5. Plan Recommendations

Introduction

As part of an overall approach to accommodating anticipated future growth in population while preserving the character and quality of life residents enjoy the Town of Dryden should pursue a holistic strategy that includes:

♦ Encouraging higher density residential development in and around the existing village and hamlet centers of population;
♦ Encouraging the construction of a wider variety of housing types within existing and future neighborhoods to meet the needs of an aging population;
♦ Providing for attractive amenities such as neighborhood scale parks and off-street bicycle/pedestrian paths in areas where higher density residential development is planned;
♦ Encouraging the use of cluster subdivision designs that create areas of permanent open space within future residential neighborhoods without reducing overall site density.
♦ Directing future commercial development into existing village and hamlet downtown cores where practical, or into existing nodes such as the North Street area between TC3 and the village, and the corner of NYS Rte. 13 and Dryden Road (NYS Rte. 366)

A key goal of this plan is to also ensure decent affordable housing for all Town residents. Many communities across the country the most successful approach to providing decent affordable housing is development at the community level through public/private partnerships. To this end this plan encourages partnerships between the Town and private for- and not-for profit organizations, both for the rehabilitation of older houses and for the development of new small scale multi-unit housing with an emphasis on owner occupied homes.

A number of land use and infrastructure policies or initiatives to further the above strategy are outlined below and illustrated on Map 5-1, Map 5-2 and Map 5-3.

Future Land Use

In terms of future land use this plan proposes the creation of a hierarchy of land uses. This hierarchy is based on the intensity of the proposed land uses and their anticipated environmental, social and fiscal impacts. At the highest level of the hierarchy, in terms of intensity of use, are the Suburban Residential, Hamlet, Commercial, Industrial, and Institutional land uses. These land uses can affect the greatest amount of change to the land and the character of their surroundings, and to the community as a whole.

At the second level is the Rural Residential category. This category of land use, the primary character of which is low density single-family detached homes, can have a low to moderate impact, and affect little change in neighborhood or community over the short term. If not controlled however this type of land use can, over a period of two or three decades, have significant impacts on land use patterns and dramatically alter the character of a community.

At the third and lowest level in terms of intensity of land use and potential to change the land, and level of impact on the community, are the Agricultural and Conservation/Open Space land use categories. The shared goal of these two categories is to conserve the most important agricultural, environmental and scenic land assets within the town. These assets include the most important agricultural lands and woodland areas, steep slopes, wetlands, stream corridors and lands with specific ecological resources worthy of preservation.

In some instances this plan recommends that land that is currently being actively farmed be designated for higher intensity development in the future. It recognizes the importance of agriculture to the character and economy of the Town, however, and that the amount of land that is proposed for Suburban Residential, Hamlet, Commercial, Industrial, and Institutional uses in the future is more than adequate to meet reasonably expected demand for land for such uses. Moreover this plan recognizes that farms located with Tompkins County Agricultural District No.1 are afforded specific protections from unreasonable restrictions on farm operations under NYS Agricultural and Markets Law Sect 305.

Farmers who desire to continue to farm should be provided with whatever support the Town of Dryden can provide them in their efforts.
As the Town proceeds with implementation of the land use components of this plan, through zoning and infrastructure improvements, it must ensure that these actions do not conflict with AML Sect. 305 or undermine the viability of farm operations.

**Suburban Residential Development**

The Town of Dryden needs to take measures that will encourage denser residential development in and around the traditional centers of population in the town. The areas around the village of Dryden are particularly suited to accommodate much of the anticipated future residential development, with limited investment in municipal water and sewer infrastructure development.

This plan envisions residential development densities on the periphery of the town’s villages and hamlets that would average four dwellings per acre. These areas, shown as Suburban Residential on Map 5-1, Future Land Use Plan, are where the majority of the estimated 1,800 new dwellings that may be needed to accommodate future population growth should be built.

Projected residential development within the proposed Suburban Residential areas will be a mix of housing types. Most new homes will likely be single-family or two-family homes (a principal residence with accessory apartment) on lots that would range in size between 10,000 and 30,000 square feet. Multi-family housing however will also be part of the fabric of these new neighborhoods. Envisioned densities for multi-family housing would be 10 and 15 dwellings per acre, which are
typical of garden apartment multi-family development.

The Suburban Residential areas shown on Map 5-1 are not proposed zoning districts and should not be viewed as such. In reality the proposed Suburban Residential areas of the town are expected to encompass a number of different types of residential zoning districts. These new zoning districts will govern the types and densities of development allowed. For example there may be a district that allows single-family homes on lots as small as 10,000 square feet; one that requires a minimum of 20,000 square feet per lot; and one that may require lots one acre in size or larger, probably at the periphery of the Suburban Residential area.

As is the case in many municipalities, multiple residence development in the future could be accommodated in Dryden through a discrete zoning district. Such a district would set a maximum density in terms of the number of dwellings per acre allowed, maximum height of structures and minimum parking requirements. In addition such a district should also include specific requirements for building setbacks and buffer areas, maximum lot coverage by impervious surfaces and standards for the amount and quality of open space available for use by residents.

The use of cluster subdivision design can enhance the quality of development in these new areas in a number of ways. This form of residential subdivision platting allows land to be developed at the density allowed under zoning regulations in place. However it gives the developer flexibility in the design of the owner-occupied housing. Reduced lot sizes, condominiums and townhome designs can be utilized separately or integrated together as part of an overall development concept. Cluster subdivision does not increase the amount of development on a tract of land, but rather condenses it, using less land for the same number of dwellings and maximizing the amount of useable open space.

**What is a "Cluster Subdivision?"**

The term "cluster subdivision" simply refers to a way by which a new residential subdivision can be designed. Cluster subdivision design is allowed Under Section 278 of New York State Town.

If authorized by the Town Board through a Local Law a planning board may modify the minimum lot area, width, depth, setback and other dimensional requirements of the zoning ordinance in order to provide for an alternative method for configuring building lots, dwellings, roads, utility lines and other infrastructure in order to preserve the natural and scenic qualities of open land. Townhomes and other types of attached single-family dwellings are typical examples of cluster subdivision development, however today an increasing number of cluster subdivision designs feature the traditional single-family detached home, albeit on a smaller lot.

The purpose of cluster subdivision design is NOT to increase site density, but to preserve open space and reduce the amount of road, water, sewerage and other public infrastructure needed to be built and maintained to serve residential development. It also allows for the development of a wider variety of housing, styles.

The use of cluster subdivision design can result in the permanent setting aside and preservation of 30% or more of any given tract of land as permanent open space. This permanent open space can encompass a significant environmental feature on the site, or be an amenity for residents of the new development.

Figures 5-1 and 5-2 illustrate how a cluster subdivision concept could be applied in the Town of Dryden to better protect the Etna Swamp and its environs. Primarily because of its environmental sensitivity the area is projected in the Future Land Use Plan Map to be developed at a Rural Residential density (1 dwelling per 2 acres) with some land in a designated Conservation/Open Space area (1 dwelling per 7 acres). With the availability of public water and sewer service, however, a prospective developer could design a subdivision that consists of single-family homes on one-acre lots. As a result the Etna Swamp, much of the woodland and other open space assets can be permanently protected, without sacrificing the density allowed under zoning.
Figure 5-1. A conventional subdivision plat under proposed Rural Residential and Conservation/Open Space densities in the Etna Swamp area east of Kirk Road and north of NYS Rte. 13.

Figure 5-2. A subdivision plat utilizing cluster subdivision design principles and proposed Rural Residential and Conservation/Open Space densities in the Etna Swamp area east of Kirk Road and north of NYS Rte. 13. The reduction in lots sizes down to a nominal size of one acre results in considerable open space being saved, and a considerable reduction in infrastructure costs.
### Some Guidelines for Multi-Family Development

A critical component of the housing stock of any community is multi-family rental housing. If not properly controlled, however, this type of housing can adversely impact a community, as well as the quality of life of the residents of the development itself. This can be especially true in communities where college students comprise a substantial portion of the housing market.

