

## KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION SUBDIVISION REPORT - CONCEPT

► FILE #: 12-SB-11-C AGENDA ITEM #: 14

AGENDA DATE: 12/8/2011

► SUBDIVISION: DEER PARK

► APPLICANT/DEVELOPER: I-40/I-75 BUSINESS PARK, LLC

OWNER(S): Steve Maddox

TAX IDENTIFICATION: 141 028,033,03304

JURISDICTION: County Commission District 6

► LOCATION: North side of El Camino Ln., west of Watt Rd.

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Planned Growth Area

WATERSHED: Hickory Creek

► APPROXIMATE ACREAGE: 100.66 acres

► ZONING: CB (Business and Manufacturing) and PC (Planned Commercial)

EXISTING LAND USE: Vacant land

► PROPOSED USE: Commercial development

SURROUNDING LAND

Zoning in the area consists of CA, CB & PC commercial and I industrial.

USE AND ZONING:

Development consists of trucking and highway oriented commercial uses.

► NUMBER OF LOTS: 46

SURVEYOR/ENGINEER: David Campbell

ACCESSIBILITY: Access is via El Camino Ln., a local street with a pavement width of 22'

which is located within the Interstate 40/75 right-of-way. Additional access is via Everett Rd. which is classified as minor arterial street with a pavement

width of 21 'within a 50' wide right-of-way.

► SUBDIVISION VARIANCES

**REQUIRED:** 

1. Right-of-way for a minor collector street from 70' wide to 60' wide between sta 13+00 and 37+00

2. Maximum grade for a minor collector street from 10% to 12%

between sta 7+00 and 15+52

3. Horizontal curve variances on Road A from 400' to 300' between sta 6+85 and 8+58, between 11+06 and 12+40, between18+52 and 19+46, between sta 25+30 and 25+63 and between sta 32+26 and 34+99 and

from 400' to 308' between sta 2+44 and 3+72

4. Horizontal curve variance on Road E from 400' to 300' between sta

0+79 and 1+63

5. Vertical curve variances on Road A from 1220' to 720' at sta 15+52, from 100' to 60' at sta 29+75 and from 400' to 200' at sta 32+00

6 Right-of-way width for a minor collector from 70' wide to 50' wide for

Roads D and E

7. Vertical curve variance on Road A at sta 7+00 from 100' to 60'

#### STAFF RECOMMENDATION:

▶ APPROVE variances 1-5 because topographic conditions restrict compliance with the Subdivision

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### Regulations, and the proposed variance will not create a traffic hazard. DENY variances 6 & 7

### APPROVE the concept plan subject to 13 conditions

- 1. Meeting all applicable requirements of the Knox County Zoning Ordinance
- 2. Meeting all applicable requirements of the Knox County Dept. of Engineering and Public Works
- 3. Provision of the left turn lane from Watt Rd. on to El Camino Ln. as called for in the traffic impact study. Plans for the turn lane and the timing of its construction must be approved by the Knox County Dept. of Engineering and Public Works and/or TDOT. All construction work done in the public right-of-way must be coordinated through and supervised by the Knox County Dept. of Engineering and Public Works and/or TDOT
- 4. Posting a bond with the Knox County Dept. of Engineering and Public Works for up to five years to cover the cost of the traffic signal purchase and installation at the intersection of Watt Rd. and El Camino Ln. at the time that it is warranted as called for in the traffic impact study
- 5. All other road improvements called for in the traffic impact study to be installed as required by the Knox County Dept. of Engineering and Public Works and TDOT
- 6. Roads constructed within the project will be built to the County's standard for a "commercial/ industrial" street as required by the Knox County Dept. of Engineering and Public Works
- 7. Provision of a minimum of 60' of right-of-way for Roads D & E
- 8. Provision of the 100' vertical curve at sta 7+00 of Road A as required
- 9. Provision of cross section drawings for every proposed street at 50' intervals that tie back to natural grades
- 10. Provision of written permission from adjoining property owners and Loudon County prior to commencing any grading off of the site as shown on the grading plan
- 11. Meeting all requirements and obtaining all required permits from the Tenn. Dept. of Environment and Conservation
- 12. All cut slopes within the development not exceeding a 2 to 1 slope. A landscaping plan must be submitted that addresses the revegetation of the cut slopes.
- 13. A final plat based on this concept plan will not be accepted for review by MPC until certification of design plan has been submitted to MPC staff

#### **COMMENTS:**

These applicants are proposing a 100 acre commercial development. Based on the size of the development and the projected uses, this development will generate over 750 trips per day. A traffic impact study has been submitted addressing the development of this site. Staff from the Knox County Dept. of Engineering and Public Works, TDOT and MPC have reviewed the traffic impact study and agree with its findings. Initially, the applicant will be required to construct a north bound left turn lane in Watt/Everett Rd. at the intersection with El Camino Ln. Additionally, this project is expected to generate enough traffic that a traffic signal at the same intersection will be warranted in the near future. Staff will require the applicant to post a bond with the County that will cover the cost of purchasing and installing the traffic signal when it is warranted.

