

CHAPTER 8 - TRANSPORTATION

8.1 Existing Traffic Conditions and Trends

Bedford's transportation system is comprised of highways and streets, a commuter rail line, bus routes, and sidewalks. The town's rural, low-density and tri hamlet pattern favored the growth of auto-related transportation. Most of Bedford's residents drive to shop, to commute, for recreation. The Metro-North Harlem line represents the only alternative transportation mode being used to a significant degree primarily by residents commuting to New York City, and the majority of these commuters drive to the train stations. Limited bus east/west bus service is also available.

The town is served by interstate and state highway supplemented by a well-developed network of local roads. Interstate 684, the Saw Mill River Parkway, and State Highways 22, 35, 117, 121, and 172 traverse the town. Interstate 684 and the Saw Mill River Parkway both cross through the town in a north-south direction. These highways, together with the Metro-North Railroad (Harlem Line), form the backbone of Bedford's transportation system.

Existing Functional Classification

The 1988 Bedford Master Plan organized the roadways into the following categories: Limited access highways, through roads, collector roads, and local roads. The purpose of organizing the roadway system according to these categories is to recognize that some roads have to carry higher volumes, more through traffic at higher speeds and other roads serve mainly to provide access to adjacent properties. Roads in Bedford cannot serve both purposes in a safe and efficient manner. Many of the traffic problems in Bedford can be related to conflicts in the functional role that each roadway has to fulfill: Through traffic using local or collector roads as a short cut represents such a conflict; similarly, traffic turning in and out of commercial driveways along a through road (such as Route 117) is in conflict with the arterial function of that road.

The circulation pattern in the town generally flows according to the functional classification system established by the 1972 Town Plan and updated for the 2004 Town Development Plan. Some of the state highways and local roads have become adversely impacted by high traffic volumes and speeds. Traffic circulating between Pound Ridge, New Canaan, Stamford, Greenwich and Somers, and the local railroad stations, I-684 and the Saw Mill River Parkway use a variety of local roadways. Peak-hour delays along I-684, Saw Mill River Parkway and the State Routes have increased to the degree that some traffic has shifted to parallel collectors or residential streets.

Existing Accident Data

Vehicle crash records covering the period from January through December 2014 (only) were made available by the Bedford Police Department. The records covered accidents on both Town and State roads. The data included only the number of accidents and the location. No more current information was available. A total of 574 accidents was reported in the Town during the 2014 period.

The crash locations with four or more accidents during the year 2014 are:

- Route 35 and I 684--14 accidents
- South Bedford Road (Rt. 172) and I 684 — 13 accidents
- South Bedford Road (Rt. 172) and Sarles Street — 4 accidents
- South Bedford Road (Rt. 172) and Baldwin Road-- 8 accidents
- South Bedford Road (Rt. 172) and McLain Street — 17 accidents
- South Bedford Road (Rt. 172) and Old Post Road (Rt. 22) —8 accidents
- Old Post Road (Rt. 22/172) and Greenwich/Banksville Road (Rt. 121) —8 accidents
- Pound Ridge Road (Rt. 172) at Village Green —4 accidents
- Bedford Road (Rt. 117) and Green Lane —17 accidents
- Bedford Road (Route 117) and Haines Road-- 7 accidents
- Bedford Road (Route 117) and Woodland Road-- 6 accidents
- Katonah Ave. at Parkway--7 accidents
- Bedford Rd. at Parkway (Lawrence Circle) 17 accidents
- Bedford Road (Route 117) at Norm Avenue-- 10 accidents
- Route 22 at Route 35-- 5 accidents
- Route 35 at Mount Holly --4 accidents

This data shows an increase over the data reported in the 2004 Plan. Included in the strategies below are recommendation to calm traffic in the areas noted above as having the most accidents.

Existing Traffic Volumes and Past Trends

This plan reviews both the daily traffic data from the New York State Department of Transportation (NYSDOT) and that which was submitted by the Bedford Village Fire Department (compiled in connection with BVFD's new firehouse application). Also reviewed were the plans from the NYDOT regarding projected planned upgrades to I 684 at both the Route 35 interchange and Saw Mill Parkway. No other traffic volume data was available or reviewed.

[Note to plan consultants: the maps inserted in the 2004 were not useful for this committee due in part because of the size and quality of the maps when printed on 8.5 x 11 paper. If maps are provided in the plan clearly, hyperlinks to digital copies should be provided and maintained by the town.]

Figure 1 shows recent average annual daily volumes available from various traffic studies and from the NYSDOT. Traffic volumes are shown for various sections of highways:

Average Annual Daily Traffic Volumes					
Roadway Section	1971	1981	1984-1985	1995-1999	2019
I-684, between Route 22 and Route 172	25,000	46,200	47,800	59,110	71,905
I-684, between Route 172 and Saw Mill River Parkway	2,000	42,800	48,800	56,060	66,618
I-684, between Route 35 and Route 138	38,000	49,350	43,700	68,640	89,385
Saw Mill River Parkway, Between Mt Kisco & Route 117	19,000	18,250	-	30,950	35,583
Saw Mill River Parkway, Between Route 117 & I-684	19,000	16,950	20,300	25,670	32,469
Route 35 Between Route 100 & Route 117	8,000	15,900	-	-	23,500
Route 35 Between Route I-684 & Route 22	N/A	11,900	13,800	19,170	20,133
Route 35 Between Route 22 & Route 121	7,500	8,700	-	16,320	15,725
Route 117, between Route 35 and Cherry Street	9,000	7,450	9,250	-	5,291
Route 117, between Cherry Street and Mt Kisco	11,000	16,600	17,500	-	16,856
Route 172 between Route 117 & I-684	8,000	12,600	15,600	17,640	19,411
Route 172 between Route 22 & Route 137	5,000	9,900	12,700	14,690	5,885
Route 172 between I-684 & Route 22	8,000	8,650	12,500	-	12,872
Route 22 between I-684 & Route 172	5,000	2,460	2,450	-	3,437
Route 22/172 Overlap	7,500	9,800	12,500	14,150	13,682
Route 22 between Route 121 and Old Route 137	5,000	2,525	6,550	7,600	5,034
Route 22 between Old Route 137 and Route 35	4,500	4,760	4,350	5,860	6,841
Route 22 between Route 35 and Route 138	1,800	2,500	2,150	-	4,070
Cherry Street near Route 117	5,000	6,850	-	-	5,241
Cherry Street near Route 35	-	4,800	-	-	4,788
Greenwich Avenue near Route 22	1,200	3,300	-	-	3,364
Bedford Center Road	2,000	3,300	-	-	4,714
Route 121, Rt 22 to Route 137	-	-	-	-	4,849
Jay Street, Rt 22 to Mustato	-	-	-	-	4,936
Jay Street, Parkway to Lot 1	-	-	-	-	5,298
McLain, NY 172 to Guard Hill	-	-	-	-	2,915

Figure 1 Average Annual Daily Traffic Volumes

[Note to Plan writer: The above table data should be reviewed and updated]

Major Peak Hour Roadway Delay Locations:

- McLain Street (due to Route 117 backup)
- Bedford Road (due to Saw Mill or 684 backup)
- Route 22 at Greenwich Road (due to turning movements)
- Route 35 between Route 100 and Route 121

Hourly traffic volumes higher than 1,200 vehicles in both directions represent a condition where it becomes difficult to make a left out of a driveway onto that highway. Traffic control devices become necessary to allow access from side streets or major driveways. This has implications on the types of land uses that may be accommodated along these roads.

This data shows an increase over the 2004 plan data and we can anticipate traffic will continue to increase. This plan recommends the Level of Service of the arterial roadways through Bedford be further studied by the consultant to determine if the current Level of Service warrants corrective actions. Corrective actions should be included in the plan.

