

## 8.0 INTRODUCTION

The Town's road network and railroad are integrally tied to its land use pattern and its economic development. How well people move between home and work or home and shopping is an essential determinant of quality-of-life and the attractiveness of the Town as a place to do live and business. Roads also have a significant function within the scenic quality of the Town. Many of Southeast's roads have scenic qualities. This section evaluates key features of the traffic and transportation system.

## 8.1 CURRENT FUNCTIONAL CLASSIFICATION\*

Southeast's roads are divided into separate jurisdictions. The two primary highways that intersect in Southeast—I-684 and I-84—carry a large volume of regional or interstate traffic. These roads are designated federal interstates. The New York State Department of Transportation (NYSDOT) maintains I-684 and the NYS Thruway Authority maintains I-84. Other heavily-traveled roads such as Route 22 and Route 312 are State highways also maintained by NYSDOT. (Route 6 is a United States road since it crosses into Connecticut). Collector roads that feed into the larger roads (e.g., Route 124) are generally Putnam County roads. The Town maintains control over local streets and a few collector roads. This distinction becomes important when analyzing roads with functional problems and identifying which jurisdiction can remedy the problem.

Figure 8-1 indicates the current functional classification of Southeast's roads. The purpose of this roadway hierarchy is to organize the road network according to the function of each roadway, i.e., to what degree it acts like a local street providing access to adjacent properties or as a major arterial serving primarily through traffic. A road can fulfill two separate functions: providing for through traffic (the major function of expressways and arterials) and providing access to adjacent land (the major function of local or residential streets and, to some degree, collectors). Unless traffic volumes are very low, a road cannot simultaneously fulfill both functions. An arterial that also has to satisfy the function of access to adjacent properties with numerous driveways and minor intersections cannot operate in an efficient and safe manner. A residential street, with numerous driveways, cannot provide for good through traffic conditions.

The following defines the four basic categories of a functional road classification system.

**Freeways**—these are limited access roadways designed strictly for through travel. Access is only provided at interchanges with major arterial or other freeways.

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\* Material from this section was obtained from the January 1992 *Town of Southeast Master Plan* prepared by Buckhurst Fish Hutton Katz & Jacquemart, Inc. Some editing was done to update information and/or clarify certain statements.

**Arterials**—Southeast’s arterials are US Route 6 and NYS Routes 22 and 312. Arterials are meant to carry higher traffic volumes (more than 5,000 vehicles per hour). They should be designed and treated with respect to traffic capacity and flow. Arterials that are designed to carry more than 20,000 to 30,000 vehicles per day are often four lanes wide. It is not foreseen at this time to be necessary, nor desirable from an aesthetic point of view, to widen any of the two-lane arterials in Southeast to four lanes with the exception of Route 22. Some widening of Route 312 or Route 6 has already occurred in the northwestern portion of Town and some additional widening may be required to handle projected traffic growth.

Significant capacity and safety improvements can be achieved by the addition of turning lanes at the signalized intersections of major driveways. It is also important to maintain the existing capacities along the arterials by minimizing the friction along these roadways. Frequently, capacity problems and friction are caused by the proliferation of driveways or on-street parking. No new driveways should be permitted along arterials, unless the property owner has no other option, and no on-street parking should be allowed.

**Collectors**—The role of the collectors is to provide for through traffic on a more local basis and to sometimes serve adjacent communities. Collectors act as connections between the higher classification of roadway, the arterials, and the lower classification of roads, the residential or local street. Their purpose is to collect the traffic from residential streets and to bring the vehicles to the arterials in an organized fashion with a minimum amount of intersections. The intersections between the collectors and the arterials are prime candidates for signalization.

Collector roads are expected to carry in the range of 1,000 to 8,000 vehicles per day, an amount of traffic not conducive to a quiet and safe residential atmosphere. They should be two lanes wide, with a provision for an additional turn lane at intersections with arterials. Access to adjacent properties from collectors should be permitted for certain major users only, such as public buildings, or commercial establishments. Driveways to single-family homes should be discouraged off of collectors.

**Local Roads**—Southeast’s local roads comprise the majority of roads in the network, fulfilling the function of access to adjacent land. They are not meant to carry much through traffic. Speeds should be slow and daily volumes should be below 2,000 vehicles.

In Southeast, some of these local roads are dirt roads (both improved and unimproved). These roads have no separate drainage systems. In some areas the roads do not meet Town standards for width or grade. If some of these roads were paved or if their population densities grew, they would probably become collectors. These include Fields Lane and Pugsley Road.