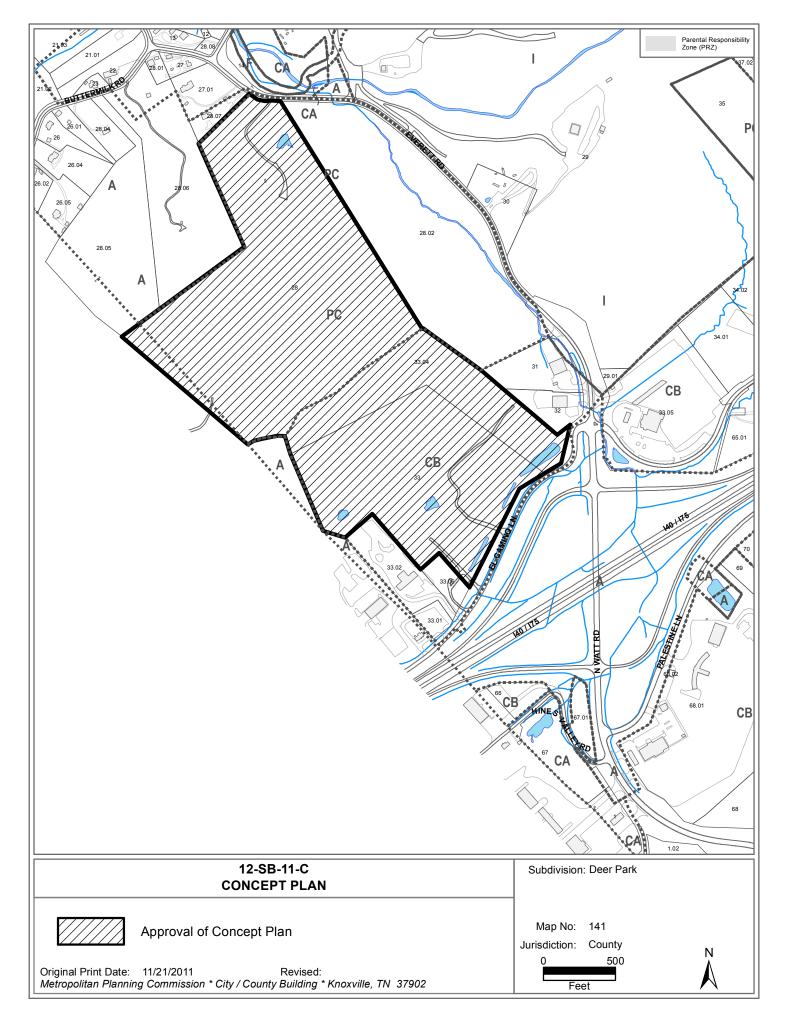
A significant amount of grading has already occurred on this site. More grading is yet to be done. Staff will limit all cut slopes to a maximum of a two to one slope. Additionally, the staff expects the cut slopes to be stabilized and revegetated. Staff will require the applicant to provide a landscaping plan that will address the exposed slopes on this site.

