May 2026

Subject: Request for Information for Pass by Trip Estimation Using Mobility Data Analytics

The Institute of Transportation Engineers (ITE) Trip Generation Pass-By Working Group is issuing this Request for Information (RFI) to gather information from qualified mobility data providers regarding their capabilities to estimate pass-by trip percentages using anonymized, aggregated mobility datasets (such as location-based services data, GPS probe data, and connected vehicle data).

Traditional roadside interview methods used to estimate pass-by trips can be costly, time-intensive, and increasingly outdated. As a result, ITE is exploring data-driven alternatives that could potentially be incorporated into future editions of the ITE Trip Generation Manual to better support transportation professionals while withstanding regulatory and technical review.

This RFI is issued solely for information-gathering purposes. It does not constitute a solicitation, request for proposal, or commitment to procure services. ITE may, at its sole discretion, choose to issue a formal procurement in the future based on the information received.

Responses will be used to better understand available methodologies, geographic coverage, data quality, analytical approaches, and vendor capabilities.

We appreciate your time and interest in supporting improved methodologies for pass-by trip estimation. If you have questions or require clarification, please contact Lisa Fontana Tierney, Senior Director for Traffic Engineering, at 202-785-0060 (x116) or lfontana@ite.org.

Sincerely,

Matthew Hardy, Ph.D.
Deputy Executive Director & CTO

REQUEST FOR INFORMATION

Pass By Trip Estimation Using Mobility Data Analytics

1. Background

Pass by trip estimation is traditionally performed through on-site motorist surveys. Due to declining participation rates and privacy concerns, these surveys often produce insufficient sample sizes. Mobility data providers may offer a more reliable and scalable method for identifying:

- Total site visits
- Whether visitors were already traveling on the adjacent roadway
- Classification of trips into primary, pass by, and diverted link categories
- Origin–destination patterns of site visitors

The goal of this RFI is to understand how your platform can support these needs.

2. Trip Type Definitions

To ensure consistency across vendor responses, the following definitions shall be used:

- **Primary Trips**: Trips made for the express purpose of visiting the site. These originate from outside the adjacent roadway corridor and represent new trips added to the roadway network. Typically, a primary trip to the site involves leaving from and returning to the same location (e.g, work or home).
- **Pass By Trips:** Trips made by vehicles already traveling on the adjacent roadway whose stop at the site is not their primary trip purpose. These do not add new vehicles to the roadway network but do increase turning movements at the site access.
- **Diverted Link Trips:** Trips made by vehicles not originally on the adjacent roadway, but who divert from a nearby route to access the site. These may add traffic to the adjacent roadway and are not considered pass by trips. An example is diverting to a nearby street to pick up food after leaving work on the way home.

These definitions align with the ITE Trip Generation Handbook, 3rd Edition, and a figure from the handbook showing each trip type is included in Appendix A.

3. Land Uses associated with Pass-By Trips

Appendix B details the 26 different land uses with existing vehicle pass-by rates and data. Ideally ITE is interested in updating all 26 land uses using multiple locations spread out around the country for each. In addition, ITE encourages data submittals for all other land use

categories. If we move forward with this project, ITE will help identify priority land uses for pass-by data collection.

4. Information Requested

While any information is appreciated, please consider providing responses to the following sections. You may attach supporting documentation as needed.

4.1. Data Sources and Coverage

- Identify the datasets your platform uses (LBS, GPS probe, CVD, app based, etc.).
- Describe penetration rates, sample sizes, and representativeness for small area analyses.
- Provide information on temporal resolution (hourly, peak period, daily).
- Describe any geographic limitations or minimum volume thresholds.
- Describe the spatial resolution/accuracy of your dataset.
- Describe known biases in your datasets (demographic, device type, modal, etc)
- Explain weighting, expansion, or normalization techniques used to expand the sample data to represent total traffic volumes.
- Provide typical penetration rates by land use type and geography (urban, suburban, rural).