8.2 Goals and Objectives

The following goals are proposed for the Bedford Transportation Plan:

- Enhance vehicular, bicyclist and pedestrian (vulnerable road user) safety.
- Improve street and traffic management, by reducing functional conflicts rather than creating new through-ways.
- Reduce speed limits and volumes on local and collector roadways.
- Discourage the use of through traffic on local and residential streets by using traffic calming strategies.
- Alleviate local bottlenecks without impairing the historical character of the town.
- Encourage the use of alternative modes of travel for recreation and for transportation.
- Improve pedestrian and bicycle access to shopping and other activities in village centers to reduce the need for automobile trips.
- Protect the unique qualities of the scenic and fragile roadways in the town, independently of their functional classification.
- Improve road and parking lot beautification measures (trash collection, vegetation control, more trees planted in parking lots, elimination of invasive vines etc.)
- Provide bicycle routes connecting the three hamlets.
- Reduction of vegetation along roadway shoulders for vehicular sight lines and bicyclist safety.

The above goals guide the strategies of the transportation plan, presented below.

8.3 Transportation Plan and Strategies

Functional Classification: Reinforcing the System

The roadway classification system represents an important policy statement by the town on the purpose of each road. Local roads should be used primarily for access to adjacent properties and generally should not carry more than 3,000 vehicles per day. Certain uses such as new schools are not permitted along local roads. On the other hand collectors and through roads are expected to carry higher volumes and satisfy higher speeds. Typically collector roads may carry up to 5,000 or 7,000 vehicles per day. Through roads may carry upwards of 20,000 vehicles per day.

Generally, the road nomenclature of the 2004 Town Plan is still appropriate. Figure 8.3 shows the proposed functional classification of the roadways. The following describes the road categories briefly, in descending order and discusses potential new or expanded roads:

Limited Access Highways. providing regional access for vehicles traveling through Bedford. These roads carry primarily high-speed, long distance, through traffic. All access and egress occurs via grade-separated interchanges, and access to individual properties along the rights-of-way is prohibited. The Saw Mill River Parkway and Interstate 684 are the two roads of this type in Bedford.

Through Roads. Sometimes referred to as arterials, they are designed to carry traffic between Bedford and the surrounding towns, or between the villages within the town. Most through roads are State roads, such as Route 172, 117, 35, and 22, where the town has little control. In the future, the Town Board and Planning Board should prohibit direct access to arterial roads from adjoining land wherever possible. Separate local roads shall be required in those cases where access cannot be obtained from intersecting side roads. The width of the pavement of the arterial should be sufficient to permit the movement of traffic and bicycles in both directions, free from interference by parked or standing vehicles.

Collector Roads. These roads generally function as connectors between local roads and arterials. Generally, collector roads interconnect various sections of the town and are the principal means of circulation to the residential areas. McLain Street, Guard Hill Road and Cherry Street are examples of collector roads. They are a little wider than local roads to permit the passage of one lane of traffic in each direction without interference from parked or standing vehicles. The Town Board and Planning Board shall, wherever possible, require abutting residential properties to derive access from intersecting local roads rather than directly onto collector roads.

Local Roads. These streets provide direct access to the properties located along them. Local roads shall not be designed to carry through traffic. The Town Board and Planning Board shall require local roads to have sufficient width to permit two-way traffic to pass safely. In low density residential areas (lots of one or more acres in size), where parking is usually provided on each lot, a two-lane traveled way should be adequate. In higher density areas, a wider road should be provided to allow for parking on one or both sides as well as safe bicycle passage.

The Town and the Planning Department should continue to analyze traffic volumes and speeds to determine if the volumes and speed warrant a change in classification from through to collector or collector to local to allow the town to implement stronger safety measures.

Future Roads and Road Extensions. This plan continues the recommendations made in the previous plans governing future actions on new roads and road extensions:

- The system of through and collector roads in Bedford should be carefully controlled to protect the residential character of the town.
- Road planning should be continually coordinated with State and County highway authorities and adjoining towns in order to ensure that Bedford's local and through traffic needs and policies are followed.
- Any State and County highway improvement should consider and maintain the unique character of the Town and its hamlets.
- The Town Board and Planning Board shall coordinate local roads with through and collector roads in such a manner that a convenient system of circulation is maintained and enhanced for local traffic, with through traffic being discouraged.
- Dead-end roads, where permitted, should be limited in length for safety purposes and to avoid unnecessary expense in road maintenance.
- Residential lots should front on and have access to local roads wherever possible in order to minimize unnecessary driveway entrances on through and collector roads.
- Road connections need to provide adequate traffic circulation and access for emergency vehicles. This access should be identified, documented and measures taken to preserve these routes.

Transportation Strategies

The following strategies reinforce the functional road classification. Some of the strategies will also enhance the qualitative aspects of Bedford's transportation system, such as recommendations on scenic and dirt/fragile roads.

[note to consultant: confirm strategy titles are appropriate/worded correctly]

Strategy 1: Access Management

Access management is a strategy that applies to commercial arterials and districts. The goal of this strategy is to enhance the arterial function of the road, improve efficiency of access and to minimize the delays and conflicts created by vehicles turning into and out of the driveways found along a typical strip development. Potential actions include the following:

Improve the Route 117 Corridor

Route 117 is a commercial arterial that runs parallel to the Saw Mill River Parkway south of Bedford Hills. It is a State road and changes to the road would be made by NYSDOT. To manage traffic along Route 117 in an efficient and safe way it is continued recommended that parallel connections or roadways on the west side of Route 117 be provided.

Previous Plans recommended that the short section of Plainfield Avenue located between Route 117 and the MetroNorth tracks should be extended southward into Mount Kisco and northward to serve the commercial properties located on the west side of the commercial arterial. This extension of Plainfield Avenue should be implemented in conjunction with future applications for site plan approval.

Improvements to signal timing and installation of smart signals should be implemented along Route 117 to facilitate traffic flow.

Katonah Parking Lot 1 Access. Access to Bedford Parking Lot 1 in the Katonah hamlet is currently limited to entrance/exit from Jay Street, directly to the east of the Metro North Railroad crossing. Jay Street is a two lane roadway with no turning lanes. Currently, traffic waiting to enter the lot backs up the eastbound roadway of Jay Street over the railroad crossing. The Town of Bedford engaged consultant Hahn Engineering, P.C. to develop access improvements to Parking Lot 1. In this plan, the entrance/exit drive of Lot 1 will move east on Jay Street and a turning lane into Lot 1 will be added to the Eastbound lane of Jay Street. Pedestrian access improvements are also included in this plan.

This plan recommends the implementation of the Hahn plan for the Jay Street parking lot (Lot 1) in Katonah.

The Katonah train station is a major hub for the neighboring towns of Somers, Lewisboro and Ridgefield Ct. A bus service is provided from Ridgefield and Lewisboro to bring people to the Katonah station. With limited parking, many people drop off/pick up using the local streets at the Katonah station causing heavy car traffic through downtown Katonah at rush hour and backing up local streets while cars wait for passengers.

This plan recommends Parking Lot 1 be made the main pickup/drop off location for the Katonah train station.

To facilitate access to Parking Lot 1 from Route 35/I-684, this plan recommends reconstruction of the now defunct bridge at the north end of Lot 1. The current structure is due to be demolished in the near future by NYC DEP. The bridge should be replaced with a structure wide enough to accommodate two-way traffic as future improvements to I-684 and Route 35 could allow for two-way access from Parking Lot 1 to Route 35, which eliminates the need for much traffic to enter/exit through downtown Katonah.

This plan recommends rebuilding the bridge at the north end of Lot 1 and reestablishing the direct connection from Route 35 to Lot 1.

Control and Reduce Turning Movements Along the Commercial Arterials.

Turning movements in and out of driveways represent major conflict points and safety hazards along the arterials. One objective of the access management program would be to limit these turns and to consolidate them, whenever feasible.

Access between adjacent commercial properties should be enabled by requiring access easements to adjacent properties when a property is applying for site plan approval. This easement should

be required even if the town or applicant cannot obtain an easement from the adjacent property owner at that time. Eventually these connections can result in a service road.

Any commercial property located between an arterial and a side street should also be considered for connection to the side street, even if the side street is largely residential. These lateral access improvements can offset access limitations, such as driveway consolidations or turn prohibitions along Route 117.

