Appalachian Transportation Institute (ATI) Research Project Description

Project Number: ATI TRP 99-23
Project Title: Survey of Truck Parking Places (Private) in WV

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Project Objective: The goals of this project are to 1) assess parking capacity and inventory facilities of public and private rest stops along designated corridors, and 2) suggest changes necessary to meet the increasing need of facilities.

Abstract: The current state of the economy has increased the number of commercial motor vehicles that operate nationally and in West Virginia. This number is expected to continue to increase in the foreseeable future. This traffic increase will greatly affect the major highways, I-64, I-77, I-79, I-81 and I-70 that have a limited number of safe rest areas. There will be an increase in the number of commercial motor vehicles parked along the side of the highway, or worse, on the entrance/exit ramps due to regulations limited operation of trucks to prevent the possibility of fatigue related accidents. It will review the designs of current rest areas to determine possible upgrades that would increase parking and amenities. It will review the design of the DOH weigh stations for innovations that would allow for better use of the surrounding acreage and improvements to the overall facilities.

Task Descriptions:

1. *Data Collection*

   Data for public and private sites (weigh stations, rest areas, and welcome centers) along the NHS will be collected via direct observation. In addition, an attempt will be made to identify "undocumented pull-offs", which may represent potential sites for new construction. Data collected will conform to that requested by the USDOT memo, “ACTION: Final Status on “Partners for Adequate Parking Facilities” Initiative, Attachment

1, dated January 5, 2001. While the nature of collection is simple, the location of the sites will necessitate extensive travel, much of it overnight.

While replete traffic volume data exists, the Planning & Research Division of the WV DOT reports that data of rest area *usage* does not. Due to the time and expense involved in data collection of this nature, this information will *not* be included in this study, though extrapolation from volumetric data will be completed (See *Data Analysis & Recommendations*).

Data will be collected in 2 phases and will be a concerted effort between the Appalachian Transportation Institute (ATI) and the Marshall University School of Medicine (MUSOM). Phase I, to be conducted the MUSOM, will consist of the 42 potential sites along interstates 64, 68, 70, 77, 79, and 81. Phase II will consist of the remaining roads in the NHS and will be collected primarily by the ATI.

2. Data Analysis & Recommendations

Public sites will be evaluated for changes that make better use of existing facilities and surrounding areas (i.e., unused land adjacent to weigh stations and the like). This will involve on site assessment and photographic records. Consultation with traffic engineers and the like will be necessary if actual changes to facilities (beyond recommendations) are to be proposed, and is beyond the scope of this study. Public and private sites will be assessed for possible changes in facility usage and policy change. The Truck Parking Demand Model will be used in estimating current and 20 year projection of peak demands. In addition, economic incentives may be proposed for the renovation of existing facilities to the building of new private facilities along "high demand" corridors. This, however, does raise questions of the construction of exit and entry lanes, public support, as well as safety, and funding, which are beyond the scope of this study.

Final Report

A report will be submitted upon completion of analysis. Included in the final report will be:

- Current demand (as number of spaces)
- 20 year projection of demand
- Recommendations
    - Parking policy
    - Facility (renovation, construction, amenities, etc.,)
    - Undocumented pull-offs
- General findings
- Raw data

Milestones, Dates, Schedule: Start Date: 12/01/00 End Date: 11/30/01

Budget: $13,600.00

Student Involvement: The project will provide employment support for at least 1 undergraduate and 1 graduate student. The student workers will support the Principal Investigator as project assistants. This project is not anticipated to lead to a student thesis directly.

Relationship to Other Research Projects: This project is correlated to ATI TRP 99-14.

Technology Transfer Activities: Final and progress reports will be available on the ATI Website. Final reports will be available on the ATI website. All, ATI Principal Investigators will present findings through the ATI Transportation Seminar Series to invited guests from WVDOT, USDOT, other ATI Principal Investigators, students and other invited guests. Other opportunities to present the project results will be explored including conferences and peer reviewed journals, etc.

Potential Benefits of this Project: It will provide incentives for the development of private rest areas along interstate corridors in West Virginia.

TRB Keywords: Parking, Trucking, Fatigue, Rest Areas