

**ISSUE GROUPS
MEETING #4 REPORT**

**KNOXVILLE
PARKWAY
CONTEXT SENSITIVE
SOLUTIONS**

ISSUE GROUPS



November 30, 2005

**National Transportation Research Center
Knoxville, TN**

Knoxville Parkway, Context Sensitive Solutions Issue Groups Meeting #4

ATTENDEES

The names and organizations of the people who attended the meetings are presented as follows.

Interchange, Access, and Land Use Planning

	Organization
John Benditz	Tennessee Section of the Institute of Transportation Engineers
Raynella Dossett	Regional Sub-Committee 3 – Solway & Karns
John Fairstein	Citizens Against the Beltway Orange Location
Edgar Faust	Hardin Valley Community
Greg Fay	East Tennessee Economic Development Agency
Mike Fleming	Regional Sub- Committee 1 - Loudon County

David Lambert	Better Roads in North Knoxville
Don Madgett	Regional Sub-Committee 4 – Claxton, Powell, Heiskell
Chip Miller	Loudon County
Bob Morris	Regional Sub-Committee 2– Hardin Valley
Mac Post	Powell Community
David Reister	Regional Sub-Committee 3 – Solway & Karns
Robert Shaw	Citizens Against the Beltway Orange Location
Don Shell	Regional Sub-Committee 2 – Hardin Valley
Wes Stowers	Knoxville Area Chamber Partnership
Roland Terrell	Solway Area Residents Association
Tom Tucker	Regional Sub-Committee 3 – Solway & Karns
Bruce Wuethrich	Knox County Government
Mike Conger	Knoxville Regional Transportation Planning Organization
Fred Frank	Knoxville Regional Transportation Planning Organization
Jeff Welch	Knoxville Regional Transportation Planning Organization
David Lindeman	Palmer Engineering – CSS Consultant
Stephen Sewell	Palmer Engineering – CSS Consultant

Bikes, Pedestrians, and Greenways Meeting

	Organization
Edgar Faust	Hardin Valley Community
Karen Nolt	Knox County Parks & Recreation Greenways
Clyde E. Ragle	Regional Sub-Committee 2 - Hardin Valley
David Utley	TDOT – Bicycle Coordinator
Ellen Zavisca	Knoxville Regional TPO
David Lindeman	Palmer Engineering – CSS Consultant
Will Conkin	Palmer Engineering – CSS Consultant

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Streams and Caves Meeting

Carolyn Greenwood	Karns Community
Brian Jenks	Anderson County Government
Vickie Long	Regional Sub-Committee 4 - Claxton, Powell, Heiskell
Clyde E. Ragle	Regional Sub-Committee 2 - Hardin Valley
Dale Roberto	Regional Sub-Committee 2- Hardin Valley
Sharon Todd	Claxton Community
Alan Longmire	TDOT Archeology
Harry Moore	TDOT Geotechnical
Luke Eggering	Parsons – Environmental Consultant
Bill Davis	Vaughn & Melton
Eric Fischer	Palmer Engineering – CSS Consultant
Will Conkin	Palmer Engineering – CSS Consultant

Air and Noise Meeting

Raynella Dossett	Regional Sub Committee 3 – Solway & Karns
Stephen Doyle	Regional Sub Committee 4 – Claxton, Powell, Heiskell
John Fairstein	Citizens Against the Beltway Orange Location
Carolyn Greenwood	Karns Community
P. J. Halvorson	Regional Sub-Committee 1 – Loudon County
Brian Jenks	Anderson County Government
Robert Shaw	Citizens Against the Beltway Orange Location
Roland Terrell	Solway Area Residents Association
Tom Tucker	Regional Sub-Committee 3 – Solway & Karns
Luke Eggering	Parsons – Environmental Consultant
Tony Pakeltis	Parsons – Environmental Consultant
Eric Fischer	Palmer Engineering – CSS Consultant
Stephen Sewell	Palmer Engineering – CSS Consultant

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Advisors and Consultants To All Groups

Mary English
Mike Russell
Cliff Stewart
Luke Eggering
Norm Johnson
Gerald Vick
Todd White
John Moss
Pat Alexander
Stan Klenk
Greg Green

Organization

University of Tennessee
TDOT – Project Manager
TDOT – Design
Parsons – Environmental Consultant
Gresham Smith & Partners
TRC International
H. W. Lochner
HNTB Corporation
HMB Professional Engineers
Allen & Hoshall
Robert G. Campbell & Associates

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INTRODUCTION

The Issue Groups gave a 1 to 5 rating to each alternative from the standpoint of a single issue. 1 is good, 5 is bad and they could give the same rating to more than one alternative.

