Foursquare ITP’s strong transit planning capabilities and transit market assessment tools enable us to understand how people use and access a corridor and design services that can effectively serve it. We use market assessment and service planning techniques to conduct scenario-based planning to maximize the effectiveness of alternatives toward meeting established goals and objectives in our corridor study efforts. Whether it’s a corridor study centered on a high capacity transit alternatives analysis, identifying segments where investment in priority treatments should occur, or configuring local services to support the corridor’s activities, we apply our data-driven and stakeholder input processes to develop actionable results for the next study phase or implementation. The areas we specialize in are:

- Bus Rapid Transit (BRT) studies
- High capacity transit feasibility studies
- Priority treatment (transit signal priority, bus only lanes, bus on shoulder, queue jumps, etc.) analyses
- Commuter and Express Bus service planning
- Managed lanes bus planning
- Alternatives analyses and operations planning for various modes

**Example Projects**
- BRT East-West Corridor Project Planning (WI)
- Bus Lane Education and Enforcement Policy (DC)
- DDOT Bus Priority Project (DC)
- HRT Naval Station LRT Extension Study (VA)*
- I-66 Corridor HOT Lane Transit and TDM Plan (VA)*
- I-95 Transit and TDM Study (VA)
- MD 355 BRT Planning Study (MD)*
- Route 110 BRT Study (NY)
- Southeastern Corridor LRT and Managed Lane Plan (NC)
- SR 436 Transit Corridor Study (FL)*
- STOPS Model Development (OK)
- WMATA Queue Jump Effectiveness (DC)*
- WMATA Transit Signal Priority Evaluation (DC)*

* See reverse for more information

**Tools and Technology**

- **Transit Propensity**
- **RIDESHIP Analyzer & Reporter**
- **Bus Bay & Bus Stop Capacity Analyzer**
- **Transit Travel Time Isochrones**
- **GTFS Generator**
- **Automated Route Profiles**
- **Transit Operating Cost Calculator**

**Software Experience:**
- TBEST Ridership Forecasting
- STOPS Ridership Forecasting
SR 436 Transit Corridor Study
Foursquare ITP was part of a multi-disciplinary team that conducted a Transit Corridor Study on State Road 436 in Orlando, Florida. Foursquare ITP evaluated existing transit services and provided a detailed market analysis of the corridor, as well as developed operating and financial plans for BRT and feeder services for the proposed high-frequency network. The analysis of existing conditions included conducting a demographic analysis in comparison with metropolitan areas statistics; analyzing general route metrics such as passenger per hour, farebox recovery ratio, subsidy per passenger, as well as an in-depth analysis of passengers per hour by route and transit speed by segment; and concluded with a summary of bus stop facilities and spacing along the corridor. The operating plan encompassed developing运行times for multiple BRT alternatives, incorporating priority treatments, and detailing transfers and spans to meet demand. Ridership forecasting was also conducted using both STOPS and TBEST.

MD 355 BRT Planning Study
The MD 355 BRT Study, which built on Montgomery County, Maryland's “Get on Board BRT” program, was an alternatives analysis and initial design study for a 22-mile corridor slated for implementation of BRT through. Foursquare ITP was a key team member on this project which encompassed alignment development, station location decisions, design, engineering, environmental review, alternatives evaluation, and public engagement. We led the development of the BRT and local bus feeder service operations planning and cost analysis; led the public and stakeholder engagement; and played an integral role in the strategic evaluation framework and analysis of alternatives.

WMATA Transit Signal Priority Evaluation and Queue Jump Effectiveness
Foursquare ITP provided assistance on two projects to evaluate the effectiveness of transit signal priority (TSP) and queue jumps on several corridors in Washington, DC. For the TSP project, our team conducted a before and after analysis of bus running times, on-time performance, and speeds on three major corridors and in the downtown area to determine the effect of TSP. Our team then recommended changes to the TSP parameters to increase their effectiveness. In the second phase of this project, we also evaluated bus runtimes and person throughput to determine where TSP should be expanded to within the District and what existing TSP equipment should be re-allocated from under-performing corridors. For the queue jump effort, we evaluated the effectiveness of existing queue jumps in the District and analyzed bus runtimes, person throughput, and stop locations to determine where additional queue jumps would prove beneficial. Both efforts involved processing, analyzing, and visualizing large datasets of bus runtimes and speeds from two sources: WMATA’s APC system and WMATA's fine-grained AVL system known as rawnav. The templates we developed to process each of these datasets can be used by WMATA staff for future analysis.

I-66 Corridor HOT Lane Transit and TDM Plan
Foursquare ITP developed baseline conditions and future transit service and transportation demand management (TDM) program needs on the I-66 corridor, as part of Transform 66 Outside the Beltway Multimodal Solutions. The baseline includes the road network, local bus, commuter bus, heavy rail, commuter rail, carpooling, vanpooling, slugging, and Park and Ride lot facilities in the I-66 corridor for opening year (2022), 2030 and 2045, as well as population and employment estimates and travel pattern analysis. These conditions include a needs assessment that will be used to inform transit and TDM recommendations along the I-66 corridor for implementation in 2022 and beyond.

HRT Naval Station LRT Extension Study
Foursquare ITP assisted in the development of a detailed existing conditions analysis and informed the development of Tier I and Tier II alternatives for both Bus Rapid Transit (BRT) and Light Rail services. We also assisted in the creation of the evaluation methodology and conducted the screening for both the Tier I and the Tier II analyses. Foursquare ITP supported the development of the Public Involvement Plan, public outreach, and the intercept survey at Norfolk International Airport. Foursquare ITP led the development of both conceptual level (Tier I) and detailed (Tier II) bus operating plans. These include three components: fixed-guideway (BRT) operating plans, feeder bus operating plans, and Naval Base shuttle operations.

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