## **8.2 PROBLEMS IN THE EXISTING ROADWAY SYSTEM**

In many communities, conflicts are apparent in the functional classification. The most frequent source of complaints regard streets lined with single-family homes that must serve through traffic. Often communities have permitted residences to develop along regional roads because of the short-term infrastructure savings. By allowing homes to be developed along existing arterials, new roads are not necessary in the short-term. As traffic volumes increase, however, conflicts worsen.

There are two basic types of traffic conflicts within Southeast’s road network:

- **Capacity Problems**—Capacity problems occur where the existing roadways and intersections are operating at or close to capacity during peak hours. Route 22 between

Putnam Lake Road and Milltown Road is one of the locations experiencing capacity problems today. (NYSDOT is evaluating plans to address capacity on Route 22.) Route 312 also experiences capacity problems at the unsignalized intersection with the westbound on/off ramp of I-84.

- **Conflicts in Functional Classification**—There are two types of conflicts in functional classification: (1) an arterial being used to provide direct access to residences via driveways or numerous residential streets; and (2) a collector road or a residential street being used by through traffic. Locations in Southeast where arterial functional conflicts currently exist are Route 6 through Brewster and Route 312. Turk Hill Road and Fields Lane are collectors that are being used by through traffic to gain access to I-684 at an interchange farther south. Route 312 requires improvements to handle existing capacity and is being evaluated as part of the Town’s Transportation Improvement District (see below). Fields Lane has been improved but may require additional planning to avoid continued functional problems.

In addition, new roads or road improvements are often proposed as part of new commercial or residential projects. These roads should be evaluated carefully to ensure that they fit into the existing hierarchy in a logical way and support Southeast’s existing network in a way that benefits the Town.

The Town should seek to avoid the continued construction of neighboring residential subdivisions or commercial developments that have no shared circulation. The lack of a network of through connections forces all car trips out onto the few existing collectors. Over time, these roads become overburdened. The eventual widening and straightening permanently changes the character of Southeast’s older, winding, tree-lined roads. New subdivisions, particularly residential ones, should have through street connections with existing neighboring subdivisions. This kind of road network disperses the impact of traffic, preserves the country nature of the existing collector roads, and encourage more social interaction between subdivisions.

### **8.3 ROUTE 22 CORRIDOR IMPROVEMENT**

In 1988 NYSDOT issued a study recommending the northward expansion of I-684 along the Route 22 corridor, from the southern start of Route 22 to Route 55 in Dutchess County. The plan called for the current arterial to be expanded to two lanes in each direction, with a 40-foot center median, and limited access with jughandle turning lanes. The Town, while recognizing the regional need for improvements along Route 22, noted that the State’s plan would dramatically alter the character of the area, damage the prospects for continued commercial development along Route 22 in Southeast, keep open a window for future additional lanes and possible new interchanges, and would require substantial takings of property, including the site of the historic Old Southeast Church.

The State has revised its plans for the Route 22 corridor and has presented design alternatives for the portion of Route 22 from the end of I-684 to just north of Doansburg Road. The alternatives being considered would widen the road from two lanes to four lanes but would have different treatments in each of three segments identified throughout the corridor. Segment 1 extends from I-684 to just south of Milltown Road. Segment 2 runs from Milltown Road through the intersection with Route 312. Segment 3 extends from Route 312 to just north of Doansburg Road. It was recognized that each of these segments has a distinct character and that a “one-size-fits-all” roadway design would not balance the multiple needs of Route 22 to provide regional through-traffic and local shopping traffic (especially in the area designated as Segment 2).

The Town supports the proposed improvements and would encourage NYSDOT to work with Town representatives and citizen groups to further define the project and any measures to minimize environmental impact.

The Town has separately undertaken efforts to designate a new service or collector road to run parallel to Route 22 south of Doansburg Road to Milltown Road. The new collector would provide access to the commercial development along the east side of Route 22 and relieve some of the congestion along Route 22. The *1992 Master Plan* includes a proposed alignment for this new collector. Northern portions of this road have been constructed.

This proposed Route 22 collector should be included on the official Town map. New York State allows municipalities to plan for future road needs using their official maps. Once a roadway is adopted on such a map (a “paper road”), any new development is required to incorporate the road in its site plan. Therefore, once the proposed collector alignment is drawn on Southeast’s official map, any future development along the now undeveloped eastern flank of Route 22 will have to be designed in such a way that future construction of the collector is not foreclosed.

