

## **ITEM 9 - Action**

May 16, 2007

Approval of the Scope of Work for an Air Quality Conformity Assessment of an Amendment to the 2006 CLRP and FY 2007-2012 TIP to Include Construction of an Interchange at US 340 and Jefferson Technology Park in Frederick County, as Requested by the Maryland Department of Transportation (MDOT)

### **Staff**

**Recommendation:** Receive briefing on and approve the enclosed scope of work for the air quality conformity analysis for an amendment to the 2006 CLRP and FY 2007-2012 TIP to Include construction of an interchange at US 340 and Jefferson Technology Park in Frederick County.

**Issues:** None

**Background:** At the April 18 meeting notice was provided that MDOT had requested an amendment to the 2006 CLRP and FY 2007-2012 TIP to include construction of an interchange at US 340 and Jefferson Technology Park in Frederick, as described in the enclosed materials.

These materials were released for public comment at the April 12 Citizens Advisory Committee (CAC) meeting. The public comment period for these materials closed on May 12. The Board will be briefed on the comments received and recommended responses at the May 16 meeting.

# National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202

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## MEMORANDUM

May 9, 2007

**TO:** Transportation Planning Board

**FROM:** Michael J. Clifford  
Systems Planning Applications Director

**SUBJECT:** The Scope of Work for an Air Quality Conformity Assessment of an Amendment to the 2006 CLRP and FY 2007-2012 TIP to Include Construction of an Interchange at US 340 and Jefferson Technology Park in Frederick County

### Scope of Work

At the April 18, 2007 TPB meeting, it was announced that the Maryland Department of Transportation (MDOT) had requested an amendment to the 2006 CLRP and FY 2007-2012 TIP to include construction of an interchange at US 340 and Jefferson Technology Park in Frederick, as described in the enclosed materials. Because this amendment is not exempt from air quality conformity requirements, a conformity analysis is necessary. The final draft scope of work for the conformity analysis is attached. The schedule calls for the draft conformity results to be released for public comment on June 14. At the July 18 TPB meeting, the Board will be asked to approve the conformity analysis and the amendment to the 2006 CLRP and FY 2007-2012 TIP to include the interchange.

### Comments and Responses

The amendment to the 2006 CLRP and FY 2007-2012 TIP to include an interchange at US 340 and Jefferson Technology Park and the draft scope of work for an air quality conformity assessment of the amendment were released for public comment at the April 12 Citizens Advisory Committee meeting. The public comment period will close on May 12. To date no comments have been received on the scope of work. However, several residents located near the proposed interchange have expressed concerns about the negative traffic, safety, and noise impacts of a new interchange. The Maryland State Highway Administration received these comments and will provide responses to them as part of the public comment period scheduled for June 14 through July 14, prior to the TPB action scheduled for July 18, 2007.

**AIR QUALITY CONFORMITY ASSESSMENT  
AMENDMENTS TO THE 2006 CONSTRAINED LONG RANGE PLAN  
AND THE FY2007-2012 TRANSPORTATION IMPROVEMENT  
PROGRAM**

**SCOPE OF WORK**

**I. INTRODUCTION**

The Maryland Department of Transportation (MDOT) requests an amendment to the current 2006 Constrained Long Range Plan (CLRP) and FY2007-2012 Transportation Improvement Program (TIP) to include construction of an interchange on US 340 at the proposed Jefferson Technology Park property in Frederick, Maryland. This amendment affects the air quality conformity analysis for the forecast year 2009 and beyond, and will therefore require a new demonstration of air quality conformity before it can be adopted as a plan and program element by the Transportation Planning Board (TPB).

The amended plan and program must meet air quality conformity requirements, as published in the November 24, 1993 Federal Register and as subsequently amended through regulation, most recently on March 10, 2006. These requirements specify both technical criteria and consultation procedures to follow in performing the assessment. The analysis will include the use of 8-hour ozone “interim” (1-hour) budgets for volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) and approved wintertime carbon monoxide (CO) mobile source emissions budgets. For fine particulate matter (PM<sub>2.5</sub>) precursors, where budgets are not yet set, reductions from the base 2002 inventory will be calculated.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

**II. APPROACH**

The analytical approach is the same as that applied and documented in the air quality conformity assessment of the 2006 CLRP and FY2007-2012 TIP, approved by the TPB on October 18, 2006, which is outlined in the summary table below.

