

Town of Guilford



Transportation Plan

Town of Guilford
Planning and Zoning Commission
Transportation Planning Committee

Report to:

Board of Selectmen
Board of Police Commissioners
Planning and Zoning Commission

Effective: 2003, May 15

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Town of Guilford Planning and Zoning Commission
Transportation Planning Committee

Members of the Committee

Jennifer Allcock	Citizen Representative
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Arthur Benson	Chairman, Board of Police Commissioners
Valerie Brown	Citizen Representative
Mitch Cohan	Economic Development Specialist
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Transportation Planning Committee

Executive Summary

The Transportation Planning Committee has completed its assignment to review current transportation conditions, policies and resources of the Town of Guilford, and to propose a long range plan for improvement. To the Committee's knowledge, this is the first study of its scope conducted in the Town's history. Other studies have dealt with Rt. 1 and the Green and with bike ways; this study has endeavored to cover all relevant aspects of transportation for the entire town. It does not presume to be the final word on the Town's transportation policy, but is a foundation on which the Town's future visions and transportation policy can be built.

This effort has occurred at a particularly critical time. The Town has witnessed a period of rapid growth over the past twenty years that has transformed it from a quiet shoreline community with predominantly rural characteristics to a suburban community. While it has struggled successfully to retain many vestiges of its rural charm, it is nonetheless a suburban community with all the demands that accompany such status. Future growth over the next quarter century will increase transportation demands on existing streets and will require continual improvements.

In a regional context, this study has occurred during a period of unprecedented planning effort at state and regional levels to deal with transportation issues that have reached crisis proportions in some areas, and threaten to in others. Situated on I-95 and the Amtrak rail system, Guilford is very much affected by the conditions, and the policies that will be adopted to deal with them.

The Committee has endeavored to synthesize recommendations that have been made previously in other documents and forums, most notably the recently enacted 2002 Town Plan of Conservation and Development, with some new recommendations.

In Section 1 the Committee addressed issues of circulation and congestion in the central business area of Rt. 1 and the area around the Green. This has been an area of major concern to many residents. The Committee has proposed both short term and long term recommendations to alleviate congestion. The area of Goose Lane and Rt. 1 is a major concern, both currently

and long term; its improvement will require cooperation with the State Department of Transportation for remedy.

Section 2 addresses broader strategies to improve cross town connections with new roads that will redirect traffic away from the center, and provide more direct access for public safety vehicles and the general public.

Section 3 concerns improvements to the quality of roads in Guilford as raised by citizens in response to the Committee's survey of community opinion on transportation issues.

Section 4 focuses on preservation of scenic roads. It seeks to extend the success achieved by the Rt 146 and Rt 77 Scenic Road Committee to Rt. 80, and to apply these concepts to town roads.

Section 5 deals with pathways as one of the means to reduce public sensitivity to traffic—pathways of various categories to better separate pedestrians and cyclists from motor vehicles. The Committee believes that this subject will attract growing interest. However, conflicting factors of cost, environmental, aesthetic and safety concerns will require extensive analysis and public discussion to build community consensus around workable strategies.

Section 6 addresses policy issues of land use that give the town options for better use of its transportation resources. Many of these are long term issues, and can both improve transportation and the community's general quality of life. In some instances they also strive to achieve a better balance between auto and other modes of transportation. One of the more important tasks undertaken was a preliminary build-out assessment to determine areas of probable future sensitivity to growth. The results confirmed the need for several of the recommendations noted in Sections 1 and 2 above in order to relieve future congestion on Rt. 1. However, most other town roads appear capable of handling projected growth.

Sections 7 and 8 deal with public transit options: inter-municipal (between towns) and intra-municipal (within town). While Guilford's low population density and large size are not now conducive to the level of public transit that some members of the community would like, we foresee circumstances under which a public willingness to allocate more resources to these areas might grow. Both areas will require ongoing monitoring to take advantage of State and regional policies that could facilitate growth of public transit services in this area.

Section 9 concerns Law Enforcement and transportation. It addresses a subject raised by many citizens regarding speeding and observance of traffic rules. Objective evidence indicates that Guilford does not have major problems in this area, and has less relative to many other communities. Anecdotal evidence indicates that sensitivity to this issue is not limited to Guilford, and may reflect

more an evolution of public attitudes than a problem of law enforcement per se. It is also possibly a symptom of a community with rural roads attempting to adapt to the pressures of suburban growth.

Section 10 lists recommendations for improving the organization and administration of transportation policies and actions. While the committee found no serious problems, it set forth opportunities for improvement through formalization of lines of responsibility, better coordination, and more effective management of information resources.

Section 11 describes actions that citizens can take to improve conditions for transportation in Guilford.

Section 12 presents suggestions which the Committee believed were premature to make as recommendations without further study, but merited identification for future discussion and action.

The Committee hopes that the Board of Selectmen, the Board of Police Commissioners, and the Planning and Zoning Commission find this document helpful in defining their respective long term policies and goals.

The Committee further hopes that the Community will feel well served by this effort. We have endeavored to propose a wide variety of options where we can, and to formulate questions for community dialogue where we perceive insufficient consensus.

We therefore submit this report with the awareness that its ultimate value will be in the results that emanate from it.

Mission, Scope and Methodology

"trans-por-ta-tion 1. An act, process or instance of transporting or being transported. 3a. Means of conveyance or travel from one place to another b: public conveyance of passengers or goods, especially as a commercial enterprise." Webster.

Mission

The mission of the Transportation Planning Committee is to:

1. review the structure and make recommendations by which the Town of Guilford plans and manages its transportation resources; and
2. devise a set of goals, studies and plans to formalize transportation objectives for the next ten years.

Scope

Subject:

The study scope covers all matters pertaining to transportation over which the Town of Guilford exercises municipal authority as defined by Connecticut statute or Town ordinance, or which may be subject to authority external to the Town of Guilford, but which affect the Town.

Specifically covered are pedestrian and vehicular travel including auto, bicycle, bus and rail transport, and related land uses. Excluded are travel by boat and aircraft.

Organizational:

The Committee is organized under the Planning and Zoning Commission, within the general statutory authority of Connecticut Statutes Chapter 126, Section 8-23 Plan of Conservation and Development.

The Committee includes participants from: Board of Selectmen, Planning and Zoning Commission, Police Department, Police Commission, Public Works Department, Office of Town Engineer, Office of the Town Planner, the Economic Development Specialist and citizens selected to represent the public at large. Consultants were also engaged for additional technical resource and perspective.

The Committee invited other Departments and Commissions of the Town and non-governmental organizations whose expertise or involvement with issues under review was deemed pertinent to the Committee's mission.

Geographical:

The Committee considered transportation issues as they relate to the Town of Guilford, its connection to adjoining towns, and its connection to regional transportation resources on which its citizens and businesses depend.

Time:

The Committee conducted its work from July 7, 2001 to July 8, 2002 , at which time this report is being issued to the full Boards and Commissions with ongoing responsibilities for transportation for their final review and approval.

The report assumes a planning horizon of 25 years in which its recommendations and perceptions might evolve.

Other Studies:

The Committee notes for public reference the transportation study which was a part of the Route 1 West zoning study of 2001. This report provides useful information subject to future specific commercial developments in that area. Since its recommendations are contingent upon the nature, timing and patterns of development in that area, its recommendations are not incorporated into this report, but are noted for future reference as development options solidify.

Assumptions Underlying the Operation of the Town of Guilford Transportation Committee

The Committee has conducted its work within a conceptual framework defined by the following assumptions:

- 1 Transportation issues are derived from land use issues and geography. In order to rationalize and improve transportation, it is necessary to rationalize the land uses which transportation connects.
- 2 Over the next 20 years, the automobile will remain the dominant form of transportation. Our goal is to manage it effectively while evolving alternate modes of transportation to create viable choices.
- 3 Public transit will become increasingly desirable due to continued changes in family structure, aging of the population, and increasing costs of personal auto-based transportation. We must anticipate and assist evolution to an affordable system of public transit appropriate to the community's needs, and integrated to the regional infrastructure, and commensurate with the community's resources.
- 4 Public transit will not increase, nor will auto transit decrease until we change patterns and preferences for land use, and create greater density and proximity of related uses.
- 5 The substantial proportion of available resources for addressing transportation issues will remain under state and regional control, limiting Guilford's capacity to act alone on these issues, and requiring long term planning, coordination and careful prioritization.
- 6 Inevitably, conflicts will arise among alternative transportation goals and strategies. When such conflicts arise, they have been resolved according to the following hierarchy:
 - 6.1 Public safety is paramount.
 - 6.2 Environmental and economic considerations shall be balanced.
 - 6.3 Aesthetic and efficiency issues shall be balanced.
- 7 The Transportation Planning Committee sought the broadest possible input from knowledgeable government sources and the community at large. In the end the Committee's responsibility shall be to weigh all inputs, and recommend policies which shall benefit the community as a whole.

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Overview of Transportation in Guilford

Guilford is a community of 21,400 comprising 8,151 households as of Year 2000. Situated 15 miles east of New Haven, the closest metropolitan area, it is essentially a suburban bedroom community with no major industry concentrations other than agriculture, printing and medical services.

The Town is approximately 14 miles in length from north to south, and six miles wide from east to west at its widest point. It is bordered by the communities of Branford, Durham, Madison and North Branford, and by Long Island Sound.

Guilford's motor vehicle transportation system is built substantially on a structure of one interstate highway, I-95, and four State roads of Rts 1, 77, 80 and 146. These roads carry the major burden of traffic. As federal and State roads, they also spare Guilford the financial burden of their maintenance. Beyond these major thoroughfares, Guilford maintains a system of local roads of varying capacity totaling 145 miles.

These roads carry predominantly personal vehicular traffic. Guilford is the sixteenth largest town in land size, 49th largest in population, and 81st in density among Connecticut's 169 towns. These statistics establish the conditions which currently limit Guilford's opportunities for public transit within the community. Cost effective public transit, even when heavily subsidized, generally requires greater densities. Statistical Table 5 establishes Guilford's cohorts in the above measures as a means confirming that most towns of our size do not typically support public transit systems. Thus, the introduction of any such systems will require extraordinary public commitment, and equally strong management skill.

The local road system operates with relatively little congestion today. Observed congestion was limited to the section of Rt. 1 between River Street and Goose Lane during peak shopping and commuting hours. However, congestion will likely increase as a result of future growth unless corrective actions are taken. Hypothetical growth scenarios suggests that over the next 25 years, population could grow by 25% and traffic on major streets could grow by 33%. This may represent a 'worst case' scenario, but its avoidance will require long term planning and concerted community action.

Many of Guilford's roads appear to have evolved from pathways worn through the forests and fields by farmers making their way to and from Town. They are predominantly oriented north-south. Over time, they were ratified by pavement, but retain much of the character of the early days in terms of their contour and winding character. While such roads cause frustration to some newcomers transplanted from urban areas or suburbs with more modern road systems,

other newcomers and many established residents are committed to maintaining the rural characteristics of these roads in the face of suburban pressures, both for aesthetic and traffic calming objectives.

While many of the Town roads are oriented north and south, much of today's commuting patterns are oriented east and west, with many residents commuting west to New Haven and beyond, or east as far as Groton to Pfizer. I-95 and Rt. 80 are the principal corridors for such travel. I-95 is currently approaching its practical capacity during commuter periods. An expansion of the road over the next 10 years is currently underway from Branford to New Haven. A further expansion east from Branford through Guilford to the Rhode Island border is currently under study.

Much of the east/west travel to other towns is done by personal auto. Public transit is currently minimal, though expanding, and primarily focused on the commuter rush hour with no weekend travel. Guilford has had rail service for 150 years, beginning with its initiation between New Haven and Old Saybrook in 1852, and an extension to New London in 1870. Shoreline East commuter service is reviving this legacy after a period of dormancy and its expansion holds promise of becoming a significant element in Guilford's mix of transportation services in the long term.

It is extremely difficult to project future trends for traffic volumes in Guilford. However, the Community and its Government would benefit from considering the following historical and demographic trends:

1. The major growth in Guilford occurred in the 70's and 80's, largely as a migration from New Haven. This trend has largely ceased.
2. During that period of time and the 90s, the number of vehicles per household has also grown disproportionately, accounting for a level of congestion that exceeds the population and household trends. This trend may also moderate in the future. (See Statistical Table 6)
3. Current construction in Guilford appears substantially skewed toward upper income households at present, further reducing the probability of growth from shifting populations within the region.
4. However, increase in commuter rail options, coupled by any continued commercial office growth in Fairfield and New London counties, could generate an increase in households in the upper income levels, offsetting a more stable growth of that category within the region per se.
5. As the population ages, the number of 'empty nester' households may grow, and with that growth, the need for more public transportation.
6. If demographic trends continue, the number of single parent households may grow, with a commensurate need for public transit for children to alleviate the demand for transportation by sole wage earners.
7. The growth of telecommuting and consumer services supported by broadband communications, such as in-home shopping supported by

greater home delivery, may reduce the number of trips required per household/ per day, even as the number of households increase.

All of the above is speculative, but suggest areas that citizens and their government should monitor in devising relevant transportation policies for the future. What we know for certain is that transportation volume in the near term will continue to grow, and will require public investment and focused management to contain its negative consequences.

Accomplishments and Recommendations

The following sections of this report list the accomplishments which have occurred during the past year in the area of transportation, and recommendations of the Committee for future improvements. Many accomplishments are the result of efforts of Town departments in the normal course of their work, and not of the Committee per se. However, they are considered significant to the status and future of transportation-related issues, and are noted as appropriate to the responsible department or commission.

Certain recommendations make reference to future uses of land not now owned or controlled by the Town of Guilford. The reader should regard all such references as advisory in nature, and not an indication on the part of the Town of Guilford that it will acquire such land or that it intends to exercise the right of eminent domain over such referenced property.

This report is in all respects advisory in nature to the Commissions and Boards to which this Committee reports. Its recommendations are offered with the recognition that in many instances further study will be required by the responsible commission before it can exercise its authority to adopt and implement the recommendation. Some recommendations, while valid in their objectives, may prove unfeasible or uneconomical to implement upon more rigorous study. Further, many recommendations pertain to areas which ultimately fall under state jurisdiction. Therefore this report offers to the responsible commissions an agenda for consideration and incorporation into their routine deliberative processes over the coming years. It seeks the commitment of the Commissions to consider its recommendations, but does not presume to direct the commissions in the actions appropriately under their authority.

1 Congestion and Parking (Rt. 1, the Green and commercial areas)

Improvements around the Guilford Green and in the Rt. 1 commercial area are designed to improve safety, make circulation and parking easier, and reduce congestion. Map 1 shows the principal roadway related improvements in this area.

- 1.1 Recommendation: To improve traffic flow and safety at the intersection of Water Street with Whitfield St., the Police Department should study elimination of three parking spaces on Water Street eastbound, and study the creation of a right turn lane onto Whitfield Street to facilitate southbound turning and reduce congestion at times of increased traffic.
- 1.2 Recommendation: To improve line-of-sight for traffic traveling eastbound on Water Street at the intersection with Whitfield St., the Police Department should study and consider recommending to the State Department of Transportation elimination of two legal parking spaces on west side of Whitfield Street immediately north of its intersection with Water Street.
- 1.3 Recommendation: The Police Department should further review the merits of placing a stop sign for westbound traffic on Rt 146 (Boston Street) at the intersection with Park Street and, if necessary, a caution sign further east on Rt 146 alerting motorists to stop ahead. If the recommendation is deemed justifiable, the Department should consider an appeal of the State Traffic Commission. *[It is recognized that the State Traffic Commission has declined the Police Commission's recommendations on this matter on prior occasions over the past ten years, the most recent being August 2001. Accordingly, the Commission must proceed at its discretion when it believes that circumstances and new information will enable it to present the community's position in a manner that will achieve positive support by the State Traffic Commission.]*
- 1.4 Recommendation: The Board of Selectmen should improve the existing municipal parking lot behind Town Hall for more efficient utilization for parking, with lighting and landscaping that will be respectful of adjoining residential properties. (This recommendation is contingent in timing on the construction of the approved ambulance facility and relocation of emergency services from the current location to the new facility.)
- 1.5 Recommendation: The Board of Selectmen should facilitate the improvement of parking by owners of the parking lot on the north side of Water Street, west of Whitfield Street, which serves commercial enterprises on the west side of the Green and Water Street.
- 1.6 Recommendation: Institute continuous two way center left turn lanes in the area of Route 1 west of Exit 59 and east of Shoreline Plaza to facilitate traffic movement around left-turning traffic, improving safety and reducing congestion.

