



INDOT Research

# TECHNICAL *Summary*

Technology Transfer and Project Implementation Information

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Final Report

## **EVALUATION, ANALYSIS, AND ENHANCEMENT OF INDOT'S UTILITY ACCOMMODATION POLICY**

### **Introduction**

The current utility accommodation policy of the State of Indiana was adopted on September 10, 1990. It was revised on March 26, 1998 to include the placement of telecommunication towers within highway right-of-way of partial or full access control. INDOT personnel have been using the policy for several years to control the limited space under and above highway right-of-ways and, accordingly, to issue permits to preserve the integrity, operational safety, and functionality of the highway facilities. According to FHWA (2002) "Present FHWA regulations, policies, and practices dealing with utility relocation and accommodation matters have evolved from basic principles established decades ago, with many of the policies remaining unchanged." It is therefore imperative to develop a utility accommodation policy that reflects the current needs of the industry.

Utility relocation has been found to be one of the primary sources of delays and added cost to road construction projects (Thomas 2002), and is of serious consideration by INDOT personnel. In order to achieve an effective accommodation of existing and new utilities, INDOT's current Utility Accommodation Policy (UAP) was revisited and analyzed, as a means to enhance and update the policy.

The major objectives of this study were:

- To identify key issues which must be addressed and studied in depth so that the current and future UAPs are more useful to INDOT and the public.
- To evaluate INDOT's current UAP in the key areas by comparing with those of other states (especially, Midwest states including Illinois, Michigan, Kentucky, Tennessee, Ohio, Wisconsin, Minnesota.) which have similar characteristics in management of transportation systems or which are known to have a superior utility accommodation policy.
- To determine the impact of new technologies (for installing utilities) and newer methods of utility data acquisition and data management systems on utility accommodation practices.
- To develop an advanced and up-to-date UAP for INDOT that settles all key issues, reduces redundant descriptions (that exist in the current policy) and provides a more effective way of communication.

### **Findings**

The major findings from the questionnaire survey conducted in March – April 2003 are the following (the details regarding the group of the survey participants are described in Chapter 2):

- 80% of the respondents worked for utility companies involved in design activities.
- The area of expertise of the individuals included: telecommunications (23%); electric (18%); cable TV (12%)
- Since 1998, 90% of the companies have had at least 6 projects with INDOT
- Currently, 90% of these companies are working with INDOT on at least one project
- 50% of the respondents are familiar with INDOT's current UAP

- 90% of the respondents use the UAP 25% of the time.
- 30% of the respondents consider the current UAP to be comprehensive and 70% felt that the process to obtain a permit is effective.
- 30% of the respondents consider the current utility relocation process to be adequate.
- Posting the UAP and related forms on a web site will enhance the use of the UAP.
- Other issues of concern included: interaction between the utilities throughout the different stages of the project, early coordination between INDOT and designers, and procedure for relocation.

The major issues identified at the Focus Group meeting on May 8, 2003 are as follows:

- The new UAP should address the issue of the reimbursable costs and the billing procedures since the reimbursable costs of the utility related works and the procedures are not clearly described in current UAP. (However, this topic is not within the scope of the current project)
- The new UAP should clarify which part supersedes when differences are encountered between codes such as the National Electric Safety Code, construction codes and the UAP.
- Differences in utility accommodation procedures between districts were also pointed out by the participants.
- There is a need to have standardized administrative procedures which can be uniformly applied in the entire districts.
- The current definitions of terms were determined to be not sufficient.
- The new UAP should include a discussion of trenchless technologies and Subsurface Utility Engineering (SUE).

The UAPs of seven states, namely Michigan, Kentucky, Ohio, Illinois, Minnesota, Wisconsin, and Tennessee, were analyzed. In general, the UAPs from these states are very similar in the scope, application and objectives to the INDOT UAP. The UAPs of all these states require permits to commence utility work in the ROW and clearly define the procedures to obtain the permits. When the application of novel technologies is considered, only two UAPs have specific requirements regarding the use of trenchless technologies (Wisconsin and Tennessee), one of them (Wisconsin) mentions Subsurface Utility Engineering (SUE), and just one considered the One-Call service (Wisconsin) prior to start the utility installation.

The new UAP was developed based on: (a) the analysis of the synthesis study of UAPs from seven states, (b) analysis of responses of the survey conducted in March – April 2003, (c) discussions at the INDOT/Industry/Owner Focus Group meeting held in May 2003 and (d) discussions of the research team and the Study Advisory Committee (SAC) with INDOT and industry personnel.

## Implementation

The new UAP will be effective once approved by INDOT and the FHWA. For easy access by the individuals in industry, the new UAP will be posted on the INDOT website. The summary of modifications and a comparison table (old UAP versus new UAP) will be also posted on

the same website. A joint meeting with the INDOT/Industry Task force will be scheduled before the final report is submitted to JTRP, in order to present the UAP and to discuss processes for its effective implementation.

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