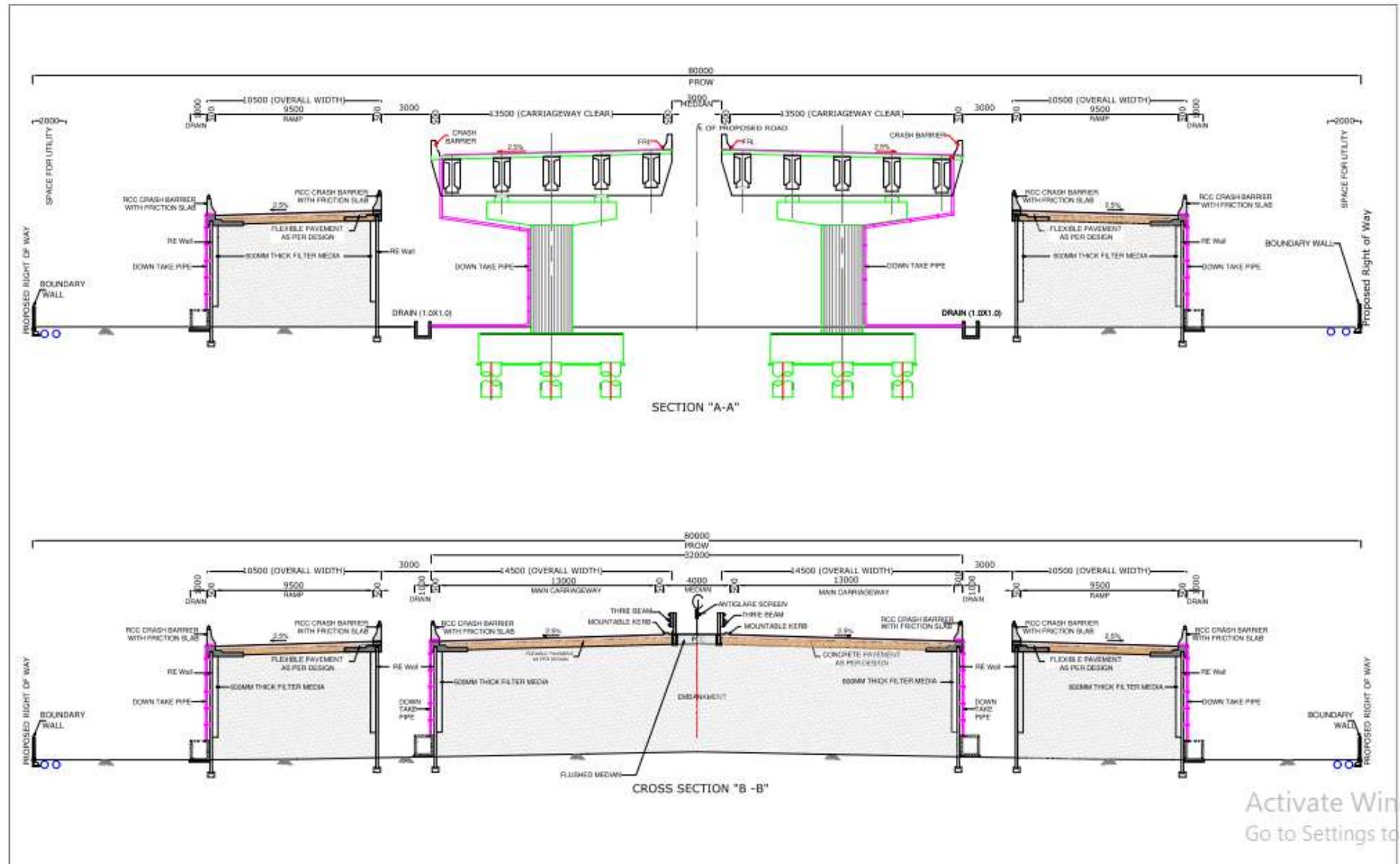
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The drawing illustrates the proposed bypass for NH-34, starting from Birhor and extending towards Kanpur Road. The alignment is shown with stationing from 85 to 130 (Taper) and 100 to 105 (Taper). The bypass includes a loop structure with various curve data and stationing points (e.g., Ch. 0+100, Ch. 0+200, Ch. 0+300, Ch. 0+400, Ch. 0+500, Ch. 0+600, Ch. 0+700, Ch. 0+800, Ch. 0+900, Ch. 1+000, Ch. 1+100, Ch. 1+200). The drawing also shows the existing road layout, including the Birhor road and the Kanpur Road. A legend is provided at the bottom right, defining the symbols used for the RE-Wall, DRAIN, and various road types (Loop-1 Toward Kanpur (NH-34), Loop-2 Toward Kanpur (Birhor), Slip RD LHS Toward Kanpur, Slip RD RHS Toward Kanpur (Birhor)).

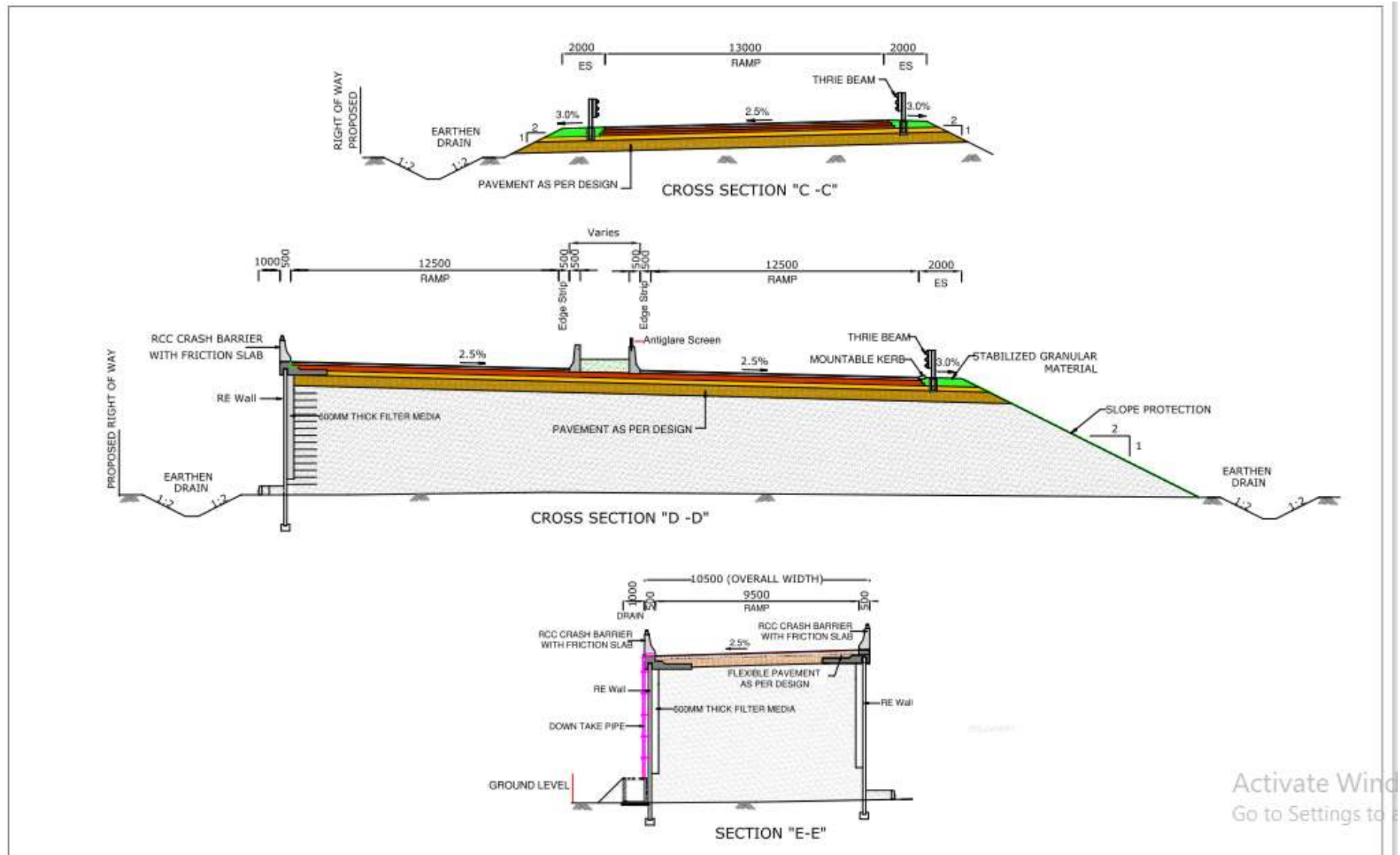
LEGEND :-

- RE-Wall
- DRAIN
- Loop-1 Toward Kanpur (NH-34)
- Loop-2 Toward Kanpur (Birhor)
- Slip RD LHS Toward Kanpur
- Slip RD RHS Toward Kanpur (Birhor)

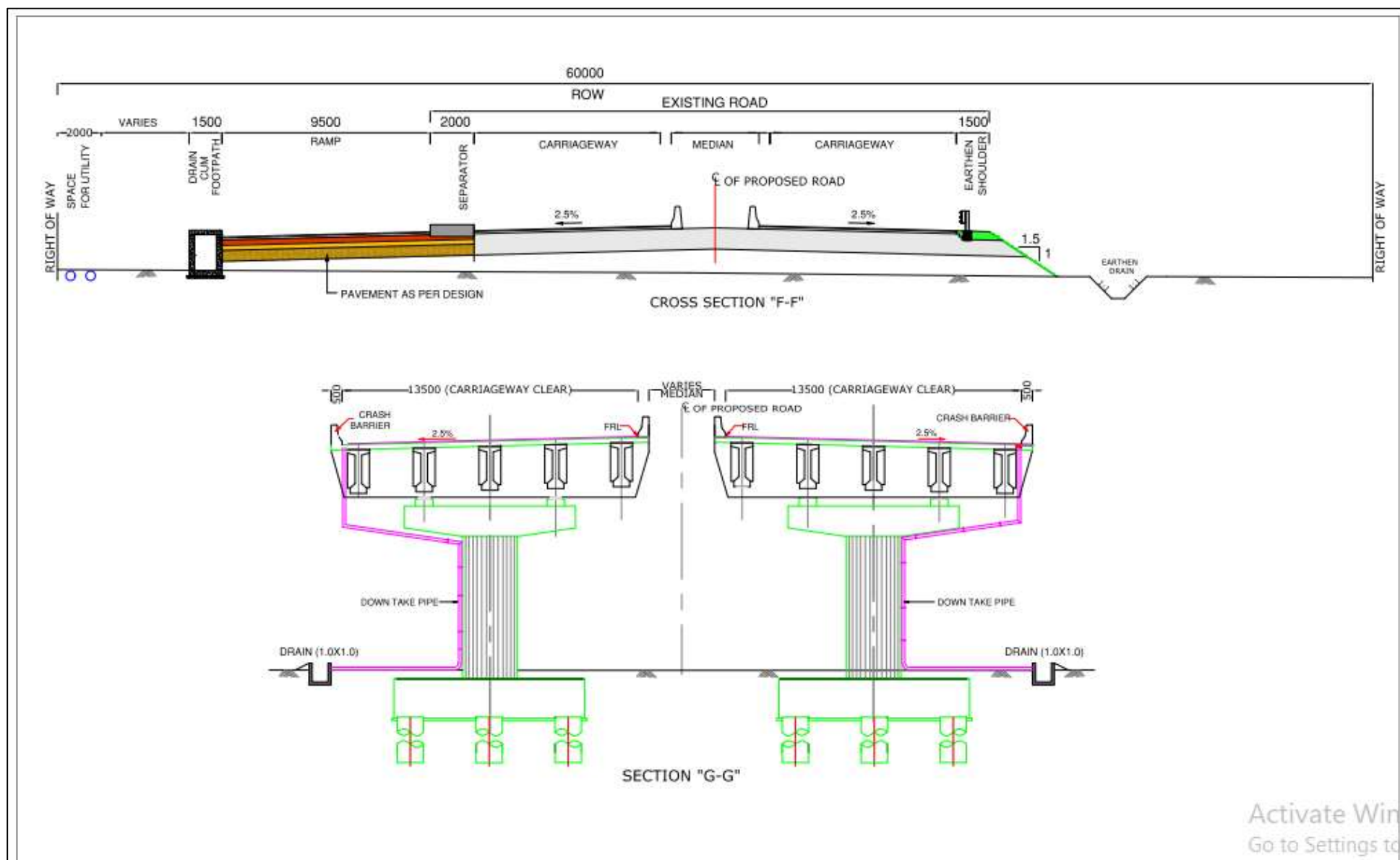
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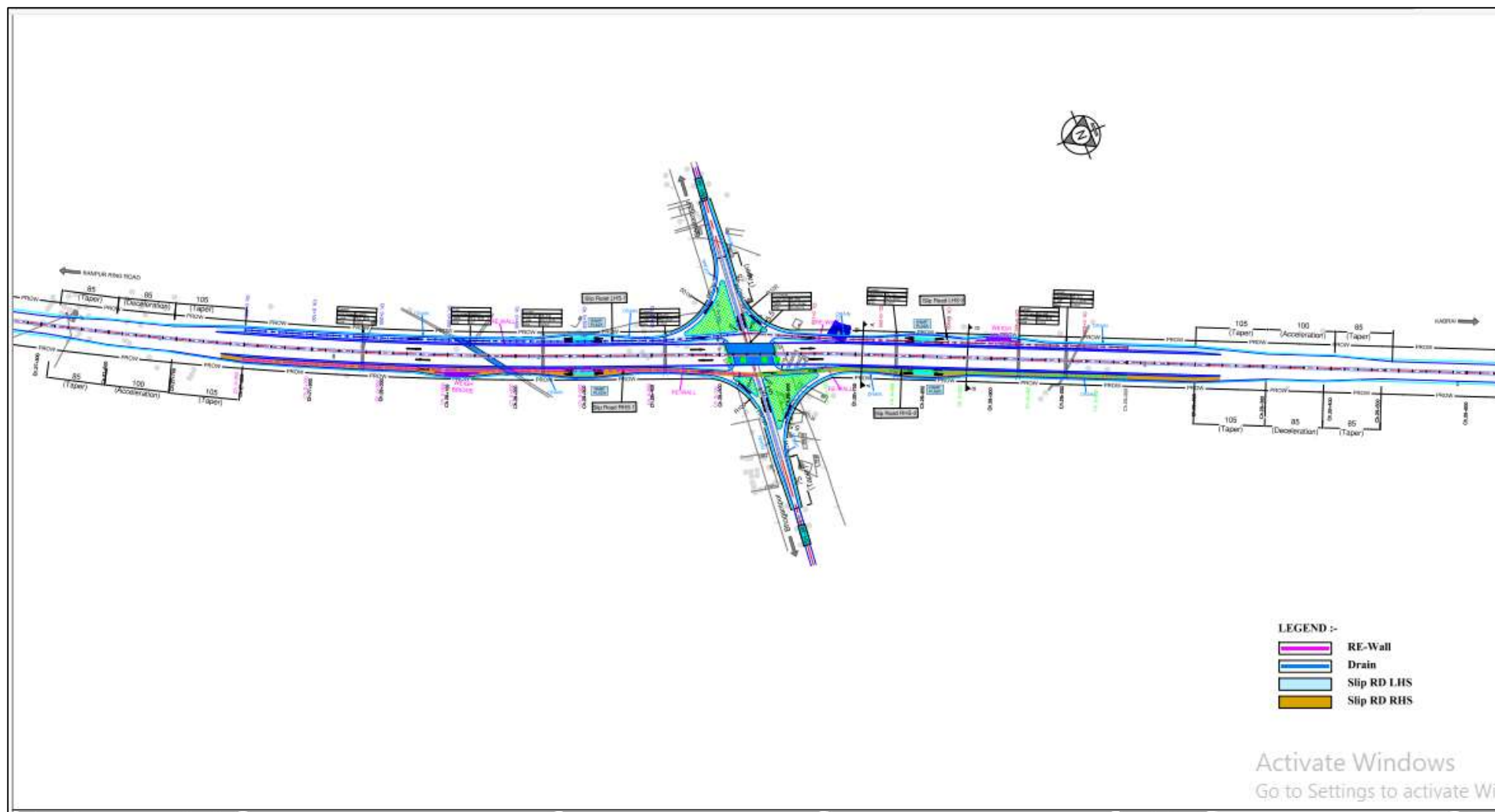
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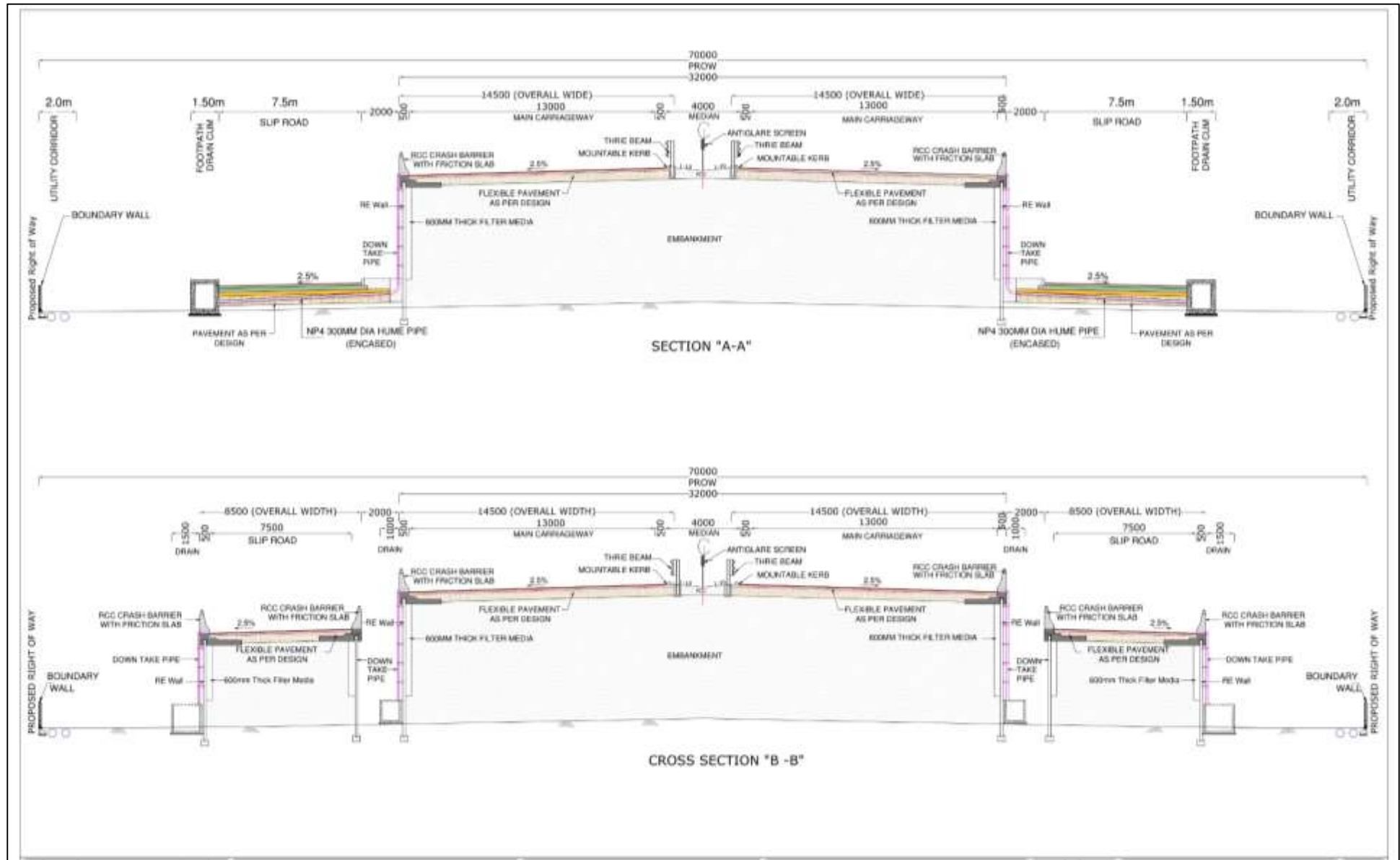
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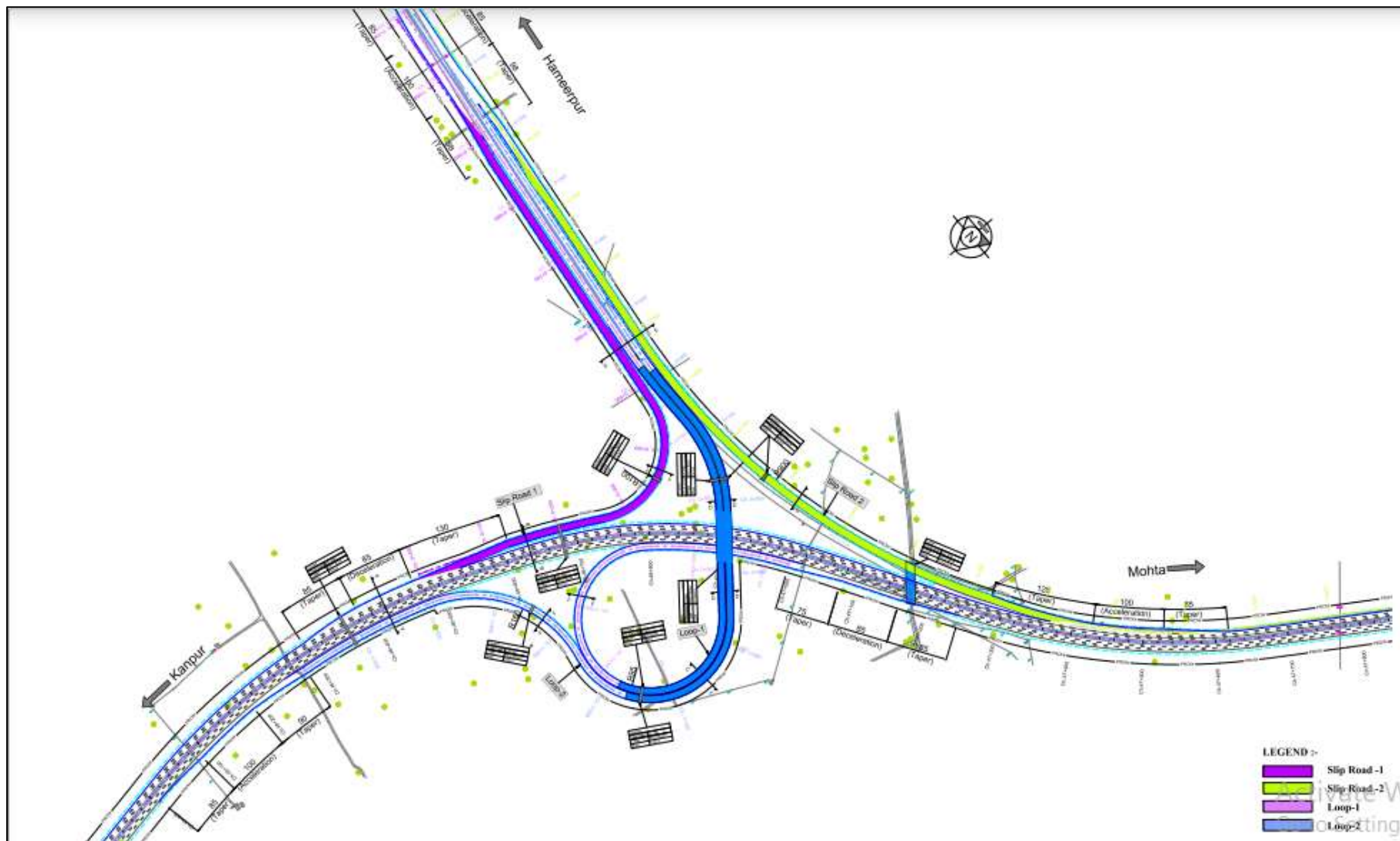
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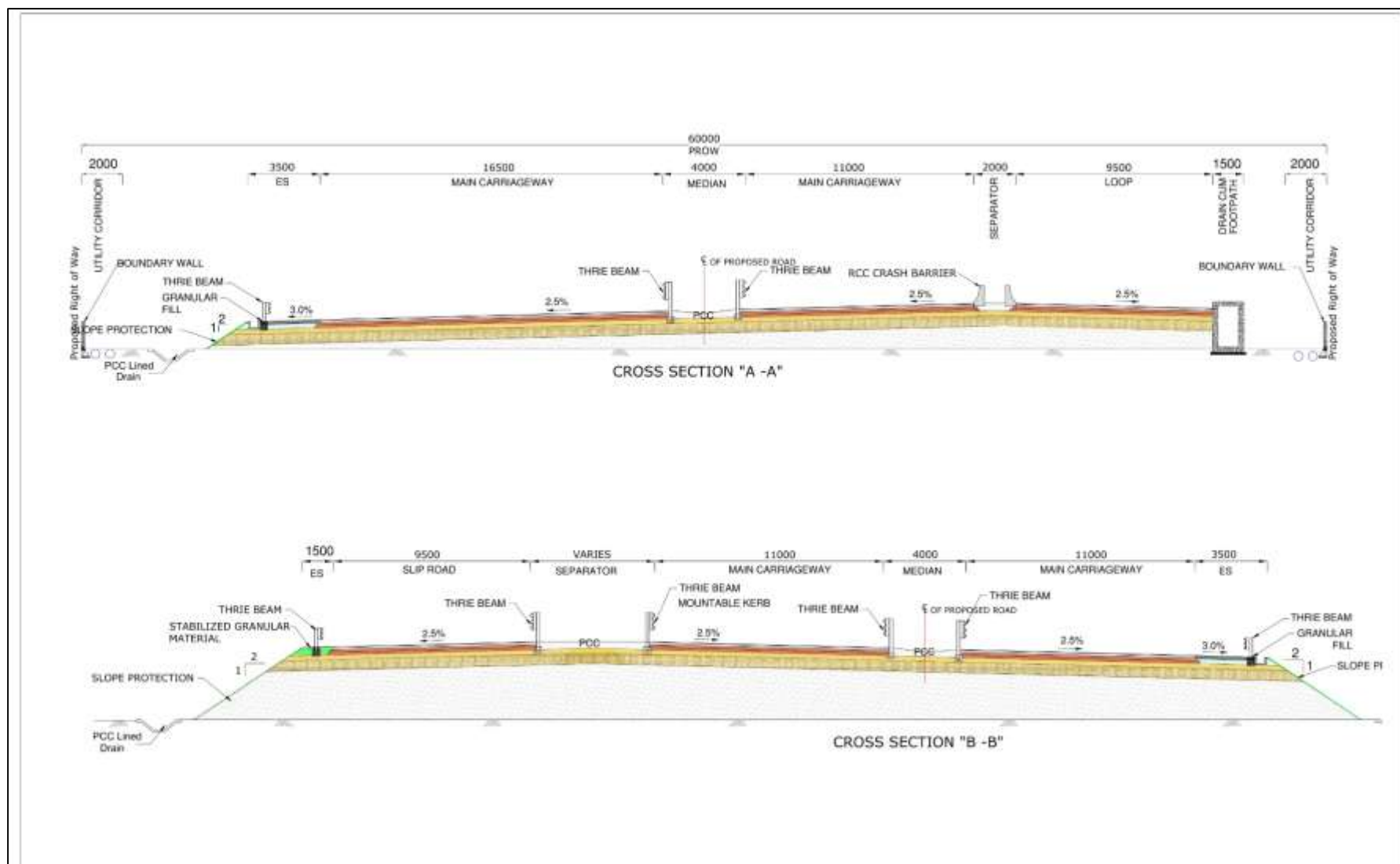
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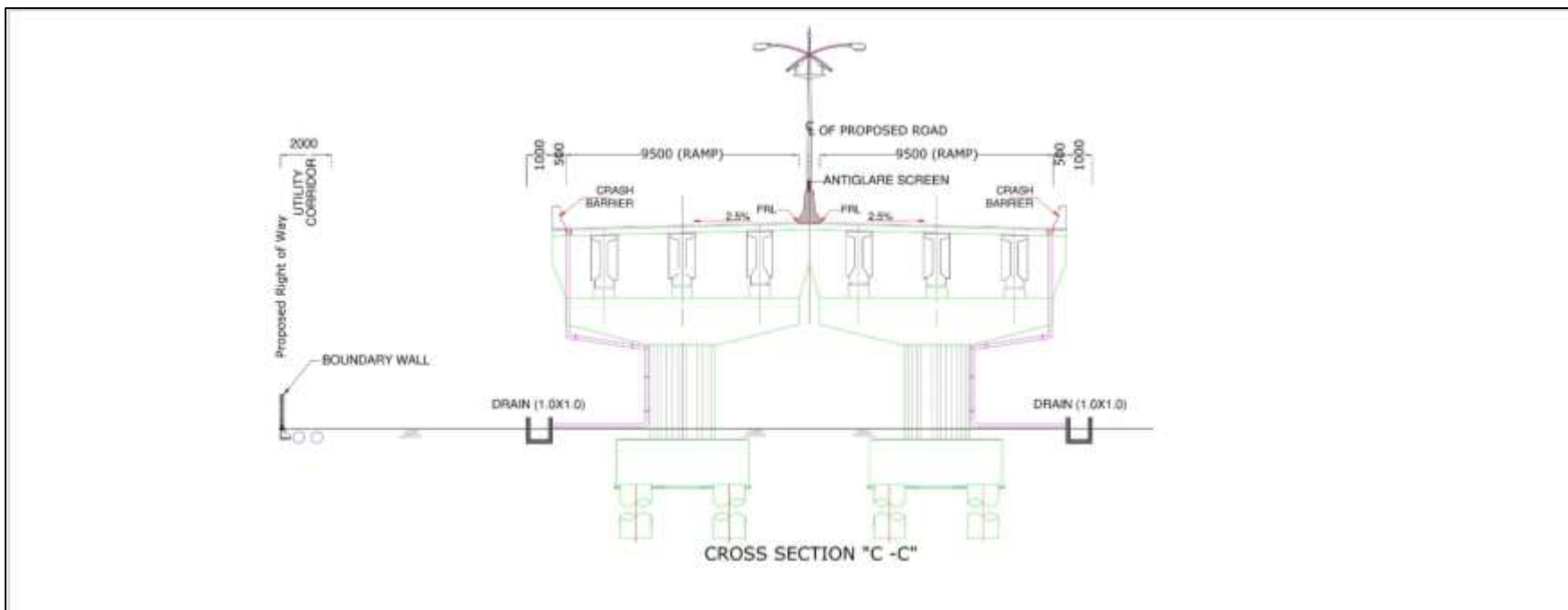
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Interchange at Chainage 46+000

