

ARCGIS ONLINE DELIVERS EFFICIENT PAVEMENT CONDITION FIELD COLLECTION FOR ST CLOUD

Pro-West helped the City of St Cloud to accurately and easily assess and plan for road improvements projects using ArcGIS Online.

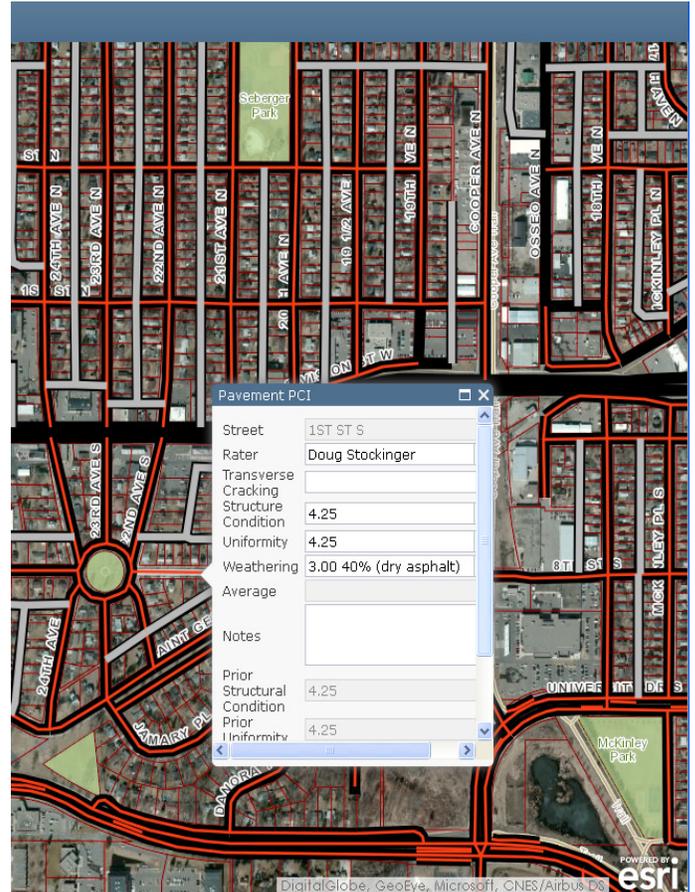
There are two ways to measure the condition of a road network. The first is to wait for road conditions to degrade and then fix the problem areas. The second is to adopt a more proactive approach to review the entire road network. The Pavement Condition Index (PCI) offers a simple and convenient way to monitor the condition of the surface of roads, identify maintenance and rehabilitation needs, and ensure that road maintenance budgets are spent wisely. The PCI is facilitated through on-site, field observations regarding the road's condition.

Ultimately, the PCI identifies roads that are exhibiting distress and can help categorize maintenance and rehabilitation requirements for budgeting and planning, including replacement strategies.

To expedite the PCI process, the City of St Cloud recently implemented an efficient method of collecting PCI information using Esri's ArcGIS Online technology. ArcGIS Online offered the right solution, providing an easy-to-use template for field users to enter PCI data and real-time progress tracking capability for supervisors.

THE CHALLENGE

With over 800 miles of road requiring annual inspection, the City needed an efficient method to collect PCI data in the field and synchronize it with internal business systems. Prior to coordinating with Pro-West on the use of Esri technology, the City used hard copy rating sheets in the field to track pavement condition index ratings for each segment of road. Translating hard copy text to the GIS-based pavement management system was time consuming and managing paper in the field was cumbersome. In addition, supervisors experienced difficulties in managing the locations of crews and in tracking progress during annual inspections.



“Pro-West quickly configured a mobile template for our field crews and trained them fast. Our field crews were able to get the job done quickly, our supervisors tracked progress daily and the end results of our survey were compiled quickly. The Esri platform allowed us to get up to speed quickly.”



THE SOLUTION

PWA listed to staff needs and quickly identified a field template that met City requirements for pavement collection. An Esri ArcGIS Online solution was implemented to deliver information to field crews in relation to road segments as well as previous years' pavement condition data from the City's existing pavement management system.

The ArcGIS Online template allowed staff with minimal computer knowledge to interact with only the information they needed.

Armed with tablets and tasked with meeting a six week timeframe for completion of an inventory of all of the City's roads, field crews embarked on rating the pavement infrastructure.

Not only did the City meet its deadline for the road inventory, but supervisors were also able to track crew progress and identify issues in real-time.

After the inventory was completed, the data was synchronized to the pavement management system in a matter of minutes, allowing the City to analyze upcoming infrastructure projects.

The City's IT staff was critical to the success of the project, working closely with Pro-West's staff to identify the proper field devices and security needed to support City IT standards and end user needs. The result? Field devices that worked for end users.

To tell the story of the City's ageing road infrastructure, the Esri Swipe Story Map was used to show decision makers where road conditions degraded most.

KEY BENEFITS

- Enabled the City to meet tight deadlines
- Added value due to useful information generated for other projects
- Improved efficiency in identifying and addressing issues, due to real-time tracking and data syncing
- Easy to use, even for staff with little experience of technology
- Facilitates more informed decisions when planning road maintenance

TECHNOLOGY

- ArcGIS Online
- Editor Templates
- ArcGIS for Server

