



## 6.0 TRANSPORTATION

Middlebury's transportation network has been built over the past three centuries. Footpaths evolved into colonial roads establishing the basic roadway pattern. Later, additions included residential streets and the interstate highway. Today, a complex system of roads and highways serve the transportation needs of residents. This chapter of the Plan of Development examines the Transportation network, its functioning, and makes recommendations regarding changes to the system so that it operates smoothly.

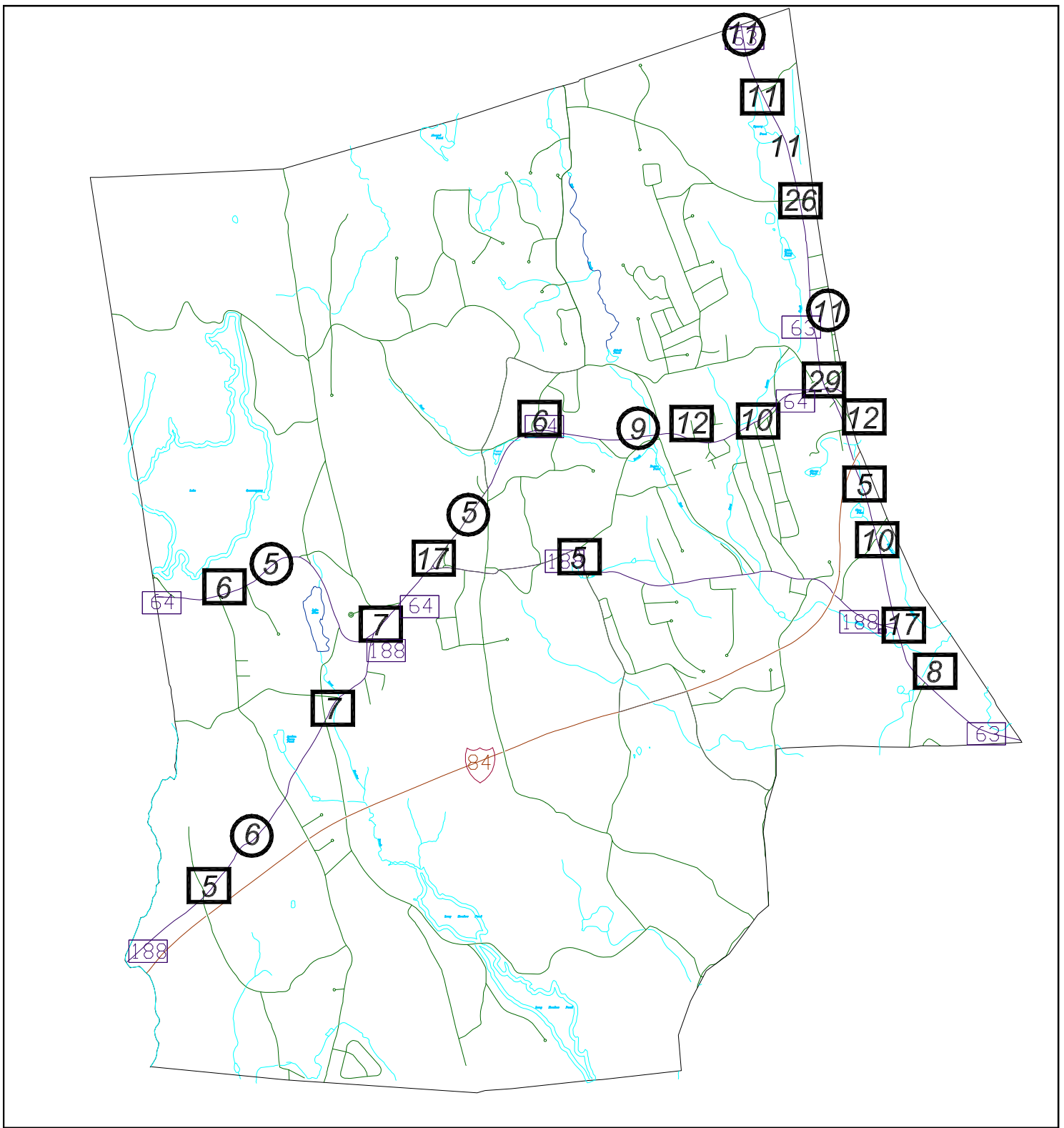


### 6.1 Vehicle and Traffic Volume Statistics

The 1990 Plan reported 4,546 passenger vehicles. The 1998 Grand List reported 5,044 passenger vehicles, representing an 11 percent growth rate since 1990. Based on the 1998 population estimate, there are 1.2 persons per passenger vehicle in Middlebury, a decrease from 1.4 persons per passenger vehicle in 1990. This is a reflection of the continued trend toward smaller households with fewer children and more two-earner households.