- 1.7 Recommendation: Coordinate traffic signals from Village Walk/Concept Park through River Street to assure optimum flow of traffic and minimize delays and backups.
- 1.8 Recommendation: The Board of Selectmen should coordinate with the Town of Madison in requesting ConnDoT to implement a complete interchange at Exit 60, Madison, in order to relieve traffic volume on Clapboard Hill Road and the Goose Lane- Route 1 intersection.
- 1.9 Recommendation: The Board of Selectmen should encourage commercial property owners adjoining the Shoreline Plaza to create, and in many cases re-establish, inter-property connections between their parking lots and that of Shoreline Plaza in order to reduce the flow of traffic onto Route 1 for the purpose of moving between these lots.
- 1.10 Recommendation: The Board of Selectmen should continue support for the efforts of the Rt 77/Rt 146 Scenic Roads Committee to obtain funding for enhancements to the intersections of Rt. 146 at Park and Whitfield Streets and crosswalks surrounding the Green.
- 1.11 Recommendation: The Board of Selectmen should consider developing a road to connect Route 1 with Boston Street in the approximate area somewhere between Village Walk and the east side of the Shoreline Plaza, in order to ease traffic congestion at the intersections of Route 1 with Goose Lane and State Street, and to facilitate pedestrian access from south of Rt 1. (See Map 2)
- 1.12 Recommendation The Board of Selectmen should consider developing a roadway connecting Rt 77 and State Street through the southern end of the property currently occupied by Adams Middle School, subject to construction of a new middle school at another location, in order to reduce pressure on North Street and provide better vehicular access from areas north and east to I-95. (See Map 2)
- 1.13 Recommendation: The Board of Selectmen should consider construction of a road east from State Street and south to Route 1 if and when major undeveloped parcels become available for development. Such road should be designed for optimum connection with the roads proposed in Recommendations 1.11 and 1.12. Together, these actions will achieve an integrated traffic flow that can relieve pressure on the intersection of Rt. 1 with State Street and with Rt. 77, and improve access to the development. (See Map 2)
- 1.14 Accomplishment: The Board of Selectmen has obtained from Walmart funding for enhancements to the intersection of Rt 1 at State Street to improve east-west vehicular left turns, and it has obtained funding to

extend sidewalks on the south side of Route 1 from State Street to the Shoreline Plaza.

- 1.15 Recommendation: The Board of Selectmen should consider at some future time acquiring a property on State Street which borders on the western parking lot of the Shoreline Plaza to create of a western entrance from State Street that will further reduce pressure on the Rt 1 intersection at State Street.
- 1.16 The Board of Selectmen should explore opportunities for creating a satellite public works facility north of the I-95 corridor to deploy a portion of the heavy duty equipment closer to areas of town which it will serve. The relocation would enhance efficiency, reduce traffic in the Town's commercial center, and reduce pollution from vehicles. Such site should be large enough to absorb the entire public works facility as a future contingency.
- 1.17 The Board of Selectmen should consider modifications to the intersections of Rt. 1 at Long Hill Road (northwest corner) and at Church Street (Rt. 77) (southwest corner) to improve turning radii for better safety and traffic flow. It would then be possible to provide a north-bound turn lane on Church Street onto Rt. 1.
- 1.18 The Board of Selectmen should consider providing protected left turn lanes along Rt. 1 (possibly with protected permissive signal phasing) as follows:
 - 1.18.1 westbound at I-95 Interchange 57
 - 1.18.2 eastbound at Long Hill Road
 - 1.18.3 both directions at Fair Street and State Street
- 1.19 The Board of Selectmen should support the widening of roads under I-95 at its three interchanges to four lanes in order to institute turn lanes to facilitate traffic flow. Additionally, the Board should consider requesting the DOT to provide a double eastbound turn lane from Rt. 1 into Goose Lane. (These options can be most effectively introduced if and when the State decides to expand of I-95 to six lanes east of Interchange 54.)

General Discussion

Congestion and parking were cited as major areas of concern by the respondents to the Committee's survey. The areas most frequently cited were Route 1 between the intersections of Long Hill Road and Goose Lane, and the area of the Green.

Our review of the area of the Green was conducted with a sensitivity to its historical, cultural and aesthetic character and a commitment to preserve it. Our recommendations for traffic flow represent efforts which can relieve congestion with minimal effort and disruption of the area. The intersection of Boston, Water and Whitfield Streets is particularly challenging, since its geometry does not lend itself to easy answers. The Police Department's statistics suggest that the structure of this intersection does not contribute to accidents, and may actually serve as a traffic calming feature. Nevertheless, the Committee felt that visibility from Water Street north on Whitfield could improve flow, as would introduction of a right turn lane on Water Street.

The appropriateness of a traffic signal at intersection of Whitfield with Boston and Water Streets was considered, but deemed inappropriate for a number of reasons. Accident experience is low; traffic volumes do not warrant it; the geometry of the intersection would make timing of signals difficult; and signalization is aesthetically inconsistent with the area.

The provision of a stop sign on Boston Street westbound at the intersection with Park Street would also facilitate traffic flow from Park and safety for pedestrians and vehicles, though this intersection has not experienced a high accident rate, in spite of the poor visibility of traffic emerging from Park Street.

We support the efforts of the Route 77 and 146 Scenic Roads Committee to obtain funding for modification of the intersections of Park and Boston, and Boston and Whitfield Streets that would create a better walking environment for pedestrians by reducing the crossing distances at those points.

Since Boston and Water Streets are part of Rt. 146, a State road, Guilford's requests for changes to these will require approval of the State Traffic Commission.

The issue of traffic circulation around the Green was revisited. While the Committee was not unanimous in its conclusion, it concluded that the current flow should be maintained, and that a circular flow based on designation of certain streets as one-way should not be recommended. There were no compelling reasons to change the current flow, and strong opposition from merchants to a one-way flow system that they felt would be disruptive to their businesses.

Parking around and near the Green was found to be adequate under normal circumstances. Parking spaces are generally available within reasonable walking distance of most destinations, most of the time. The key to this issue is the phrase "reasonable walking distance", the exact parameters of which vary by purpose of trip and length of time parked. We observed that during weekday business hours when the parking on east side of the Green near Town Hall and the Library is generally fully taken, there are usually ample spaces available on

the west side of the Green. Conversely, during Saturdays, when merchants are most busy and parking is tight on the west end of the Green, there are generally ample spaces on the east side of the Green. Traffic consultants tell us that the typical American will resist walking the width of the Green to shop, although common observation suggests that we often walk that distance and greater at a regional mall on a busy day. Adequacy of parking around the Green is in many respects more a matter of perception than substance.

Nevertheless, we must recognize that Guilford will inevitably grow, and there is likely to be a need for more parking to some degree in the vicinity of the Green. To this end, we have recommended that existing parking be enhanced to maximize its effectiveness and also to hopefully improve its aesthetic contribution to the area. Specifically:

- The municipal lot behind Town Hall needs refurbishment and may be able to expand its capacity internally if and when the existing ambulance facility can be demolished.
- The lot bordered by stores on Whitfield and Water Streets has potential to be reconfigured for enhanced capacity, safety, and aesthetics. However, this area is subject to shared ownership of four parties, of which the Town is the major one, and will require cooperation of all to accomplish any improvement.
- An informal arrangement has existed between the Town and St. George's Church regarding the use of the Church's lot. The Town intends to explore with the Church the possibilities for better using this space.

Concerning the municipal parking lot behind Town Hall, the Committee reviewed recommendations of prior studies which would place either a pedestrian or a vehicular connection from this lot to the library parking lot. After careful review, this committee concluded that such a connection did not justify the cost to the Town or inconvenience to affected property owners that it would entail, and that it would not provide a benefit over access between these lots afforded by existing sidewalks along Park Street.

However, the Committee does note that the existing municipal lot, in its current state, is typically full during business hours. The ability to maximize its capacity through reconfiguration of space within its current geometry and utilizing the space currently occupied by the ambulance garage is highly desirable. Furthermore, the expansion plans for the library suggest that having this space adequately lit for evening use is also desirable. All such improvements should be designed equally to respect and protect the safety, privacy and property values of adjoining property owners. If properly designed and landscaped, the refurbishment of this facility can enhance the general character of this area.

Route 1 poses a different set of challenges from the Green. It is the commercial center of the community and thus receives a greater volume of traffic. Yet there is growing concern about its aesthetic character and a commitment to preserve

it from the characteristics of sprawl that have afflicted this road in many of the communities it transverses. Added to this, the economic and environmental constraints to expanding this road to meet future needs mandate optimizing its use as much as possible within its current geometry.

Many respondents to the Committee's survey stated that they consider Route 1 congested all the time. Various measurements of traffic flow establish that this is not the case. However, during rush hour and noon hour on week days, and from 10:00 to 2:00 on many Saturdays, the capacity of Route 1 in its commercial center is sometimes strained and needs relief.

The commercial center of Route 1, from Long Hill Road to Goose Lane suffers from two fundamental problems. In the area between River Street and State Street, there is a relatively narrow road with short blocks, limited capacity to carry traffic, and delays created by the frequency of traffic signals. From State Street to Goose Lane, there is what may be thought of as a very long block which serves as a dam forcing, or 'funneling' traffic from the north and south to two intersections which cannot handle it efficiently.

Street improvements, such as those which will be introduced with the refurbishment of the Shoreline Plaza for the arrival of Walmart, can help to a small degree. However, the key is to create alternatives to Route 1 and its critical intersections in order to disperse traffic. A useful analogy is to replace the current funnels with a system that acts more like a sieve. Whereas a funnel generates a concentrated flow, with a backlog as it drains, a sieve has faster flow-through with little backlog because it has multiple holes for fluid to pass through. In this way, Recommendations such as Items 1.11 through 1.13 are intended to accomplish this.

Some members of the community may reject proposals to build more streets on principle, arguing that more roads will create more traffic. It is land use changes and population growth, not roads, that create traffic. Given the availability of land in Guilford, land use changes and population growth will generate more traffic in the future. The question then becomes what system of roads can best handle it.

Creating the proposed roads as alternatives for motorists to using the few key routes through town currently available, enables the town to relieve congestion where it now exists, and where it cannot be remedied by road expansion economically, environmentally or aesthetically. Further, creating roads such as one to connect Rt.1 to Boston Street can contribute to a more pedestrian-oriented environment by creating more direct routes between residential and commercial areas which can be more readily accessed by both pedestrians and cars.

The roads referred to in Recommendation 2 will also contribute to relieving pressure on Route 1 and the central district in the same way as those recommended in Items 1.11 through 1.13. It should be noted that no one of these recommendations is a 'silver bullet' for dealing with the problem of congestion in Guilford's core; each of them can make a contribution, and as a group they can help us to better cope with whatever growth Guilford will face in the future.

Similar to the intent of strategically defined new roads is recommendation 1.9, which encourages the inter-connection of commercial parking lots to facilitate the flow of traffic between them, and to minimize the need for traffic to flow onto Rt. 1. This conserves the existing capacity of the road by relieving it of unnecessary traffic and it improves safety. The Committee believes that this concept of parking interconnectivity should be applied wherever feasible.

Recommendation 1.6, calling for implementation of center left turn lanes is another example of the effort to improve efficiency of movement with minimal, if any, alteration of the road geometry. Such lanes would be created on Route 1 in the area between Goose Lane and Village Walk to facilitate turning into commercial lots with significant volume of traffic. The Committee's consultant estimates a flow efficiency improvement of approximately 25% at such points as a result of this change, with a corresponding improvement in safety.

One area of Route 1 which requires long term attention is the Intersection of Rt. 1 and Goose Lane, near Exit 59 (see Map 3). This intersection is bearing increasing traffic, not only due to the presence of Exit 59, but also because of the increasing development in the east end of Guilford and the west end of Madison, causing increasing flows of traffic by way of Route 1, Podunk/Clapboard Hill Road and Nut Plains Road/Goose Lane.

While the geometry of this intersection, in conjunction with the presence of exit 59 of I-95, does not allow too many expedient options for physical improvement, it cannot remain as it is in light of the probability of growth in future traffic volume. A partial solution to this problem is a joint effort by the governments of Guilford and Madison to encourage the State Department of Transportation to make I-95 Exit 60 a fully functional interchange in both directions in order to divert traffic from Exit 59. This will help Exit 59, but will not be a full solution in itself.

The added ramps in the I-95 Interchange 60 in Madison would remove about 400 vehicles in each peak hour from the US-1, Goose Lane intersection. This corresponds to a 25% traffic reduction in the a.m. and a 20% reduction in the p.m. peak hours.

Given regional and state-level priorities for transportation dollars, it is likely that a redesign/reconstruction of Exit 59 and the Rt. 1/Goose Lane interchange, or

an expansion of Interchange 60 will occur only when decisions are made about the possible expansion of I-95 to three lanes in both directions from Exit 54 in Branford to the Rhode Island border. Such decision is unlikely to be finalized for at least three years, and construction could be easily 10 years away. The Police Department and Town engineer will be monitoring accident statistics in the interim to determine if and when the situation requires more expedient remedies.

Certain elements of the recent traffic study of Boston Post Road West have been incorporated in the above recommendations where their execution would be most feasible and least disruptive to the community as a part of any future expansion of I-95 in this area. However, other recommendations of the Boston Post Road West study are regarded as contingent upon the nature and extent of development of certain parcels of land, and are therefore not included in this document as recommendations.

2 New Roads (Connector, feeder, town, private development)

The recommended new roadway connections in the Town are shown on Map 2.

- 2.1 Recommendation: The Board of Selectmen should continue to resolve funding issues relating to the Hubbard Road extension from Long Hill Road to the Saw Mill Road/ Rt. 77 intersection, and proceed with design and construction.
- 2.2 Recommendation: The Board of Selectmen should consider the following opportunities for constructing east/west road connections as town development patterns warrant:
 - 2.2.1 Bullard Drive to Rt. 77 (contingent on developments of the middle school campus.)
 - 2.2.2 Nut Plains West, to Route 77.
 - 2.2.3 Briarwood Road extension to Hahn Road and West Lake neighborhood
 - 2.2.4 Connector Road from Little Meadow Rd. /Hoop Pole Rd. to Rt. 77 between Rt. 80 and Stepstone Rd.
 - 2.2.5 Connector road between Podunk Road and Goose Lane.
 - 2.2.6 New England Road extension to West Lake Avenue.

Whenever possible, these connections should be constructed, by the developer, when new developments are proposed.

General Discussion:

The Committee believes that the roads are desirable in order to improve public safety by facilitating the movement of emergency vehicles when time is critical, and to allow better connections between various parts of town.

The road system in Guilford is substantially oriented toward north-south routes, with relatively few east-west connectors. Given that many of our roads have evolved from earlier trails, we may surmise that this probably reflects the orientation of earlier inhabitants to travel to the center of town, as well as physical constraints.

Today our travel patterns are much more diverse, and the current road configuration contributes to the congestion of an area we wish to preserve. Accordingly, the introduction of more east-west connections will bring a number of benefits. Among them:

- more efficient and timely access by emergency vehicles;
- more direct routes of travel, reducing fuel consumption and pollution, particularly for vehicles making frequent trips such as school buses and delivery vehicles;
- diversion of traffic from the center of town, specifically Rt. 1, thereby relieving it and nearby streets of unneeded traffic volume;
- alternatives to partial travel on Rt. 1, in the case of the Hubbard Road extension, when Rt. 1 becomes congested.

In North Guilford, the improvement/extension of Saw Mill Hill Road to Great Hill Road was identified for long term consideration if need arises. In general, the road system in North Guilford is considered adequate for existing and anticipated population density and land uses in the foreseeable future.

3. Town Road Improvement – existing roads: (safety, traffic calming, context sensitive design)

- 3.1 Accomplishments: The Board of Selectmen has adopted a policy of holding public hearings for all Road Improvements. Public safety is the primary consideration addressed in the design and construction programs. Public input is encouraged on all design issues.
- 3.2 Accomplishments: Engineering Department staff have attended three seminars in the past two years on Traffic Calming techniques.
- 3.3 Accomplishments: Two projects have been completed in the last year that have incorporated traffic-calming elements. South Hoop Pole and Podunk Road have been reconstructed with planted islands strategically placed to introduce gentle visual barriers and break up the longitudinal continuance of the new pavement. Motorists reception of the islands have been mixed but vehicle speed studies indicate that speed has not increased after completion of construction.

- 3.4 Accomplishments: The Sachems Head Association has petitioned the Town to install traffic calming measures on Colonial Road and Falcon Road. They have agreed to pay one half the cost of a speed table in the vicinity of the Association beach/tennis court road crossing and a circular planted island at the intersection of Colonial Road and Uncas Point Road. Construction is scheduled for July 2002.
- 3.5 Accomplishments: Context sensitive design considerations are incorporated in all project designs. The public hearing process allows review and input by all citizens to assure that aesthetic considerations are part of all project plans.
- 3.6 Recommendations: Guilford Capital Improvement Program should be funded sufficiently to upgrade the structure and safety of all Collector Roads on a priority basis. Investment in Guilford's infrastructure based on an adopted five-year plan is essential for orderly and conscientious stewardship of the Town's road system.
- 3.7 Accomplishment: The Committee has provided the Town Engineer and Superintendent of Public Works with responses to the survey regarding roads and conditions which the public believes require attention.

General Discussion

Guilford is the sixteenth largest town in the State with an area of 49.7 square miles. There are 145 miles of Town Road but with the development of land this number increases yearly. Maintenance of the road infrastructure including all drainage systems and bridges is vital to transportation and the economic health of the community.

The backbone of the road system are classified as major and minor collectors. Those individuals familiar with the roads listed in Addendum C should note the disparity in their physical conditions. Development and population growth over the past forty years have severely burdened a road system that was never designed for either the volume or speed of current vehicle use. Through Guilford's Capital Improvement Program, the Town is attempting to upgrade a road system that will first and foremost provide safe travel ways for the public. Complementary considerations have been inculcated into the design and construction program that respects scenic character and is sensitive to the context of the neighborhood through which the road passes.

Volume of traffic and improved vehicle design has resulted in increased public concern with a perception of excessive vehicular speed. This is not just a Guilford problem but is international in scope. All over the world traffic engineers are experimenting with techniques to slow down traffic or in the parlance of the time "calm" traffic. Experience on several projects and through

discussions at Public Hearings indicates that the public wants to slow down cars and trucks but does not necessarily want to experience the inconvenience of the available traffic calming measures. Time and experience will shape the Town's efforts to reign in our instinct to drive faster; we must realize that the Town cannot afford to place a policeman on every street.