#### **8.4 FIELDS LANE IMPROVEMENT**

Fields Lane has become a focus of economic development interest especially with respect to warehouse and outdoor storage uses. Because this area is relatively isolated from residential development, it is an appropriate location for these uses which add to the diversity of economic activity within the Town. The southern end of Fields Lane intersects with Hardscrabble Road in North Salem and an interchange with I-684. This location, with its proximity to Westchester County, fairly direct access to a major interstate, and its commercial zoning, makes this an appropriate location for these types of uses. This road has been improved to a two-lane paved road for nearly its entire length in Southeast. These improvements should enable any additional commercial development to occur within this area.

#### **8.5 TRANSPORTATION IMPROVEMENT DISTRICT**

As discussed in Section 7, one focal point of commercial development in the next twenty years is expected to be an 1,800-acre area around the I-84/Route 312 interchange. This area in Southeast’s northwestern quadrant has the advantages of good transportation location, beautiful views from its hills of the nearby reservoir, commercial zoning which permits large scale development, and large vacant parcels of relatively buildable land. Based on existing zoning, almost 7 million square feet of commercial space could potentially be developed here in the form of offices, warehouse/storage facilities, light manufacturing plants, hotels and conference centers, and in the OP-3 zoning district, housing. This estimate is an unnaturally high estimate because it does not consider the need for wastewater treatment, which in this location is possible due to suitable slopes and soils. Currently two of the “phosphorus offset program” treatment plants are proposed for this location. One is under construction (Emgee Highlands), the other is being reviewed by the Town (Campus at Fields Corner).

This area promises to be a significant commercial hub for the Town and for Putnam County. However, the level of development proposed cannot be built without roadway improvements. The roads in the area are a spectrum of nearly impassable dirt roads, passable dirt roads, two-lane county routes, and a multi-lane interstate. Southeast and the development community active in this area agreed to pursue creating a special assessment district that would fund the needed improvements.

Generally, landowners within such a district would be charged the costs (or some part) of providing the infrastructure improvements, relative to the benefit they obtain from these improvements. These property owners are considered to derive more benefit from the improvement than the general public, as the improvements are necessary for the proposed project's realization. The Southeast TID will work in this same way. Any necessary traffic improvements undertaken as part of new development within the TID (mitigation measures for traffic impacts) or any improvements undertaken by the Town should be coordinated under a policy and phasing umbrella and the costs shared between the Town and property owners who benefit. The Southeast TID would provide just such coordination.

The TID Phase One study was published in November 1990. The Phase One study evaluated existing and projected land uses within the proposed district and the traffic new development would generate. It also identified roadway improvements projected to be needed to accommodate the new development. A Phase Two study was completed in 1993. This study updated growth assumptions and traffic impacts for a later build year (2015) and presents the Comprehensive Financial Plan to allocate costs between the Town and property owners. It was determined that costs would be allocated based on trip generation from commercially zoned properties within the TID. The Town was granted authorization to create the TID by the New York State Legislature on September 24, 1997. The Town is currently updating the traffic and planning studies required for formal implementation of the TID but has not yet formally created the TID.

Article 12-A of Town Law outlines the necessary steps for implementing the improvement district. Section 209-c of Article 12-A states “[t]he establishment or extension of an improvement district shall be based upon a map, plan and report prepared in such manner and in such details as determined by the town board and such map, plan and report shall be filed in the office of the town clerk.” This set of documents—the map, plan, and report—are the critical elements for implementing the TID.

The map need not be a survey of each individual parcel but may be a compilation of tax maps that clearly defines which tax parcels are included. This information can be supplemented by information on current ownership to ensure that it is clear where the boundary lies. Figure 8-2 shows the approximate boundaries of the proposed TID. A more exact boundary line will be defined as part of the updated TID map, plan, and report.

The plan would include information on the improvements proposed, the maximum amount proposed to be expended for the improvement, and the proposed method of financing the improvements. The list of improvements would specifically define what transportation system measures are being considered (e.g., signalization, widening, re-striping) for specific locations within the TID. An estimate of construction costs for each improvement would be based on standard estimates and adjusted based on knowledge of specific conditions in the field. This information, as well as the proposed method for financing improvements, would be updated from the original TID reports prepared by Buckhurst Fish & Jacquemart.

The report provides the background planning and traffic engineering information that leads to the conclusions contained in the plan. Because almost ten years have passed and the development landscape has changed since the original TID reports were prepared, it is necessary to rerun some of the analyses based on updated traffic counts and analysis methodology, and updated land use build-out assumptions to determine what improvements will be required within the TID.

Specific procedures for public notice and a public hearing for an improvement district are also included in Article 12-A of Town Law.

Because of the increased interest in development in the I-84/Route 312 area, it would be beneficial for the Town to pursue implementation of the TID.