**TABLE 1 – Summary of Technical Approach**

	<b>Ozone</b>	<b>Wintertime CO</b>	<b>PM2.5</b>
<b>Pollutant:</b>	VOC, NO <sub>x</sub>	CO	Direct particles, Precursor NO <sub>x</sub>
<b>Budget:</b>	8-hour ozone 'interim' mobile source emissions budgets, i.e., 1-hour budgets	Approved wintertime CO emissions budget	Budget not yet set - Use Reductions from base 2002 inventory
<b>Emissions Analysis Time- frame:</b>	Daily	Daily	Annual
<b>Geography:</b>	MSA	DC, Arl., Alex., Mont., Pr. Geo.	MSA less Stafford and Calvert counties
<b>Network Inputs:</b>	Regionally significant projects		
<b>Land Activity:</b>	Round 7a		
<b>Modeled Area:</b>	Expanded Cordon (2191 zone)		
<b>Model Set: Mobile Model:</b>	Version 2.1 D #50  MOBILE6.2 emissions factors, consistent with the procedures utilized to establish the VOC and NO <sub>x</sub> mobile source emissions budgets	MOBILE6.2 Consistent with procedures used to establish the budget	MOBILE6.2  'Seasonal' approach

### III. CONSULTATION

A 30 day public comment / interagency consultation period followed by response to comments will be provided for the following milestones:

- Project review
- Air quality conformity scope of work
- Conformity report

#### IV. WORK TASKS

1. Prepare forecast year highway networks
  - 2010, 2020, 2030
2. Prepare 2010 travel and emissions estimates
  - Execute travel demand modeling process
  - Calculate emissions (daily for ozone season VOC and NO<sub>x</sub>; daily for winter CO; yearly for PM<sub>2.5</sub> direct particles and precursor NO<sub>x</sub>)
3. Prepare 2020 travel and emissions estimates
  - Execute tasks as in 2010 analysis
  - Apply “transit constraint” using 2010 levels
4. Prepare 2030 travel and emissions estimates
  - Execute tasks as in 2020 analysis
5. Analyze results of above technical analysis
  - Identify PM<sub>2.5</sub> emissions reductions from 2002 base
  - Compare ozone season VOC and NO<sub>x</sub> and winter CO emissions with established budgets
6. Assess conformity and document results in a report
  - Document methods
  - Draft conformity report
  - Forward to technical committees, policy committees
  - Make available for public comment and interagency consultation
  - Receive comments
  - Address comments and present to TPB for action
  - Finalize report and forward to FHWA and FTA

**AIR QUALITY CONFORMITY ASSESSMENT  
AMENDMENTS TO THE 2006 CONSTRAINED LONG RANGE  
PLAN AND THE FY2007-2012 TRANSPORTATION  
IMPROVEMENT PROGRAM**

**SCHEDULE**

April 12, 2007	2006 CLRP and FY2007-2012 TIP amendment and conformity analysis scope of work released for public comment
*April 18, 2007	TPB briefed on proposed 2006 CLRP and FY2007-2012 TIP amendment and conformity analysis scope of work
May 12, 2007	Public comment period ends
*May 16, 2007	TPB approves proposed 2006 CLRP and FY2007-2012 TIP amendment and conformity analysis scope of work
June 14, 2007	Draft conformity results released for public comment
*June 20, 2007	TPB briefed on draft conformity results
July 14, 2007	Public comment period ends
*July 18, 2007	TPB reviews public comments and responses to comments, and adopts 2006 CLRP and FY2007-2012 TIP amendment and conformity analysis
* TPB meeting	



**Maryland Department of Transportation**  
The Secretary's Office

**Martin O'Malley**  
Governor  
**Anthony G. Brown**  
Lt. Governor  
**John D. Porcari**  
Secretary  
**Beverly K. Swalm-Staley**  
Deputy Secretary

