



CHAPTER 6

TRAFFIC MANAGEMENT & PEDESTRIAN SAFETY MEASURES

6.1 General

Traffic management & control plays an important role in urban area. At the same time safety of pedestrian is also essential to provide smooth movement of road users.

6.2 Traffic Control Devices

The traffic control devices include traffic signs, lane marking and traffic signals. The signage system includes advance warning signs, cautionary signs, directional signs, and high mast signs at the junctions. Markings cover lane markings such as lines, symbols, letters, arrows, and object markings etc.

6.2.1 Traffic Signs

IRC: 67-1977 has been referred for Traffic Signs.

i) Mandatory/Regulatory Signs

Following signs have been proposed at particular location.

- Stop & Give Way Signs – at all cross roads
- Right/Left Turn Prohibited – at staggered junctions
- No Parking – at the junctions & other required places.
- Speed Limit – where design speed is below 60 Kmph
- Height Limit – Existing RUB on Road No.19

ii) Cautionary / Warning Signs

These signs have been proposed to warn road user of the existence of certain hazardous conditions either on or adjacent to the roadway, so that motorists are cautious and take the desired action.



Following signs have been proposed at particular location

- Pedestrian Crossings
- School
- Cross Roads
- T-Intersection
- Y-Intersection
- Staggered intersection
- Major Road Ahead

iii) Informatory Signs

Informatory signs have been proposed for guidance, information, warning and control of traffic to the road users.

Following signs have been proposed at particular location:

- Destination
- Direction
- Place Identification
- Filling Station
- Police Station
- Railway Station
- Bus Stop
- Flood Gauge

iv) Overhead/Cantilever overhang Signs

Traffic signboards mounted on overhead gantries have been proposed at approaches to the grade separators and major roads. At other appropriate locations, cantilever type mast mounted Overhang signs have been proposed.

The locations of Mandatory / Regulatory / Cautionary/ Warning/ Informatory/ Overhead Signs are shown in the attached drawings.

6.2.2 Road marking

Road markings have been proposed for control, warning, information or guiding the users in to required paths of travel. Mainly these markings consist of lane markings, edge markings, kerb, arrows and chevron markings. All road markings proposed conform to the standards and specifications of IRC 35-1997.



6.2.3 Traffic Signals

A comprehensive investigation of traffic conditions and physical characteristics of the location is required to determine the need for signal installation. The following data is required to be collected for proper design and operation of signal (IRC: 93-1985 Guidelines on Design and Installation of Road Traffic Signals)

- Number of motorised vehicles entering the intersection in each hour from each approach during 10 consecutive hours of a representative day.
- Vehicular volumes of heavy vehicles, light vehicles, motor cycles, scooters and non-motorised vehicles from each approach for atleast two hours in the morning and two hours in the evening during peak periods.
- Pedestrian volume counts on each cross walk during the same periods and Average speeds of each approach

Traffic control signal on an intersection should not be installed unless one of the following signal warrants are met:

- Warrant 1 – Minimum vehicular volume
- Warrant 2 – Interruption of continuous traffic
- Warrant 3 – Minimum pedestrian volume
- Warrant 4 – Accident experience
- Warrant 5 – Combination of warrants

6.2.4 Signalization of Major Intersections

Generally for preparing major junction improvement plans the required data would be traffic volume count data, geometry of the intersection, traffic composition, traffic characteristics etc. Consultants have carried out the turning movement surveys at various junctions As per IRC guidelines, warrants for traffic signals, traffic signals are required at the following intersection 15 junctions.



Table 6.1 Junction Traffic Volume in Base Year (2006)

Sl. No.	Intersection	Peak Hour Traffic		Peak Hour
		Vehicles	PCUs	
1	Raj Bar Corner	5860	6415	19.00 – 20.00
2	Work Shop Junction	6697	7335	19.00 – 20.00
3	ITI Junction	3999	4431	16.00 – 17.00
4	Mutha Junction	6310	7466	19.00 – 20.00
5	Mahaveer Junction	5523	6273	12.00 – 13.00
6	Gurudwara Dena Bank Junction	2146	2419	10.00 – 11.00
7	Degloor Junction	4067	2020	12.00 – 13.00
8	Bhagya Nagar Circle	4924	5029	20.00 – 21.00
9	Taroda Junction	2285	2501	10.00 – 11.00
10	Ambedker Junction near Railway Station	2645	3797	12.00 – 13.00
11	Kalsa Hallabhol Junction	4830	5658	19.00 – 20.00
12	Bhaghat Singh Cross	2429	2859	13.00 – 14.00
13	Bafna T-Point	3259	5006	9.00 – 10.00
14	Maharana Pratap Chowk	2846	3502	20.00 – 21.00
15	Hingoli Gate Junction	5057	5840	11.00 – 12.00

As per warrants for grade separation of intersection by IRC, grade separation of intersection would be required if the peak hour junction volume exceeds 10,000 PCUs/h. Referring to the junction traffic volume there is no need of grade separation at any intersection.

6.3 Pedestrian Facilities & Safety Measures

Pedestrian facilities have been planned in an integrated manner to ensure a continuous pedestrian flow and to reduce pedestrian conflicts with vehicular traffic to the minimum. Pedestrian facilities & its safety has been taken care by providing footpath, at grade and grade separated crossings, etc.



6.3.1 Footpath

Sidewalk or footpath of width 1.20-2.5 m has been proposed all along the carriageway for project roads. Level of footpath has been kept 0.15 m above proposed road level for separating traffic and pedestrian movements.

6.3.2 At Grade Crossings

Zebra crossing of width 3 m has been proposed at all the junctions with signboard. At the crossing, median with kerb height of 0.15 m has been proposed for act as pedestrian refuge. Also pedestrian signals have been proposed at the crossings.

6.3.3 Grade separated crossings

It includes foot over bridge (FOB) and pedestrian subway. As no predominant pedestrian traffic was observed in traffic survey, grade separated crossing has not been proposed for any of the project roads.