4.2. Site Visit Detection

- Describe your geofencing capabilities and recommended geofence configurations. This will be helpful as we select site locations.
- Explain how your system identifies unique device visits.
- Provide your recommended approach to dwell time thresholds by land use type and filtering out pass through traffic.
- Describe any sensitivity testing or validation methods.
- Describe any known expected false positive/negative rates.

4.3. Adjacent Roadway Screening and Trip Classification

- Explain how your platform determines whether a device was traveling on the adjacent roadway prior to entering the site.
- Provide your methodology for classifying trips as:
  - Primary
  - Pass By
  - Diverted Link
- Identify any limitations or confidence intervals associated with these classifications.
- Describe your recommended lookback time window used to determine prior travel.
- Describe path reconstruction methods.

- Describe if map-matching accuracy impacts classification.
- Are machine learning models used? If so, describe the model type, validation approach, and any model sensitivities to GPS noise, sampling infrequency, sparse trajectories, etc.

4.4. Pass By Trip Estimation

- Describe how you propose to calculate pass by percentages.
- Explain how uncertainty or error margins are quantified.
- Although currently not required, indicate whether directional distribution of pass by trips can be provided.
- Explain whether your approach allows segmenting by time of day, day of week, and season.
- What is the minimum data requirement for reliable estimation?
- Please identify any land use types or contexts where the pass-by trip estimation methodology may not be appropriate or may have known limitations.

4.5. Data Validation

- Description of how outputs have been validated against independent ground truth data.
- Describe whether comparisons to ITE pass by rates are feasible. ITE is also open to performing new site specific surveys to compare rates.
- Are any Case studies available demonstrating comparisons with observed data?
- Describe any available comparisons to intercept surveys, turning movement counts, or origin-destination studies.

4.6. Privacy and Data Protection

- Describe your privacy safeguards and aggregation thresholds.
- Explain how device anonymity is maintained.
- Describe whether your approach is compliant with CCPA and/or GDPR.

5. Budgetary Cost and Marketing Opportunities

Please provide any information concerning the cost of such a project. ITE is also interested in providing marketing opportunities to help offset the cost of this project.

6. Response Instructions

Please submit your RFI response electronically by June 19, 2026 to:

Lisa Fontana Tierney, P.E.
Traffic Engineering Senior Director
Lfontana@ite.org
202-785-0060 (116)

and

Todd Anderson, P.E., PTOE
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803-422-9965