Volume on town roads can be contrasted against data presented in the 1990 Plan of Development. The Traffic Volume map (Figure 6.1) graphically depicts average daily traffic volume counts during 1996. The State DOT determines average daily traffic volumes for road maintenance purposes. The values do not suggest peak usage problem sections. The road with the highest average daily traffic in Middlebury is State Highway 64 with nearly 22,000 vehicles per day. This section of Highway 64 provides a connection to I-84 and Highway 63.





**Plan of Conservation and Development**  
Town of Middlebury, Connecticut

**Figure 6.2**  
**Accident Locations**



0 3,200 6,400ft

BFJ Buckhurst Fish & Jacquemart, Inc.



Accidents at Intersections



Accidents Along Roadway Sections

Source: CT DOT, 1996



In 1985, 19,000 cars a day were using this section of Highway 64. Prior to that time, 12,500 vehicles per day were counted in the section east of Route 63. In general, volumes along Route 64 have increased significantly.

## 6.2 Accident Statistics

The Connecticut DOT keeps statistics on accidents that have occurred on state highways and on some Town roads. Examining the accident history for the Town from 1995 to 1997 reveals that most accidents occurred in high traffic volume areas and at or near major intersections (Table 6.2).

**Table 6.1**  
**High Frequency Accident Locations**  
**Town of Middlebury, 1995-1997**

Route	Location	Number of Accidents
<b>Route 63</b>	At Park Road	26
	Route 188 (Whittemore and Private Road)	17
	At Route 64	29
<b>Route 64</b>	Between Glenwood and Clearview Knoll	12
	At Steinmann Avenue	10
<b>Route 188</b>	At Route 64	17

*Source: Connecticut Department of Transportation.*

## 6.3 Road Network and Functional Classification

The road network in Middlebury is composed of a hierarchy of roads, each serving a different function. The classification types include limited access highways, arterial and collector roadways and local and rural residential streets. The Circulation Plan map at the end of the chapter displays these functions for Middlebury roads.

I-84 is a limited access highway with an interchange in Southbury just over the western Town border on Route 188 and an interchange near the Town's eastern border on Route 63 which is partially in Middlebury.

Arterial roadways provide access to points within the community and connect it with surrounding towns. Within Middlebury, State Highways 63 and 64 serve as arterials.

State Highway 188 has characteristics of both an arterial roadway and a collector street. It is an arterial road west of Route 64. To the east of Route 64, low traffic volumes and two severe turns make it a collector street.

Collector streets "collect" traffic from neighborhoods and bring it to the arterial network. In Middlebury a number of streets, many established in colonial times, now serve as collectors. Most subdivision streets which have been created in the 20th Century are not through streets and only provide access to the residential developments. Because the town roads were developed in conjunction with fronting residences, many roadways serve conflicting functions of both residential access and arterial and collector functions. The



proposed circulation plan designates those roadways which should be considered collector streets.

- Commercial streets provide circulation within commercial and industrial areas. These streets are developed to the same or to a slightly higher standard than residential collector streets based on the traffic characteristics projected for the area.
- Local residential streets serve only the small number of houses along them. They are not designed to carry through traffic. In the more suburban areas of Middlebury, local residential streets may be developed with curbs and gutters and possibly sidewalks.
- Rural residential streets, serve very low-density residential areas and are designed to a much less urban standard with no underground drainage or curbing and with narrower pavement widths.

#### 6.4 Road Design Standards

The Plan of Development establishes criteria for the classification of the various roadways. Included are standards for residential, collector and arterial streets. These standards are applied to new construction through the subdivision regulations. The current standards appear appropriate for the three road classifications specified (see Table 6.2).

**Table 6.2  
Existing Road Design Standards  
For New Construction**

<b>Standard</b>	<b>Arterial</b>	<b>Collector</b>	<b>Residential Street</b>
<b>Right of Way Width</b>	60 Feet	60 Feet	50 Feet
<b>Pavement Width</b>	36 Feet	36 Feet	22-26 Feet
<b>Maximum Grade</b>	8%	8%	10%
<b>Design Speed</b>	50 MPH	40 MPH	25 MPH
<b>Sidewalks</b>	Town Discretion	Town Discretion	Town Discretion

*Source: Town of Middlebury Subdivision Regulations.*

Road improvements may be necessary to serve the anticipated traffic volumes. On-street parking in such areas should be prohibited.

Subdivisions should be designed so that no through traffic is allowed. Cul-de-sacs are allowed but the number of units should be low. Use of the rural roadway standard will help preserve the character which distinguishes Middlebury roads from more typical suburban development. These roads should only be allowed in R-80 areas.