The ratings from each group will be included in the table of attributes for each alternative that the Regional Subcommittees and Resource Team will have as a reference when they evaluate the alternatives at the next meeting.

The ratings from the Issue Groups follow:

		Caves & Sinkholes	Streams	Bike, Ped, & Greenways	Air	Noise	Interchanges
Alternative	Notes						
Regional Section 1 Loudon County							
1C		1	1	3	2	3	4
1E		1	1	3	1	1	1
Regional Section 2 Hardin Valley							
2A	East of Marietta Church Road	1	1	4	1	1	X
2B	considered part of Design Section 3	2	1	2	3	3	X
3C	West/East @ Steele Road	1/3	1.5/3	2	3	2	X
3D		3/1	1/1	4	2	3	X
3CD		1/1	1.5/1	1	1	1	X
Regional Section 3 Solway & Karns							
4A		3	1.5	3	1	1	3
4B		1	1	3	2	1.5	1
5H	West/East @ Henderson Road	3	1/2	4	1	1	X
5I		3	2/1	2	2	2	X
Regional Section 4 Claxton, Powell, & Heiskell							
6A		1	3	4	4	4	3
6E		1	2	4	3	3	5
6E2		1	1	4	3	3	5
6E2MOD		1	2	2	1	1	1
7AC	West/East @ Chestnut Ridge Road	2	1	1.5	2/1	2/1	X
7B		1	1	3	1/3	1/3	X
8B		1	1	3	2	2	3
8C		1	1	3	1	1	1

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The Issue Groups made the following recommendations:

INTERCHANGES, ACCESS, AND LAND USE PLANNING ISSUE GROUP

During the meeting David Lindeman explained each alternative and design consultants from each section were there to answer specific questions about the alternatives. The group was also shown traffic simulations for each alternative to aid in rankings.

I-40/I-75 and SR 475

The interchange group's rating was **4** for 1C and **1** for 1E (1 good and 5 bad) due to factors such as cost and safety. Reasons given for the ratings were:

- Alternative 1E's flatter curve exiting I-75 to SR-475 was a safety benefit over 1C.
- Alternative 1E's flatter curve from SR 475 southbound to I-40 eastbound was also a major factor.
- Alternative 1E has a safer single exit from SR 475 southbound to I-40 both east & westbound.

Pellissippi Parkway and SR 475

The interchange group reviewed the alternatives at SR 475, SR 62, and Hardin Valley Road. The group rated alternative 4A a **3** and Alternative 4B a **1** (1 good and 5 bad) for all three interchanges, mainly due to the safety benefits of a lower level interchange at SR 475 and cheaper cost. The group recommended that the interchanges have adequate lighting. The group also recommended that a frontage road be built between Guinn and Solway Roads as well as a right-turn lane from SR 162 southbound to Solway Road westbound.

SR 475 and Clinton Hwy

The group reviewed the four alternatives at Clinton Highway along with the simulations and determined that Alternatives 6E and 6E2 should receive a rating of **5** (1 good and 5 bad) due to major congestion. The group rated Alternative 6A a **3** due to its location and the requirement of two signals on Clinton Highway. The group rated Alternative 6E2-Mod a **1** due to its cheaper cost and less congestion as shown with the traffic simulations.

SR 475 and I-75

The interchange group felt that a higher design speed for the NB 75 to SB 475 movement was the advantage of 8C over 8B. The group rated 8B a **3** (1 good and 5 bad) and 8C a **1**.

STREAMS, WATER QUALITY, AND CAVES ISSUE GROUP RECOMMENDATIONS

Design Section 1

The streams and caves group felt that neither Alternative 1C or 1E showed any effect on streams and caves. The group rated both alternatives a **1** for streams and **1** for caves (1 good and 5 bad).

