

SCHEDULE – C
(See Clause 2.1)

PROJECT FACILITIES

1 Project Facilities

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

- a. Toll Plaza;**
- b. Traffic Control Devices/ Road Safety Devices / Roadside Furniture;**
- c. Street Lighting;**
- d. Pedestrian Facilities;**
- e. Landscaping and Tree Plantation;**
- f. Rest Area;**
- g. Truck Lay Bys;**
- h. Bus-Bays with Bus Shelters;**
- i. Bus Shelters;**
- j. Safety Barrier**
- k. Traffic Aid Posts;**
- l. Medical Aid Posts / Emergency Medical Services;**
- m. Highway Patrol Units**
- n. Crane Service**
- o. Telecom System; and**
- p. Operation and Maintenance center**

2 Description of Project Facilities

Each of the Project Facilities is briefly described below:

- a) **Toll Plaza:** One toll plaza is proposed on the project road.

Toll Plaza	Design Chainage (in km)
1	30+100 As per IRC SP 84:2014 with extra electronic toll lane on both direction

b) Traffic control devices/ road safety devices / roadside furniture

The provision of traffic control devices/ road safety devices shall be made as per specifications and standards as specified in Schedule D and in consultation with the Authority's Engineer.

Roadside Furniture

The roadside furniture shall include the provision of;

i. Traffic Signs

Traffic signs include roadside signs, overhead signs and curb mounted signs along the entire Project Highway as per manual recommended in Schedule D & BOQ, If there is any additional Traffic Signs required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

ii. Pavement Markings

Pavement markings shall cover road marking for the entire Project Highway as per manual recommended in Schedule D & BOQ, If there is any additional Pavement markings required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

iii. Solar Traffic Blinkers

For all Pedestrian cross walks along the alignment, at all Major Junction locations and at Curve locations where curve radius not confirming to minimum radius as per design standards and any other locations specified in relevant manual recommended in Schedule D & BOQ, If there is any additional Solar Traffic Blinkers required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

iv. Crash Barrier

Provide W-beam crash barrier along the project highway at the locations as suggested in manual recommended in Schedule D & BOQ, If there is any additional Crash Barrier required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

v. Delineators And Hazard Marker

Delineators and hazard marker for the entire Project Highway at the locations as suggested in relevant IRC / Manual recommended in Schedule D.

vi. Reflective Pavement Markers (Road studs)

Provide road studs for the entire Project Highway at the locations as suggested in relevant IRC / Manual recommended in Schedule D & BOQ, If there is any additional Road studs required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

vii. Boundary stones

For the entire Project Highway as suggested in relevant IRC / Manual recommended in Schedule D.

viii. Hectometer / Kilometer stones

For the entire Project Highway as suggested in relevant IRC / Manual recommended in Schedule D.

c) Street Lighting/High Mast Lighting:

Street lighting and lighting system shall be provided at all the locations in accordance with Clause 12.4.3, Section 12 of the Manual of Specifications and Standards mentioned in Schedule D.

d) Street Lighting in Builtup Area:

Street lighting shall be provided in 15 Nos. builtup locations both side of the project highway. Length of builtup areas are as follows:-

Sr. No.	Design Chainages(km)		Length (km)	Remark
	From	To		
1.	0+000	0+455	0.455	Thikri
2.	0+455	0+700	0.245	Thikri
3.	4+705	4+950	0.245	Lehadgaon
4.	5+500	5+800	0.300	Ghatma
5.	7+700	8+350	0.650	Kerwa
6.	8+700	8+800	0.100	Kuwa
7.	8+800	9+350	0.550	Kuwa
8.	12+200	12+500	0.300	Dawana
9.	12+500	12+700	0.200	Dawana
10.	12+700	13+600	0.900	Dawana
11.	16+100	16+550	0.450	Lakhangaon Fata
12.	18+400	18+840	0.440	Semalda Deb
13.	19+150	19+700	0.550	Mehgaon
14.	21+040	21+065	0.025	Talwada
15.	21+065	21+800	0.735	Talwada
16.	23+340	23+600	0.260	Bawadya
17.	23+950	25+000	1.050	Fatyapur
18.	25+800	26+600	0.800	Takyapur
19.	27+300	27+600	0.300	Takyapur
20.	28+000	28+600	0.600	Mandwada
21.	33+280	34+560	1.280	Chakeri
Total Length			10+435 km	

e) Pedestrian Facilities

- i. Pedestrian guardrail: Provide pedestrian guardrail at each bus bay location.
 - ii. Pedestrian facilities shall be provided as per specifications and standards specified in Schedule D.
- For proper approaches to adjoining agricultural fields along excavated drains, 900mm dia. NP2 pipes for about 7.5m in length with adequate cushion over pipe at an interval of 500m on both sides & wherever required as per site requirements in consultation with Authority Engineer shall be provided.

f) Landscaping and Tree Plantation

Landscaping at Toll Plaza, rest area, major intersections, interchange etc. of the project highway shall be done as per specifications and standards specified in schedule D. Avenue Plantation shall be done as per IRC SP 021:2009. Trees should attain proportionate growth in maintenance period of four years else entire cost of such trees will be recovered from contractor.

- g) **Truck Lay-Bays:** Truck Lay byes shall be provided at locations given below on both side of highway on each location as per Manual.

Sr. No.	Design Chainage (km)	Side of Carriageway
1.	31+600	Both Sides

- h) **Bus Shelter & Bus-bays with Shelter**

Bus shelters shall be provided at following locations conforming to section 12 of manual of specifications and standards.

Sr. No.	Design Chainage	Side	Village/Town Name	Remarks, if any
Bus Lay Byes				
1	6+000	LHS	Ghatma	
2		RHS		
3	8+350	LHS	Kerwa	
4		RHS		
5	16+800	RHS	Lakhangaon Fata	
6		LHS		
7	22+000	LHS	Talwada	
8		RHS		
9	24+400	LHS	Fatyapur	
10		RHS		
11	28+630	LHS	Mandwada	
12		RHS		
Bus Shelter				
1	0+800	LHS	Thikri	Near Thikri Village
		RHS		

Note: Exact location of the Bus stop / shelter shall be decided at site in consultation with Authority's Engineer. The above list is indicative only and additional bus shelters required if any shall be constructed by contractor and the same shall not be considered under the change of scope of work.

- i) **Safety Barriers**

The safety barriers shall be provided at the hazardous locations as per Clause 7.18 of the Manual (IRC:SP 73-2015). W-Beam metal crash barriers shall however be provided at all hazardous locations. All hazardous locations shall be finalized in consultation with the Authority Engineer.

The actual length of the W-Beam metal crash barriers shall be determined by the Contractor in accordance with the Manual requirements with approval from the Authority Engineer. The final length after consultation with authority engineer will be considered under scope of work.

consultation with the Authority Engineer as per site/design requirement and shall not constitute as change of Scope.