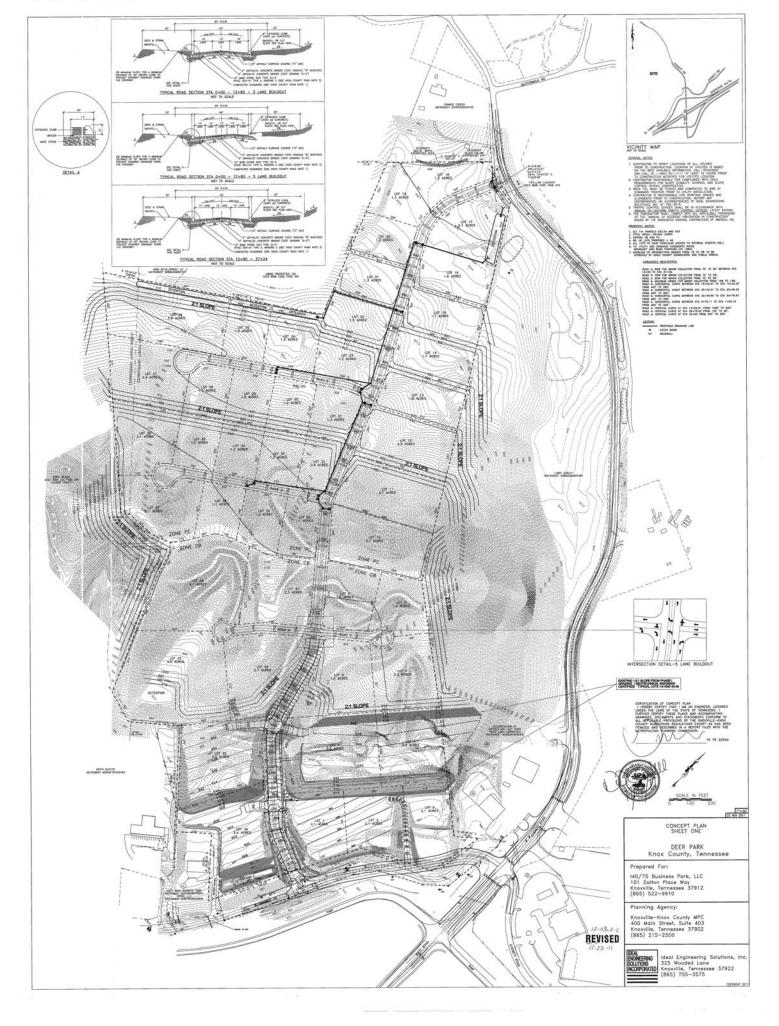
ESTIMATED TRAFFIC IMPACT: Not calculated.

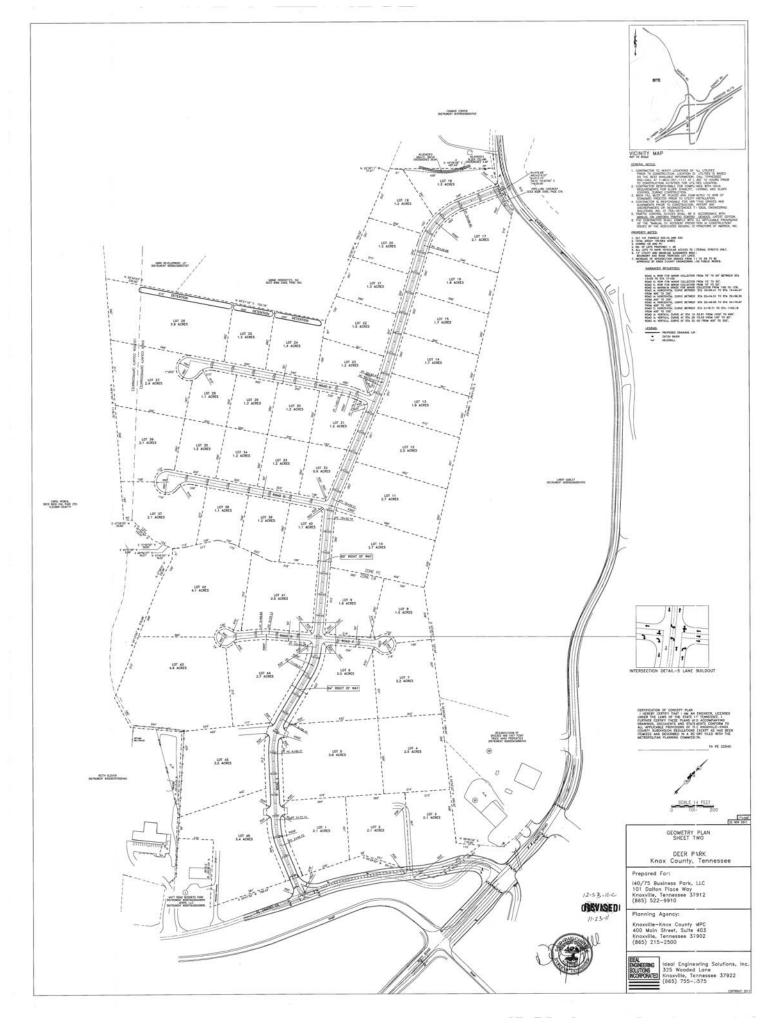
ESTIMATED STUDENT YIELD: Not applicable.