## 6.5 Sidewalks

Current regulations allow the Planning and Zoning Commission to require sidewalks in certain areas. They should be required in all new commercial developments within the CA-40 and PO-40 zones. In addition, the Town should consider developing a sidewalk construction program for the existing commercial areas in Town, particularly the Four Corners area. This is the highest priority area for new sidewalk construction. Second in priority is the area along Route 63 south of I-84 to Country Club Drive.

Standards for construction of sidewalks in residential areas should be based on the number of houses to be served and the density of those houses. A cul-de-sac in the R-80 district with only 10 homes along it does not have the levels of traffic needed to warrant sidewalks along the wide frontages of each lot. Within the denser R-40 zones in areas developed with curbs and gutters, sidewalks are generally needed.

In addition, in some rural areas, a sidewalk may be needed to connect the subdivision to a commercial area or to a major roadway. Such off-site sidewalks could be required in lieu of construction of the sidewalk in the low-density subdivision itself. Sidewalks should also be required near schools. Eventually, most major arterial and collector roadways in the denser areas of the community (R-40) should have sidewalks as well. In instances where the Town wishes to preserve the rural character of the roadways, an asphalt sidewalk may be appropriate. In other areas, concrete should be used because of its durability. In residential areas, sidewalks should be at least 4 feet in width, while in commercial zones the standard should be at least 5 feet.



## **6.6 Improvement to Existing Roads**

Most future roadway construction in town will consist of residential streets since the basic pattern of collector and arterial roadways has been set. Most of the existing designated collector roads in Town do not meet the standards developed for new collector streets. Many are narrow, colonial roads serving functions never envisioned for them. Although some improvements should be made for safety reasons, such as widening the causeway on Breckneck Hill over Abbott's Pond, any general upgrading of these streets might harm their historic character which contributes to the image of the Town of Middlebury. Thus the Town may be faced with difficult decisions regarding whether to expand these roadways to accommodate more traffic.

At present, the traffic levels on these roadways do not necessitate their expansion. Traffic counts should be taken regularly to determine whether improvements to any collector streets are required. In general, average daily traffic levels above 1,500 vehicles per day indicate that street design should be reviewed. Potential improvements include widening of the through traffic lanes to 10-12 feet in each direction, eliminating dangerous horizontal and vertical curves, marking or eliminating hazards such as trees near the pavement areas, and improving drainage.

## **6.7 Capital Improvements**

The Town of Middlebury has an ongoing program of maintenance for Town roads. Tucker Hill Road and Regan Road are examples of the roads that have been widened or otherwise upgraded in recent years. Additional roads scheduled for maintenance include Glenwood Avenue and Breakneck Hill Road. Glenwood Avenue requires widening for a safer four-way intersection. Breakneck Hill would benefit from a widening at the Abbotts Pond bridge crossing.

The State DOT's 1997 Master Plan did not assign any major transportation projects to the Middlebury area for the 1998 to 2007 time period. The DOT, however, is in the process of determining the needs of I-84 and is expected to complete a detailed assessment in mid-2001. At the very least, it is expected that I-84 capacity will be expanded to three lanes in both directions from Southbury to Waterbury, as is currently being constructed along the Waterbury to Southington segment. A similar improvement is anticipated along the Danbury to Southbury segment.

## **6.8 Oxford-Waterbury Airport**

The Oxford-Waterbury Airport is located in Oxford, abutting the southern boundary of Middlebury. The facility houses private planes, including corporate aircraft, and provides bulk transport services. The airport runway was expanded to allow for a wider variety of aircraft, but has not sustained the continued services of commercial passenger operator.

Middlebury's efforts should also be devoted to working with the airport to develop operational regulations to minimize the impact of severe airport noise on its residents. For example, high-density developments should not be located directly under airport traffic patterns, for safety reasons.



## 6.9 Bike Routes

The State DOT produces a bicycle map that highlights routes for recreational cycling. There are two recommended routes within the Town: a north-south route along Guntown Road/South Street/Artillery Road/Middlebury Road and an east-west route to the Town Green along Routes 188 and 63. These routes exist on paper only with no road striping or signage to guide cyclists.

## 6.10 Recommended Thoroughfare Improvements and Circulation Plan

This Plan, unlike previous plans, does not recommend any new road or extensions. A number of road widening projects are recommended to improve flow and safety (see Figure 2.3). These include Breakneck Hill Road and Glenwood Avenue. Roads that should be upgraded for collector use from their local road status include North Benson Road, Glenwood Avenue and Three Mile Hill Road.

