LEVERAGING DATA AND METRICS

Key ingredients to right of way project success

BY STEVEN CLARK

The right of way industry has many distinct challenges when it comes to successfully completing projects. Since everything from governmental regulations to economic uncertainty and budget constraints can negatively impact a project, it has become critical to understand these dynamics and be prepared to mitigate any potential risks.

When you consider the key ingredients that can help ensure a successful right of way project, effective communications may be the single most important factor. I've heard it said that an experienced project manager—one who is hardworking and has integrity—could actually bring a bad project back to life. By effectively communicating with clients, landowners and agents in the field, the project manager can earn respect, and this leads to better decision-making and reaching agreements more quickly.

Managing expectations throughout the life of a project is also vital to a project's success, and this is where data comes into play. How will a client know if their project is on track? Are there data points that can help give a client confidence that their project is on schedule? Can it show what might be causing any delays? And what about monitoring the budget?

The Importance of Data

Good data—and metrics derived from good data—can enhance communication, assist with decision-making and help build strong relationships with clients, landowners and team members. And although data is easy to collect, understanding which data is relevant is a more challenging task.

Examining the importance of data and its ability to positively impact a project's success is an important first step. So what exactly is data? The word has been around for centuries and represents the fundamental building blocks of information. Plural for the Latin word "datum," data was used by philosophers in the mid-1600s to describe "things known or assumed as facts, making the basis of reasoning or calculation." As one might imagine, the rise of digital computing brought new meaning to the word and its definition changed to represent a more modern understanding of "transmittable and storable computer information."

Data is just as important today as it was hundreds of years ago, however, the means by which we capture and record it has changed dramatically. Technological advances over the last 20 years alone have given businesses the ability to collect and store large volumes of data, and business leaders are often left to question the usefulness of all the data available.

> **"...data points with context can be a powerful tool..."**

Comparing Data to Information

While we are living in the information age, many are unaware of the distinct difference between data and information, especially since we have a tendency to use these words interchangeably.

Data can be defined as independent facts, figures and other details. Information, on the other hand, is data that is processed, interpreted, organized, structured or presented so as to make it meaningful or useful. In other words, information is data with context.

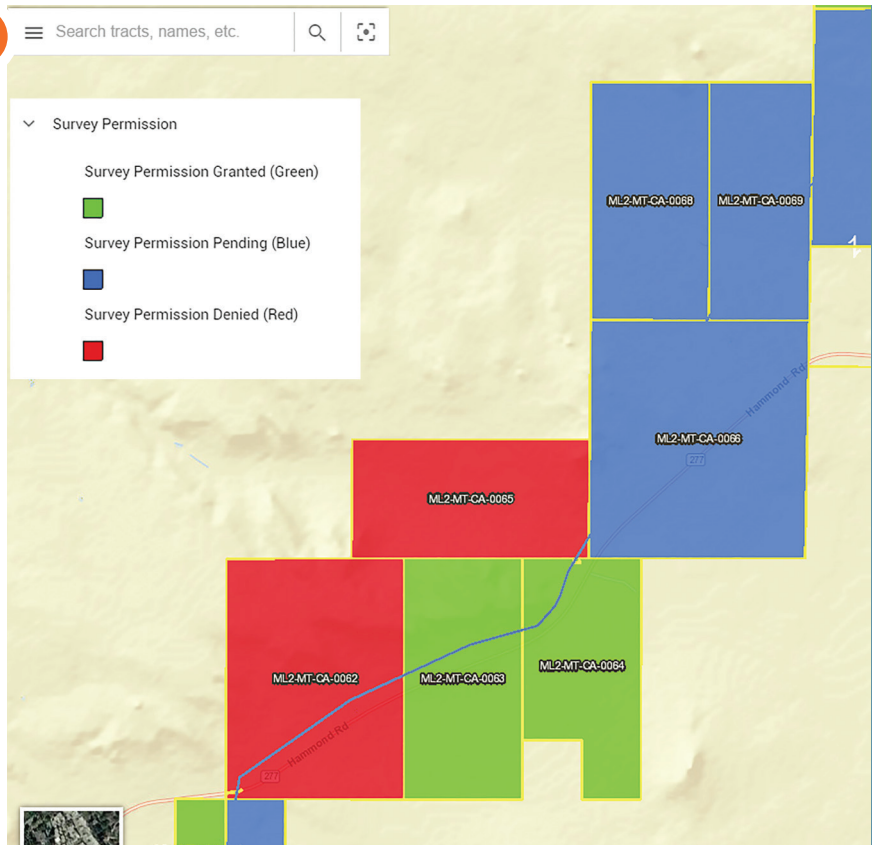
Take the landowner's address as an example. The U.S. postal service generally requires seven key pieces of data for an individual property owner's address: first name, last name, street number, street name, city, state and zip code. Note, this number can vary depending on the scenario, such as when there's a corporate landowner or P.O. box. If you look at any one of these data points independently, you don't really have any meaningful information. However, by combining all seven data points together, we have context, and the data becomes information that tells us exactly what we need to track down the owner.