## **8.6 PUBLIC TRANSPORTATION**

### **RAIL SERVICE**

Southeast is served by the Metro-North Railroad “Harlem Line,” which runs from Grand Central Terminal in New York City to Wassaic in Dutchess County. The Town is unique in having two stations: Brewster Station in the Village and Brewster North Station in the Town.

The Brewster station has existed since 1849, establishing the village’s early economic centrality as the hub of Harlem Valley. The station, a handsome 1931 structure is itself the hub of the Village, and sits before the landscape backdrop of Marvin Mountain. The difficulty with the Village station has been the lack of parking. This problem first became apparent in the late 1960s, with the growth in the commuting population and White Plains’ emergence as a business center. In the early 1970s, the local residents began negotiations with Metro-North, the federal, State, and County governments to build a second station with sufficient commuter parking.

Brewster North Station was constructed in the railyards just north of the Village. Road access to the station and parking lot is provided by Independent Way from Route 312. The Town envisions that potential development could occur in this area that would enhance parking and take advantage of the locations proximity to the railroad and I-84. Section 5 describes what uses and design considerations would be appropriate for this location.

### **PARK-AND-RIDE**

In addition to mass transit by rail, carpool commuter service is provided by a park-and-ride lot at the intersection of Route 312 and Independent Way. This lot is a small link in the transportation chain. It could achieve more importance if Brewster North Station were developed as discussed in Section 5 of this *Comprehensive Plan*, especially if supported by bus service linking the commuters at this lot to new businesses around the I-84/Route 312 interchange and at Brewster North and existing businesses in the Village.

An informal park-and-ride appears to be located along Sodom Road, just off Route 22. NYSDOT at one time proposed to make a formal park-and-ride lot in this area in conjunction with the Route 22 improvements; however, it was determined that this could not be done without impacts to the adjacent reservoir. The Town encourages NYSDOT to seek other locations within the Route 22 corridor for a park-and-ride facility.

### **BUS SERVICE**

Public bus service is provided by PART (Putnam Area Rapid Transit). PART runs roughly east-west through the Town and links Southeast to Carmel and Patterson. It also brings residents outside the Village into downtown Brewster. The buses primarily serve the older, established residential areas and commercial strips: Peaceable Hill, North Brewster Road, and Routes 6, 312, and 22. Housatonic Area Rapid Transit (Connecticut) runs a bus from various points in Danbury to the Brewster train station.

In addition to the PART intra-county service, a number of private and Westchester County DOT bus companies provide limited commuter and regional bus service. There is also a senior citizen bus service and a limited employee van service. Not all these serve Southeast directly

## **8.7 BICYCLE CIRCULATION**

A regional bike path system is currently being considered within Putnam County. Two “rail-to-trail” paths are proposed along abandoned railroad lines: the Maybrook Path along Route 6 from Danbury and the Putnam Bike Path III roughly paralleling Route 6 from Carmel. These paths would be an asset to recreational resources of the Town.

## **8.8 COMPREHENSIVE PLAN RECOMMENDATIONS**

### **GOAL AND POLICY**

The Town of Southeast is committed to maintaining an efficient, uncongested, safe and well-maintained network of roadways to serve local and through-travelers, especially residents, businesses, and visitors. In addition, the Town is committed to maintaining the rural flavor of Southeast by protecting the character of many of its rural and scenic roadways.

### **IMPLEMENTATION ACTIONS**

To accomplish these goals, the Town of Southeast intends to:

- Create an Official Map of all roads within the Town. The Official Map would identify the classification of each road (arterial, collector, local street, etc.) and would identify any “paper streets” or planned roadway improvements. The Official Map would also identify designated scenic roads.
- Create traffic impact criteria that calls for maintaining the Town’s classification system on its roadways with respect to traffic volumes.
- Implement the Transportation Improvement District in the area of the I-84/Route 312 interchange.
- Enforce standards with respect to grade and width for private roadways to ensure safe and efficient flow of automobiles and emergency vehicles. Clarify standards within the Subdivision Regulations pertaining to responsibility for maintenance of roadway margins.
- Continue to enforce provisions for shared driveways and cul-de-sacs to provide better clarity with respect to allowed length (1,000 feet), width (18 feet), grade (10 percent maximum), and materials. Evaluate measures to ensure routine and long-term maintenance of private roadways or shared driveways by home-owner associations.
- Evaluate where new road connections between development areas could be created to alleviate congestion along collector roads.
- Continue to coordinate with Putnam County and New York State Department of Transportation on roadway improvements within Southeast.
- Encourage residents and businesses to comply with the Emergency-911 address changes. These changes would improve public safety for all residents and businesses.

