



PURPOSE

The purpose of this activity is to give you the chance to compare protected and permitted left turn phasing treatments for your design problem and to select the most appropriate phasing treatment for the intersection.

LEARNING OBJECTIVE

- Select optimal left turn phasing treatment based on an analysis of performance data and observation of simulation conditions

REQUIRED RESOURCES

- VISSIM input file created in Activity #43

DELIVERABLES

- Prepare a spreadsheet with required data, analysis, and conclusions as per Tasks 2 through 5:

Tab 1: Title page with activity number and title, authors, and date completed

Tab 2: Performance data comparing both left turn treatments

Tab 3: Ring barrier diagram for your recommended phasing plan

INFORMATION

How will you balance the relative advantages of permitted left turn phasing compared to protected left turn phasing? Completing the following tasks will help you make this decision.

TASK 1

Make a copy of the folder that includes your VISSIM files from Activity #43. Name this new folder “a50”. Use this VISSIM file as the basis for your analysis and design of your left turn treatments.

TASK 2

Change the phasing plan to “permitted left turn” operation. See the VISSIM tutorial for help in making these changes. Collect data for delay and queue length, as in previous design activities.

TASK 3

Observe the simulation for the two left turn options. Make notes on your observations on the operation and performance of both simulations.

TASK 4

Compare the performance data and visual observation notes for both permitted and protected left turn treatment. Based on this comparison, make a determination of your recommended left turn treatment option.

TASK 5

Prepare a ring barrier diagram for the phasing plan that you recommend.