As previously stated, maintenance of the existing road system is vital to the community. There is no natural constituency in the town to advocate for the proper funding of the Public Works Department as there is with the schools, fire and police departments but every citizen benefits from the maintenance of safe roads.

4. Scenic Roads – State and Town

4.1. Recommendation: The Board of Selectmen should expand the role of the Guilford component of the State Scenic Roads Advisory Committee for the purpose of defining town scenic roads and revising town ordinances to provide greater protection for town roads which are truly scenic. Among the areas to be considered should be the following:

4.1.1 Review and recommend criteria for official designation as Town Scenic Roads in Guilford and define the following three terms used in the present ordinance:

- a. highways with intensive development
- b. highways with intensive vehicular traffic
- c. major reconstruction, alteration, improvement and routine maintenance work

4.1.2 Identify and prioritize those town owned roads which meet the agreed criteria, define the state required exceptions (as in 1a) and 1b) above) and identify any other exceptions deemed advisable.

4.1.3 Define the terms used to describe road work (as in 4.1.1.c) above) which would require a Public Hearing.

4.1.4 Devise a town scenic road designation process and responsibility for that process, i.e. the Planning and Zoning Commission and/or the Board of Selectmen.

4.1.5 Recommend revisions to the present town ordinance and/or additions or changes in zoning regulations to describe all of the above recommendations. Such zoning regulations should include consideration of a Scenic Road Overlay Zone to regulate

development on private property abutting locally designated Town Scenic Roads.

- 4.2 Recommendation: The Board of Selectmen should initiate a request to the Scenic Road Advisory Committee to commence assessment and recommendation for Rt 80 to receive State Scenic Road status.

General Discussion:

Maintaining and protecting scenic roads was identified as important by many respondents to the Committee's survey. This task seems simple on the surface: 'Keep what you have as it is'. It becomes more complex in the context of an evolving society where few things remain constant forever. It is further complicated by the issue of rights of adjoining property owners as their exercise impacts roadways. State statute empowers the towns to designate scenic roads within broad criteria established by the State, and to protect them with appropriate local regulations.

The intent of recommendation 4.1 is to assure that the Town exercises foresight and sound judgement in protecting the roadways and vistas that it most cherishes. Where changes in such roads become necessary due to safety or other compelling factors, the recommendations seek to create a process that assures the protection of the road's scenic characteristics to the greatest extent possible. (See Addendum E for the proposed Amendment to the Town Zoning Code.)

Recommendation 4.2 seeks to make actionable a recommendation of the current draft of the Guilford Plan for Conservation and Development regarding Rt. 80. This road can serve to extend the accomplishments of the Scenic Road Advisory Committee with Rts. 77 and 146 to achieve a network of scenic roads. The Committee notes that the Madison's Plan for Conservation and Development designates its portion of Rt. 80 for scenic protection. This road extends for another fifteen miles toward the Connecticut River in substantially unspoiled condition. Given the possibility of development along this corridor, now is the time to preserve the character of this road.

5. Sidewalks and Pathways- pedestrian and bicycle

For purposes of this report, the Committee differentiates between sidewalks, which are exclusively for pedestrian use and prohibited for bicycle use by state statute, and pathways which are generally less formal in structure and may be used by pedestrians and/or bicyclists.

- 5.1 Recommendation: The Board of Selectmen should create a complete and integrated system of sidewalks within the central section of town. This plan should include specific details that resolve issues such as

funding and implementation over a defined period of time. (Map 4 shows existing and proposed sidewalks in the central area.)

- 5.2 Recommendation: The Board of Selectmen should extend sidewalks along Rt. 1 from Peddler's Road east to the Madison town line.
- 5.3 Recommendation: The Board of Selectmen should implement a pathway system between Baldwin Middle School (Bittner Park), the High School and Adams Middle School. This system, preferably of off-road multi-use trails, would in general follow Long Hill Road, Flat Meadow Road, Saw Mill Road and Rt. 77. (See Map 2, Multi-use pathway)
- 5.4 Recommendation: The (proposed) Neighborhood Centers should be the focal point for pathway development beyond the Town Center. The Board of Selectmen should create a process that defines these Neighborhood Centers. In addition, the Board of Selectmen should facilitate community involvement in the creation of pathways within those neighborhoods. (See Map 5, for the illustration of Neighborhood Centers that could become the focal points for pathway development.)
- 5.5 Recommendation: The Board of Selectmen should explore opportunities for expansion of pathways in Guilford. The Board of Selectmen should assess community interest, and it should encourage the pursuit of such opportunities whenever appropriate. The same recommendation applies also when related to pathways connecting Guilford with neighboring communities.
- 5.6 Recommendation: The Board of Selectmen should initiate action to place bicycle racks to be placed strategically in the center of town. The Board should further monitor such usage as another measure of community need for further deployment of these facilities.
- 5.7 Recommendation: The Planning and Zoning Commission should review plans for future subdivisions with provisions for pathways, and the retention of rights of way for future community pathway systems as appropriate.
- 5.8 Recommendation: The Town Engineer should incorporate provisions for pedestrians and cyclists in standards for future roadways and bridges.
- 5.9 Recommendation: The Police Department should consider installing signage at appropriate locations alerting motorists to exercise caution for bicyclists. This signage will promote greater awareness on the part of motorists for the presence of bicyclists on roadways.

- 5.10 Recommendation: The Board of Selectmen should communicate to the State DOT to return designated bike pathways to their proper specifications, including their markings and other road characteristics to allow for safe usage.
- 5.11 Recommendations: The Planning and Zoning Commission should consider requiring residential developers of subdivisions with properties abutting public roads to create, wherever feasible, a level area in the public right-of-way in front of their property in order to provide an area of safe passage for pedestrians off the roadway.
- 5.12 Recommendation: The Planning and Zoning Commission should consider requiring developers of new or modified commercial projects to install sidewalks along the roadway, and integrate them with adjacent sidewalks thus promoting the development of a networked grid.
- 5.13 Recommendation: The Board of Selectmen should issue a public notice reminding property owners not to plant, build on, or otherwise obstruct public rights-of-way abutting their properties. This public notice must also note the Town's right to enforce clearance of the right-of-way. This announcement should be issued in all local newspapers on an annual basis, preferably in the spring.
- 5.14 Recommendation: The Board of Selectmen and Board of Police Commissioners should explore the feasibility of designating a bike route from the terminus of the pathway proposed in Recommendation 5.3 to the Railroad Station and Harbor.
- 5.15 Recommendation: The Town Engineer should research the Town's abandoned trolley ways to determine the status of their ownership, and their appropriateness to be used in whole or in part in furtherance of community pathway systems.

General Discussion:

Pathways are both an exceedingly simple and exceedingly complex topic. They relate to our most basic modes of transportation, foot and bicycle. In the context of Guilford, implementing pathways is anything but simple for cultural, physical and economic reasons.

There are growing calls now in communities throughout our state and the nation for greater opportunities for these modes of transportation. This is very much a quality-of-life issue as much as a pure getting-from-here-to-there transportation issue. This fact does not diminish its importance in the eyes of many people. Consider the following:

- Travel by foot and bike is an option for many, but also a necessity for those who cannot drive—most notably our children. Without safe pathways, children are limited in their opportunities for social interaction within their neighborhoods and for independence. Older persons or the disabled are similarly limited in their ability to interact with others. As a result, a community cherished for its natural beauty imposes a subtle degree of social isolation for many of its members.
- Medical experts urge the American public to exercise more. Walking and biking are two of the most broadly accessible forms of exercise for most people. Many citizens have complained that Guilford's narrow country roads, though charming, are not safe for walking or biking. Indeed, some of our old narrow roads have poor lines-of-sight. Combined with a high volume of traffic, this results in putting pedestrians and bikers in close and hazardous competition with motorists.
- Many advocates of conservation and preservation propose shifting the auto-centric focus of our community toward a lifestyle that has a slower paced human scale, creating a less stressful environment. Those who embrace this ideal will find it difficult to realize. The distances between residences and many of the destinations that people want to reach are too far to be practical.

The Committee started the initial research on the issue of pathways making a distinction between those with a recreational function from the ones serving mainly transportation purposes. This proved to be confusing and irrelevant due to overlap of uses for the same facility.

The State statutes stipulate that bicycles cannot be operated on sidewalks. Bicyclists are required to use the roads and operate according to motor vehicle laws. Some residents, in response to the transportation survey, say that they want more roads to have painted bicycle lanes. The State requires these lanes to be four feet wide on each side of the road. This requires a road width that our older roads do not have. Resolving this issue by widening the roads could have unintended and unwelcome consequences. The character of our more scenic roads would almost certainly be lost. Environmental harm could result from the extended impervious surfaces. Furthermore, and ironically, the benefits intended for the cyclists would be greatly undermined by the fact that wider roads encourage more traffic and entice motorists to drive at higher speeds.

The safest and most aesthetically and environmentally acceptable option appear to be off-road trails for all types of non-vehicular traffic, but implementing these in Guilford presents its own set of challenges. In

general, the Town reserves a 10 ft right-of-way along town roads. However, in the case of older roads, a right-of-way of a consistent and adequate width does not always exist. This means that the town would have to acquire, or property owners would have to grant, rights of way in all these places. In many places where the right-of-way is adequate in dimension, the terrain may present daunting challenges to creating an economically feasible level right-of-way, including displacing vegetation or removing rock outcroppings. Even assuming that the town would be willing to bear the cost of such undertaking, it might encounter opposition of citizen groups who could argue that the effort would despoil the natural beauty of the area. Pathway development in Guilford may be impaired, or altogether prevented, by the argument of context sensitive design.

Some citizens have called for pathways through land not directly adjoining an existing road. The Police Department has pointed out that such pathways should be designed with consideration to safety and security, where a pathway may serve as a way of escape in less densely populated areas where unusual movement is not likely to be observed. It should be noted that many such trails do exist. Examples include the former aqueduct in Westchester County where safety and security issues have been addressed, and the real estate value of the abutting homes has increased.

The committee has in all its discussions referred simply to pathways, without a specific form in mind. This is due to the complexity of the debate, now apparent to us.

Finally, we need to look at financial considerations. Sidewalks, as currently developed in Guilford, cost \$24 to \$32 per linear foot, after site preparation costs which can vary considerably between particular sites. In the center of town funding of sidewalk construction is often shared between the Town and the land owner. Sidewalk construction is also undertaken on an opportunistic basis for the development of particular parcels. This is currently happening on a portion of Rt. 1 as a result of Wal Mart's remodeling work at the former Bradlee's site. The result is a piecemeal evolution of the sidewalk system. Recommendation 1 seeks to make this process more systematic and structured in the future. It also seeks to have the Town assume primary responsibility for funding sidewalks as it does for roadways.

Not all property owners embrace pathways as an improvement. This suggests that the idea of extending sidewalks without the Town assuming responsibility of funding may be difficult to implement. Some people understandably may not wish to be responsible for maintenance and legal liability on a public thoroughfare. This illustrates the kind of conflicts that must be resolved for any effective policy that seeks to expand sidewalks

and create pathways. In addition, there is a belief expressed by many that Guilford cannot be rural and urban at the same time. In their view “People who want sidewalks and similar amenities should return to urban areas.” Nevertheless, it is a fact that we have grown to become a community of suburban size with a road infrastructure and landscape of rural character. These conflicting perceptions of reality no longer co-exist as comfortably as they once did. The resulting tension is likely to grow with the size of the Town. We need a rational policy.

Recommendations 5.1 and 5.2 call upon the Board of Selectmen to consider creating a complete set of sidewalks in the central area of town where:

- population is dense,
- commercial enterprises are numerous, and
- sidewalks benefit not only immediate residents, but also many others, including visitors, who may expect to be able to walk.

We believe it is appropriate for the Town to fund this initiative because it will benefit the Town as a whole.

Recommendation 5.3 proposes to create a strategically located pathway. It would tie together three schools and two recreational facilities to give children greater and safer mobility in the area. It is the belief of the Committee that as residents in this area use the new pathways they would want more of them. The result will be that a constituency for these facilities will grow in our town, and along with it a willingness by the public to invest in them.

Recommendation 5.4 shifts the strategy from government to community initiative. In considering public calls for a more pedestrian-oriented environment the Committee concluded that there needed to be some functional basis for it. Further, it needed to be clearly focused, and not generalized to the Town as a whole. Indeed, the cost of an extensive network of pathways would be prohibitive given the size of our town.

Out of this quandry evolved the concept of Neighborhood Centers, (See Map 5) defined as a point of convergence for people in close proximity. Examples include schools and parks, neighborhood retail centers (such as the one at Stepstone Hill Rd and Nut Plains Rd,) Jacobs Beach, and the rail station. These centers should be accessible through pathways, without reliance on automobile transportation, whenever population density and safety issues make this option viable.

Potential impediments to this concept must be recognized. They include:

- Unwillingness by certain groups to use Town funding for initiatives that don't benefit the town as a whole,
- The assumption that some streets may not require pathways;

An example of this last point is the case of Stepstone Hill Rd./North Madison Rd./ Nut Plains Rd. area. Only the major roads there may justify pathways within a half mile radius of the neighborhood center, defined as the retail center and Guilford Lakes School. Side roads with less traffic may not actually need pathways for safe transit. Further issues to resolve include sharing in the burden of snow removal and maintenance of these pathways.

The Committee believes that Town government can be a facilitator for the development of neighborhood pathway systems. However, Town government should not commit to funding a system that will not benefit all unless there is a clear expression of community support. Thus the Town government can facilitate the process with expertise and administrative processes, but the commitment to fund any such neighborhood path system should evolve from the particular neighborhood involved.

The concept of 'neighborhood centers' has possible benefits beyond pathway planning. Neighborhood Centers can enable neighbors to become more connected. They may also be a platform that supports other activities that they might want to pursue as a community. The will of the community plays a key role in all this, which takes us to Recommendation 5.5

In sum, the Committee is aware that there is a diversity of opinion on the subject of the desirability of pathways, and about the willingness of citizens to fund them. We believe that a constituency in support of them can be built over time through:

- Education about the benefits, and
- Increasing awareness and exposure, reinforcing the education effort.

The citizens who are most committed to this proposition should be given the means to explore the options and engage their fellow citizens in supporting it. As a community consensus evolves a more explicit and expansive government policy can follow.

In addition to Guilford's efforts, other projects are evolving on a regional, state and interstate level to create bikeways and trail systems. Guilford should monitor such programs closely to integrate its efforts with these wherever feasible.

6. Land Use and Community Development

Recognizing that land use has a profound impact on transportation patterns, the following recommendations are offered to focus community and government attention on this critical factor in evolving a more efficient, environmentally compatible and cost-effective transportation system.

- 6.1 Accomplishment: The Committee, with the assistance of its consultants, has conducted a preliminary assessment of a build-out scenario pertaining to residential development in order to assess impact on the current road structure. It has determined that under current travel patterns the current road system of the town can handle future traffic volumes with the exception of the Route 1 area from Rt 77 to Goose Lane and principal intersecting roads, which would require modifications to handle the hypothetical build-out, as well as growth in travel through town.
- 6.2 Recommendation: The Planning and Zoning Commission should consider the formulation of a planning area which encourages development of a village- like community with density, scale and character creating a better balance between pedestrian and auto traffic and a higher quality of life for the residents of the district. This district can also form the core for evolving public transportation services for Guilford. The village area should be defined as the area south of the intersection of Rt. 77 and Saw Mill Road to the Harbor; from the intersection of Rt. 1 and Tanner Marsh Rd on the east, and Rt. 1 and Joan Drive on the west.
- 6.3 Recommendation: In conjunction with the village area described in 6.2, the Board of Selectmen should monitor the evolution of Town demographics and densities in order to determine if and when economically viable public transportation services can be introduced to selected areas of town. Such areas as the corridor defined by Rt. 1, Long Hill Road, Rt. 80, and Little Meadow Road may evolve in time to provide densities that can support public transportation services to the village area and rail station. (See Section 8 for further related recommendations)
- 6.4 Recommendation: The Board of Selectmen should undertake a planning process for the area of the Train Station to optimally develop land use oriented to the rail line. Such plan should include the following elements:
- 6.4.1 The Board of Selectmen should initiate a review of adequacy of vehicular, non-motor vehicle and pedestrian access to the rail station in conjunction with its pending reconstruction and expanded access from both sides of the track, and implement improvements.
- 6.4.2 The Planning and Zoning Commission should initiate a review of zoning of properties in the area of the rail station for appropriate expansion to mixed use commercial and residential, and reduced emphasis on industrial, with specific limitation of industrial uses which would generate heavy truck traffic into the area.

6.4.3 The Planning and Zoning Commission and Water Pollution Control Authority should undertake a review of sewage processing options that might better support higher densities of development that could make best use of an expanded rail facility.

6.4.4 The Board of Selectmen, Economic Development Commission, and Train Station Improvement Committee should explore opportunities to provide amenities for rail travelers which are not within the scope of the proposed access facility to be constructed by ConnDoT.

6.5 Recommendation: The Planning and Zoning Commission should develop a zoning concept for a community oriented retail center, limited in scope to meet neighborhood retail needs. This concept should include definition of permitted uses, size limits and design criteria, and should achieve the following objectives:

- convenience to the neighborhood served, improving quality of life;
- reduction of congestion in the central commercial district;
- reduction of air pollution through reduction of vehicular travel.

