Introduction

Traffic Engineering Department

The Traffic Engineering Department provides a variety of services regarding the safety, design and maintenance for roadways and trails within the Municipality. Our goal is to ensure the safe and efficient movement of people and goods within the Municipality of Anchorage. The Traffic Engineering Department's responsibilities range from: operation of the traffic signals, maintenance of street signs, striping of roadways, and supporting transportation planning for roadways and pedestrian systems.

The Traffic Engineering Department is managed by the Municipal Traffic Engineer. The group works to improve safety and service for the traveling public. The Traffic Engineering Department consists of the following 3 Divisions: Data, Safety, and Signals. The group also provides a Special Activities Permit program maintaining this one-stop permitting process for individuals or organizations that are setting up a pre-planned activity such as a parade, race, rally, or event to be conducted in or will have direct effect upon the municipal public right-of-way.

Data Division provides traffic flow information. Traffic data provides a foundation for roadway enhancement, intersection design, traffic calming, trail improvements, safety analysis, transportation plans, and traffic signal timing. Our goal is to provide essential information to improve the traveling environment within the Municipality.

This Division provides data evaluation, general information, and statistical analysis to agencies and the public at large. Using various methods, the Data team conducts numerous studies of traffic characteristics, collects related data, and interprets crash information provided by all law enforcement agencies within the Municipality. Collected and evaluated information includes: transportation volumes, speeds, distribution of vehicular types, non-motorized usage, gap studies, travel times, operator behavior, circulation studies, road or other travel way measurements, volume occupancy studies, pre/post project information, sight distances, crashes, vehicle cut-through studies, crash analyses, crash diagrams, etc.

Annualized information such as: traffic control information, seasonal factor calculations, roadway geometry, street classification, safety factors, GIS information, etc. is gathered and calculated for statistical information. All information housed in the Traffic Data Management System is maintained by this Division and utilized to produce the Annual Traffic Report. Online data may be found at http://traffic.muni.org.

Safety Division plays an integral role in the design, maintenance and functionality of municipal streets and roadways including such tasks as: intersection improvements, private development reviews, traffic impact analysis, roadway striping and signage, safety evaluations, and traffic calming methods. Our goal is to create safer roadways and more efficient traffic patterns.

Methods include: developing design recommendations for Capital Improvement Projects, intersection channelization, community traffic and safety improvement projects, and conducting reviews (platting, planning, zoning, and building permits). This team produces the following: Traffic Calming Policy Manual, School Area Traffic Safety Manual, Safe Routes to School Manual, Anchorage Traffic Manual Supplement, and the Annual Traffic Calming Streets List.

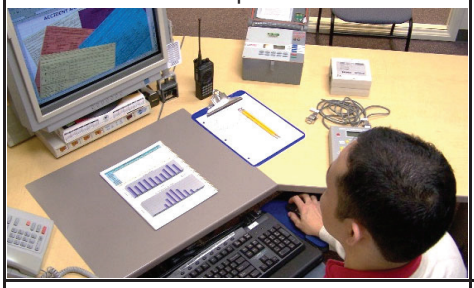
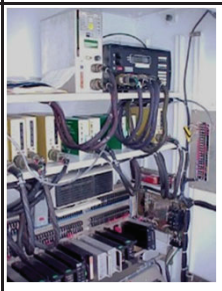
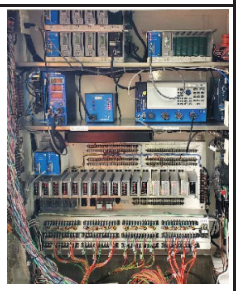
This Division covers approximately 67,000 street signs, 3500 turn lane arrows, and maintains over 1200 miles of roadway paint: lane striping *(long and short lines)*, crosswalks, stop bars, curbs / bulbs / ramps, turn lane rabbit tracks, and associated pilot projects for all Municipally owned and/or maintained roadways and intersections.