Specific design standards are an effective means of ensuring that multi-family housing provides quality, affordable living for residents without negatively affecting the character of the surrounding community.

Examples of design standards used in other communities include:

1. A cap on the density allowed, usually measured in terms of dwellings per acre or dwellings per square feet (examples);
2. A cap on the maximum amount of land occupied by buildings, parking lots and other paved surfaces to ensure adequate provision of open space;
3. A cap on the size and height of structures allowed to ensure any multi-family development fits the scale of the community. This can be accomplished by limiting the number of dwellings per building, and number of stories allowed;
4. Minimum yard setbacks that ensure adequate buffering for adjacent lower density residential areas. Buildings and parking would be prohibited within any required yard;
5. Minimum setbacks between buildings on the site to ensure adequate provision for light, air, access, and privacy in the arrangement of the buildings to each other;
6. Minimum requirements for the set aside of land for outdoor recreational uses by residents (10% of the site or 1,000 square feet per dwelling unit is commonly used);
7. Minimum requirements for landscape plantings within and on the periphery of the site, including numbers and sizes of trees and shrubs.

Standards such as the above can still allow for both substantial density on a site and tremendous flexibility in design, while still protecting existing community character. A hypothetical zoning ordinance that allows within a multi-family development buildings no larger than two-stories and housing 8 three-bedroom dwelling units, one parking space for every 1.5 bedrooms and a maximum limit on site coverage of 50 percent can easily accommodate a density of 12 to 13 units per acre.

Integral to these new Suburban Residential neighborhoods would be a network of off-street bicycle/pedestrian paths that will connect different sub-neighborhood areas together, provide access to one or more small neighborhood parks, and access to transit stops. This network could also provide access to downtown Dryden through links with the street and walkway network of the village.

In addition to proposing new Suburban Residential development around Dryden village, this plan proposes similar development in an area northwest of Freeville and west of Etna hamlet.

The area northwest of Freeville is proposed as a means of increasing population in the vicinity of the village, to enhance the market base and economic viability of its small commercial center. The specific area was selected because 1) it avoids the prime agricultural lands northeast of the village, and the wetland complexes to the north and south; 2) the commuter traffic to and from Ithaca that the new residential area is expected to generate will not have to drive through the village and exacerbate existing traffic problems; and 3) the location uphill of the village affords the opportunity to utilize the existing village sewer system.

The area west and north of Etna was selected for similar reasons. The new residents could provide a larger market base for retail business development in the hamlet. The majority of commuters generated by the new residential areas would not be passing through the hamlet. Finally, encouraging development west of the hamlet could provide the critical mass needed to make the cost of extending...
municipal water and sewerage service to the hamlet financially feasible.

A critical element in the above vision is the provision of municipal water and sewerage service. This is discussed below in the Public and Semi-Public Infrastructure section.

Altogether approximately 2,650 acres of undeveloped land within the town are designated as Suburban Residential on Map 5-1. These areas represent only about 4.4% of the town’s total area, but at an average development density of 4 dwellings per acre, they are adequate to accommodate over 10,000 new dwelling units – about 5.5 times more than the total number of dwellings that may be needed in the coming decades. This allocation of land well in excess of what may actually be needed is to provide both flexibility in the location of future new residential development, and to ensure that the amount of land made available for this type of development is enough to preclude artificial inflation in land prices.

**Hamlet Areas**

The hamlets of Etna, Varna, McLean (Dryden portion), and Dryden (north of the Village of Dryden) require an approach to land use and development that differs substantially from the rest of the town.

The goals of development in hamlets should be:

1. Encourage new development that would increase the attractiveness of the area by offering a diversity of development options, including townhouses, duplexes, small multiunit complexes, and mixed residential-commercial.

2. Encourage home ownership.

3. Regulate hamlet transformations so that the character of the community is maintained or shifts slowly, not in dramatic steps.

Typically hamlets are more densely developed, with residential land uses mixed with or in close proximity to small scale commercial development. Lots tend to be smaller and population denser than in the rest of the town. However, it is important to maintain a healthy balance between home owners and renters. This balance encourages long-term residents who are invested in the community. Hamlets are attractive areas to live in because they can offer many of the amenities of village living.

To create a more attractive environment for new commercial and residential development within its hamlets the town of Dryden needs to create new land use regulations. These regulations should offer a mixture of opportunities, some that allow more dense development, on smaller lots and without the large yard setback areas typically found in suburban areas, and some that maintain the current average of one-half acre lot sizes. Another feature of hamlet development is the use of two story structures that house commercial, office and residential use under one roof. With more compact development, amenities such as sidewalks are also possible.

The residential development density proposed for the hamlet areas is a maximum of 4 dwellings per acre. As with the Suburban Residential areas of the future, the Hamlet areas would be comprised of several types of residential zoning districts with varying maximum allowed densities. Multiple residence zoning districts could be appropriate within the Hamlet areas. Mixed-use zoning that would allow, for example, apartment-style residences above ground floor commercial space would also be an appropriate land use tool. To maintain the balance between home ownership and rental housing and to prevent rapid change in the hamlet character, multiunit developments should be limited to a maximum of 20 units.

Higher density single-family owner-occupied residential development, such as a collection of town houses, can be encouraged through the creation of small zoning districts, comprised of 1 to 3 acres each, that allow detached and attached dwellings on a few small lots scattered through the hamlet. These districts should be widely spaced through the hamlet at a minimum distance between them to minimize their visual impact on hamlet character.

Multi-family developments with a maximum density of 8 units per acre could be constructed in new multiple residence zoning districts. The size of these districts should be limited to preclude the construction of large-scale apartment complexes that could adversely impact the character of the community. Instead the Town should limit the size of such districts to between 2 and 2.5 acres in area so that a maximum of no more than 20 units could be built in any one complex.

Village- or hamlet-residential zoning districts have been developed elsewhere in Upstate New York to accommodate such development. These zoning districts encourage more compact development by reducing lot size requirements as well as setback
requirements. Side yard requirements are reduced to 5-10 feet or less and lot coverage limits raised. These special districts should be established in a manner that keeps them from dominating a hamlet, but maintains a mixture of development opportunities.

Crafting land use regulations and guidelines that would allow the hamlets in the town to evolve into attractive, vibrant communities will require considerable care. Clear guidelines for mixed use development that might combine residential with retail commercial uses are necessary to ensure that future development results in quality affordable housing, adequate parking, and a design and character that is compatible with the existing community character. They must continue to encourage home ownership.

For most parcels in the hamlet the density should be maintained at its current level. To control the development process, the town should require that a developer seeking a higher density on a given parcel request a zoning change, placing the responsibility on the developer to prove why their proposal fits with the plan’s vision for hamlet growth. This procedure for the approval of new development is much more likely to give the town the power to create the type of heterogeneous set of densities sought for the hamlets.

These special districts within the hamlet could be designated for higher density opportunities with the following standards:

1. Setback and design standards for the street-facing facades of buildings. Maximum front yard setbacks are a tool commonly used in many communities, primarily to encourage return to the historic pattern of downtown commercial buildings being built at the edge of the public right-of-way;

2. No side yard setback requirements for attached structures, and minimal setback requirements for detached structures;

3. Limiting parking in front of buildings to that provided for on the street. Off-street parking must be located to the side or the rear of the property;

4. Increased lot coverage limits to 80 percent or more;

5. Strict definition of the types of retail or service establishments that would be allowed within the mixed-use area. Automobile-oriented businesses such as gas stations, convenience stores and fast food restaurants should be excluded as permitted uses.

6. Additional side- and rear yard buffers where a mixed-use zoning district would abut a residential district.

In communities where municipal water and sewer services are available lot sizes in the range of 11,000 square feet are used to encourage compact residential development in areas surrounding the core of a hamlet or village.