(Please see general discussion below and Addendum F for detailed description.)

General Discussion:

From its inception, the Committee has adopted the premise that land use should define transportation requirements if efficiency is to be achieved and sprawl it to be controlled. Currently this philosophy is contrary to that which has governed most land use and transportation policy in this country for much of the twentieth century.

The premise is founded on the assumption that the goal of transportation is to connect us with activities which occur in different locations. The more rationally and closely those locations are situated to each other, the less we need invest in transportation in resources and time, and the more we can devote to other needs.

Over time, this simple concept has been lost as land investment and transportation investment were driven by other narrower and uncoordinated policy assumptions to the point that we now face a situation in the state and nation where our transportation system is seriously stressed, and competing with other compelling needs for resources.

Clearly, the system and its underlying assumptions must be rethought, and then reconstructed. Equally clearly, it cannot be done quickly or cheaply. If it is to be done effectively, it must begin with how we use land from this time forward.

The preliminary build-out scenario was undertaken to give us a quick and broad look at the possible impact of residential development on the transportation system as it now exists. We say 'broad' because we recognized at the outset that such a study done properly would require more and better information than we could assemble in the time available to this project. Nonetheless, we concluded that a broad first try was an improvement on the Community's current knowledge base. Map 7 shows the estimated changes in population and increases in vehicle trips resulting from residential growth. Map 6 shows the additional daily vehicle trips on principal roads resulting from this growth. Statistical Table 2 gives further details.

The build-out study confirmed what the Committee intuitively expected: that a full build-out according to today's zoning standards and current development trends would have greatest impact on the east end of Guilford north of Rt.1, South of Rt. 80 and east of Goose Lane/ Nut Plains Road, where the greatest land is currently available.

Many of the recommendations cited in Section 1 of this report will help to manage the impact of such growth on the commercial center of town.

The recommendations pertaining to defining the Village of Guilford and an associated Transit District are intended to give Town planners and managers, developers and the general public a conceptual goal to which Guilford might evolve over time in a way that will facilitate environments which are more pedestrian oriented, and which can support public transit at a level that may be self-sustaining.

The concept of the "Village of Guilford" attempts to achieve a better balance between auto transportation and other means. Within this concept, utilization of the rail station and the area within a half mile radius of it holds unique possibilities subject to the support of enhanced rail transportation at the State level of policy and investment.

The proposal for community retail centers arises from the following reality. The Route 1 commercial area is of limited size, and therefore has limited capacity for expansion of retail businesses to meet the needs of a growing community. The road system is even more constrained. Strategies are needed to make the best use of the existing capacity, while redirecting uses that can be served as well elsewhere.

By redirecting certain categories of retail activity from the commercial center, neighborhood centers can serve the function of conserving Rt. 1's existing

capacity to the uses most appropriate to it. The concept of neighborhood retail centers presumes that:

- their size will be limited,
- their allowable tenants will be closely regulated as to nature of business,
- their design will blend with and maintain the sense of residential neighborhood,
- they will ultimately be welcomed by the neighborhood as an amenity and not seen as an intrusion.

An additional advantage of the community retail center is that it can be a vehicle for generating more pedestrian oriented environments within the town. Further, if coupled with affordable or senior oriented housing as a buffer, it can be further blended into the residential character of the neighborhood.

The community retail center concept has merit irrespective of the need to reduce traffic pressure on Rt. 1, and may be adopted by choice where community densities are sufficient to support it and attract private sector investment. However, its potential as a strategic option of necessity merits its consideration and formalization before that need arises. We perceive this proposal to be an intermediate to long term strategy for smart growth in Guilford. The concept is further described in [Addendum F](#).

7. Inter-town Transportation (I-95, rail, commuter bus, etc.)

- 7.1 Accomplishment: Review of the State right-of-way along I-95 through Guilford determined substantial adequacy of right-of-way to absorb addition of third lane in each direction and modification of access ramps without taking of adjoining property.
- 7.2 Accomplishment: A public information meeting was conducted in cooperation with three neighboring towns to prepare the public for commencement of construction on I-95 through New Haven, and to inform them of transportation alternatives.
- 7.3 Recommendation: In recognition of the current study of the expansion of I-95 and the probability (in the Committee's view) of eventual construction, the Committee supports the study and recommends that the Board of Selectmen request that the state to include in its scope the redesign of Interchange 59 and the expansion to full service of Interchange 60 in Madison.
- 7.4 The Board of Selectmen should propose acquisition, either by the State or the Town, of land on Rt. 80 to be reserved for possible use as a commuter parking lot in the event that growth along the Rt. 80 corridor in the future generates the need for car pooling or a commuter bus.

7.5 Recommendation: The Board of Selectmen should request State and regional authorities to continue and expand Shoreline East train service. Among enhancements to increase utilization of the service, authorities should:

7.5.1 consider operating shoreline east service throughout the day;

7.5.2 explore opportunities for providing service on summer weekends from New Haven to Mystic

7.5.3 improve bus connections to train stations;

7.6 Recommendation: The Board of Selectmen should support continuation of intermunicipal bus service, and should support its continued designated stop at the Town Green.

General Discussion:

Inter-town transportation resources are substantially beyond Guilford's influence, but clearly affect it. The Town is currently heavily dependent upon I-95, which is currently exceeding its desired capacity of daily rush hour traffic and summer weekend traffic. Rail and bus service are currently inadequate. Though subject to expansion during commuter periods, they lack sufficient inter-modal connectivity from their fixed routes to the ultimate destinations of many Guilford commuters to serve as viable alternatives to personal auto transportation. This situation is being improved through state and regional efforts but is unlikely to be significantly reduced in the near future. However, it can and should change over the long term for reasons of conserving environmental and economic resources and enhancing quality of life.

The nature of I-95 as a regional interstate corridor virtually mandates its expansion to three lanes in both directions to the Rhode Island border in order to meet the future increases in interstate traffic volume, but such expansion should not preclude the need to improve transit by rail and bus as well. Inter-municipal rail and bus travel will also remain vital to conserve the capacity of even an expanded I-95 into the distant future, for it is unlikely that I-95 can economically be further expanded beyond six lanes.

Expansion of inter-municipal public transportation services requires many elements to create a full system. The cost and resulting time-lines for implementation make this prospect a long term one. It can be accelerated if we, as individuals and as a society, are willing to alter our patterns of life to substitute some of the costs of personal transportation for public transportation, in return for the benefits of reduced pollution, reduced sprawl, reduced stress and reclaimed time.

Maintaining Shoreline East and inter-municipal bus service has been a continuing battle in the state legislature over the years. Both services are heavily subsidized and lightly utilized, making them a logical target for budget cutting. Politics, more than transportation policy, has accounted for their survival, due to the need to preserve even minimal service for those citizens who have no other options. The Committee recommends continued strong advocacy for such services by the Board of Selectmen in the belief that the need for them will grow. The Quinnipiac Bridge / I-95 construction over the next ten years provides added justification for continuing and expanding public transit services. Ultimately, the public's commitment to funding and using the services will determine their fate.

Regarding Recommendation 4.6, the Committee concluded that the existing route for inter-municipal buses to the Green is currently the most optimal in terms of the required turning radii required by buses and the central location of the Green to those people who currently depend on the service. The Committee notes that this service is not regulated at the Town level, but at the State level. The Town may offer input, but cannot define terms of service in and of itself. The Committee believes that the first order of priority should be, not to seek smaller buses, but to better utilize the buses available through definition of a service that more people might use.

8. Intra-town Transit

- 8.1 Recommendation: In order to facilitate commuting by public transit, The Board of Selectmen should explore, in cooperation with the Chamber of Commerce, and other business and municipal employers, the opportunity to create limited bus service within town to connect the rail station, and possibly commuter lots, to employers.
- 8.2 Recommendation: In order to facilitate the management of traffic on weekends during special events, the Board of Selectmen should work with various business and civic organizations to formalize resources and methods for managing traffic in the central area of town through a combination of satellite parking facilities and bus services from such facilities to events. Such service, if supported by sufficient events over time, may evolve into a limited public transportation service in conjunction with Item 8.1.
- 8.3 The Board of Selectmen should evaluate the utilization of existing municipal resources such as the school bus system and the senior citizen transportation vehicles to determine options for coordinating and expanding their use to provide broader community service.

- 8.4 The Board of Selectmen should sponsor, in conjunction with private sector and not-for-profit organizations, shared-ride and/or ride-on-request services which can provide transportation alternatives. This will provide benefit to the three largest users: school-aged children, the elderly, and disabled.

General Discussion:

The conventional wisdom of transportation planners, born of experience and statistical validation, is that communities such as Guilford historically have not been able to support public transportation. We do not have the density, and we are disinclined to surrender the convenience of the personal automobile for the benefits of public transportation, especially when the personal auto gets us to places faster and easier. However, several factors may make public transit more desirable in the future:

- Our population will continue to grow proportionately older, requiring more citizens to depend on public transportation options when personal transportation becomes less feasible economically or for reasons of health.
- The evolution of our service-oriented economy breaks down the simple point-to-point/ 9-to-5 commuter patterns that once existed. This has particular impact on children who do not have the means to drive, and thus depend on transportation from sources other than parents in order to have some independence and connection to the broader community.
- Evolution of family structures, with single parent households or “sandwiched” caregivers providing support for young and old family members simultaneously will further stimulate desire for transportation alternatives that give such caregivers alternatives to being the sole source of transportation.
- Any effective inter-municipal transportation system will require intra-municipal components at each end to complete travel connections.

The Committee perceives that there is an opportunity to evolve public transportation services within Guilford. But to do so will require combining the needs of three disparate markets: commuters, children and the elderly, in a way that can permit them to share transportation resources, and thus make expanded service viable. We believe that with experience and exposure, more people will come to value such resources and be willing to invest more in their expansion. The first step is to leverage what we have; to determine if we can use it in new ways. To do so may require modification of existing regulations which restrict use of resources under certain funding programs.

The results of the survey provide an interesting juxtaposition. Those respondents who use school bus transportation for their children are generally satisfied with the safety and reliability of the existing services. However, with 39% of respondents traveling to school by car, either driving themselves or being dropped off, it appears that the school bus service is underutilized. In order to attract more ridership, the efficiency and convenience of the school bus transportation system should be optimized. Perhaps this can be achieved in part by consolidating bus stops and reducing the time children spend on the bus.

In the survey, the Committee questioned the community to determine if their children needed greater transportation options for after school activities and access to Town resources. The responding parents rejected such a need by a small margin. These respondents also declined to pay a supplemental fee to support such a service. However, the Committee did receive affirmation from Youth and Family Services for the need for greater transit resources to be available to the community's youth for access to extra-curricular and community activities. Youth and Family Services' expression of need for such services should be taken seriously. However, in absence of a corroborating expression of interest from parents, the Committee feels that a basis for policy change does not currently exist, and that continued monitoring of this issue by public officials is certainly warranted.

9. Law Enforcement

- 9.1 Recommendation: The Police Department and the Town Engineer should conduct a systematic review of speed limits throughout Guilford's municipally controlled roads to determine that they are relevant to current road and neighborhood conditions and usage, to be reviewed by the Police Commission.
- 9.2 Recommendation: The Police Commission should initiate a public information procedure to inform the public of the process for communicating traffic concerns to the Police Commission for review and action.
- 9.3 Recommendation: The Police Department should initiate a public information program under the responsibility of the Police Department to inform pedestrians and motorists of the need for greater attention to care and courtesy in the use of public thoroughfares.

General Discussion:

Law enforcement is an essential element of the transportation management process. The public responded to the Transportation survey indicating its desire

for a greater concentration of law enforcement effort relative to perceived concerns of speeding and violation of other traffic laws.

The issues of speeding and general courtesy are complex for many reasons, and do not lend themselves to the simple solution that many would like. The first problem confronting the Committee lies in distinguishing between elements of the problem which are real, and those which are perceptions that are not necessarily supported by evidence.

In terms of defining the real dimensions of the problem, the Police Department looks first to accident statistics and finds that over the past ten years, the rate of accidents and fatalities on municipal roads has been low. Next the Department looks to the history of motor vehicle infractions receiving citations, and finds those to be reasonably consistent over time, with no significant increases proportionate to the level of enforcement effort.

The Police Department notes that it directs approximately 25% of its patrol personnel time to traffic enforcement. It believes that this is an appropriate level of resource relative to the Department's size and its other major responsibilities of responding to public safety emergencies and routine patrol for crime deterrence.

It also bears mention that Guilford is the 16th largest municipality in land area of Connecticut's 169 cities and towns, and the 49th largest in population. Since the survey reported complaints of speeding over a fairly broad section of town, the cost of increased enforcement effort in added manpower is unlikely to bear commensurate results in public perception of improved driving behavior.

Where speeding and driver conduct problems are substantive, the answer to the problem is not in more enforcement, but in enforcement more precisely targeted to the problem. The Police Department has recently added a new tool which will facilitate targeted enforcement: - the acquisition of a motorcycle. The motorcycle affords police the means to work more efficiently in congested areas to apprehend violators in a way that is not possible with a patrol car. In rural areas, the motor cycle is more easily concealed than a cruiser, and can operate on roads that do not afford a safe place to park a cruiser, a frequent logistical problem in Guilford for effective enforcement.

The other critical resource to effective targeted enforcement is citizen participation. Where there are individuals who routinely drive recklessly, or areas of town which are prone to problems due to the actions of specific commercial vehicles, as has been alleged in public comments, the willingness of the public to communicate specifics of such behavior which the police can effectively confirm and act upon is an essential resource to correcting such problems.

Frequently mentioned by the public is the belief that more stringent issuance of summonses instead of warnings by the police will achieve greater compliance. To the extent that the law provides discretion, the Police Department has favored a level of enforcement that it believes enhances public awareness without creating a punitive atmosphere.

Speeding and lack of courtesy among drivers and pedestrians are not conditions unique to Guilford, and are unlikely to be solved within Guilford alone. While this does not argue that no measures should be taken, it is important for us to proceed with a sense of perspective and reality as to what can be accomplished within Guilford.

Much of the problem of “speeding” is a matter of perception. In many areas of town, speed limits are posted at unrealistically low levels. Traffic which travels at speeds that are deemed safe by today’s standards are technically in violation of the posted speed limit. The Police Department recognizes the need to systematically review all posted speed limits in town and to adjust them up or down as appropriate to current road and neighborhood conditions. This will commence with an update to the current Geographic Information System and acquisition of supporting equipment to facilitate the review.

Still another problem contributing to the perception of speeding is the fact that Guilford has evolved in a relatively short time from a rural character to a suburban character in many parts of the town. Yet its roads remain rural with few sidewalks. When more pedestrians compete with more motorists for roadway intended for motor vehicles, pedestrians and motorists will become more sensitive to speed, and are more likely to perceive speed as excessive. A pedestrian walking on the side of a road with a 3,000 pound motor vehicle approaching will understandably feel vulnerable, even though that motor vehicle is within the speed limit and being responsibly driven.

The answer to this anxiety is not in traffic enforcement, but in creating appropriate sidewalks or less formal pathways adjoining roads where traffic is heavy for local conditions. This issue is more fully addressed in Section 5.

10. Transportation Administration– Organization, Information, Policy and Procedures

10.1 Accomplishment: The Environmental Planner is coordinating the upgrade of the Geographic Information System (GIS) and the integration to it of systems and data developed by Engineering, Public Works and the Police Department to create a comprehensive database for transportation planning and management.

- 10.2 Recommendation: In recognition of the principle that land use should govern transportation strategy, the Planning and Zoning Commission should be primarily responsible for land use and related transportation planning.
- 10.3 Recommendation: the Board of Selectmen should be identified as the primary Town agency for transportation plan implementation and transportation management, and for long range budgeting.
- 10.4 Accomplishment: better staff level coordination has been implemented through regular meetings of representatives from Engineering, Planning and Zoning, the Police Department and Public Works Department.
- 10.5 Recommendation: The Board of Selectmen should appoint an ad hoc committee to oversee any major planned project to assure that all relevant parties are adequately involved.
- 10.6 The Board of Selectmen should conduct an annual public forum on capital improvement projects to assure effective governmental and community input to the budget process.
- 10.7 Recommendation: When development plans have a transportation component, joint review shall be required by the Town Planner, Town Engineer and Police Department.
- 10.8 Recommendation: The Town Planner and Town Engineer should jointly develop formal communication protocols with the State of Connecticut Department of Transportation and with the various utilities (telephone, cable, gas and water) to coordinate long range planning for modifications, upgrades or replacements of infrastructure within Guilford.
- 10.9 Accomplishment: The Committee has approved a revised classification system for Town roads to serve as a basis for planning, setting of maintenance standards and budgeting. The classification system will be applied to references in appropriate town zoning ordinances. (See Addendum C and Map 8)

General Discussion:

When the Transportation Planning Committee was formed, the opinion was offered that perhaps a Transportation Commission should be formed as a result of the Committee's review. Accordingly, the Committee considered this issue. The Committee elected to defer consideration toward the end of its work in order to better judge it through the lens of the Committee's own experience in assessing the many issues it has addressed.

