During our presentation, we will discuss how we have successfully used innovative ideas and technology to substantially reduce right of way schedules and save millions of dollars. We will engage our audience with demonstrating some of the technology tools and strategies used by our teams, and we will share a sneak peek of new technology tools we hope to use in the near future. The following are some of the things we will talk about.

**Process Innovation**

- **Evolving towards the paperless office.**
  The Turnpike’s production team uses DocuSign for SharePoint to significantly speed the review and approval of documents moving between property owners, our consultants, our in-house staff and the administrators approving settlements. Paperless technology should be introduced carefully to avoid pushback from team-members less comfortable with technology solutions.

- **Risk analysis and value engineering to reduce project costs and control project risk.**
  Expert right of way practitioners can shave millions from project costs by suggesting alignment shifts and design tweaks to reduce right of way costs. This must be carried out with careful consideration of the reciprocal effects on construction costs. Understanding formal risk evaluation helps a project manager control that risk and reduce project costs.
Leveraging the Whole Team

- **Identifying your extended team.**
  At the very least, our team includes agency personnel, GEC embedded staff, “outside” consultants and their sub-contractors. We could also count executive leaders, colleagues from other disciplines and even property owners as team-mates. After all, if you alienate the property owners, the backlash can easily have negative schedule connotations.

- **Flattening your organizational structure.**
  We manage the program to emphasize innovation and minimize the significance of hierarchical relationships. Benefits include a happier workforce that is more inclined to offer solutions, improved retention, improved communication and enhanced team willingness to take ownership of project success.

- **Embracing consultants as equivalents.**
  Agency personnel are typically positioned to select consultants for right of way projects. As a result, it’s really tempting to treat consultants as overly subordinate and interchangeable, but that’s not healthy. We consciously try to team-build respectfully and without finger-pointing. The productivity benefits are manifest. Why diminish consultants if their wholehearted investment in your project or program is key to its success?

- **Working with other disciplines to enhance right of way project delivery.**
  We have shaved hundreds of millions of dollars from projects by embedding right of way personnel with planners and engineering on PD&E studies. Similarly, we have expedited and de-risked project schedules by embedding right of way personnel with design engineering teams.

**Technology**

- **RHP Application**
  This automated RHP preparation application is a tablet-based app that auto-calculates RHPs and populates approved R/W forms. It tracks RHP progress, draws listing data from Zillow, allows agents to engage in a “smart” search that considers all elements of the needs assessment survey and compares with regulations using different search algorithms. Additionally, the app facilitates smart device field input of data (modular and expandable to include carve-out calculations at a later date).

- **Negotiation and Customer Service Application**
  This is a tablet-based app that provides encrypted download of key documents (offer package, appraisal, etc.) for property owners. It facilitates 24-hour negotiation using smart devices, provides for embedded customer service questions, provides desktop interface collating all project offers and counter-offers, allows for playlist sorting offer/counter-offer data for groups of parcels from multiple projects and alerts users to new offers/messages.

- **Project Budget Management Application (PBM App)**
  PBM is a powerful tablet-based app that simplifies project and program financial management. Superior to commercially available software, this app allows thousands of cost estimate data to be automatically synthesized into easy-to-understand graphics. It has automatic float adjustment, graphical prediction of final project costs and real time updating. Project analytics help users understand sources of financial problems by providing plain English diagnostic messages. Trends are analyzed project-to-project and help users constantly improve budget management and costs prediction. The customizable format is designed to provide the right actionable data to agents, project managers and program directors. Our transportation director believes the PBM app is most likely applicable to right of way and construction projects.
Augmented Reality
Right of way augmented and mixed reality uses technology that superimposes a computer-generated image of proposed transportation improvements on a property owner's view of the real world, thus providing a composite view. HNTB used existing software to build an augmented reality framework for its client's Braddock Road Project in Polk County, Florida. Augmented reality enhances a property owner's understanding of the proposed take and improvements. Additionally, this technology has the potential to reduce fees and costs. The augmented reality scene was successfully field tested for Florida's Turnpike Enterprise using both tablets and MS HoloLens.

Enhanced PSR / Float Management
Evolved Production Status Report is built around a project or parcel level schedule and utilizes the parcel data contained within RWMS. It provides a more efficient view of the project schedule, looking back at actual project dates while also looking ahead to expected dates computed by the schedule. This report uses pivot tables and conditional formatting in Excel to clearly illustrate the “health” of a right of way project. The PSR is currently used on all right of way projects at FTE.

Metrics
• All process enhancements must be tracked.
It's very difficult to ascertain the value of innovative processes without tracking improvements in the form of differential metrics. If you're contemplating utilizing new methodology or technology, try using it on a pilot project first and assessing performance improvements in comparison to another project conducted using a traditional approach and equipment.

• Managing and improving metrics.
Your managers can succeed within the metrics you set for them. We'll explain how carefully developing metrics may be key to the productivity improvements you seek.

We hope you will join us!