Specific standards for such development are critical, and should include:

1. Limiting uses to single- and two-family homes;

2. Street design standards that ensure on-street parking lanes, curbs and underground stormwater drains, and sidewalks;

3. Standards for landscape plantings within the public right-of-way, including spacing, types and sizes of trees and shrubs;

4. Provisions for garages, including prohibitions of free-standing garages in front yard areas, standards for alleys that could provide access to garages in the rear yard areas of lots, and for additional setbacks and shared driveways where alleys are not practical;

5. Maximum overall site densities, building height and bulk limits and maximum site coverage limits;

6. Development done in a manner that architecturally fits with the current styles of the town.

7. A mixture of appropriate commercial and residential uses in the hamlets controlled through initiating maximum set-backs and preventing drive-through businesses.

Municipal water and sewerage services give greater flexibility in designing a hamlet environment. These are available in Varna, but not in Etna. Etna however is close enough to the existing water and sewer lines that serve the area around the NYS Rte. 13/NYS Rte. 366 intersection, that extension of service is possible. As with all areas designated in this plan to be logical locations for future implementation of water and sewer line, this plan does not advocate construction of new lines in advance of development. Such extension of service should be considered after a density has built up in the area to warrant supporting it. Once such service has been added, it can provide the catalyst for redevelopment of that hamlet and
provide the infrastructure to support the envisioned Suburban Residential area to the hamlet's west.

In addition to the recommended changes in land use policies within the hamlet areas, there needs to be an investment in the physical infrastructure of the hamlet areas, particularly in Varna.

NYS Rte. 366 in Varna, with its wide travel lanes and road shoulders and attendant 40-MPH speed limit, is designed solely to function as a highway that allows traffic to move quickly and effortlessly through the hamlet. The width of the highway and attendant 40 MPH speed limit, while successful in moving traffic, have had a significant adverse impact on the quality of life of Varna residents, and the character of the community.

The roadway should be reconfigured wherein its original primary function of quick and efficient movement of traffic be subordinated to it functioning as a village "Main Street." Toward this goal the Town should work with the New York State Department of Transportation to redesign and secure funding to rebuild the roadway to:

1. Eliminate the existing highway shoulders and replace them with curbing, tree lawns and sidewalks within the highway right of way;

2. Provide for on-street parallel parking opportunities on at least one side of the on-street;

3. Create a safe intersection at Freese Road and Mt. Pleasant Road;

4. Reduce the speed limit through the hamlet to 30 MPH.

Reconfiguration of NYS Rte. 366 from a road designed as a highway to one designed as a main street would significantly enhance the livability of Varna. This in turn would make the hamlet more attractive to investment in new family-oriented residential and neighborhood scale commercial development. Figure 5-3 illustrates how the highway-to-main-street and proposed hamlet zoning concepts could be applied in the vicinity of the Freese Road/Mt. Pleasant Road intersection.**

It is important to the maintenance of the hamlet of Etna that the area south of the hamlet and north of Rt. 366 be kept as a green-space corridor of low-density conservation land use, with some rural residential land use surrounding the intersection where Rt. 366 leaves Rt. 13 to move north. A green-space corridor of low-density conservation land should be maintained to the west of this area along Rt. 13 as an important visual break for travelers on Rt. 13, separating the built-up areas surrounding Ithaca from the rural residential community of Dryden.

Rural Residential Development

Beyond the periphery of villages and hamlets, lower residential development densities would be allowed in areas designated as Rural Residential. The intent of these Rural Residential areas is to allow residents that desire to do so the option of living in a rural environment. In these areas residential single- and two-family homes would predominate, at an overall development density of 1 dwelling every two acres.

The provision of municipal water or sewerage service is not proposed for such areas, nor is public transit service, unless a transit route happens to pass through the area. Although the lack of municipal water and sewerage may preclude denser development within the Rural Residential areas, the use of cluster subdivision where feasible should be encouraged. These cluster subdivisions may not accommodate attached housing, but they could feature single-family homes on smaller lots, where soil and water supply conditions warrant. As Figure 5-1 illustrates, even at the envisioned lower development density cluster subdivision can be an effective tool in protecting open space resources in such areas.

Approximately 2,270 acres of land are classed as Rural Residential on Map 5-1. At the overall target density of one dwelling every two acres about 1,135 new dwellings could be accommodated in these areas. Since 1985 residential dwelling construction in rural area of the town has averaged about 290 dwellings per decade. This growth is well above a desirable rate of growth in rural areas. Even should it continue, however, there is adequate capacity within the proposed Rural Residential areas for about twice this number of new dwellings. This capacity when combined with the development potential within the proposed Agricultural and Conservation/Open Space areas, is expected to adequately accommodate demand for rural homes in the coming decades.

** Figure 3 is for illustrative purposes only and does not represent any proposal or proposals for developing or re-developing the properties shown, nor any endorsement by the Town of Dryden of any specific designs for development or re-development.
Commercial Development

Reflecting the desire of residents that large-scale commercial development be limited to existing centers of population in the town and elsewhere in Tompkins and Cortland County, the Future Land Use Plan envisions only a small increase in the amount of land dedicated to commercial retail and service enterprises. The type of commercial development that this plan envisions would be a continuation of the pattern that exists in the town today, specifically small neighborhood-oriented businesses providing goods and services to a primarily local market.

Outside the hamlets and villages, such land uses are proposed to be limited to existing pockets of commercial development located primarily along NYS Rte.13 and NYS 366.

Some opportunity for expansion of commercial development – approximately 55 acres – is provided for in the plan. This opportunity for future commercial development is located in and around the existing commercial areas along North Street, and around the intersection of NYS Rte. 13 and NYS Rte. 366. Available land in these areas, combined with land available in the hamlets and village business districts, is expected to be adequate for the amount and type of commercial development necessary to serve town residents in the coming decades.

Industrial/Office/Research

Although it occupies a small proportion of the town’s land area, industry continues to be an important economic sector. Currently there are approximately 275 acres of land dedicated to industrial uses in the town and another 412 acres dedicated to utilities. These utilities include the electrical distribution system of New York State Electric and Gas Corporation, and the gas pipeline compressor station in Ellis Hollow.

This plan proposes that approximately 235 acres of undeveloped land be allocated for future development for industrial, office and research and development type enterprises. The types of industry envisioned in this plan would be light industrial and warehousing enterprises. These manufacturing establishments would be characterized by manufacturing processes that include fabrication, assembly, treatment, packaging and distribution of finished products or parts, predominantly from previously processed or prepared materials. The processing of raw materials is generally absent in light industry, and energy demands are generally limited to electricity.

In addition to light industry, the areas proposed for future industrial development could also accommodate the development of office buildings that could house corporate administrative operations and service enterprises. Research and development enterprises such as computer software and equipment design businesses are another type of use in these areas.

This land is located within and adjacent to the existing industrial areas in the vicinity of the NYS Rte.13/Hanshaw Road intersection; the area south of Etna between NYS Rte. 366 and Kirk Road, and north of Dryden village off NYS Rte. 38. The largest expansion of industrial land is proposed for the area north of Hanshaw Road and southeast of the Ithaca-Tompkins Regional Airport. Because it is below the flight approach to the airport runway this area is not ideal for residential development. It is also located away from major concentrations of residential development, and easily accessible to municipal water and sewerage service, as well as NYS Rte. 13.

Although municipal water and sewerage service is not available to the area south of Etna, extension of service to Etna would make it possible to also serve this area.

Institutional

In terms of land use planning, little change in the amount of land used for institutional uses, or any changes in existing zoning or land use policies related to institutional uses is envisioned in this plan. The amount of land dedicated to such uses increased substantially in the 1960s and 1970s with construction of the Dryden Central School and TC3 campuses north of Dryden village.

