

## **BRAC-133 Transportation Study Objectives**

- Review previous traffic studies in the vicinity of Mark Center to assess the consistency of these studies with current Mark Center development and parking plans.
- Assess the need for adding additional left turn lanes at the Seminary/Beauregard and Beauregard/Mark Center Drive intersections in light of the potential addition of a new direct ramp connection into Mark Center from the southbound ramp to Southbound I-395. If it is determined that these new left turn lanes will still be needed, estimate the timing for when the additional left turn lanes may be needed. This analysis will include an assessment of the traffic impacts of not adding the additional left turn lanes, as well as development of an interim solution to be implemented between the time that the BRAC building is occupied and construction of the new ramp.
- Assess the advantages and disadvantages of adding the proposed direct ramp connection.
- Assess the reasonableness of proposed roadway lane usages and geometric features in the vicinity of Mark Center.

### **Work Program**

#### Task 1. Review Previous Traffic and Transportation Studies

- a) Review trip generation, mode choice and parking assumptions to confirm that appropriate values were used,
- b) Obtain City signal timing plans and the Synchro files for the intersections that were analyzed and confirm that the appropriate Synchro parameters were used,
- c) Review conceptual plans developed by Wells & Associates and develop recommendations for modifications, if needed. This review will include an assessment of on-site bus circulation related to the planned transit center.
- d) Review the findings and recommendations of each study to confirm that they coincide with the correct technical assumptions and parameters noted above,

#### Task 2. Assess the Advantages and Disadvantages of Adding a New Ramp Connection into Mark Center

Two separate concepts for the ramp will be evaluated: 1) the new ramp provides access to the entire Mark Center site and 2) the new ramp only provides direct access to the BRAC building parking structure. This analysis will include the following fifteen (15) intersections:

1. Seminary Road/Dawes Avenue
2. Seminary Road/Echols Avenue
3. Seminary Road/N. Beauregard Street
4. N. Beauregard Street/Mark Center Drive (labeled as 'Nottingham Drive' in Figure 1)
5. Mark Center Drive/IDA Drive
6. Mark Center Drive/Hilton/CNAC Drive
7. Seminary Road/Mark Center Drive
8. N. Beauregard Street/Fillmore Avenue
9. N. Beauregard Street/West Braddock Road
10. I-395 Southbound On-Ramp/Seminary Road
11. I-395 Southbound Off-Ramp/Seminary Road

12. I-395 Northbound Off-Ramp/Seminary Road
13. I-395 Northbound Off-Ramp/Seminary Road
14. Seminary Road/George Mason Drive
15. Seminary Road/Library Lane

Calibrate and apply a VISSIM traffic flow simulation model that includes all of the fifteen analysis intersections. This model will be used to produce detailed traffic operations impacts of the scenarios being tested, as well as to provide video simulations to demonstrate traffic operations.

Task 3. Develop an Interim Solution for the Period Between BRAC Occupancy (2011) and Anticipated Construction of the New Ramp (2013)

- a) Identify and evaluate potential roadway and intersection improvements for the period of 2011 through 2013 to address any identified deficiencies. Synchro and VISSIM will be used to evaluate and visualize these interim solution concepts.
- b) Prepare a conceptual drawing of the recommended interim solution