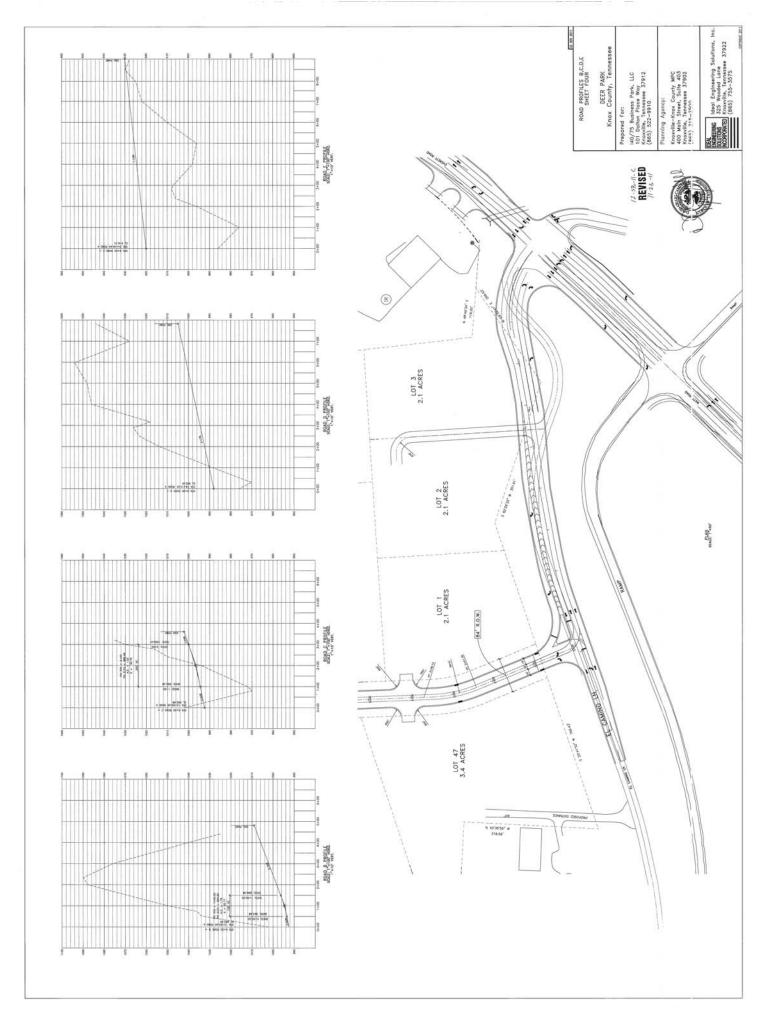
MPC's approval or denial of this request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court appeal hearing will depend on when the appeal application is filed.

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November 28, 2011

Mr. Nathan Benditz KNOX COUNTY MPC 400 Main Street Knoxville, TN 37902

RE: DEER PARK, WATT RD/EVERETT RD/EL CAMINO LN, KNOXVILLE, TN.

Dear Mr. Benditz:

In response to the question regarding any additional phasing of the above referenced development and necessary road improvements, WSA has further reviewed and analyzed this potential. It was determined that with the development of the highway commercial on the first and second tiers as proposed which include restaurants, hotels, and convenience markets type use, the intersection of El Camino Lane and Everett Road can operate without the eastbound double right-turn, and the thru movement for the northbound and southbound approaches can be accommodated with a single thru lane thereby maintaining Everett Road as a 2-lane facility. A right-turn lane should be provided for the Flying J access. The Watt Road northbound approach to Everett Road will need the double left-turn lanes to accommodate the left-turn volume and minimize queuing on Watt Road between the westbound I-40 ramps and Everett Road. The attached figure illustrates this geometry.

A southbound right-turn lane should be developed for the westbound on-ramp to I-40 thereby providing a two-lane southbound approach for this phased development. Grading for the future two southbound thru lanes across the interstate may be provided with this improvement; however, actual pavement improvements should be provided at the time of the interchange improvements minimizing pavement and markings until such time the lane is required.

