

مشروع تصميم تقاطع طرق

Road Intersection Design

1. **Group forming**

Students are asked to form groups

Each group is to have between 3 to 5 students

A leader should be selected by the group

2. **Site selection**

Each group should select a road intersection site. The site is preferred to be close to home and carrying medium to heavy traffic.

3. **Data collection**

Geometric data should be collected

Traffic data should be collected for a period of at least two hours. The group should do its best to select two hours during which the peak period is expected.

Determine the peak period and the design hour flow after 5 years. The annual growth rate is to be assumed based on local statistics and experience.

4. **Capacity and cycle time manual calculations**

Determine the best phasing system depending on traffic flow

Calculate the saturation flow for each lane

Determine the optimum cycle time

Draw the timing diagram

5. **Computer software application**

Use the available computer software to design the above road intersection

Compare between the manual and the computer software results

6. **Reporting**

A complete report should be submitted by each group including:

- Site description including detailed drawings
- Presentation of traffic counts
- Manual calculations
- Timing diagram
- Computer software well presented output
- Comparison between manual and computer software results