

## CLASSIFICATION OF ROADS

### Types of Roads

Basically, different types of roads can be classified into two categories namely,

- a) All-weather roads and
- b) Fair-weather roads

**All-weather roads:** These roads are negotiable during all weather, except at major river crossings where interruption of traffic is permissible up to a certain limit extent, the road pavement should be negotiable during all weathers.

**Fair-weather roads:** On these roads, the traffic may be interrupted during monsoon season at causeways where streams may overflow across the roads.

#### a) Based on the Carriage Way

- **Paved Roads:** These are the roads which have a hard pavement surface on the carriage way
- **Unpaved Roads:** These are the roads without the hard pavement surface on the carriage way, usually they are earthen or gravel roads.

#### b) Based on Surface Pavement Provided,

- **Surface Roads:** These roads are provided with any type of bituminous or cement concrete surfacing.
- **Unsurfaced Roads:** These roads are not provided with a bituminous or cement concrete surfacing.

Roads which are provided with bituminous surfacing are called as **Black Topped Roads** and that of concrete are referred to as **Concrete Roads** respectively.

### Methods of Classification of Roads

The roads are generally classified based on the following

- a) Traffic Volume
- b) Load transported or tonnage
- c) Location and function

a) **Based on Traffic Volume:** The classification based on traffic volume or tonnage have been arbitrarily fixed by different agencies and are classified as

- Heavy
- Medium

- Light traffic roads

b) Based on Load transported or tonnage:

- Class-I or Class-A
- Class-II or Class-B.

c) Based on location and Function:

The Nagpur Road Plan classified the roads in India into the following categories

- 1) **National Highways (NH):** The NH connects the capital cities of the states and the capital cities to the port. The roads connecting the neighboring countries are also called as NH. The NH are at least 2 lanes of traffic about 7.5m d wide. The NH are having concrete or bituminous surfacing.
- 2) **State Highways (SH):** SH are the main roads within the state and connect important towns and cities of state. The width of state highways is generally 7.5m.
- 3) **Major District Roads (MDR):** These roads connect the areas of production and markets with either a SH or railway. The MDR should have at least metaled single lane carriage way (i.e., 3.8m) wide. The roads carry mixed traffic.
- 4) **Other District Roads (ODR):** these roads connect the village to other village or the nearest district road, with ghat, river etc. these roads have a single lane and carry mixed traffic.
- 5) **Village Roads (VR):** these roads, like other district roads, connect the village or village or nearby district road. The roads carry mixed traffic.

### Modified Classification of Road System by Third Road Development Plan

The road classification system was modified in the third 20-year development plan. The roads are now classified into three classes and are as follows

1. Primary System
  - Expressways
  - National Highways (NH)
2. Secondary System
  - State Highways (SH)
  - Major District Roads (MDR)
3. Tertiary System
  - Other District Roads (ODR)
  - Village Roads

### Classification of Urban Roads

The road system within urban areas are classified as Urban Roads and will form a separate category of roads taken care by respective urban authorities. The lengths of urban roads are not included in the targets of the 3<sup>rd</sup> 20-year road development plan 1981-2001.

- a) Arterial roads
- b) Sub-arterial roads
- c) Collector Streets
- d) Local Streets
  - Arterial and Sub-arterial roads are primarily for through traffic on a continuous route, but sub-arterials have a lower level of traffic mobility than the arterials.
  - Collector streets provide access to arterial streets and they collect and distribute traffic from and to local streets which provide access to abutting property.

