Case Study

LAND ADMINISTRATION

User

Erie County Auditor's Office
Erie County, Ohio

Partners

Mapillary
Bruce Harris & Associates

Challenge

Kelleys Island reappraisal process

Solution

Mapillary API version 3
BHA's Paperless Reappraisal System
ArcGIS℠ Online

Results

Street imagery and metadata provided appraisal managers and county constituents with the information usually obtained by making individual site visits, which would have taken longer and been too expensive.

Imagery helped data entry teams ensure quality and consistency of building characteristics.

Property Assessments Made Easier in Erie County, Ohio

Erie County's Kelleys Island is located in the western basin of Lake Erie, about 12 miles from Sandusky on the Ohio mainland and an hour away from Toledo. The entire island measures more than 4 square miles and is the largest American island in Lake Erie. The island is accessed via ferry lines and small aircraft that run daily, weather permitting.

The Challenge

Erie County is required to conduct property reappraisals every six years. To conduct fair and equitable assessments, county staff need the latest photographic and information technology in an interoperable package for ease of delivery.

The Partners

Bruce Harris & Associates, Inc. (BHA), provides geographic information system (GIS) data creation and conversion services. The company specializes in developing appraisal support applications and web maps. To do that, BHA uses Esri® ArcGIS® for Local Government solutions in major implementations. BHA also provides GIS consulting and training.

Mapillary develops solutions that integrate GIS artificial intelligence. By combining geography, automation, and advanced analysis techniques, Mapillary creates solutions that automatically connect images, recognize objects, and generate map data.

"Having this imagery integrated in our apps to use at any time will be invaluable. The ability to seamlessly collect imagery at any time, without contracts or expense, will be another return on the investment for Erie County."

Mark Wroblewski, GIS Coordinator
Erie County Auditor's Office

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The Solution

BHA staff, along with the Erie County auditor and Mapillary personnel, equipped a county vehicle with four action cameras and captured street-level imagery of the entire island. Photos were taken over an eight-hour span, and the images were postprocessed and viewed through an interactive API within BHA's Paperless Reappraisal System (PRS), an ArcGIS Online solution that utilizes named ArcGIS user login identity access and communicates with ArcGIS Online content, including web maps and web feature layers. Assessment staff at the office were able to verify parcel characteristic data, such as assessed building grade and condition, and building materials. All work was viewed via the PRS Photo Review application, which features Mapillary's photo viewer.

The integration of Mapillary technology into PRS allows county office staff to view the appraisal process through the eyes of the field staff and ensures accurate, up-to-date property assessments through a series of checks and balances. Conversely, competing solutions to produce on-demand photography of the island weren't affordable and didn't integrate with PRS.

The Results

Esri, BHA, and Mapillary provided the county with a set of street-level imagery that met Erie County's assessment needs. The resolution and quality of photos—all taken by staff while driving the streets of Kelleys Island at normal traffic speeds—exceeded the county's expectations. The photos effectively supplement the county's workflow to streamline the grade and condition checks for county dwellings. The API integration with PRS allowed the county to navigate from parcel to parcel.

Bruce Harris & Associates, Inc.
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