# Jeffrey S. Dirk, P.E., PTOE, FITE - Partner

**Traffic Engineer and Transportation Planner** 

#### **Education:**

University of Massachusetts, Amherst, B.S.C.E. with honors, 1991

## **Professional Registrations:**

Registered Professional Engineer: CT #21868, MA #38871, ME #9163, NH #9822, RI #7112 and VA #39890

### **Professional Certifications:**

Professional Traffic Operations Engineer (PTOE) #993

National Council of Examiners for Engineering and Surveying (NCEES) Record Holder

International Registry of Professional Engineers by the United States Council for International Engineering Practice (USCIEP)



#### SUMMARY OF EXPERIENCE

Mr. Dirk is a Partner and a Senior Project Manager at Vanasse & Associates, Inc. with over 28-years of experience in the fields of Traffic Engineering, Transportation Planning and Expert Witness Testimony. He is a Fellow of the Institute of Transportation Engineers (FITE) and is a Registered Professional Engineer (P.E.) in the states of Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Virginia, and has been Certified as a Professional Traffic Operations Engineer (PTOE) by the Transportation Professional Certification Board, an affiliate of the Institute of Transportation Engineers (ITE). His responsibilities include the design and analysis of roadway, intersection, and interchange systems, and pedestrian and bicycle facilities, and the preparation and review of traffic impact studies, roadway and intersection design plans, and safety assessments for private and municipal clients.

Mr. Dirk has a wide range of experience in the fields of Traffic Engineering and Transportation Planning. Traffic impact studies have included performing trip-generation calculations for large and small scale developments including mixed-use and transit-oriented projects in urban and suburban settings; traffic modeling and analyses; parking demand calculations; trip distribution and origin-destination studies; the development of Transportation Demand Management (TDM) strategies; traffic and parking management plans for sporting and event facilities; traffic calming measures; and project access and off-site improvement strategies. He has extensive experience in the design, analysis and modeling of roadways and signalized and unsignalized intersections, including the design and timing of coordinated traffic signal systems.

Mr. Dirk has prepared detailed design specifications, contract documents, and plans for roadways, intersections, traffic signals, and pedestrian and bicycle facilities for state and municipal clients including the Massachusetts Department of Transportation (MassDOT) and the Departments of Transportation in California (CALTRANS), Maine, New Hampshire and Rhode Island. Mr. Dirk has also been qualified as an Expert Witness in the fields of Traffic Engineering, Transportation Planning and Roadway/Intersection Safety in the states of Connecticut, Massachusetts, New Hampshire and Rhode Island, and has represented private and municipal clients in testimony and presentations before local, state and federal agencies, municipal officials, and courts of law. He has also been approved by the Massachusetts Gaming Commission to provide Traffic Engineering Services to gaming establishments and impacted communities in Massachusetts.

# **EXPERIENCE**

Mr. Dirk's experience in the Traffic Engineering and Transportation Planning fields include the following:

Peer Review Services – Mr. Dirk has assisted numerous municipalities including, but not limited to, the following Towns of Billerica, Chelmsford, Foxborough, Gloucester, Groton, Halifax, Hingham, Milton, North Attleborough, Norwell, Pembroke, Plainville, Plymouth, Salisbury, Sandwich, Scituate, Sharon, West Bridgewater, Wrentham, Massachusetts; the Cities of Amesbury, Boston, Framingham, Newton, Quincy, Revere, and Waltham, Massachusetts; and the Towns of Greenland, Hampton and Plaistow, New Hampshire; in the review of traffic impact studies, parking assessments and transportation infrastructure improvements.

Traffic Signal Design - Supervised, designed, and managed the preparation of traffic signal layout, timing and coordination plans, and specifications and estimates for traffic signal installations on Route 20 in Millbury, Auburn, and Worcester, MA; Route 12 in Auburn, MA; Route 28 in Brockton, MA; Commonwealth Avenue in Newton, MA; Hamilton Street and Washington Street in Leominster, MA; Route 1 in Attleboro, MA; Route 126 in Ashland, MA; and Quinsigamond Avenue, Southbridge Street, Main Street, and Pleasant Street in Worcester, MA.



Pedestrian and Bicycle Facilities – Managed the planning, design and route selection for pedestrian and bicycle facilities, golf cart crossings and trail networks for municipalities and private developers in MA and NH, including the design and installation of pedestrian hybrid beacons (HAWK signals). Developed warrants for, evaluated and designed locations for the installation of audible pedestrian devices as aids to the visually impaired at signalized intersections.