The proportion of town population comprised of school age children (ages 5 to 19) in 2000 was approximately 22 percent according to the 2000 Decennial Census. This represents a decrease from...
30 percent in 1960, a decrease that can be accounted for by the overall decline in family size in the United States in the last four decades. If the town experiences the maximum envisioned population growth of just over 3,000 residents in the next two decades, and the proportion of school age students remains the same over the next two decades as it was in 2000, there could be an increase in school age children of about 675 students. This potential increase in student population may require expansion of Dryden Central School District or Ithaca City School District facilities at some point in the future, however given the locations of existing facilities and the amount of land owned by Dryden Central School District in particular, any such expansion is not expected to have any significant land use implications.

**Highway Corridor Overlay**

The Rte. 13 corridor between Irish Settlement Road and Etna Lane poses a particular planning challenge. High traffic volumes adversely impact the utility of land adjacent to the highway for residential development. Also as the corridor experiences further development in the future, there is the potential for substantial increases the level of congestion on Rte. 13 unless steps are taken now to control that potential.

The conflicts that have occurred where commercial and industrial development has occurred in close proximity to residences are an ongoing land use issue within the corridor. In several instances long-time residents of the area have been adversely impacted by new non-residential development adjacent to their properties. These newer industrial or commercial enterprises are seen as exacerbating the impact of the heavy traffic on the road.

The Town of Dryden should establish a Highway Corridor Overlay area in the areas recommended for Rural Residential along Rte. 13 between Irish Settlement Road and Etna Lane. Overlay districts are commonly utilized in zoning ordinances to supplement the provisions of a zoning district. They are commonly applied in cases where particular circumstance warrant an added measure of control over development, such as historic districts, highway corridors or environmentally sensitive areas. They can also be utilized to expand upon the allowed uses within designated areas of one or more zoning districts.

This proposed overlay area would extend to a depth of 500 feet from the highway. It would allow a mix of small-scale retail, service enterprises, office buildings that could house corporate administrative operations and research and development enterprises such as computer software and equipment design businesses as well as residential development. Churches and other institutional land uses would be appropriate uses of frontage lands along Rte. 13 within the proposed Highway Corridor Overlay District.

The objectives of this proposed Highway Corridor Overlay area are to:

1) Allow for mixed use development within the corridor that can both exploit the opportunities for economic development and encourage the development of decent affordable housing;

2) Ensure that highway access standards are in place that would adequately control future development in the corridor in a manner that reduces potential traffic congestion;

3) Ensure that standards for the envisioned residential development and retail, office, research and development businesses are in place that would mitigate potential adverse impacts of such development and reduce potential land use conflicts.

Examples of standards that could be included in an adopted Highway Corridor Overlay would be standards that control access to and from Rte. 13. In some communities, access to major highways such as Rte. 13 is limited to one curb cut or driveway entrance per parcel. This standard works well especially where large tracts of undeveloped land front on the highway, because it discourages the subdivision of small frontage lots along the highway and a proliferation of new driveways. In lieu of multiple frontage lots and driveways along the highway, future development would be directed to a new road off the main highway.

Two other approaches that can be utilized by communities are 1) the establishment of minimum distances between curb cuts and 2) requiring that adjacent properties share a common driveway or curb cut. These approaches spread out and control the number of curb cuts or driveways. They allow the community to reduce the potential number of conflict points between traffic entering or exiting the highway, and through traffic. In doing so the potential for highway congestion can be reduced,
Controlling the scale of future office or research and development enterprise development within the proposed Highway Corridor Overlay area will be critical to maintaining the desired semi-rural character of the corridor. An effective approach to controlling development scale is to: 1) limit the number of stories to two stories or less and overall building height to 40 feet or less; 2) limit the amount of site coverage by buildings, parking lots, driveways and other impervious surfaces to 40 or 50 percent; and 3) require substantial front yard setbacks from the highway right of way.

Limiting lot coverage would ensure the reservation of enough open space on a development site to provide for adequate landscaping, setbacks between adjacent properties and buffer areas. Landscape plantings can also be more effectively utilized within these required open space areas to screen unsightly views into the site. Parking lots, driveways and other exterior impervious surfaces should be included in the lot coverage calculation. In general the amount of land taken up by parking facilities for office complexes is equal to approximately 1.5 times the gross floor area of the building(s). For instance, utilizing the above-recommended definition of site coverage, a two-story, 10,000 square foot office building, parking (1 space/200 sq. ft. floor area) and attendant driveways would cover approximately 25,000 square feet of land.

With a 50 percent ceiling on site coverage, another 25,000 square feet of land (0.57 acre) would be dedicated to open space. With a 40 percent ceiling, some 37,500 square feet of land (0.86 acre) would be dedicated open space. This open space can be in the form of landscaped lawns, left in a natural state or a combination of both.

Highway noise can have major ramifications for residential development along busy corridors such as Rte. 13. Two most commonly identified sources of highway noise are tire noise and noise associated with large trucks accelerating or decelerating. The most effective remedies for highway noise are solid barriers between the source of the noise and distance. Solid barriers have become very common along major expressways in urbanized areas, however they are expensive and unattractive. In areas like the Town of Dryden, additional setbacks from the highway right of way can be a cost-effective approach. Generally, the level of sound decreases fifty percent for every two hundred feet of horizontal distance from the source.

Within the proposed Highway Corridor Overlay are the Town should enact larger setbacks from the highway right of way-for-residential development. Because the Highway Corridor Overlay area will allow a mix of land uses, setting a two-hundred foot buffer setback for residential development would not completely eliminate use of the frontage along the highway: those lands could be reserved for non-residential development. The use of cluster subdivision design for residential development would
be another effective means of creating an open space buffer between residential development and Rte. 13.

Agricultural

This plan anticipates that agriculture can continue to be a major and valuable land use in the town. Even as this plan anticipates a need to accommodate up to 1,650 new dwelling units, still envisions placing some 11,180 acres of the 13,470 acres of land currently being actively farmed in areas reserved primarily for agricultural use. Several hundred acres of actively farmed land in small, non-contiguous tracts also fall into the Rural Residential and Conservation/Open Space categories, where limitations on development afford some protection also.

Notwithstanding the above, the agricultural sector in the town will require a level of attention that it has traditionally not received.

The primary emphasis of future land policies in the town as the affect agriculture must be on recognizing agriculture as a legitimate, long term land use on par with residential, commercial, industrial and other traditional land use, and not as merely a temporary state pending development for a “higher” use. This plan thus recommends a new zoning district for the agricultural areas designated on Map 5-1. Such district should grant agriculture the primacy as a land use that is in practice according residential development in a residential zoning district, commercial development in a commercial district, or industrial development in an industrial zoning district.

The town also needs to recognize the enterprise nature of contemporary agriculture. Any new zoning regulations for the agricultural areas must be flexible enough to allow farmers to make a reasonable economic return on their substantial investments. Today many farmers supplement their incomes with income generated by an agriculture-related business such as grain, feed, seed, farm implement of farm building dealerships, as well as wholesale and retail distribution of agricultural products. By providing such options for generating revenue in its zoning regulations, the Town can allow the farmer or farmland owner alternatives to the sale of land for development purposes.

It is critical however that any zoning regulations that would allow agriculture-related enterprises carefully define what such enterprises could and could not include. A sample definition might contain language such as “…retail or wholesale enterprise providing services or products utilized in agricultural production, such as structures, agricultural equipment and agricultural equipment parts, batteries and tires, livestock, feed, seed, fertilizer and equipment repairs. Wholesale or retail sale of grain, fruit, produce, trees, shrubs, flowers or other products of agricultural operations are also included in this definition.”

Care must be taken in crafty zoning language that such enterprises do not evolve into retail operations catering primarily to a non-farm market. For this reason some communities place limits on the sale and service of items such as lawn mowers and other lawn and garden equipment and supplies, ATVs, or snowmobiles.