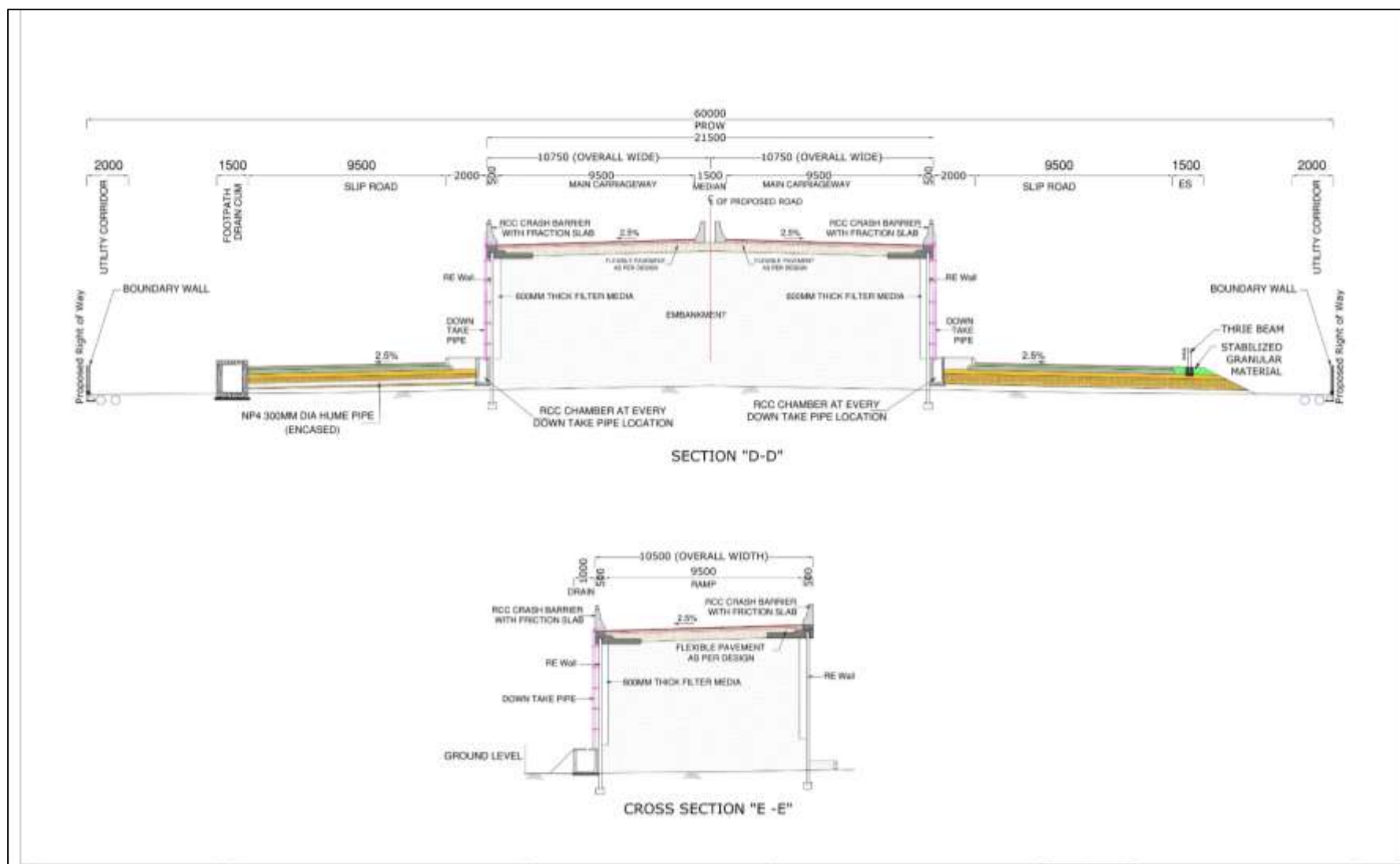
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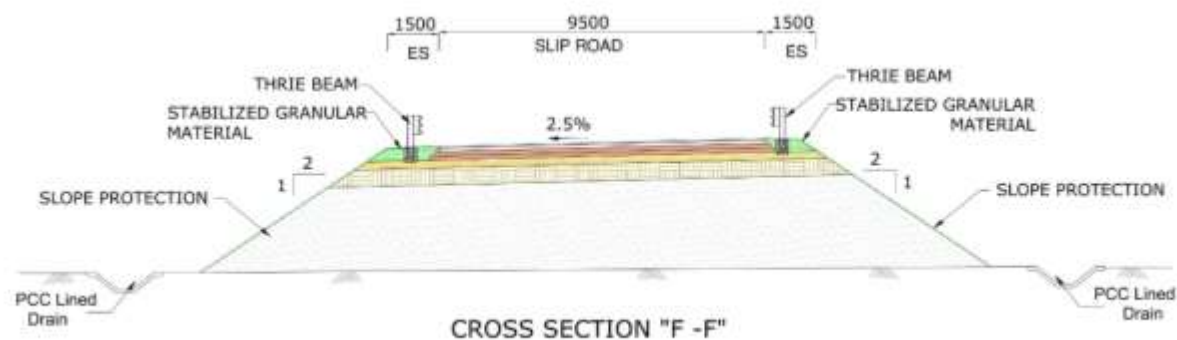
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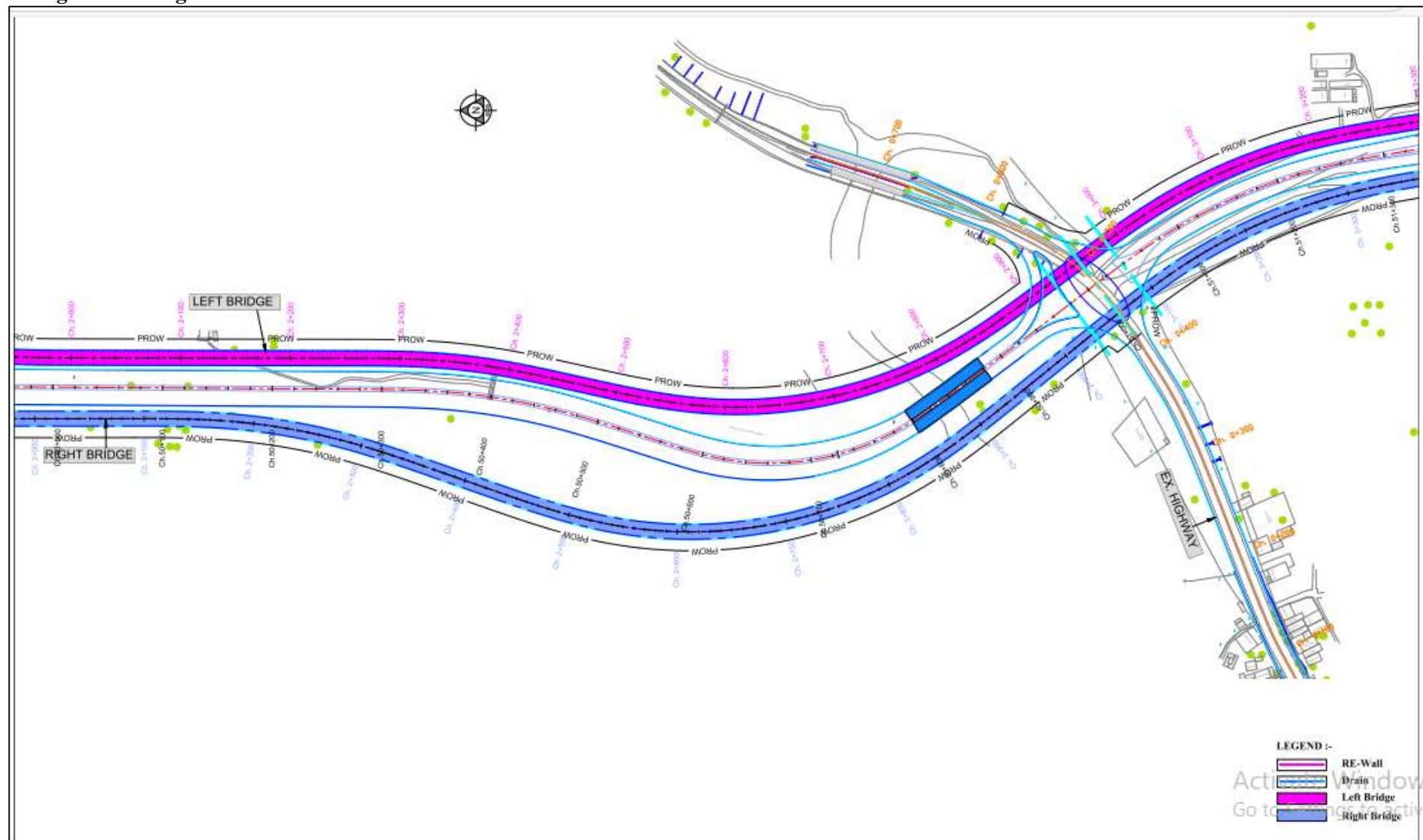
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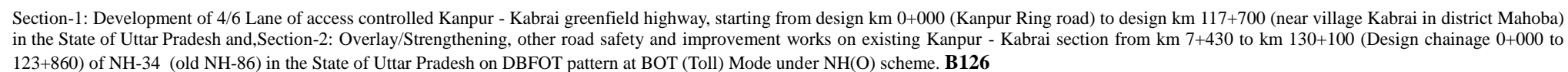
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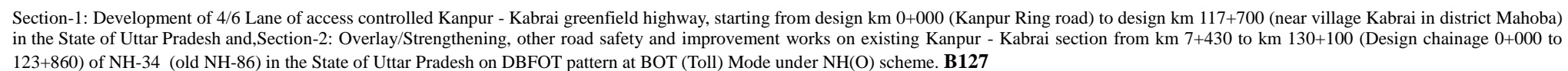


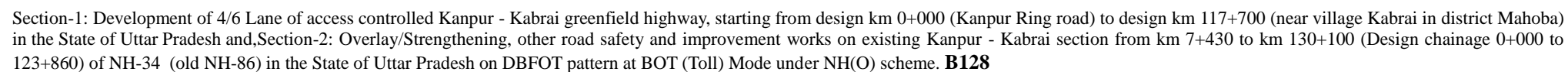
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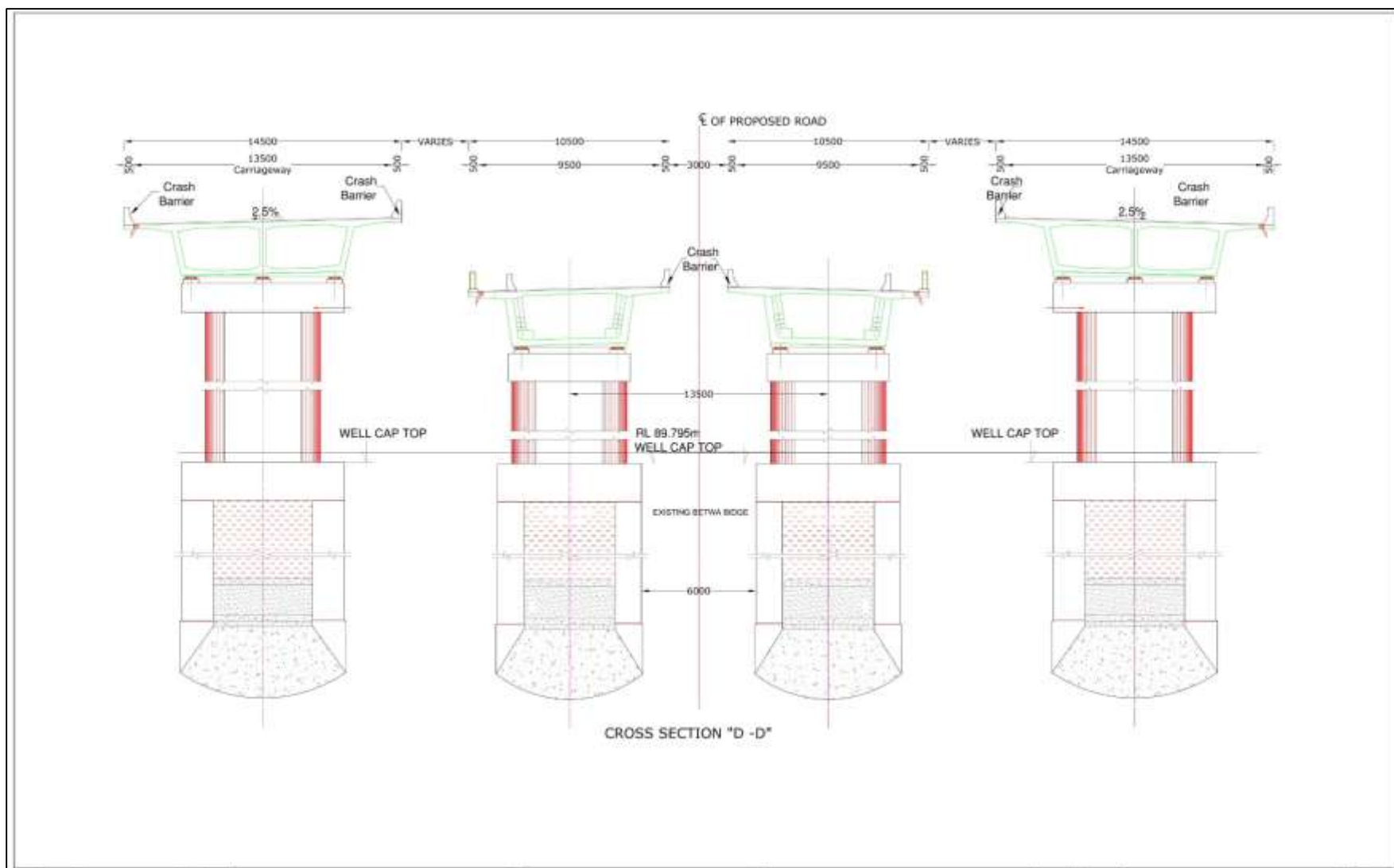
Interchange at Chainage 51+000

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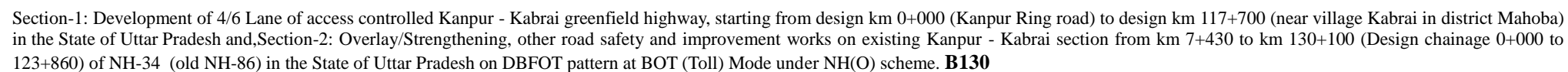


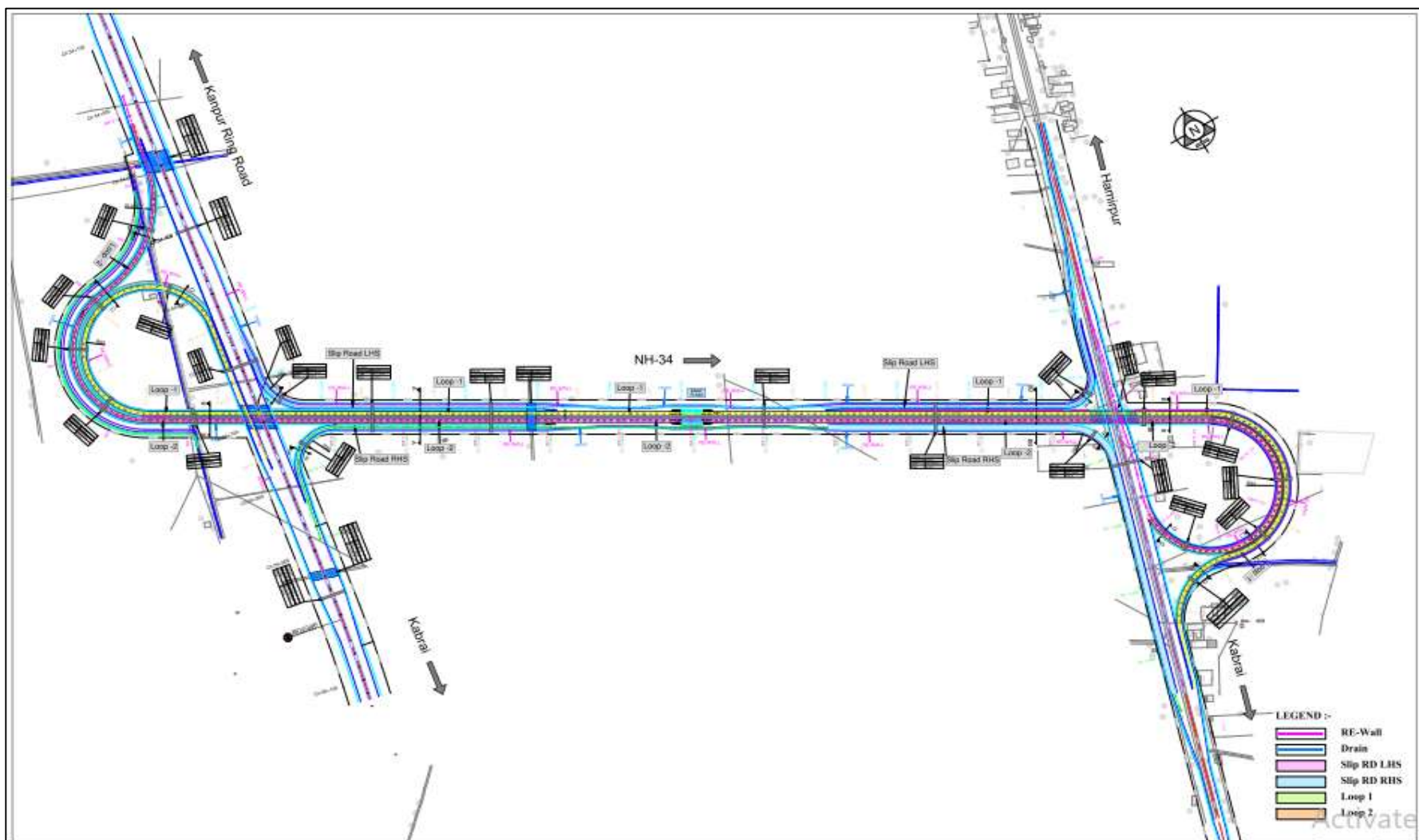




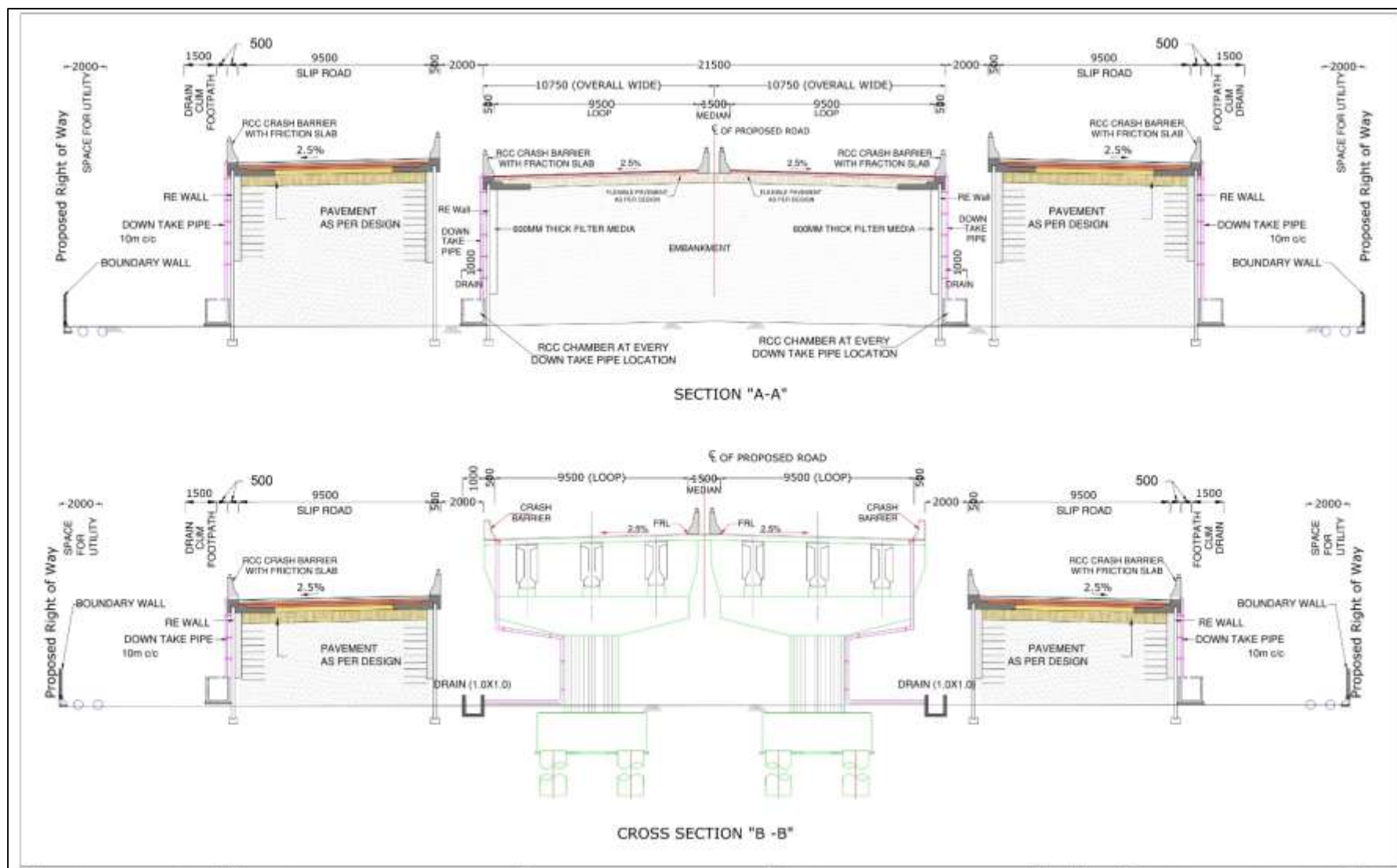


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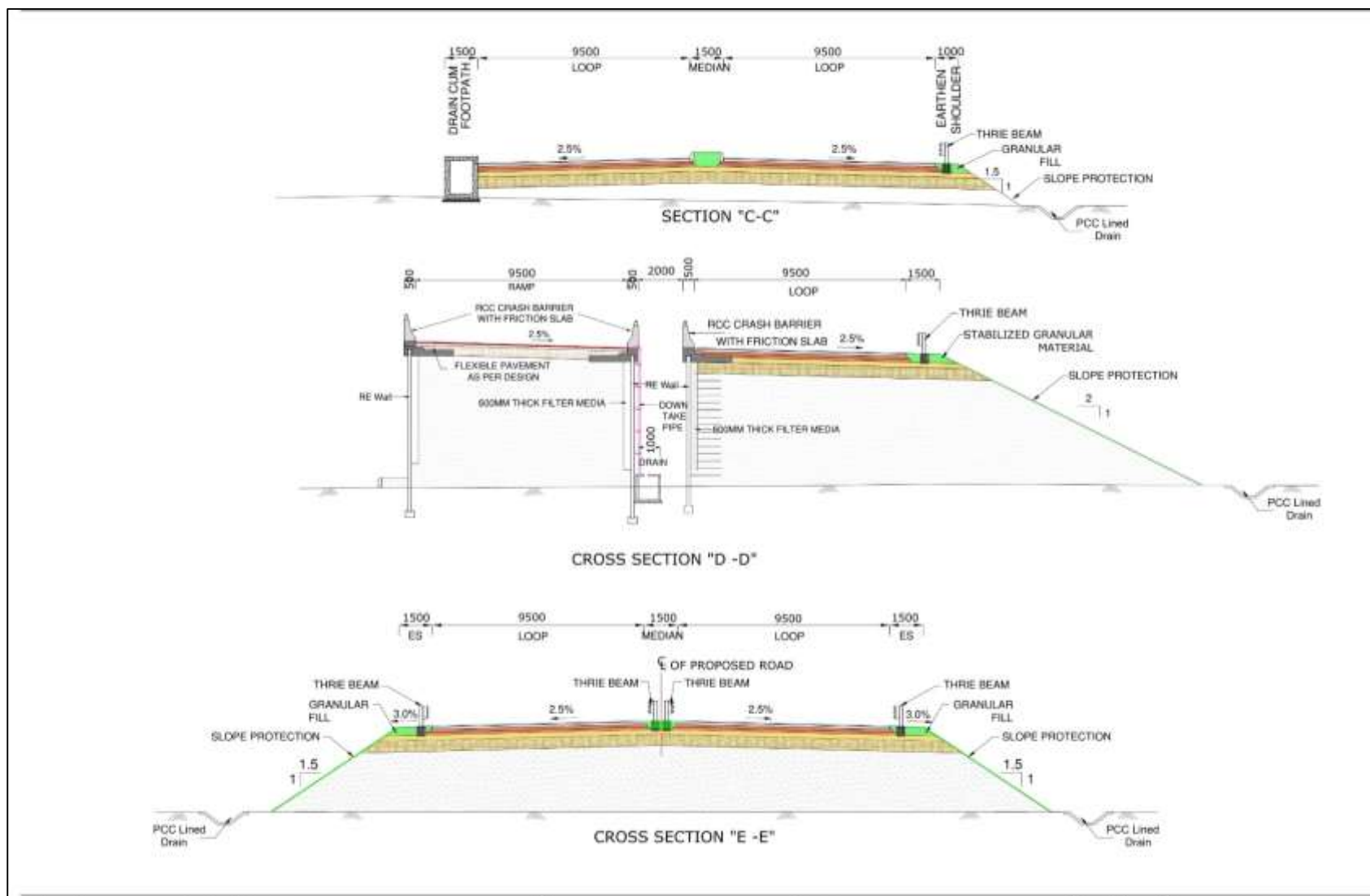


Interchange at Chainage 54+668

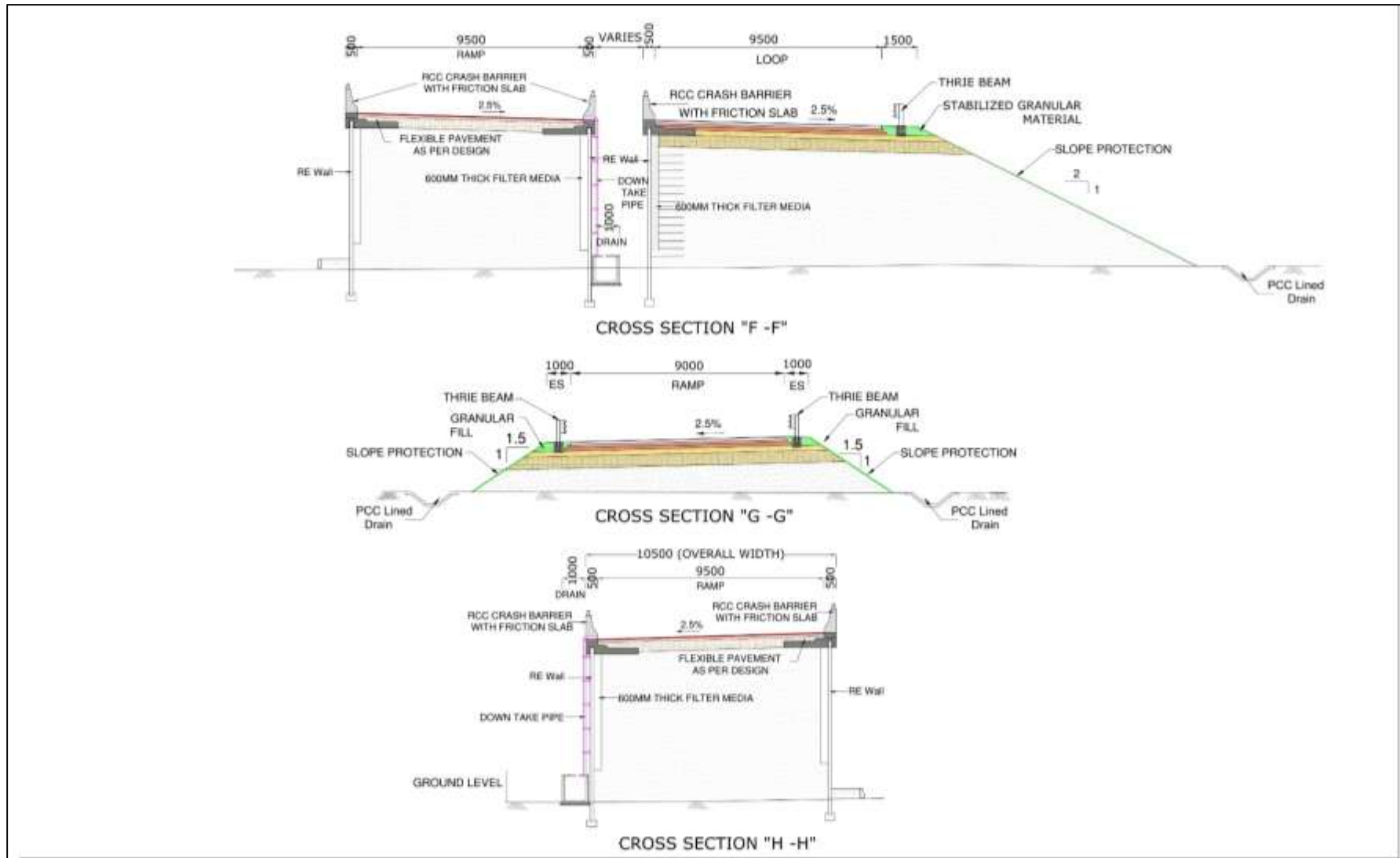
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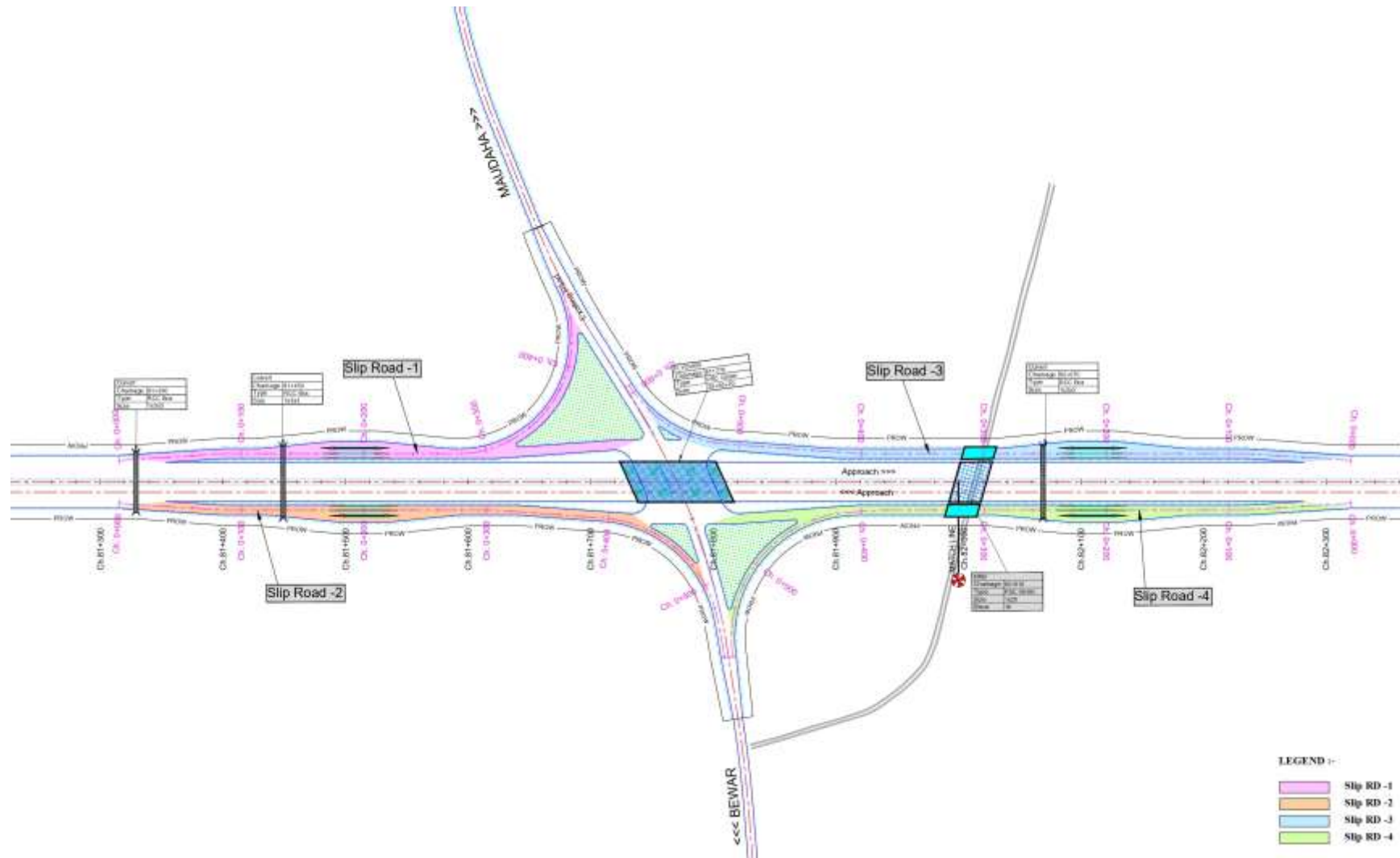
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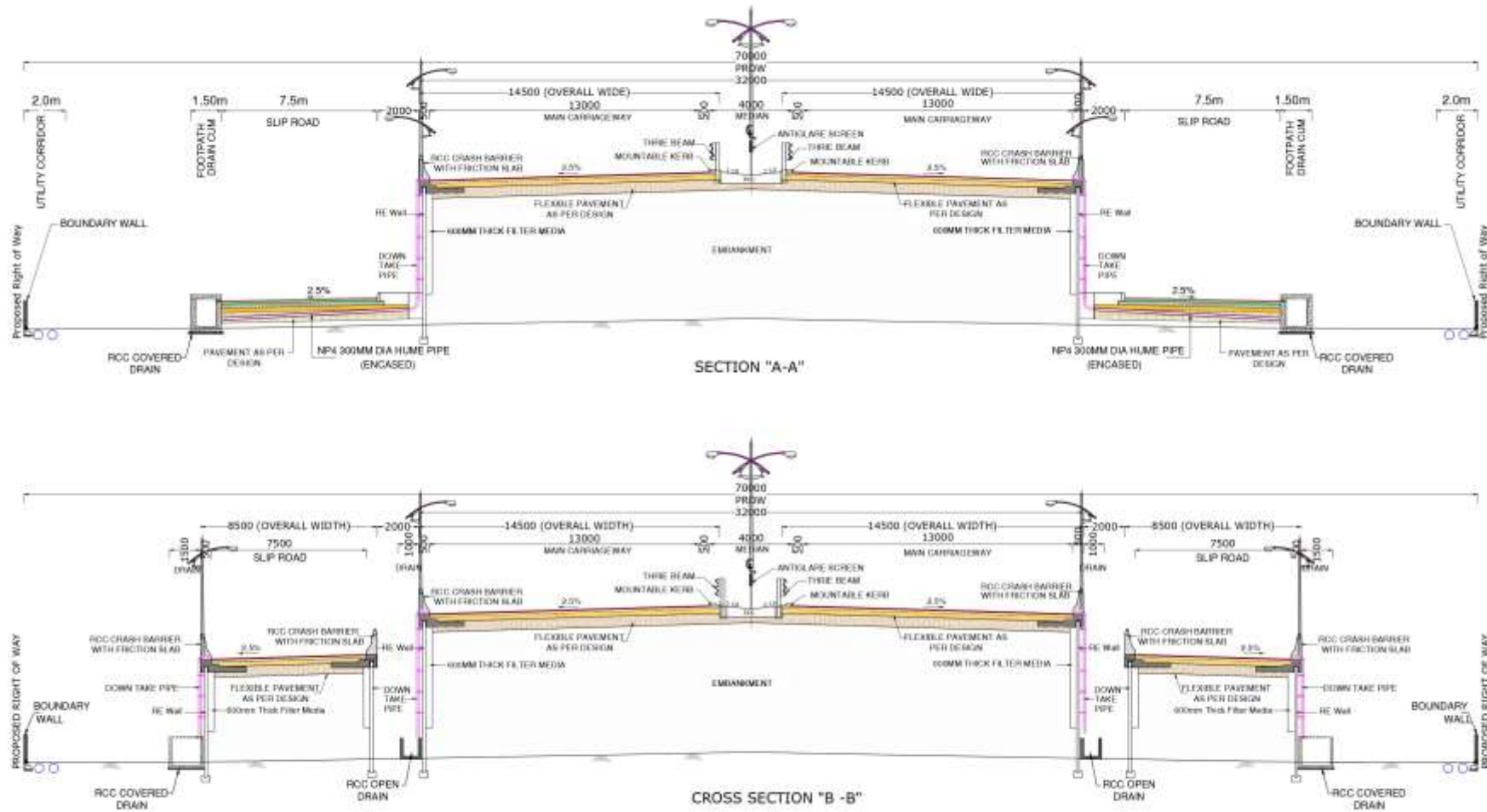
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Interchange at Chainage 81+770

