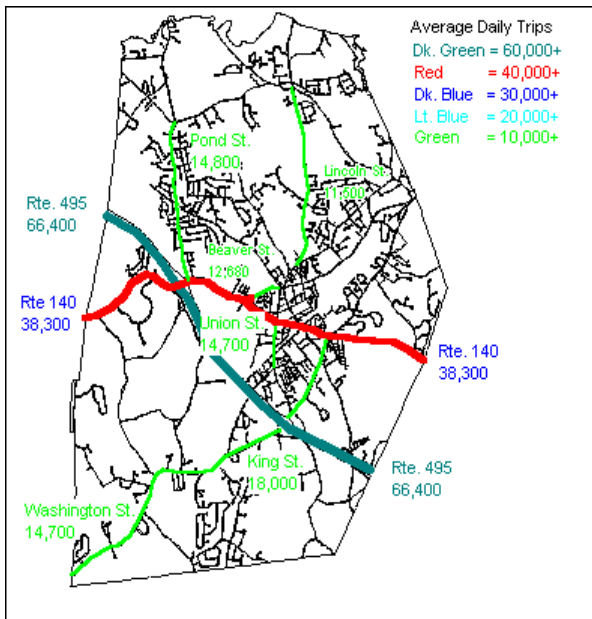


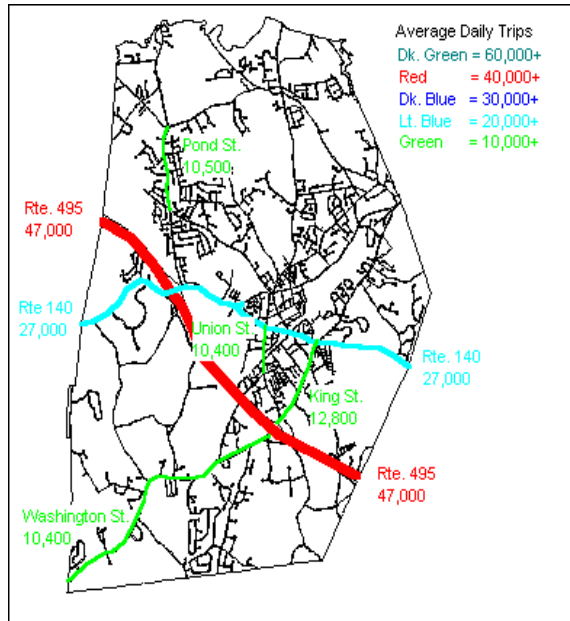
Franklin Master Plan - Circulation

Circulation refers to the means by which we get around on roads, sidewalks or trails and include by vehicle, by bicycle or on foot. Residents often cite increased traffic and congestion as one of the most undesirable effects of growth. Yet, perhaps more than any other topic addressed in this master plan, meeting the goal of improved circulation involves tradeoffs. If we want to maintain scenic roads and quiet neighborhood streets, for example, we need to accept the fact that it will take longer to safely get from one place to another. As volumes of vehicular traffic increase and the capacity of our roads are reached, we must find ways to reduce the number of cars on the roads. We all contribute to traffic congestion, and we all need to share in the burdens of improving circulation. This chapter establishes four primary circulation goals designed to diversify and improve the efficiency of our transportation system: 1) access for all modes of transportation; 2) circulation & connectivity; 3) levels of service; and 4) alternative transportation.

Current Conditions & Trends

Residents frequently comment on how much the traffic in Town has increased over the past ten years. Transportation planners use the Institute of Transportation Engineers (ITE) Trip Generation Manual to project an average of 10 vehicular trips per day per single family dwelling and an average of 3.4 trips per employee working in an industrial park. As more homes are built and more businesses opened or expanded in Franklin, traffic volume will increase. Current traffic volumes are projected to continue to increase over the next 15 years. See Figures 40 and 41 below.





Goal 1 - Access for All Modes of

Transportation: Improve access, parking and circulation for vehicular, bicycle, and pedestrian traffic to high demand areas, including the commuter rail stations, schools, government center, and major shopping areas.

Goal 1, Objective 1 - Transit Parking: Create additional parking facilities to serve the downtown commuter rail station, and any other transit/service center hub developed in the future, particularly consider the construction of a parking garage in the downtown.

Parking in the downtown area is limited. Several businesses have parking lots for their customers. Public parking is available at metered parking spaces in the municipal lot on Depot Street and along Main Street and adjacent streets. The number of metered spaces decreased as a result of the reconstruction of Route 140 in 1996.