The zip code, which was introduced by the U.S. Postal Service back in 1963, is an acronym for "Zone Improvement Plan." It was originally designed to provide a geographical data context for faster mail delivery, and today even more context can be provided by using technology that "geocodes" a landowner's address to GPS coordinates. Geocoding is the process of transforming a postal address to an actual location on the Earth's surface. Without geocoding technology, it would be extremely difficult to reliably display a landowner's address on a modern web-based map service, like Bing, Google or Esri. The importance of providing data with context is also why many companies have their own Geographic Information System (GIS) departments to help process land data and provide meaningful information to project teams and decision makers.

Mix in the Metrics

In considering the key ingredients to project success, it's vital to establish which data points can help assure a client that their project is going well. One of the main challenges we see, especially on larger projects, is how to accurately communicate project status to the client in terms of the cost to date, schedule and impact on the overall budget. While data points alone do not convey the entire story, data points with context can be a powerful tool, as this gives clients the information they need to fully understand the overall health of their project.

Since we need good data to generate good metrics, the key is to identify what level of detail is needed before the project is underway. By definition, metrics are just a specific type of information that can be captured and measured over time. The best time to define a project's metrics of success is during the project initiation and planning phases before the project execution gets started. On a right of way project, knowing key metrics such as tract/parcel acquisition status,



rate of acquisition, number of acquisitions by agent and landowner status by tract/parcel can all help facilitate better decision-making, as well as enhance communication within a project team.

There are several ways to mitigate the risk of not collecting the right data during project execution. First, emphasize the importance of up-front planning and understand which pieces of data will provide the best information for everyone involved. Secondly, make sure you allocate enough time to put the right processes in place to effectively capture data, while leveraging the available technology so that you can easily store information and present it to project team members and clients. Finally, a well-organized training program can help ensure the team fully understands the importance of processes and procedures, as well as why capturing certain pieces of data can be critical to a project's success.

Now let's take a look at an actual project that shows individual data points that are combined for display on a web-based GIS system. In reviewing the image above, think about what data had to be captured in order to make this information meaningful to a right of way agent, project manager or client.

The first step was to capture different sets of GPS coordinates so that we could accurately position tracts and parcels on the map. After assigning an ID to each tract/parcel, we used colors to indicate the survey permission status so that we can track in real time which ones have survey permission granted and which are pending or denied. Once we add the landowner information, we have a visually powerful presentation that allows clients to review and process significant details in a relatively short time.

By integrating the right data, we can measure the pace at which survey permission is being granted for our project. These kinds of metrics help a project manager better forecast when a project phase might be nearing completion. By determining up front that survey permission status is a key piece of data to capture, a project team can become more efficient in managing the various project phases. Taking it a step further, another helpful metric is agent productivity, which is easy to achieve by associating each agent with a tract/parcel.

Combined with survey permission status, it can be easy to spot if agents are running into issues with landowners. Let's take that a step further and say you want to look at overall acquisition timeline of a project. By adding an "acquisition status" data point to each tract/parcel, we can see how quickly or slowly the status changes as acquisitions happen over time. This makes it easier to forecast when the acquisition phase will be completed.

Recipe for Success

Using the right data and creating relevant metrics can be a powerful combination. The key is to be smart about the data you want to track and not overburden a project team with the potential inefficiencies associated with data input. By determining up front which data to capture and identifying the best way to leverage the metrics, right of way project teams can better communicate with their clients and enhance their overall performance while saving everyone time and money.

Deciding which metrics will be most valuable can be a challenging process, but the overall benefits provided by good metrics are well worth the effort.✪

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