These strategies are recommended for the Route 117 corridor south of Bedford Hills and for the Route 22/172 corridor west of the Bedford Village Green.

Strategy 2: Speed Reductions for Arterial Roadways

Speed reduction strategies are proposed for Arterials including Route 22, Route 172 and Route 35. Although these main Arterials are required to carry large volumes of traffic, speed reduction strategies need to be continuously reviewed to provide safe transitions from collector roads while still maintaining the necessary traffic flow. All available and reasonable speed reduction strategies should be considered and promoted by the town, including designating or maintaining the lowest speed limits permitted by State law, increased signage alerting drivers to pedestrian right of ways and bicycle use, increased placement of radar speed signs, and increased law enforcement.

Speed reduction will also encourage through-traffic to shift to or remain on I-684 or the Saw Mill River Parkway, where and when possible.

Route 22 throughout the town is and should remain designated as a Scenic Route. Route 22 also passes directly through the historic and commercial center of Bedford Village. By reducing the speed along this portion, the scenic character will be preserved and safety for all users (including vehicles, bicycles and pedestrians) will improve.

Route 172 connects Mount Kisco business district to I 684, the Fox Lane School Campus and Bedford Village.

Several collector road intersections along this corridor have restricted and dangerous turning movements which are exacerbated by the high speeds along this stretch of Route 172. The addition of a traffic light at West Patent will slow traffic down and provide breaks in traffic allowing for safer turning movements.

Increased law enforcement and radar speed signs should be implemented at the Route 172 approach to the I-684 interchange.

Route 35 is a major east-west NYS owned arterial thoroughfare with heavy traffic volume coming from both directions. Route 35 should have any 55 mph speed limit changed to 45 mph. Further, many accidents occur at intersections, such as Route 22, I-684 and Mt Holly.

Bedford, NYSDOT and all stakeholders will need to partner in finding potential solutions to reducing accidents, improving left turn safety, and lowering speeds at these locations. Potential intersection designs and risk mitigation should include:

- construction of a two-lane roundabout at the Rt. 35/22 intersection
- implement the DFOT's plan for a diverging diamond intersection at the Rt. 35/I-684 intersection
- reducing the 55 mph speed limit to 45 mph along Route 35 (consistent with all other State routes in Bedford)
- improved speed limit signage
- increased installation of Share the Road signage to protect vulnerable road users
- increased enforcement

Strategy 3: Safety Improvements

Minimizing accidents and improving safety of the Town's transportation network is of utmost importance in this plan. Improvements to roadway sections and intersections where a high number of accidents occur should be studied and implemented on an on-going basis. Further, accident data records should be provided yearly and kept up to date for the Town to monitor locations where improvements to may be required.

- An appropriate agency should be designated to list and track accident data each year. The data should be sortable, organized by specific category, such as severity, type of vehicle involved (e.g., fender benders, bicycle, death, etc).
- The town should have data on traffic volumes, speed and accident data readily available, by year, for planning purposes.

In general improvements for safety to be studied and implemented include:

- Improve roadway geometry and features to meet current design standards for the design speeds
- Improve intersection functions with addition of signals or turning lanes, modification of geometry or alternate designs (i.e. roundabouts)
- Implement speed reduction strategies
- Maintain enforcement of posted speeds

In addition to the above, the below specific improvements are recommended.

Intersection Improvements A common intersection design throughout Bedford is the use of the fork /v shaped geometry. This intersection geometry poses a risk to drivers when making turns or proceeding straight due to reduced or obstructed site lines, sharp points of convergence with opposing traffic and non-standard intersections without well-defined stopping points.

Intersections where this occurs include:

- Rt.22 and Jay Street
- Babbitt and Harris Road
- Guard Hill Road and Rt.22

- Cherry Street and Harris Rd
- Mt. Holly Rd and Rt. 35

Measures that Bedford should study and take, if appropriate) to improve these fork/v intersection locations include:

- reconfiguration of the intersection into T-shape with opposing roads meeting at ninety degree where land or existing location can accommodate redesign
- maintain fresh line striping to channelize vehicles
- clear vegetation or tree overgrowth to improve sight lines
- provide well defined stop line locations
- provide signs indicating a curved or offset intersection roadway ahead at strategic locations
- inclusion of additional stop signs within the intersection to improve safety
- modify one leg of a triangular intersection to become a one-way entrance to the side road.

An area of special concern is the intersection of McLain Street and Guard Hill Road (which becomes Knowlton to the west of the intersection). McLain Street runs north to south and Guard Hill Road east to west. At this intersection McLain becomes an elongated S curve with an approximate 100 ft stretch of east/west roadway, which connects the north/south roadway of McLain. Guard Hill meets McLain at either curve. McLain Street is the through road of the intersection with no stop signs while Guard Hill has stop signs in both directions. Guard Hill forms a fork or V-shaped intersection at both sides of McLain. Guard Hill approaches McLain from either direction on a hill, but the grade is relatively steep on Guard Hill westbound roadway.

Due to the curves and grades, visibility at the several intersections is poor. Turns at this intersection can be blind due to the geometry of the forked intersection and the curve. This is particularly of issue for the movements from northbound McLain to westbound Guard Hill and southbound McLain to eastbound Guard Hill.

The intersection should be studied to determine whether the introduction of a stop sign on west bound Guard Hill above the intersection is warranted. If that does not address the visibility issue it may make sense to eliminate the island to create a three way stop sign arrangement.

Signalized Intersections

Signalized intersections provide increased safety due to control of movements for each roadway and turning action. Further when timed properly for traffic conditions, they help to alleviate congestion due to inability of drivers to enter roadway or cross traffic. This plan recommends study of the following intersections for inclusion of traffic signals or modifications to existing signal timing and signalized movements:

- **Route 22/Greenwich Road** – This is a high-volume intersection with many turns on to Greenwich Road during rush hour. While there is an existing signal, the light cycle should be evaluated to ensure proper timing to allow for clearing of traffic. The light should be

timed with the Route 22/Route 172 signal to allow for continuous flow during the green cycle. A through plus turning lane configuration should be implemented. It is noted, the new firehouse will be built just south of this intersection.

- **Haines/117/Cherry Intersection** - A traffic and pedestrian light should be installed at the Route 117/Haines Rd/Cherry Street intersection to accommodate the increased traffic volume, multiple turning movements, limited sight distance and pedestrian traffic. Haines Road and two commercial driveways intersect on a curve of a four lane section Route 117 in Bedford Hills. Approximately 150 ft north of the Haines Road intersection, Cherry Street also intersects with Route 117 and should be incorporated into the traffic signal design.
- **Route 172/West Patent Road** – Route 172 runs east/west from Mt Kisco to I-684 and thus carries heavy traffic. It is only signalized at McLain Street and I-684 through this stretch which allows for higher speed traffic. West Patent Road runs north-south terminating into Route 172. West Patent is a major by-pass roadway for traffic delays on I-684; therefore, carries a fair amount of traffic. The high traffic on Route 172 and lack of breaks in traffic flow makes exiting West Patent difficult. To the west of West Patent Road is a curve on Route 172 which make visibility poor. NYSDOT should study the addition of a "smart" signal at this intersection.
- **Route 35/I-684** – This intersection is heavily trafficked and has long signal cycles due to the many individual movements required. There are also high accident rates at the intersection. During rush hour, the long signal timing causes delays along both roadways. NYSDOT has included this intersection in their Master Planning Study for I-684. One of NYSDOT's preliminary recommendations is to convert this intersection to a Divergent Diamond Interchange. In this design, traffic runs contraflow through an intersection to eliminate crossing left turns, a frequent cause of accidents. Further, left turns to enter the interstate would no longer need to be signalized with traffic running contraflow. Signals are minimized increasing throughput through the interchange.