- Scenic roads should be recognized as important community assets during the review of any development application. Where possible, all attempts should be made to maintain the functional classification of these roads.
- Amend the Town’s Subdivision Regulation to encourage creation of loop roads instead of multiple cul-de-sacs within new residential subdivisions where a loop road would not result in extensive impacts.
- Evaluate any proposals for new train service between Danbury and Brewster along the old railroad line paralleling Route 6.

## **8.9 ENVIRONMENTAL ANALYSIS**

The movement of people within a community is governed by how well transportation systems serve different geographic areas of the Town. If business, industrial, and residential areas grow and change, so too do demands on the transportation network. To ensure that roads and other modes of transportation meet the demands created by changes in land use and do not negatively affect the Town’s natural resources and scenic areas, the *Comprehensive Plan* recommends implementation actions that will preserve natural elements important to maintaining the quality of life in the Town.

### **NATURAL RESOURCES**

#### *ROAD CLASSIFICATION*

The establishment of traffic impact criteria for roads within the Town would designate thresholds for traffic volumes and ensure that existing or proposed roadways would have the capacity to serve transportation needs. Traffic impact criteria would also help in the determination of where future improvements might be necessary. The criteria could also ensure that unnecessary improvements in sensitive natural resource locations would not take place.

The *Comprehensive Plan* recommends that the Town determine locations of new road connections in conjunction with its land use strategies to avoid future congestion and ensure the smooth flow of traffic. New roads often result in an intensification of human presence in undeveloped areas, and in addition to greater traffic, introduce vehicle-generated pollutants from runoff. These pollutants affect the health and quality of surrounding vegetation, and the increase in traffic activity diminishes other forms of biodiversity as well, such as animals affected by automobile noise. To avoid unnecessary construction of new roads where they are not needed, the Plan proposes closer coordination of transportation objectives between state, county, and local agencies. This would ensure that any roads with functional problems would be addressed by the appropriate jurisdiction without duplication of resources. The creation of an official road map would chart existing or planned roadways in the Town so that there would no discrepancies between road classification.

#### *TRANSPORTATION IMPROVEMENT DISTRICT (TID)*

The enactment of the proposed Transportation Improvement District (TID) in the northwest quadrant of the community would benefit both natural resources and traffic efficiency over the long term. The implementation of the TID would diminish the impacts of increased pollution in wetlands and watercourses, and reduce the need to disturb habitat for road creation. Clearly defined road and infrastructure plans would help define developable areas, preventing new construction in open space or natural areas.



Roads need to be clearly defined, mapped, and reflective of the Town's land use plans to improve the transportation network without jeopardizing sensitive ecological areas. Southeast's TID would be updated in conjunction with other planning recommendations to reflect new traffic data and patterns as well as evolving land development practices with respect to the Watershed Regulations.

*PRIVATE ROADS AND DRIVEWAYS*

The Plan recommends changes to the subdivision regulations to encourage shared driveways in proposed residential areas and reduce the number of driveway curb cuts on residential streets. Combining driveways to limit curb cuts and reducing driveway widths would both improve traffic safety and reduce congestion along collector roads by decreasing the number of entrances onto streets. Combined driveways and reduced widths would also improve spacial efficiency with land coverage, diminishing the amount of asphalt area and surface disturbance such as vegetation removal and soil permeability.

*INTERMODAL NETWORK*

An improved intermodal network of buses, trains, and bicycle paths reduces the need for expansions to the road network and the introduction of larger thoroughfares through rural areas. Improved connectivity between these functions would provide alternate means of transportation for residents, reducing reliance on a single form of mobility. In the absence of intermodal transportation in areas of lower residential density, transportation options would remain limited to the automobile.

**WATER QUALITY**

Water quality is directly affected by the amount of impervious surface created by roads and parking lots. A carefully planned transportation network that anticipates specific types of user demands and restricts growth and development to appropriate areas would limit the need for additional roadways. Mechanisms such as a clearly defined road classification system, implementation of a TID, revised subdivision regulations to encourage shared driveways and limit size, and an improved intermodal transportation network would contribute to limiting the need for new road construction.

Any reduction to runoff generation, whether by smaller road construction or averting the need for a road completely, would be a proactive step in preserving the quality of surface water and groundwater in the Town. The transportation recommendations in the Plan would protect sensitive areas critical to water quality preservation such as wetlands, steep slopes and watercourses while providing an efficient means of connectivity to service future growth for the Town.

**COMMUNITY CHARACTER**

The character of Southeast is defined by its vast expanse of undeveloped land, open spaces, vegetation, and distinct rural "feel." The recommendations of the *Comprehensive Plan* would encourage preservation of the rural character through appropriate land use and transportation network improvements. ❖