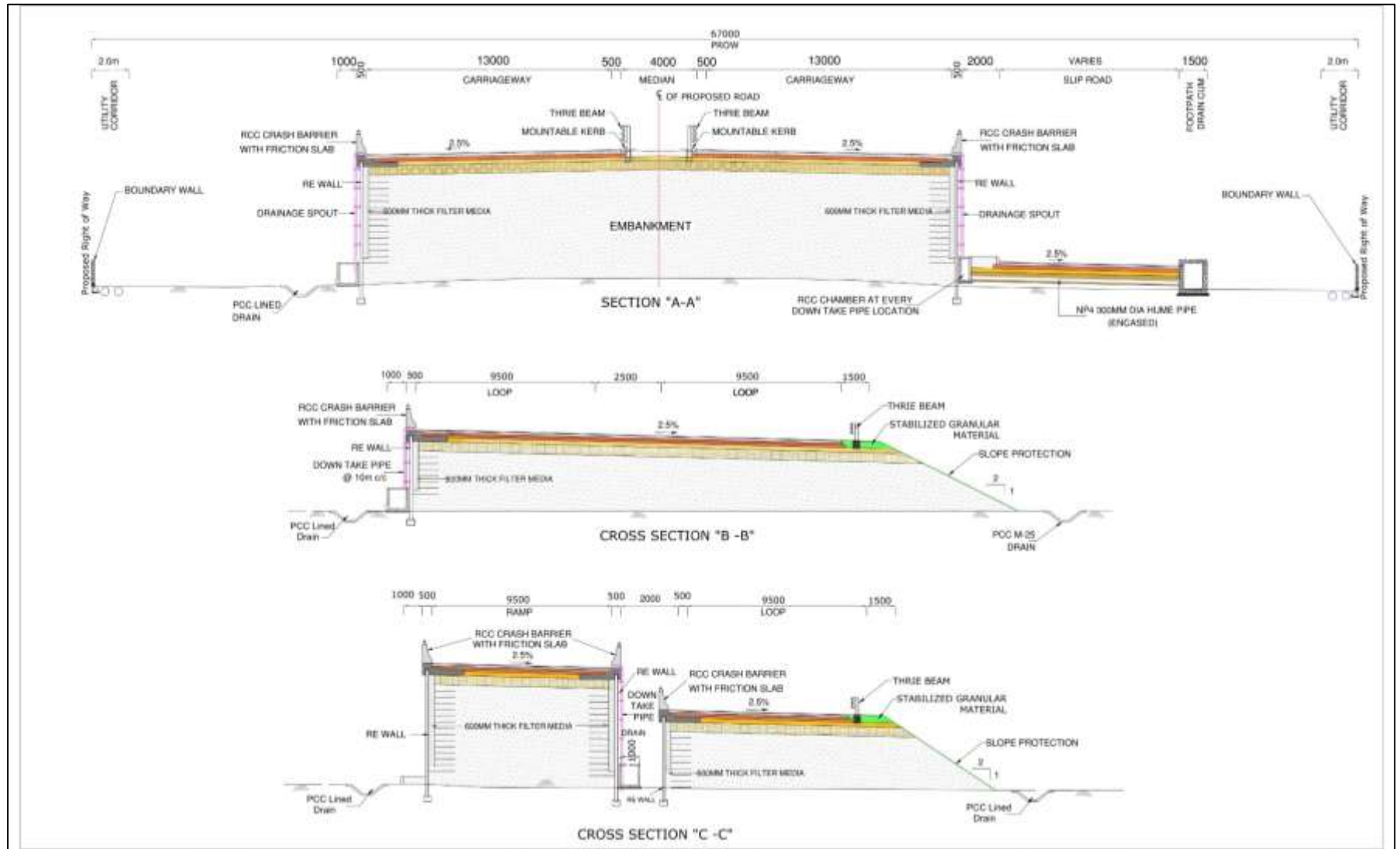
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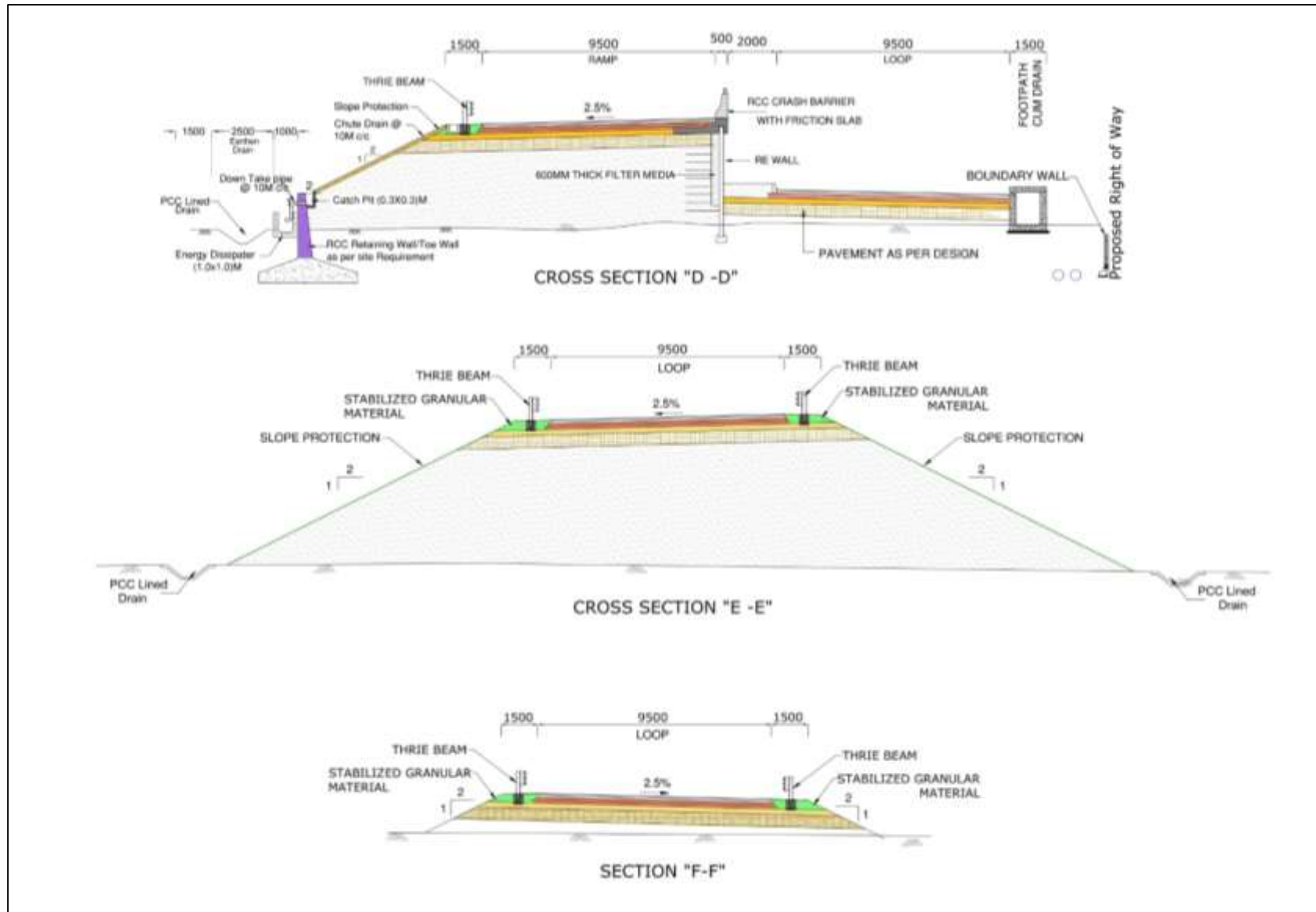
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Interchange at Chainage 94+000

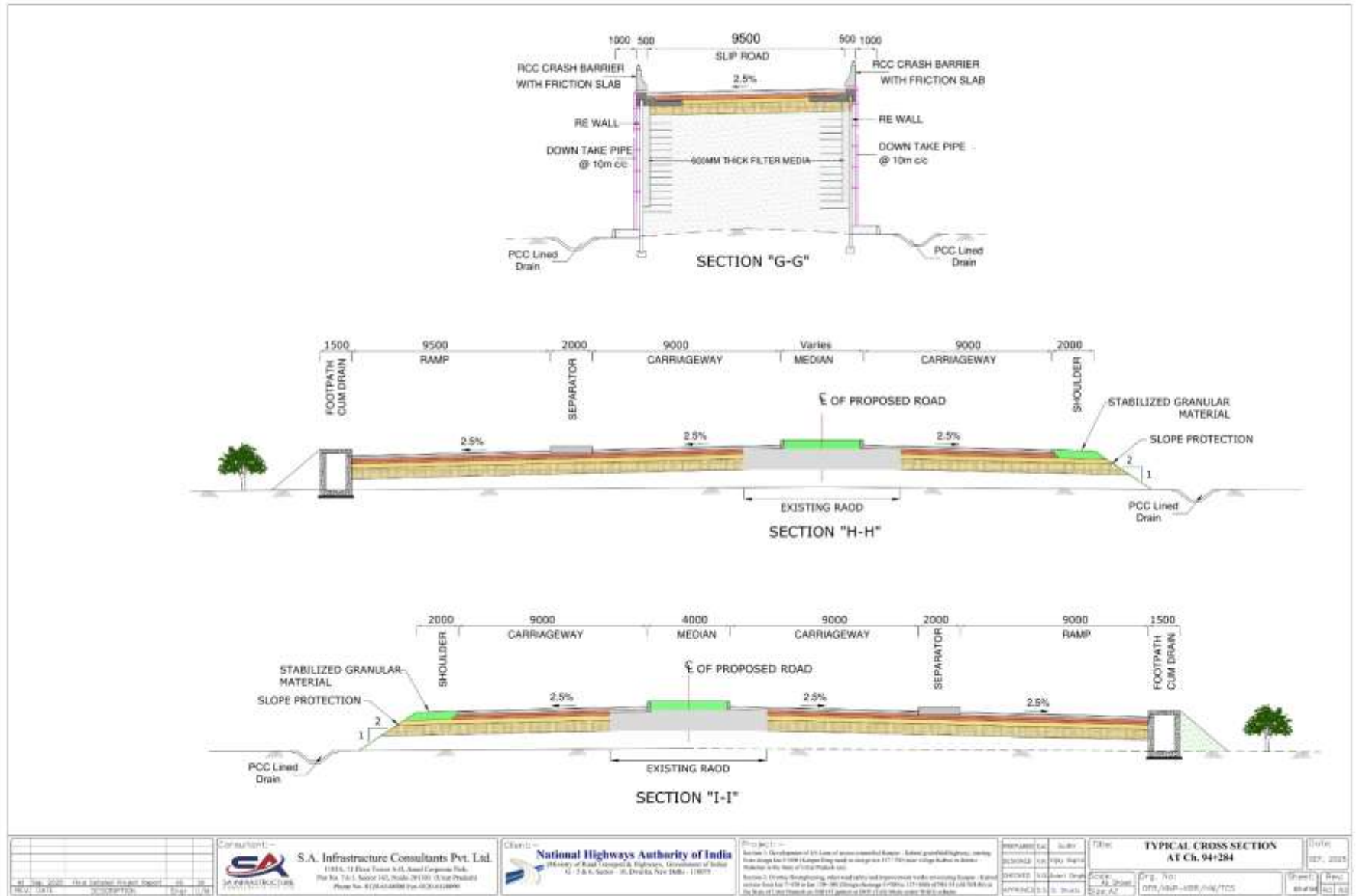
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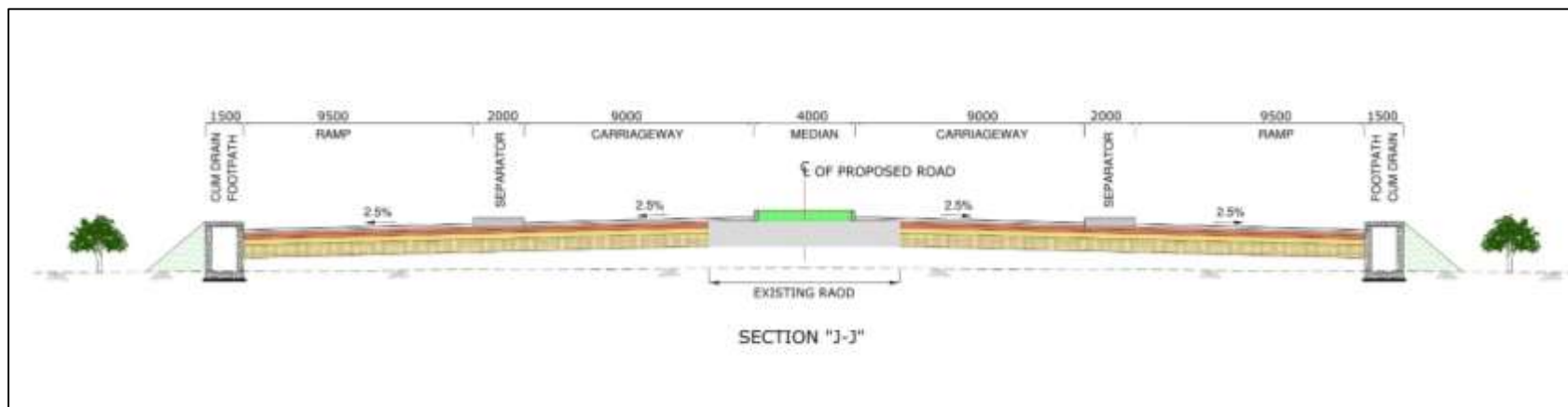
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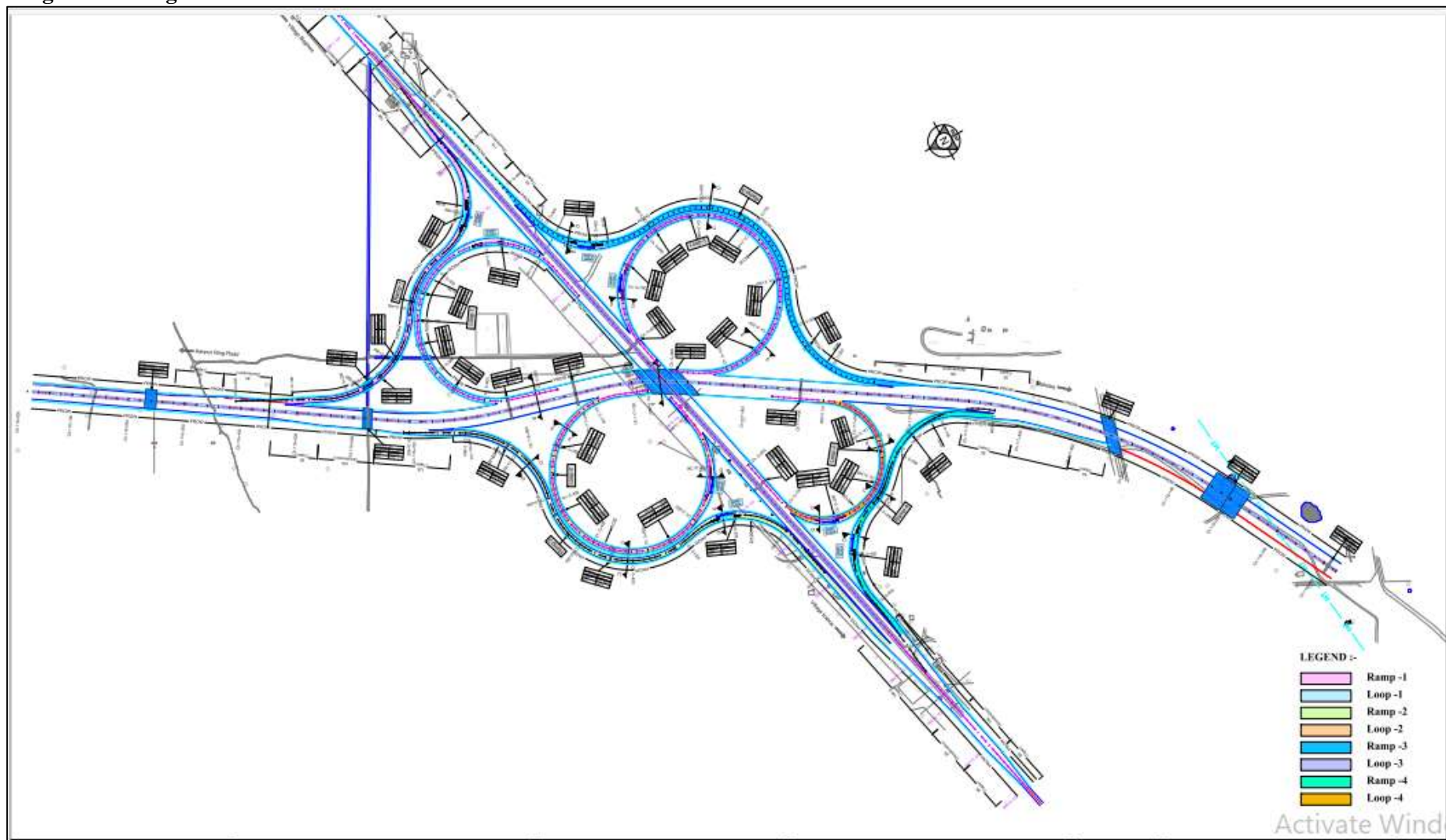
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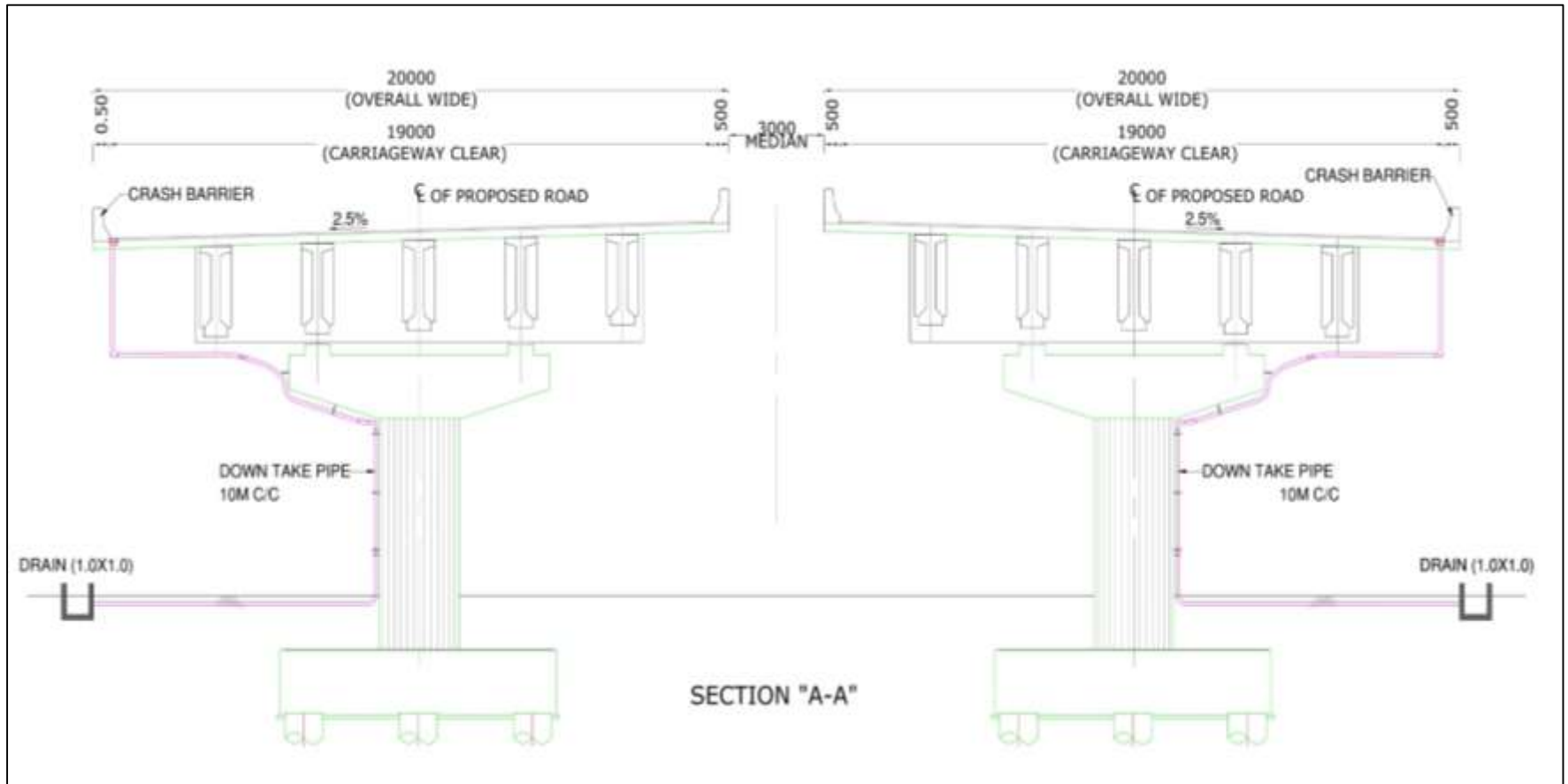
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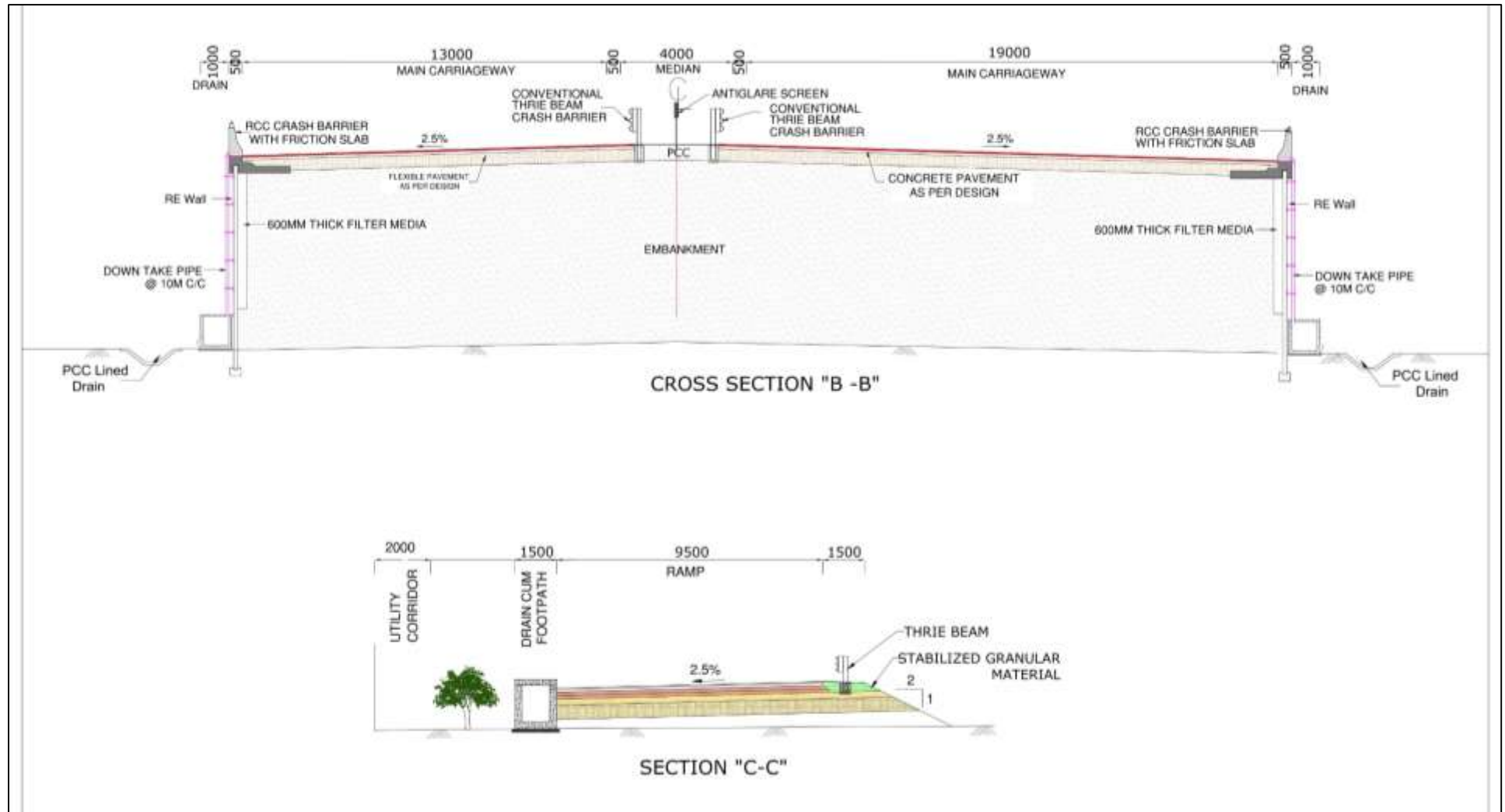
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Interchange at Chainage 117+000

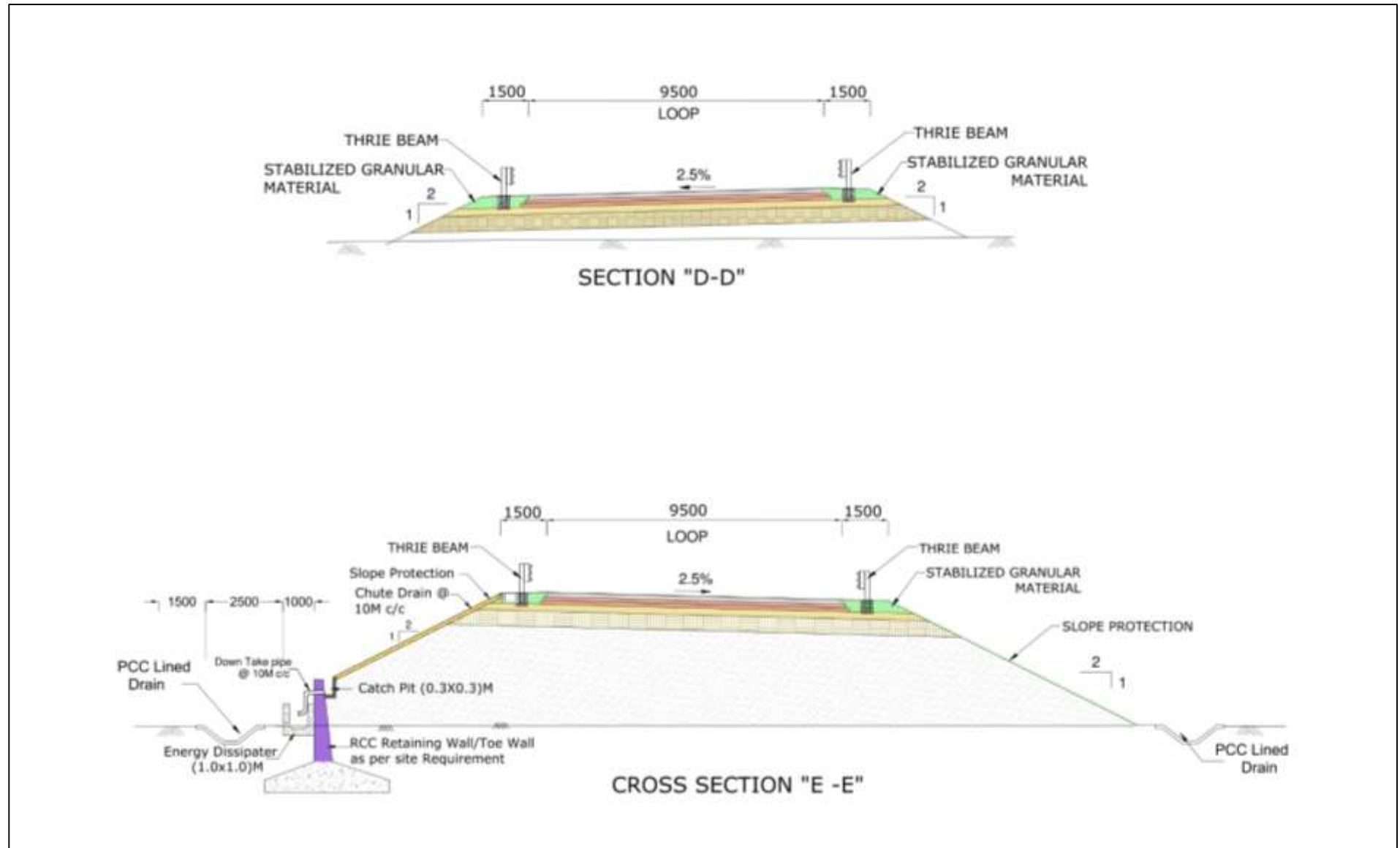
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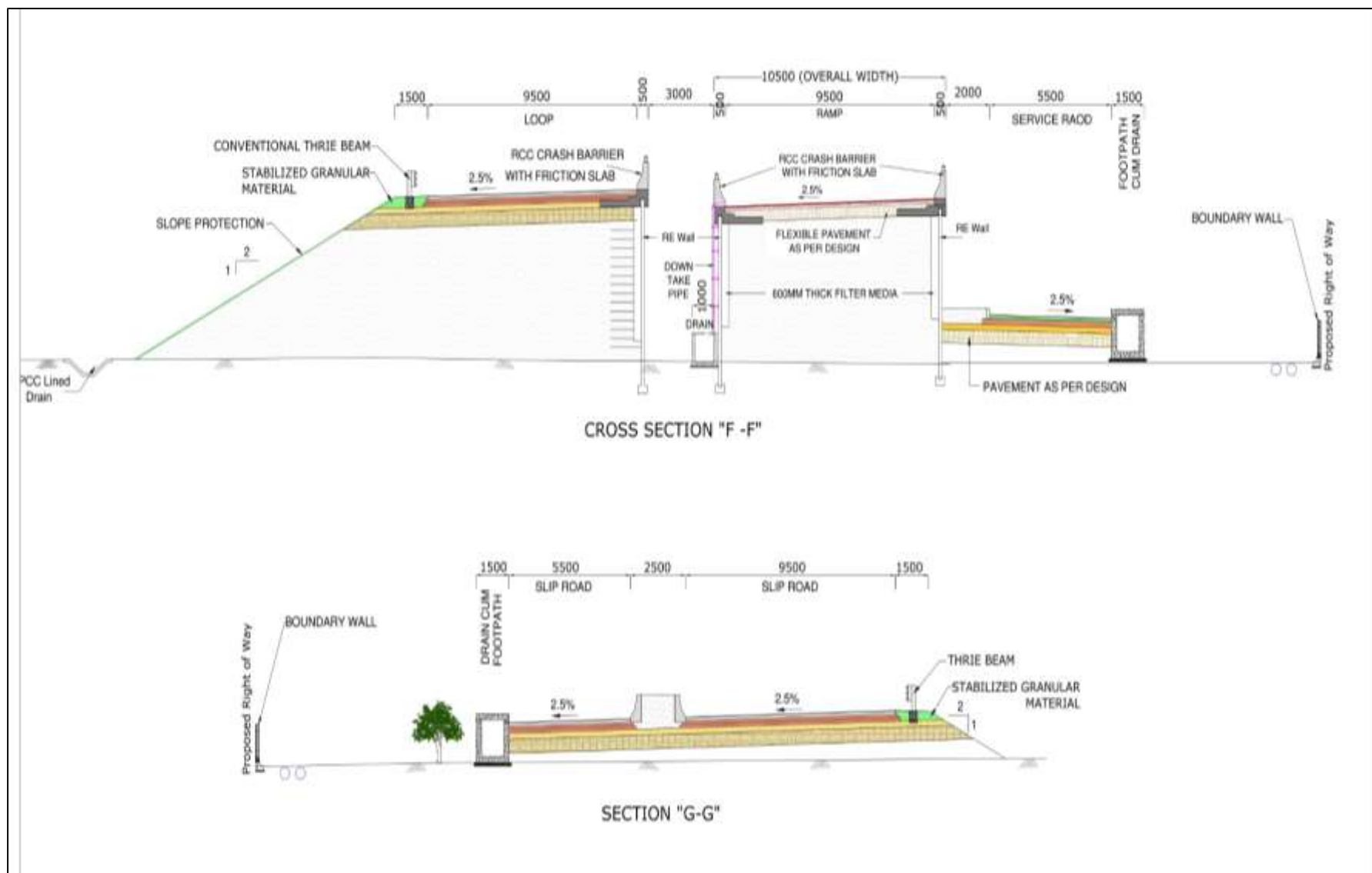
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CROSS SECTION "I -I"

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Annexure-iii Schedule C Project Facilities**SCHEDULE –C**
(See Clause 2.1)
PROJECT FACILITIES**1. Project Facilities**

The Concessionaire shall construct the project facilities in accordance with the provisions of this agreement. Such Project facilities shall include:

- a) Toll Plaza
- b) Road side furniture
 - i. Kilometer and Hectometer Stones
 - ii. Traffic Signs
 - iii. Overhead Signs
 - iv. Road Marking
 - v. Road Delineators
 - vi. Reflective Pavement Markers & Solar Studs
 - vii. Traffic Impact Attenuators
 - viii. Boundary wall and Fencing
- c) Operation and Maintenance centers
- d) Way side Amenities / Service Areas
- e) Truck lay-byes
- f) Bus Bay and Bus shelter
- g) Pedestrian Facilities
- h) Highway Lighting
- i) Rainwater Harvesting
- j) Environmental Management Plan
- k) Land Scaping and Tree Plantation
- l) Advanced Traffic Management System (ATMS)
- m) Highway Patrol Units
- n) Emergency medical services
- o) Crane Service
- p) Cattle Shelter

1.1 Project Facilities to be completed on or before project completion date have been described in Annexure-I of this Schedule-C.

