Modeling

**TDOT Tri-Cities 2025 Project (on-going)** – Co-fusing TnTown, Bristol, Johnson City and Kingston traffic models.

**US 41 PEL Study (on-going)** – Updating 2022 base network model into 2025 network. Applied new 615 TAZ file to achieve updates and both TCDS and MioVision to supply traffic count data.

**Brownsburg I-74 (GAI) Project Update (on-going)** – Co-conducted field trips to Brownsburg County to manually collect intersection signal data. Assembled TCDS data and summarized MioVision data in 30-minute intervals around peak hours. Configured and assigned all data to 2022 base year network and 2050 alternative analysis networks in TransModeler.

**Lebanon Leap Traffic Modeling (on-going)** – Co-conducted field trips to Lebanon Leap to update intersection signal data, a la Brownsburg project. Summarized data into 30-minute intervals around peak hours. Calibrated and assigned all data to 2023 base year network, 2050 future year network and future 2020’s models in TransModeler.

**Tri-County Regional Planning Commission Plan Update (on-going)** – Determining 2050 existing and future condition analysis with sharing of 2020 data.

**Illinois DOT On-Call Modeling (2023-2025)** – Cross-examined nine-district network of Illinois with National Highway System and Illinois State Travel Demand Model files. Assembled Origin-Destination matrices for RITIS-based Iowa-Illinois and Illinois-Wiscosin areas, along with instructions for later model runs.

**I-465 NW Corner Analysis (2023-2025) –** Inspected 2020 No Build and Level 31 Sipes 2045 model runs of I-465 North-West corner at AM and PM peak hours. Collected level of service and traffic volume averages for multiple segments.

**KYTC I-64 CAV (2023-2024) –** Handled 3-mile buffer of present and future Kentucky state models. Captured traffic volume effects on multiple I-64 corridors, I-64, and state areas. Quantified predictions of connected and autonomous vehicle usage for future models. Constructed 10 scenarios of CAV flow and concluded effects of I-64 results with and without capacity changes.

**INDOT Equity Tool (2023-2024)** – Traced colleges and hospitals across Indiana. Identified equity-focused communities using research and census data. Obtained bus routes data for multiple cities.

**HNTB ProPEL Indy (2023-2024) –** Updated transportation data results of I-65 stations through field visits. Compiled socioeconomic data of Imminent Development areas. Outlined annual growth rates of I-65-I-465 interchange area.

**Terre Haute Metropolitan Transportation Plan Update (2023-2024)** –Delivered 2022 base and 2050 existing and future condition network models using census data. Contributed to public engagement meetings and conducted project prioritization assessments.

**KYTC Statewide Interstate and Parkway Plan (2023)** – Located values for VeraVoice Online results survey for Tier 2 Corridors. Transcribed maps and collected tabled assessments, overviews, modification plans and comments for the 21 corridors.

Planning

**IDOT Modeling Project (on-going)** – Inspecting growth factors for all Illinois districts and air emission post-processing in Cook County.

**Indiana Statewide Corridor Planning Study (2024-2025)** – Conducted model runs for over 100 corridor segments across Indiana. Assessed equity and accessibility, or percentage of work-based trips.

D&I

**Data & Innovation (on-going)** – Studied HTML/CSS, JavaScript, Next.js, GSAP, Prismic, TypeScript, React, Tailwind, and MongoDB. Preparing to aid in Corradino's personal VeraVoice survey website.

**INDOT Traffic Forecasting Tool (TFT) Project (2024)** – Refined Kentucky 2019 TFT Shiny app to operate with minimal time and warnings. Evolved app to construct maps and tables of Indiana traffic links.

Other

**MPO Request for Proposal Updates (on-going)** – Locating Requests for Proposals for The Corradino Group across MPO’s in several adjacent states.

**Introduction to Urban Travel Demand Forecasting class (on-going)** – Studying Ohio Travel Demand Forecasting class under ODOT.