April 10, 2007

The Honorable Catherine Hudgins, Chairperson  
National Capital Region Transportation Planning Board  
Metropolitan Washington Council of Governments  
777 North Capitol Street, N.E., Suite 300  
Washington DC 20002-4290

Dear Chairperson Hudgins:

The Maryland Department of Transportation (MDOT) requests an amendment to the FY 2006 Constrained Long Range Plan (CLRP) and FY 2007-2012 Transportation Improvement Program to include a new interchange on US 340 at Jefferson National Pike to access Jefferson Technology Park. Please refer to the State Highway Administration's April 9, 2007 memo describing the amendment in detail. It is our understanding that this project is not air quality exempt, and a conformity analysis must be undertaken.

The MDOT requests that this amendment be placed on the Transportation Planning Board's (TPB) April 2007 agenda as an informational item, including a conformity work scope for the conformity analysis.

We appreciate your cooperation in this matter. If you have any questions regarding these amendments, please do not hesitate to contact me at 410-865-1279, toll-free at 888-713-1414 or via email at [lerickson@mdot.state.md.us](mailto:lerickson@mdot.state.md.us).

Sincerely,

Lyn Erickson  
Assistant Director, Office of Planning

Attachments

cc: Ms. Kellie Gaver, Assistant Director, Office of Planning, Maryland Department of Transportation  
Mr. Michael J. Haley, Division Chief, Regional and Intermodal Planning Division, State Highway Administration  
Ms. Del Harvey, Regional Planner, Maryland Transit Administration, Maryland Department of Transportation  
Mr. Ronald Kirby, Director of Metropolitan Council of Governments  
Mr. Samuel F. Minnitte, Jr., Director, Office of Planning, Maryland Department of Transportation

My telephone number is \_\_\_\_\_  
Toll Free Number 1-888-713-1414, TTY Users Call Via MD Relay  
7201 Corporate Center Drive, Hanover, Maryland 21076



Martin O'Malley, Governor  
Anthony G. Brown, Lt. Governor

John D. Porcari, Secretary  
Neil J. Pedersen, Administrator

Maryland Department of Transportation

**MEMORANDUM**

**TO:** Lyn Erickson, AICP  
Assistant Director, Office of Planning

**FROM:** Mike Haley, Chief *MDH*  
Regional and Intermodal Planning Division

**DATE:** April 9, 2007

**SUBJECT:** Proposed US 340/US 15 Interchange  
Jefferson Technology Park  
Frederick County

The Maryland State Highway Administration (SHA) requests that an Amendment to the 2006 Constrained Long Range Plan (CLRP) be initiated. The US 15/US 340 interchange at Jefferson Technology Park (JTP) project has already been submitted as part of the draft FY 2008-2013 TIP in February 2007, but an amendment is needed in order to meet the developer's schedule for this project which has not been previously tested for air quality conformity.

The developer of the Jefferson Technology Park is fully funding the design and construction of the interchange. The developer has also been asked by SHA to conduct a public workshop in Spring 2007 regarding the proposed interchange. In addition to the public workshop, SHA is awaiting noise studies and potential mitigation measures for the proposed northbound ramps of the interchange project.