Design Section 2

For the purpose of their ratings, the Streams and Caves Issue Group considered Marietta Church Road the dividing line between Design Sections 2 and 3.

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The group felt that neither alternative affected the surrounding streams differently and rated Alternatives 2A and 2B a *1*. The group felt that Alternative 2B impacted Cave-23 more than Alternative 2A. Alternative 2A was rated a *1* and 2B was rated a *2*, based on impact to caves.

Design Section 3

The group had a concern that the alternatives might affect Beaver Creek.

The group separated the Alternatives, 3C, 3D, and 3CD into a 'west' and 'east' segment, with the dividing line being Steele Road.

The group rated the west end of 3C *1.5* for streams and *1* for caves. The west end of 3D was rated *1* for streams and *3* for caves. The group rated the east end of 3C *3* for streams and *3* for caves. The east end of 3D was rated *1* for streams and *1* for caves.

Overall the group liked Alternative 3CD because it misses a lot of the residential areas on the west end and misses Beaver Creek and caves on the east end of the section.

In Design Section 3, the Beaver Creek Preservation Buffer should be avoided as much as possible.

Design Section 4

Cherokee Caverns, in Design Section 4, should be avoided and monitored during construction.

Alternative 4B was rated *1* for both streams and caves because it is further from each than 4A. Alternative 4A was rated *1.5* for streams because it is closer to Beaver Creek and rated *3* for caves because it is closer to Cherokee Caverns.

Design Section 5

There is a spring in Design Section 5 that is used as a water source and should be avoided if possible.

For the stream rating the group separated the Alternatives 5H and 5I into a 'west' and 'east' segment, with the dividing line being Henderson Road.

The group rated the west end of 5H *1* for streams and the east end of 5H was rated *2*. The west end of 5I was rated *2* for streams and the east end of 5I was rated *1*. The group gave the same cave rating of *3* to both 5H and 5I.

Design Section 6

All alternatives were given the same rating of *1* for caves in Design Section 6.

Alternative 6A was rated *3* for streams because it has the most effect on a creek along US 25W. Alternative 6E2 was rated *1* for streams and Alternatives 6E and 6E2Mod were both rated *2*.

Design Section 7

Both alternatives in Design Section 7 were rated *1* for streams.

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Alternative 7B was rated *1* for caves because it stays farther from Budnik Cave and 7AC was rated *2*. If significant issues are uncovered at Budnik then the rating of 7AC could change.

Both Alternatives are the same distance from Wilson Cave.

The group recommended designing for minimal vibrations at Budnick Cave.

Try to minimize impact to all caves and monitor them during construction.

Design Section 8

The streams and caves group felt that Alternatives 8B and 8C were similar in that they did not appear to have any effect on streams and caves.

The group rated both alternatives a *1* for streams and *1* for caves (1 good and 5 bad).

BICYCLES, PEDESTRIANS, AND GREENWAYS ISSUE GROUP

Recommendations for Trail Use

1. The Beaver Creek Watershed Plan is the primary plan, then connect to SR 475.
2. Proposed greenways are designated as an Equestrian trail, but all users are to be considered not just horse riders: pedestrians, bicyclist, mountain biking, etc.
3. Road crossings are to be safely designed for all users.
4. Plan for adequate spacing for future expansion.
5. Knox County will take full responsibility of maintenance of trail in Knox County

Design Recommendations

1. A 2-lane, dual surface is preferable.
2. ADA guidelines are of concern because of terrain.
3. The Greenway should not be limited to SR 475 Right of Way
4. Greenway should enter & exit SR 475 Right of Way to act as a parallel facility.
5. The trail vertical grades should be kept to a minimum.

Landscaping Wish List

1. Aesthetics at Trail Heads only

Design Section 1

Modify the Buttermilk Road bridge over I-40 to accommodate bicyclists and pedestrians.

Both Alternatives were rated *3* for greenways, however 1E is preferred.

Design Section 2

SR 475 crosses Everett Road by Trailhead 8. Make the SR 475 bridge long enough to provide room for a possible future trail, adjacent to Everett Road, crossing under the SR 475 bridge.

Alternative 2A was rated *4* for greenways.

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Alternative 2B was rated **2** for greenways. The group preferred 2B because a knob separates the road and trail.

