

# Transportation Engineering-1

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# Traffic flow study is useful as following

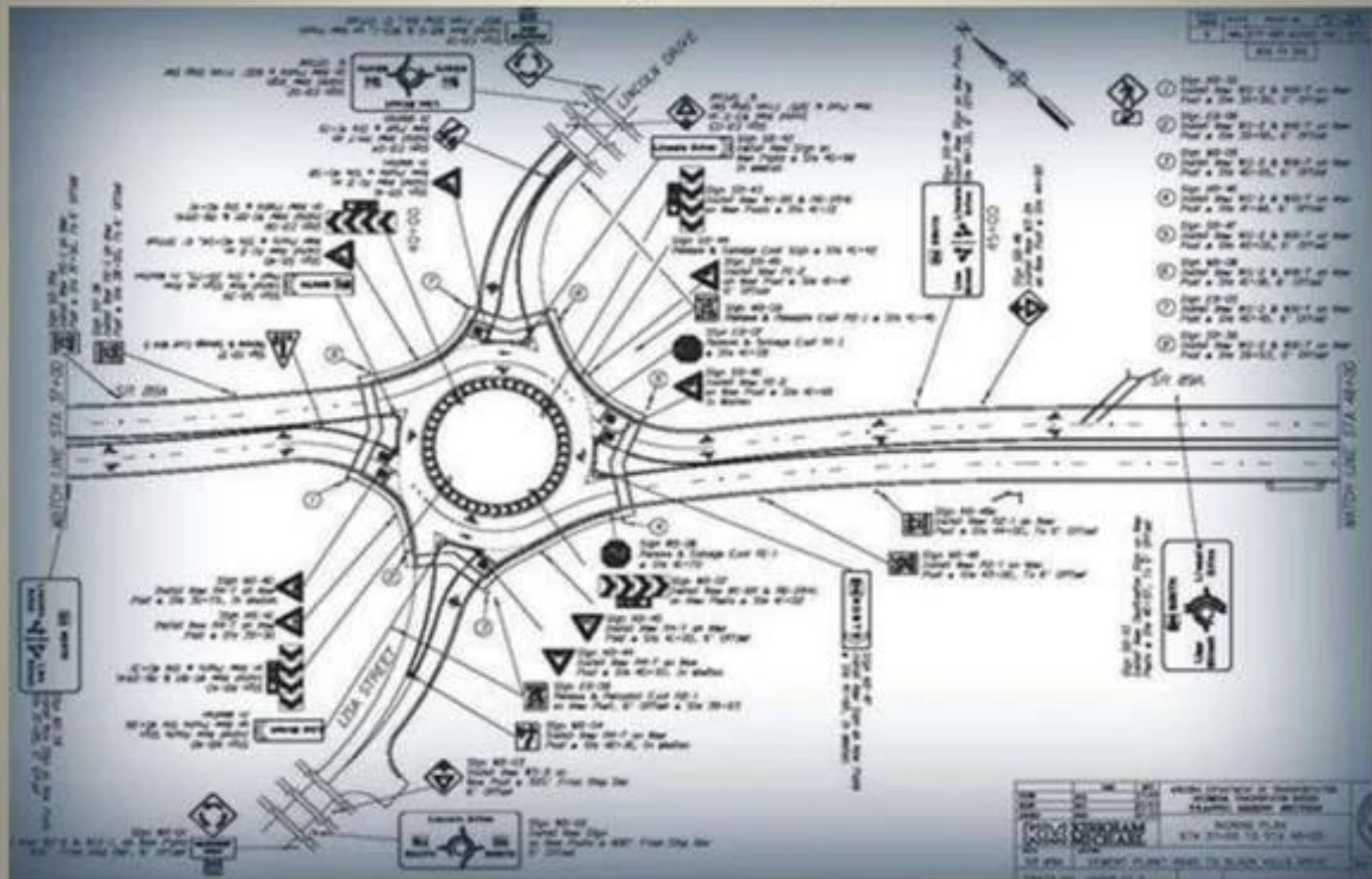
- This is useful in geometric design features such as volume, number of lanes, width of carriageway etc.
- To decide **traffic regulatory measures** like one way movement.
- It is used in **design of traffic control** measures and devices.
- It is used for **accident rate analysis** and to determine measures to reduce and avoid accident.
- To decide **speed trends and traffic patterns**.
- To decide the **priority for improvement and expansion**.
- It is used for **planning and control of existing facilities and routes**.
- It is used for planning and designing the new facilities, To suggest improvement and expansion.
- It is used for planning of **pedestrian facilities** like sidewalks, crosswalks, subways and pedestrian signals.
- It is used **for planning signal timing**.
- It is used for **structural design of pavement**.
- To compute **roadway capacity**.
- To plan **mass transit facilities**.

# Traffic Capacity Studies:

- **Traffic Capacity Studies:** Traffic Capacity is the ability of a roadway to accommodate traffic volume.
- $C = 1000 V / S$
- $V =$  Speed, KMPH
- $S =$  Average centre to centre spacing of vehicles in m
- $C =$  Capacity of a single lane vehicle per hr.



# Traffic Capacity Studies



# Parking Survey

- Parking survey is the work of data collection related to space available for parking of vehicles and number and type of vehicles demand for parking.
- Types of Parking
- **Kerb parking**
- **Off street**
- Kerb parking: vehicles are parked on the kerb or on the side of street or road.
- Types of Kerb Parking:
- **Parallel Parking**
- **30<sup>0</sup> angle parking**
- **60<sup>0</sup> angle parking**
- **45<sup>0</sup> angle parking**
- **90<sup>0</sup> angle parking**
- **Angle parking** is more convenient for the motorists than the parallel parking.
- Out of various angle parking, 45<sup>0</sup> angle parking is the best and most convenient.
- **Off street parking:**
- When parking facility is provided at a separate place away from the kerb it is known as off-street parking.
- Types of offstreet parking:
- **Surface parking lots**
- **Multi floor parking garages**