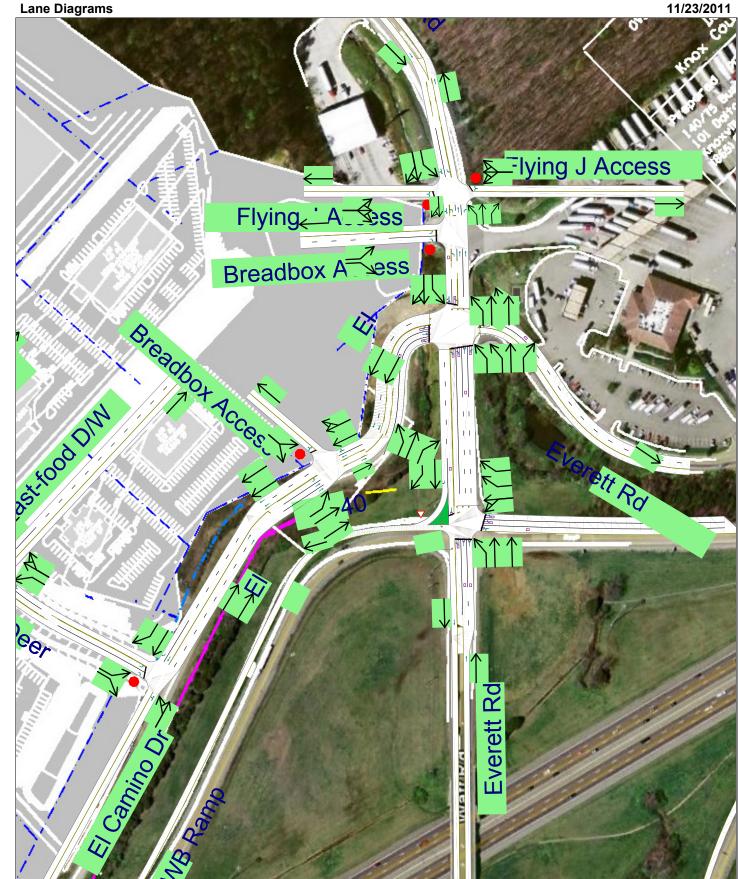
If you have any other questions regarding this issue, please call me.

Sincerely,

WILBUR SMITH ASSOCIATES, INC.

Kevin A. Cole, P.E.

Senior Transportation Engineer



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Mr. Nathan Benditz Knoxville Regional Transportation Planning Organization 400 Main Street, Suite 403 Knoxville, TN 37902

RE: DEER PARK BUSINESS CENTER TRAFFIC IMPACT STUDY

Dear Mr. Benditz:

Wilbur Smith Associates appreciated the meeting last Tuesday (23<sup>rd</sup>) to discuss the Deer Park Business Center development at the interchange of I-40 and Watt Road. During the meeting, two questions were requested to be addressed for the next submittal, which were the measure of when the 3-lane roadway section at the entrance would need to be improved to a 5-lane section and what initial improvements would need to occur at the start of Phase 1. A traffic impact study has been conducted by Wilbur Smith Associates and submitted for review.

The study identified the details of the project, development phasing, existing traffic operations, future traffic operations with and without the development, interim recommended mitigation, and ultimate recommended mitigation. On page 39 in the Proposed Spine Road section of the report, the 3-lane cross-section with free-flow operation at its intersection with El Camino will operate satisfactorily with an average daily traffic (ADT) of 15,000 vpd. When traffic volumes exceed 15,000 vpd, a 5-lane roadway cross-section may be necessary between the intersection at El Camino Lane and access to the large parcel retail area. The ADT of the spine road decreases as it extends to the north. Therefore with the proposed uses of retail at the crest of the development, the 5-lane roadway cross-section could be terminated transitioning back to a 3-lane roadway cross-section to serve the office/showroom northern portion of the business park.

This development is anticipated to grow in phases. The study assumed by 2015 that approximately 46,000 square feet of retail on the highest pad and 75% of the Highway Commercial including restaurant, convenience market, and hotel on the graded pads nearest the interstate. The report states the interim and ultimate recommendations for the anticipated traffic conditions. If the first phase land-use is limited to convenience market or a fast-food restaurant, the mitigation for acceptable traffic operations would to be a left-turn lane for northbound Watt Road turning onto El Camino Lane. The existing volume of westbound Everett Road at the intersection of Watt Road/Everett Rd/El Camino Lane meet the MUTCD signal warrants for the minor street thresholds. However at this time, the main street does not meet the minimum thresholds. With a new land-use on El Camino Lane, the additional traffic generated by a fast-food restaurant and/or a convenience market could possibly meet signal warrants. Therefore, the initial improvements with a fast-food restaurant or convenience market should warrant a northbound left-turn lane and signalization.

We trust that your concerns have been addressed in this letter and the submitted traffic impact study. If you need further clarification or have questions, please contact me at your convenience.