Annexure – II
(Schedule-C)
PROJECT FACILITIES

1 Project Facilities

The Concessionaire shall construct the Project Facilities described in this Annexure-I to form part of the Project Highway. The Project Facilities shall include:

- a) Toll Plaza
- b) Roadside furniture
 - i. Kilometer and Hectometer Stones
 - ii. Traffic Signs
 - iii. Overhead Signs
 - iv. Road Marking
 - v. Road Delineators
 - vi. Reflective Pavement Markers & Solar Studs
 - vii. Traffic Impact Attenuators
 - viii. Boundary wall and Fencing
- c) Operation and Maintenance centers
- d) Way side Amenities / Service Areas
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- i) Rainwater Harvesting
- j) Environmental Management Plan
- k) Land Scaping and Tree Plantation
- l) Advanced Traffic Management System (ATMS)
- m) Highway Patrol Units
- n) Emergency medical services
- o) Crane Service
- p) Cattle Shelter

Description of Project Facilities

Each of the Project Facilities is briefly described below:

1 Toll Plaza

Tolling system shall be provided in entire length of the project and the same is integrated with the adjoining packages. The Toll Plazas shall be provided as per NHA circular No. 17.5.82 dated 24/5/2021 and Schedule D. Minimum Lane requirement in the opening year are as follows.

Toll Plaza shall be provided confirming at the following locations:

S. No	Location of Toll Plaza (Km)		Direction (Entry: to highway, Exit: from Highway)	Minimum number of Toll Lanes	
	Existing Chainages	Design Chainages		Entry	Exit
1	Main Plaza	006+550	From Kanpur to Kabrai	5+1	
			From Kabrai to Kanpur		5+1
2	Ramp Plaza(RHS)	028+300	From Ghtampur/Kabrai to Kanpur	2+1	
3	Ramp Plaza(LHS)	028+300	From Kanpur to Ghtampur/Kabrai		2+1
4	Ramp plaza(LHS)	028+800	From Ghtampur/Bhognupur to Kabrai	2+1	
5	Ramp Plaza (RHS)	028+800	From Kabrai to Ghtampur/Bhognupur		2+1
6	Entry Ramp	046+450	Hameerpur to Kanpur	2+1	
7	Exit Ramp	046+850	Kabrai/Mohta to Hameerpur		2+1
8	Entry Ramp	046+740	Hameerpur to Kabrai	2+1	
9	Exit Ramp Plaza	046+650	Kanpur to Hameerpur		2+1
10	Entry Toll Plaza (LHS)	050+570	Hameerpur/Kabrai/Kurala to Kanpur	2+1	
11	Exit Toll Plaza(RHS)	050+570	Kanpur to Hameerpur/Kabrai/Kurala		2+1
12	Entry Ramp Plaza	051+150	Kanpur/Hameerpur/Kurala to Kabrai	2+1	
13	Exit Ramp Plaza	051+150	Kabrai to Kanpur/Hameerpur/Kurala		2+1
14	Toll Plaza	054+800	From NH-34 to PR	2+1	
15	Toll Plaza	054+800	From PR to NH-34		2+1
16	Toll Plaza	81+510	From Maudaha – Marang Road to Kanpur	2+1	
17	Toll Plaza	81+510	From Kanpur to Maudaha – Marang Road		2+1
18	Toll Plaza	82+110	From Maudaha – Marang Road to Kabrai	2+1	
19	Toll Plaza	82+110	From Kabrai to Maudaha – Marang Road		2+1
20	Toll Plaza	94+100	From Hameerpur to Kanpur	2+1	
21	Toll Plaza	94+650	From Kabrai to Hameerpur		2+1
22	Toll Plaza	94+480	From Hameerpur to Kabrai	3+1	
23	Toll Plaza	93+920	From Kanpur to Hameerpur		3+1
24	Main Plaza	111+900	From Kabrai to Kanpur	5+1	
25			From Kanpur to Kabrai		5+1

The Sub Items of toll Plaza are as follows

S. No.	Item	Number	Remarks
1	No. of toll lane	88	As per design to be fixed by DPR Consultant
2	Toll Booth complex	26	As per design to be fixed by DPR Consultant
3	Weigh bridges	15	1 each on either side of Toll Plaza
4	Electrical systems	2584	Sufficient for all equipment placed on Toll Plaza and

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Number	Remarks
			for future expansion
5	Highway nest with toilet facility	4	At main toll plaza
6	Internet facility	-	Internet facility with 2 different telecom operator

Note:

- (i) The Toll Plaza shall be constructed as per Manual (Schedule D) considering the modification as per NHAI Circular NHAI/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24th May, 2021. However, layout as mentioned in Schedule-C shall be followed.
- (ii) Based on the toll lanes as given above, toll Booth complex, weigh bridges, electrical systems, and all other facilities required/ mentioned in manual shall be provided as per specification mentioned in Schedule D
- (iii) No. of toll lane specified above are to be provided. The Concessionaire shall design and provide toll lane as per Manual (Schedule D) & NHAI Circular NHAI/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No.17.5.82 dated 24th May, 2021 subject to as specified above.
- (iv) All Toll Lanes to be equipped with Hybrid ETC equipment's as per NHAI/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24th May, 2021. DPR consultant to specify details of equipment's with their numbers. **(Clause No. 10.5 IRC: SP:84-2019)**

Sr. No	Lane Level Equipment's-Hybrid ETC	Unit	Quantity
1	RFID ETC Transceiver Near Pay-axis-mounted on canopy	No	1 Per Lane
2	Electronic Enclosure	No	1 Per Lane
3	Lance Controller with Industrial PC	No	1 Per Lane
4	AVC including sensors loop and detector	No	1 Per Lane
5	User Fare Display with mounting Pole	No	1 Per Lane
6	Automatic Barrier Gate	No	1 Per Lane
7	Overhead Lane Status Light(OHLS)	No	1 Per Lane
8	Traffic Light for lane with mounting Pole	Set	1 Per Lane
9	Loop with Detector	Set	2 Per Lane
10	Incident Capture Camera with mounting pole	Set	1 Per Lane
11	License Plate Image Capture Camera	Set	1 Per Lane
12	TFT Monitor	Set	1 Per Lane
13	Customized industrial grade Keyboard	No	1 Per Lane
14	Thermal receipt Printer	No	1 Per Lane
15	Barcode Reader with Stand/QR Code.	No	1 Per Lane
16	Violation Light Alarm (On Existing Pole)	No	1 Per Lane
17	Booth CCTV Camera	No	1 Per Lane
18	Cabling/Networking/Installation Commissioning	No	1 Per Lane
19	Software Lanes Level	No	1 Per Lane
20	Intercom Salve Unit	No	1 Per Lane

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Sr. No	Lane Level Equipment's-Hybrid ETC	Unit	Quantity
21	Medium Speed Weigh in Motion	No	1 Per Lane
Plaza Level Equipment's			
1	Plaza Server in hot standby configuration	No	1 Per Plaza
2	Static Weighbridge	No	2 Per plaza
3	Workstation For MIS,Cashup,Audit & LSDU(Lane status display unit in control)	No	4 per plaza
4	Network printer	no	1per plaza
5	8 port Network switch (Layer 3)	Job	2 per plaza
6	24 Port Network switch(Layer -3)	Job	2 per Plaza
7	Internet router for connection to CCH	No	1 per plaza
8	Software Plaza Level	No	1 per plaza
9	Broadband Internet Connection	Facility	1 per Plaza
10	UPS system required for computer Hybrid ETC Toll Plaza System	No	2 Per Plaza
11	CCTV camera for Plaza Building surveillance(Server room, control room, Cash up room,admin)	No	4 per plaza
12	Intercom Master Unit in control Room 10 channel	No	1 per plaza
13	Intercom Master Unit in control Room 20 channel	No	1 per plaza
14	MPLS Connectivity (Router Antenna)	No	1 per plaza
15	PTZ Camera	No	2 per plaza
16	Joystick for PTZ	No	1 per Plaza

- (v) A separate Highway Nest with toilet facility for road users shall be provided near main toll plaza location along with parking facility. One toilet block on each direction shall be provided. These toilet facilities shall follow CPWD specifications for sanitary ware items and fittings such as WC, wash basin, Wash basin-Under counter, Urinal flat back, PVC Cistern, IWC Orissa Pan, Flush Valve –CP, Wash Basin pillar cock-CP, Bib Cock—CP, Health Faucet, W/c Bib cock, Wash Basin angle cock. One WC shall be provided for specially challenged persons.
- (vi) Point of Sale (POS) with card swapping machines shall be provided.
- (vii) Provide Lane markings and Traffic Signs as per IRC: SP: 84-2019, IRC 35 and IRC 67. **(Clause No. 10.8 & 10.9 of IRC: SP:84-2019)**
- (viii) Solar panels shall be erected over the either on FOB or over Toll plaza / Admin building to generate the green energy. Same shall be utilized for toll plaza lighting and other energy requirement within toll plaza area along with conventional lighting.
- (ix) Medium speed Weigh in Motion (MSWIM) devices shall be provided in all toll lanes at Toll plaza Location. In addition to MSWIM, Static weigh Bridge (SWBs) shall be provided on each direction as per manual. **(Clause No. 10.6, IRC: SP:84-2019)**
- (x) Provide Impact Attenuators on Toll Plaza islands in the direction of traffic. Impacts attenuators shall be self-restoring confirm to section 10.6 of IRC SP 99 i.e. Manual of Specifications and Standards for Expressways. **(Clause No.9.6, IRC: SP:84-2019)**

- (xi) Provide Staircase on either side of the FOB at Median Island location by widening the island appropriately.
- (xii) Admin building shall be constructed at every Entry Ramp Toll plaza/ Spur as per NHAI/Policy Guidelines/Management of Toll Plaza/2021 Policy Circular No. 17.5.82 dated 24th May, 2021.kindly refers Annexure-V for Toll Admin building.
- (xiii) Ground floor Minor building shall be constructed at every Exit Ramp Toll plaza. Kindly refer Annexure-V for Ground floor Toll Admin building.

2 Roadside furniture

2.1 Kilometer and Hectometer Stones (Clause No. 12.3 IRC: SP: 84-2019)

S No.	Item	Number	Remarks
1	Kilometer Marker/Stones	190	The Km/ 5 th Kilometer /Hectometer stones/ marker can be concrete/ stones and shall be placed on both outer side of the earthen shoulder.
	5th km stone	46	In case Km/ 5 th Kilometer / Hectometer marker are to be fixed on separator between main carriageway & service road then these should be fixed as reflective signs.
2	Hectometer Marker/ Stones	942	In case of Access control highway/ Expressway, Km/ Hectometer markers should be fixed as reflective signs. Km/ Hectometer stones are required to provide on main carriageway and service road, both if continuous service road is provided throughout project length. (Service road length is more than 1 Km).

2.2 Traffic Signs (Clause No. 9.2 IRC: SP: 84-2019)

Traffic Signs include roadside signs, overhead signs and kerb mounted signs etc. shall be provided along the entire Project Highway and on all Side, Roads joining the main carriageway/service road. A QR code shall be marked on back of each sign as per IRC 67.

All sign shall be of Micro Prismatic Grade Sheeting Corresponding to Class C sheeting as per ASTM D 4956 Type VIII, IX and XI. **(Clause No. 9.2.3 IRC: SP: 84-2019)**

All shoulder mounted signs shall be supported on GI Pipes. Overhead Signs shall be placed on a structurally sound gantry or cantilever structure made of GI pipes.

On multi-lane roads (6 lanes or above), signs shall be mounted overhead. **(Clause No. 4.6 of IRC: 67 2022)**

The siting of signs shall confirm to Table 4.1 and Fig 4.1 of IRC 67. **(Clause No. 4.7 IRC: SP: 84-2019)**

The two successive signs shall be placed at a minimum distance of $0.6 \times V$ metre (V is design speed in Kmph) **(Clause No. 4.8 IRC 67 2022).**

The overhead gantry signs shall be placed as given below:

S. No.	Item	Carriageway (Left, Right, Both)
1	Overhead Gantry signs	Both (18 nos)
a	Start of project	02
b	End of project	02
c	Toll Plaza location on both side	Either left or Right
2	Overhead Cantilever Gantry signs	62
a	At all major locations of crossroads i.e. NH, SH, MDR (start of grade separated structure/ at grade interchange)	12
b	At major trauma center, roads leading to religious places or any other important location	06
3	Double/ Butterfly Cantilever	17

The Concessionaire is required to design the signage plan as per requirement in reference to the Manual and will be implemented only after approval of IE/Authority after getting it vetted from the Road Safety Expert (RSA) (engaged by Authority). However, an indicative & minimum details of sign boards given below:

SECTION-1 (0+000 to 117+700)

S. No.	Road Signs	Number	Remarks
I	Mandatory/Regulatory		
1	Stop signs	82	At toll Plaza
2	Give Way Signs	06	At minor road
3	Prohibitory signs	-	-
4	No Parking signs	47	At every 5km
5	No Stopping signs	-	
6	Speed Limit signs (Circular)	42	At each ramp and loop
7	Speed Limit signs (Vehicle Type)	48	At every 5 km
8	Vehicle Control signs	390	Height limit sign board upto 5.5m
9	Restriction Ends sign		-
10	Compulsory Direction Control and other signs	115	-
II	Cautionary/Warning		
1	Left/Right Curve	06	-
2	Left / Right Curve with side road	-	-
2	Right/Left Hairpin Bend	-	-
3	Right/Left Reverse Bend	-	-
4	Series of Bends	-	-
5	270 Degree Loop	12	-
6	Side Road	-	-
7	Y-intersection	-	-
8	Cross Road	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
9	Roundabout	04	-
10	Traffic Signals	-	-
11	T-intersection	-	-
12	Major Road Ahead	-	-
13	Staggered Inter-section	-	-
14	Merging Traffic Ahead	36	At merging location
15	Narrow Road Ahead	-	-
16	Road Widens	-	-
17	Narrow Bridge Ahead	-	-
18	Steep Ascent/Descent	-	-
20	Reduced Carriageway	-	-
21	Start /End of Dual Carriageway	-	-
23	Gap in Median	-	-
24	Pedestrian Crossing	12	-
25	Pedestrian crossing with backing board	-	-
26	School Ahead	-	-
27	Built Up Area	-	-
28	Two Way Operation (on main carriage way /service road	-	-
29	Two Way Traffic on Cross Road Ahead	-	-
30	Danger Warning Sign	-	-
31	Deaf or Blind Persons Likely on Road Ahead	-	-
32	Cycle Crossing	-	-
33	Cycle Route Ahead (Warning for Cycles on road ahead)	-	-
34	Dangerous Dip	-	-
35	Speed Breaker	-	-
36	Rumble Strip	72	At major Intersection
37	Rough Road	-	-
38	Dangerous Ditch	-	-
39	Slippery Road	-	-
40	Slippery Road because of Ice	-	-
41	Opening or Swing Bridge	-	-
42	Overhead Cable	46	-
43	Play Ground Ahead	-	-
44	Quay Side or River Bank	-	-
45	Sudden Side Winds	-	-
46	Tunnel Ahead Warning	-	-
47	Falling Rocks	-	-
48	Cattle Crossing	-	-
49	Wild Animals likely to be on Road Ahead	-	-
50	Queues Likely Ahead	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
51	Low flying Air Craft	-	-
52	Unguarded Railway Crossing	-	-
53	Guarded Railway Crossing	-	-
54	Crash prone area ahead	-	-
55	U- Turn	-	-
III	Chevron Signs	-	-
1	Single Chevron	520	At curve location
2	Double Chevron	-	-
3	Triple Chevron	262	At loop locations and Roundabout
IV	Object Hazard Marker Sign		
1	Left /Right side Object Hazard Marker	496	At Hazardous location
2	Two way Object Hazard Marker	162	-
V	Informatory/Guide		
1	Direction and Place Identification signs	16	-
2	Stack Type Advance Direction Sign (Shoulder Mounted)	20	-
3	Stack Type Advance Direction Sign with cautionary / regulatory signs (Shoulder Mounted)	-	-
4	Map Type Advance Direction Sign (Shoulder Mounted)	-	-
5	Map Type Advance Direction Sign for roundabout (Shoulder Mounted)	04	-
6	Flag Type Direction Sign	34	-
7	Reassurance Sign	28	Overhead Mounted
8	Place Identification Sign	-	-
9	Truck Lay -By	-	-
10	Toll Booth Ahead	38	-
11	Weigh Bridge Ahead	15	-
12	Shoulder Mounted Sign in Advance of a Grade Separated Junction/ Interchange	-	-
13	Expressway Sign	-	-
14	Gantry Mounted advance Direction Sign Ahead of a Flyover in Urban/City Roads	-	-
15	Gantry Mounted advance Direction Sign Ahead of a Grade Separated Junction		
16	Gantry Mounted advance Direction Sign Ahead of a At Grade Intersection	-	-
17	Gantry Mounted Advance Direction Sign for Interchange	15	2 km from interchange
18.a	Cantilever Gantry Mounted Advance Direction Sign for Interchange	48	At exit, 500m, 1km from interchange

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
18.b	Butterfly Cantilever Gantry Mounted Advance Direction Sign for Interchange	14	-
19	Lane Dedicated Gantry Sign	04	
20	Definition/Supplementary Plates	-	-
21	Tourism Related Sign	-	-
22	Tourist Destination Direction Information Signs Without Photograph	-	-
23	Tourist Destination Direction Information Signs With Photograph	-	-
24	Finger Destination direction Information Sign for Pedestrians	-	-
25	Tourist Map Information Sign	-	-
26	Boundary Sign at Entrance to a City/Place	-	-
27	Boundary Sign at Entrance to a Tourist Destination	-	-
28	Vehicle categories wise lane dedicated Gantry	12	At every 20 th km
VI	Facility Information signs	-	-
1	Eating Place	-	At every 20 th km
2	Light Refreshment		
3	Resting Place	-	-
4	First Aid Post	-	-
5	Toilet	28	-
6	Filling Station(Fuel Pump)	6	-
7	Hospital	-	-
9	U-Turn Ahead	-	-
10	Pedestrian Subway	-	-
11	Police Station	-	-
12	Picnic Site	-	-
13	Repair Facility	-	-
14	Railway Station/Metro Station/Monorail Station	-	-
15	Industrial Area	-	-
16	Cycle Rickshaw Stand		-
17	Taxi Stand	-	-
18	Auto Rickshaw Stand	-	-
19	Home Zone	-	-
20	Camp Site	-	-
21	Airport	-	-
22	Golf Course	-	-
23	National Heritage	-	-
24	No Through Road	-	-
25	No Through Side Road	-	-
26	Toll Road Ahead		-
27	Guide Sign on Toll Lane Portal	88	-
28	Country Border	-	-
29	Entry Ramp for Expressway	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
30	Exit Ramp for Expressway	-	-
31	Expressway Symbol	-	-
32	End of Expressway	-	-
33	Bus Stop	-	-
34	Bus Lane	-	-
35	Contra Flow Bus Lane	-	-
36	Cycle Lane	-	-
37	Contra Flow Cycle Lane	-	-
38	Holiday Chalets	-	-
39	Emergency Exit	48	At every 5 km
40	Emergency Helpline no. "1033"	48	At every 5 km
41	Rest and Service Area Signs	-	-
42	Heavy Vehicle Keep Left	48	At every 5 km
43	QR Sign board	44	
VII	Other Useful Information Signs	-	-
1	Signs For Persons With Disabilities	-	-
2	International symbol of Accessibility	-	-
3	Parking Information	-	-
4	Parking Areas	-	-
5	Ramped Entrance to Subway/Over Bridge	-	-
6	Telephone Facilities	117	-
7	Toilet Facilities	-	-
8	Way Finding	-	-
9	Parking Signs	-	-
10	Auto Rickshaw Parking	-	-
11	Cycle Parking	-	-
12	Cycle Rickshaw Parking	-	-
13	Scooter and Motorcycle Parking	-	-
14	Taxi Parking	-	-
15	Park and Ride	-	-
16	Parking Restrictions Signs for Traffic Management	-	-
17	Flood Gauge Sign	-	-
VIII	Route Maker Signs	-	-
1	State Highway Route Marker Sign	-	-
2	National Highway Route Marker Sign	48	-
3	Asian Highway Route Marker Sign	-	-
4	Expressway Route Marker Sign	-	-

SECTION-2 (7+430 to 130+100)

S. No.	Road Signs	Number	Remarks
I	Mandatory/Regulatory		
1	Stop signs	44	-
2	Give Way Signs	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
3	Prohibitory signs	-	-
4	No Parking signs	-	-
5	No Stopping signs	-	-
6	Speed Limit signs (Circular)	13	-
7	Speed Limit signs (Vehicle Type)	-	-
8	Vehicle Control signs	-	-
9	Restriction Ends sign	-	-
10	Compulsory Direction Control and other signs	-	-
II	Cautionary/Warning	-	-
1	Left/Right Curve	09	-
2	Left / Right Curve with side road	-	-
2	Right/Left Hairpin Bend	-	-
3	Right/Left Reverse Bend	-	-
4	Series of Bends	-	-
5	270 Degree Loop	-	-
6	Side Road	08	-
7	Y-intersection	02	-
8	Cross Road	05	-
9	Roundabout	-	-
10	Traffic Signals	-	-
11	T-intersection	-	-
12	Major Road Ahead	-	-
13	Staggered Inter-section	-	-
14	Merging Traffic Ahead	-	-
15	Narrow Road Ahead	-	-
16	Road Widens	-	-
17	Narrow Bridge Ahead	-	-
18	Steep Ascent/Descent	-	-
20	Reduced Carriageway	-	-
21	Start /End of Dual Carriageway	-	-
23	Gap in Median	-	-
24	Pedestrian Crossing	13	-
25	Pedestrian crossing with backing board	-	-
26	School Ahead	22	-
27	Built Up Area	-	-
28	Two Way Operation (on main carriage way /service road	-	-
29	Two Way Traffic on Cross Road Ahead	-	-
30	Danger Warning Sign	-	-
31	Deaf or Blind Persons Likely on Road Ahead	-	-
32	Cycle Crossing	-	-
33	Cycle Route Ahead (Warning for Cycles on road ahead)	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
34	Dangerous Dip	-	-
35	Speed Breaker	45	-
36	Rumble Strip	10	-
37	Rough Road	-	-
38	Dangerous Ditch	-	-
39	Slippery Road	-	-
40	Slippery Road because of Ice	-	-
41	Opening or Swing Bridge	-	-
42	Overhead Cable	-	-
43	Play Ground Ahead	-	-
44	Quay Side or River Bank	-	-
45	Sudden Side Winds	-	-
46	Tunnel Ahead Warning	-	-
47	Falling Rocks	-	-
48	Cattle Crossing	-	-
49	Wild Animals likely to be on Road Ahead	-	-
50	Queues Likely Ahead	-	-
51	Low flying Air Craft	-	-
52	Unguarded Railway Crossing	-	-
53	Guarded Railway Crossing	-	-
54	Crash prone area ahead	-	-
55	U- Turn	-	-
III	Chevron Signs	-	-
1	Single Chevron	08	-
2	Double Chevron	-	-
3	Triple Chevron	-	-
IV	Object Hazard Marker Sign	-	-
1	Left /Right side Object Hazard Marker	02	-
2	Two way Object Hazard Marker	02	-
V	Informatory/Guide	-	-
1	Direction and Place Identification signs	16	-
2	Stack Type Advance Direction Sign (Shoulder Mounted)	04	-
3	Stack Type Advance Direction Sign with cautionary / regulatory signs (Shoulder Mounted)	-	-
4	Map Type Advance Direction Sign (Shoulder Mounted)	-	-
5	Map Type Advance Direction Sign for roundabout (Shoulder Mounted)	-	-
6	Flag Type Direction Sign	09	-
7	Reassurance Sign	01	-
8	Place Identification Sign	-	-
9	Truck Lay -By	-	-
10	Toll Booth Ahead	-	-

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S. No.	Road Signs	Number	Remarks
11	Weigh Bridge Ahead	-	-
12	Shoulder Mounted Sign in Advance of a Grade Separated Junction/ Interchange	-	-
13	Expressway Sign	-	-
14	Gantry Mounted advance Direction Sign Ahead of a Flyover in Urban/City Roads	-	-
15	Gantry Mounted advance Direction Sign Ahead of a Grade Separated Junction	-	-
16	Gantry Mounted advance Direction Sign Ahead of a At Grade Intersection	-	-
17	Gantry Mounted Advance Direction Sign for Interchange	-	-
18.a	Cantilever Gantry Mounted Advance Direction Sign for Interchange	-	-
18.b	Butterfly Cantilever Gantry Mounted Advance Direction Sign for Interchange	-	-
19	Lane Dedicated Gantry Sign	-	-
20	Definition/Supplementary Plates	-	-
21	Tourism Related Sign	-	-
22	Tourist Destination Direction Information Signs Without Photograph	-	-
23	Tourist Destination Direction Information Signs With Photograph	-	-
24	Finger Destination direction Information Sign for Pedestrians	-	-
25	Tourist Map Information Sign	-	-
26	Boundary Sign at Entrance to a City/Place	-	-
27	Boundary Sign at Entrance to a Tourist Destination	-	-
28	Vehicle categories wise lane dedicated Gantry	-	-
VI	Facility Information signs	-	-
1	Eating Place	03	-
2	Light Refreshment	-	-
3	Resting Place	-	-
4	First Aid Post	-	-
5	Toilet	-	-
6	Filling Station(Fuel Pump)	14	-
7	Hospital	-	-
9	U-Turn Ahead	-	-
10	Pedestrian Subway	-	-
11	Police Station	3	-
12	Picnic Site	-	-
13	Repair Facility	-	-
14	Railway Station/Metro Station/Monorail Station	-	-
15	Industrial Area	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
16	Cycle Rickshaw Stand	-	-
17	Taxi Stand	-	-
18	Auto Rickshaw Stand	-	-
19	Home Zone	-	-
20	Camp Site	-	-
21	Airport	-	-
22	Golf Course	-	-
23	National Heritage	-	-
24	No Through Road	-	-
25	No Through Side Road	-	-
26	Toll Road Ahead	-	-
27	Guide Sign on Toll Lane Portal	-	-
28	Country Border	-	-
29	Entry Ramp for Expressway	-	-
30	Exit Ramp for Expressway	-	-
31	Expressway Symbol	-	-
32	End of Expressway	-	-
33	Bus Stop	-	-
34	Bus Lane	-	-
35	Contra Flow Bus Lane	-	-
36	Cycle Lane	-	-
37	Contra Flow Cycle Lane	-	-
38	Holiday Chalets	-	-
39	Emergency Exit	-	-
40	Emergency Helpline no. "1033"	02	-
41	Rest and Service Area Signs	-	-
42	Heavy Vehicle Keep Left	-	-
43	QR Sign board	8	-
VII	Other Useful Information Signs	-	-
1	Signs For Persons With Disabilities	-	-
2	International symbol of Accessibility	-	-
3	Parking Information	-	-
4	Parking Areas	-	-
5	Ramped Entrance to Subway/Over Bridge	-	-
6	Telephone Facilities	-	-
7	Toilet Facilities	-	-
8	Way Finding	-	-
9	Parking Signs	-	-
10	Auto Rickshaw Parking	-	-
11	Cycle Parking	-	-
12	Cycle Rickshaw Parking	-	-
13	Scooter and Motorcycle Parking	-	-
14	Taxi Parking	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Road Signs	Number	Remarks
15	Park and Ride	-	-
16	Parking Restrictions Signs for Traffic Management	-	-
17	Flood Gauge Sign	-	-
VIII	Route Maker Signs	-	-
1	State Highway Route Marker Sign	-	-
2	National Highway Route Marker Sign	-	-
3	Asian Highway Route Marker Sign	-	-
4	Expressway Route Marker Sign	-	-

Note: The locations of the placement of signages shall be finalized in consultation with Independent Engineer/ NHAI, as per site requirement. The signage shall be provided as per MoRTH guidelines no. RT-25035/07/2023-RS (Part) (221534) dated 20-07-2023. It is clarified that the above details of sign boards are indicative and minimum specified. The actual plan for road signage shall be as per the design of the concessionaire and shall be subjected to the approval of IE/NHAI. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire. Any increase in number or change in location shall not constitute Change of Scope.

2.3 Road Marking (Clause No. 9.3 IRC: SP: 84-2019)

Road Markings shall be Hot applied thermoplastic materials with reflectorized beads to achieve visibility confirming to clause 2.7.2 of IRC 35. (Clause No. 2.2 IRC: 35).