This plan supports the NYSDOT recommendation for implementation of the Divergent Diamond Interchange

Roundabouts Bedford, in conjunction with NYSDOT, NYCDEP and all stakeholder, should begin a specific study for a potential roundabout at the intersection of Rt.35 and Rt.22. This intersection has been the scene of many accidents over the years. 55 mph speeds on Rt. 35, dangerous left turns, high traffic volumes, and the stacking of many cars at red lights all add a higher-level risk to the driver and passenger. Roundabouts have been implemented in NY State and elsewhere as an alternate traffic control design element at high traffic volume intersection. Roundabouts offer the following benefits that should be considered in future planning:

- Vehicles enter roundabouts at slower speeds
- Sharp left and right turns are eliminated, vehicles proceed in a slow circular direction and turn gradually onto the street of choice

- Vehicles keep moving at slower speeds in the roundabout, this improves safety, eliminates the stacking of stopped vehicles at red lights, and minimizes the risk vehicles being hit or rear-ended
- Idle vehicle motors emit CO2 when they stop at red lights or waiting for left turn signals to be green. Roundabouts keep motors running while idling tailpipes spew out the same pollutants as moving cars without any distance traveled
- Roundabouts provide a calming effect with less noise and speed
- During power outages, roundabouts can still function safely and control traffic without the need for electricity. This will help keep vehicles moving and reduce accidents when compared to traffic lights losing power
- Yearly maintenance and/or repair of the large traffic light systems and controllers is eliminated
- Landscaping or art could be introduced in the center of the roundabout providing beautification and a calming effect

Lawrence Circle Another location for consideration of a roundabout is Lawrence Circle. Lawrence Circle (i.e. intersection of Parkway and Bedford Road in Katonah hamlet) is an original feature of the landscape architects who laid out the Katonah hamlet. It is a small circle accessing roads to the North, East, South and West. It is also a heavily used downtown pedestrian area. There have been many accidents at this Circle complex.

Goals of the Town in this area should be to separate and protect pedestrians (many are children) from vehicles. Another is to reduce the number of vehicle accidents and a third is to protect and enhance the scenic areas of the medians on Bedford Road and The Parkway.

To protect pedestrians this Plan proposes that the medians on the West and East sides of The Parkway be extended approximately four to six feet so that pedestrians will have safe places to wait halfway across these busy roads. This would also have the effect of increasing the green spaces on the medians.

It is also recommended that the distance pedestrians are exposed to vehicle traffic be reduced by “bumping out” the sidewalks by four to six feet on the east and west Parkway sides. This, with the median extensions, will further reduce the distance pedestrians are exposed to traffic and also serve to calm traffic flow. Nothing needs to be done on the ends of the green on the north or south sides of the Circle as safe crossing havens exist there.

As to goal two, Bedford Road currently does not have stop signs entering Lawrence Circle. To help control speed and traffic, it is suggested to study adding stop signs on Bedford Rd in addition to the ones on Parkway. As existing stop signs are often ignored because of the complexity of the various movements, a more effective method of informing drivers is to paint STOP or SLOW signs directly on the pavement in appropriate locations. These would be more visible reminders to drivers

There have been suggestions that this Circle should be expanded to a full traffic circle. This is not appropriate because of size of available space and the wish to encourage pedestrian activity in this historic downtown area

Railroad Crossing Improvements The town has two at-grade Metro-North railroad crossings, one at Green Lane and the other in downtown Katonah at Jay Street. With recent fatalities at other at-grade Metro-North crossings, improving safety of the crossings is vital.

The Green Lane crossing is located at the entrance of Green Lane off of the Saw Mill River Parkway. The sight lines from the Saw Mill River Parkway to the railroad crossing are poor. Additional signage should be added before the turn. Further, increasing the length of the Saw Mill River Parkway exit ramp to allow for car stacking should be considered.

The Katonah railroad crossing occurs directly in the commercial center on Jay Street a main thorough road of the hamlet. On the west side of the crossing is the main commercial roadway with high parking and pedestrian movements. To the east, is the entrance to Parking Lot 1. Due to cars stopping either for pedestrians, parking or congestion, traffic can back up on to the railroad crossing itself. As discussed earlier, the Hahn plan to add a turning lane on the east side of the crossing should be implemented. Further, a similar turning lane should be designed for the west side of the crossing allowing for traffic to turn onto Katonah Avenue if The Parkway is backed up thereby allowing for continuous flow across the tracks.

Additional safety improvements recommended include:

- Improve pedestrian crossing safety with pedestrian actuated beacons, raised crosswalks, or bump out sidewalks and medians at crosswalks to facilitate shorter pedestrian crossings in the hamlet
- Extend the median southward at the intersection of Bedford Road and Valley Road and create a protected crosswalk median so pedestrians can stop before crossing all the way to the other side.
- Speeds at the Rt. 172 and I-684 intersection are high due to traffic volume and the downhill grade. Recommendations are: increase left turn light time and create a right turn lane in the shoulder for an additional Southbound entrance lane
- Cut vegetation, overgrown trees and dead trees throughout Bedford and on the Saw Mill Parkway. Dead trees and overgrown trees are a liability and can fall over power lines causing power outages or cause severe accidents or fatalities. Overgrown vegetation in shoulder areas obstructs sight lines and impacts bicyclists using the shoulder
- Speed reduction strategies as discussed in Strategy 2.

Strategy 4: Congestion Improvements

It is important to alleviate certain critical bottlenecks along the arterial roadways. If these bottlenecks result in substantial delays (longer than 60 seconds per vehicle) and in traffic turns onto residential streets, they need to be eliminated. General actions include:

- Add turning lanes,
- Widen approaches
- Build roundabouts, where appropriate.

Further, the following specific roadways contribute significantly to congestion in the Town and improvements should be studied and implemented.

Improvements to Rt 117 Corridor Route 117 is a heavily trafficked road under normal conditions but becomes more congested when drivers seek alternate routes due to a backup on I 684 or the Saw Mill River Parkway. Traffic is also impeded and flow reduced by the many homes and commercial units along the route which make both left and right turns onto route 117. Since these units are already established, it is too late to try to restrict their movements.

Traffic along route 117 is regulated by three traffic lights in this sector: Green Lane, Norm Avenue and a light on the Mount Kisco border. Just north of this light is a boulevard accessing the former Grand Union property. This boulevard does not allow left hand turns.

Many traffic backups are caused at the Green Lane intersection. It currently feeds the SMRP and the shopping center housing the Shoprite supermarket. Both are major traffic generators. It has been announced that Shoprite will be moving to the former Grand Union site. Thus, the Grand Union site will soon see much more traffic and the inability to make exiting left turns from the boulevard will become a serious backup and safety problem.

A possible solution would be to install a second light at the boulevard which would be timed with the light on the Mount Kisco border. This would allow a left turn signal for the boulevard traffic. There seems to be space for a right turn lane on the boulevard also which could ease traffic flow.

Previous Town Comprehensive Plans have recommended developing an alternate North/South corridor using Plainfield Avenue as a base. No additions have been made so far.

This Plan recommends:

- NYSDOT be asked to review and, if possible, improve the timing of the route 117 traffic lights to allow more efficient traffic flow. Smart lights should be added along this corridor.
- NYSDOT review the exit situation at the Grand Union boulevard and develop a solution that will allow left turns from that location
- The Planning Board and Town continue to attempt to accumulate linkages to develop the N/S corridor as detailed in former Plans.

Improvements to I-684 at Interchange 5 & 6 I-684 runs north-south through the Town of Bedford. The Saw Mill River Parkway enters I-684 at Interchange 5 near the hamlet of Katonah. I-684 at Interchange 5 & 6 is a major congestion point due to several factors including the lane drop of the main line of I-684 and the substandard design of the Saw Mill River Parkway interchange. Congestion delays on I-684 and the Saw Mill River Parkway greatly impact the Town as traffic diverts from the interstate on to local roads; something which has been exacerbated in recent years with wayfinding on mobile phones. NYSDOT recognizes the need for improvements to I-684 to enhance the Level of Service of the highway. As such, NYSDOT is undertaking a Master Plan for the I-684 corridor. The Master Plan is still under development, but improvements suggested to date include adding a lane to I-684, upgrading the Saw Mill River Parkway Interchange to modern design standards with elimination of the collector-distributor

road geometry and modification of Route 35 to a Divergent Diamond Interchange to improve traffic flow on Route 35. The Town should support and push for these particular improvements as they will improve functionality of I-684 through Bedford which will reduce diverted traffic to and improve the safety of the Town's local roads.