The Committee has concluded that the planning and management of transportation functions for the Town can be effectively achieved through greater formalization and coordination of existing resources, and that creating a new commission could in fact be detrimental. There are three main reasons for this:

1. Consistent with the premise that land use should define transportation requirements, the Committee believes that the establishment of a Transportation Commission apart from the land use planning responsibilities of the Planning and Zoning Commission will take transportation policy in the wrong direction, and separate it from the integral relationship it should have with land use planning. Historically in this State and the nation as a whole, Transportation has had a dominant policy presence over land management in terms of organization, funding and implementation. As a result, transportation strategies have evolved in a manner that too often insulates them from their consequences. This does not appear to be a condition worth replicating at the level of Town government.
2. The Town's recent experience suggests that the existing structure is not broken, and therefore does not need radical restructuring or replacement. The Committee notes that certain issues pertaining to roads and the railroad station have generated considerable public dialogue and sometimes have resulted in changes in government policy or practice. Controversy in Guilford can be as much a result of strongly held differences of opinion among community constituencies as it can be a reaction to government policy. It is noted that recent controversies have generally been satisfactorily settled through citizen dialog with the government, and government response. So long as this can continue within the existing structure, it suggests that the structure can evolve to meet future needs.
3. The creation of a new transportation commission inevitably will require support from the same limited staff resource that is currently shared among the Board of Selectmen, Planning and Zoning, Inlands Wetlands, Land Acquisition, Scenic Roads, Water Pollution Control Authority and Economic Development Commissions and the Police Department. This staff resource has recently been stretched by a number of priority issues presented to it by the existing organizations cited above. To create a new commission for transportation issues will result in:
 - diminishing the effectiveness of current staff resource across expanded responsibilities; or
 - increasing cost of government to adequately staff an expanding commission structure; or
 - creating a new commission without adequate staff support.

The Committee's consultant notes the communities of Guilford's size typically do not have a separate transportation department; only large cities require this specialization of resources.

Another justification put forth for a Transportation Commission was to have an explicit point of reference for the community to address concerns about transportation related issues. To this, the Committee concluded that the Board of Selectmen, as elected representatives of the community, is the logical point of reference for issues that do not otherwise have a clear definition of responsibility to a particular Town department, or do not receive a clear response.

Nevertheless, the Committee does recognize the need for better coordination among the various departments and commissions involved with transportation. Recommendations 10.2-5 and 10.7-9 endeavor to clarify responsibilities and the need for coordination.

Equally important as the organization of staff resources is the organization of informational resources. During the course of this project, and with support from the Committee's budget, the various Town departments involved with transportation and land management issues are integrating their information systems to better share information. This is an accomplishment which is only evident to the public in the long term in relation to effectiveness of transportation planning and maintenance, but it is a critical first step to improving those results.

Although the survey reported general satisfaction with the quality of road maintenance, the Committee noted that the informal nature of the Town's five year capital plan does not provide an adequate tool for fiscal management of the Town's transportation needs, or effective communication of financial requirements to the general public. The importance of communication with the public was demonstrated in the recent budget referendum regarding the question of the Hubbard Road extension. Recommendation 10.6 is intended to address this need.

11. The Citizen's Role

This section addresses actions which citizens can take to improve the environment for transportation in Guilford. As boards and commissions with responsibility for transportation issues consider public policy, it is important to communicate to citizens their critical role in successfully implementing public transportation policy.

1. Whenever possible, travel by plan and not by impulse. Consolidate travel when possible to accomplish in one trip what you might otherwise have done in multiple trips. When possible, travel outside of the known periods

of congestion: typically week day commuting periods, week day Noon hour, and Saturday between 10:00 and 2:00 p.m.

Such actions will conserve our time and energy, reduce frustration, reduce pollution, and use existing road capacity more efficiently.

2. Exercise the courtesy and care as a pedestrian, cyclist or motorist that you wish to become the standard of this community.

This is the quickest, least costly and most pervasive form of traffic calming that we can implement as a community. It will not eliminate the need for more assertive measures in certain circumstances, but neither is there an effective substitute for citizen awareness and responsibility.

3. Become informed of public transportation options, and use them when feasible to reduce road congestion and pollution, and save personal resources. Usage is the most powerful vote for continuing subsidy and expanding opportunity for public transportation.
4. Support taxpayer investments in creating and maintaining effective roads, pathways and related infrastructure.

The connection between transportation and quality of life is becoming more apparent to us as transportation becomes more constrained and limits the liberty we once associated with it. Clearly, we cannot buy our way out of this issue, but neither can we ignore prudent investment.

The budget referendum on the Hubbard Road extension made evident to Town officials the importance of sufficiently informing citizens about the reasons for investment in transportation. Equally important is the need for citizens to view such proposals with a critical and informed perspective.

12 Visions for the Future

The following suggestions are offered by the Committee for long range community consideration. The Committee believes that these suggestions may have merit in the future but has not established the basis of information at this time to formally recommend them.

- 12.1 In conjunction with the possibility of expansion of I-95 through Guilford at some future time, the Board of Selectmen should register with the South Central Region Council of Governments and the Connecticut Department of Transportation its support for the concept of pathways to be constructed along the I-95 right-of-way.

- 12.2 The Board of Selectmen should communicate to the Connecticut Department of Transportation a request to widen shoulders of Rt. 1 to a width that would accommodate painted bike lanes where rights of way make this feasible. This request should be undertaken during routinely scheduled re-paving projects by the DOT.
- 12.3 The Board of Selectmen should consider coordination with utilities to place communication and power lines below ground in central areas of Rt. 1, the Green, Boson and Whitfield Streets, and to install street lighting that will be appropriate to pedestrian and vehicular traffic, and will enhance the aesthetics of the central village area.

This recommendation is partly functional, but largely aesthetic in nature. However, due to its possible cost, it can be best implemented in a coordinated basis with utilities as they plan to replace poles periodically, and possibly in conjunction with replacement or extension of sidewalks and pathways.

- 12.4 The Board of Selectmen, in coordination with the Board of Education, should review purchasing and contracting standards for vehicles and vehicular services to assure that their pollutant emissions factors meet relevant State standards, particularly with respect to diesel emissions. Where economically feasible, the Boards should assess retrofitting current fleet components to reduce emissions to appropriate State standards.”

Addendum A

TOWN OF GUILFORD

Transportation System *Strengths and Weaknesses* *A Summary by Herbert Levinson, Consultant to the Committee*

Strengths

- I-95 with three interchanges in Guilford provides good regional access
- Route 1 and Route 80 provide additional east/west access to 1-95 as well as provide for "commercial/industrial corridor" in town
- Limited number of curb cuts along Route 1
- Narrow streets are in scale with historic town center
- State designated Scenic Highways, Routes 146 and 77
- Scenic quality of the town's roads
- Route 77 provides a centralized north/south route for additional regional access
- Train station located within town center
- Sidewalks in town center and along Route 1 adjacent to town center

Weaknesses

- Gaps in sidewalk system within the town center and along Route 1
- Sidewalks lacking within "neighborhood centers"
- Limited number of safe bicycle routes
- Lack of left turn lanes on Route 1 at key intersections (Long Hill Road and State Street)
- Intersection of Route 1 and Goose Lane and the 1-95 exit 59 interchange - poor geometry
- Pressure on 1-95 exit 59 interchange due to incomplete interchange at exit 60
- Lack of east/west streets, particularly between Long Hill Road and Route 77
- Thru traffic in neighborhoods
- Low frequency bus service
- Limitations of train station (limited parking and lack of public transit connections)
- Limited parking available in town center

Town of Guilford Transportation Planning Committee
 Addendum B
 Recommendations Matrix

Accomplishments	a	13
Recommendations	r	74
		87

Summary of Recommendations by timeframe for implementation

1	43	58%
2	19	26%
3	12	16%
	74	100%

Summary of Recommendations by Point of Responsibility

Board of Selectmen	BOS	59
Board of Police Commissioners	BPC	7
Planning	PZC	8
		74

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend		
Status	Time Line	Responsibility
a Accomplishment	<i>period for implementation from time of report's adoption.</i>	
r Recommendation	1 - 1 to 2 years	BOS - Bd of Selectmen
	2 - 3 to 5 years	BPC - Bd of Police Comm.
	3 - beyond 5 years	PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
1	1.00			Congestion and Parking (Rt. 1, the Green and commercial areas)			
	1.01		r	In order to improve traffic flow at the intersection of Water Street with Whitfield St., the Police Department should study elimination of three parking spaces on Water Street eastbound, and study creation of a right turn lane onto Whitfield Street to facilitate southbound turning and reduce congestion at times of increased traffic.	1	BPC	
	1.02		r	In order to improve line-of-sight for traffic traveling eastbound on Water Street at the intersection with Whitfield St., the Police Department should study and consider recommending elimination of two parking spaces on Whitfield Street immediately north of its intersection with Water Street.	1	BPC	
	1.03		r	Further review merits of placing a stop sign for westbound traffic on Rt 146 (Boston Street) at the intersection with Park Street and, if necessary, a caution sign further east on Rt 146 alerting motorists to stop ahead.	1	BPC	
	1.04		r	Improve the existing municipal lot behind Town Hall for more efficient utilization for parking, with lighting and landscaping that will be respectful of adjoining residential properties. (This recommendation is contingent in timing on the construction of the approved ambulance facility and relocation of emergency services from the current location to the new facility. It is further contingent upon determination of the status of the current ambulance garage, which may be demolished or retained and restored for other uses.)	2	BOS	
	1.05		r	Facilitate the improvement of parking by owners of the parking lot on the north side of Water Street, west of Whitfield Street, which serves commercial enterprises on the west side of the Green and Water Street.	2	BOS	
	1.06		r	Institute continuous two way center left turn lanes in the area of Route 1 west of Exit 59 and east of Shoreline Plaza to facilitate traffic movement around left-turning traffic, reducing congestion.	2	BOS	
	1.07		r	Coordinate traffic signals from Village Walk/ Concept Park through River Street to assure optimum flow of traffic and minimize backlog	1	BOS	
	1.08		r	Coordinate with the Town of Madison in requesting ConnDoT to implement a complete interchange at Exit 60, Madison, in order to relieve traffic volume on Clapboard Hill Road and the Goose Lane-Route 1 intersection.	1	BOS	1

Transportation Planning Committee
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Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	1.09		r	The Board of Selectmen should encourage commercial property owners adjoining the Shoreline Plaza to create, and in many cases re-establish, inter-property connections between their parking lots and that of Shoreline Plaza in order to reduce the flow of traffic onto Route 1 for the purpose of moving between these lots.	1	BOS	
	1.10		r	The Board of Selectmen should continue support for the efforts of the Rt 77/Rt 146 Scenic Roads Committee to obtain funding for enhancements to the intersections of 146 at Park and Whitfield Streets and crosswalks surrounding the Green.	1	BOS	
	1.11		r	The Board of Selectmen should consider implementing a road to connect Route 1 south to Boston Street in the approximate area somewhere between Village Walk and the east side of the Shoreline Plaza, in order to ease traffic congestion at the intersections of Route 1 with Goose Lane and State Street, and to facilitate pedestrian access from south of Rt 1.	3	BOS	
	1.12		r	The Board of Selectmen should consider implementing a roadway connecting Rt 77 and State Street through the southern end of the property currently occupied by Adams Middle School, subject to construction of a new middle school at another location, in order to reduce pressure on North Street and provide better vehicular access from areas north and east to I-95.	3	BOS	
	1.13		r	The Board of Selectmen should consider construction of a road east from State Street and south to Route 1 if and when major undeveloped parcels become available for development. Such road should be designed for optimum connection with the roads proposed in Recommendations 12 and 13 in order to achieve an integrated traffic flow that can relieve pressure on the intersection of Rt. 1 with State Street and with Rt. 77, and improve access to the development.	3	BOS	
	1.14		a	The Board of Selectmen has obtained from Walmart funding for enhancements to the intersection of Rt 1 at State Street to improve vehicular turns, and has obtained funding to extend sidewalks on the south side of Route 1 from State Street to the Shoreline Plaza.			
	1.15		r	The Board of Selectmen should consider at some future time the acquisition of a property on State Street which borders on the western parking lot of the Shoreline Plaza to create of a western entrance from State Street that will further reduce pressure on the Rt 1 intersection at State Street.	3	BOS	

Transportation Planning Committee
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Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	1.16		r	The Board of Selectmen should explore opportunities for creating a satellite public works facility north of the I-95 corridor in order to deploy a portion of the heavy duty equipment closer to areas of town which it will serve for the purposes of enhancing efficiency, reducing traffic in the Town's commercial center, and reducing pollution from vehicles. Such site should be large enough to absorb the entire public works facility as a future contingency.	2	BOS	
	1.17		r	The Board of Selectmen should consider modifications to the intersections of Rt. 1 at Long Hill Road (northwest corner) and at Church Street (Rt. 77) (southwest corner) to improve turning radii for better safety and traffic flow. It would then be possible to provide a north-bound turn lane on Church Street onto Rt. 1.	1	BOS	
	1.18	1.1800	r	The Board of Selectmen should consider providing protected left turn lanes along Rt. 1 (possibly with protected permissive signal phasing) as follows:	2	BOS	
	1.18	1.1801	r	westbound at I-95 Interchange 57	3	BOS	
	1.18	1.1802	r	eastbound at Long Hill Road	2	BOS	
	1.18	1.1803	r	both directions at Fair Street and State Street	2	BOS	
	1.19		r	The Board of Selectmen should consider the feasibility of widening the roads under I-95 at its three interchanges to four lanes in order to institute turn lanes to facilitate traffic flow. Additionally, the Board should consider providing implementation of a double eastbound turn lane from Rt. 1 into Goose Lane. (These options can be most effectively introduced if and when the State decides to expand of I-95 to six lanes east of Interchange 54.)	3	BOS	
2	2.00			New Roads (Connector, feeder, town, private development)			
	2.01		r	The Board of Selectmen should resolve funding issues and proceed with design and construction of the Hubbard Road extension from Long Hill Road to the Saw Mill Road/ Rt. 77 intersection.	2	BOS	
	2.02	2.0200		The Board of Selectmen should consider the following opportunities for constructing east/west road connections as town development patterns warrant:			
	2.02	2.0201	r	Bullard Drive to Rt. 77 (contingent on developments of the middle school campus.)	1	BOS	
	2.02	2.0202	r	Nut Plains West, to Route 77.	3	BOS	
	2.02	2.0203	r	Briarwood Road extension to Hahn Road and West Lake neighborhood	3	BOS	
	2.02	2.0204	r	Connector Road from Little Meadow Rd. /Hoop Pole Rd. to Rt. 77 between Rt. 80 and Stepstone Rd.	3	BOS	

Transportation Planning Committee
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Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	2.02	2.0205	r	Connector road between Podunk Road and Goose Lane.	3	BOS	
	2.02	2.0206	r	New England Road extension to West Lake Avenue.	3	BOS	
3	3.00			Town Road Improvement - (safety, traffic calming, context sensitive design)			
	3.01		a	The Board of Selectmen has adopted a policy of holding public hearings for all road improvements.			
	3.02		a	The Engineering Department attended three seminars in the past two years on traffic calming/ context sensitive road design techniques.			
	3.03		a	The Town Engineer and Department of Public Works have implemented traffic calming features on South Hoop Pole Road and Podunk Road, and are in the process of doing so on Little Meadow Road. Community dialogue on the effectiveness of these measures is ongoing.			
	3.04		a	The Sachems Head Association has petitioned the Town to install traffic calming measures on Colonial Road and Falcon Road			
	3.05		a	Context sensitive design considerations are incorporated into all project designs. The public hearing process allows review and input by all citizens to assure aesthetic considerations are part of all projects.			
	3.06		r	The Guilford Capital Improvement Program should be funded sufficiently to upgrade the structure and safety of all collector roads on a priority basis consistent with the Five Year Capital Expenditure Plan.	3	BOS	
	3.07		a	The Committee has provided the Town Engineering and Public Works Departments with survey results indicating roads and conditions which citizens believe require attention. The Departments will review the responses and take action as appropriate.			
4	4.00			Scenic Roads - State and Local			
	4.01		r	The Board of Selectmen should expand the role of the Guilford component of the State Scenic Roads Advisory Committee for the purpose of defining town scenic roads and revising town ordinances to provide greater protection for town roads which are truly scenic. Among the areas to be considered should be the following:	1	BOS	
	4.02		r	The Board of Selectmen should initiate a request to the Scenic Road Advisory Committee to commence assessment and recommendation for Rt 80 to receive State Scenic Road status.	1	BOS	

Transportation Planning Committee
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Status	Time Line	Responsibility
a Accomplishment	<i>period for implementation from time of report's adoption.</i>	
r Recommendation	1 - 1 to 2 years 2 - 3 to 5 years 3 - beyond 5 years	BOS - Bd of Selectmen BPC - Bd of Police Comm. PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
5	5.00			Sidewalks and Pathways - Pedestrian and Bicycle			
	5.01		r	The Board of Selectmen should create a complete and integrated system of sidewalks within the central section of town. This plan should include specific details that resolve issues such as funding and implementation over a defined period of time.	1	BOS	
	5.02		r	The Board of Selectmen should extend sidewalks along Rt. 1 from Peddler's Road east to the Madison town line.	2	BOS	
	5.03		r	That the Board of Selectmen implements a pathway system between Baldwin Middle School (Bittner Park), the High School and Adams Middle School. This system, preferably of off-road multi-use trails, would in general follow Long Hill Road, Flat Meadow Road, Saw Mill Road and Rt. 77.	2	BOS	
	5.04		r	The (proposed) Neighborhood Centers should be the focal point for pathway development beyond the Town Center. The Board of Selectmen should create a process that defines these Neighborhood Centers. In addition, the Board of Selectmen should facilitate community involvement in the creation of pathways within those neighborhoods.	2	BOS	
	5.05		r	The Board of Selectmen should explore opportunities for expansion of pathways in Guilford. The Board of Selectmen should assess community interest, and it should encourage the pursuit of such opportunities whenever appropriate. The same recommendation applies also when related to pathways connecting Guilford with neighboring communities.	2	BOS	
	5.06		r	The Board of Selectmen should initiate action to place bicycle racks to be placed strategically in the center of town. The Board should further monitor such usage as another measure of community need for further deployment of these facilities.	1	BOS	
	5.07		r	The Planning and Zoning Commission should review plans for future subdivisions with provisions for pathways, and the retention of rights of way for future pathways as appropriate.	1	PZC	
	5.08		r	The Town Engineer should incorporate provisions for pedestrians and cyclists in standards for future roadways and bridges.	1	BOS	
	5.09		r	The Police Department should consider installing signage at appropriate locations alerting motorists to exercise caution for bicyclists. This signage will promote greater awareness on the part of motorists for the presence of bicyclists on roadways.	1	BPC	
	5.10		r	The Board of Selectmen should communicate to the State DOT to return designated bike pathways to their proper specifications, including their markings and other road characteristics to allow for safe usage.	1	BOS	

