

## **SECTION 2B – 3 - DETERMINATION OF ROADWAY DESIGN**

### **CAPACITY ANALYSES**

Traffic Data must now be analyzed in relation to the pre-determined Functional Classification.

The basic number of thru lanes required in order for the mainline to operate at a satisfactory level of service shall be determined by capacity analyses. Capacities of connecting and crossing roadways shall also be determined, taking into consideration plans for future improvements to these facilities.

Where at-grade intersections are proposed, a capacity analysis shall be made to determine whether or not the intersection will operate at a satisfactory level of service. If the analysis indicates an unsatisfactory service level, an interchange should be considered.

When interchanges are proposed or are being considered, a capacity analysis should be utilized to determine the type of interchange required.

Peak hour traffic projection to the design year shall be used for all capacity analyses.

All capacity checks shall be reviewed with the Transportation & Mobility Planning Division and shall be documented in project files.

Reference materials available at this time to assist in capacity analysis include:

1. Highway Capacity Manual
2. Design of Urban Streets
3. Highway Capacity Software

### **INTERCHANGE DESIGN**

Because of the wide variety of site conditions, traffic volumes, highway types and interchange layouts, the warrants which justify an interchange may differ at each location. The six major factors to be considered are:

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\* Rev. 1/08