Important to ensuring the continued viability and presence of agriculture in the town of Dryden will be preserving large tracts of contiguous, actively farmed land. This can be achieved by channeling large-scale residential development away from agricultural areas. To further this objective, the Town must reduce the potential density of future residential development in those areas designated Agricultural from the current level of approximately one dwelling per acre to a density of one dwelling for every ten acres or more. It is important to emphasize that this plan is not recommending a minimum lot size of 10 acres in the proposed Agricultural areas: such a policy would both consume an enormous amount of valuable agricultural land, and severely reduce the opportunity for affordable housing in the town.

In addition to preventing fragmentation of agricultural land, such a policy would also limit the potential for the conflicts that can arise between the farm and non-farm community over agricultural practices.

In communities that have adopted such lower development densities to protect agricultural land, lot sizes for land subdivisions for non-agricultural uses are generally capped at between 1 and 2 acres. This ensures that the preservation of large tracts of agricultural lands is assured, while at the same time it allows farmers the option of selling the occasional house lot as circumstance may warrant.

This proposed reduction in permitted density of course would radically reduce the development potential of land within agricultural areas. Nonetheless even at a dramatic reduced density of
one dwelling per 10 acres, there is the still potential within those areas designated as Agricultural for over 1,000 new homes.

Another consideration with regard to the agricultural landscape in the town is the disappearance of the traditional wooden barn. The decline in the number of these structures can be attributed to the abandonment of agriculture, consolidation of farm operations into larger units and functional obsolescence. If the Town of Dryden desires to preserve these traditional rural landmarks, then ways to encourage adaptive re-use of the structures need to be pursued. New York State has recently established a grant program to fund private restoration of historic barns still actively utilized. This is an extremely limited program, however. The Town of Dryden should consider ways in which it can encourage adaptive re-use of barns. One means may be to allow, through zoning regulations, small business or manufacturing enterprises owned and operated by the owner of the structure. Such “cottage industries” could be limited in their scale and impact through controls on number of employees and types of business activities.
Conservation/Open Space

As detailed in Chapter 2, the town contains within its boundaries a variety of ecological and open space assets within its boundaries. Many of these are afforded some protection by being within the bounds of the 10,760 acres of state forest land or within the 16 privately owned preserves located in the town. This acreage however only represents about one-third of the land within the town that warrants protection from the impacts of intensive development. The remaining two-thirds consist of land that is opened to development and in most cases zoned for development.

As with agricultural land, a key means of protecting these assets so will be to channel major development away from these areas. This plan thus proposes that the Town enact zoning that provides for reduction in development densities from the current level of approximately one dwelling per acre to a density of one dwelling for every ten acres or more. In addition other more intense land uses such as commercial or industrial uses, quarrying and other extractive industries should not be allowed.

This reduction in density level and intensity of land uses will still allow for a substantial amount of residential development within the areas recommended for Conservation/Open Space designation. Even at one dwelling per ten acres, there is still potential for over some 2,000 dwellings within these areas. Residential development will still continue to occur, albeit not at the same levels as possible in the past.

The use of cluster subdivision design can be an effective tool for the protection of UNAs and other open space resources. As shown previously in the Etna Swamp casestudy (Fig. 5-1, cluster subdivision, even when the development consists of single-family detached homes, can create substantial buffer areas between development and environmentally significant resources. An additional benefit of cluster subdivision design in the Conservation/Open Space areas is that, with a 1 dwelling/10 acre density, and a
two-acre maximum lot size cap within a development, up to 70 or 80 percent of a tract can be protected as permanent open space.

This permanent open space could have a conservation easement place on it and be incorporated into one of the subdivided lots – creating a “mega-lot.” The open space however could also be donated or sold to a public or private preserve or park. In recent years Cornell University has received two such donations of land, totaling almost 50 acres, for incorporation into its Clausen Swamp Natural Area holdings in the Town of Ithaca.

Open Space & Environmental Resources

While the above land use recommendations regarding future land use can reduce the impact of future growth on the environment, the Town of Dryden should continue and expand its efforts to protect and enhance environmental quality through direct actions.

The Town of Dryden Conservation Advisory Council (CAC) can play an important role in such efforts. The Town Board established the CAC in 2000 to provide advice and input on issues related to natural resources planning in the Town of Dryden. The group has completed an Open Space Inventory of the town. This document provides data for developing sound open space planning and protecting natural and scenic resources of the Town of Dryden.

The CAC can be an effective partner with the Town Board and Planning Board in future land use planning decisions. The Town Board and Planning Board should take steps to integrate the CAC into their decision making processes by soliciting the body's input early on, and by incorporating the Open Space Inventory into resource management and land use planning efforts.

A second step that the Town can take to enhance the protection of important ecological lands would be to designate specific areas as being Critical Environmental Areas. (CEA) A CEA is defined by the State under 6 NYCRR PART 617 as being a specific geographic area designated by a state or local agency, having exceptional or unique environmental characteristics.

The criteria for designation as a CEA include the presence of an exceptional or unique character covering one or more of the following:

1. a benefit or threat to human health;
2. a natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality);
3. agricultural, social, cultural, historic, archaeological, recreational, or educational values;
4. an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change.

Many of the Tompkins County Unique Natural Areas (Map 2-3) within the town are likely to qualify as Critical Environmental Areas as well. Designation as CEAs would give these areas the added protection of requiring a more detailed review of environmental impacts under the State Environmental Quality Review process.

To permanently protect particularly environmentally sensitive lands, the Town of Dryden can also work with the Finger Lakes Land Trust, Cornell University Plantations and the Tompkins County Environmental Management Council to and encourage landowners to take steps to preserve their lands through donations of conservation easements.

Steps to better protect the water resources of the town are necessary at this time, in order to protect them for future generations.

Wetlands continue to be at risk. State and federal maps that are the traditional sources of wetland location information do not show all wetland areas. The Town of Dryden should adopt the criteria set forth in the Federal Manual for Identifying and delineating Jurisdictional Wetlands as a means of identifying and protecting wetlands. Such a step would both enhance the protection of wetlands in the town, and protect landowners from violating the Clean Waters Act and other federal laws.
The Virgil Creek Aquifer study should be completed and the results incorporated into planning and environmental management efforts. The remaining aquifers in the town, including bedrock sources, also need to be inventoried and mapped in order to determine effective protection and management strategies.

The Town of Dryden comprises a large portion of the Cayuga Lake watershed. Water quality in Cayuga Lake is affected by discharges and runoff from a wide spectrum of land use activities in the town. These include non-point sources such as runoff from construction sites, agricultural fields and barn yards, residential lawns, and parking lots. Wastewater discharges from both municipal and private sources within the town also enter the lake.

The Town should continue to be an active participant in the Cayuga Lake Watershed Intermunicipal Organization. This organization further watershed studies and protection activities through the IO and other watershed organizations;

**Historic Resources**

The state of the town's substantial number of historic or architecturally significant structures should be determined through a comprehensive inventory. Such an inventory should be conducted in accordance with the national standards set by the Secretary of the Interior. Adherence to these standards will ensure appropriate levels of uniformity and objectivity in assessing structures for their significance. It will also ensure that any documentation efforts can be used in future applications for designation of a structure or structures for listing on the State and National Register of Historic Places, or the creation of historic districts.

The completion of an inventory can have secondary benefits as well. They can provide an opportunity to educate residents of their local history, and even the history of their home. This in turn can raise awareness of the importance of protecting historic and architectural resources and the proper approaches to doing so amongst members of the public. Finally, property owners may be encouraged to take measures to preserve their properties of significance.

After completion of an inventory the Town of Dryden should establish a process by which historic structures can be better protected. Communities can enact landmark preservation ordinances that allow municipal review proposed changes to structures or the sites that they sit on if they are listed on an officially adopted list of local historic structures, or are listed on the State or National Register. Outside of a formal process, the Town of Dryden should tap the resources available through the State Office of Historic Preservation (SHPO) in cases where concern arises over specific structures. The agency has a substantial database of cultural and historical sites throughout the state, and can also assist local municipalities in interpretation of and adherence to state and national regulation regarding historic sites.