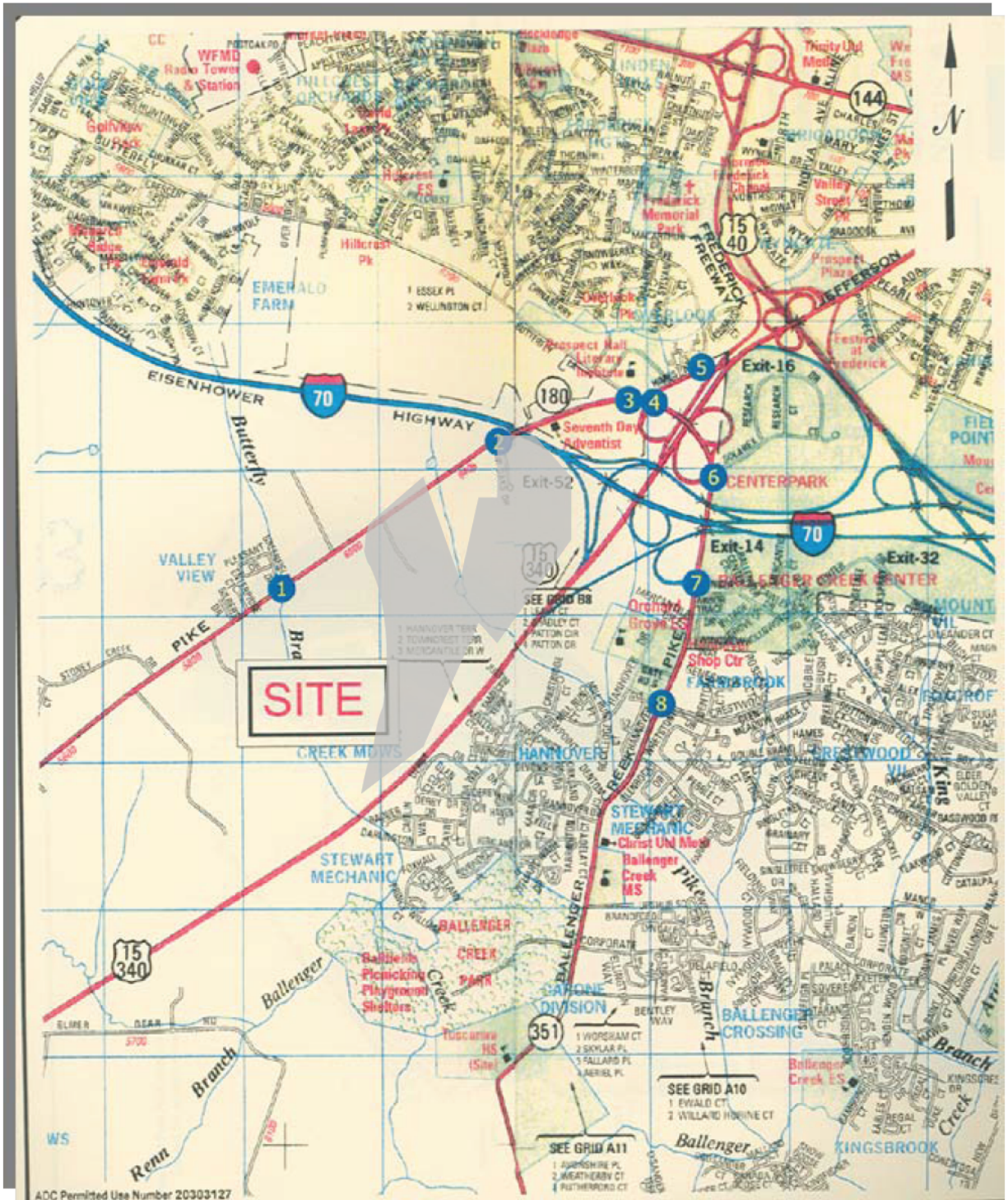
The JTP is located between MD 180 to the west and US 15/US 340 to the east, south of I-70 (*See Location Map – Figure 1*). The project is a large, mixed-use project, which in its initial phases would provide access to both MD 180 and US 15/US 340.

My telephone number/toll-free number is 410-545-5675 or 1-888-204-4628

Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street · Baltimore, Maryland 21202 · Phone: 410.545.0300 · www.marylandroads.com