The cold applied plastics pavement markings shall be used for School Zone Markings, Audible Raised Profile Edge Lines and Block Markings (BM 01/02/03). (Clause No. 2.4 of IRC: 35)

SECTION-1 (0+000 to 117+700)

S. No.	Item	Unit		Remarks
		Length (m)	Number	
1	Longitudinal Marking	8,90,827		Refer S. no. 9,10,11, 14,15,20, 22 & 25 in the given below
2	Transverse Marking		342	Refer S. no. 40 in the given below
3	Hazard Marking		72	Ref S. no. 23 in the given below
4	Block Marking		26	Ref S. no. 16,17,35,37 and 38 in the given below
5	Arrow Marking		1344	Ref S. no. 27, 28,29,30,31,32 and 33 in the given below
6	Directional Marking	-	-	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Unit		Remarks
		Length (m)	Number	
7	Facility Marking	-	-	
8	Center Line	-	-	-
9	Traffic Lane Lines	2,12,732	-	LM 02
10	No Overtaking Lines	920	-	-
11	Warning Lines	14,192		LM05
12	Border or Edge Lines	-	-	See below at Sl no. 25
13	Longitudinal Markings for Undivided Roads	28949		-
14	Longitudinal Markings for divided Roads			-
15.a	Longitudinal Markings for Ramps/Slip Roads/One Way Streets	49,588		LM 07/LM23
15.b	Longitudinal Markings for Ramps/Slip Roads/One Way Streets – Edge line	99,716		LM 23
16	Stop Line		04	
17	Give Way Lines	-	08	-
18	Diagonal Markings	-		-
19	Chevron Markings	-	-	
20	Continuity Line	6520	-	LM21/LM22
21	Word Messages	-	28	-
22	Lane Change	7410		LM28/LM29
23	Merging/Diverging Markings		72	
24	Hatch Markings	-		-
25	Raised Profile Edge Lines	470800	-	LM24
26	Lane Reduction / Narrowing Situations and Transitions (lane Balancing)	-	-	-
27	Directional Arrows	-	892	-
28	Mandatory Turn Arrows		-	-
29	Guidance Arrows	-	-	
30	Deflection Arrows	-	-	
31	Bifurcation Arrows	-	42	
32	Arrows on Side Road Approaches	-	210	-
33	Arrows on Main Road Approaches	-	662	
34	Word Messages	-	-	-
35	Yellow Box Markings	-	2	-
36	Ghost Island	-	-	-
37	Marking for Speed Breakers	-	-	
38	Pedestrian Crossing	-	20	-
39	Markings when highway passes through settlement fig 9.4 of IRC SP 84/87	-	-	-
40	Transverse Bar Markings	-	342	Each set have 6 bar marking also at approach of toll plaza
41	Bus bay Marking	-		

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Unit		Remarks
		Length (m)	Number	
42	Truck Lay-by Markings	-	-	-
43	Toll Plaza Marking	-	88	-
44	School Zone Markings	-	-	-
45	Object Markings within Carriageway	-	-	-
46	Objects Markings Adjacent to Carriageway	-	-	-
47	i. Subway Piers, Abutments, Culverts Head Walls, Concrete Barrier	1,19,500	-	-
48	ii. Electrical Poles	-	4852	-
49	iii. Guard Rails	-	-	Refer clause no.2.4.3 of schedule C -
50	iv. Trees	-	-	-
51	v. Kerbs	-	-	-
52	Directional Markings as per Annexure: A 6	-	-	-
53	Facility Markings as per Annexure A.7 of IRC 35	-	-	-

SECTION-2 (7+430 to 130+100)

S. No.	Item	Unit		Remarks
		Length (m)	Number	
1	Longitudinal Marking	-	-	Refer S. no. 9,10,11, 14,15,20, 22 & 25 in the given below
2	Transverse Marking	-	-	Refer S. no. 40 in the given below
3	Hazard Marking	-	-	Ref S. no. 23 in the given below
4	Block Marking	-	-	Ref S. no. 16,17,35,37 and 38 in the given below
5	Arrow Marking	-	-	Ref S. no. 27, 28,29,30,31,32 and 33 in the given below
6	Directional Marking	-	-	
7	Facility Marking	-	-	
8	Center Line	65430	-	-
9	Traffic Lane Lines	-	-	LM 02
10	No Overtaking Lines	-	-	-
11	Warning Lines	-	-	LM05
12	Border or Edge Lines	1,30,860	-	See below at Sl

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Unit		Remarks
		Length (m)	Number	
				no. 25
13	Longitudinal Markings for Undivided Roads	-	-	-
14	Longitudinal Markings for divided Roads	-	-	-
15.a	Longitudinal Markings for Ramps/Slip Roads/One Way Streets	713	-	LM 07/LM23
15.b	Longitudinal Markings for Ramps/Slip Roads/One Way Streets – Edge line	1426	-	LM 23
16	Stop Line	-	44	
17	Give Way Lines	-	-	-
18	Diagonal Markings	-	-	-
19	Chevron Markings	-	-	
20	Continuity Line	-	-	LM21/LM22
21	Word Messages	-	-	-
22	Lane Change	-	-	LM28/LM29
23	Merging/Diverging Markings	-	-	
24	Hatch Markings	-	-	-
25	Raised Profile Edge Lines	-	-	LM24
26	Lane Reduction / Narrowing Situations and Transitions (lane Balancing)	-	-	-
27	Directional Arrows	-	-	-
28	Mandatory Turn Arrows	-	-	-
29	Guidance Arrows	-	-	
30	Deflection Arrows	-	-	
31	Bifurcation Arrows	-	-	
32	Arrows on Side Road Approaches	-	-	-
33	Arrows on Main Road Approaches	-	-	
34	Word Messages	-	-	-
35	Yellow Box Markings	-	-	-
36	Ghost Island	-	-	-
37	Marking for Speed Breakers	-	45	
38	Pedestrian Crossing	-	-	-
39	Markings when highway passes through settlement fig 9.4 of IRC SP 84/87	-	-	-
40	Transverse Bar Markings	-	65	Each set have 6 bar marking also at approach of toll plaza
41	Bus bay Marking	-	-	
42	Truck Lay-by Markings	-	-	-
43	Toll Plaza Marking	-	-	-
44	School Zone Markings	-	-	-
45	Object Markings within Carriageway	-	-	-
46	Objects Markings Adjacent to Carriageway	-	-	-
47	i. Subway Piers, Abutments, Culverts Head Walls,	-	-	-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Unit		Remarks
		Length (m)	Number	
	Concrete Barrier			
48	ii. Electrical Poles	-	-	-
49	iii. Guard Rails	-	-	Refer clause no.2.4.3 of schedule C -
50	iv. Trees	-	-	-
51	v. Kerbs	-	-	-
52	Directional Markings as per Annexure: A 6	-	-	-
53	Facility Markings as per Annexure A.7 of IRC 35	-	-	

Note: The locations of the marking shall be finalized in consultation with Independent Engineer/NHAI, as per site requirement. Raised profile edge lines as per Clause 7.7 of IRC 35 shall be provided on both sides i.e., shoulder and median side. It is clarified that the above details are indicative and minimum specified. The Concessionaire is required to assess the requirements as per Manual and after approval of IE/Authority after getting it vetted from the RSA. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire.

2.4 Road Delineators (Clause No. 9.4 IRC: SP: 84-2019)

SECTION-1 (0+000 to 117+700)

S. No.	Item	Number/ Length (m)	Remarks
1	Roadway Indicators	268 nos.	Curve length where deflection angle less than 20 between curve radius 1200 to 2000
2	Median Marker on Median/RCC Barrier (Clause 4 of IRC 79 2019)	23,900 nos.	On entire length of Median/RCC Barrier at an interval of 5m
3	Object Markers		
4	Flexible Object Markers (Clause 6 of IRC 79 2019) i. On Metal Beam Barrier ii. On Toll Booth/Toll Island iii. On Entry/Exit of Tunnel iv. On Exit from Main carriageway	1,64,324 nos.	At every Metal beam steel post.
5.	Solar Blinkers on Median Opening, on exit from main carriageway and traffic islands of grade separated intersections	96 nos.	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

SECTION-2 (7+430 to 130+100)

S. No.	Item	Number/ Length (m)	Remarks
1	Roadway Indicators	-	Curve length where deflection angle less than 20 between curve radius 1200 to 2000
2	Median Marker on Median/RCC Barrier (Clause 4 of IRC 79 2019)	On entire length of Existing Median/RCC Barrier at an interval of 5m	
3	Object Markers		
4	Flexible Object Markers (Clause 6 of IRC 79 2019) i. On Metal Beam Barrier ii. On Toll Booth/Toll Island iii. On Entry/Exit of Tunnel iv. On Exit from Main carriageway	At every Metal beam steel post.	-
5.	Solar Blinkers on Median Opening, on exit from main carriageway and traffic islands of grade separated intersections	-	

Note: The locations of the marking shall be finalized in consultation with Independent Engineer/NHAI, as per site requirement in accordance with Manual. It is clarified that the above details are indicative and minimum specified. The Concessionaire is required to assess the requirements as per Manual and after approval of IE/Authority after getting it vetted from the RSA. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire.

2.5 Reflective Pavement Markers & Solar Studs (Clause No. 9.5 IRC: SP: 84-2019)

The Prismatic Retro-Reflective type conforming to ASTM D-4280 Pavement Markers & Solar Power Studs on Highway shall be provided in accordance with Schedule - D.

SECTION-1 (0+000 to 117+700)

S. No.	Item	Number	Location	Remarks
A. – For 4/ 6 Lane Projects				
1	White Colour one coloured face Road Studs	800	Traffic lane line & center of carriageway	Uni-directional carriageway
2	Red Colour one coloured face Road Studs	18568	Left hand edge of the carriageway, entry to truck lay bye / bus bay, start of service road, chevron/diagonal markings on gorge	
3	Yellow / Amber Colour one	8000	Median side edge line, zebra	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Number	Location	Remarks
	coloured face Road Studs		crossings	
4	Green Colour one coloured face Road Studs	2000	Lay byes, left hand side of the carriageway in case of multi-lane divided carriageways, crossable continuous line like in acceleration/deceleration lanes involving lane changing	
5.	Red Solar Studs on Major/Minor bridge, RoB, and all structures (Interchange/Flyover/VUP) and Built-up areas, In storage lane of median opening and Exit/Entry from main carriageway	6000		
6.	Yellow Solar Studs on Major/Minor bridge, RoB, and all structures (Interchange/Flyover/VUP) and Built-up areas, In storage lane of median opening and Exit/Entry from main carriageway	6000		
B– For 2 Lane PS Projects				
DELETED				

SECTION-2 (7+430 to 130+100)

S. No.	Item	Number	Location	Remarks
A. – For 4/ 6 Lane Projects				
1	White Colour one coloured face Road Studs	1336	Traffic lane line & center of carriageway	Uni-directional carriageway
2	Red Colour one coloured face Road Studs	7754	Left hand edge of the carriageway, entry to truck lay bye / bus bay, start of service road, chevron/diagonal markings on gorge	
3	Yellow / Amber Colour one coloured face Road Studs	120	Median side edge line, zebra crossings	
4	Green Colour one coloured face Road Studs	30	Lay byes, left hand side of the carriageway in case of multi-lane divided carriageways, crossable continuous line like in	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Number	Location	Remarks
			acceleration/deceleration lanes involving lane changing	
5.	Red Solar Studs on Major/Minor bridge, RoB, and all structures (Interchange/Flyover/VUP) and Built-up areas, In storage lane of median opening and Exit/Entry from main carriageway	640		
B– For 2 Lane PS Projects				
DELETED				

Note: It is clarified that the above details are indicative and minimum specified. The Concessionaire is required to assess the requirements as per Manual and after approval of IE/Authority after getting it vetted from the RSA. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire

2.6 Traffic Impact Attenuators (Clause No. 9.6 IRC: SP: 84-2019)

2.6.1 Provide Impact Attenuators in Gore Areas It shall be self-restoring confirming to section 10.6 of IRC SP 99 i.e. Manual of Specifications and Standards for Expressways at following locations

SECTION-1 (0+000 to 117+700)

S. No.	Item	Chainage / Number	Side	Remarks
1	On flyover/grade separated structure at exit from main carriageway	0+500 (interchange loop 2 at km 0+000)	LHS	At Gore area. Thrie-beam fender panels supported by diaphragm or equivalent.
		1+100 (interchange of slip road EHS at km 0+000)	RHS	
		0+710	RHS	
		27+800	LHS	
		29+200	RHS	
		46+550	LHS	
		0+150 (interchange slip road 2 at km 46+900)	LHS	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Chainage / Number	Side	Remarks
		47+000	RHS	
		48+050	LHS	
		52+700	RHS	
		54+600	LHS	
		54+750	RHS	
		0+500 (interchange slip road RHS at km 54+600)	LHS	
		0+900 (interchange Slip Road LHS at km 54+600)	LHS	
		0+400 (interchange Loop 2 at km 54+600)	LHS	
		1+650 (interchange slip road RHS at km 54+600)	RHS	
		81+380	01 nos.	
		82+260	01 nos.	
		92+050	LHS	
		95+600	RHS	
		2 nos. of attenuator on major junction (Interchange at km 94+300)	BHS	
		94+100	RHS	
		94+400	LHS	
		116+500	LHS	
		117+050	RHS	
		117+280	LHS	
		117+700	RHS	
		4 no's of attenuator on major junction	BHS	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Chainage / Number	Side	Remarks
		(Interchange at km 117+200)		
2	On Island of Toll Plaza	69		
3	Any other location which Safety Hazard (WSA	70+900	LHS	-
		70+700	RHS	

SECTION-2 (7+430 to 130+100)

S. No.	Item	Chainage / Number	Side	Remarks
1	On flyover/grade separated structure at exit from main carriageway	-	-	At Gore area. Thrie-beam fender panels supported by diaphragm or equivalent.
2	On Island of Toll Plaza	-	-	
3	Any other location which Safety Hazard	-	-	-
		-	-	

Note: It is clarified that the above details are indicative and minimum specified. The Concessionaire is required to assess the requirements as per Manual and after approval of IE/Authority after getting it vetted from the RSA. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire.

2.6.2 Providing End Terminals (Clause No. , IRC SP 99)

Provide End Terminals P-4 type confirming to EN 1317-4 to Parapet Walls of Culverts, Structures ends for the safety of approaching traffic etc.

SECTION-1 (0+000 to 117+700)

S. No.	Item	Chainage / Number	Remarks
1	Culvert Ends	0	End Terminals P-4 type confirming to EN 1317-4 shall be provided at culverts ends, structures ends and at any other safety hazard locations as per site requirement in consultation with Authority Engineer.
2	Structures Ends	2200 nos.	
3	Any other location which Safety Hazard	75 nos.	

SECTION-2 (7+430 to 130+100)

S. No.	Item	Chainage / Number	Remarks
1	Culvert Ends	0	End Terminals P-4 type

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Item	Chainage / Number	Remarks
2	Structures Ends	60 nos.	confirming to EN 1317-4 shall be provided at culverts ends, structures ends and at any other safety hazard locations as per site requirement in consultation with Authority Engineer.
3	Any other location which Safety Hazard	0 nos.	

Note: It is clarified that the above details are indicative and minimum specified. The Concessionaire is required to assess the requirements as per Manual and after approval of IE/Authority after getting it vetted from the RSA. Additionally, any requirements as per the submissions of RSA will also to be executed by the Concessionaire.

2.7 Boundary wall and Fencing (Clause No. 12.2 IRC: SP: 84-2019)

Boundary Wall shall be provided along the entire length on either side (including transverse requirements at structure locations) strictly in accordance with the Ministry's Circular dated 04.02.2019. No deviation from drawings would be considered.

In case of Pre cast panel fencing, provide cast in situ coping beam on top of fencing. Provide detailed drawings as Annexure-III Schedule C.

Location of Boundary walls are as follows:

SECTION-1 (0+000 to 117+700)

S. No.	Chainage		Total Length (m)	Side	Remarks (Boundary wall)
	From	To			
01	0+000	117+700	2,35,400	BHS	Main carriageway Boundary wall

SECTION-2 (7+430 to 130+100)

S. No.	Chainage		Total Length (m)	Side	Remarks (Boundary wall)
	From	To			
NIL					

At all CD structure locations, the boundary wall shall be discontinued by turning and joining it with the wing/return wall to allow crossing through these structures during dry seasons.

3 Operation and Maintenance centers (Clause No. 12.15 IRC: SP: 84-2019)

There shall be operation and maintenance center(s) as per Clause 12.15 of Schedule-D, either near the toll plaza location or at any other location along the Project Highway, as identified by the Concessionaire. The minimum land for O & M center shall be 2000 sq.m and shall be acquired by the Concessionaire at his own cost and risk. Dedicated operation and maintenance center shall be provided in accordance to

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Schedule D.

4 Way side Amenities / Service Areas/Rest Area (Clause No. 12.9 IRC: SP: 84-2019)**SECTION-1 (0+000 to 117+700)**

S. No	Item	Design Chainage (Km)	Side	Remarks
01	WSA - 1	71+500	LHS	Area = 2 hectare
02	WSA - 2	70+100	RHS	Area = 2 hectare

SECTION-2 (7+430 to 130+100)

S. No	Item	Design Chainage (Km)	Side	Remarks
NIL				

The Site needs to leveled/ graded for the whole of Way side Amenities area and boundary wall of the height of 1.5 m shall be constructed along the periphery of the area. Boundary wall of the height of 1.5m (above leveled/ graded/ compacted area) shall be constructed along the periphery of the Way side Amenities area. Wire fencing above the boundary wall shall be provided.

5 Truck lay-byes: (Clause No. 12.6 IRC: SP: 84-2019)

5.1 The truck lay-bye shall be provided at below given location and as per the design mentioned in Schedule-D.

S. No.	Design Chainage	Side	Remarks
NIL			

5.2 Toilet block along with Janitor room on each Truck Lay bye shall be provided. The toilet block shall consist of at least 1 block for bathing, at least 2 fixtures each for urinals, WC and wash basin. There shall be 24 hour lighting facility in toilet block. These toilets facilities must be functional round the clock including proper maintenance. For arrangement of water, 1 no. of boring along with water pump shall be provided to keep the toilet clean. For upkeep and maintenance of Toilet, 3 Safai wale (1 in each 8 hour shift) shall be engaged and is in the scope throughout contract period.

5.3 Truck Lay Bye Pavement Provide Pavement Composition (Flexible/Rigid/ Paver Blocks) as follows:

Pavement Composition (Flexible/Rigid/ Paver Blocks)

6 Bus Bay and Bus shelter: (Clause No. 12.7 IRC: SP: 84-2019)

Provision of Busbay and bus shelter on highways as per **IRC 80 : 2022** including paving of layby, signs, markings, speed calming measures, drainage, lighting etc., in built-up areas, intersections of NH/SH/MDR and roads leading to large settlements is as follows:

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

- 6.1 Bus Bay** with tapers shall be provided along with passenger's shelters shall be constructed at the following locations.

SECTION-1 (0+000 to 117+700)

Sr. No.	Design (Existing) Chainage (Km)		Entry Taper Length	Bus Bay Length	Exit Taper Length	Remark
	Left	Right				
NIL						

SECTION-2 (7+430 to 130+100)

Sr. No.	Design (Existing) Chainage (Km)		Entry Taper Length	Bus Bay Length	Exit Taper Length	Remark
	Left	Right				
NIL						

- 6.2 Kerb Side Bus Stop with Pedestrian shelter** shall be provided at the following locations.

SECTION-1 (0+000 to 117+700)

Sr. No.	Design (Existing) Chainage (Km)		Pedestrian Shelter Length	Remark
	Left	Right		
NIL				

SECTION-2 (7+430 to 130+100)

Sr. No.	Design (Existing) Chainage (Km)		Pedestrian Shelter Length	Remark
	Left	Right		
NIL				

- 6.3 Bus Bay Pavement Provide pavement composition (Flexible/Rigid/ Paver Blocks) as follows:**

Pavement Composition (Flexible/Rigid/ Paver Blocks)	
N.A	

7 Pedestrian Facilities (Clause No. 9.8 IRC: SP: 84-2019)

Pedestrian Facilities shall be provided in accordance with the Manual of Specifications and Standards as referred in Clause 9.8 of Schedule D and IRC 103 2022. This shall consist of footpath (sidewalks), pedestrian guard rails and pedestrian crossing.

The details are as mentioned below:

SECTION-1 (0+000 to 117+700)

S. No.	Pedestrian facilities	Chainage		Side	Remarks
		From	To		
1	Pedestrian guardrails shall be 150 mm from Carriageway/Paved Shoulder i. Hazardous Locations on Straight Stretches ii. At Junctions/Intersections iii. Schools	-			-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.	Pedestrian facilities	Chainage	Side	Remarks
	iv. Bus Stop/Railway Stations v. Overpass, Subway vi. Central Reserve			
2	Footpath paving including fixing of Tactile pavers	-		-
3	Pedestrian Crossing i. At Intersections	28+530	BHS	-
		28+570	BHS	
		2 no's of pedestrian crossing on minor road at km 28+560	BHS	
		50+950	BHS	
		51+050	BHS	
		2 no's of pedestrian crossing on minor road at km 51+000	BHS	
		81+710	BHS	
		81+820	BHS	
		2 no's of pedestrian crossing on minor road at km 81+780	BHS	

SECTION-2 (7+430 to 130+100)

S. No.	Pedestrian facilities	Chainage		Side	Remarks
		From	To		
1	Pedestrian guardrails shall be 150 mm from Carriageway/Paved Shoulder i. Hazardous Locations on Straight Stretches ii. At Junctions/Intersections iii. Schools iv. Bus Stop/Railway Stations v. Overpass, Subway vi. Central Reserve	8+610	8+726	BHS	-
		8+736	8+814	BHS	
		8+835	8+907	BHS	
		8+930	8+973	BHS	
		11+878	11+984	BHS	
		12+000	12+121	BHS	
		12+160	12+410	BHS	
		12+460	12+550	BHS	
		16+008	16+089	BHS	
		24+660	24+834	LHS	
		24+834	24+895	BHS	
		24+925	25+012	BHS	
		25+012	25+290	BHS	
		29+195	29+240	RHS	
		29+255	29+470	RHS	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S.	Pedestrian facilities	Chainage		Side	Remarks
		29+480	29+530	RHS	
		29+540	29+570	RHS	
		29+570	29+740	BHS	
		29+740	29+810	LHS	
		45+462	45+784	LHS	
		45+824	46+022	LHS	
		60+000	60+302	BHS	
		60+302	60+575	LHS	
		65+540	66+020	BHS	
		68+668	69+055	BHS	
		71+146	71+384	RHS	
		85+761	86+072	BHS	
2	Footpath paving including fixing of Tactile pavers	-			-
3	Pedestrian Crossing ii. At Intersections				-

8 Highway Lighting (Clause No. 12.5 IRC: SP: 84-2019)

The street light poles shall be 1 piece, continuous-tapered, Octagonal poles and shall be manufactured from one length of steel sheet, formed in continuous tapered tube, with one continuous arc-welded vertical seam. The minimum wall thickness for lighting poles shall not be less than 4 mm. The Bottom Diameter shall be minimum 175 mm. The Top Diameter shall be minimum 75 mm. The door on window of pole shall be antitheft. All electrical cable should be concealed. All electrical lighting fixers shall be LED. The fixtures shall be concealed except on poles. Lighting poles shall be fixed on outer side of steel/concrete barrier. The lighting shall be providing at the following locations:

SECTION-1 (0+000 to 117+700)

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
1	Toll Plaza area: The lighting in and around toll plaza, toll booths, office building, on the approach road, etc. shall be as per Section 12 of the Manual. In addition to at least two high mast light (100 lux) shall be provided on either side of toll plaza	Toll Plaza at km 6+380	Toll Plaza at km 6+740	BHS	32 nos. of poles on median side of Carriageway 02 no's of High mast light	10m 30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 28+270	Slip road Toll plaza on at km 28+320	BHS	02 no's of high mast light	30m	Electricity Board/ Generator/ Solar
		Slip road	Slip road	BHS	02 nos. of High	30m	Electricity Board/

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		Toll plaza at km 28+770	Toll plaza at km 28+820		mast light		Generator/ Solar
		Slip road Toll plaza at km 46+400	Slip road Toll plaza on at km 46+500	RHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 46+600	Slip road Toll plaza on at km 46+700	LHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 46+690	Slip road Toll plaza on at km 46+790	LHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 46+750	Slip road Toll plaza on at km 46+950	RHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 50+520	Slip road Toll plaza on at km 50+620	BHS	04 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza at km 51+100	Slip road Toll plaza on at km 51+200	BHS	04 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Slip road Toll plaza on LOOP 1 at km 1+300 (Interchange at km 54+700)	Slip road Toll plaza on LOOP 1 at km 1+450 (Interchange at km 54+700)	LHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Toll plaza on slip road 81+500	Toll plaza on slip road 81+500	BHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Toll plaza on slip	Toll plaza on slip	BHS	02 nos. of High mast light	30m	Electricity Board/ Generator/ Solar

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		road 82+100	road 82+100				
		Toll plaza on Ramp 2 at km 1+450 (Interchange at km 94+300)	Toll plaza on Ramp 2 at km 1+650 (Interchange at km 94+300)	LHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Toll plaza on Ramp 1 at km 0+420 (Interchange at km 94+300)	Toll plaza on Ramp 1 at km 0+600 (Interchange at km 94+300)	RHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Toll plaza on Ramp 3 at km 0+410 (Interchange at km 94+300)	Toll plaza on Ramp 3 at km 0+580 (Interchange at km 94+300)	LHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Toll plaza on Ramp 4 at km 1+300 (Interchange at km 94+300)	Toll plaza on Ramp 4 at km 1+480 (Interchange at km 94+300)	RHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
		Main toll plaza 111+400	Main toll plaza 112+400	LHS	01 nos. of High mast light	30m	Electricity Board/ Generator/ Solar
2	Rest Areas: The entire Rest areas shall be provided with lighting with average illumination to 40 Lux.	70+700	72+500	LHS	45 no's of either left or right on Slip road and loop 62 nos. of poles on median	10m	

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		69+100	71+100	RHS	45 no's of either left or right on Slip road and loop 67 nos. of poles on median	10m	
3	Truck lay byes: The entire area of truck lay-byes and 50m length of the project highway on its either side shall be illuminated at night to provide an average illumination of 40Lux. Suitable designed electric poles having aesthetic appeal and energy saving bulbs (LED) may be used to provide required illumination. Alternatively, photo voltaic lamps may be used.	NIL					
4	Bus Bay & bus shelter locations: The entire bus bay & bus shelter area shall be provided with Lighting (Average illumination of 40 Lux.)	NIL					
5	Grade separated structures, interchanges, flyovers, underpasses (vehicular/ pedestrian) and Vehicle overpasses: - Lighting requirement shall be as per section 12 of the manual. The top and underside of the grade separated structures including	At km 0+000 (Interchange at 0+000)	At km 1+200 (Interchange at 0+000)	Median side on Main carriage way and connecting road and either left or right on	298 no's of poles on Median side on Main carriageway and connecting road and either left or right on Slip road and loop 08 no's of	10m	Lighting Source: Electricity Board/ Generator/ Solar

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
	service road/ slip road/cross road, interchange area at the ground level up to 50m beyond the point from where flaring of the main carriageway takes place/embankment height more than or equal to 6m shall be provided with lighting. Also, on all legs of at grade interchange/ crossings the lighting shall be provided 50m beyond the point from where flaring of carriageway takes place on all legs. The minimum illumination shall be 40 Lux., at the extreme edge of the Highway			Slip road and loop	Deck light under VUP. 01 no's of High mast light at the centre of loop	30m	
		At km 27+500 (Interchange at 28+550)	At km 29+500 (Interchange at 28+550)	Median side on Main carriage way and connecting road and either left or right on Slip road	218 no's of poles on Median side on Main carriageway and connecting road and either left or right on Slip road 08 no's of Deck light under VUP	10m	
		At km 46+000 (Interchange at 46+200)	At km 47+600 (Interchange at 46+200)	Median side on Main carriage way and connecting road and either left or right on Slip road and loop	297 no's of Median side on Main carriageway and connecting road and either left or right on Slip road and loop 08 no's of Deck light under VUP 01 no's of High mast light at the centre of loop	10m 30m	
		At km 47+700 (Interchange at 51+100)	At km 53+100 (Interchange at 51+100)	Median side on Main carriage way and connecting road	1034 no's of poles on Median side and connecting road and either left or right on Ramps	10m	

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S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
				and either left or right on Slip	08 no's of Deck light under VUP		
		At km 54+000 (Interchange at 54+700)	At km 55+200 (Interchange at 54+700)	Median side on Main carriageway and connecting road and either left or right on Slip road and loop	346 no's of poles on Median side on Main carriageway and connecting road and either left or right on Slip road and loop 08 no's of Deck light under VUP 02 no's of High mast light at the centre of loop	10m 10m 30m	Lighting Source: Electricity Board/ Generator/ Solar
		At km 81+000 (Interchange at 81+800)	At km 82+700 (Interchange at 81+800)	Median side on Main carriageway and connecting road and either left or right	130 no's of poles on Median side on Main carriageway and connecting road and either left or right on Slip road and loop 08 no's of Deck light under VUP	10m	
		At km 91+740 (Interchange at	At km 95+900 (Interchange at	Median side on Main carriageway	638 nos. at Median side on Main carriageway	10m	

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S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		94+300)	94+300)	way and connecting road and either left or right on Slip	and connecting road and either left or right on Slip 08 no's of Deck light under VUP		
		At km 116+200 (Interchange at 117+200)	At km 118+000 (Interchange at 117+200)	Median side on Main carriage way and connecting road and either left or right on Slip road and loop	388 nos. at Median side on Main carriageway and connecting road and either left or right on Slip road and loop 04 no's of Deck light under VUP 04 no's of High mast light at the centre of loop	10m 30m	Lighting Source: Electricity Board/ Generator/ Solar
		At all underpass locations		Median side	698 nos. of Poles on top of the Underpasses and 1396 nos. of Deck light under the underpasses.	10m	Lighting Source: Electricity Board/ Generator/ Solar
6	Built-up sections on the project highway both in the median of main carriageway and on the service roads on both sides	NIL			-	-	Lighting Source: Electricity Board/ Generator/ Solar

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
7	On Major Bridges and ROB and its approaches. Lighting shall be provided on all major bridges and Viaduct along with its approaches with embankment height more than 6m.	2+760	3+300	BHS	36 nos. on both side of Main carriageway	10m	Lighting Source: Electricity Board/ Generator/ Solar Solar Light to be preferred.
		4+750	5+250	BHS	34 nos. on both side of Main carriageway	10m	
		8+270	8+740	BHS	36 nos. on both side of Main carriageway	10m	
		9+300	9+810	BHS	36 nos. on both side of Main carriageway and ROB	10m	
		12+650	13+150	BHS	34 nos. on both side of Main carriageway	10m	
		19+840	20+340	BHS	34 nos. on both side of Main carriageway	10m	
		33+280	33+770	BHS	32 nos. on both side of Main carriageway	10m	
		53+100	53+300	BHS	14 nos. on both side of Main carriageway	10m	
		53+300	53+610	BHS	22 nos. on both side of Main carriageway	10m	
		60+200	60+700	BHS	34 nos. on both side of Main carriageway	10m	
		84+620	85+160	BHS	36 nos. on both side of Main carriageway	10m	
		88+720	89+250	BHS	36 nos. on both side of Main carriageway	10m	

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		90+740	91+280	BHS	36 nos. on both side of Main carriageway	10m	
		96+450	96+900	BHS	32 nos. on both side of Main carriageway	10m	
		101+030	101+540	BHS	34 nos. on both side of Main carriageway	10m	
		104+600	105+060	BHS	32 nos. on both side of Main carriageway	10m	
		115+700	116+100	BHS	34 nos. on both side of Main carriageway	10m	

SECTION-2 (Km 7+430 to Km 130+100)

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
1	Toll Plaza area: The lighting in and around toll plaza, toll booths, office building, on the approach road, etc. shall be as per Section 12 of the Manual. In addition to at least two high mast light (100 lux) shall be provided on either side of toll plaza	NIL					
2	Rest Areas: The entire Rest areas shall be provided with lighting with average illumination to 40 Lux.	NIL					
3	Truck lay byes: The	NIL					

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
	entire area of truck lay-byes and 50m length of the project highway on its either side shall be illuminated at night to provide an average illumination of 40Lux. Suitable designed electric poles having aesthetic appeal and energy saving bulbs (LED) may be used to provide required illumination. Alternatively, photo voltaic lamps may be used.						
4	Bus Bay & bus shelter locations: The entire bus bay & bus shelter area shall be provided with Lighting (Average illumination of 40 Lux.)				NIL		
5	Grade separated structures, interchanges, flyovers, underpasses (vehicular/ pedestrian) and Vehicle overpasses: - Lighting requirement shall be as per section 12 of the manual. The top and underside of the grade separated structures including service road/ slip road/cross road, interchange area at the ground level up to 50m beyond the point from where flaring of the main carriageway takes place/embankment				NIL		

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S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
	height more than or equal to 6m shall be provided with lighting. Also, on all legs of at grade interchange/ crossings the lighting shall be provided 50m beyond the point from where flaring of carriageway takes place on all legs. The minimum illumination shall be 40 Lux., at the extreme edge of the Highway						
6	Built-up sections on the project highway both in the median of main carriageway and on the service roads on both sides	0+000	5+376	LHS	180 Nos.	10m	Lighting Source: Electricity Board/ Generator/ Solar Solar lights to be preferred
		6+600	6+662	LHS	3 Nos.	10m	
		6+872	7+408	LHS	19 Nos.	10m	
		8+302	10+730	LHS	82 Nos.	10m	
		10+256	10+470	LHS	8 Nos.	10m	
		10+827	11+448	LHS	22 Nos.	10m	
		11+729	13+142	LHS	48 Nos.	10m	
		13+927	14+652	LHS	25 Nos.	10m	
		13+654	16+466	LHS	95 Nos.	10m	
		16+870	17+667	LHS	28 Nos.	10m	
		19+140	19+900	LHS	26 Nos.	10m	
		21+805	22+620	LHS	28 Nos.	10m	
		20+340	25+690	LHS	179 Nos.	10m	
		29+300	29+886	LHS	21 Nos.	10m	
		30+980	31+341	LHS	13 Nos.	10m	
		32+330	34+229	LHS	64 Nos.	10m	
		35+295	39+796	LHS	151 Nos.	10m	
		42+771	43+667	LHS	31 Nos.	10m	
		44+725	49+435	LHS	158 Nos.	10m	
		52+125	53+239	LHS	38 Nos.	10m	
		56+612	58+000	LHS	47 Nos.	10m	
		59+989	61+758	LHS	60 Nos.	10m	
		61+770	62+323	LHS	19 Nos.	10m	
		65+579	65+959	LHS	14 Nos.	10m	

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S. No.	Lighting facilities	Chainage		Side	No. of Poles	Height of Poles	Lighting Source: Electricity Board/ Generator/ Solar
		From (KM)	To (KM)				
		68+644	69+320	LHS	24 Nos.	10m	
		70+374	72+800	LHS	82 Nos.	10m	
		73+110	74+386	LHS	44 Nos.	10m	
		75+870	76+480	LHS	21 Nos.	10m	
		79+374	79+460	LHS	4 Nos.	10m	
		80+817	80+970	LHS	6 Nos.	10m	
		85+872	86+300	LHS	15 Nos.	10m	
		88+400	90+300	LHS	64 Nos.	10m	
		91+800	92+882	LHS	37 Nos.	10m	
		94+912	95+107	LHS	8 Nos.	10m	
		96+724	97+440	LHS	25 Nos.	10m	
		99+600	99+880	LHS	10 Nos.	10m	
		102+685	104+474	LHS	61 Nos.	10m	
		113+180	113+305	LHS	5 Nos.	10m	
		119+393	119+602	LHS	8 Nos.	10m	
		121+200	123+600	LHS	81 Nos.	10m	
7	On Major Bridges and ROB and its approaches. Lighting shall be provided on all major bridges and Viaduct along with its approaches with embankment height more than 6m.	NIL					

9 Rainwater Harvesting

The provision of rainwater harvesting shall be provided at every 500m staggered in the entire project length and shall be executed as per requirement of IRC SP: 42-2014 and IRC SP: 50-2013. Additionally, wherever urban drains are provided, which do not have a definite outfall for discharge of water, at such location one pit for rain water harvesting shall be provided along the side drains at the lowest point/ where the water stagnates. The type and location of rain water harvesting is as follows:

SECTION-1 (Km 0+000 to Km 117+700)

S. No.	Rain water Harvesting Type	Number	Depth of Recharge Structure
1	Type 1 confirming to clause 10.7.2 of IRC SP 42	-	As per Design
2	Type 2 confirming to clause 10.7.3 of IRC SP 42	470	
3	Type 3 confirming to clause 10.7.4 of IRC SP 42	-	

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S. No.	Rain water Harvesting Type	Number	Depth of Recharge Structure
4	Type 4 confirming to clause 10.7.5 of IRC SP 42	-	

SECTION-2 (Km 7+430 to Km 130+100)

S.No.	Rain water Harvesting Type	Number	Depth of Recharge Structure
1	Type 1 confirming to clause 10.7.2 of IRC SP 42	-	As per Design
2	Type 2 confirming to clause 10.7.3 of IRC SP 42	-	
3	Type 3 confirming to clause 10.7.4 of IRC SP 42	-	
4	Type 4 confirming to clause 10.7.5 of IRC SP 42	-	

Note: - (1) For crossing of impermeable zone, a recharge shaft of minimum 6 inch diameter shall be provided upto Aquifer zone.

