

CE474: Traffic Systems Design-Fall 2004

Lab 9 – Design Project 3 /Manual Optimization Analysis
October 19, 2004

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Arterial System Design- Manual Analysis

◆ Today's Tasks

- Finalize the Traffic Flow Plans for AM and PM
- Finalize the simulation models [fixed-time coordinated and actuated coordinated]
- Identify major “coordinated” movements and progression scheme
- Identify sources and magnitude of “secondary flow”
- Set priority rules for major directions
- Analyze the critical intersection (s) [isolated intersection analysis]
- Determine critical intersection's optimal cycle length
- Determine the range of cycle lengths to be considered in the optimization analysis
- Determine **Ideal “initial” offset**
- Draw time-space diagram [manually or using Synrho]

Arterial System Design- Manual Analysis

◆ Project Tasks

- Run Corsim to obtain different MOEs using manually calculated “ideal” offsets
 - ◆ Model fixed-time coordinated operation
 - ◆ Model actuated coordinated operations
 - ◆ MOEs [Link, corridor, system-wide]
 - ◆ Link aggregation
 - ◆ Multiple run analysis
- Fine-tune the “ideal” offset to achieve “better progression”