Design Section 3

Alternative 3CD was preferred because Alternatives 3C and 3D had portions that would be adjacent to the back yards of local residents.

Alternative 3C was rated **2** for greenways.

Alternative 3D was rated **4** for greenways.

Alternative 3CD was rated **1** for greenways.

Design Section 4

Design under or overpasses to accommodate all users across Pellissippi Parkway and Oak Ridge Highway.

Alternative 4A was rated **3** for greenways.

Alternative 4B was rated **3** for greenways.

Design Section 5

Separate roadways are more aesthetically pleasing to the group because the trails are adjacent to traffic going in only one direction.

Alternative 5H was rated **4** for greenways.

Alternative 5I was rated **2** for greenways.

Design Section 6

Separate roadways are more aesthetically pleasing to the group because the trails are adjacent to traffic going in only one direction.

Alternative 6A, 6E, and 6E2 were all rated **4** for greenways.

Alternative 6E2Mod was rated **2** for greenways.

Design Section 7

The trail should be located to the north of SR 475.

The group liked the west end of 7A because SR 475 was farther from the trail.

The group liked the east end of 7C because the trail was on higher ground than SR 475.

Keep the trail slope to a minimum. The group was concerned that the trail may be too steep.

Alternative 7AC was rated **1.5** for greenways.

Alternative 7B was rated **3** for greenways.

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Design Section 8

Alternative 8B was rated **3** for greenways.

Alternative 8C was rated **3** for greenways.

AIR QUALITY AND NOISE ISSUE GROUP

Tony Pakeltis of Parsons began the meeting by giving an overview of common noise levels for different events. He also explained the guidelines that TDOT uses when determining if a traffic noise impact occurs as a result of a roadway and the difference between noise levels from cars and trucks.

Preliminary calculations predict that levels of traffic noise from the Knoxville Parkway between I-40/75 and Clinton Highway should diminish to 66 dBA no more than 250 feet from the edge of pavement. Between Clinton Highway and I-75, traffic noise levels should diminish to 66 dBA no more than 185 feet from the edge of pavement.

Alan Jones of TDOT spoke to the group concerning Air Quality.

The group followed the same rating system as the other groups with 1 good and 5 bad.

Design Section 1

Alternative 1C was rated **2** for air and **3** for noise.

Alternative 1E was rated **1** for both air and noise because it is farther from most residences.

Design Section 2

For the purpose of their ratings, the Air and Noise Issue Group considered Marietta Church Road the dividing line between Design Sections 2 and 3.

Alternative 2A was rated **1** for both air and noise because it is in a cut that should hide it as it goes by a group of residences.

Alternative 2B was rated **3** for both air and noise.

Design Section 3

The group had a concern that the alternatives might affect Beaver Creek.

Alternative 3C was rated **3** for air and **2** for noise.

Alternative 3D was rated **2** for air and **3** for noise.

Alternative 3CD was rated **1** for both air and noise because it is farther from most residences on both ends.

Design Section 4

Alternative 4A was rated **1** for both air and noise because it is farthest from most residences.

Alternative 4B was rated **2** for air and **1.5** for noise.

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Design Section 5

Alternative 5H was rated *1* for both air and noise.

Alternative 5I was rated *2* for both air and noise because the divided roadway moves it closer to some residences.

Design Section 6

Alternative 6A was rated *4* for both air and noise because it has the steepest interchange ramps.

Alternative 6E2Mod was rated *1* for both air and noise because it has the flattest grades.

Alternatives 6E and 6E2 were both rated *3*.

Design Section 7

For the purpose of their ratings, the Air and Noise Issue Group separated the Alternatives 7AC and 7B into a 'west' and 'east' segment, with the dividing line being Chestnut Ridge Road.

The group rated the west end of 7AC *2* for both air and noise. The west end of 7B was rated *1* for both air and noise. The group rated the east end of 7AC *1* for both air and noise. The east end of 7B was rated *3* for both air and noise.

Design Section 8

The group rated 8B *2* for both air and noise because the slower ramp for one movement will cause trucks to slow down more and then speed back adding both air and noise pollution.

The group rated 8C *1* for both air and noise (1 good and 5 bad).