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend		
Status	Time Line	Responsibility
a Accomplishment	<i>period for implementation from time of report's adoption.</i>	
r Recommendation	1 - 1 to 2 years 2 - 3 to 5 years 3 - beyond 5 years	BOS - Bd of Selectmen BPC - Bd of Police Comm. PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	5.11		r	The Planning and Zoning Commission should consider requiring residential developers of subdivisions with properties abutting public roads to create, wherever feasible, a level area in the public right-of-way in front of their property in order to provide an area of safe passage for pedestrians off the roadway.	1	PZC	
	5.12		r	The Planning and Zoning Commission should consider requiring developers of new or modified commercial projects to install sidewalks along the roadway, and integrate them with adjacent sidewalks thus promoting the development of a networked grid.	1	PZC	
	5.13		r	The Board of Selectmen should issue a public notice reminding property owners not to plant, build on, or otherwise obstruct public rights-of-way abutting their properties. This public notice must also note the Town's right to enforce clearance of the right-of-way. This announcement should be issued in all local newspapers on an annual basis, preferably in the spring.	1	BOS	
	5.14		r	The Board of Selectmen and Board of Police Commissioners should explore the feasibility of designating a bike route from the terminus of the pathway proposed in Recommendation 5.3 to the Railroad Station and Harbor.	2	BOS	
	5.15		r	The Town Engineer should research the Town's abandoned trolleyways to determine the status of their ownership, and their appropriateness to be used in whole or in part in furtherance of community pathway systems.	2	BOS	
6	6.00			Land Use and Community Development			
	6.01		a	The Committee, with the assistance of its consultants, has conducted a preliminary assessment of a build-out scenario pertaining to residential development in order to assess impact on the current road structure. It has determined that under current travel patterns the current road system of the town can handle future traffic volumes with the exception of the Route 1 area from Rt 77 to Goose Lane and principal intersecting roads, which would require modifications to handle the hypothetical build-out.			
	6.02		r	The Planning and Zoning Commission should consider the formulation of a planning area which encourages development of a village- like community with density, scale and character creating a better balance between pedestrian and auto traffic and a higher quality of life for the residents of the district. This district can also form the core for evolving public transportation services for Guilford. The village area should be defined as the area south of the intersection of Rt. 77 and Saw Mill Road to the Harbor; from the intersection of Rt. 1 and Tanner Marsh Rd on the east, and Rt. 1 and Joan Drive on the west.	1	PZC	

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend		
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a Accomplishment	<i>period for implementation from time of report's adoption.</i>	
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	3 - beyond 5 years	PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	6.03		r	In conjunction with the village area described in 3.2, the Board of Selectmen should monitor the evolution of Town demographics and densities in order to determine if and when economically viable public transportation services can be introduced to selected areas of town. Such areas as the corridor defined by Rt. 1, Long Hill Road, Rt. 80, and Little Meadow Road may evolve in time to provide densities that can support public transportation services to the village area and rail station. (See Section 5 for further related recommendations)	2	BOS	
	6.04	6.0400	r	The Board of Selectmen should undertake a planning process for the area of the Train Station to optimally develop land use oriented to the rail line. Such Plan should include the following elements.	1	BOS	
	6.04	6.0401	r	The Board of Selectmen should initiate a review of adequacy of vehicular and pedestrian access to the rail station in conjunction with its pending reconstruction and expanded access from both sides of the track, and implement improvements.	1	BOS	
	6.04	6.0402	r	The Planning and Zoning Commission should initiate a review of zoning of properties in the area of the rail station for appropriate expansion to mixed use commercial and residential, and reduced emphasis on industrial, with specific limitation of industrial uses which would generate heavy truck traffic into the area.	2	PZC	
	6.04	6.0403	r	The Planning and Zoning Commission and Water Pollution Control Authority should undertake a review of sewage processing options that might better support higher densities of development that could make best use of an expanded rail facility.	2	PZC	
	6.04	6.0404	r	The Board of Selectmen, Economic Development Commission, and Train Station Improvement Committee should explore opportunities to provide amenities for rail travelers which are not within the scope of the proposed access facility to be constructed by ConnDOT.	1	BOS	
	6.05		r	Recommendation: The Planning and Zoning Commission should develop a zoning concept for a neighborhood oriented retail center, limited in scope to meet neighborhood retail needs. This concept should include definition of permitted uses, size limits and design criteria, and should achieve the following objectives: Inter-town Transportation (I-95, rail, commuter bus, etc.)	2	PZC	
7	7.00 7.01		a	Accomplishment: Review of the State right-of-way along I-95 through Guilford determined substantial adequacy of right-of-way to absorb addition of third lane in each direction and modification of access ramps without taking of adjoining property.			

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend		
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r Recommendation	1 - 1 to 2 years	BOS - Bd of Selectmen
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	3 - beyond 5 years	PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	7.02		a	A public information meeting was conducted in cooperation with three neighboring towns to prepare the public for commencement of construction on I-95 through New Haven, and to inform them of transportation alternatives.			
	7.03		r	Recommendation: In recognition of the current study of the expansion of I-95 and the probability (in the Committee's view) of eventual construction, the Committee supports the study and recommends that the Board of Selectmen request that the state to include in its scope the redesign of Interchange 59 and the expansion to full service of Interchange 60 in Madison.	1	BOS	
	7.04		r	The Board of Selectmen should propose acquisition, either by the State or the Town, of land on Rt. 80 to be reserved for possible use as a commuter parking lot in the event that growth along the Rt. 80 corridor in the future generates the need for car pooling or a commuter bus.	2	BOS	
	7.05	7.0501	r	The Board of Selectmen should request State and regional authorities to continue and possibly expand Shoreline East train service. Among enhancements to increase utilization of the service, authorities should:	1	BOS	
	7.05	7.0502	r	consider operating shoreline east service throughout the day;	1	BOS	
	7.05	7.0503	r	explore opportunities for providing service on summer weekends from New Haven to Mystic	1	BOS	
	7.05	7.0504	r	improve bus connections to train stations;	1	BOS	
	7.06		r	The Board of Selectmen should support continuation of intermunicipal bus service, and should support its continued designated stop at the Town Green.	1	BOS	
8	8.00			5. Intra-town Transit			
	8.01		r	In order to facilitate commuting by public transit, The Board of Selectmen should explore, in cooperation with the Chamber of Commerce, and other business and municipal employers, the opportunity to create limited bus service within town to connect the rail station, and possibly commuter lots, to employers.	1	BOS	
	8.02		r	In order to facilitate the management of traffic on weekends during special events, the Board of Selectmen should work with various business and civic organizations to formalize resources and methods for managing traffic in the central area of town through a combination of satellite parking facilities and bus services from such facilities to events. Such service, if supported by sufficient events over time, may evolve into a limited public transportation service in conjunction with Item 5.1.	1	BOS	

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend			
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	3 - beyond 5 years		PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	8.03		r	The Board of Selectmen should evaluate the utilization of existing municipal resources such as the school bus system and the senior citizen transportation vehicles to determine options for coordinating and expanding their use to provide broader community service.	1	BOS	
	8.04		r	The Board of Selectmen should sponsor, in conjunction with private sector and not-for-profit organizations, shared-ride and/or ride-on-request services which can provide transportation alternatives. This will provide benefit to the three largest users: school-aged children, the elderly, and disabled.	1	BOS	
9	9.00			Law Enforcement			
	9.01		r	The Police Department and the Town Engineer should conduct a systematic review of speed limits throughout Guilford's municipally controlled roads to determine that they are relevant to current road and neighborhood conditions and usage, to be reviewed by the Police Commission.	1	BPC	
	9.02		r	The Police Commission should initiate a public information procedure to inform the public of the process for communicating traffic concerns to the Police Commission for review and action.	1	BPC	
	9.03		r	The Police Department should initiate a public information program under the responsibility of the Police Department to inform pedestrians and motorists of the need for greater attention to care and courtesy in the use of public thoroughfares.	1	BPC	
10	10.00			Transportation Administration– Organization, Information, Policy and Procedures			
	10.01		a	The Environmental Planner is coordinating the upgrade of the Geographic Information System (GIS) and the integration to it of systems and data developed by Engineering, Public Works and the Police Department to create a comprehensive database for transportation planning and management.			
	10.02		r	In recognition of the principle that land use should govern transportation strategy, the Planning and Zoning Commission should be primarily responsible for land use and related transportation planning.	1	PZC	
	10.03		r	the Board of Selectmen should be identified as the primary Town agency for transportation plan implementation and transportation management, and for long range budgeting.	1	BOS	
	10.04		a	Better staff level coordination has been implemented through regular meetings of representatives from Engineering, Planning and Zoning, the Police Department and Public Works Department.			

Transportation Planning Committee
Addendum B - Table of Recommendation Priorities

Legend		
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	3 - beyond 5 years	PZC - Planning & Zoning Comm.

Sec	Ref	Subref	Stat	Description	Recommended Time Line	Resp	Note
	10.05		r	The Board of Selectmen should appoint an ad hoc committee to oversee any major planned project to assure that all relevant parties are adequately involved.	1	BOS	
	10.06		r	The Board of Selectmen should conduct an annual public forum on capital improvement projects to assure effective governmental and community input to the budget process.	1	BOS	
	10.07		r	When development plans have a transportation component, joint review shall be required by the Town Planner, Town Engineer and Police Department.	1	BOS	
	10.08		r	The Town Planner and Town Engineer should jointly develop formal communication protocols with the State of Connecticut Department of Transportation and with the various utilities (telephone, cable, gas and water) to coordinate long range planning for modifications, upgrades or replacements of infrastructure within Guilford.	1	BOS	
	10.09		a	The Committee has approved a revised classification system for Town roads to serve as a basis for planning, setting of maintenance standards and budgeting. The classification system will be applied to references in appropriate town zoning ordinances.			

Notes

- 1 The Recommended timeline reflects time for initiation. Accomplishment of result may be much longer due to dependency on other agencies beyond the control of the Town of Guilford.

Addendum C

Proposed Road Classifications

Amend Chapters 241 (Road Ordinance), 272 (Subdivision Regulation), and 273 (Zoning Code) of the Code of the Town of Guilford to conform with the following classifications.

I. Interstate Highways

I-95

Function: Provides for high volume, high speed travel with limited access between Towns. There is no direct property access.

II. Arterial Highways

Rt. 1 (Boston Post Road)

Rt. 77 (Church St/Durham Road) (from Rt. 1 to Durham Line)

Rt. 80

Rt. 146 (Boston St./Leete's Island Road)

Function: Provides for access between adjoining towns and service within the Town. Covers a large geographic area, connecting major generators and collector roads. Carries significant traffic at low and moderate speeds. These roads favor movement over direct property access.

Rights of Way and pavement widths are established by the State of Connecticut.

III. Major Collectors

Long Hill Road (Rt. 1 to Rt. 80)

State St./Little Meadow (from Rt. 1 to Rt. 80)

Goose Lane/Nut Plains (Rt. 1 to Stepstone Hill Rd.)

Stepstone Hill/North Madison Rd.

Clapboard Hill Rd.

Moose Hill Rd.

West Lake Ave.

Flag Marsh Rd.

Flat Meadow Road

Church St./Whitfield St. (Rt. 1 to Dock)

Function: Provides for access within the Town, connecting minor collector roads, and major traffic generators. May cover a large geographic area, or provide

connection between major collectors. Carries significant traffic at low and moderate speeds.

Right of Way should be established at 60 ft. where possible. Pavement width will vary from 24 ft. to 30 ft. depending on use, topography, scenic character and other factors.

IV. Minor Collectors

Long Hill/Great Hill Rd. (Rt. 80 north)
Hoop Pole Road (Rt. 80 to Rt. 77)
New England Rd.
Saw Mill Rd.
Nut Plains Rd. (Little Meadow to Goose Lane)
Tanner Marsh Rd.
Podunk/Squaw Lane
Murray Lane
Nortontown Rd.
River St/No. River St.
Broad St.
State St. (Rt. 1 to Broad St.)
Park St.
Mulbury Point Road (Rt. 146 to Daniel Ave.)
Sachems Head Rd. (to intersection with Vineyard Point Rd.)
Peddlars Road
Wildrose Ave./Three Mile Course

Function: Provides access to Town Roads and major generators and channels traffic to Major Collectors. Carries low volumes of traffic at low speeds.

Right of Way should be established at 50 or 60 ft. depending on use. Pavement width is typically 24 ft. but may be 30 ft. if warranted by special uses (e.g. industrial traffic) or conditions.

V. Local Roads

(All other Town Roads)

Function: Provides access to homes, businesses, recreation, government and other land uses. Does not typically connect other roads and serves a small geographic area. Traffic volumes and speeds are low.

Right of Way is typically 50 ft. and pavement width is 24 ft. with 22 ft. for cul-de-sacs and short streets serving a small number of homes or other uses.

VI. Private Roads

These roads generally are not maintained by the Town. They provide direct access to land uses and carry low volumes of traffic.

Addendum D

Zoning Amendments Re: Transportation Plan

1. Create Scenic Road Overlay Zone (See Addendum E)
2. Amend Site Plan Application requirements as follows;
 - Add to 273-75 C. first paragraph, the following; “A traffic study by a qualified professional may be required (See 273-97 B (4) (b))”.
 - Add to 273-75 C. the following; “(9) Sidewalks, paths, bus shelters, and/or bike racks may be required when determined by the Commission”.
 - Add to 273-75 C. the following; “(10) Access Management Standards. In general and subject to the other standards of this section access for vehicles should be encouraged from streets with the lowest functional classification (see Proposed Road Classifications). Similarly traffic signals shall be located where they will maintain effective coordination. Signalized Access Traffic signals should provide a minimum through band of 35 to 40% of the cycle length based on an 80 to 90 second cycle and 35 to 40 mph operating speeds. Un-signalized access spacing should generally be not less than the following;

SPEED(mph)	SPACING(ft.)
20	150
25	150
30	200
35	200
40	250
45	250
50	300

Variations may be permitted when they would enhance safety or improve operations, or when reasonable access can not be otherwise provided.

3. Amend 273-28 Setbacks from street line. to incorporate Proposed Road Classifications (attached Addendum C and Map 8).
4. Amend Town Road Ordinance 241-9. Design standards to read as follows;

Design Parameter	Collector Roads	Other Town Roads
Minimum right-of-way (ft.)	60	50
Pavement width, face of Curb to face of curb (ft.)	24-30	22-24
Maximum center-line		

Grade	8%	8%
Horizontal curve*		
Minimum center-line Radius (ft.)	300	300**
Minimum stopping sight Distance (ft.)	300	300
Minimum center-line grade	1.0%	1.0%
Minimum intersecting street Sight line (ft)	300	300

*NOTE: Whenever street lines are deflected in excess of 2 degrees, connection shall be made by a horizontal curve. A tangent of at least 100 feet shall be provided between two successive curves turning in opposite directions having a radii less than 1000 ft.

** for permanent cul-de-sacs serving fewer than 20 lots, a radius of 150 ft. may be permitted.

Addendum E

Proposed Amendment to Town of Guilford Zoning Code Regarding Scenic Road Developments

Add a new section to ARTICLE V as follows;

“273-49a. Scenic Road Preservation.

Purpose The purpose of this Section is to provide a procedure to insure that new development adjacent to the Town’s scenic roads occurs in such a way as to minimize the negative visual impacts of that development on the character of those scenic roads. Furthermore, it is the purpose of this Section to encourage development practices which contribute to a pleasurable experience for the driver on the Town’s scenic roads specifically including traffic calming practices which are consistent with the safe use of those roads for both motor vehicles and for pedestrians.

No Site Plan, Special Permit or Subdivision Application may be approved by the Planning and Zoning Commission for any lot located within five hundred feet (500 ft.) of a scenic road so designated in 273-28 A.(1)(a) or a State of Connecticut designated scenic road except in accordance with this Section.

1. Upon receipt of a Site Plan, Special Permit, or Subdivision Application in area as defined above, the Commission shall refer said application to the Town Scenic Road Advisory Committee for their advice and comment. The Town Scenic Road Advisory Committee shall review said application and report in writing to the Commission, its advice, with regard to the issues described below and in accordance with the purpose of this Section.
2. In considering applications in accordance with the above procedure and purpose the Town Scenic Road Advisory Committee may consider the following issues;
 - Driveway locations including provisions for shared driveways
 - The location of parking areas
 - The location and orientation of buildings and other structures
 - Landscaping
 - Lighting
 - Signage
 - Excavation, grading and filing
 - Road design standards, including pavement width and material and roadway alignment
 - Traffic controls including signs
 - Other traffic calming measures

The comments of the Town Scenic Road Advisory Committee are advisory in nature. Nothing in this Section shall effect or amend the requirements of the Connecticut General Statutes with regard to the timing requirements for decision-making by the Planning and Zoning Commission.

