

Move Metairie Tracking Forward



By Jefferson Parish

10/31/2024

Benefits Statement

The Move Metairie Tracking Forward project enhances safety, efficiency, and quality of life for Metairie residents by providing real-time updates on train blockages at a busy crossing. The app alerts users about train arrivals and estimated time of arrival of the train to the crossing, and wait times, saving time and reducing fuel costs. It improves emergency vehicle access, potentially saving lives, and allows drivers to choose alternate routes, minimizing delays. Designed for future expansion to other crossings, the project engages the community through effective communication, ultimately transforming train traffic management in the area.

In this case study you will learn:

1. How the Move Metairie Tracking Forward project's patented app and Train Detection System (TDS) improved traffic flow and safety for Metairie residents.
2. How the app allowed users to receive notifications about train arrivals, estimated time of arrival of the train to the crossing, wait times, and direction of train travel, helping drivers plan alternate routes and reducing the impact of train delays.
3. How the app was designed for scalability, reflecting a commitment to enhancing transportation infrastructure and quality of life in the region.

BACKGROUND

For years, residents in Metairie, Louisiana, have complained about train traffic and delays at the busy Norfolk Southern railroad crossing on Metairie Road, one of the busiest two-lane highways in the state. To tackle this problem, Gresham Smith teamed with Jefferson Parish Council Member Jennifer Van Vrancken to develop Move Metairie Tracking Forward, a new first-of-its-kind patented technology and free app that residents can download.

TSMO PLANNING, STRATEGIES AND DEPLOYMENT

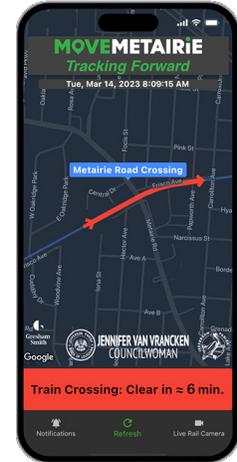
To design the Move Metairie Tracking Forward technology, Gresham Smith worked with Jefferson Parish to install detectors and cameras just outside the train's right-of-way. To implement the Train Detection System (TDS) at the railroad crossing at Metairie Road in Jefferson Parish, the project includes integrating three detectors into the TDS and providing real-time information via mobile applications.

These detectors identify any train approaching the crossing, continually transmitting its presence and speed, as well as directional information and when it's going to block the crossing. The app then collects this information and determines how long the train will block the tracks and that information is shared to the public via an Android or Apple iOS mobile app. Along with giving advanced notice of trains approaching the Metairie Road crossing, the app provides the estimated time until trains arrive at the crossing, as well as alerts on the direction of train travel, the estimated time until the train crossing is clear, and a live-camera view of the railroad crossing.

Generally, these types of detectors are installed for departments of transportation along a highway system to determine real-time traffic data along the roadway network. In this case, the Gresham Smith team used their expertise to

design a system with detectors and cameras to monitor a single crossing for residents.

With Move Metairie Tracking Forward, we're bringing new technology to a rather old industry—a user-friendly mobile app that allows motorists to decide on the best route. With a simple approach and innovative technology, our app provides users with quick notice of train traffic to help you plan, avoid delays and enjoy a better quality of life. Ultimately, the Move Metairie Tracking Forward project represents an innovative use of equipment typically used for other purposes.



COMMUNICATIONS PLANNING AND EXECUTION

This app was developed in partnership with Jefferson Parish Council Member Jennifer Van Vrancken, the New Orleans Regional Planning Commission, and Jefferson Parish, who facilitated the installation of the technology at the train crossing. Jefferson Parish had to procure the detectors, and the installation was handled in-house. The app was designed in Jefferson Parish's network so that it could be expanded to include future crossings.

A multi-media communication strategy was leveraged to inform the public of this project. This included newspaper articles, advertisements and news reports on both television and radio that widely covered the project and informed the community. Press conferences were conducted and informative brochures were developed to guide the public in understanding and using the system. Additionally, roadway signage was installed at the crossing to alert users about the application.



we do adjust the time we would mark students as tardy,” Dwyer said. “Modern technology, such as the train tracking app, social media and group texts, have made sharing information about extended closed crossings easier.”

OUTCOME, BENEFITS AND LEARNINGS

The project team has taken what’s typically a behind-the-scenes engineering process for a department of transportation client and used our expertise to benefit the average person in the Metairie community that’s frustrated with the frequently clogged Metairie Road intersection. The app gives the public an insider’s look into how engineering can improve their daily lives, one train crossing at a time. In addition, in some early reviews of the app, one of the most common questions we’re receiving from residents is when this technology can be applied to other crossings. In fact, we built the app so that it could be expanded and used at additional crossings over time.

Using data from the detectors, Jefferson Parish reported to Nola.com with the data collected between April 1 through July 24. According to that analysis that was published on Nola.com, trains block the two-lane highway about 12 times a day and blockages average about 6.5 minutes. Those blockages have a real impact on the community, including at two local schools: Metairie Academy for Advanced Studies, which is seven blocks from the Metairie Road crossing, and St. Francis Xavier Roman Catholic School, which is five blocks from the crossing.

St. Francis Xavier Principal Jessica Dwyer was interviewed by Nola.com about the impact these blockages have on teachers and students during the school day. “In the case of extreme delays,