

Adaptive Signal Control Technology
NEITE Training Session
December 5, 2016 - 8:30 AM to 3:30 PM
DRAFT PROGRAM OUTLINE (9/20/2016)

- I. Introductions and Outline for the Day (10 minutes)
- II. Introduction to ASCT (20 minutes)
 - a. Appropriate setting for ASCT
 - b. Design Process for ASCT
 - c. Major System Components (high level overview)
- III. FHWA Model System Engineering Documents for ASCT Systems
 - a. Overview of the Systems Engineering Process (30 Minutes + 10 Minute Break)
 - i. Concept of Operation
 - ii. System Requirements
 - iii. Validation Plan
 - iv. Verification Plan
 - v. Activity: Apply Systems Engineering concepts to develop a system to watch the New England Patriots in high definition.
 - b. Review sample ASCT Concept of Operation statements (45 Minutes)
 - c. Review sample ASCT System Requirements statements (45 Minutes)
 - i. Dependency/relationship to the Concept of Operations statements.
- IV. Discussion of Commercial Off-The-Shelf ASCT Packages (90 Minutes + 1 Hour Lunch Break)
 - a. SCOOT
 - b. ACS-Lite
 - c. SCATS
 - d. InSync
 - e. SynchroGreen
- V. Custom ASCT solution - Using all the features of today's controllers (50 minutes + 10 minute break)
 - a. Overview of communication networks
 - b. Peer-to-Peer controller communication
 - c. Overview of the High-Resolution data collection capabilities of today's controllers
 - d. Putting it all together: Framingham's Hybrid-Adaptive System
- VI. Costs associated with ASCT (20 minutes)
 - a. Design (System Engineering, Modeling?, Plan Prep)
 - b. Installation (including system verification and validation)
 - c. Operations
 - d. Maintenance
- VII. Questions/Discussion/Wrap-up (30 Minutes)