Appendix A

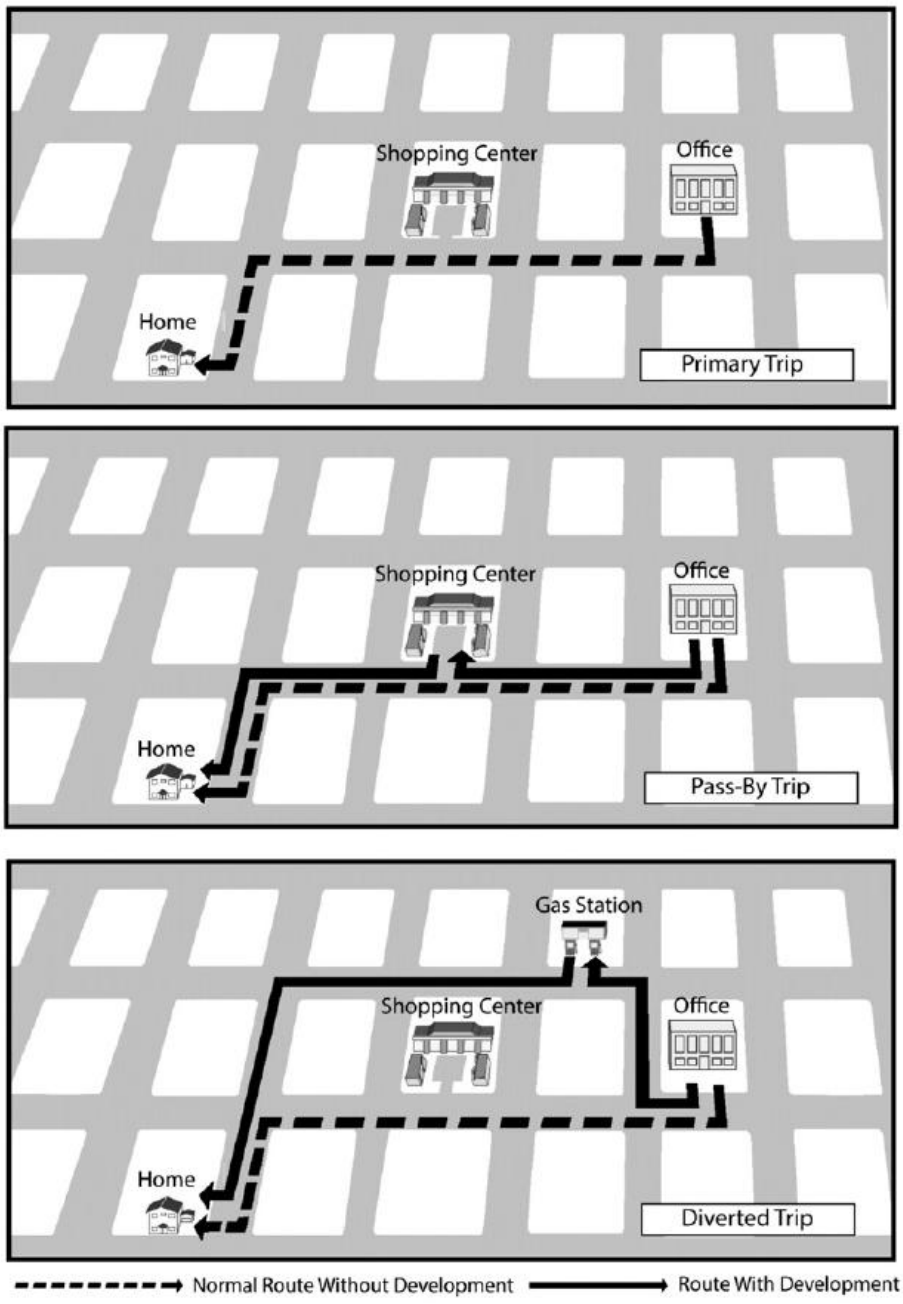

Figure 1 Primary, Pass-By, and Diverted Trips

Appendix B

Appendix B - List of Land Uses with Vehicle Pass-By Rates and Data

Source: ITE *Trip Generation Manual* , 12th Edition

Recreational (Land Uses 400–499)

CODE	LAND USE
495	Recreational Community Center

Institutional (Land Uses 500–599)

CODE	LAND USE
565	Day Care Center

Retail (Land Uses 800–899)

CODE	LAND USE
813	Free-Standing Discount Superstore
814	Variety Store
815	Free-Standing Discount Store
816	Hardware/Paint Store
820	Shopping Center (>150k)
821	Shopping Plaza (40-150k)
843	Automobile Parts Sales
848	Tire Store
850	Supermarket
857	Discount Club
862	Home Improvement Superstore
863	Electronics Superstore
880	Pharmacy/Drugstore without Drive-Through Window
881	Pharmacy/Drugstore with Drive-Through Window
890	Furniture/Flooring Store

Services (Land Uses 900–999)

CODE	LAND USE
912	Drive-in Bank
931	Fine Dining Restaurant
932	High-Turnover (Sit-Down) Restaurant
934	Fast-Food Restaurant with Drive-Through Window
935	Fast-Food Restaurant with Drive-Through Window and No Indoor Seating
937	Coffee/Donut Shop with Drive-Through Window
938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating
944	Gasoline/Service Station
945	Convenience Store/Gas Station