(2) Maintenance of Rainwater Harvesting system shall be done as per Clause – 4.5.3 of IRC SP-42-2014.

10 Environmental Management Plan (Attach MOEF Mitigation Report in Schedule D)

The Concessionaire shall implement the Environmental Management plan & action Plan for undertaking possible mitigation measures in accordance with environmental clearance accorded by Ministry of Environment and Forests and climate change. The conditions & directions stipulated by the MOEF shall be complied by the contractor/ concessionaire.

11 Land Scaping and Tree Plantation (Section 11 of IRC SP 84-2019)

The Concessionaire shall plant trees and shrubs of required numbers and types at the appropriate locations within Right of Way and in the land earmarked by the Authority for afforestation as per Schedule D at the following areas.

Sl. No.	Types of Plantation	Location (Km)	Number of trees to be planted	Remarks
1	Shrubs	In median except Structures+ Frist row from side of drain	1 row of 333 plants for the median of 2-3 metre at every km. and 2 rows of 333 plants (staggered) for the median of 3 metre and more	Ornamental type plantation shall be provided
2	Land Scaping	O & M Centers, Vacant land parcels, lend within loops of flyovers, Toll Plaza building and surroundings Vacant space below the flyovers	Landscaping plans will be submitted by the Concessionaire/Contractor which shall include ornamental trees, decorative statues and landscaping	The number of Ornamental type plantation and other things shall be decided on the basis availability of land.

Drip irrigation system for median plantation by gravity/pressure sources with all necessary components / systems and emitting devices at plants shall be provided.

The Concessionaire shall maintain the trees and shrubs in good condition during concession period as per the concession agreement.

12 Advanced Traffic Management System (ATMS) (NHAI Policy Circular No 11.53/2023 dated 10th October, 2023)

The Concessionaire is required to design, install, operate and maintain Advanced Traffic Management System (ATMS) as part of the project facilities. Advanced Traffic Management System shall be provided as per standards and specifications specified in the manual and NHAI circular 11.53/2023 dated 10th October, 2023 and shall be maintained throughout the contract period.

The ATMS components to be deployed shall inter alia include:

12.1 General

The ATMS Project shall broadly include the following sub-systems to be provided as per the standards & specifications mentioned in NHAI Policy Circular No 11.53/2023 dated 10th October, 2023

12.1.1 Video Surveillance System / Traffic Monitoring Camera System (TMCS)

12.1.2 Video Incident Detection System (VIDS)

12.1.3 Vehicle Actuated Speed Display System (VASDS)

12.1.4 Fixed and Portable Variable Message Sign (VMS) System

12.1.5 Communication Network with OFC Backbone

12.1.6 Common ATMS Command & Control Center (01) for Km. 1+650

12.1.7 Power Supply for Field Equipment as well as for ATMS Command & Control Center

12.1.8 Operation & Maintenance (O&M) of the entire ATMS Facility

12.1.9 Maintenance Vehicle

12.2 The requirements stated herein shall be construed as minimum requirement and meeting the respective requirements individually shall not relieve the Contractor from the responsibility. The entire system should function efficiently as an integrated solution during the entire O&M period.

12.2.1 Video Surveillance System / Traffic Monitoring Camera System (TMCS)

- (i) The system monitors vehicular and other road related activity along the highway stretch through PTZ Camera mounted on Poles. Generally, the camera should be placed at a distance not greater than 1km so as to effectively monitor all the lanes of the entire stretch of Highway. In case certain stretches include regular curves, ramps etc not allowing central line of sight, then additional TMCS camera shall be put to ensure effective surveillance of the entire stretch. The TMCS cameras should also be placed on the following Junctions below the Grade Separated Structure.

- (ii) The TMCS should also be provided at the following Junctions so as to monitor the traffic at the following junctions:

SECTION-1 (0+000 to 117+700)

Sl No	Location (Km)	LHS/ RHS/ BHS	Remarks
1	0+000	BHS	Installed at every 1 Km in the median for monitoring 500m stretch in each direction during day & night
2	28+500	LHS	
3	28+620	RHS	
4	46+200	LHS	
5	46+380	RHS	
6	50+900	LHS	
7	51+040	RHS	
8	53+080	LHS	
9	53+240	RHS	
10	Loop 1 km 1+000 (Interchange at 54+650)	LHS	
11	Slip Road RHS km 1+3500 (Interchange at 54+650)	RHS	
12	81+720	BHS	
13	81+820	BHS	
14	94+300	BHS	
15	117+150	BHS	

SECTION-2 (Km 7+430 to Km 130+100)

Sl No	Location (Km)	LHS/ RHS/ BHS	Remarks
NIL			

12.2.2 Video Incident Detection System (VIDS)

The VIDS include Gantry Mounted ANPR Cameras, Overview Cameras and associated incident detection software system to effectively detect pre-defined actionable incidents which triggers enforcement and incident response system. The VIDS should also act as Automatic Traffic Counting and Classifying (ATCC) system. The VIDS should be provided at following locations:

SECTION-1 (0+000 to 117+700)

Sl No	Location (Km)	Side	Remarks	Availability of Full Gantry**
1	0+000	LHS	Installed at each junction point of the ramps at interchange such that one camera monitors the ramp and	Yes
2	0+750	RHS		Yes
3	27+900	RHS		Yes
4	29+150	LHS		Yes
5	45+700	RHS		Yes

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Sl No	Location (Km)	Side	Remarks	Availability of Full Gantry**
6	47+400	LHS	other two cameras monitor MCW.	Yes
7	51+300	LHS		Yes
8	52+300	RHS		Yes
9	53+800	LHS		Yes
10	54+000	RHS		Yes
11	55+100	LHS		Yes
12	81+200	RHS		
13	82+400	LHS		
14	93+400	RHS		Yes
15	95+000	LHS		Yes
16	116+400	RHS		Yes
17	117+700	LHS		Yes

SECTION-2 (Km 7+430 to Km 130+100)

Sl No	Location (Km)	Side	Remarks	Availability of Full Gantry**
NIL				

** [The Table should include a column informing whether full Gantry is available at that location or not. VIDS system requires full Gantry on both LHS & RHS]

12.2.3 Vehicle Actuated Speed Display (VASD) System

The VASD system shall include gantry mounted Radar and Speed Display system for each lane to warn the road users of their speed. The system shall act as a Speed Calming Measure. VASD System should be provided at following locations along the Highways:

SECTION-1 (0+000 to 117+700)

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
1	20+000	Both sides	To be provided
2	40+000	Both sides	To be provided
3	60+000	Both sides	To be provided
4	80+000	Both sides	To be provided
5	100+000	Both sides	To be provided

SECTION-2 (Km 7+430 to Km 130+100)

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
NIL			

** [The Table should include a column informing whether full Gantry is available at that location or not VIDS system requires full Gantry on both LHS & RHS]

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

12.2.4 Variable Message Sign (VMS) System

The VMS shall provide road users advance information of road conditions ahead and shall be controlled from the local ATMS Control center. The VMS shall be installed at following locations:

12.2.4.1 Fixed VMS**12.2.4.1.1 Gantry (M Type)****SECTION-1 (0+000 to 117+700)**

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
1	20+000	Both sides	To be provided
2	40+000	Both sides	To be provided
3	60+000	Both sides	To be provided
4	80+000	Both sides	To be provided
5	100+000	Both sides	To be provided

SECTION-2 (Km 7+430 to Km 130+100)

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
NIL			

**[The Table should include a column informing whether full Gantry is available at that location or not VIDS system requires full Gantry]

12.2.4.1.2 Cantilever (L Type)**SECTION-1 (0+000 to 117+700)**

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
1	2+200	RHS	To be provided
2	26+500	LHS	To be provided
3	30+600	RHS	To be provided
4	45+000	LHS	To be provided
5	49+500	RHS	To be provided
7	53+000	RHS	To be provided
8	79+800	LHS	To be provided
9	83+800	RHS	To be provided
10	90+300	LHS	To be provided
11	97+200	RHS	To be provided
12	114+900	LHS	To be provided

SECTION-2 (Km 7+430 to Km 130+100)

Sl No	Location (Km)	Remarks	Availability of Full Gantry**
NIL			

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

** [The Table should include a column informing whether full Gantry is available at that location or not VMS L Type requires cantilever Gantry]

12.2.4.2 Portable VMS

The Contractor shall provide 04 (Nos) Trolley Mounted Portable VMS

12.2.5 Communication Network with OFC Backbone

The entire Expressway stretch shall be provided with minimum 24 Core OFC Backbone as per the standards & specifications. The short haul connections like between field equipment to access points, access points to OFC backbone etc. shall be done with minimum 12 Core cable. The OFC shall be laid strictly as per the Standards and Specification.

12.2.6 ATMS Command and Control Center

01 ATMS Command and Control Centre structure will be constructed by Civil Contractor of NHAI at Km 6+500. The ATMS Contractor shall set up and operate the ATMS Command And Control Center as per the Standards and Specification. The ATMS Contractor shall undertake any additional civil works, interior works, MEP works, for setting up the Command Center, including all additional related electrical, lighting, electrical connection, DG set, power backup, HVAC works, access control, building CCTV, PTZ cameras outside building, firefighting system, alarm, fire extinguishers, raised floor, housekeeping, building cleaning, maintenance, recurring charges including electricity bills, telephone bills, DG fuel, servicing, security.

12.2.7 Power Supply for ATMS Command & Control Center and Field Equipment

The Contractor shall ensure 24x7 supply for the ATMS Command and Control Centre and Field Equipment with supply power from Electricity Department as primary source supported by UPS renewable power (solar etc.) and DG Set of adequate capacity.

There shall be NO obligation of NHAI with regard to providing power/ electricity supply/connections for testing commission, operation & maintenance of any component of the ATMS. Further, the following points are to also be observed by the ATMS contractor:

- a. The Contractor shall perform all the necessary application procedures to the Power Company required for the power to be supplied to the Traffic Management Centre, Sub-Centre and the field equipment in their own name. All the expenses charged by Power Companies regarding such applications and execution of work shall be borne by the Contractor as part of the scope of this contract. Any damage to the highway during such execution of work shall have to be repaired by the ATMS Contractor to the pre-existing condition without any cost implications to NHAI.
- b. The Contractor shall make all necessary arrangements for the electricity needed for the execution of the Works and O&M period for the entire period of the Contract. In case electricity is not made available through electricity companies, alternate electricity arrangement such as through renewable energy/DG Set should be made by the Contractor. Under no circumstances NHAI shall grant an extension of time for achieving the milestones if the contractor is unable to make the electricity arrangement either for the execution of the work or for the O&M activities.
- c. The fixed charges, installation charges, recurring charges, electricity bill, DG set fuel, maintenance etc. for each field equipment, TMC, Control Centre, Sub-centre, Contractor's site office, or any other facility being used by the Contractor under the scope of this Contract shall be in the scope of the

Contractor only for the entire Contract period i.e., Design phase, procurement, installation, testing, trial-run, commissioning, operations, and maintenance period. The Authority shall not be responsible for any provision for power supply during implementation as well as operations and maintenance period.

12.2.8 Operation & Maintenance (O&M) of the entire ATMS Facility.

- a. The O&M period after the successful completion of works shall include Operation & Maintenance of the entire ATMS Facility as per the Service Level Agreement (SLA) with Qualified Manpower mentioned in Standards & Specifications including supply of adequate spares, parts, consumables and maintenance equipment required for the facility. The Contractor shall maintain required spare parts to maintain required service levels.
- b. The Contractor shall have sufficient infrastructure and capability to keep/store spares required for maintenances and will at all times during the contract period maintain sufficient inventory of spares and consumables for operating and maintaining the ATMS and to meet the Service Level requirements.
- c. Before the start of O&M Period, the Contractor shall deploy the O&M Personal mentioned at Appendix-C of Standards & Specification with prior approval of the Authority.

12.2.9 Maintenance Vehicle

The ATMS Contractor shall keep adequate numbers of dedicated vehicles (minimum 1 vehicle per 50km) to attend the maintenance requirement during the Operation & Maintenance period.

13 Highway Patrol Units (Clause No. 12.10 of IRC: SP: 84-2019)

Highway Patrol units shall be established and operate at toll plaza location as per Schedule-D Clause 12.10 (strictly as per details mentioned in Annexure-C), which shall continuously patrol the highway in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of patrol vehicle per 50 km or less shall be provided). The vehicle shall be brand new with fuel, driver, and insurance all-inclusive for the entire contract period. Highway Patrol units shall be fitted with GPS and GSM based vehicle tracker system. Highway Patrol Vehicles shall be stationed on layby constructed on Project Highway @ every 20 km of each Toll Plaza.

14 Emergency medical services (Clause No. 12.11 of IRC: SP: 84-2019)

The Contractor shall, at its own cost, construct a medical aid post at each toll plaza with a minimum size of 5 x 5 sq.m with a toilet (to be used for the patients of minimum size of 3 x3 sq.m) and hand it over to the Authority, no later than 30 (thirty) days prior to PCOD/COD. The Medical Aid Post(s) shall be deemed to be part of the project and shall vest in the Authority. Medical Aid Post shall be set up at Administrative Block with round-the-clock services for victims of accidents on the Project Highway.

One number Ambulance shall be provided in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of ambulances per 50 km or less shall be provided). The Ambulance shall be brand new with fuel, driver, medical staff and insurance all-inclusive for the entire contract period. Ambulance fitted with GPS and GSM based vehicle tracker system shall be provided to be integrated with the Video Incident Detection System with ATMS, as per Schedule-D, Clause 12.11 (strictly as per details mentioned in Annexure-D), along with all necessary manpower (including paramedical staff),

medicines, equipment's etc. and shall be maintained in an effective manner throughout the contract period starting from the appointed date. Ambulance shall be stationed on layby constructed on Project Highway @ every 20 km of each Toll Plaza.

15 Crane Service: (Clause No. 12.12 of IRC: SP: 84-2019)

Crane Service shall be provided on project highway, as specified in the manual Clause 12.12. One number crane shall be provided in a stretch not exceeding 50 km (if the stretch is more than 50 km additional 1 number of crane per 50 km or less shall be provided). Crane having capacity of minimum 20T shall be made available. The crane shall be brand new with fuel, driver, and insurance all-inclusive for the entire contract period. Cranes shall be stationed on layby constructed on Project Highway @ every 20 km of each Toll Plaza.

16 Cattle Shelter

Cattle shelter shall be provided at following locations as per NHAI/Policy Guidelines/Standard Documents/2025 Policy Circular No.11.65/2025 Dated 14.06.2024 :-

SECTION-1 (0+000 to 117+700)

S. No	Item	Design Chainage (Km)	Side	Remarks
01	Cattle Shelter	71+150	LHS	Total area = .5 hectare
02	Cattle Shelter	69+440	RHS	Total area = .5 hectare

Basic Facilities for Cattle Shelter is given below:

1. Shelter Facilities

- Each cattle shelter will include:
- Cattle shed for housing.
- Fodder storage.
- Medicine room for veterinary supplies.
- Paramedical staff support.
- Feeding and drinking water facilities.
- Lighting for nighttime safety.
- Fencing to confine the cattle.
- Basic amenities for caretakers and staff (e.g., restrooms, accommodation).

2. Regulatory Compliance:

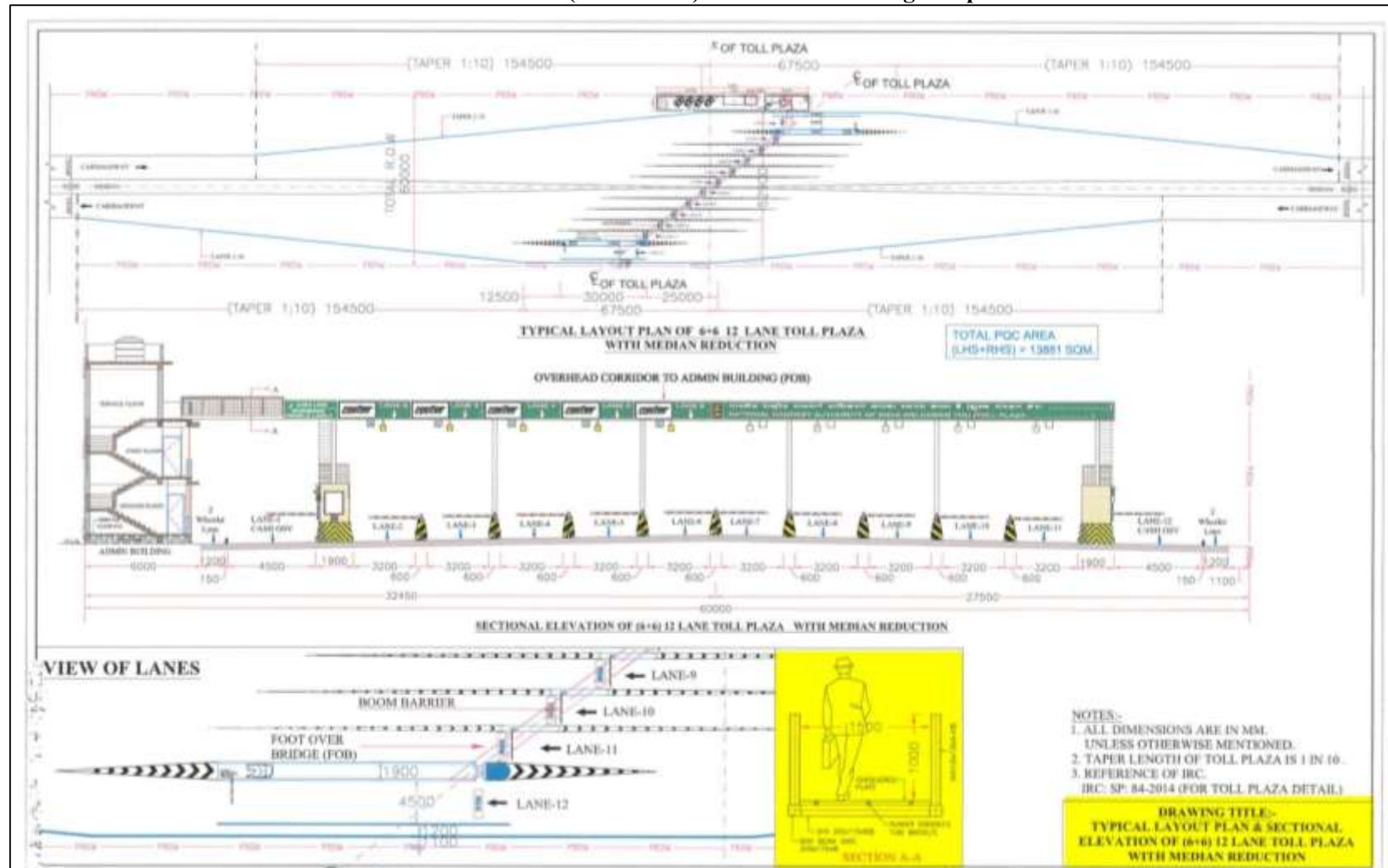
- All elements of the shelter design and operation will conform to applicable laws and guidelines, including:
- The Cattle Trespass Act, 1871.
- The Control of National Highways Act, 2002.
- Animal Husbandry regulations and directives of local administrative authorities.

3. Provisions for Injured Cattle:-

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

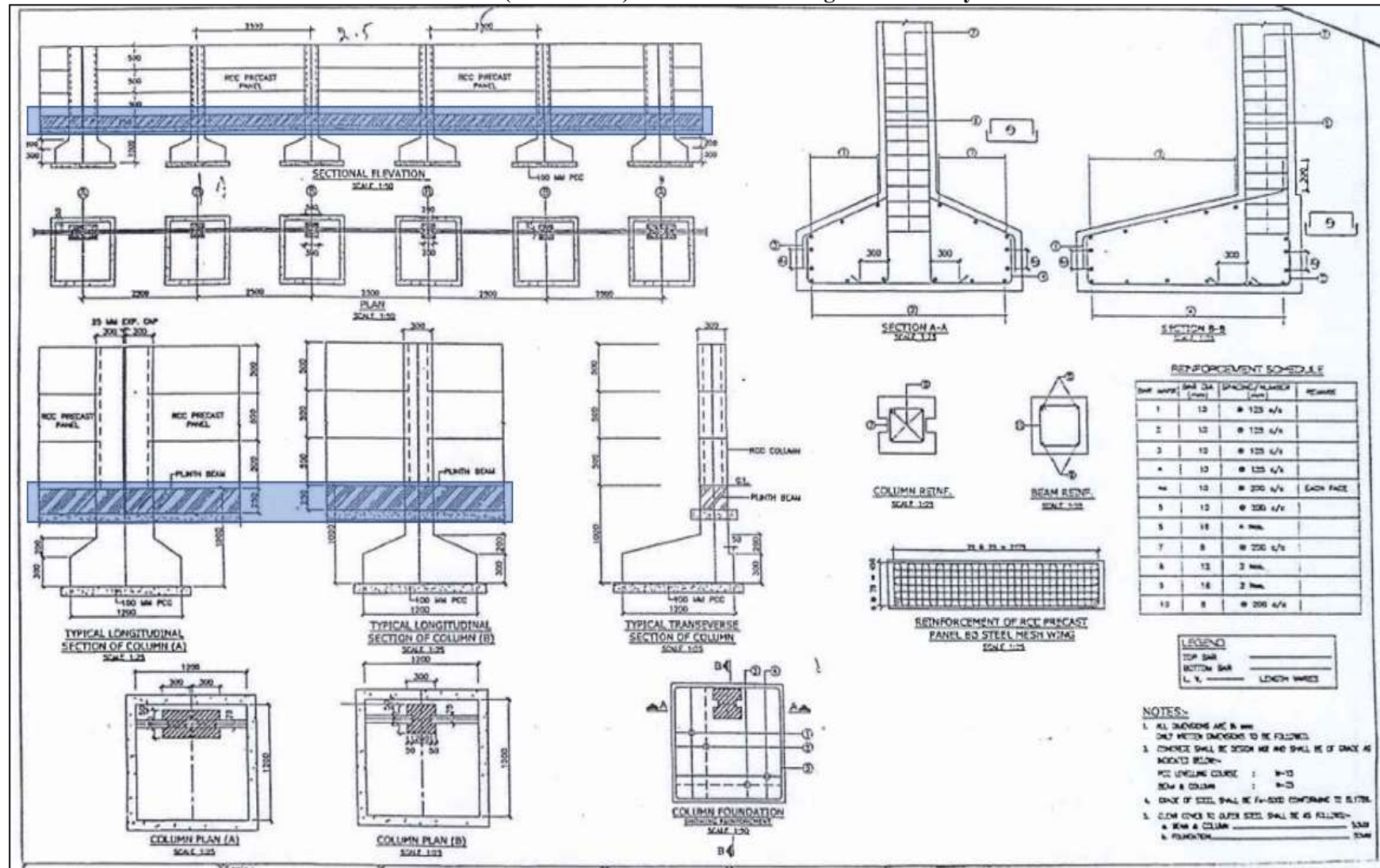
- The shelters will also include provisions for injured animals
- Ramps for loading and unloading injured cattle into and out of vehicles safely
- A cattle ambulance service for transporting injured cattle to veterinary care centers.

Annexure-II (Schedule C) - Standard Drawing Toll plaza



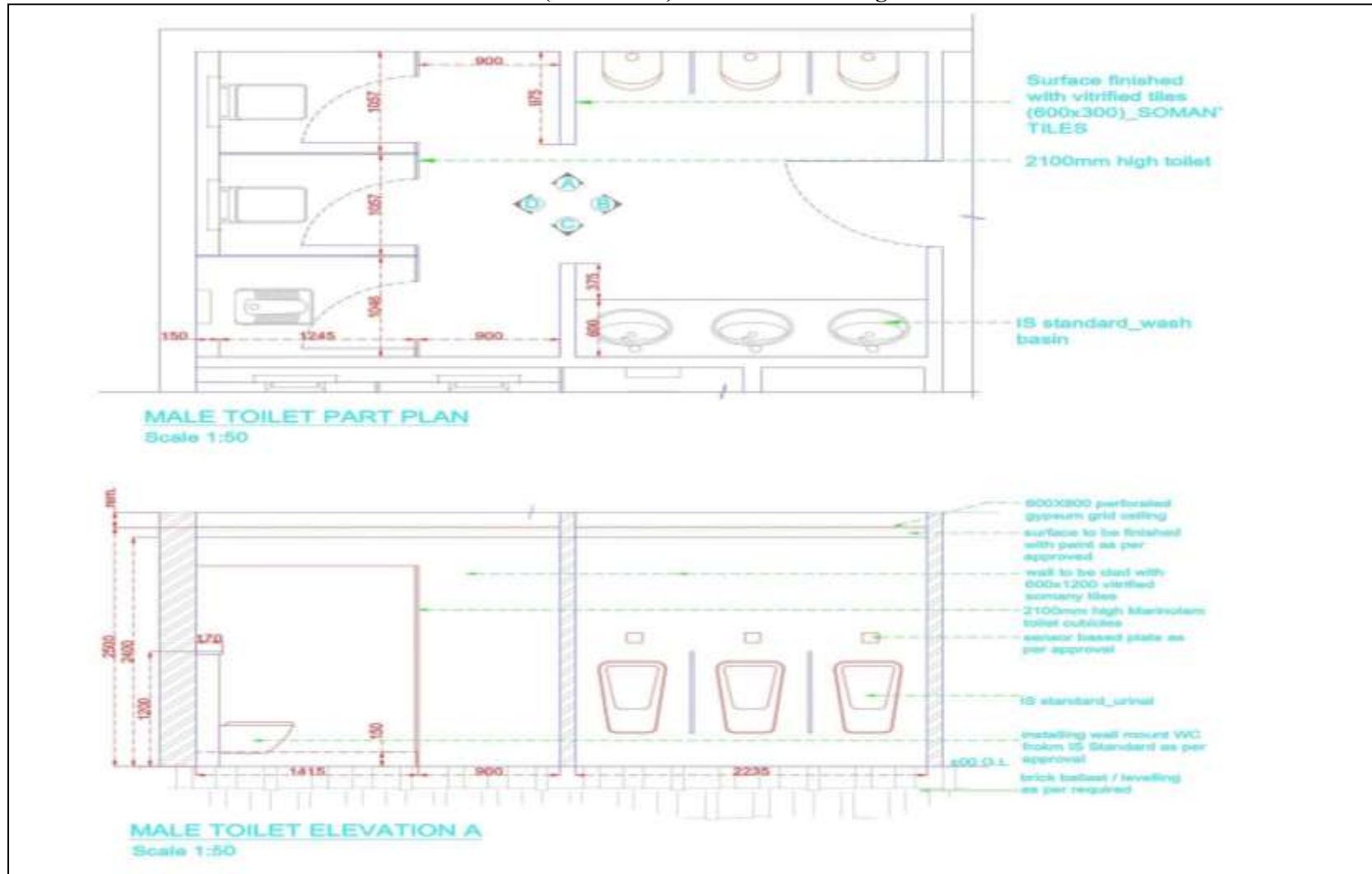
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Annexure-III (Schedule C) - Standard Drawing for Boundary wall