Addendum F

The Community Retail Center Concept Pending Revision

As stated in the general discussion of [Recommendation 6.5](#), the Community Retail Center (CRC) concept was conceived as a tool to redirect vehicular traffic from the Rt. 1 commercial area when feasible in order to conserve the traffic bearing capacity of Rt. 1 for purposes most appropriate to it.

To achieve this goal, it is essential to move to residential areas only those retail services that can be made compatible with and supportive of a residential environment, and to exclude all others. To accomplish this, we make the distinction between *maintenance retail* and *discretionary retail*.

The chief characteristic of maintenance retail is that it relates to the provision of goods and services that people need or want frequently and therefore would be willing to have close to them for their convenience. Another critical characteristic is that, because the goods or services are purchased with frequency, the business can generate the critical mass of volume needed to survive within a reasonably limited geographic area, thus being 'neighborhood oriented'.

By contrast, discretionary retail relates to goods and services that people do not need or want frequently. The reduced frequency of purchase per person means that the business must find customer support over a broader area, drawing from beyond a neighborhood, or even from beyond the town. Examples would be clothing stores, sporting goods, home furnishings, books and records, appliances.

Our research suggested that the following retail businesses might be appropriate in a neighborhood retail center:

- Food related retail
- Liquor and wine stores
- Dry cleaner collection outlets
- Family restaurants and pubs
- Personal care/ beautician
- Pharmacy (low probability)
- Bank branch or ATM
- Personal fitness center
- Video store

Among other amenities that might be incorporated to save trips to the commercial center might be:

- Postal Box Office and Postage Kiosk
- Library book drop-off
- Rapid delivery (FedEx, UPS) collection boxes.

One area of maintenance-type retail which would be explicitly excluded would be auto fuel and repair.

There are few models which meet the ideal standards for a neighborhood center for Guilford. Two retail centers nearby at the North Madison Circle and in North Branford at Rt. 139 and Rt. 80 have some of the elements of such a center but are more highway oriented than desired for Guilford. If neighborhood retail centers are to succeed, they must have a critical mass, and a viable mix of services. If they do not have critical size and viable mix, they will not retain sufficient traffic to achieve this concept's objective of diverting traffic from the Rt. 1 area. On the other hand if they are too large they will not be in character with their adjacent residential neighborhoods. This is a sensitive balance.

One way of achieving the balance needed is to encourage the development of higher density residential uses surrounding the commercial facility. This creates a more village like environment, promotes pedestrian activity and helps build a market for the stores. This concept is consistent with other policies of the Town to encourage more diverse and affordable housing development and to support the design concepts sometimes described as 'new urbanist'.

The following design characteristics are envisioned for neighborhood centers:

- Significant setback from arterial highways or major collector roads.
- Significant perimeter setbacks or dense vegetation or topographic features to screen the center from adjacent residences.
- Architectural design consistent with a residential area, and building materials and colors that subdue the center's presence rather than accentuate it
- Building placement which might create a central commons, a mini Green as a community amenity and gathering place.
- Parking placement which disperses rather than concentrates vehicles but keeps them convenient to the cluster of buildings.

The assumption in the above criteria is that a neighborhood center does not require the highway exposure that other retail centers require. Because its location will be well known to the immediate neighborhood, it can be more buffered and require signage for identity but not for attraction of passing traffic.

There are probably several areas in Guilford which might support such a community center. While it is beyond the scope of this study to make such final determinations, several neighborhoods probably have (or will have in the near future) the potential for such a facility including; the vicinity south of Rt. 80 and

between Long Hill Rd. and Little Meadow Road, the Guilford Lakes Area, and Rt 1 West near the intersection of West Lake Avenue.

The development of community retail centers has two principal benefits. The first is the creation of a more convenient and attractive residential environment through the provision of goods and services developed in an attractive and compatible setting. The second is through the reduction in traffic which might otherwise be required for residents in outlying areas to avail themselves of commercial venues. In the later context, the following numbers might be relevant.

Average Daily Traffic Created by Commercial Centers

20,000 square retail center with 15,000 sq. ft. food store
.2,400 trips per day

30,000 square retail center with 20,000 sq. ft. food store
3,300 trips per day

Addendum G

Town of Guilford FIVE YEAR CAPITAL IMPROVEMENT PROGRAM

- I. 2002-2003
- A. Sidewalks- \$80,000
 - B. State St. I-95 to Nut Plains Road Intersection 2000 l.f.
reconstruction, blasting preblast surveys and traffic calming
\$200,000
 - C. Hubbard Road
Town's portion of bridge extension - \$500,000 includes land
acquisition, demolition of Dog Pound Wetlands offset construction
 - D. Long Hill Road – Christopher Lane Project – State Grant and
Dedicated Road Funds \$230,000
LoCIP – Little Meadow Road South Hoop Pole Road north to
Meadow Hills Dr. 2,700 ft. including bridge @ Little Meadow Brook
- | | |
|-------------------------|---------------|
| 2,700 l.f. x \$100/l.f. | \$ 260,000 |
| + structure | <u>40,000</u> |
| | \$300,000 |
- II. 2003-2004
- A. Flag Marsh Rd. – Long Hill to Schoolside Lane
1,700 l.f. @ 100/lf = \$170,000
 - B. Union St. – State St. to Boston St. – 2,200l.f.
Total reconstruction including drainage, sidewalks & new
pavement
Est. Cost \$130/l.f. = \$286,000
 - C. Sidewalks \$80,000
- III. 2003-2004
- E. Flag Marsh Road Route 1 to Schoolside Lane
1,300 l.f. @ 100 = \$130,000
 - F. Nortontown Road
Murray Lane south – 2,000 l.f.
2,000 ft. x 100,000 = \$200,000
 - G. Sullivan Drive Culverts \$200,000
 - H. Sidewalks \$100,000

- IV. 2004-2005
 - A. Nortontown Road – Madison Line to 2,500 ft. north to connect with project completed 2003-2004
2,500 @ 100,000 = \$250,000
 - B. Podunk Road – Murray Lane to Orcutt – 2,500 l.f.
Drainage & overlay - \$150,000
 - C. Hemlock Ave. – Long Hill to Route 77
2,500 l.f. @ \$100 = \$250,000
 - D. Sidewalks \$100,000
- V.
 - A. North Madison Road Bridge - \$100,000
 - B. Goose Lane \$250,000
 - C. Sidewalks \$100,000

Addendum H

Town of Guilford Transportation Planning Committee

Transportation Elements of the Town Operating Budget for 2002- 2003

Department of Education	
School Bus related expense	\$ 1,850,600.00
Department of Public Works	
Road Maintenance - Summer	300,000.00
Road Maintenance - Winter	80,000.00
Road Striping and Signs	26,000.00
Trees	- (1)
Scenic Roads Advisory Committee	500.00
Street Lighting	60,000.00
Tree Advisory Board	400.00
Youth and Family Services	3,500.00
	<u><u>\$ 2,321,000.00</u></u>

Notes

- 1 Estimated Expense for the prior year was \$15,000.
- 2 The preceding expenditures do not included the salary and benefit expenses of the Police Department for traffic management and enforcement, or the salary and benefit related expenses of the Public Works Department for work relating to road and sewer construction and maintenance.

Transportation Planning Committee
Addendum I
Table of Organization

AUTHORITY			
Board of Selectmen	Planning and Zoning Commission	Police Commission	Inland Wetlands Commission
Manages Town Depts. Defines Town Roads	Defines Town Land Use	Oversees Traffic Planning and Management	Controls Impact of Land Uses on Wetlands

RESPONSIBILITY

Town Planner	Road Planning
Town Engineer	Road Design
Police Chief	Traffic Law Enforcement
Public Works Department	Road Construction and Maintenance
Town Environmental Officer/Tree Warden	Environmental planning, tree management in public R-O-W
Park and Recreation Department	Transportation services for elderly
Rt 146 & Rt 77 Scenic Road Committee	Advisory
Guilford Land Acquisition Committee	Impact on governmental land use patterns, acquisition of Rights of Way
Economic Development Commission	Facilitating land development for commercial purposes
Board of Education	School transportation. Educational land use.

J	J		
J	J	J	
A		F	
F			
J	J		J
F			
J			
F			
F			
A			

Key

F - Functional Responsibility

J - Joint Functional
Responsibility to more than
one Authority.

A - Administrative
Responsibility - primarily
budgetary

Addendum J

Surveys of Transportation and Bicycle Usage

Two surveys of citizens were conducted in the course of this project. One was a survey of general transportation issues. One was specific to bicycle usage. The general survey was made available to all households in Guilford (approximately 8,100) through distribution with the Guilford Courier, through placement in business and community establishments, and through the Town website. 433 responses were obtained.

The bicycle survey was made available to respondents of the general survey on request. 91 responses were received.

Both surveys were conducted for the purpose of soliciting information from interested parties for the Committee's consideration in its deliberations. Since they were conducted in an open ended manner, and not subject to statistical sampling, their results are regarded as instructive to the Committee, but do not constitute a poll representative of community opinion on transportation issues. Generally, surveys of this nature will receive responses from people who are particularly motivated by some one or combination of issues. They therefore introduce a bias that prevents valid generalization of results to the population as a whole.

Summaries of these surveys are available to the public and may be referred to by government officials as recommendations of this report are considered for further study and action. However, any presumption that the results of these surveys constitute a mandate for action must be strongly discouraged. The questionnaires may provide basis for designing and administering a statistically valid poll of public opinions on certain issues in the future, but should not be regarded as such themselves.

Town of Guilford Transportation Planning Committee
 Statistical Table 1
 Traffic Accident Statistics
 Cumulative Statistics for the Years 1997 to 2001

Table Day of Week

Day	Sequence	Count	%	
SUN	1	197	9.1%	Least Frequent
MON	2	303	13.9%	
TUE	3	348	16.0%	
WED	4	315	14.5%	
THU	5	317	14.6%	
FRI	6	385	17.7%	Most frequent
SAT	7	310	14.3%	
Total		2175	100.0%	

Table Months

Code	Description	Count	%
01	Jan	260	12.0%
02	Feb	190	8.7%
03	Mar	162	7.4%
04	Apr	131	6.0%
05	May	172	7.9%
06	Jun	189	8.7%
07	Jul	186	8.6%
08	Aug	196	9.0%
09	Sep	130	6.0%
10	Oct	174	8.0%
11	Nov	166	7.6%
12	Dec	219	10.1%
Total		2175	100.0%

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

Table Hours

Hour	Count	%		Ranking
00	39	1.80%	Midnight	AM
01	28	1.29%	1	
02	22	1.02%	2	
03	14	0.65%	3	
04	12	0.55%	4	
05	18	0.83%	5	
06	46	2.13%	6	
07	116	5.36%	7	
08	111	5.13%	8	
09	93	4.30%	9	
10	115	5.32%	10	
11	118	5.46%	11 AM	
12	180	8.32%	12 PM	1
13	156	7.21%	1	
14	169	7.81%	2	2
15	157	7.26%	3	
16	136	6.29%	4	
17	165	7.63%	5	3
18	142	6.56%	6	
19	84	3.88%	7	
20	90	4.16%	8	
21	67	3.10%	9	
22	46	2.13%	10	
23	39	1.80%	11 PM	
	2163	100.00%		

Table Type

CODE	DESCRIPTION	Count	%
1	Angle/ Intersecting	408	18.76%
11	Backing Up	107	4.92%
12	Bicycle	13	0.60%
2	Headon	64	2.94%
10	Other Non-collision	76	3.49%
6	Overtured	33	1.52%
9	Parked Vehicle	29	1.33%
8	Pedestrian	17	0.78%
3	Rear End	508	23.36%
5	Sideswipe-Off-Site Direct	73	3.36%
4	Sideswipe-Same Direction	86	3.95%
7	Struck Object	761	34.99%
		2175	100.00%

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

Table Location at Point of Impact

Table Light

Code	Description	Count	%
1	Daylight	1515	69.66%
2	Dawn	62	2.85%
3	Dusk	33	1.52%
4	Dark-No Light	403	18.53%
5	Dark-Lighted	162	7.45%
	Total	2175	100.00%

Table Surface Condition

Code	Description	Count	%
1	Dry	1534	70.53%
7	Freshly Oiled	0	0.00%
3	Icy	100	4.60%
8	Loose Sand	14	0.64%
6	Muddy	1	0.05%
9	Other	3	0.14%
5	Slushy	48	2.21%
4	Snowy	153	7.03%
2	Wet	322	14.80%
		2175	100.00%

Table Weather

Code	Description	Count	%
1	Clear	1709	78.6%
2	Raining	245	11.3%
3	Fog	19	0.9%
4	Rain and Fog	18	0.8%
5	Snowing	129	5.9%
6	Sleet or Freezing Rain	45	2.1%
7	Cloudy	0	0.0%
8	Hail	1	0.0%
9	Other	9	0.4%
	Total	2175	100.0%

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

Table Object Struck

Code	Description	Count	%
4	Bridge	13	1.7%
5	Construction Equip - Material	0	0.0%
10	Deer	185	24.2%
6	Ditch - Culvert	25	3.3%
13	Dog	2	0.3%
7	Embankment	16	2.1%
1	Guard Rail	74	9.7%
8	Highway Sign	30	3.9%
5	Median wall	0	0.0%
12	Other	139	18.2%
11	Other animal	24	3.1%
3	Tree	136	17.8%
2	Utility or other pole	120	15.7%
		764	100.0%

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

TableStreets	Number of Streets:	151
STREET	Count	Ranking
BOSTON POST RD	634	1
DURHAM RD	247	2
LONG HILL RD	143	3
RT 80	116	4
CHURCH ST	80	5
WATER ST	72	6
WHITFIELD ST	66	7
BOSTON ST	51	8
NEW ENGLAND RD	44	9
GOOSE LA	44	10
LEETES ISLAND RD	43	11
CLAPBOARD HILL RD	38	12
LITTLE MEADOW RD	31	13
NORTH MADISON RD	29	14
STEPSTONE HILL RD	21	15
NUT PLAINS RD	20	16
BROAD ST	20	17
WEST LAKE AV	19	18
PARK ST	19	19
MOOSE HILL RD	18	20
GREAT HILL RD	17	21
PODUNK RD	14	22
STATE ST	13	23
RIVER ST	13	24
LAKE DR	13	25
FLAT MEADOW RD	13	26
TANNER MARSH RD	11	27
FLAG MARSH RD	11	28
SOUNDVIEW RD	10	29
PEDDLERS RD	10	30
MULBERRY POINT RD	10	31
HOOP POLE RD	10	32
WEST ST	9	33
MAPLE HILL RD	9	34
COUNTY RD	9	35
SCHOOLSIDE LA	8	36
THREE MILE COURSE	7	37
SAW MILL RD	7	38
NORTH RIVER ST	7	39
MAUPAS RD	7	40
WHITE BIRCH DR	6	41

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

SQUAW LA	6	42
SEASIDE AV	6	43
OLD SACHEMS HEAD RD	6	44
LOVERS LA	6	45
S HOOP POLE RD	5	
HEMLOCK AV	5	
TWIN BRIDGE RD	4	
PROSPECT HILL RD	4	
NORTONTOWN RD	4	
MIRROR LA	4	
JEFFERSON DR	4	
GRANITE RD	4	
BEAVER HEAD RD	4	
WILDROSE AV	3	
VISTA DR	3	
VINEYARD POINT RD	3	
SUGARBUSH LA	3	
STONEHOUSE LANE	3	
SAM HILL RD	3	
REDCOAT LA	3	
RACE HILL RD	3	
OPENING HILL RD	3	
OLD WHITFIELD ST	3	
NORTHWOOD DR	3	
E RIVER RD	3	
WILBURS LA	2	
WHITETHORN DR	2	
STILL MEADOW DR	2	
SANBORN RD	2	
SACHEMS HEAD RD	2	
N MADISON RD	2	
MURRAY LA	2	
MILL STONE DR	2	
MIDDLE RD	2	
LONG HILL FARM	2	
HIGHWOODS DR	2	
GRAVES AV	2	
ELM ST	2	
DUNK ROCK RD	2	
COVENTRY WAY	2	
CORNWALL LA	2	
COLONIAL RD	2	
CHAFFINCH ISLAND RD	2	
BRIARWOOD DR	2	
YORK ST	1	
WOODSIDE RD	1	

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

WINTHROP RD	1
WILLOW RD	1
WILLIAMS DR	1
WILDERWOOD DR	1
WEATHERLY TR	1
WAUWINET TRL	1
VALLEY SHORE DR	1
TUPELO LA	1
TOWNER SWAMP RD	1
SAW MILL HILL RD	1
ROUND HILL RD	1
PROSPECT AV	1
POINT RD	1
ORCUTT DR	1
NORTH ST	1
NORTH FAIR ST	1
NO MADISON RD	1
NEW WHITFIELD ST	1
MULBERRY FARM RD	1
MILL RD	1
MILFORD RD	1
MEADOW ST	1
MEADOW RIDGE LA	1
MEADOW HILLS DR	1
MAUPAS RD N	1
MAPLECREST DR	1
MAFRE DR	1
Long Hill Road	1
LONE PINE TRL	1
LEDGE HILL RD	1
LAKESIDE DR	1
JANEWAY DR	1
JACOBS LA	1
ISLAND BAY CIR	1
I95/X58	1
HUBBARD RD	1
HORSESHOE RD	1
HICKORY RD	1
HARRISON RD	1
HALF MILE RD	1
HAHN RD	1
GREY LEDGE DR	1
FOREST BROOK	1
FLAT IRON RD	1
FARMERS WHARF RD	1
FALCON RD	1

Town of Guilford Transportation Planning Committee
Statistical Table 1
Traffic Accident Statistics
Cummulative Statistics for the Years 1997 to 2001

FAIR ST	1
EDWARDS ST	1
EDGEHILL DR	1
DRIFTWOOD LA	1
DOLAN DR	1
DEERFIELD DR	1
CROOKED HILL RD	1
COPPER HILL DR	1
CHRISTOPHER LA	1
CHERRY ST	1
CEDAR HILL RD	1
CARRIAGE HILL DR	1
CARDINAL DR	1
BUNKER HILL RD	1
BARKER HILL DR	1
BALDWIN DR	1
BALAUREL DR	1
ANTOINETTE LA	1

2171

TRANSPORTATION PLANNING COMMITTEE
TABLE 2.1

PROFILE OF GUILFORD 2000

Population	21,398
Area	47.2 sq. miles
Density (people/sq mi.)	453
Total Housing Units	8724
a. occupied	8151
b. vacant	573
Average Household Size	2.59
Population/Total Housing Units	2.45

source: U.S. Census
Table DP-1 Profile of General
Demographic Characteristics, 2000

TABLE 2.2

GUILFORD POPULATION TRENDS

YEAR	POPULATION	NOTES
1985	18,149	1
2000	21,398	2
2010	22,100	3
2025	26,250	4

Notes:

1. Estimate
2. Census
3. 1988 OPM and ConnDOT
4. Buildout / Present Trends
75 houses / year with approx. 1875
additional occupied dwelling units.

