

Transportation Planning

DESMAN personnel believe the transportation system plays a vital role in the standard of living and economic success of an area, development or institution. We feel that what makes us unique from other transportation consultant and engineering firms is our understanding of the relationship between traffic and parking, where one can not operate successfully without the adequate design of the other. It is important to approach each study with an open mind and fresh perspective. We recognize that each traffic study has unique issues and no predetermined set of solutions. We also take a holistic approach with any type of traffic study and place great value in working closely with the client and/or stakeholders to gain a complete understanding of expectations and goals.

Below is a menu of the transportation services we offer.

Traffic Impact Studies (TIS)

DESMAN Associates have performed Traffic Impact Studies for a wide variety of clients, including: hospitals, universities, retail centers, hotels, office complexes, mixed-use developments, event centers, a variety of commercial land uses, and rural and urban cities. These studies have been conducted for municipalities, authorities, institutions and developers throughout the U.S. and internationally. Each study is unique, in that an existing and future traffic model is developed based on existing traffic volumes, projected traffic growth, transit options and usage, and the context of the environment. We use the latest traffic engineering tools, engineering practices, methodologies and reference materials in our analysis and have experience working with reviewing public agencies to ensure that the traffic study meets applicable local guidelines. The goal of each study is to develop, if needed, realistic traffic improvements that minimize cost, adequately support existing and future traffic volumes and create a safe environment for both pedestrians and drivers.

For examples of Traffic Impact Studies, [click here!](#)

Traffic Signal Warrant Analysis

DESMAN personnel have extensive experience performing signal warrant analyses. A traffic signal can improve the overall safety and efficiency of an intersection. The methodology stated in the Manual on Uniform Traffic Control Devices (MUTCD) is applied in determining whether an intersection meets the criteria to justify installing a traffic signal. This analysis includes examining existing and future traffic volumes, pedestrian volumes, signal coordination and accident data. We understand that a traffic signal is a substantial investment in the roadway network and that it is important to carefully study its need and benefit to serve both vehicles and pedestrians.

For examples of Signal Warrant Analysis, [click here!](#)

Traffic Data Collection

DESMAN personnel have the equipment and technical experience to collect traffic counts. This includes performing both 24-hour traffic counts and intersection turning movement counts. We use modern electronic data collection equipment to improve both our accuracy and efficiency in analyzing the data. This data can be applied for traffic impact studies, operational analysis studies, signal warrant analysis, travel time and delay studies, vehicle gap studies and license plate studies.

For examples of Traffic Data Collections, [click here!](#)

Traffic Modeling and Simulation

DESMAN personnel use the latest software available to prepare traffic simulation models. A simulation model provides the client with a great visual tool to show the operation and flow of traffic for a development, street network or parking garage. Traffic simulation models are exceptional tools to determine the optimal design for a traffic network, and the traffic signal timings for both an isolated intersection and a coordinated traffic signal system. A traffic simulation model is also useful in assessing the use of a roundabout at an intersection.

For examples of Traffic Modeling and Simulation, [click here!](#)

Transportation Master Plan Design

DESMAN personnel have experience designing transportation master plans for commercial developments, hospitals, universities and cities. The following are just some of the important elements considered in developing a traffic network design:

- existing geometrics and traffic controls,
- context of the environment,
- circulation,
- accessibility,
- traffic volumes,
- modes of transportation (i.e. walking, biking, transit and vehicles),
- parking layout,
- and zoning information.

For examples of Transportation Master Plan Design, [click here!](#)

Development of Transportation Demand Management (TDM) Programs

The goal of Transportation Demand Management (TDM) strategies is to reduce single occupancy vehicles (SOV) through the application of programs and investment in public transportation infrastructure to promote other modes of transportation. We understand the benefits associated with implementing a TDM program from the cost savings in developing less parking, reducing vehicle trips, the development of a pedestrian and bicycle friendly environment, and the reduction in pollutants. DESMAN personnel have vast experience providing TDM strategies as part of both parking and traffic studies. We have found that parking pricing strategies and changes to the management of a parking system can be a very effective and cost friendly strategy in comparison to other programs and the development of the public transportation infrastructure. We work with the client and stakeholders to develop a TDM strategy that is both realistic in scope and financially beneficial. Our methodology in developing a TDM strategy includes analyzing the existing public transportation infrastructure, reviewing the costs and organization of the parking system, conducting surveys, applying Geographical Information Systems (GIS) modeling and determining the costs/benefits associated with each program.

For examples of Transportation Demand Management, [click here!](#)