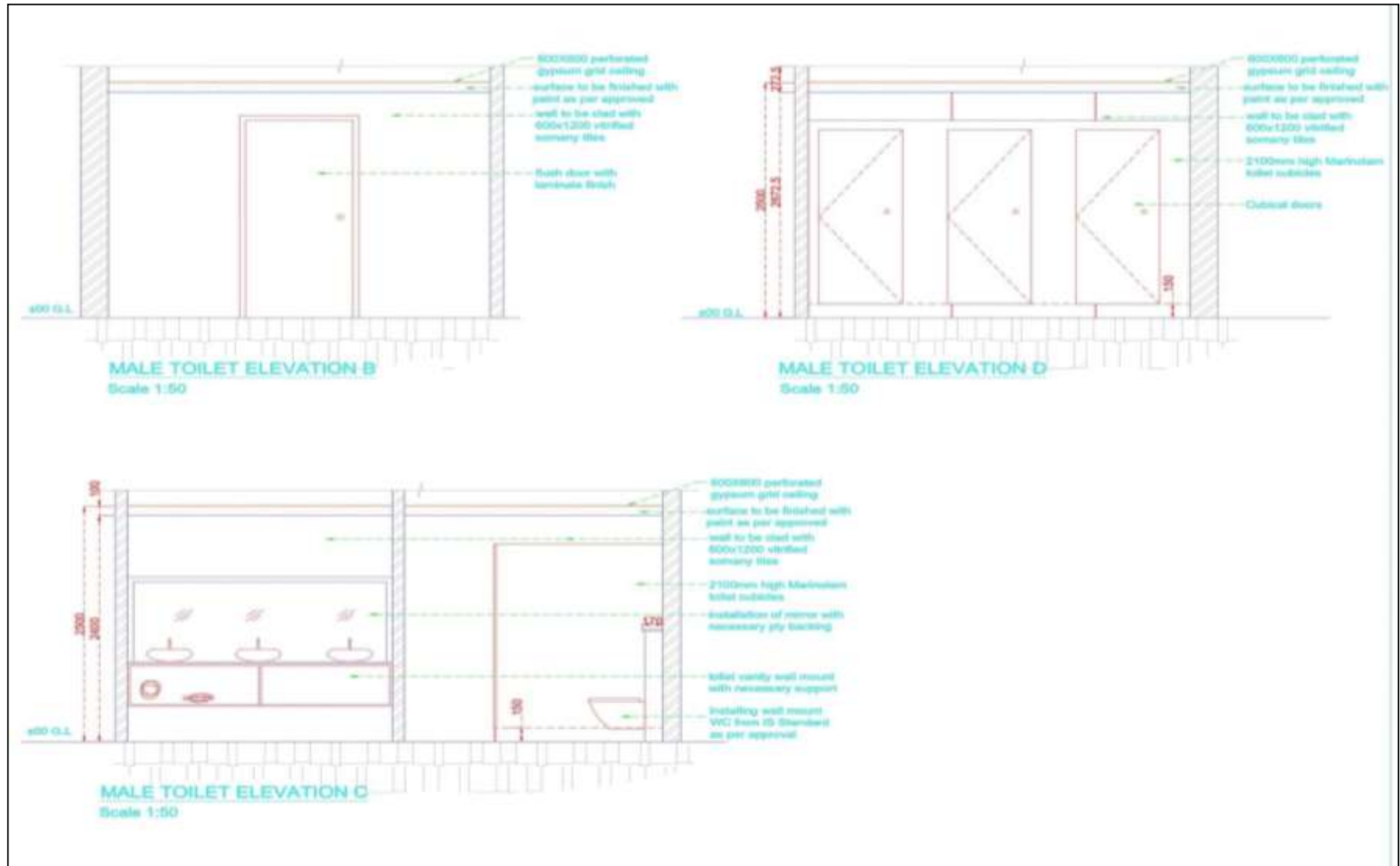


SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

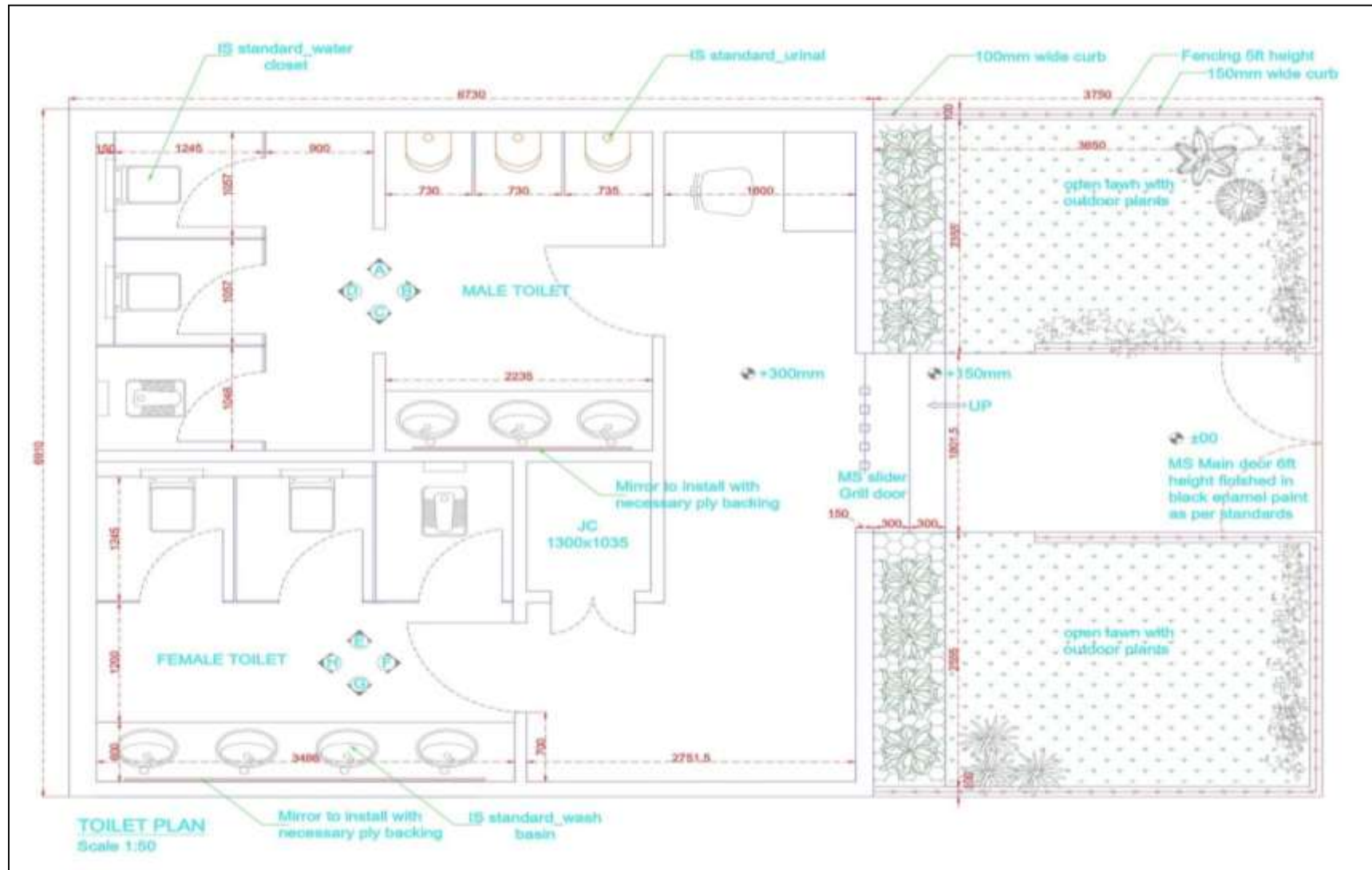
Annexure-IV (Schedule C) - Standard Drawing for Toilet



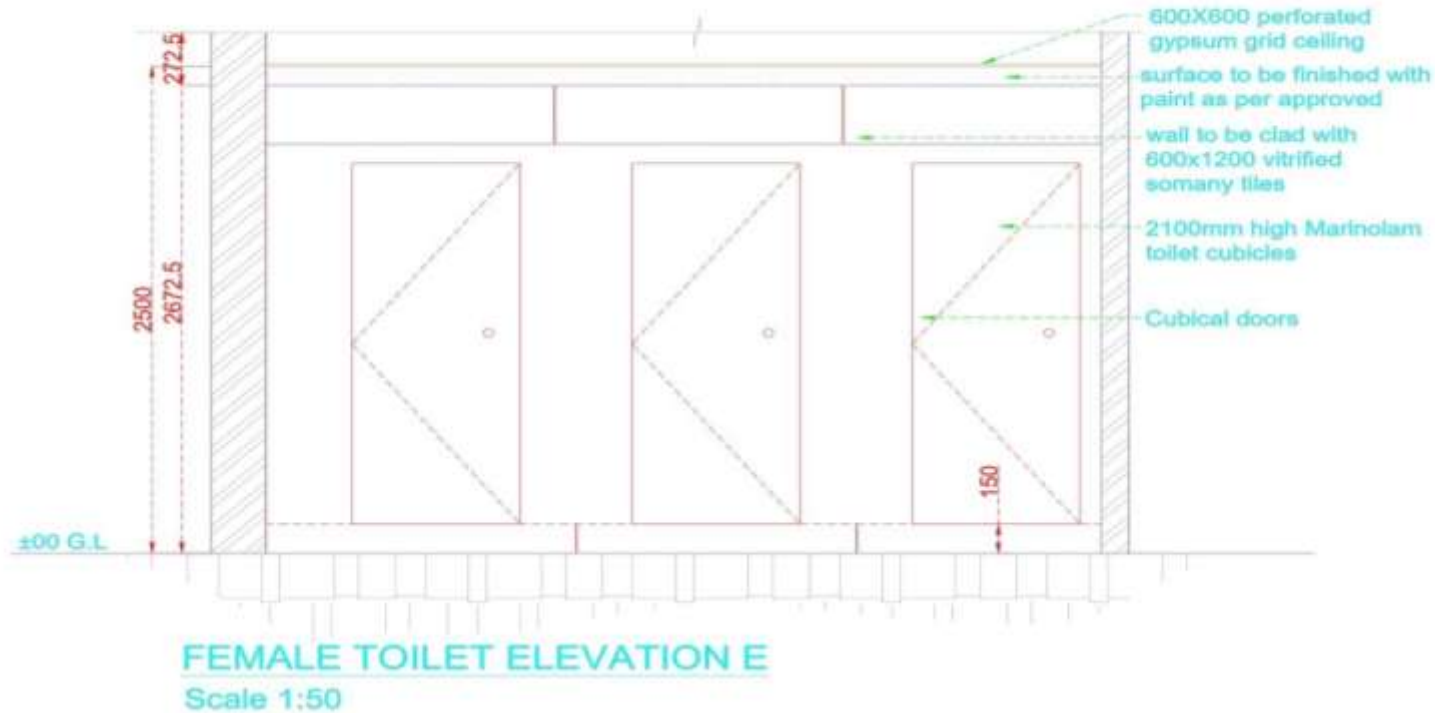
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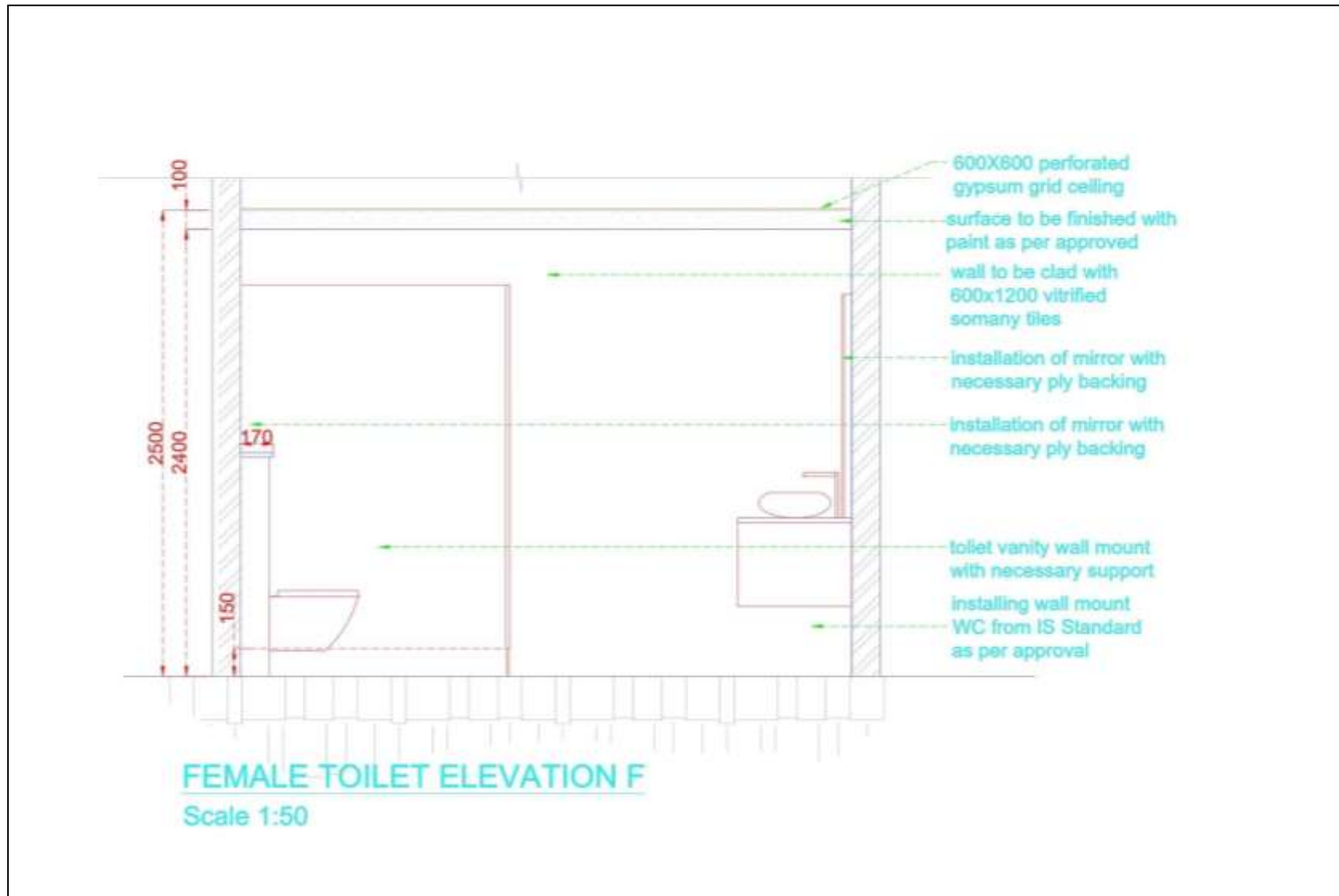
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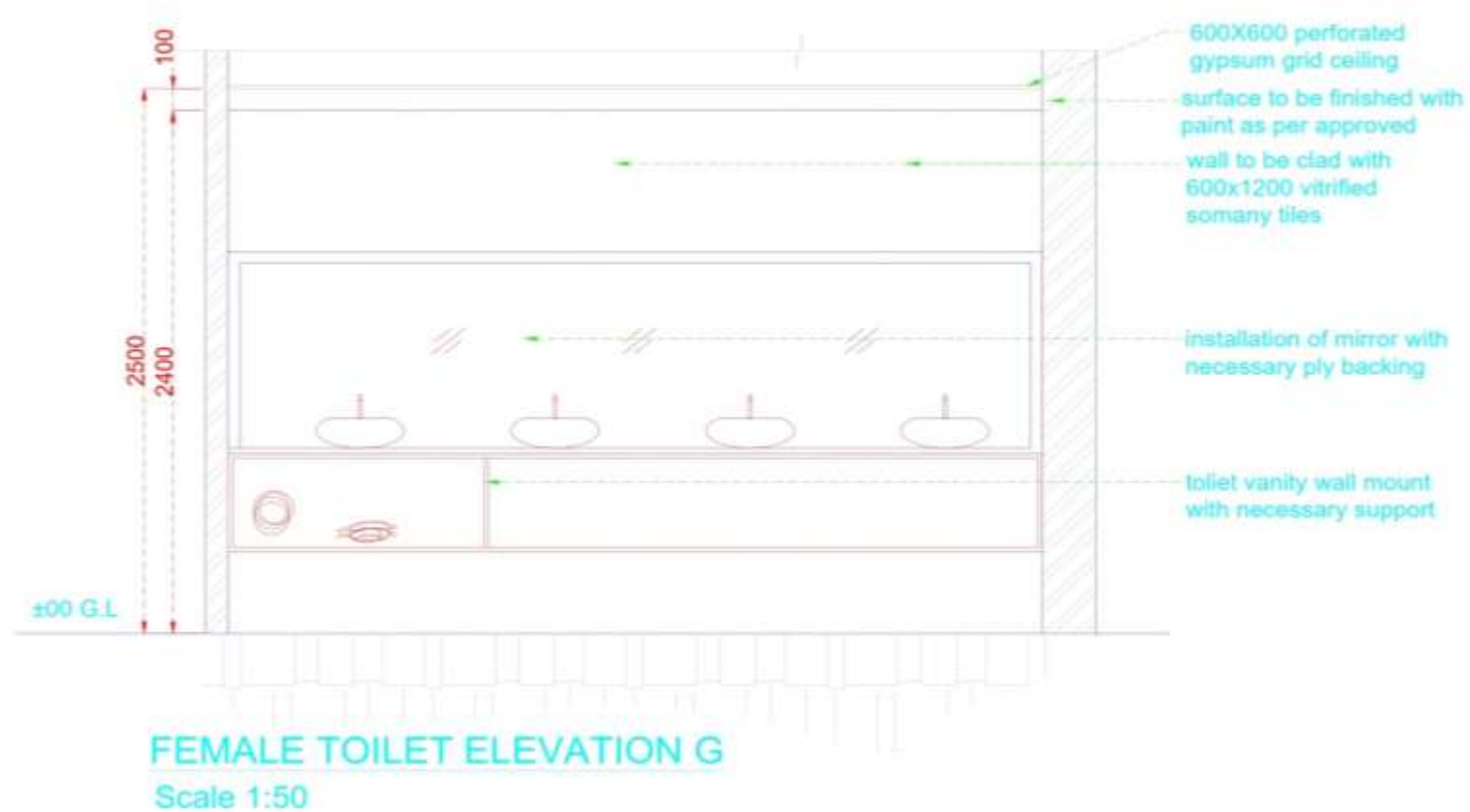
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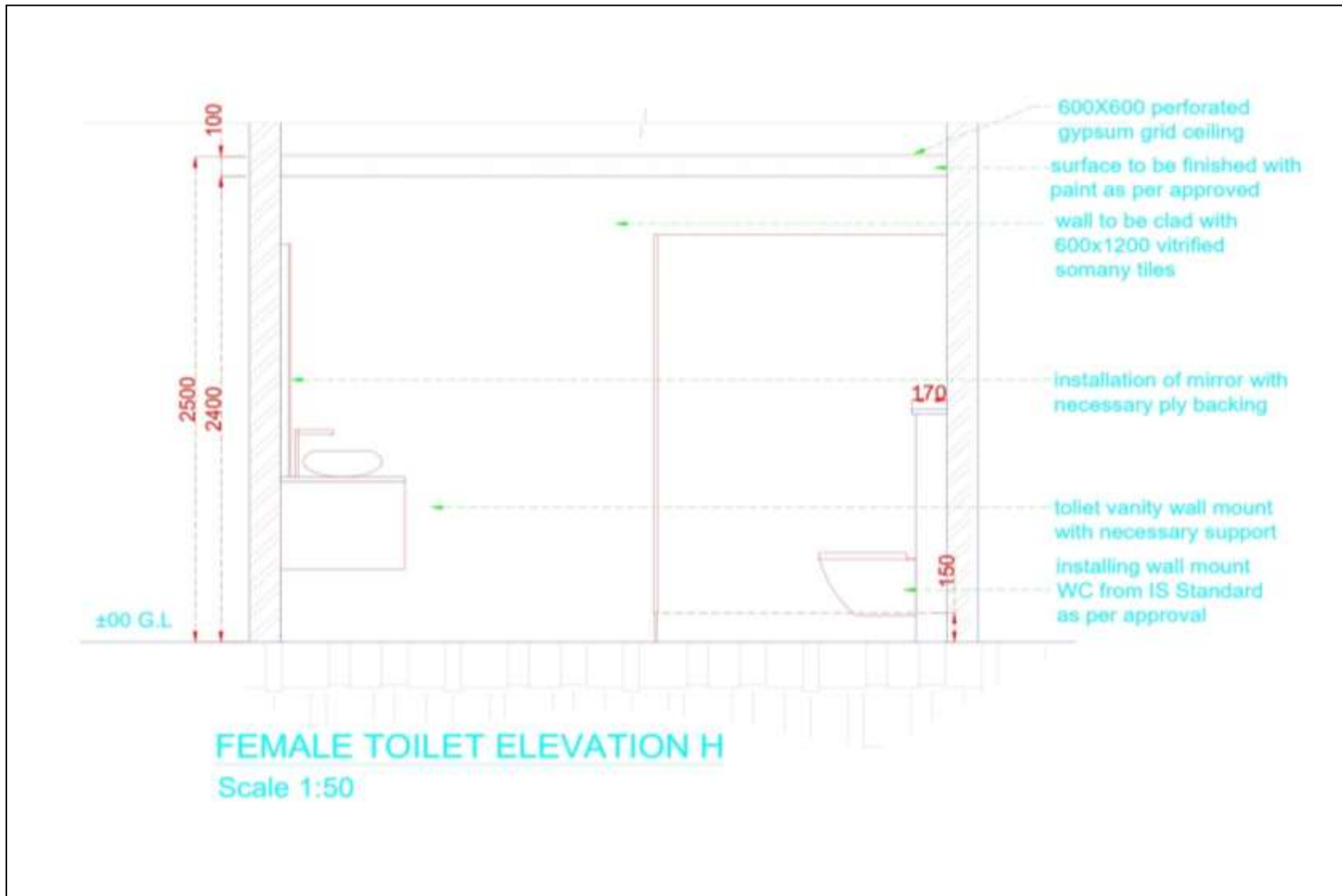
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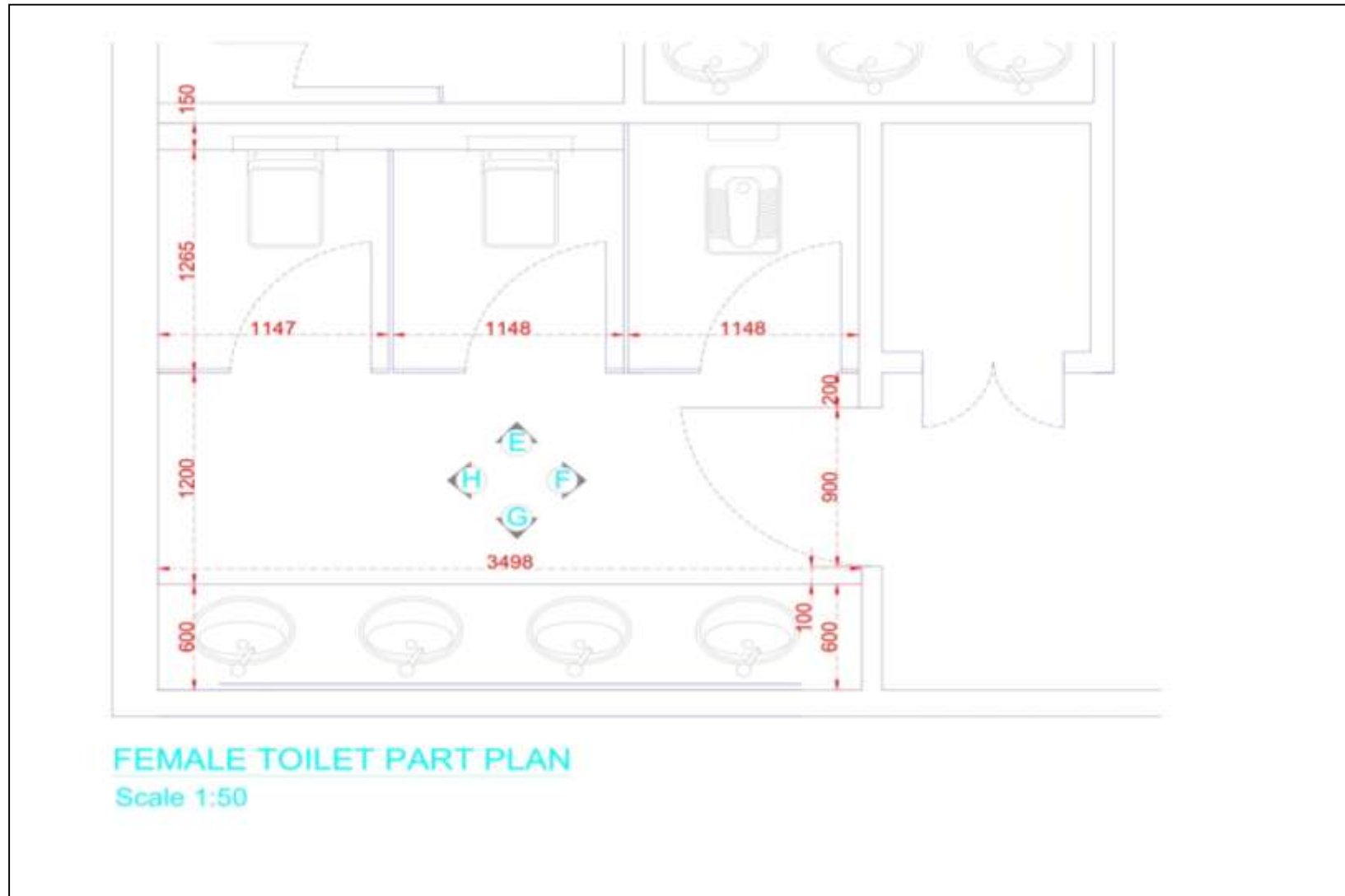
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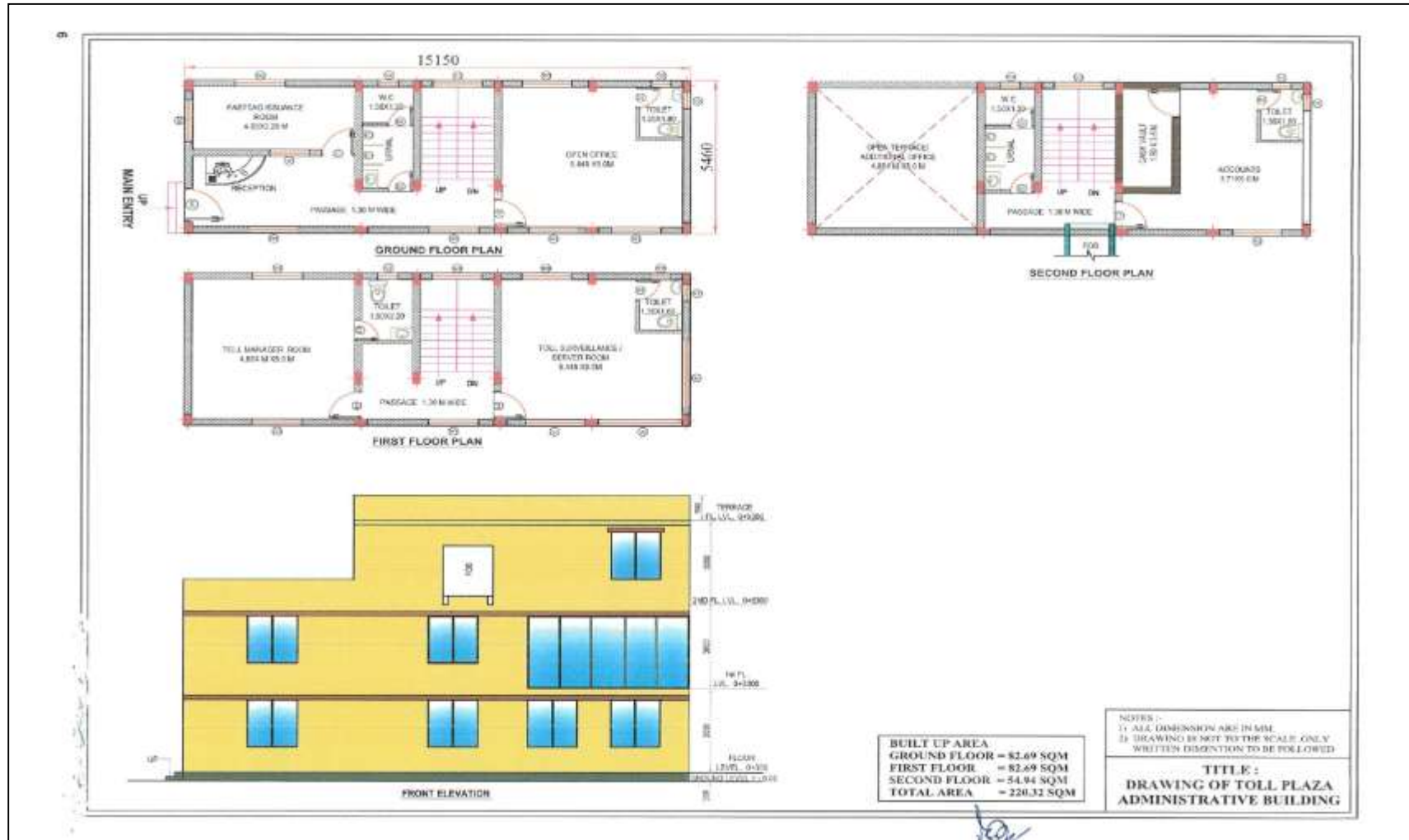


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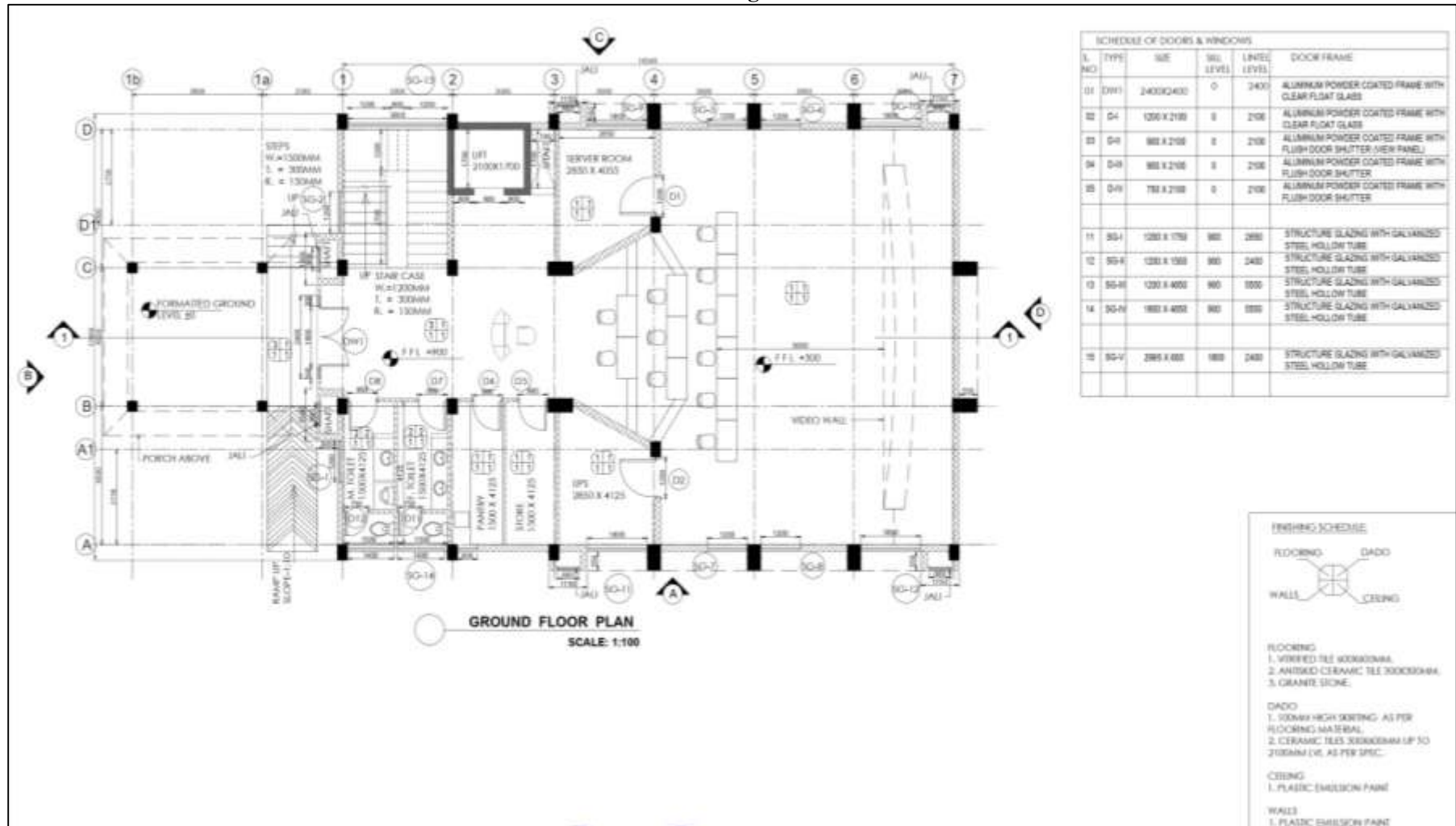
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Annexure-V (Schedule C) - Standard Drawing for Admin building



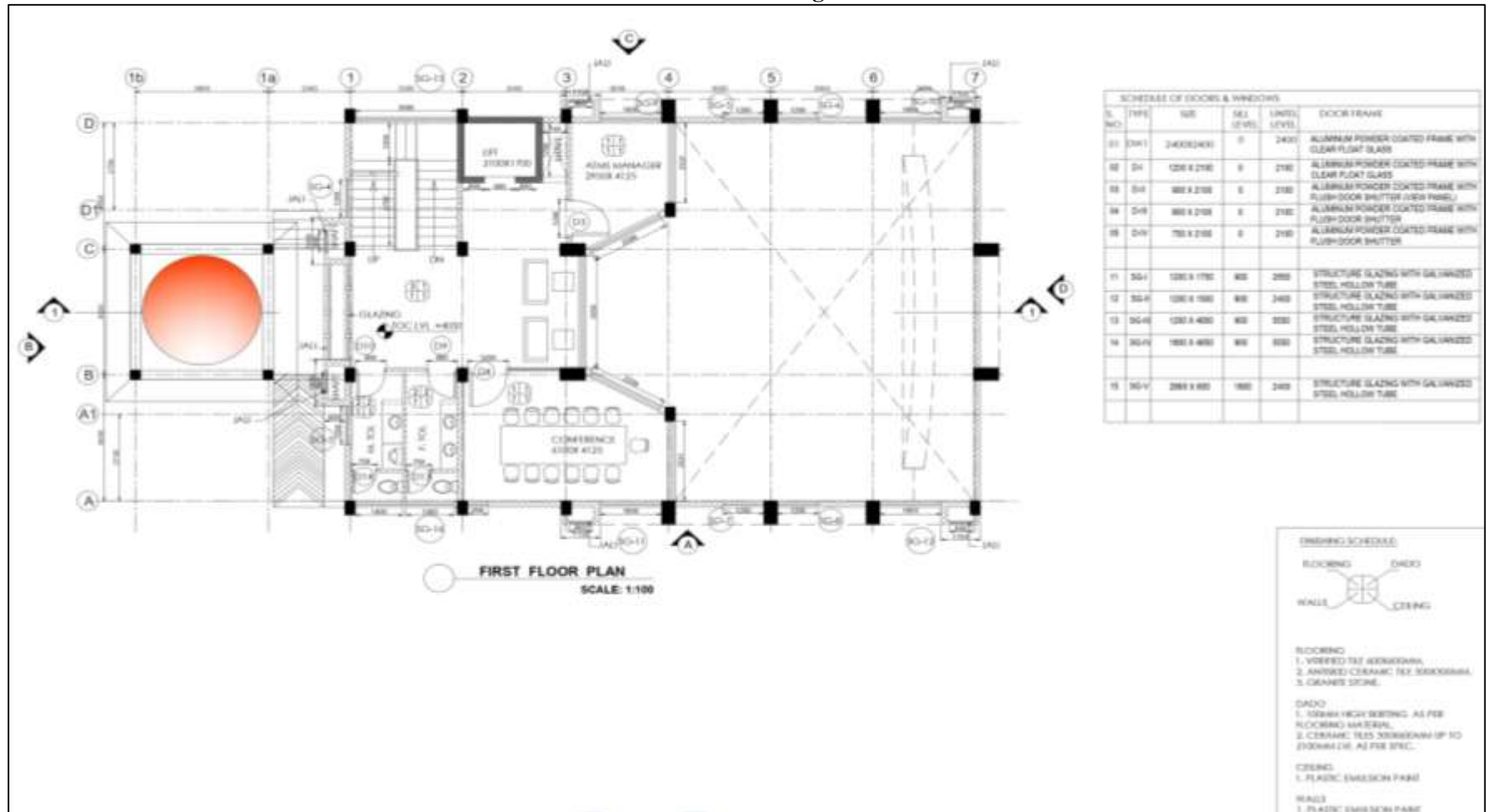
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Annexure-VI
(Schedule C)
Common ATMS Control Center along with ATMS control Center