The Downtown MBTA lot has 200 parking spaces and is normally filled beyond capacity by 7:00 AM. The Forge Park MBTA station has 760 parking spaces and is not normally filled to capacity. The MBTA decreased the Forge Park commuter rail fare to match the Downtown station fare in 1996 in an attempt to divert commuters from downtown to Forge Park Station. This did not resolve the

problem of commuter parking shortages at the Downtown station. Additional spaces are needed. With land availability limited in this area, the best solution for meeting the parking demand in downtown Franklin would be to construct a parking garage in the vicinity of the MBTA and municipal lots.

Goal 1, Objective 2 - Bicycle Lanes: Mark bicycle lanes and provide bicycle stands at major points of destination.

If alternative modes of transportation are to be encouraged, provisions for bicycle lanes must be included in all road project designs as part of either the shoulder or pedestrian walkway layout.

Bicycles are a convenient transportation mode for children traveling to schools and playgrounds, as well as for adults commuting to the MBTA Stations or jobs in Franklin. The bicycle is one of the cheapest and quickest means for moving about Town. The average speed of a cyclist is between 10 and 13 miles per hour. Bicycle travel times are comparable with automobile travel times for distances of 4 miles or less or for travel times of 15 minutes or less.

Goal 1, Objective 3 - Pedestrian And Bicycle Links: Develop pedestrian and bicycle path links outside of roadway alignments to provide "shortcut" access to high demand areas.

A master plan for bicycle paths and sidewalks should be prepared to provide a blueprint in acquiring right-of-ways and securing available funding to provide alternate transportation links. The Open Space and Recreation Chapter includes strategies to acquire easements and rights-of-way for these links.

At some point, local roads lead to arterial or collector roads which permit traffic to move in and out of Town or around Franklin. See Map 3. The more directly that local roads connect to collector roads, the shorter the travel distances and the quicker the movement of emergency vehicles in and out of neighborhoods. There is a limit to the number of arterial and collector roads that can be created in Franklin given its current level of development. The majority of roads which could potentially be arterial and collector roads are in existence today and there are limited opportunities to establish additional ones. New arterial and collector road construction necessitates the acquisition of sufficient right-of-ways either along an existing roadway or suitable undeveloped land.

GOAL 2 - Circulation & Connectivity: Plan future road & sidewalk locations, improvements, and traffic patterns in order to provide more efficient circulation patterns, greater connectivity between subdivisions, improvements to conditions presenting safety hazards, and reduced emergency response times.

To accommodate the current population and our projected growth, the Town must design the Town's road system to handle the optimum volume of traffic, establish additional arterial and collector roads and develop alternative means of transportation. By improving the capacity of our major roads, especially Grove Street, and adding east-west collector road connections in the north end of town between Pond, Lincoln and Pleasant Streets, the efficiency of the Town's road system will be increased. These improvements would also contribute to increased public safety by minimizing emergency vehicle response times. By creating foot and bicycle paths and further promoting mass transit, we can decrease or slow the growth in the volume of vehicular traffic on our roads. Decreasing vehicular traffic also contributes to improved air quality.

Goal 2, Objective 1 - Safety Improvements: Construct sidewalks, traffic islands for channelization, and road grade & width improvements to improve safety and reduce accident potential on roadways, while maintaining the "character of a New England town" and its visually pleasing road layout.

Many of the Town's main roads are in poor condition and in need of safety improvements. Most of those roads that have been classified as collector or arterial have been identified for reconstruction and are included in the State's Transportation Improvement Plan (TIP). As road projects are designed, care must be exercised to ensure that the necessary improvements are made with minimum adverse impact on the "New England Character" of our roads.

Road re-design plans in areas with notable country lane streetscape features should strike a balance between the need to widen roads, install drainage and add sidewalks and the need to retain trees, stone walls, and other features which contribute to the Town's New England character. On streets such as Partridge, Maple and Daniels, residents should be an integral part of the design process. Streetscape design options should be presented for their review and comment. Design charettes and other interactive exercises should be incorporated into the design process. Laying out sidewalks outside of the right-of-way and on the other side of stone walls and trees should be considered. At the very minimum, every attempt should be made to preserve the look and feel of these roads along particularly scenic stretches.



vements made on Main Street through sidewalks, traffic islands and channelization.

Goal 2, Objective 2 - Future Roads: Lay out and preserve corridors for future roads to provide better

linkage and flow.