Dealing With Radon

While radon gas is not typically considered a factor in land use, transportation and other policy matters covered in a comprehensive plan, it is a serious health concern and quality of life issue that the Town of Dryden can nonetheless address on a local level. Education about radon, the dangers it poses and steps that can be taken to reduce exposure to radon, is considered key to reducing the danger nationally. The Town is in a unique position to provide information and educational materials to contractors and residents who are planning to build within the town through the Building and Code Enforcement Office.

Informational packets for homeowners and others that are readily available from state and federal agencies should be acquired and be made available at Town Hall to residents.

Town residents can and should take action themselves. Radon testing kits are now widely available, relatively inexpensive and easy to use. Individual homeowners should thus test their home for radon. If levels of radon above the recommended safe thresholds set by the Environmental Protection Agency are detected, in most cases fairly simple steps can be taken to reduce them to a safer level.

The Town of Dryden should also investigate amendments to local building codes that could require radon resistant design for new structures.
Park & Recreational Resources

To address the current lack of park and recreation amenities in the town, and to meet future needs, this plan proposes that the Town of Dryden create a system of public park facilities in the coming decades.

The envisioned system would comprise of up to ten parks. (Map 5-2) Nine of the proposed parks would be small facilities -- about one acre in size -- nested within existing and future Hamlet or Suburban Residential areas. These parks are intended to serve homes within a one-half mile radius, or comfortable walking distance. They would offer limited recreational opportunities, generally in the form of a playstructure for children, benches, picnic tables, a lawn area for informal activities, and walkways. The typical uses of these parks would be neighborhood residents and children who will generally stay for an hour or less. Hence facilities such as comfort stations and water fountains would not be included in their design.

Because the primary access to these parks will be by foot or bicycle, whenever possible these parks should be located along the proposed bicycle and pedestrian path system. Parking facilities will be limited to parking for handicapped persons only.

In Etna and Varna, it may be more cost effective for the Town to partner with the community associations to maintain and improve the existing community association facilities instead of developing a new park for those hamlets.

Section 277 of NYS Town Law grants town planning boards the authority to require that residential subdivision plats show "a park or parks suitably located for playground or other recreational purposes." Section 274 grants planning boards authority to require similar dedications in cases where they review a site plan for residential development such as apartment complexes. Prior to requiring that land be dedicated, the planning board must make an evaluation of the present and future needs for park and recreational facilities, based on projected future population growth to which the proposed subdivision would contribute.

The use of this authority appears possible in several locations in the town (Map 5-2), such as in areas of future development around Dryden and Freevile villages, and west of Etna. In these locations there are several large tracts of land where potential exists for relatively large-scale residential subdivisions.

Development of these parcels is thus likely to create population growth that would warrant request to dedicate land for park and open space purposes.

Both Section 277 and Section 274 further grants a town planning board the authority to require a payment of cash in lieu of land, should the board make a finding that a park site is warranted, but determines that no suitable site exists on the property on which development is being proposed. The amount that the planning board could require in lieu of dedication of land is established by the town board. The funds collected through this mechanism must be deposited into a trust fund dedicated exclusively for park land acquisition or the development of park, playground or other recreational facilities.

A system by which the Town of Dryden can accept both dedications of land or cash in lieu of land should be established in the near future. The payment of cash in lieu of land could be especially important, given that many of the tracts of land within the Suburban Residential areas are relatively small and are likely to not yield suitable sites for public parks. Nonetheless their development will likely generate a significant percentage of the new homes in the town, and hence a significant percentage of new park and recreation facility users.

Proposed Community Park

The tenth proposed park would be a community park -- a larger facility designed to serve the entire town and feature areas for organized athletics as well as areas to accommodate a wide variety of informal recreational activities. The program for such a park should include, at a minimum, two soccer fields and three baseball or softball diamonds, all designed and built to standards for league sports competition. In addition up to two basketball courts and four tennis courts should be included.

Up to three picnic pavilions to accommodate larger group gatherings, plus a number of individual picnic tables with nearby charcoal grills area also recommended, as well as one playstructure or playground facility. Because the average user of this facility will be staying for one to two hours or longer, a comfort station with restrooms, drinking fountain or other source of potable water should be included in the park program. Parking too is a necessary program element and given the activities envisioned, some 100 to 120 parking spaces may be needed.
The minimum recommended size of this park is 20 acres. Of this land area, 8 to 10 acres need to be relatively level in order to accommodate the envisioned baseball/softball fields and soccer fields with a minimum amount of earthmoving. Approximately five acres would be required to accommodate the remaining program elements. This acreage would not require a flat site.

The remaining 5 to 8 acres would be dedicated a third program element, the opportunity for park users to be in and enjoy a naturalistic area within the park. Also, acreage on the perimeter of the park should be reserved as a buffer area between the park and nearby residential areas. Although parks are generally perceived as being low impact land uses, they can generate substantial levels of noise from athletic events, concerts and other large community events.

The recommended location of the future community park is along Virgil Creek and the former Lehigh Valley Railroad grade between Dryden and Freeville. This area is recommended for several reasons:
1. It would be at the approximate center of population for the town.
2. It would astride the future bicycle/pedestrian path between the two communities, and hence be easily accessible via that path and others shown on Map 5-2.
3. The riparian corridor along Virgil Creek would be an ideal natural area component for a community park.
4. The park would be easily accessible by automobile from both NYS Rte. 13 and NYS Rte. 38 via George Road.
5. There is very little residential development in the area that could be negatively impacted by noise and traffic from major athletic or other events at the park.

**Bicycle and Pedestrian Paths**

Although covered in detail below under transportation, a system of bicycle and pedestrian paths should be developed as an integral part of the proposed system. These paths are envisioned as transportation linkages, but they can at the same time be extensions of the future town parks themselves. This is particularly true of the propose path in Ellis Hollow. This path would link the various neighborhoods within Ellis Hollow together, and provide a valuable off-road commuter link with Ithaca. At the same time the path would provide residents with access to the natural beauty of the Cascadilla Creek riparian corridor.

**Funding Future Parks**

Using this plan as a basis, the Town of Dryden should establish a process whereby developers of future residential neighborhoods contribute land for public park and open space purposes, or contribute money to fund development of new park facilities in lieu of land dedication. This is allowed under the provisions of NYS Town Law, Section 277. Taking advantage of this provision of State law can substantially reduce the cost of developing a new town park system.

The development of the town’s future park system will likely take place over a period of years, as new residential developments are approved and built out. Although it is possible to construct the proposed community park as a single capital improvement project, this is neither necessary nor recommended. The development of the proposed community park can be completed in several phases, as funding becomes available. By taking this approach the Town of Dryden can continue to tap its longstanding tradition of community volunteerism and private donations of funds for park improvements.

Locally the Town of Lansing has taken such an approach in developing its extensive and popular town parks system. Many of the facilities in Lansing’s parks, such as baseball field and picnic pavilions, have been constructed through donations of funds and labor from various community groups.

Finally, there are continued grant programs at the state and federal level that provide matching funds for park development that the Town would be eligible to apply for. The Town has already successfully tapped such programs for the development of the Dryden Lake Trail and other park and recreation or bikeway projects. Upon adoption of this master plan the Town should aggressively pursue similar such grants to fund specific aspects of park system development.
Transportation

The existing transportation system in the town of Dryden is well developed and generally adequate for accommodating any future growth envisioned in this plan. The land use patterns proposed above are intended to maximize the efficient use of existing roads and highways, and minimize the need for major investments in new roads by the Town, County or State.

The primary issues with regard to the town’s road network that should be addressed are: 1) controlling traffic congestion along NYS Rte 13; 2) the impact of excessive speed and the need to limit traffic volumes within the hamlets, villages and other concentrations of residential development; and 3) providing alternatives to the automobile as a means of transportation.

Most, and perhaps all of the new road infrastructure that may be required due to the development envisioned in the plan is expected to be constructed by the private sector, as future neighborhoods are being developed.

