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Iowa Automated Permitting System Report to Legislature

tech transfer summary

December 2021

RESEARCH PROJECT TITLE
Iowa Automated Permitting System Report to Legislature

SPONSORS
Iowa Department of Transportation (InTrans Project 20-746)

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The mission of the Center for Transportation Research and Education (CTRE) at Iowa State University is to conduct basic and applied transportation research to help our partners improve safety, facilitate traffic operations, and enhance the management of infrastructure assets.

IOWA STATE UNIVERSITY
Institute for Transportation

This Iowa DOT-sponsored project for the Iowa Legislature evaluated and developed implementation options to perform oversize/overweight permitting for local public authorities using the Iowa Automated Permitting System.

Project Goal

The goal of this work was to report to the legislature on the implementation options in performing oversize/overweight (OS/OW) permitting for local public authorities (LPAs) using the Iowa Automated Permitting System (IAPS).

Problem Statement

Multiple roadway authorities within Iowa process OS/OW permits for the movement of freight on state roadways, county roads, and municipal and township streets. With a growing economy, freight movement by trucks has continued to increase in recent years. These moves often require haulers to off-load from state roadways onto the county or municipal roadways for final delivery.

As the Iowa Department of Transportation (DOT) and Iowa counties, cities, and townships all administer permits for their own roadways, haulers moving across roadway authorities need to submit separate applications to each roadway authority for their hauls. This requires several different permit applications and processes.

Background

The IAPS is an online OS/OW permitting system for the motor carrier industry based on Bentley System's SUPERLOAD. The IAPS began production operations in December 2013. As of 2017, among the 100,000 permits issued by the Iowa DOT annually, about half of them were issued automatically.

In May 2019, Governor Reynolds signed Senate File 629, a bill for an act relating to permits for vehicles of excessive size and weight and providing for fees. The Iowa Legislature requested that the Iowa DOT report on the IAPS to allow electronic processing of OS/OW permits for non-primary roads. This processing includes the application, review, routing, approval, and payment(s) to the appropriate jurisdiction(s).

Bridge Engineering Center at Iowa State University

OS/OW loads during live load testing on two of Iowa's rural secondary road bridges

Neal Hawkins, InTrans

Oversized farm implement load on a rural highway

Neal Hawkins, InTrans

Oversized modular home load on a rural highway

Neal Hawkins, InTrans

Oversized construction equipment load on a local roadway

Project Objectives

- Review the current IAPS system capabilities
- Develop implementation options for consideration by the Iowa DOT
- Identify the barriers, possible solutions, and required resources to implement the options proposed

Study Description

First, the current IAPS capabilities and permit issuance were reviewed, as well as some new features available in the upgraded edition of the IAPS. Then, interviews and surveys were conducted to collect information on other state's practices and gather input from Iowa industry and local public authorities (LPAs) regarding OS/OW permitting.

Result summaries on multiple levels from the collection of information and analysis are included in the chapters and appendices of the final report for this project.

Overview of Key Findings

Currently, there is no statewide implementation of one-stop-shop solutions for performing OS/OW permitting on both state and all local roads. Some state DOTs, county associations, and third-party service providers have initiated efforts to perform permitting on state roads and some local roads, or on local roads across multiple local jurisdictions.

The industry respondents were generally satisfied with the current OS/OW permitting service provided in Iowa and, at the same time, supported a single system to streamline the application process.

Faster processing time with 24×7 service and a user-friendly system for request, routing, and payment were preferred by the industry.

On the other hand, less than half of the LPA respondents were in favor of a unified permitting system.

Large variations exist in the permitting process and data availability across agencies. The lack of a timely road closure notification system for the non-primary road network and the limited number of bridges with Iowa Load Analysis and Rating System (LARS) data pose roadway safety concerns for all drivers and infrastructure protection challenges in developing and deploying a unified system.

Implementation Readiness

From this work, three implementation options were analyzed and evaluated—single system, portal system, and hybrid system. Some common implementation challenges include the following:

- Carriers could experience or perceive a longer wait time to obtain permits from the one-stop-shop system to travel on state and local roads, as the request will be reviewed and approved by multiple jurisdictions sequentially.
- The costs associated with data collection, system development, and maintenance are relatively high.
- Network data must be continuously maintained and updated.
- Automatic issuance of permits on local roads is likely to be limited due to the high cost to create and maintain LARS data and the large number of local bridges that cannot be rated using the LARS.
- Maintaining up-to-date contact information for LPAs is challenging due to frequent changes in city officials and administrators and lack of staff dedicated to OS/OW permitting tasks.

Planned Implementation Steps

Based on the analyses in the final report for this project, the Iowa DOT will implement a corridor-based hybrid system. The next step is to work with one or more LPAs along a specific corridor and establish a process for LPAs to perform OS/OW permitting using the IAPS. In particular, the Iowa DOT will initiate agreements with certain local authorities to leverage the state's IAPS system for specific corridors or routes that include local roads and have a significant number of permitted loads.

To implement the ability to enter into agreements with local authorities and include certain local roads into the IAPS system, key programming and logistical considerations must first be resolved by the Iowa DOT, including consulting with the state's IAPS vendor for a cost estimate, configuring the Iowa DOT's fee collection system to accommodate local permit fees, and assessing the impact on staffing and resources.

Implementation Plan Benefits

The implementation of a corridor-based hybrid system balances the benefits of expanding the IAPS on a limited number of high-value corridors with the significant costs of implementing use of it across the entire local road system.