TRANSPORTATION PLANNING COMMITTEE
TABLE 2.3
GUILFORD BUILDOUT PROJECTIONS

ZONE	GROSS BUILDABLE ACRES	LAND PURCHASES	NET BUILDABLE	RATIO (ACRES PER DWELLING UNIT)	UNITS
1	2,576	500	2,076	5	415
2	773	100	673	3	224
3	438	-	438	4	109
4	1,250	-	1,250	3	416
5	1,180	500	680	4	170
6	329	-	329	2	165
7	1,132	300	832	4	208
8	552	200	352	2	166
Totals	8,230	1,600	6,630		1,873

Source:
George Kral
Town Planner

TABLE 2.4

SUMMARY OF ITE TRIP GENERATION
RATES (VEHICLE TRIPS) FOR
SINGLE FAMILY RESIDENTIAL

RATES PER DWELLING UNIT		
Daily Trip Rate (IN plus OUT)		
	9.57 to 10	
	IN	OUT
AM Peak Hour	0.2	0.6
PM Peak Hour	0.65	0.4

Source: Trip Generation, 6th Edition
Institute of Transportation Engineers
Washington, DC 1977

TRANSPORTATION PLANNING COMMITTEE
TABLE 2.5

ANTICIPATED TRAFFIC FROM
NEW DEVELOPMENT

ZONE	DWELLING UNITS	DAILY VEHICLE TRIPS (IN and OUT)	AM PEAK HOUR		PM PEAK HOUR		TRIBUTARY N/S ROADS
			IN	OUT	IN	OUT	
Vehicle Trip Rate		10	0.2	0.6	0.65	0.4	
1	415	4,150	83	249	270	166	Rt 77
2	224	2,240	45	134	146	90	Long Hill Rd
3	109	1,090	22	65	71	44	West Lake Ave
4	416	4,160	83	250	270	166	Rt 77, Little Meadow, Goose Lane
5	170	1,700	34	102	110	68	Clapboard Hill, Goose Lane
6	165	1,650	33	99	107	66	Town Center
7	208	2,080	42	125	135	83	Moose Hill
8	166	1,660	33	100	108	66	Shore Line, Rt 146
Total	1,873	18,730	375	1,124	1,217	749	

TRANSPORTATION PLANNING COMMITTEE
TABLE 2.6

ANTICIPATED
ADDITIONAL TRAFFIC
AT TOWN LINE

LOCATION	ROUTE	ALL DAY		AM PEAK HOUR				PM PEAK HOUR			
		IN & OUT		IN		OUT		IN		OUT	
		%	Trips	%	Trips	%	Trips	%	Trips	%	Trips
	1 Rte 77 N	2.2%	412	3.6%	14	3.8%	43	3.1%	38	3.0%	22
	2 Rte 80 E	2.5%	468	5.0%	19	1.3%	15	2.2%	27	4.2%	32
	3 North Madison Rd E	1.1%	206	4.1%	15	0.8%	9	0.9%	11	2.6%	19
	4 Podunk Rd E	1.1%	206	2.3%	9	0.6%	7	0.5%	6	1.4%	10
	5 I-95 E	35.1%	6,574	37.2%	139	28.0%	315	27.8%	338	35.0%	262
	6 Rte 1 E	6.8%	1,274	8.4%	32	6.0%	67	7.1%	86	8.7%	65
	7 Rte 146 W	1.0%	187	4.1%	15	1.8%	20	2.8%	34	3.7%	28
	8 I-95 W	38.9%	7,286	27.3%	102	41.4%	465	39.7%	483	30.4%	228
	9 Rte 1 W	5.7%	1,068	2.7%	10	9.3%	105	7.4%	90	6.3%	47
	10 West Lake Ave. W	0.8%	150	1.6%	6	0.8%	9	0.8%	10	1.3%	10
	11 Route 80 W	4.8%	899	3.7%	14	6.2%	70	7.7%	94	3.4%	26
	TOTAL	100.0%	18,730	100.0%	375	100.0%	1,125	100.0%	1,217	100.0%	749
	EXISTING		185,300		6,780		6,260		7,575		7,720
	% INCREASE		10.1%		5.5%		18.0%		16.1%		9.7%

Note: Assume all additional traffic enters or leaves town.

TRANSPORTATION PLANNING COMMITTEE
TABLE 2.7

ESTIMATED BACKGROUND GROWTH PER DAY
(ASSUME 30%)

LOCATION	TRIPS
1	1,230
2	1,410
3	600
4	600
5	19,530
6	3,810
7	540
8	21,600
9	3,150
10	450
11	2,670
TOTAL	55,590

Transportation Planning Committee
TABLE 3.1

Summary of Average
Weekday Speeds

2001 - 2002
2 -6 PM

Road	Average Speed (MPH)	% of Time Delay	Running Speed (MPH)
Route 80	43.9	3.6	45.5
Route 1- West	43.1	3.8	44.8
Route 1 - Exit 57 to 59 *	28	8.2	30.5
Route 1 - East	37.8		37.8
Route 146	33.2	0.3	33.3
Long Hill Road	36	4.3	37.6
Route 77 (Rte 1 to Rte 80)	32.8	3	33.8
Route 77 (Rte 1 to Rte 146)	18.9	19.3	23.4
Whitfield St (Rte 146 to Marina)	28.9	3.6	30

*22.2 MPH Saturday MIDDAY

Transportation Planning Committee

TABLE 3.2

Weekday Travel Times and Speeds

2001 - 2002 (2 -6 PM)

	Route 80	Route 1 West	Route 1 Exit 57 - 59	Route 1 East	Route 146	Long Hill Road	Route 77 Rte 1 - 80	Route 77 Rte 1- 146	Whitfield Street Rte 1 - Marina
Distance (miles)	3.9	2.8	2.3	1.1	5	5	5.2	0.6	1.1
Signals	2	1	7	0	0	2	3	1	0
Speed Limits (MPH)	45 to 50	45	35 to 40	45	25 to 35	25 to 35	35 to 40	25	25 to 35
Number of Runs	6	7	7	7	3	3	3	6	6
Travel Time (Minutes)									
Range	5 to 6	3.5 to 4	4 to 6	1.5 to 2.0	9.0 to 9.0	7 to 9	9 to 10	1.6 to 2.3	2.1 to 2.4
Average	5.33	3.9	4.92	1.79	9	8.33	9.5	1.9	2.3
Speeds (MPH)									
Range	39 to 46.8	42 to 48	23.0 to 34.5	33 to 44	33.3 to 33.3	33.3 to 42.8	31.2 to 34.7	15.5 to 23.2	28.7 to 31.1
Average	43.9	43.1	28	37.8	33.3	36	32.8	18.9	28.9

Transportation Planning Committee
TABLE 3.3

Summary of Weekday and Saturday
Travel Times and Speeds

Route 1 from I-95 Exit 57 to Exit 59

	2001	
	Weekday	Saturday
EASTBOUND		
Number of Runs	8	4
Travel Times (minutes)		
Range	4.0 to 6.0	3.9 to 7.0
Average	5	5.7
Speeds (MPH)		
Range	12.0 to 34.5	
Average	27.6	
WESTBOUND		
Number of Runs	6	5
Travel Times (minutes)		
Range	4.5 to 5.6	5.5 to 7.8
Average	5.1	6.2
Speeds (MPH)		
Range	24.6 to 36.7	17.7 to 25.1
Average	27.1	22.2

Source: Travel Time Runs
S. Gale and H.S. Levinson

Transportation Planning Committee
 TABLE 3.4
 East West Travel Times
 (Weekdays - October to December 2001)

ROUTE 1			ROUTE 80		
DISTANCE: 6.3 MILES			DISTANCE: 3.9 MILES		
	TIME (MIN)	SPEED (MPH)		TIME (MIN)	SPEED (MPH)
EASTBOUND					
2:00 PM	10	37.8	3:20 PM	6	39
2:24 PM	10.5	36	3:41 PM	5	46.8
5:00 PM	12	31.5	5:04 PM	5	46.8
WESTBOUND					
2:12 PM	10	37.8	3:30 PM	6	39
2:35 PM	12	31.5	3:48 PM	5	46.8
4:48 PM	11	34.4	5:12 PM	5	46.8
5:13 PM	11	34.4			
RANGE	10 to 12	31.5 to 37.8	5 to 6a	39.0 to 46.8	
AVERAGE	10.93	34.6a	5 to 33a	43.9a	
		34.8b		44.2b	
SX		2.6b		4.0b	
CV		7.60%		9.1%b	

Note: Based on
 a = Average travel times
 b = Average of speeds

Transportation Planning Committee
TABLE 3.5

Route 77 Travel Times
Town Marina to Route 1

Wednesday, January 18, 2002
(1.7 Miles) 4:40 - 5:15 PM

Run	NORTHBOUND	SOUTHBOUND
	1 3 min 51 sec	3 min 55 sec
	2 4 min 37 sec	4 min 15 sec
	3 3 min 59 sec	4 min 22 sec
AVERAGE	4 min 11 sec	4 min 22 sec
	4.18 min	4.37 min
AVERAGE SPEEDS	24.4 MPH	23.3 MPH
	OVERALL	23.8 MPH

Note: Travel Times were about
1 to 1.5 minutes longer during
November and December

Date: January 29, 2002

Transportation Planning Committee

TABLE 4.1

Peak Hour Traffic Entering the Intersection of
Route 1 & Church Street (Rte 77)

Weekday PM Peak Hour (4:30 - 5:30)

	23-Oct-98	13-Jul-01
Eastbound	489	478
Westbound	668	654
Northbound	248	201
Southbound	489	435
Total	1894	1768

Saturday Peak Hour (11:15 - 12:15)

	3-Oct-98	14-Jul-01
Eastbound	704	492
Westbound	561	629
Northbound	276	201
Southbound	473	435
Total	2014	1757

Transportation Planning Committee

TABLE 4.2

Signalized Intersection Level of Service

Level of Service	Average Delay/Vehicles in Seconds
A	≤ 10
B	> 10 to ≤ 20
C	> 20 to ≤ 35
D	> 35 to ≤ 55
E	> 55 to ≤ 80
F	> 80

TABLE 4.3

Levels of Service

Route 1 at Church Street (Rte 77)

Average Delay/Vehicle, L.O.S.

	Oct-98		Jul-01	
Eastbound	14	B	19	B
Westbound	19	B	26	C
Northbound	54	D	37	D
Southbound	44	D	32	D
Overall Intersection	29	C	27	C

Statistical Table 5
Guilford's Cohorts: Population/ Density/ Area/ Households

Transportation Planning Committee
Statistical Table 5 - Guilford's Cohorts
Based on 1998 -99 data from CEDC

	State Rank	Town Code	Town	County	Population	Density [Pop / Sq Mi]	Land Area [Sq. Mi]
Population	5	44	118 Ridgefield	Fairfield	22,009	639	34.4
	4	45	128 Simsbury	Hartford	21,758	642	33.9
	3	46	153 Watertown	Litchfield	21,667	743	29.2
	2	47	163 Windham	Windham	21,534	796	27.1
	1	48	52 Farmington	Hartford	21,073	751	28.1
	0	49	60 Guilford	New Haven	20,065	425	47.2
	-1	50	11 Bloomfield	Hartford	19,005	731	26.0
	-2	51	85 Monroe	Fairfield	18,378	704	26.1
	-3	52	152 Waterford	New London	18,166	555	32.8
	-4	53	35 Darien	Fairfield	18,152	1,413	12.9
	-5	54	90 New Canaan	Fairfield	17,993	813	22.1

	State Rank	Town Code	Town	County	Density [Pop / Sq Mi]	Population	Land Area [Sq. Mi]
Density	5	76	157 Weston	Fairfield	447	8,856	19.8
	4	77	76 Madison	New Haven	447	16,184	36.2
	3	78	137 Stonington	New London	442	17,088	38.7
	2	79	116 Putnam	Windham	438	8,890	20.3
	1	80	167 Woodbridge	New Haven	428	8,066	18.8
	0	81	60 Guilford	New Haven	425	20,065	47.2
	-1	82	131 Southbury	New Haven	423	16,515	39.1
	-2	83	95 New Milford	Litchfield	417	25,658	61.6
	-3	84	86 Montville	New London	411	17,256	42.0
	-4	85	97 Newtown	Fairfield	401	23,182	57.8
	-5	86	78 Mansfield	Tolland	393	17,456	44.5

	State Rank	Town Code	Town	County	Land Area [Sq. Mi]	Population	Density [Pop / Sq]
Land Area	5	11	54 Glastonbury	Hartford	51.4	28,777	560
	4	12	28 Colchester	New London	49.1	13,336	272
	3	13	69 Killingly	Windham	48.5	16,092	332
	2	14	68 Kent	Litchfield	48.5	3,095	64
	1	15	57 Greenwich	Fairfield	47.9	58,313	1,218
	0	16	60 Guilford	New Haven	47.2	20,065	425
	-1	17	141 Thompson	Windham	47.0	9,031	192
	-2	18	31 Cornwall	Litchfield	46.0	1,501	33
	-3	19	98 Norfolk	Litchfield	45.3	2,033	45
	-4	20	78 Mansfield	Tolland	44.5	17,456	393
	-5	21	61 Haddam	Middlesex	44.0	7,219	164

Statistical Table 5
Guilford's Cohorts: Population/ Density/ Area/ Households

Transportation Planning Committee
Statistical Table 5 - Guilford's Cohorts
Based on 1998 -99 data from CEDC

		State Rank	Town Code	Town	County	Households	Persons / household	School age	Total Pop	Children	Adults
Households	5	45	128	Simsbury	Hartford	7,830	2.8	17%	21,924	3,811	18,113
	4	46	163	Windham	Windham	7,796	2.8	19%	21,829	4,061	17,768
	3	47	153	Watertown	Litchfield	7,708	2.8	17%	21,582	3,580	18,002
	2	48	97	Newtown	Fairfield	7,673	3.0	18%	23,019	4,213	18,806
	1	49	11	Bloomfield	Hartford	7,354	2.6	14%	19,120	2,602	16,519
	0	50	60	Guilford	New Haven	7,259	2.8	17%	20,325	3,546	16,779
	-1	51	137	Stonington	New London	7,150	2.4	15%	17,160	2,625	14,535
	-2	52	152	Waterford	New London	7,133	2.5	14%	17,833	2,560	15,272
	-3	53	2	Ansonia	New Haven	6,898	2.6	18%	17,935	3,221	14,714
	-4	54	110	Plainville	Hartford	6,890	2.4	16%	16,536	2,591	13,945
	-5	55	119	Rocky Hill	Hartford	6,609	2.5	13%	16,523	2,215	14,307

Transportation Planning Committee

Statistical Table 6 - Guilford's Trends: Population/ Households/ Motor Vehicles

	Population	Housing Units	Motor Vehicles	People per household	People per Car
Count As of:					
1960	7913	3194	4086	2.48	1.94
1970	12033	3967	7564	3.03	1.59
1980	17375	6321	12919	2.75	1.34
1990	19848	7765	17574	2.56	1.13
2000	21398	8724	19917	2.45	1.07

Net Change from Prior Decade

1970	4120	773	3478
1980	5342	2354	5355
1990	2473	1444	4655
2000	1550	959	2343

Percent Growth over 1960 Baseline

1970	152%	124%	185%
1980	220%	198%	316%
1990	251%	243%	430%
2000	270%	273%	487%

Percent Growth Over Prior Decade

1970	52%	24%	85%
1980	44%	59%	71%
1990	14%	23%	36%
2000	8%	12%	13%

Sources of Data:

Population and Housing: US Census Bureau

Motor Vehicles: Guilford Assessor's Office