Signals Division manages the Traffic Management Center (TMC) and maintains traffic signal timing for all of the municipal and state traffic signals including flasher systems and preemption for the Anchorage Bowl, Eagle River, and Girdwood. Signals are connected to a centralized system at the Traffic Engineering Department. This system allows operators to remotely check for proper operation of the signals, and to download new timing programs to traffic signal controllers at each intersection. Signals are generally programmed to run several different timing plans throughout the day. Different timing plans are developed to account for changes in traffic flow that routinely occur at the same time each day. Our goal is to maintain and improve traffic flow within a signalized network.

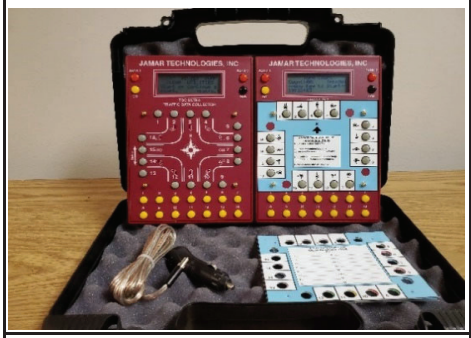
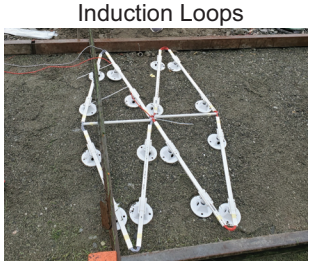
Management of these systems incorporate: analysis of traffic flow characteristics, alterations to timing plans, plan review, design, inspection, real-time computer system support, monitoring, and public resolution.

This Division also provides the installation, maintenance, and construction support for traffic signal systems within the Municipality of Anchorage. Currently, over 283 signalized intersections are being maintained by the Signal team.

DATA COLLECTION DEVICES

EQUIPMENT / METHOD	AVAILABLE DATA OR STUDIES
Computer 	Annual Report Generation Crash Analysis Crash and Volume Information Crash Diagrams Data Collection and Processing Statistical Analysis Traffic Data Management System
DMI 	Roadway Measurements Travel Time Delay Studies
Electronic 	 Lane Occupancy per lane at intersections with traffic signal detection Vehicular Volumes per lane at intersections with traffic signal detection  Traffic Signal Cabinet contains electrical equipment necessary for proper operation of signalized locations. Counters are installed inside cabinets
GPS 	Asset Management Roadway Measurements Travel Time Delay Studies
Pneumatic 	24 Hour Speed Studies Bicycle Volumes Directional Volumes Intersection / Lane / Roadway Volumes Link Volumes Low Volume Gap Studies Vehicle Classification Studies  
Infrared / Magnetometer 	Bicycle Volumes Multi-Modal Volumes Trail volumes for all pedestrians (e.g. hikers, runners, bicyclists, skiers, etc.) 

DATA COLLECTION DEVICES

EQUIPMENT / METHOD	AVAILABLE DATA OR STUDIES
Manual 	Gap Studies Intersection / Lane / Roadway Volumes Intersection Stop Delay Studies / Stop Sign Delay Studies Low Volume Vehicle Classification studies Pedestrian Volumes Saturation Flow Studies Turning Movement Volumes for lanes that have shared movements (e.g. a lane with a through and right turn) Travel Time Delay Studies
Measuring Wheel 	Intersection / Lane / Roadway measurements (e.g. length of lane pockets, intersection sight distances, pedestrian crossings, etc.)
Multi - Modal 	 Directional Volumes Intersection Volumes* Link Volumes Trail Volumes  * Permanent Trail Counters do not include intersection volumes 
Radar 	 24 Hour Speed Studies Directional Volumes Gap Studies Vehicle Classification Studies Volume Studies Equipment Calibration Spot  
Induction Loops 	Bicycle Volumes Signalized Intersection Volumes * Bicycle induction loops shown 
Video 	Cut Through Studies License Plate Studies Traffic Characteristics Volume and Movement Studies Operator Behavior Studies