Controlling Congestion

Because it is a State highway, the most effective role that the Town of Dryden can play in controlling congestion on NYS Rte 13 is through land use and growth management policies. There are a number of policies that the Town should enact to limit the impact of future development on NYS Rte. 13.

The first would be to concentrate future commercial development within discrete areas, as recommended in the land use section above. The Town however should also, within these areas, implement regulations that also control the number, size and locations of curb cuts. Outside the hamlets, front yard setbacks in commercial areas should be deep enough to accommodate potential future highway widening projects.

In areas designated as Suburban Residential, future curb cuts on State and County highways should be limited to those needed for new public streets. Driveways should enter onto interior residential streets of new developments. Implementation of this policy will be especially important along Irish Settlement Road and Etna Road and West Dryden Road where they pass through proposed Suburban Residential Areas. Avoiding driveway curb cuts to the extent possible on these County highways will enhance their capacity to accommodate the increased traffic from future residential development.

This policy would both reduce potential for congestion and enhance the quality of life for residents. The Town should also maintain its requirement for deeper front yards for new homes built along County or State highways, and enact a similar requirement for new homes where the backyard borders a County of State highway.

In the case of both commercial and residential development, the construction of shared driveways to serve adjacent properties as a means of reducing curb cuts should be mandated.

Excessive Speed and Traffic Volumes

The problems of excessive speed and traffic volumes are issues that the Town of Dryden can address only partially. Speed limits on streets, roads and highways in areas outside village limits, such as in Varna, Etna, Ellis Hollow and in along Slaterville Road are set by NYS Department of Transportation using criteria such as density of development, traffic volumes and accident data.

There are some actions however that the Town can take to influence State decisions on speed limits. The first is implementing the land use policies above that emphasize increasing development densities, especially in the proposed Hamlet areas. One of the primary criteria used by the NYS Department of Transportation is the density of development along the subject road or highway. Both Varna and Etna have undeveloped or under-utilized properties along NYS Rte 366 that provide the opportunity for compact development that in turn could trigger reductions in speed limit to more appropriate levels.

The Varna Community Association has proposed such an approach in its recently completed Varna Community Revitalization Plan. The plan calls for changes in zoning regulations that would better segregate residential and commercial uses, but also encourage higher density mixed residential, office and retail centers between 922 and 999 Dryden Road.

Where it is not possible to have speeds reduced, the Town should enact additional setbacks to help buffer new residential development from highway noise.

Excessive traffic volumes are expected to continue to be a problem for the several areas of the town.
identified previously. This can be attributed to regional geography, primarily the fact that these areas are astride the major routes into and out of Ithaca from the east. The Town however can take steps to mitigate to some extent the impacts of traffic on neighborhoods.

The first would be to support speed reduction efforts of local civic and neighborhood groups wherever possible, and stepped up enforcement of existing speed limits. One of the major impacts of traffic on residential neighborhoods is noise, and the level of noise generated by traffic increases as speed increases. Reductions in traffic speed thus can mitigate somewhat the impacts of high traffic volumes.

Promote the increased use of public transit and other alternatives to the automobile through more compact development patterns along transit routes, development of park and ride lots and development of a network of bicycle and pedestrian paths.

One of the reasons that high traffic volumes can have an adverse impact on communities is that the architecture many times is reflective of the pre-automobile era. The Town should thus encourage the use of new architectural technology that can both substantially reduce the impact of traffic on property and complement the character and fabric of the community. This would be useful especially in Varna and Etna hamlets, where there are opportunities for redevelopment.

New Streets

Under this plan, the majority of the new dwellings that would be constructed within the proposed Suburban Residential areas will be located on new streets. For the majority of new dwellings constructed within the Hamlet, Rural Residential, Agricultural and Conservation/Open Space areas, little or no new street construction is expected. Instead the traditional pattern if subdividing off land with frontage on an existing road is expected to continue.

Ideally some 80% or more of future homes in the town will be built within the Suburban Residential areas. If 80% of future homes were built within these areas, the Town could expect between 1,015 and 1,320 new dwellings within these areas. Assuming all of these were built as single-family homes on conventional lots fronting on new streets, somewhere between 12.0 and 15.6 miles of new streets may be built and dedicated to the Town over the next two decades. If 10% of these dwellings are constructed as attached townhomes or other type of attached housing this number could drop to between 11.1 and 14.4 miles.

If 10% of future new dwellings (i.e. only 70% of new homes are built within the Suburban Residential areas.) can be built within the two villages, then the number of new miles of additional streets could drop to between 10.8 and 14 miles if all new home were single-family homes, and between 9.9 and 12.8 miles of new streets would be necessary.

Specific recommendations for future streets are:
1. Setting the design speed for all new streets at 25 miles per hour. This will help create an environment where drivers are less comfortable exceeding speeds of 30 miles per hour.
2. Ensure that street construction specifications are up to date, and that they are stringently applied to developers as the construct new streets. This will help reduce maintenance costs after the Town assumes ownership.
3. Where appropriate, specifically on very low volume residential streets, develop standards that allow for narrower streets to reduce impervious surface areas within new developments.
4. Limit curb cuts for new streets off major highways.
5. Ensure that the street network of the future allows traffic to flow in all directions into and out of neighborhoods, and provides residents with a number of choices for entering or exiting their neighborhood. This will help reduce the traffic associated impacts of development but more evenly distributing traffic from new developments onto several streets, rather than channeling it onto one or two.
6. Conversely, limit the use of cul-de-sacs in new residential development. While attractive to developers and prospective homeowners, cul-de-sac street systems tend to concentrate traffic on specific streets within a community and lead to traffic congestion as well as adverse impacts on the quality of life for residents on those streets. Cul-de-sac streets also increase the cost of winter plowing and deicing, especially in cases where turn-arounds are not adequate to accommodate snowplows.
7. Where the use of a cul-de-sac is appropriate, ensure that the cul-de-sac turnaround radius is large enough to allow Town snowplows to turn without having to stop and reverse. A number of designs for cul-de-sac allow this, and should be incorporated into Town street standards.
8. Utilize Ferguson Road and Irish Settlement Road as a connector linking existing and future development south of the village and along the two roads to NYS Rte. 13. (Map 5-2) To ensure both the capacity of this proposed link to accommodate traffic, and to protect future development along the two roads, the Town should 1) limit access to both to intersections with future public streets; and 2) require additional setbacks from the two roadways for future residential development.

9. The Town should work with Tompkins County to reconstruct the intersection of Ferguson Road and Irish Settlement Road to allow the two roads to function efficiently as the connector roads envisioned in 8 above.

The Town of Dryden can avoid almost all the cost of constructing the new streets and roads needed to serve the anticipated future development envisioned by this plan by requiring that developers construct to Town standards new subdivision streets, and then dedicate them to the Town. This would include the proposed connection between Ferguson Road and NYS Rte. 13. This new street would serve as a minor collector street. The amount of traffic that it might carry, even at a maximum build-out of the surrounding Suburban Residential area, should not exceed 6,000 to 7,000 vehicles per day. This level of traffic would be at the high end of the acceptable volume of traffic for a suburban residential street. A design that limits the speed of traffic to 30 mph on the street, combined with addition frontyard setbacks, however can ensure even that this level of traffic the street can still provide a livable environment.

Bicycle/Pedestrian Paths

The Town of Dryden and Village of Dryden have together developed the popular Dryden Lake Trail that utilizes the abandoned railroad grade extending southward from Mains Street in the village to Dryden Lake. To the west, the Town has received funding and is engaged in the development a second trail that will follow the former Lehigh Valley Railroad grade eastward from the terminus of the East Ithaca Recreation Way owned and maintained by the Town of Ithaca, through Varna to Freeville.

When linked together by a two-mile long segment of trail between Dryden and Freeville, these two trails could create a central spine off which a network of bicycle pedestrian paths can link town residents to the major centers of employment, commerce, education and recreation in the town.