As the traffic carrying capacity of our existing arterial and collector roads approaches their maximum levels, additional roads must be created.

Figure 43: Downtown Traffic Improvements

Based on the Town's buildout analysis, undeveloped land should be reviewed to determine where new collector roads are likely to be needed and to identify possible layouts for right-of-ways. At the same time, locations for future local road connections should be identified in undeveloped areas and within existing rights-of way.

Goal 2, Objective 3 - Subdivision Connections: Connect proposed subdivision roads with existing subdivision roads to facilitate the delivery of services, traffic circulation, and emergency response time.

In order to minimize travel distances to and from main roads and improve access for public safety vehicles to residential areas with only one entrance, local roads should be connected wherever possible. In some cases, this will result in an increase of traffic in neighborhoods that previously had limited access, but there will be corresponding decreases in other neighborhoods as leveling occurs after additional routes are created.

Goal 2, Objective 4 - Sidewalk System: Establish a program for annually extending the sidewalk system.

As discussed in the Infrastructure and Facilities Chapter, there are more than 80 miles of roads in Franklin that have no sidewalks. In the interest of safety and promoting the sense of neighborhood and encouraging citizens to walk rather than drive to local destinations, a plan must be developed to construct a minimum of one sidewalk along every Town road and in areas where pedestrian shortcuts make sense. The need for sidewalks is increasingly important now that the School Committee has reduced busing, increasing the number of children walking to school each day.

Goal 2, Objective 5 - Grove Street: Reconstruct Grove Street to arterial road standards to provide relief to the Route 140 corridor.

Grove Street is one of the Town's major roads currently not included on the State's Transportation Improvement Plan (TIP). Current pavement widths average 30 feet. Portions of the roadway pavement are edged with curbing, but a majority of its length has an open pavement edge with no curbing and very little shoulder area. There are no passing lanes due to the road's winding and rolling alignment. Any significant increase in traffic is likely to require increases to the

pavement section and gravel base. Traffic delays and safety issues are presented by the absence of turning lanes at several major intersections. Because of its importance to the Town's economic development objectives and its high volume of truck traffic, Grove Street should be added to the TIP. This will qualify Grove street for state funding to reconstruct this road to arterial standards.

GOAL 3 - Levels of Service: Increase level of service at heavily traveled intersections.

Goal 3, Objective 1 - Turning Lanes: Turning lanes to be provided on two lane roads at points of high across-traffic turning.

As traffic volumes and the number of connecting side streets increase on two lane roads, there are more frequent interruptions in traffic flow as vehicles block the travel lane while waiting to turn left. These interruptions decrease the volume of traffic which the roads can handle and increase the opportunity for rear end collisions when vehicles block the travel lane. Generally, there is a need to provide turning lanes on major collectors such as Lincoln, Pleasant and Pond Streets.

Goal 3, Objective 2 - Intersection Improvements: Provide turning lanes and longer stacking lanes at the intersection of collector roads.



When traffic backs up at intersections, it is usually due to vehicles trying to negotiate left turns, preventing vehicles behind them from moving through the intersection. With the completion of Route 140 construction in 1996, major traffic flow improvements were achieved by the addition of left turn lanes (See Figure 44). Additional improvements are planned with the reconstruction of other major roads.

GOAL 4 - Alternative Transportation: Reduce traffic demands by promoting mass transit usage and creating opportunities for alternative transportation modes, including intra-community public transportation.

Goal 4, Objective 1 - Alternate Circulation Options: Promote alternate circulation options, including the use of bike paths & sidewalks.

Establishing bicycle path and sidewalk networks throughout Town will encourage the use of alternate modes of transportation. When transportation alternatives other than individual motor vehicles are available, growth in traffic volumes on town roads can be reduced. The Council on Aging provides limited bus and van

services to senior citizens. Options for expanding this service to support more of the citizenry should be considered.

Goal 4, Objective 2 - Shuttle System: Promote the formation of a shuttle system to move commuter rail passengers to and from commuter rail stations to places of employment.



Putnam Investments currently provides employees with transportation from the MBTA stations to the Putnam facility. If other businesses would join Putnam, this type of service could be expanded and made available to others working in Franklin. One challenge with increasing the number of people who use the MBTA to travel to work is that the first

train does not arrive in Franklin until after 8:00 AM which makes it impractical for many to use. Franklin has requested that the MBTA provide earlier train service into town and should continue to apply pressure for this change.