## 6.11 Route 63/64 Intersection

The State had reconstructed the Route 63/69 intersection and a relocation of Kelly Road. The intersection improvements will provided additional turning lanes, particularly on westbound 64.

Even with the improvements, the roadway still does not operate at an acceptable level of service. In 1990, the Central Naugatuck Council of Governments projects volumes on Route 64 east of Route 63 to rise from 19,000 vehicles per day to 24,500 vpd. The 1996 State DOT data revealed volumes are approaching 22,000 vehicles per day. The COG noted that a Route 64 bypass of Route 63 is still a regional priority for improvement. Such a bypass would run south of the current Route 64 between Rose Court and Woodside Avenue. Route 64 would overpass Route 63 with ramps provided at the intersection. Such an option should not be precluded, but because of possible adverse impacts on adjacent residential areas is not the preferred alternative at the present time.

A better alternative for easing congestion at the Route 63/64 intersection is to provide an additional off ramp from westbound I-84 leading directly to Route 63 and to provide an eastbound entrance to the freeway from Route 63. Southbound Route 63 traffic coming from I-84 could avoid the congested 63/64 intersection as could traffic traveling north on Route 63 and headed to eastbound I-84. This alternative was suggested in the 1973 Plan of Development. Construction of the planned commuter lot at the southeast corner of I-84 and Route 63 could block or complicate this alternative.

The widening of Route 64 past the rock cut at the Waterbury city line to provide additional capacity was also suggested by the 1973 Plan. This may provide interim relief beyond currently scheduled improvements and before funds can be allocated for the new ramp or the bypass alternative.

The Town of Middlebury should pursue the construction of ramps to and from I-84 with the State. Additional improvements to the Route 63/64 intersection such as a bypass road should be kept in the regional transportation improvements plan.



## 6.12 I-84 Interchange

The previous plans had recommended new I-84 interchange where Long Meadow Road intersects with the interstate highway. Primarily a new access point would serve the industrially zoned IBM lands and to serve as a by-pass for Woodbury traffic. Since there is less likelihood today of IBM developing their land for industrial purposes, the need for an interchange is not warranted. This plan does not provide for any new interchange recommendations.

## 6.13 Scenic Roads

Section 7-149a of the Connecticut General Statutes allows for the Town to designate roads, or portions thereof, as scenic. The designation affords the residents that the aesthetic and historic value of a roadway is protected from alteration by Town officials. Such alteration would include widening of the road pavement, straightening of curves, increasing speed limits and lessening steep grades. Routine maintenance of the road would continue and would allow for tree trimming and removal, utility maintenance, treatment and repair of surfaces and emergency repair. The designation only affects public land and has no bearing or impact on the rights of private landowners.

To facilitate a scenic road designation, the Town may adopt a scenic road ordinance that satisfies the requirements: 1) that the majority of owners abutting the road agree with the designation and, 2) that the road be free of intensive commercial development and meet at least one of the following criteria;

- it is unpaved
- it is bordered by mature trees or stone walls
- the traveled portion is no more than 20 feet in width
- it offers scenic views
- it blends naturally into the surrounding terrain
- it parallels or crosses brooks, streams, lakes or ponds.

As discussed in the open space chapter, White Deer Rock Road was previously cited as having valuable local cultural and aesthetic value and should be designated as a scenic road. Other roads have been brought to the Planning and Zoning Commission's attention for designation.

In addition, the Town may wish to ask the State to designate portions of highways. Public Act 87-280 authorizes the Connecticut Commissioner of Transportation to designate state highways or portions of state highways as scenic roads in consultation with the Commissioners of the Departments of Environmental Protection and Economic and Community Development. A scenic road is defined as any state highway that: 1) passes through agricultural land or abuts land on which a historic building or structure listed on the National Register of Historic Places or the State Register of Historic Places is located, or 2) affords vistas of marshes, shorelines, forests with mature trees or notable geologic or other natural features that set the highway apart from other state highways as being distinct.

The highway shall have a minimum length of one mile and shall abut development that is compatible with its surroundings. Roads that are designated as scenic have special



improvement and maintenance standards aimed at preserving the character of the road. These standards address issues such as widening, pavement, removal of mature trees, etc. The scenic road designation also makes a designated roadway eligible for an additional pool of federal funding through the National Scenic Byways Program.

### **6.14 Roadway Hierarchy**

The recommended circulation plan established a functional classification scheme or hierarchy for Town roads. As traffic levels increase, the proposed collector roads should be evaluated for safety and intersection improvements. Selected widening projects may become necessary as well. Any such program should be sensitive to the rural character of many of these roadways. The following roads should be added as collector streets.

- Glenwood Avenue
- Three Mile Hill Road
- Country Club Road
- Benson Road