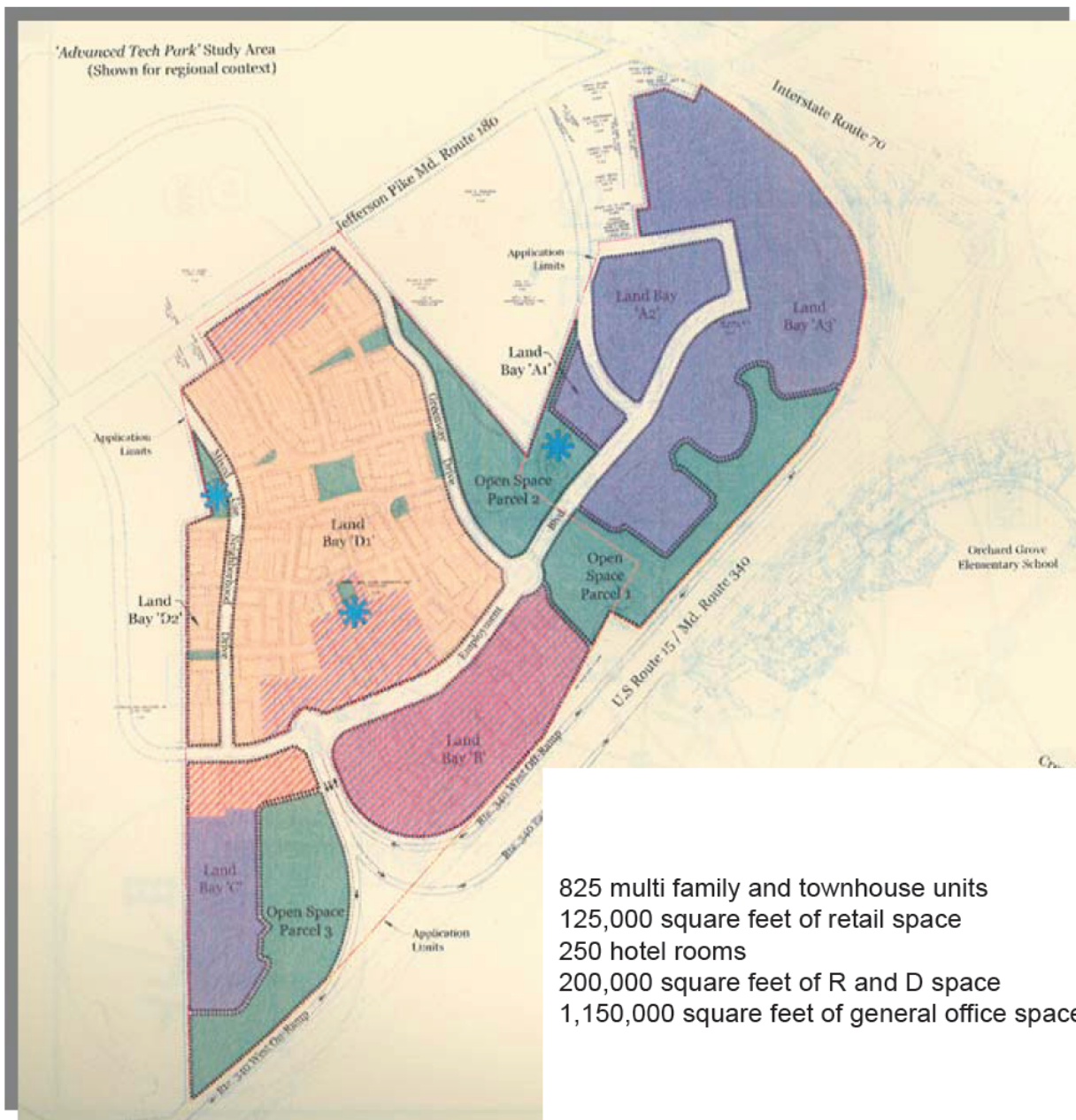




**Location Map - Figure 1**

The JTP is a proposed mixed-use development in Frederick County, Maryland that will include the following land uses roughly depicted in the land use map below (*See Land Use Map – Figure 2*):