Yours truly,

WILBUR SMITH ASSOCIATES, INC.

Kevin A. Cole, P.E.

Senior Transportation Engineer

Project No. 104464



## 

# STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

SUITE 700, JAMES K. POLK BUILDING NASHVILLE, TENNESSEE 37243-0349 (615) 741-2848

JOHN C. SCHROER COMMISSIONER

September 7, 2011

BILL HASLAM GOVERNOR

Commissioner Mike Hammond Chairman, Executive Board Knoxville Regional Transportation Planning Organization 400 Main Street, Suite 403 Knoxville, TN 37902

Dear Commissioner Hammond:

I have received the TPO Executive Board's request for the department to undertake a study for the modification of the interchange at I-40 and Watt Road in Knox County.

As you may be aware, the department's I-40/81 Corridor Plan evaluated each of the interchanges and did not identify any near-term need for improvements at this location. The department has not been contacted by any developer at this point; however, we understand that local transportation planning and engineering staff have been provided with a traffic study that indicates significant modifications would be needed to the I-40/Watt Road interchange if future development occurs at the densities being proposed.

Based on previous experience, the department finds that it is advisable not to initiate engineering for projects until there is reasonable expectation that funds will be available for their construction. There is otherwise a great probability that the study will have to be re-done at a later date and re-approved by the Federal Highway Administration, resulting in unnecessary time and cost. We are particularly sensitive to these issues because of increasing limitations on the amount of funding available to conduct planning and engineering studies. If the TPO or the developer wishes to fund an interchange study themselves, TDOT is willing to review it and submit it for federal approval. There would still be a concern, however, from the department's perspective that such a study would raise public expectations for a project for which no funding is immediately available.

TDOT has worked with the TPO over the past several years to identify and prioritize major regional transportation needs for the greater Knoxville area. Given the number of projects that have already been identified, it appears that adequate funds would not be available to reconstruct the I-40/Watt Road interchange without postponing other regional priorities. If the TPO Executive Board wishes to reexamine the timing of other major projects, the department will certainly be glad to participate in those discussions and take the appropriate follow up actions.

Thank you for your continued partnership in improving and maintaining the state's transportation system.

Sincerely,

John C. Schroer

Commissioner

JCS:JS

CC: Mr. Jeff Welch, Knoxville Regional TPO Director, W/Attach.

#33613 (all the following will receive attachments)

BC: Paul Degges

Joe Carpenter Ralph Comer Jeanne Stevens Steve Allen Angie Midgett

Bill Hart

Michelle Griggs, W/Original Attach.



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Telephone (865) 215-2500 • Fax (865) 215-2068 • contacttpo@knoxtrans org
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TN Dept. of Transportation Commissioner's Office RECEIVED

August 26, 2011

AUG 30 2011

John Schroer, Commissioner Tennessee Department of Transportation Suite 700, James K. Polk Building 505 Deaderick Street Nashville, TN 37243-0349 #33613

SUBJECT: Request for Interstate Access Request (IAR) study for the modification of the interchange of I-40/75 and Watt Road in Knox County, Tennessee

Dear Commissioner Schroer:

The Knoxville Regional Transportation Planning Organization (TPO) approved in July 28, 2010, the Transportation Planning Work Program for 2011 and 2012. Within that document, as part of Appendix B, was a listing of interchange modification/access request studies that the TPO was requesting TDOT to prepare. One of those studies was for the I-40/75 and Watt Road interchange. There has not yet been any action taken by TDOT to begin preparation of this study to our knowledge.

The TPO Executive Board met on Wednesday, August 24, 2011, and a motion was approved to request that the Tennessee Department of Transportation expedite the preparation of this interstate access study. This is based on the excessive congestion and safety issues that have been observed at the subject location and future growth in this corridor that will only add to the problem. Improvements to this interchange are identified in the TPO's adopted Long Range Mobility Plan (Project # 651). Given that it takes on average 10 to 12 years from concept to completion, of a project such as this, it is important that we begin the process as soon as possible.

If further information is required as a result of this request, please do not hesitate to contact me or Jeff Welch, Director of the Knoxville Regional TPO

Sincerely,

Mike Hammond

**Executive Board Chair** 

c: Jeanne Stevens, TDOT Joe Carpenter, TDOT

Angie Midgett, TDOT

Michael HAmmond

TPO Executive Board

CONSTITUTATE STANCES

The TPO coordinates a comprehensive, multi-modal transportation planning process for the Knoxville regional area