UNLOCK THE POWER OF INFRASTRUCTURE BIG DATA

A Presentation at TRANSPORT CHICAGO UIC FORUM

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Background

- Consulting Engineers and Land Surveyors
- Established in 1994
- Services in the areas of transportation, building, industrial facilities and historic preservation
- Area of Services
  - Design Engineering
  - Surveying
  - BIM/GIS Support
  - Construction Engineering
  - Nondestructive Testing
The Ability of Capturing Data Is Bigger Than Ever
Mobile LiDAR on CTA Tracks
The Challenges in Managing the Infrastructure Big Data

- Project vs. organizational based operations
- Project dependent methodology
- Multiple data collection platforms
- Rapid changes in technology
- The need to preserve raw data with its metadata
The Limitations of the Current Technology

• File Server – Data Folder by Project Number
  – Very little to none metadata available for data query
  – Limited accessibility to most stakeholders
  – Expensive software and training investment

• GIS – Geographical Information System
  – Dedicated professional staff / limited capacity to process
  – Expensive software and training investment
  – Limited spatial data types: points, lines, polygons or pixels
  – Accuracy loss due to digitization and extraction from source data
  – Lack of ability to share raw data
The uGRIDD Concept – Everything is Somewhere

Georeferencing Our Infrastructure Data

X, Y - (N, E)

Latitude, Longitude (WGS84)

Building - Section

Col Grid - Township

(A1, C3) - Range (PLSS)
Everyone can publish! Project data is organized and published to the project team and archived into the Cloud Data Management system using uGRIDD’s SaaS (Software as a Service).

You can find! Public and private infrastructure data, stored by layers on the cloud, can be found based on LOI (Location Of Interest) and other query conditions.
Project Data Sharing Solution
Dan Ryan Track Renewal – Work Order 1B

Invitation to View Video of Existing Conditions

Dynasty Group would like invite you to view a video of the existing conditions of the Dan Ryan portion of CTA’s Red Line. We have created a website which contains an overall map of the project area, as well as a geo-referenced video.

Please visit the following link in order to access this site:
http://www.dynastygrp.com/Projects/CTA/ctadryan/VideoWebpage/CTA_DanRyanVideo.html

In order to view the content of this page you will need to register using your email address and the following Invitation Code:

danryanvideo1179

When you have completed registering your email address a password for the site will be sent to your email.

Please note the following video control features:
- By clicking on any of the four video options along the top of your screen you can view the video oriented along the northbound or southbound tracks, from the front or the rear of the train.
- By clicking on the overhead aerial view of the site you can control the location of the video.
- By clicking on any of the streets listed under “Intersecting Roadways” you can move directly to that portion of the video.

If you have any questions or difficulties in registering, accessing or viewing the site, please do not hesitate to call us.

The Dynasty instructions in the IFB reference documents, “Invitation to View Video of Existing Conditions”, is limited to the videos. Can access be expanded to include the TruView scans as discussed in earlier e-mails? (See below.)

The preference would be to do this without modifying the instruction sheet and the bid disk; however, the instructions may be modified if that is the clearest and most expedient way to get the information to bidders.

Mike McCarthy
Manager, Design Oversight

www.dynastygrp.com
Dan Ryan Web Portals Access Statistics

Usage over a 25-month period:
- 5134 visits at anytime from anywhere

Possible time saved:
- 0.25 hr X 5134 visits = 1283.5 man-hrs
Thank You