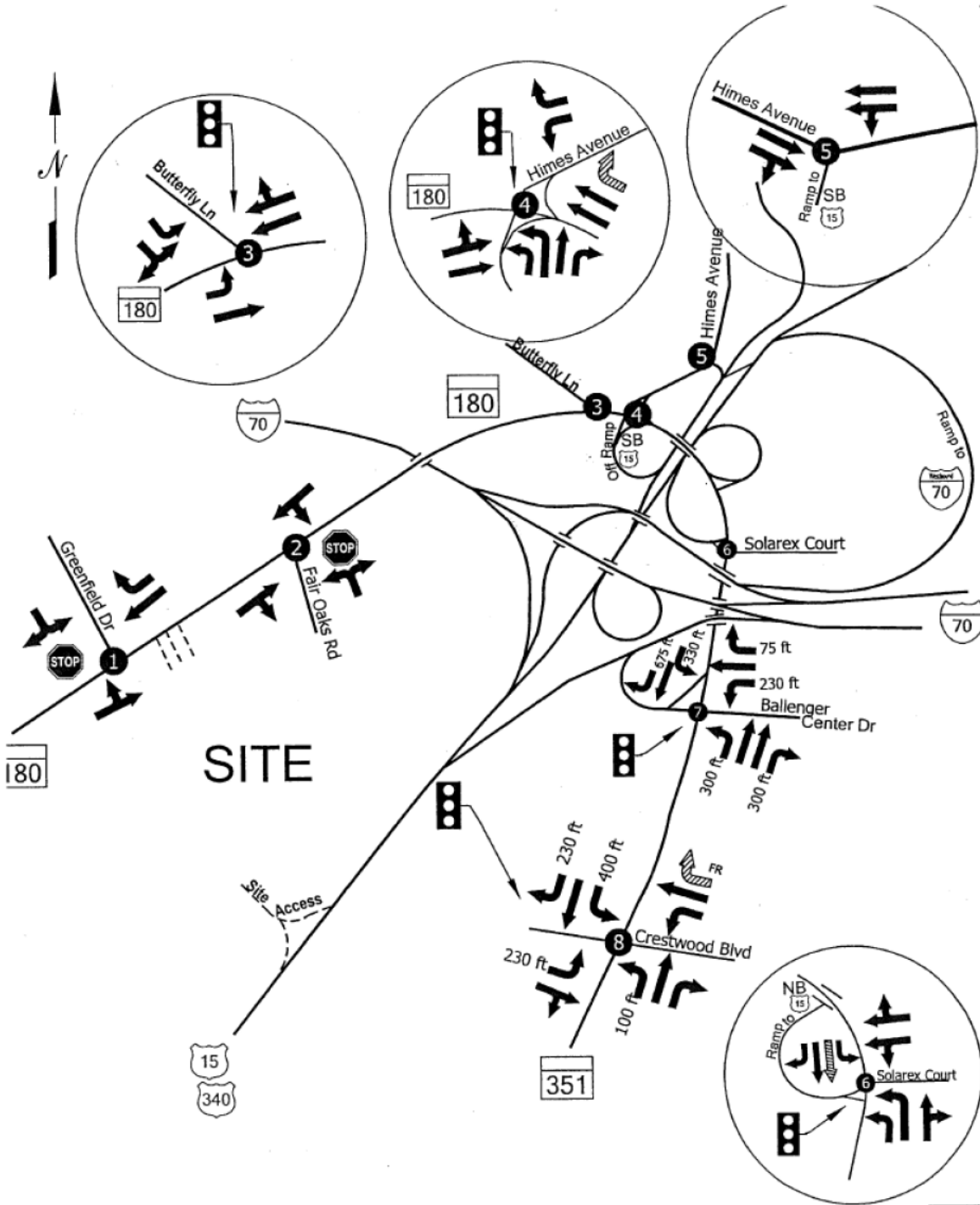
Lyn Erickson, AICP  
Page Three



**Land Use Map - Figure 2**

In January 2007 additional traffic studies were provided to depict Level of Service (LOS) for 2030 conditions. Please note that both the build-out year (Summer 2009) prior to 2030 and the 2030 conformity horizon year is forecast to operate at acceptable levels of service. (*See Recommended Lane Use – Figure 3 and Total Peak Hour Traffic Volumes – Figure 4*)