This plan envisions a bicycle/pedestrian system of up to 20 miles in length. (Map 5-2) Over half of the network -- approximately 12 miles -- would be comprised of the trail between Dryden Lake and the East Ithaca Recreation Way development of which the Town has already embarked on. Other linkages in the proposed network would be:

1. A link between the Crystal Drive/Southknoll Drive area northwest to Ferguson Road, then northerly through future residential areas to connect with the Dryden Lake-Ithaca spine east of George Road. (approx. 2 miles)
2. A link extending eastward from Yellow Barn Road through the future residential developments north of Ferguson Road to the village, where a connection could be made to the village street network. (approx. 1.5 miles)
3. A link between the vicinity of Bradshaw Road and the village street network, with a spur connection to TC3. (approx. 1.5 miles)
4. A link through Ellis Hollow from the vicinity of the Ellis Hollow Road/Ellis Hollow Creek Road intersection westward to connect to the Dryden Lake-Ithaca spine in the vicinity of Stevenson Road via the Ellis Hollow Community Center. (approx. 3.5 miles)

Over one-half of the network envisioned above would be built for the most part as the future residential areas envisioned in this plan are developed. Rights of way for the future paths in the areas near Dryden village could be acquired from developers through the public park and open space dedication process provided for under Town Law Section 274. Although some of the rights of way for the Ellis Hollow path could be acquired through dedications by developers, most of that path would have to be constructed on rights of way acquired through purchase or donation.

Other municipalities that have developed such bicycle/pedestrian path systems have found that they can provide an attractive transportation alternative to the automobile, and an attractive amenity to residents of both existing and future neighborhoods in the town. Locally in the Town of Ithaca the East Ithaca Recreation Way and the South Hill Recreation Way have proven to be very popular for both commuter and recreational purposes for residents of adjoining neighborhoods. Because of its success a 1.3-mile extension of the East Ithaca Recreation Way that will connect the Eastern Heights neighborhood off Snyder Hill Road is scheduled for construction in 2002.
Public Transit

As with many other aspects of transportation, the key steps that the Town of Dryden can take to improve accessibility to and the utilization of public transit are in the areas of land use and growth management. To further the use of public transit, the location of existing transit routes was considered in the development of Map 5-1. The proposed Hamlet areas and the locations for the proposed Suburban Residential areas around Dryden and west of Etna are astride existing transit routes.

The implementation of the land use plan recommendations such as encouraging growth within the villages and hamlets, and the Suburban Residential areas adjacent to them will thus enhance the attractiveness and serve to increase use of public transit.

Other steps that the Town of Dryden should take include:
1. Working with Tompkins Consolidated Area Transit to ensure that bus shelters are conveniently located and maintained.
2. Working with Tompkins Cortland Community College, Tompkins Consolidated Transit and Cortland County to develop bus service between Dryden, TC3 and Cortland.
3. Ensure that the bicycle and pedestrian path network envisioned above provides for connections to existing bus routes.
4. Ensure that the street system within new Suburban Residential areas is “transit friendly” with, among other things, adequate turning radii at intersections and elsewhere.

Public & Semi-Public Infrastructure

Water & Sewer Service

The extension of municipal water and or sewer service to limited areas within the town will be necessary in order to provide the foundation for the denser residential development in and around existing centers of population that this plan envisions.

This plan does not advocate that the Town extend municipal water or sewer service as a means of encouraging new development. Rather such extensions should be targeted to correcting identified needs or to encourage in-fill development within existing built-up areas. (Map 5-3)

The Town of Dryden should work with the Village of Dryden, the Village of Freeville and its partners in the Ithaca Area Wastewater Treatment Plant and Southern Cayuga Lake Intermunicipal Water Commission to develop the wastewater treatment capacities and public water supplies that will be needed to serve future development.

Providing municipal water service to the proposed Suburban Residential areas on the periphery of Dryden village will require construction of at least one water tank. Currently the approximate limit of the water service area for the Village of Dryden water system is around 1,250 feet above sea level. The elevation of approximately one-half of the proposed Suburban Residential area adjacent to the village, including a sizable portion of the area east of the village, is above this pressure zone limit.

To create a new pressure zone and allow expansion of municipal water service to serve the new Suburban Residential areas would require construction of a new water tank at an elevation of around 1,400 feet. Water pumped to this tank could then serve the new residential areas within the town as well as land in the southwest corner of the village that also above the existing limits of pressure.

Providing municipal sewer service to future neighborhoods around the village would be less complicated, as all areas are high enough to be served by gravity mains. The key question with regard to providing municipal sewer service is the capacity of the village wastewater treatment plant, and the role the Town of Dryden would play in operating the plant and funding any necessary capacity improvements.

The second area of the town where major investment in water and sewer infrastructure is recommended is in Etna hamlet and the areas north of Fall Creek between Etna and the Hall Road vicinity. Municipal water and sewer infrastructure in this area can serve as a catalyst for redevelopment of the hamlet and the creation of new residential neighborhoods that on the periphery of the hamlet. The public infrastructure would also serve existing and future industrial development in the area south of the hamlet adjacent to NYS Route 13.

The proposed Suburban Residential area west of Freeville would require an extension of the Village of Freeville sewer system. This area is at a higher
elevation that the village itself, so the system can be a gravity system. The Town should work cooperatively with Freeville to develop a joint sewer system and to fund any required upgrades to the existing wastewater treatment facility.

Although there is some additional development proposed on the periphery of Varna, almost all of this new development will occur within the existing water and sewer service areas.

Municipal water or sewer does not currently serve the area between Hanshaw Road and the Ithaca-Tompkins Regional Airport. It is however immediately adjacent to existing service areas, and extension of services into to the properties in that area would likely be constructed by a private developer of the land.

The financing of the Town's portion of the cost of extending municipal water and sewer service into the proposed Suburban Residential areas is expected to be accomplished through the establishment of benefit districts. Much of the envisioned system however is expected to be constructed by the private sector developers of the new residential neighborhoods.

**Telecommunications**

Given the increasing importance of wireless telecommunications in both the general economy and to individual residents, the Town of Dryden should strive to ensure such technology for is available, to the extent practicable, in its residential neighborhoods, businesses and educational institutions.

The future land use patterns proposed on Map 5-1, if implemented, are likely to indirectly facilitate the availability of wireless technology to a broader population of town residents. Focusing future development in and around the villages and hamlets of the town, as proposed, could reduce the amount of infrastructure necessary to serve residents and businesses and hence the cost of providing desired levels of service.

At the same time, it is important that the Town ensure that the placement, construction or modification of the support network of telecommunications towers and their support facilities continues to be regulated in a manner that is consistent with its land use policies, minimizes the potential negative impacts of the structures and protects the health, safety and welfare of residents. Key to accomplishing this will be monitoring the evolution of the sector, reviewing on a regular basis the Telecommunications Tower Siting Law adopted in May 1998 for its applicability and consistency with state and federal regulations and amending it as needed.

**Public Safety**

The longstanding network of volunteer fire and emergency medical services organizations continues to effectively serve town residents. While it does not directly participate in the day to day operations of these organizations, the Town of Dryden nonetheless must continue to work with them to ensure provision of quality fire and EMS services into the future, and in a cost effective manner. Because service areas may overlap municipal boundaries, the Town should also work cooperatively with Tompkins County and other municipalities to enhance the provision of fire police and emergency services and to minimize the cost of such services to the public.

A number of recommendations in the adopted Hazard Mitigation Plan have already been implemented, or are in the process of being implemented. The Town of Dryden should continue such efforts, including proposed infrastructure improvements, disaster and hazard awareness education, and the acquisition of training and equipment for local public safety and public works staffs. By its nature the Hazard Mitigation Plan requires the development of partnerships with state, county and local agencies to implement specific aspects of the plan. The Town has been very successful to date in doing so, and must continue to do so in the future.