Suggested congestion improvements that Bedford can implement through the planning board and with NYSDOT:

- Improve light timing on Rt.117 and signage all commercial district
- rebuild two-way traffic bridge from MNRR Lot 1 over DEP water to Route 35
- create left turn lanes on Jay Street as discussed above
- monitor traffic bottlenecks and safety problems along arterial roadways and evaluate and implement measures such as turning lanes as needed

Strategy 5: Traffic Calming of Local and Collector Roads

This strategy applies to residential streets and collectors suffering from high travel speeds and traffic using the street as a short cut to avoid delays on arterials. This strategy is proposed for some of the east-west collectors affected by the shift of traffic away from Route 172, primarily Guard Hill Road, Baldwin Road, Succabone Road, etc. Some of the potential actions include:

- Four-way stops applied to residential intersections. Typically four-way stops are only recommended at locations where there are sight-distance restrictions. However, they are an inexpensive control device slowing down traffic and increasing intersection safety.
- Add speed humps (an improved version of speed bumps that are bicycle friendly and can be plowed). Generally speed humps are only recommended on local and collector roads at locations that are not steep and have good sight distances as needed. They are effective in reducing speeds (especially the high-speeds drivers) and in improving safety. Their location needs to be coordinated with emergency services and they need to be designed so that drainage continues to function.
- Extended sidewalks should be considered as a calming measure through the hamlets.

Some of these measures should be implemented on a test basis. Speeds and volumes should be measured before and after the construction of the speed device. Additionally, New York State DOT has traffic calming grants for which the town may apply.

Strategy 6: Bedford Village Improvements

Bedford Village is a cross roads for four arterial state routes, Route 22, Route 172, Route 121 and Route 104, connecting traffic from Stamford and Armonk to the south, Pound Ridge to the east, Mt Kisco and I-684S to the west and Katonah, I-684N and Cross River to the north. Bedford Village and the area surrounding the Village Green is a business district with shopping and dining creating high pedestrian activity. As the Village Green and Bedford Village is a historic area,

improvements option in this area are limited. In light of this consideration, the following improvement recommendations are made to maintain the historic and scenic character of Bedford Village.

Traffic through Bedford Village has increased with high volumes traveling through the Village at rush hour. This traffic uses the local Village Green road to travel from Route 22 to the north to Route 172 to the east. Due to the traffic signals and the triangular geometry, significant backups occur around the entire Village Green, including from traffic waiting for red signals

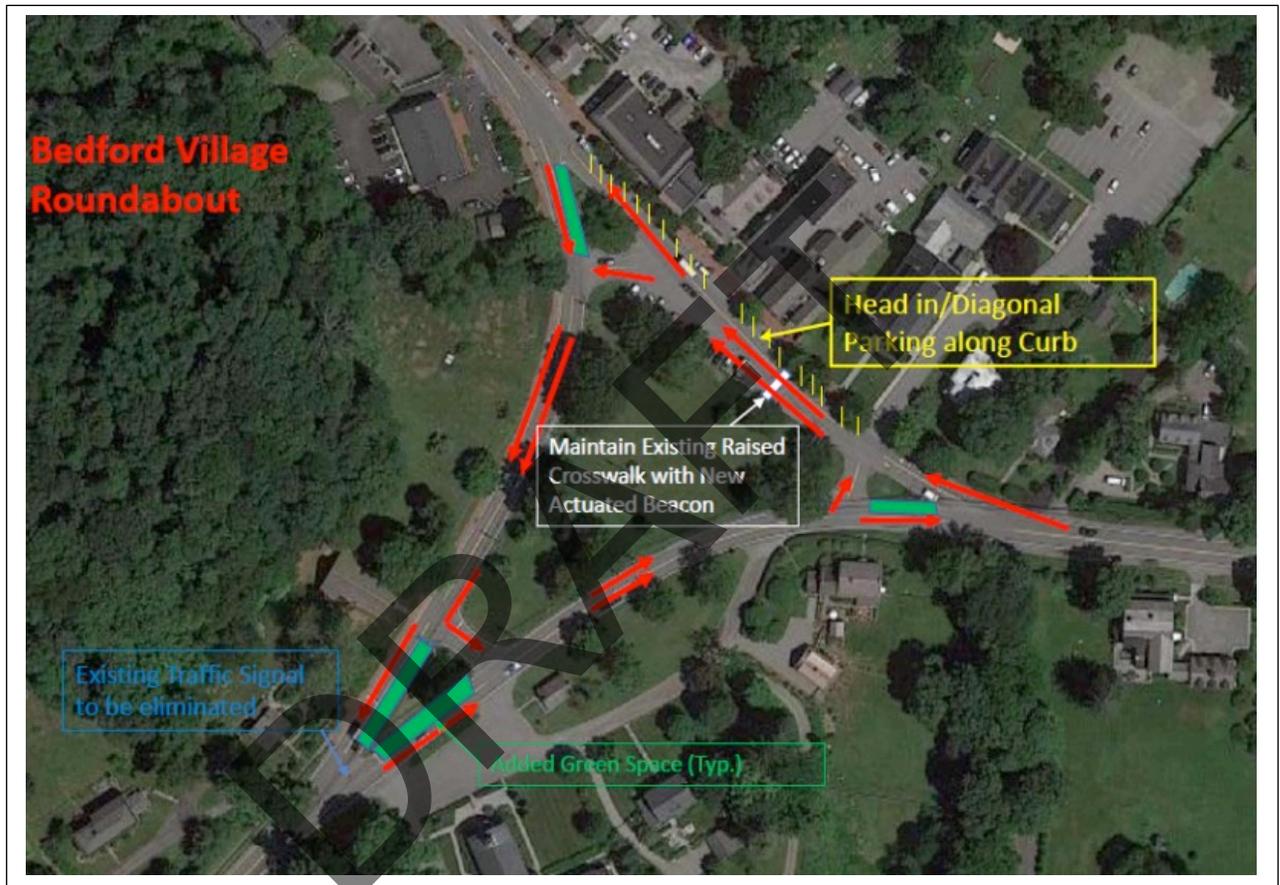


Figure 2 Bedford Village Roundabout Concept

blocking other movements. Sight distance entering/exiting the Village Green Road are poor and with traffic potentially moving above the speed limit, entering Route 22 or Route 172 is difficult. Further, if traffic signals do not stop traffic, speeds are high through this congested business district. Creation of a roundabout around the existing Village Green as shown in the figure above could help resolve these issues. This concept was developed understanding the historic importance of the Village Green and aims to maintain the existing footprint. Roundabouts serve to calm traffic thus reducing speeds.

In this concept each of the three existing roads surrounding the Village Green would become a two lane, one-way roadway. Traffic would circulate around the Village Green through the Village Green Road and the roadway in front of Historic Hall/St Patrick's Church. All Route 172 Westbound traffic from Pound Ridge would turn right onto the Village Green. Access would

be provided to northbound Route 22 and the main flow would continue on to Route 22 south. Traffic looking to access Route 172 eastbound would turn left to the roadway at Historic Hall then left again to Route 172. All Route 22 north traffic would proceed east on Route 172 and again use the Village Green to continue on Route 22. At the Village Green Road, speed humps would be maintained or added to support a slow and safe condition on the Village Green Road.

To protect pedestrians on the Village Green Roadway, it is recommended to move all parking to the east side of the roadway, on the side of the road where the shopping is. Head on diagonal parking should be implemented which will increase the number of parking spaces. Parking on this side of the roadway will serve to protect pedestrians who now park on the Green side of the roadway and cross at any location, not on the cross walks.

To maintain access to the Green, the existing raised pedestrian crosswalk on the Village Green Road should be maintained. With the diagonal parking the sidewalk can be extended to limit the crossing distance for pedestrians. A pedestrian actuated beacon should be added to this crosswalk to enhance safety.