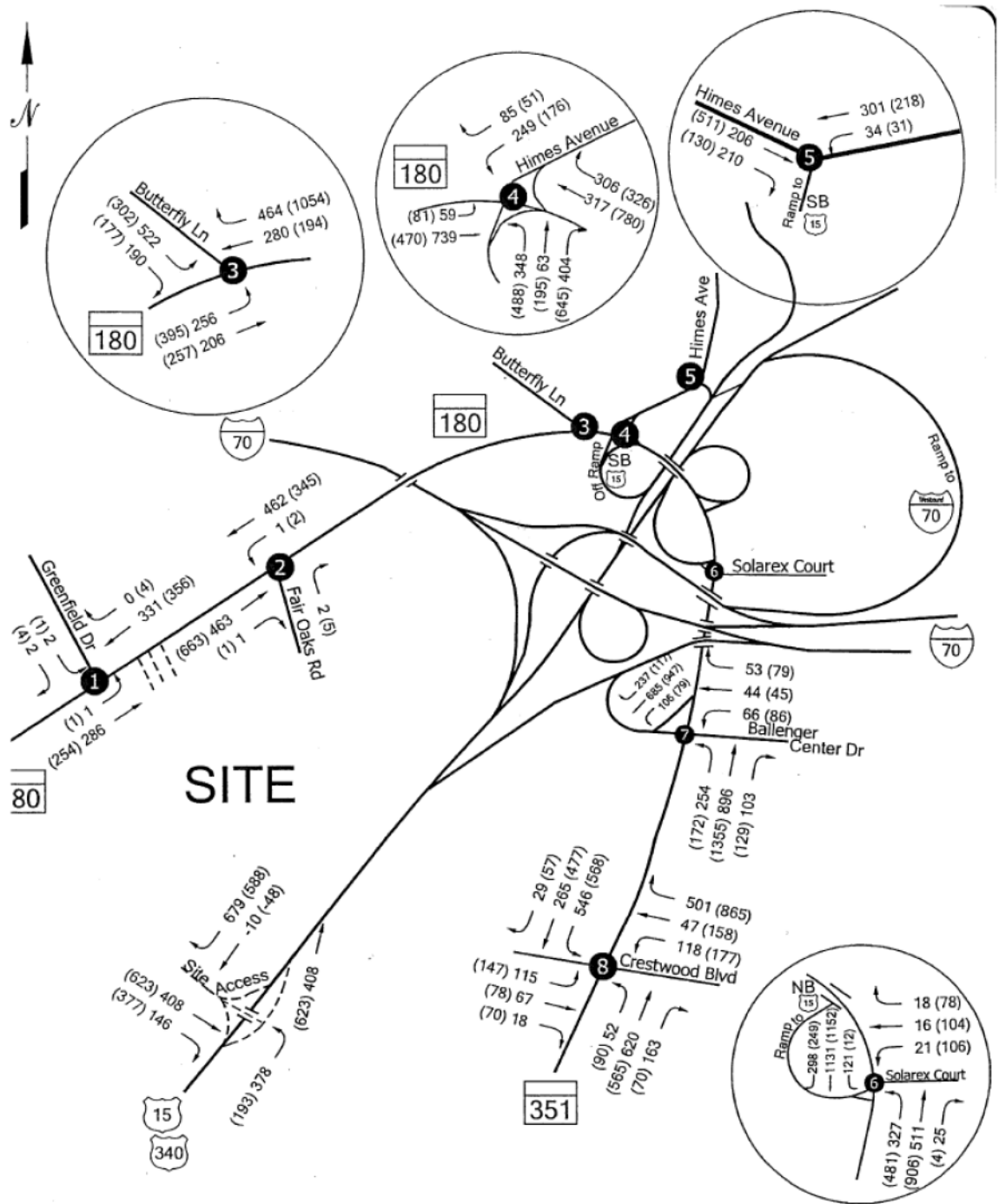


NOT TO SCALE

- ➔ EXISTING LANE USE
- ➔ RECOMMENDED LANE USE

EXHIBIT 12  
 RECOMMENDED  
 FUTURE LANE USE - PHASE 1

Recommended Lane Use – Figure 3



NOT TO SCALE

00 - MORNING PEAK HOUR  
(00) - EVENING PEAK HOUR

EXHIBIT 18  
TOTAL PEAK HOUR  
TRAFFIC VOLUMES - PHASE 2

**Total Peak Hour Traffic Volumes - Figure 4**

The proposed improvements and project traffic volumes are summarized as follows:

**MD 180 at Himes Avenue / Off-ramp from Southbound US 15/340**

1. Construct westbound right turn lane along MD 180 at Himes Avenue.

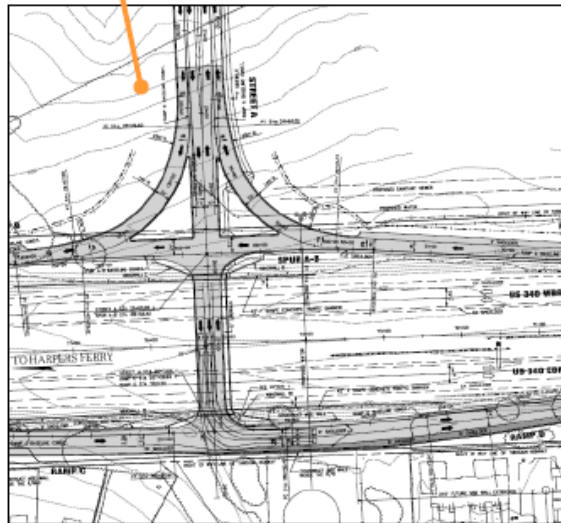
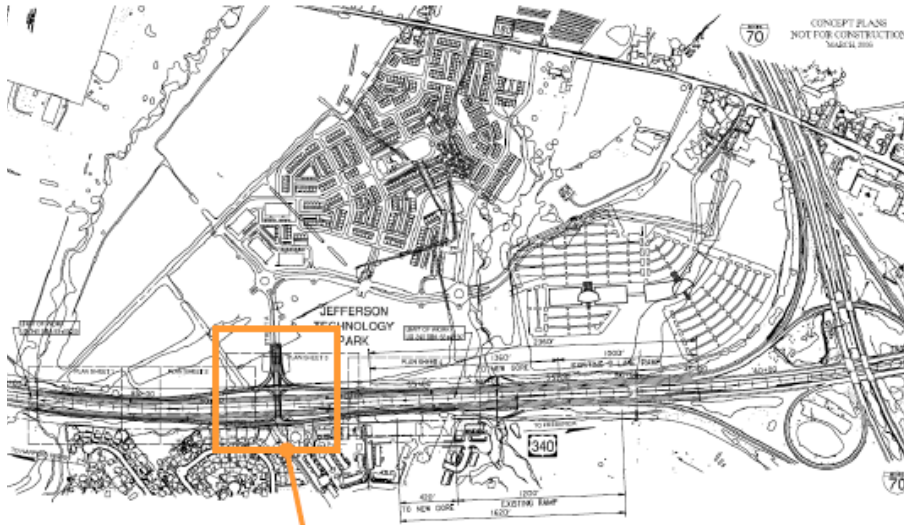
**MD 351 and Solarex Court**

2. Construct a second southbound thru lane along MD 351 at Solarex Court.

**MD 351 at Crestwood Boulevard**

3. Construct an acceleration lane along northbound MD 351 for the westbound right turn lane along Crestwood Boulevard.

At this time the proposed site access is as shown and the details of the proposed interchange are illustrated in the diagram below (*See Proposed Interchange Diagram – Figure 5*). A potential future sidewalk over the bridge is still under consideration.



Proposed Interchange Diagram – Figure 5

The estimated costs to date for the project are as follows:

- \$900,000 for Preliminary Engineering
- \$10,000,000 for Construction

The proposed schedule developed to date is as follows:

- Public Workshop – April 24, 2007
- Beginning of Construction - November 1, 2007

If you have any questions or comments please do not hesitate to call or contact Ms. Stephanie Yanovitz, Acting Regional Planner, SHA Regional & Intermodal Planning Division (RIPD) at 410-545-5668 or [syanovitz@sha.state.md.us](mailto:syanovitz@sha.state.md.us) for further assistance. We greatly appreciate your coordination activities in the 2006 CLRP.

CC: Mr. Dennis Yoder, SHA Assistant Division Chief, RIPD