STC Research Project Description

Project Title: The Effects of Roundabouts on Pedestrian Safety

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Project Start Date: 08/16/00 End Date: 08/15/01

Other Milestones, Dates:

Quarterly reports:11/00, 02/01, 05/01, 08/01

Student Projet report, fall 2001 Technology transfer publication, fall 2001

Project Objective: To determine the effects of modern roundabouts on pedestrian safety in the U.S.

Project Abstract: As a result of documented reductions in vehicle crashes and injuries at roundabouts some professionals safety promote roundabouts as effective treatments for intersections. What professional discussions lack, however, are an assessment quantification of the related pedestrian safety problem. Using case study, statistical and simulation analysis, this project will help provide the needed information.

Task Description: (1)Literature review. (2)Acquire available site & pedestrian accident data. (3)Quantify the magnitude of the problem. (4)Conduct forensic analysis & identify accident factors. (5) Supplement available site data with hypothetical data. (6) Synthesize results.

Total Budget: $19,503

Student Involvement (Thesis, Assistantships, Paid Employment): One student will adopt this project as the foundation of a masters project or thesis.

Relationship to Other Projects: NCSU Extension Grant, City of Raleigh and NCDOT roundabout improvement projects.

Technology Transfer Activities: Anticipated TRB paper.

Potential Benefits of Project: Enhance roundabout safety database and design guidelines.

TRB Keywords: roundabouts, safety, intersection design