

Position Paper

## **Visual Simulation as a Tool for Bicycle Route Feasibility Assessment & Planning**

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One of the greatest challenges – *or problems* – that face bicycle/ pedestrian coordinators, community planners, landscape architects, and traffic engineers is how to accurately portray, prior to construction, how a bicycle route will look once constructed. Typically, proposed bike routes are illustrated as hand-drawn perspective sketches of an idealized scene, depicting a mix of pedestrians and cyclists. This approach relies tremendously upon the artistic skills and subjective interpretation of the illustrator, and does little to realistically convey how a bike or pedestrian facility can be successfully will integrated into a built or naturalistic environment, respecting community values and the rights of property owners. In many cases, it is essential to develop support for a bicycle route within the community where the bicycle facility is to be built in order to attract funding, to determine route selection, and most importantly, to determine the needs of the user group.

Visual simulation involves the use of digitally enhanced real-life images to convey existing conditions and proposed alternatives for a bike route. Recent planning and feasibility studies conducted by the proposer (Peter Kumble) have shown that visual simulation is a highly successful approach for fostering community support of proposed recreational amenities—such as greenways, bike ways, or hiking trails.

Visual simulation can be effectively used to illustrate that a proposed bike route will not (1) detract from the existing scenic character of a picturesque landscape, (2) impact key natural features such as a mature roadside tree canopy, or (3) compromise the historic integrity of existing communities. More importantly, visual simulation is an effective tool to use when integrating bicycle and pedestrian facilities into an urban context, particularly for illustrating key safety features or the necessary site improvements to achieve those safety improvements.

Visual simulation can economically and easily be run on any Windows or Apple based desk top computer, using software such as Adobe Photoshop or Corel Draw to manipulate digital images. The results of this work can be output in a variety of media, ranging from the World Wide Web to report graphics.

**What will this poster—or panel discussion topic do?** This topic will invite discussion by conference delegates to establish the criteria for using visual simulation. For example, when should this technique be employed and how best to solicit community feedback. The proposer will be available to explain how to accurately capture the “before” images in the field, and then provide tips on how to produce convincing “after” scenes of the proposed bikeway of pedestrian facility. Example scenarios will be presented on the poster.