Implementation of this roundabout configuration would not alter the existing Green. In fact, green area would be added at the existing triangle intersections of the Village Green Road and at the south end of the Green as one lane of the existing roadway should be blocked for the roundabout configuration. Further the existing traffic signal at St. Patrick's Church/Historic Hall can be eliminated, restoring the historic character of the area.

As a business district, Bedford Village needs to be a pedestrian-friendly area to enable consumers access to the businesses. Walking or biking should be encouraged as a main mode of transportation in this area. Connection between residential neighborhoods, the historic area, school and park should be established and enhanced.

Strategies to make Bedford Village a pedestrian friendly area include:

- Addition of a sidewalk on Route 22 from Tarleton to the meet the existing sidewalk.
- Improve the sidewalk path in front of the cemetery to Greenwich Road and the shopping area south of the Village Green
- Install a sidewalk on the south side of Route 22 between Greenwich Road and the restaurant Truck to allow pedestrian access from the Farms neighborhood
- Encourage walking/biking to Bedford Village Elementary School with use of crossing guards during school hours
- Install an ADA compliant sidewalk to Bedford Village Memorial Park.
- Install extended curbs at crosswalks to slow traffic and minimize crossing length.

This plan endorses implementation of a roundabout at the Village Green, modification to head-on diagonal parking on the shopping side of the Village Green Road, the addition of green space enabled by the roundabout configuration and enhanced and extended pedestrian access within Bedford Village.

Strategy 7: Scenic Roads

Bedford has many roads that have scenic qualities — distinctive vistas, stone fences or walls, hedge rows, and tree canopies. These qualities are created primarily not by the roads themselves (which may be paved or unpaved) but by the natural countryside and landscape quality of the open spaces through which the roads traverse. As a result the preservation of the landscape around these roads is as important, if not more important, than maintaining the road surfaces.

To this end, this plan recommends that Scenic Roads be so designated by the town using a jointly involved application process. Such a process would create a partnership between the Town government and local residents. The application process would start with property owners having frontage on the particular road. They would petition the Town Board to designate the road as Scenic on the town's official map. It is recommended that a petition have signatures from property owners controlling fifty percent or more of the frontage along the stretch of road under application. The petition would list the qualities of the landscape adjacent to the road that make the road eligible and the agreed-upon mechanisms or techniques to preserve these qualities. (For example, a scenic or conservation easement by which the landowners guarantee the preservation of the landscape is one technique to guarantee that a road designated as Scenic remains scenic.)

The Town Board would be authorized to ensure that the provisions of any such agreement remain in effect. The Bedford Coalition's list of scenic roads (Note to Plan Drafter: insert figure as per old plan as appropriate) provides a benchmark of which roads currently have aesthetic qualities that make a Scenic designation process worth pursuing.

Strategies for preserving and maintaining scenic roads include:

- Enact a Scenic Road Preservation Law recognizing the special character of these roads and accepting lower design standards. [Note to drafter: confirm if this was enacted and remove as appropriate]
- Implement traffic calming techniques to discourage vehicular traffic yet encourage pedestrian and bicycle use.
- Ensure that design and maintenance standards are in place.
- Ensure that safety standards are in place. For example, speed limits should be lowered for potentially dusty and bumpy roads, with special signs erected alerting drivers to the Scenic Road and the lower speed limit.
- Require a permit for rebuilding or removing existing stone walls or building new stone walls along roadways and along the perimeter of a property. The review process should include setback and height requirements that would make new or rebuilt walls conform to historic precedents.
- Involve the Conservation Board as an advisory review board for potential scenic road designations.

Strategy 8: Dirt Roads

It is the policy of the town to avoid paving the existing dirt roads. The Town government must continue to ensure that public monies are available for proper upkeep of dirt roads. Figure 8.7 indicates the extensive network of dirt roads within the town, some 32 miles of road. These roads sustain Bedford's rural character and serve as an effective traffic calming technique. However, in order for these functions to be preserved and to maintain the roads' safety, the Town must regularly maintain its dirt roads and enforce speed limits. Dirt roads are not necessarily scenic roads. Property owners wishing to have their dirt road designated as Scenic should have to follow the process outlined above.

The existing dirt roads in Bedford continue to function and add to the rural character of the Town. Dirt roads have smaller environmental impacts and should remain unpaved.

A paved road collects rain and snow where it melts quickly. Water must be collected and managed in storm drain systems. Excessive rain runoff on paved roads in rural settings can cause erosion and sediment can collect in drainage systems requiring maintenance. Dirt roads absorb rain and snow melt into the subsurface and earth more readily. Dirt roads also slow down traffic, do not require line striping, emit less noise and have less rainfall runoff than paved roads. The dirt roads of Bedford support various modes of transportation including cars, trucks, and farming equipment. Dirt roads also provide for recreation needs such as horseback riding, bicycling, running and walking.

Today, many more people partake in outdoor exercise and rural, low traffic, dirt roads provide a calmer surface to do it on. The Bedford public has demonstrated a certain preference for dirt roads when doing these activities. On the negative side, increased use of dirt roads can make maintenance more challenging as more people use them for transportation and recreation. Ruts, rippling and loose aggregates may occur more frequently. Proper grading and maintenance must continue to be budgeted by the Town to keep dirt roads passable for residents and other users as populations and multi-use increases over time.

The following should be part of Bedford's dirt road maintenance strategies:

- Regular grading and filling of depressions and ruts
- Provision of drainage channels to manager rainwater
- Road signs alerting drivers to the shared use for pedestrians, bicyclists and horses
- Increased trash collections as needed during busy seasons.
- Regular measures for controlling dust.

This Plan endorses the continuance of Bedford's support for its system of scenic, recreation-oriented dirt roads.

Strategy 9: Parking

Within the Town of Bedford there are two significant forms of parking besides residential street parking. Hamlet parking is provided close to shopping districts and allows for up two-hour stays in all three hamlets. Commuter parking areas near the railroad stations surround the hamlets of Bedford Hills and Katonah. Bedford Village at this time does not have a bus to rail commuter parking lot.

Regarding hamlet parking, over the years priority systems have been devised to encourage higher turnover of prime parking spaces close to retail and offices. The critical issue is that there will never be sufficient parking for all the activities present in each of the hamlets. Short term use of such spaces in front of retail storefronts is typically strictly enforced by the parking enforcement officers of the Bedford Police Department.

Office tenants and other all-day activities should be directed to spaces more distant from the retail first tier parking spaces. These parking areas are defined as those spaces closer to the commuter parking areas, residential areas and, or behind retail and business structures.

Bedford Hills' parking arrangement is defined by several streets converging to a point in front of the train station. Geographically, the village struggles with natural and man-made parking features, such as varying elevations, commuting activities, the physical railroad, the fire house and small office and industrial businesses. Consequently, linear parking along the streets is the predominate form of parking closest to the retail storefronts, with exception of the Post Office off-street parking and the unmarked office parking spaces south of the station. The commuter parking on the other side of the railroad is essentially too distant to serve the mixed retail activities generated in the hamlet.

Presently in Bedford Hills there is no single tenant, or group of retail spaces dominating parking spaces. Due to the size of the retail building spaces, it would appear that this balance between parking and retail will remain in the near future. The Town should continue enforcement of parking time limits and use of spaces.

The Hamlet of Katonah faces parking challenges less from geographic features and more from competitive activities. The hamlet is linear with retail/offices running from the train station on Katonah Avenue to a point south where the Avenue joins Bedford Road again. Parking on the Parkway is also considered to be prime locations because of their proximity to the retail core. Many of the retail floor area spaces are sizeable allowing for larger scale retail tenants such as drug stores, clothing, hardware, real estate and restaurants. Smaller store spaces filling out the remainder of the storefronts are typically dry specialty shops.

Therefore, there is a natural attraction for visitors to seek spaces in the diagonal spaces in front of the storefronts on Katonah Avenue and the Parkway. For the most part these spaces are in use all day.