**Traffic Impact Studies** - Managed and prepared traffic impact studies for small and large developments in urban and suburban environments including institutional and community transportation master plans. Recently completed and on-going projects include the following:

Encore Everett Resort, Everett, MA – Redevelopment of a former chemical manufacturing facility and brownfields site located on the Mystic River in Everett, Massachusetts, to accommodate the Encore Everett Resort, a luxury resort that will include a hotel with 629 rooms, a gaming area, retail space, food and beverage outlets, convention and meeting space, a spa and gym, and other complementary amenities. In addition, the resort includes extensive landscape and open space amenities including a public gathering area with an outdoor park-like open space, a pavilion, waterfront features, a public harborwalk, and water transportation docking facilities. Central to the planning of the project was the development of a comprehensive, multi-modal approach to integrate the project into existing and expanded transportation services, including roadway, intersection and traffic control improvements; bus, subway, commuter rail and water shuttle access and capacity enhancements; pedestrian and bicycle facility improvements; and traffic and parking demand management strategies, including the development of a transportation monitoring program to measure and mitigate the actual traffic and parking demands of the resort.

Patriot Place, Foxborough, MA - Approximately 1.3 million sf of commercial, recreational, office and medical office space, including the first Bass Pro-Shops outdoor retail store in the northeast, located adjacent to Gillette Stadium, home to the New England Patriots football team, the New England Revolution soccer team and concert and entertainment venue. This project entailed multiple challenges unique to the creation of a vibrant commercial facility proximate to a 68,000 seat stadium surrounded by over 14,000 parking spaces and bounded by a four-lane state highway, an active rail line and seasonal commuter rail station, and wetland areas.

The Hub at Causeway, Boston, MA - Planning and design of a mixed-use, transit-oriented development on the site of the former Boston Garden located at 80 Causeway Street in Boston, MA, to consist of a hotel, flex office space; retail/restaurant space, including a neighborhood grocery store; expansion of the TD Garden to accommodate expanded concession and elevator lobbies; and Champions Row, a new entrance to the North Station commuter rail station. In addition, the existing headhouse to the MBTA Orange Line and Green Line portion of North Station was integrated into the development. Central to the planning of the project was integrating the development into northern hub of the commuter rail system at North Station, which serves approximately 10,000 transit riders during peak commuter periods and includes one of the busiest Hubway bicycle sharing stations in Boston, as well as sporting events, concerts and entertainment at the TD Garden. Transportation planning for the development included pedestrian and bicycle connections, parking management and accommodations for service and loading.

Waterfront Square at Revere Beach, Revere, MA – Transforming existing Massachusetts Bay Transportation Authority (MBTA) commuter parking facilities serving Wonderland Station on the MBTA's Blue Line subway system, Revere Beach and the Wonderland dog track into a mixed-use, transit-oriented development consisting of a 902-unit residential community; 28,500 sf of retail space; 145,350 sf of office space; a 100-room hotel; and on-site structured parking for approximately 1,087 vehicles; to be situated on an 8.77± acre parcel of land located adjacent to Wonderland Station in Revere, Massachusetts. The project also featured the construction of two parking garages to serve Wonderland station and the reconfiguration and improvement of the busway and pedestrian and bicycle connections to and within the Station. Key to project development included integrating the development into available public transportation options and pedestrian and bicycle amenities through physical connections and inducements by way of an effective TDM program for residents, employees and hotel guests to reflect the transit-oriented nature of the project.

The Pinehills, Plymouth, MA – An approximate 3,000 acre planned use development (PUD) consisting of 1,897 limited occupancy homes; 920 planned retirement homes; four 18-hole golf courses; and 1.3 million sf of commercial retail/office space. Major goals of the project included the development of a transportation system that would adequately serve the needs of the community while balancing the desire of the developer and the Town to maintain the rural character of the existing roadways, the project site and adjacent properties.

### Affiliations:

Institute of Transportation Engineers
Past President, New England Section
Member, Traffic Engineering Council
Boston Society of Civil Engineers
National Society of Professional Engineers

Massachusetts Society of Professional Engineers
Member, Ethics & Registration and Certification
Committee
University of Massachusetts, Amherst
Member, Advisory Council, Department of Civil and
Environmental Engineering