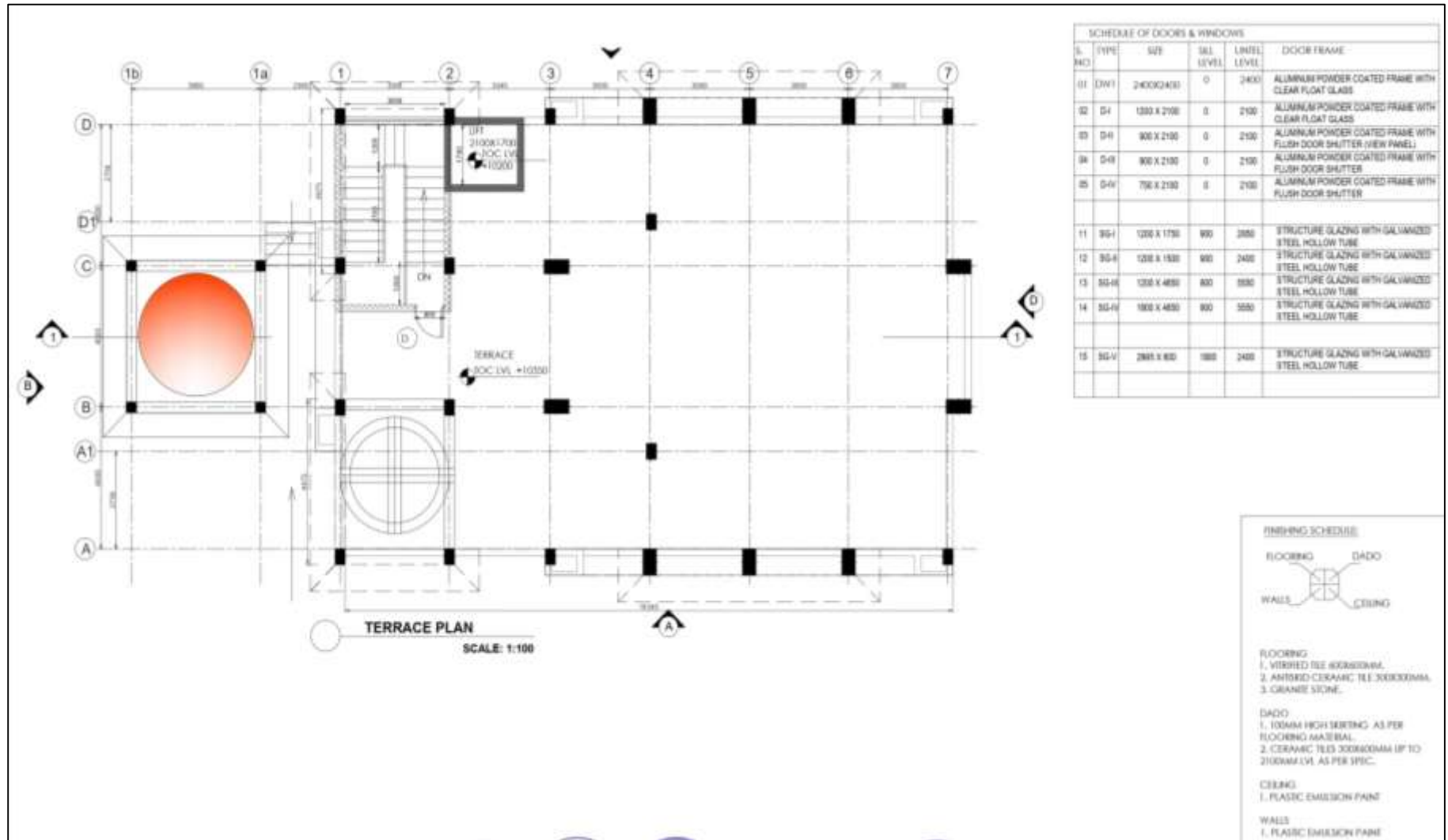
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Annexure- VI Schedule-C
Common ATMS Control Center along with ATMS Center



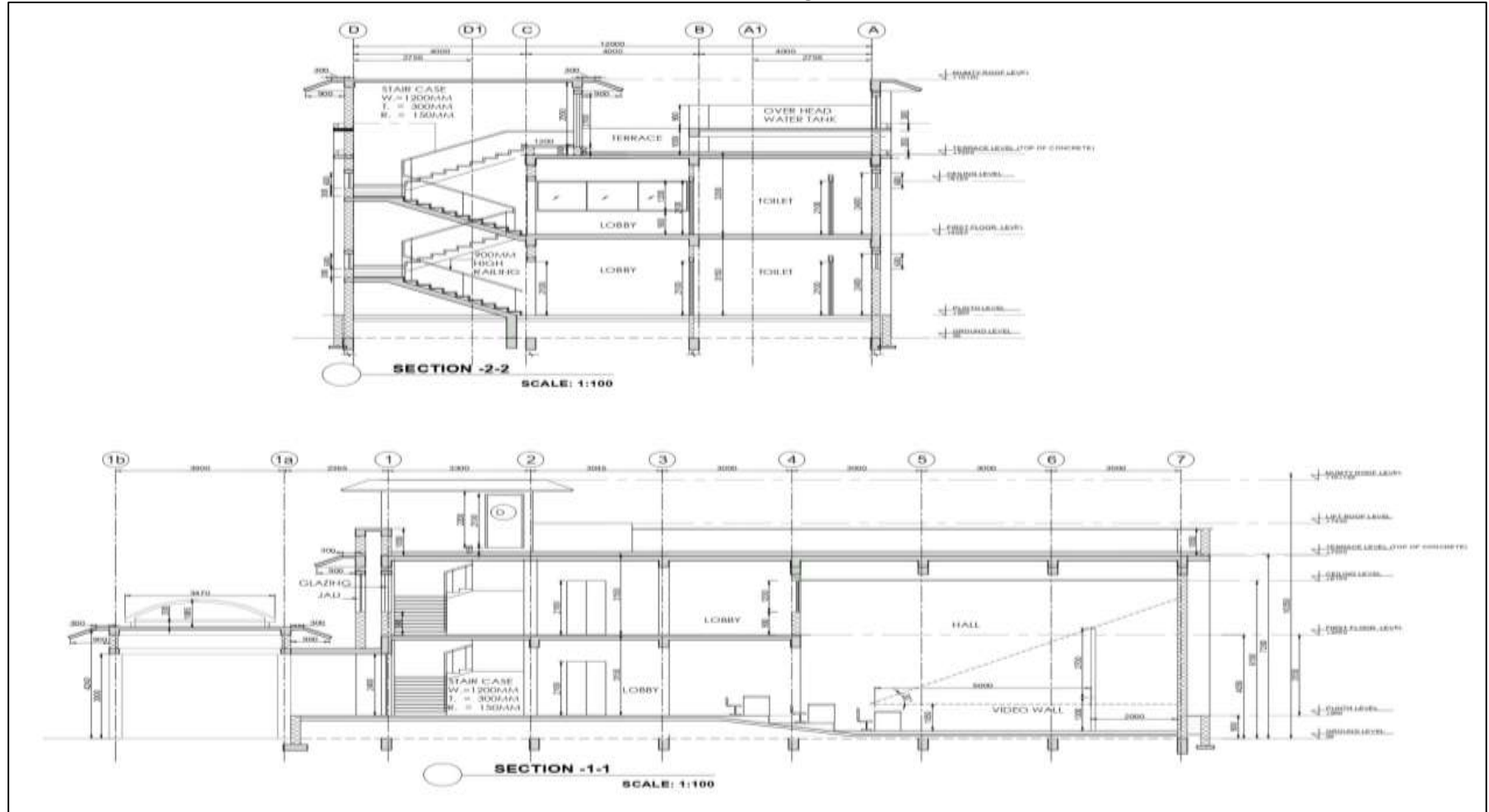
SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. C32

Annexure-VI Schedule-C
Common ATMS Control Center along with ATMS Center



SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. C34

Annexure-VI Schedule-C
Common ATMS Control Center along with ATMS Center



Annexure-VI Schedule-C

SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. C35

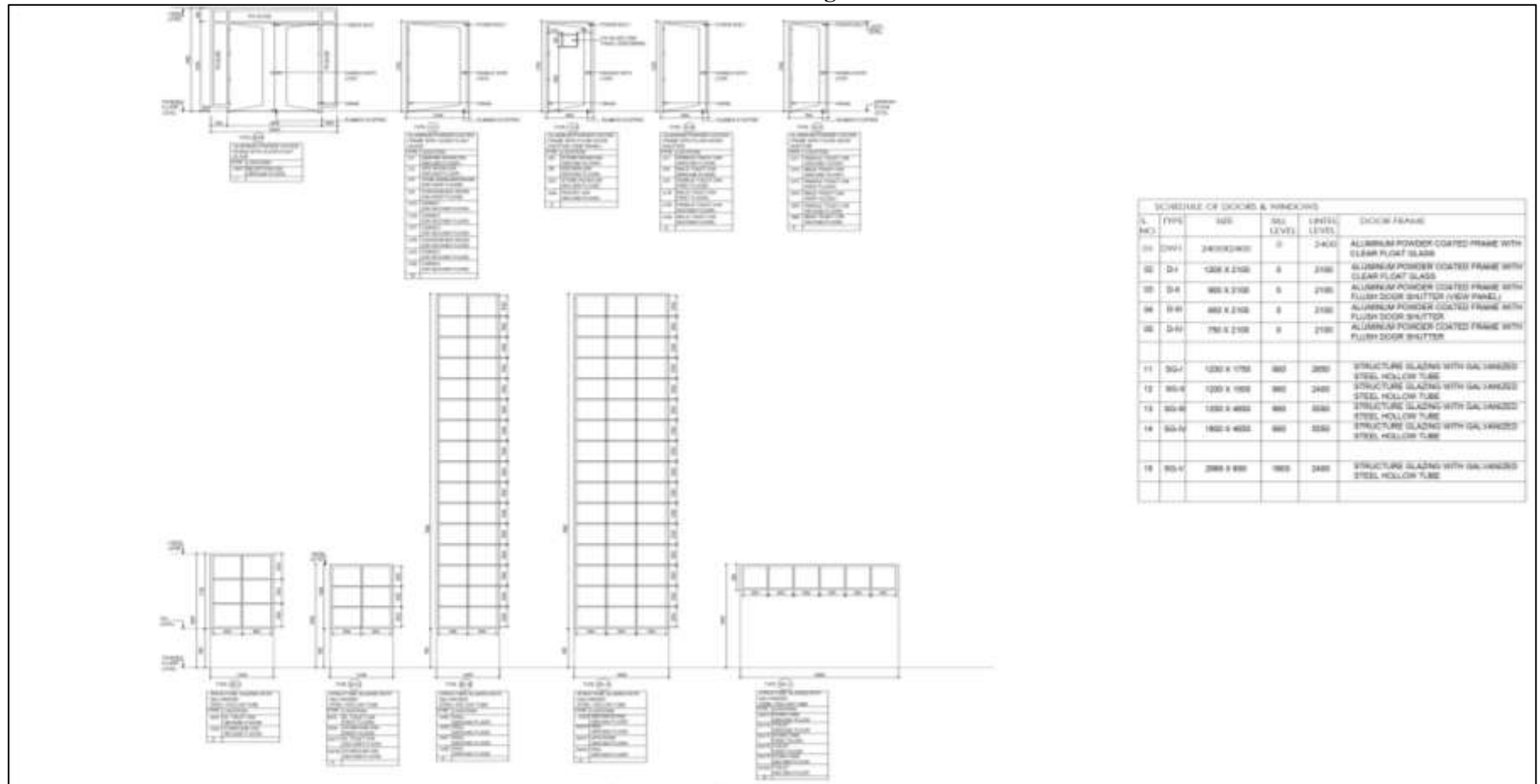
Common ATMS Control Center along with ATMS Center



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SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. C37

Annexure-VI Schedule-C
Common ATMS Control Center along with ATMS Center



SECTION-1 Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and Section-2, Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme. C38

SCHEDULE – D
(See Clause 2.1)
SPECIFICATIONS AND STANDARDS

1. Construction

The Concessionaire 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.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Annex - I
(Schedule-D)

SPECIFICATIONS AND STANDARDS FOR HIGHWAYS

1 Manual of Specifications and Standards to apply

- (i) Six laning of the Project Highway shall conform to the ‘Manual of Specifications and Standards for **Highway**’ published as IRC: SP: 84-2019 and with all amendments and additions *up to Bid date* (Referred to as “Manual” in this Schedule) and MORTH Specifications for Road and Bridge Works (5th revision). Where the specification for a work is not given, Good Industry Practice shall be adopted to the satisfaction of the Independent Engineer.
- (ii) As regards, the work of utility shifting, the relevant specifications, relevant rules, regulations and acts of Utility Owning Department/Agencies shall be applicable

2 Deviations from the Manual

Notwithstanding anything to the contrary contained in the aforesaid Manual, the Specifications and Standards shall apply to the Project Highway, and for purposes of this Agreement, the aforesaid Manual shall be deemed to be amended to the extent set forth below:

Sl. No.	Clause No.	Details of Item	Description of Deviation
1	2.5.1	Median	The median shall be as given in Schedule B (TCS). Median shall include 0.5m wide edge strip on each side, which shall have same pavement configuration of Main Carriageway as per Clause no. 2.5.3 of Manual.
2	2.10.2	Lateral & vertical clearance at VUP /LVUP/SVUP	The lateral and vertical clearance of all underpasses shall be as given in Schedule B.
3	2.17	Typical Cross Section	The typical cross section shall be as given in Schedule B.
4	5.2 and 5.4.1	Type of Pavement and Design Requirements	The type of pavement and Design Requirements shall be as specified in Schedule B.
5	7.3	Overall width of structures	The Overall Deck Configuration of all structures shall be as per Schedule B and all Road Over Bridges shall be as per the GAD approved by Railways Authority.
6	6.2	Side Drains	Lined/unlined Side Drains shall be provided throughout the Project as per typical cross section except at cross drainage (River, nala, canal etc.).

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Sl. No.	Clause No.	Details of Item	Description of Deviation
7	6.4.2	Drainage where Embankment Height is more than 6 metres	Adequate Continuous Surface RCC drain (Except Structures having approach slabs) shall be provided on both side Hard Granular Shoulder including RCC Chutes at designed intervals with energy dissipation basin irrespective of any Height of Embankment. The drainage system shown in TCS shall be treated as minimum.
8	9.7.5	Median Barriers	Three-beam metal crash barriers as mentioned in Schedule B (TCS).
9	9.7.1	Road side safety barriers	Three-beam metal crash barriers shall be provided in entire length on outer side earthen shoulder of each main carriageway and Loops/ Ramps of interchanges as per TCS referred in Schedule-B but excluding stretches covered by bridges and structures, where concrete barriers to be provided.
10	Section 12	Project Facilities	The project facilities and building structures shall be constructed in accordance to Annex III of this Schedule.
11	12.5	Street lighting	Swaged steel tabular pole with swan neck shall be used for roadside lighting conforming to IS 2713-1980 controlled by suitable digital time switch and other specifications shall be as per Clause no 12.5 of IRC:SP:87-2019.
12	2.12.2	Width of service road	Width of service road shall be as per applicable TCS and Schedule-B.
13	12.2	Road Boundary Walls	Boundary wall shall be provided as specified in Schedule –C.
14	10.3	Land for Toll Plaza	As specified in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
15	10.4	Layout and Design of Toll Plaza	As specified in Schedule C & in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
16	10.4.1	Layout and Design of Toll Plaza	As specified in Schedule C & in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
17	10.4.3	Traffic Islands at the toll Plaza	As specified in Schedule C & in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
18	10.4.4	Toll Booths	As specified in Schedule C & in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
19	10.4.6	Transition	As specified in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
20	10.4.7	Canopy	As specified in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.
21	10.6.2	Service Time at Toll Plazas	As specified in NHAI Policy Circular No. 17.5.82 dated 24 th May 2021.

3. Adoption of Automated & Intelligent Machine-Aided Construction (AI-MC)

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

3.1 Definition of Automated & Intelligent Machine-Aided Construction (AI-MC)

Automated & Intelligent Machine-aided Construction (AI-MC) has been adopted to Highway Construction Projects to achieve better Construction Quality with respect to compaction in confirmation with IRC:SP:97-2013, in a Safer Environment. Construction Efficiencies of Construction Machineries are being enhanced through Location referencing

Automated & Intelligent Machine-aided Construction (AI-MC) involves using Construction Equipment mounted with on-board Computers, using a combination of 3D Modelling Data along with Global Navigation Satellite System (GNSS)/ Universal Robotic Total Station (UTS) Technology and Intelligent Guidance to control the maneuvering of Construction Equipment. AI-MC provides Horizontal and Vertical Guidance in real time to Construction Equipment Operators. AI-MC Equipment has the potential to achieve designed Grades on the First Pass, without assistance of traditional staking.

3.2 Obligations of the Concessionaire

The concessionaire/Contractor shall deploy at its own Cost and Expenses, the Grading/Paving/Compaction Equipment fitted with System of **Automated & Intelligent Machine-aided Construction (AI-MC)** for finishing of all Grades including Embankment, Subgrade, GSB, WMM. The System of Automated & Intelligent Machine-aided Construction (AI-MC) used by the Concessionaire/ Contractor shall be capable of delivering accuracy as per the applicable IRC specifications. During the Construction Period, the Concessionaire/ Consultant shall furnish all the Physical Progress Data (All desired type of Surface Grading Data, Compaction and Temperature Data etc.) obtained through System of **Automated & Intelligent Machine-aided Construction (AI-MC)/CMS** to Authority for monitoring of Construction on Daily Basis. These Digital Data and desired output shall be made available at the Location (Server/Cloud) finalised by Authority. Detailed specifications of this Technology is elaborated in subsequent Paras.

3.3 Construction of the Project (detailed specification)

Contractor/ Concessionaire shall use 3D Digital Models and **Automated & Intelligent Machine-aided Construction (AI-MC)** for Motor Graders, Paver, Compactors and Dozers to ensure Quality Standards as per IRC Specifications and Productivity Improvement.

Further, Contractor shall generate measurable Digital Records that can be shared on a Digital Drive or can viewed in real time. The Hardware and Software used by the Contractor shall have following Features and Specifications:

i. Centralized Monitoring Software (CMS) for Preparing Design Data for Field Systems and Processing Results:

A contractor/Concessionaire shall use appropriate (Design/ Working) Software for 3D Constructible Model from the approved Design & Drawing that can be carried in ‘Construction Grade Survey Instrument’ and 3D Machine Control Tools for Construction purpose. The Software shall be able to generate Triangulated Surface Models, 3D Line Works and should have ability to Guide Machine, based on

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Design Data and also generate the Reports. There shall be provision to feed tolerance limits or desired passes for comparing with Final Results. The cloud based Software shall be capable of Record Creation, Compilation, Exporting, Presenting in Graphical Format with Colour Coding showing different activity and Generate Report showing Location/Stretches where the work done is not confirming to limits/tolerances prescribed in Specification. The Nonconformity Report should be generatable for any selected Stretch in Tabular Format. Some of the Non-conformity/Conformity to be displayed includes:

- Location where the thickness of each layer Embankment/Subgrade is more than specified limit from prevailing finalised layer with its clear location, to meet the requirements as per clause 305.3.5.1 of MoRT&H Specification.
- Number of Passes Made with respect to Target Number of Passes for the compactors to achieve the compaction requirement of respective layers as per section 305 & 903.2 of MoRT&H (Table 300-1 and 300-2).
- Weak spot w.r.t Intelligent Compaction Measurement Value (ICMV), in conformity with clause 4.3.3.2 of IRC: SP:97-2013 page 23) to bring the conformity as per section 305 & 903.2 of MoRT&H (Table 300-1 & 300-2).
- Granular/Bituminous layer beyond the tolerance limits, as specified in clause 902 (Table 900-1) of MoRT&H Specification.
- Laying and Rolling Temperature achieved by Asphalt Paver/Compactor/Pneumatic Rollers, with respect to specified minimum Target Temperature as per IRC Guidelines (like clause-507 of MoRT&H Specification; clause 4.4.3 of IRC 27-2009 for BM; clause 5.2, ii) of IRC:SP:97-2013).

ii. Automated & Intelligent Machine-aided Construction (AI-MC) System for Motor Grader for Accurate Grading to Design.

A Contractor/Concessionaire shall utilize Motor Grader controlled with GNSS Machine Control System in the Construction of Embankment, Subgrade & GSB Surface Grades. The requirement includes the finishing of Final Surface Level of Embankment, Subgrade & GSB as per Clause 902 of MoRT&H Specification.

In respect of Embankment layers, the Motor Grader shall be equipped with requisite instrumentation to set the desired level and inclination of blade of grader to achieve desired profile.

The Contractor may use any type of GNSS/GPS/Universal Robotic Total Station type Machine Control System that Results in achieving the finished grading requirements of each layer. The 3D Machine guidance and control system shall be able to control the depth and slope of the Motor Grader Blade in relation to the 3D Model during the Grading Process. The 3D Machine Control Systems shall have requisite instrumentation to execute Earthworks Driven from Design Data. Machine Guidance & Control System shall have provision to show and send required Fields Coverage Data for each Data Point for all Passes in Dashboard/Office Monitoring Software. Data shall have at-least following information:

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.

Date & Time Stamp, Longitude/Latitude, Easting/Northing, Local Easting/Local Northing, Height on the Ground above WGS84 Geoid/Elevation/local elevation, GNSS Mode, Motor Grader Pass Numbers, Auto/Manual.

iii. Automated & Intelligent Machine-aided Construction (AI-MC) System for Pavers

A Contractor/Concessionaire shall utilize Paving equipment controlled by Universal Robotic Total Station and Machine Control System in the Construction of Roadway Pavement for Automatic Control of Elevation and Slope. The requirement includes the finishing of Final Pavement surface as per the MoRTH Specification Clause 902.

Machine Guidance & Control System shall have provision to Show and Send required Fields Coverage Data for each Data Point in Dashboard/Office Monitoring Software. Data shall have at-least like this information: Date & Time Stamp, Easting, Northing and Elevation.

iv. Automated & Intelligent Machine-aided Construction (AI-MC) System for Compactors

The Automated & Intelligent Machine Guidance System on Compactor shall allow Operator to monitor the Number of Passes completed in real time for every layer of Embankment, Subgrade, GSB or asphalt-based Items against a Target Pass Count. It should have provision to send required Fields Coverage Data for each Data Point for all Passes and Provision to show in Dashboard and Send the Data to CMS. Data shall have at least following information: Date & Time Stamp, Longitude/Latitude, Easting/Northing, Local Easting/Local Northing, Height on the Ground above WGS84 Geoid/Elevation/Local Elevation, GNSS Mode, Compactor Pass Numbers, Compactor Direction (Forward/Reverse), Compactor Speed, Vibration On (YES/No, On/Off), Frequency, Amplitude, ICMV (Required for roller instrumented with Accelerometer).

v. Automated & Intelligent Machine-aided Construction (AI-MC) System for Capturing of Temperature (T)

There shall be an equipment to capture the temperature of the asphalt-based items during the Laying and Rolling process. The same should be reflected and captured in Machine Guidance System of the Paver and Rollers and shall be sent to Monitoring Software for further reporting and analysis in the following information: Date & Time Stamp, Longitude/Latitude, Easting/Northing, Local Easting/Local Northing, Surface Temperature (Required for Tandem Roller instrument with Temperature Sensor).

vi. Data/File transfer from CMS from Automated & Intelligent Machine-aided Construction (AI-MC) System

CMS should have the ability to send Design updates to all the equipment's in the Field ensuring that same Design Data is used by all equipment's. It should accept Field Data for Validation and Demonstration Process. It shall be capable for exporting the data to the any Highway Modelling

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Platform for demonstrating the Progress of Construction on real time basis by exposing the requested Data through API for further use like Scheduling, Billing, and Progress etc.

Annex - II
(Schedule-D)

SPECIFICATIONS AND STANDARDS FOR DEVELOPMENT OF WAY SIDE AMENITIES

1. **General: National Building Code of India – 2005**

2. **Code for Structural design and details:**

CODE OF PRACTICE FOR LOADS AND COMBINATIONS	
IS 875 Part I	Dead Loads - Unit weights of building Materials and stored materials.
IS 875 Part II	Imposed loads.
IS 875 Part III	Wind Loads.
IS 875 Part V	Special Loads and Combinations.
CODES OF DESIGN AND FABRICATION FOR PRE - ENGINEERED BUILDING	
IS 800 : 2007	General construction in steel
IS 808 : 1989	Dimensions for hot Rolled steel sections.
IS 801 : 1975	Code of Practice for use of Cold Formed light gauge steel structural members in general building
IS 811	Code of Practice for use of Cold Formed light gauge structural steel sections
AISC : 2000	Design Code
IBC : 2002	Building Code
AISI : 2001	Purlin Code
ANS : 2006	Welding Code
SP - 38 (S&T): 1987	Handbook of typified designs for structures with steel Roof trusses
IS 816 : 1969	Code of Practice for use of metal arc welding for general construction in mild steel
IS 456 : 2000	Plain and Reinforced Concrete Code of Practice.
IS 1893: 2002	Criteria for Earthquake resistant design of structures

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IS 6403: 1981	Code of Practice for determination of bearing capacity of shallow foundations
IS 1786: 2008	Specification for high strength deformed steel bars and wires for concrete reinforcement
IS 13920: 1983	Code of practice for ductile detailing of reinforced concrete Structures subjected to seismic forces.
SP - 16 (Design Aids for Reinforced Concrete) :1978	Design aids for reinforced concrete to IS 456.
SP - 34:1987	Hand book on concrete reinforcement and detailing

3. All relevant BIS Code of India for Civil, Electrical, Water Supply, Sanitary, HVAC and Solar Panels.
4. Energy Conservation Code - 2007.
5. Roads / Driveway / Parking: IRC 37-1984 / MORTH specifications.
6. Indian Electricity Rules / State Electricity Rules.
7. ASHRAE Standards.
8. All local bylaws.
9. Hand Book of Water Supply and Drainage, BIS, SP-35.
10. CPWD - Specifications published by Director General (Works) CPWD, New Delhi including subsequent amendments, upto date correction slips, revisions.
 - a. CPWD Specifications 2009 (Volume I & II)
 - b. CPWD General Specifications for Electrical Works Part IV Sub Station - 2013
 - c. CPWD General Specifications for Electrical Works Part IV Sub Station - 2013.
 - d. CPWD General Specifications for Electrical Works Part VII D.G. Sets - 2013.
 - e. General Specifications for Heating, Ventilation & Air-Conditioning(HVAC) - 2004
11. Specifications published by Director General (Works), MES, E-in-C branch, Kashmere House New Delhi, including subsequent amendments, upto date correction slips, revisions
 - a. MES SSR Part I 2009,
 - b. TI's issued by E-in-C branch for specified purpose from time to time

Note: Any reference to codes and standards shall be deemed to include all subsequent revisions, upto date corrections slips, updates, amendments etc.

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Annex - III
(Schedule-D)

SPECIFICATION FOR AVENUE AND MEDIAN PLANTATIONS

- 1) The provision of IRC-SP: 21 are to be followed except that the first row of Avenue plantation should be 14m away from the center line of the extreme traffic lane to allow recovery area for road safety concerns. Following guidelines are to be adhered to:**

(i) Site Preparation

(Clause 11.14 of IRC –SP: 21)

- a. Digging of pits as per standard pit size of 60x60x60 cm.
- b. Filling Farm Yard manure and Fertile Soil.

(ii) Planting of Saplings

- a. Detailed information provided in IRC-SP :21

(iii) Post-Planting Operations

(Clause 11.20 of IRC –SP: 21)

- a. Weeding & Hoeing, Watering, Maintenance, Fencing, Casualty Replacement etc.

(iv) Plantation Protection

(Clause 11.15 of IRC –SP: 21)

- a. Provision of chain link fencing, barbed wire fencing, iron fencing, individual iron trees guard fencing with wire mesh/cement/brick guard etc. as per the site requirement.

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(v) Species-Matrix

(Annexure A to F of IRC-SP: 21)

- a. Details of plant species prescribed according to Agro-Climatic Zones in IRC-SP:21-2009

(vi) Survival % of Plantation

(Clause 11.14 of IRC –SP: 21)

- a. 90% for 1st and 2nd Row
- b. 80% for last Row

(vii) Height of the saplings at the time of planting

(Clause 11.14 of IRC-SP: 21)

- a. Ornamental Plants (Except Last Row) : 1.5 m to 2m
- b. Shade Plants (Last Row) : More than 2m

(viii) Avenue Plantation

(Clause 11.14 of IRC –SP: 21)

- a. Spacing between rows: 3m
- b. Spacing between plant to plant
 - i. 1st Row : 3m
 - ii. 2nd Row : 3m
 - iii. 3rd Row : 8-12m

(ix) Median Plantation

(Clause 11.19 of IRC –SP: 21)

(x) Setback distance of trees

(Clause 11.2 of IRC-SP: 84 & 87:2019)

- a. Distance from center line of extreme traffic lane: 14m
- b. Turfing of grass is recommended in sections where the median width is less than 3m by filling good quality soil up to 45 cm.
- c. One row of shrubs is recommended where median width is more than 3m.
- d. For two rows, the shrubs should be planted on 4.5m to 5m wide median at 3m interval.
- e. There should be no plantation up to 1.5m from the edge of median on both the sides.

(xi) Activities Schedule for Avenue and Median Plantation (As per IRC –SP:21, Table -5 at page no -52&53)

Year	Month	Activities to be Done	
1 st year	Jan-March	1	Surveying & Cleaning of the area

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		2	Digging of Pits
		3	Procurement of Angles iron and barbed wire (or other fencing material), and erecting the fence
2 nd Year	April-June	1	Purchase of Farm yard manure
		2	Brick/iron etc. guard for 1 st row
		3	Plantation along the Highway
		4	Filling up of Pits with Farm Yard manure and Soil
	July-August	1	Transportation of Plants
		2	Planting of Saplings
		3	Watering
		4	Weeding and hoeing
	Sep-Nov	1	Weeding and hoeing
		2	Watering 4 times a month
	Dec-Feb	1	Weeding and hoeing
		2	Maintenance
	March	1	Watering 4 times a month
3 rd year	April-June	1	Watering 6 times a month
	July-August	1	Casualty Replacement (20% of the total plants)
		2	Weeding
		3	maintenance by Mali
	Sep-Nov	1	Watering 2 times a month
		2	maintenance by Mali
	Dec-Feb	1	maintenance by Mali
	March	1	Watering 4 times a month
		2	maintenance by Mali
4 th year	April-March	1	Watering
		2	Casualty Replacement (10% of the total plants)
		3	maintenance by Mali

2) Any other activities/schedule of operations which are not covered in the annexure will be carried out as per specifications in IRC-SP: 21.

3) Avenue plantation for cross section with service road

- Plantation and pruning of tress to be done in view of road safety as prescribed in IRC-SP:21 guidelines.
- The concessionaire/contractor shall appoint a Plantation Manager with adequate experience responsible for plantation. The CV of Plantation Manager shall be approved by the concerned Project Director.
- Plantation schedule and Species proposed on the alignment shall be approved by the IE/AE in consultation with Project Director and Plantation Professionals engaged by NHAI.

Section-1: Development of 4/6 Lane of access controlled Kanpur - Kabrai greenfield highway, starting from design km 0+000 (Kanpur Ring road) to design km 117+700 (near village Kabrai in district Mahoba) in the State of Uttar Pradesh and, Section-2: Overlay/Strengthening, other road safety and improvement works on existing Kanpur - Kabrai section from km 7+430 to km 130+100 (Design chainage 0+000 to 123+860) of NH-34 (old NH-86) in the State of Uttar Pradesh on DBFOT pattern at BOT (Toll) Mode under NH(O) scheme.