In the southernly direction on Katonah Avenue, parking is parallel to the curb serving adjacent retail uses. Secondary parking can be found to some extent on Valley road and then continuing around the corner on both sides of Bedford Road in a northward direction. On the south end of

the retail district a shopping center with the Post Office has a reasonable amount of parking that easily accommodates the activity on the property. In certain areas, such as behind the Chase Bank and across from the Blue Dolphin restaurant, commuter parking is actively used after hours.

The presence of the Town's parking enforcement officers in the hamlet helps to keep spaces turning over regularly. The town should continue enforcement of parking time limits and use of spaces

In the year 2021, Bedford Hills and Katonah will have sewer connections serving these districts. It is likely that several large retail spaces and small dry specialty storefronts will soon become restaurants uses. As a result, depending on the hours of operation, pressure on first tier parking may substantially increase, or shift to nearby commuter, or residential areas where longer parking is possible.

If commuter parking returns to pre-Covid levels, the Town should pursue a parking structure at the north end of commuter Lot 1 to increase parking within Katonah. Additional parking within the commuter lot will serve not only to provide additional commuter parking in the lot adjacent to the station, but also provide options for long term parking for retail/restaurant employees and increased spaces for shoppers/diners in the business district.

Commuter Lots There are nine park-and-ride lots in Bedford: Jay Street, Fleet, Woods Bridge (North Katonah), Bedford Hills LET, Post Office, Griffen, Lower Railroad, Bedford Hills Railroad Terminal and Route 172. These lots are used primarily by commuters from Bedford but some spaces are sold at a higher price to commuters from adjacent towns in Westchester County and Connecticut. Based on statistics gathered over the past years, some lots are underutilized while others are almost full.

Bedford has won renown as a scenic town with beautiful tree lined streets and roads. One exception is the town's commuter parking lots which are bare open acres of macadam. This plan proposes that in each lot high arching trees and hedges along the perimeter be planted. An example of where this beautification has been successful is the Kohl's parking or the Target lot in Mt. Kisco.

Strategy 10: Pedestrian-Friendly Areas

Three pedestrian-friendly areas are recommended for the three village centers: Bedford Village Green area, the Bedford Hills area around the train station, and the downtown Katonah area. Pedestrian safety and friendliness should be the primary transportation objective in these areas. Increased walking will help in reducing traffic and parking problems and will be beneficial to the retail vitality. In Bedford Hills and in Katonah, the pedestrian-friendly areas should extend at least $\frac{1}{4}$ mile from the railroad station. In Bedford Village, the pedestrian-friendly areas should extend about $\frac{1}{4}$ mile from the Tarleton Rd and south on Route 22 through the Key Food Shopping Center.

Roadway capacity increases should only be undertaken in these three pedestrian-friendly areas if they do not affect the pedestrian circulation and the community character, and if they do not generate significant increases in traffic speeds or volumes.

Some of the pedestrian improvement strategies suggested here may be extended to the Route 117 corridor south of Bedford Hills. Even though these commercial corridors are not typical pedestrian-friendly areas, they can benefit from pedestrian improvements.

The following are recommended pedestrian strategies:

- Within the pedestrian-friendly areas, add sidewalks on both sides of the street to link all uses. Specifically, a sidewalk should be added on the east side of Route 22 between Greenwich Road and the restaurant Truck (or at a minimum between Vinton Avenue and Jefferson Lane) to allow The Farms neighborhood walking access. There should be one or more pedestrian actuated beacon crossings to allow safe crossing of Route 22 to access restaurants and shopping.
- Create roadway neck-downs at pedestrian crossings, thereby reducing the pedestrian crossing distance, slowing down turning traffic and narrowing the travel corridor visually.
- Implement speed reduction strategies at the entries to pedestrian zones through gateway treatments, raised pedestrian crossings or narrowing of the roadway.
- Encourage off-street parking on municipally or privately-owned land (i.e. create Park & Walk locations) and discourage on-street parking unless it can be provided without affecting the visual and historical character.
- Improve pedestrian safety and convenience through reduced speeds, pedestrian shortcuts, increased seating areas, etc.

In addition to creating pedestrian friendly zones in the hamlet areas, the following pedestrian safety improvements are recommended.

Pedestrian Safety at the Haines/117/Cherry Intersection Pedestrian lights should be installed with a new traffic light at the Route 117/Haines Rd/Cherry Street intersection. One pedestrian light along Route 117 across Haines Road will provide safe passage across Haines Road to the Bedford Hills Memorial Park from the existing sidewalk along Cherry Street. Another pedestrian light should be added across the four lane section of Route 117 at the existing pedestrian crossing for access to the Bedford Hills business district and train station. In addition, there should be crosswalk striping added across the Saw Mill entrance and exit along Haines Road to increase pedestrian safety for persons walking to the Bedford Hills Memorial Park.

One multi use path is located between Katonah and Bedford Hills along the east side of Bedford Road between the two entrances to the Saw Mill River Parkway. Crosswalk striping across the Saw Mill entrance at the south end of the path should be installed to extend safe pedestrian passage into the Bedford Hills business district and also provide greater pedestrian access from this recreational path to the Bedford Hills Memorial Park.

This off the roadway, multi use path should also be extended north to Katonah. Greater discussion of this path is in the bicycle improvement section (Strategy 11) of the plan.

Improve Access to Katonah Memorial Park from Edgemont and Whitlockville Rd Located behind 67 Valley Road in Katonah, a residential parcel, is a Town owned right of way extending from Edgemont up almost 100 ft to Wildwood Road. Created after Hurricane Floyd to address surface water run-off issues on the dirt portion of Wildwood Road, the Town acquired a 12-foot-wide +/- easement. The easement is on a 2.5-acre parcel owned by A-Home, a non-profit located in Pleasantville, New York.

Upon securing the easement the Town turned the road surface into a seasonal surface water drainage stream to accommodate water flow from seasonal storms and hurricanes. Along side the established brook is a foot path used over the years by children in the neighborhood to gain access to the Katonah Park during the summer. With very little effort a pedestrian trail could be constructed alongside of the stream bed. Use of this path would reduce the number of automobiles running back and forth from the Park.

Currently the many residents living in the Anderson Road/Whitlockville Road area must make a circuitous trip (often by vehicle) to access the Katonah Town Park. An alternate, more direct access to the Park is available thru the Town owned Zema property and it is recommended that the appropriate agency explore and construct this access.

This Plan endorses the creation and labeling of these trail/paths by the Town to encourage additional pedestrian access to the Town Park.

Improve Access to Bedford Village Memorial Park with ADA Compliant Sidewalk Pedestrian access to BVMP from Greenwich Road is limited to one sidewalk located on the south side of Greenwich Road between Route 22 and the Park entrance. The existing sidewalk is narrow and often partially obstructed by overgrown vegetation. This sidewalk is the closest means of pedestrian access from the Bedford Village Green, the soon-to-be constructed firehouse, and St. Patrick's School, among others. This plan recommends widening the existing sidewalk, to the extent possible and consistent with ADA requirements to make access easier and safer.

Currently, there are no crosswalks providing for a safe crossing of Greenwich Road for the residents of houses located on the side of the street opposite the Park. These residents include those living on adjacent local roads such as Pleasant Street and Spruce Pond Lane.

This plan further recommends the installation of one or more crosswalks at this location with a pedestrian actuated beacon.

Improve Pedestrian Crossing Safety at Bedford Rd/The Terrace/Allen Place At the south end of the hamlet of Katonah are two roads branching away from Bedford Road. The Terrace is a two-way residential street that meets Bedford Road where a right or left turn is possible. Allen Place is to the right of The Terrace and as the south bound Bedford Road driver reaches this intersection there is immediately a sense of open visibility, encouraging the driver to increase speed. The crosswalk on Bedford Road at Allen Place is only slightly visible, so the driver is inclined to not pay attention unless pedestrians make their presence known.

Northbound on Bedford Road approaching the intersection, the driver once again is not clearly seeing a defined crosswalk until he is too close to stop. When a driver makes a right turn from The Terrace, attention is focused on traffic traveling southbound on Bedford Road. Consequently, when given the opportunity to make the right turn, the driver's eyes may turn too late to see the pedestrians at the crosswalk.

Evaluation of the pedestrian issues should include the contemplation of a raised crosswalk, a pedestrian actuated signal, flashing light visible in both directions or the addition of stop signs.

This plan recommends implementation of upgrades and safety improvements to protect pedestrian and road users at this intersection.

Strategy 11: Bicycle Improvements

Bedford offers multiple opportunities for people who bicycle as a means of transportation or for recreation. Encouraging bicycle use and improving cyclist safety is vital to the community as it will reduce traffic congestion, reduce air pollution and reduce parking needs as well as promote a healthy lifestyle. Protecting these vulnerable road users is a fundamental recommendation of this plan.

Improve Safety of Recreational Cyclists on Arterial Roadways and Connectors The scenic nature of many of roads throughout Bedford has made the town a destination point for many recreational cyclists in the region. Most notably, recreational cycling is done along Routes 22, 35, 137, 121, and 172, North Salem Road, Holly Branch Road, Mount Holly Road, Reservoir Road, Maple Avenue, and Bedford Center Road. As the volume of cyclists utilizing the town roadways increases, the safety of both motorists and cyclists needs to be improved.

Some of the larger roads should be modified to accommodate a bicycle lane or to improve safety conditions on the roadways for cyclists. Where insufficient road width is feasible for a dedicated bicycle lane, the State and Town should consider building consistent shoulders and installing "Share the Road" signs.

Strategies for improving recreational bicyclist safety include:

- Reduce lane widths and speeds on roadways with an expanded shoulder and Share-the-Road signs, or with a designated bicycle lane. These strategies can be applied to arterials and collectors.
- Ensure shoulders are kept clear of debris and vegetation is trimmed to allow safe bicycle use.
- Encourage NYSDOT to build bicycle lanes along Routes 22 and 172.
- Reduce and/or enforce vehicle speed limits so that bicyclists are better protected.
- Ensure that all catch basin grates are bicycle friendly
- Fine bicyclists who fail to respect traffic laws, thereby endangering themselves and motorists.
- Consider designating a member of the Parks and Recreation Department to be responsible for implementing bicycle improvements and bicycle and pedestrian safety.

- Create and implement an educational campaign for motorists and cyclists to learn how to share the road safely.

Encourage Bicycle use as a Means of Transportation Bicycles as a means of transportation are currently being used to access the train stations at Katonah and Bedford Hills as well as to travel along Bedford Road towards Katonah, South Bedford Road (Route 172) from Mount Kisco, and the Route 117 commercial corridor. To encourage this usage the town should:

- Create bicycle storage facilities in pedestrian-friendly areas and at the rail stations. Preferably these would be the in-ground type rather than upright metal racks. Vandal-proof lockers should be installed at each rail station.
- Large commercial establishments should be required to provide bicycle storage facilities in proportion to the number of parking spaces (one bike storage unit for every 20 car spaces, with a minimum of two). These bike storage facilities should be available for the months from March through November; for the rest of the year these areas can be used for snow storage.
- Provide safe storage and potential charging stations for E bikes.
- Sponsor “Ride to Work” days or “No Car” events to encourage alternative modes of travel and encourage the reduction of car traffic.

Encourage Family Friendly Recreational Bike Opportunities In addition to improving the safety of roadway cyclists, the town should create opportunities for novice cyclists. There exists one bike path available for novice riders in the Town of Bedford. This bike path is located in Bedford Hills along the east side of Bedford Road between the two entrances to the Saw Mill River Parkway.

To encourage recreational bike use for the novice rider, the town should develop a network of protected multi-use (Bike and Pedestrian) paved (or gravel) paths to connect the three town hamlets of Bedford Village, Bedford Hills and Katonah. While intended as a recreational path, this path could be used by commuters to access the trains at the Bedford Hills and Katonah Stations.

This network of multi-use paths can be phased to minimize the financial burden to the town and should be coordinated with the County, State and federal agencies. However, the first leg of this network could be completed by extending the existing path from the Katonah business district to the Bedford Hills business district.

The town should also establish and sponsor activities to encourage family friendly cycling as a healthy, community building event. An example of this type of activity is dedicated road closures use for bicycles, such as “Biking Sundays”. Suggested road closures include Railway Ave from Harris Road to Rt 117 in Bedford Hills or Seminary Road in Bedford Village.

This plan recommends that the Town set aside several Sunday afternoons between April and November for Biking Sundays.

Introduction of E-Bikes to Reduce Parking In the coming years, the use of bicycles and e-bikes will continue to grow in Bedford. The town should encourage the use of all such bikes by the

creating specific parking racks and battery charging units. One auto parking space in a commuter lot can accommodate four, or more e-bikes.

This Plan encourages the creation of such racks in the appropriate commuter lots.

Strategy 12: Public Transportation

Bus Service There is a limited demand for bus service in Bedford, and one bus line (Bee-Line Bus No. 19) currently operates in the town. The Westchester County Bee-Line system provides service to Bedford and consists of one local line running between Ossining and Katonah that connects Mount Kisco, Bedford Hills and Katonah along Route 117 as well as providing connections to southern Westchester.

Although these bus routes do not appear to be heavily used, local and County officials should continue to provide this service for those who rely on bus service for their means of transportation.

Currently a mini-bus service is provided on Route 35 from Ridgefield, CT and South Salem to the Katonah rail station, thereby relieving the Bedford parking shortage. Bedford should work with the county, other towns, and the local school districts to encourage additional bus or mini-bus service in order to reduce highway use by single-occupant private cars, the need for more parking lots, and the enlargement of local highways.

The Town should encourage school districts to investigate switching to clean energy vehicles rather than current diesel powered buses.

- [Note to draft: Without doing any independent investigation, the subcommittee is not aware of any other unmet bus transportation needs of the Town, e.g. Bedford Village such as commuter bus to North White Plains or NYC as existed in the 1980s.]

Rail Service There is a large demand for train services to and from Bedford, and the Metro-North commuter rail line currently operates 10 peak hour trains to New York City, 17 off-peak hour trains to New York City, 10 peak hour trains from New York City, and 20 off-peak hour trains from New York City. The number of trains going to and from Bedford seems to meet the demand of residents and commuters; however, the commuter parking areas nearest the train stations are usually filled to capacity. Parking at the train stations is an important component to the ability to use the train as opposed to driving. The parking policies discussed under the parking section should be followed. Specifically, if demand returns to pre-Covid levels, a parking garage structure should be implemented in Katonah Lot 1 as the Katonah station serves as a transportation hub

The two rail stations are also in a pedestrian-friendly area. Safe access to the stations by foot and by bicycle should be maximized as much as possible. Opportunities for pedestrian shortcuts should be investigated and implemented.

Aviation Service Bedford benefits from having an excellent County airport close by, which serves the town's commercial and general aviation needs. The town prohibits private general and

commercial aircraft from landing or taking off within town boundaries. This policy is affirmed by this plan and should continue to be enforced

Other Issues

Invasive Vines This Plan recommends that the Town take steps to enhance the safety and beauty of the Town's scenic roads and parkways by working with the County, State and nation to develop a safe spray or other means to destroy or otherwise inhibit the growth of these aggressive plants. These vines are destroying many of the mature trees and other plantings that make our Town so uniquely distinctive.

Railroad Maintenance It is recommended that the MTA be encouraged to regularly clean their roadbed of litter and trash through the Town. The MTA should provide regular maintenance, such as blast cleaning and painting, of the fencing through the hamlet of Katonah

Additional Recreational Walkway There is an additional relatively unused recreational resource that is owned by the NYCDEP at the north end of Town. This is the road accessing the Muscoot Dam which is closed to all not having a DEP permit. The DEP should be approached by the Town to ease this restriction, encourage DEP to make availability of permits well known and permit recreational walkers to access this scenic road. The DEP should make the permits available through the Town Clerk.

DRAFT