

Chapter 2. Metropolitan Transportation System

The transportation system in the Poughkeepsie metropolitan area is multi-faceted. With the exception of some inter-city and commuter train trips, virtually all travel in the area takes place in motor vehicles (automobiles, trucks, buses) on the public road system. In turn, most trips are made by private vehicle rather than by public transit. Nevertheless, the non-highway components of the transportation system provide important links between the county and the larger region, and also provide service to those residents whose transportation options are more limited. This chapter describes each of the system elements, highways and roads, bridges, bus transit, rail transit, air travel, freight movement, and bicycle and pedestrian facilities and explains its role in the larger context.

Highway Network

The highway network can be classified in different ways. All public roads come under the jurisdiction of state, county, city, town, or village governments, or state authorities (e.g. NYS Thruway Authority, NYS Bridge Authority), which are responsible for maintenance and reconstruction activities. The function of a road or highway within the overall network is determined by its location, design, and capacity. The function of the road also determines its eligibility for federal aid. All roads that have a functional classification of Rural Major Collector or higher are part of the Federal Aid System, and therefore, are eligible for federal aid.

According to 2000 data there are nearly 2,400 centerline miles of public roads and highways in Dutchess County.

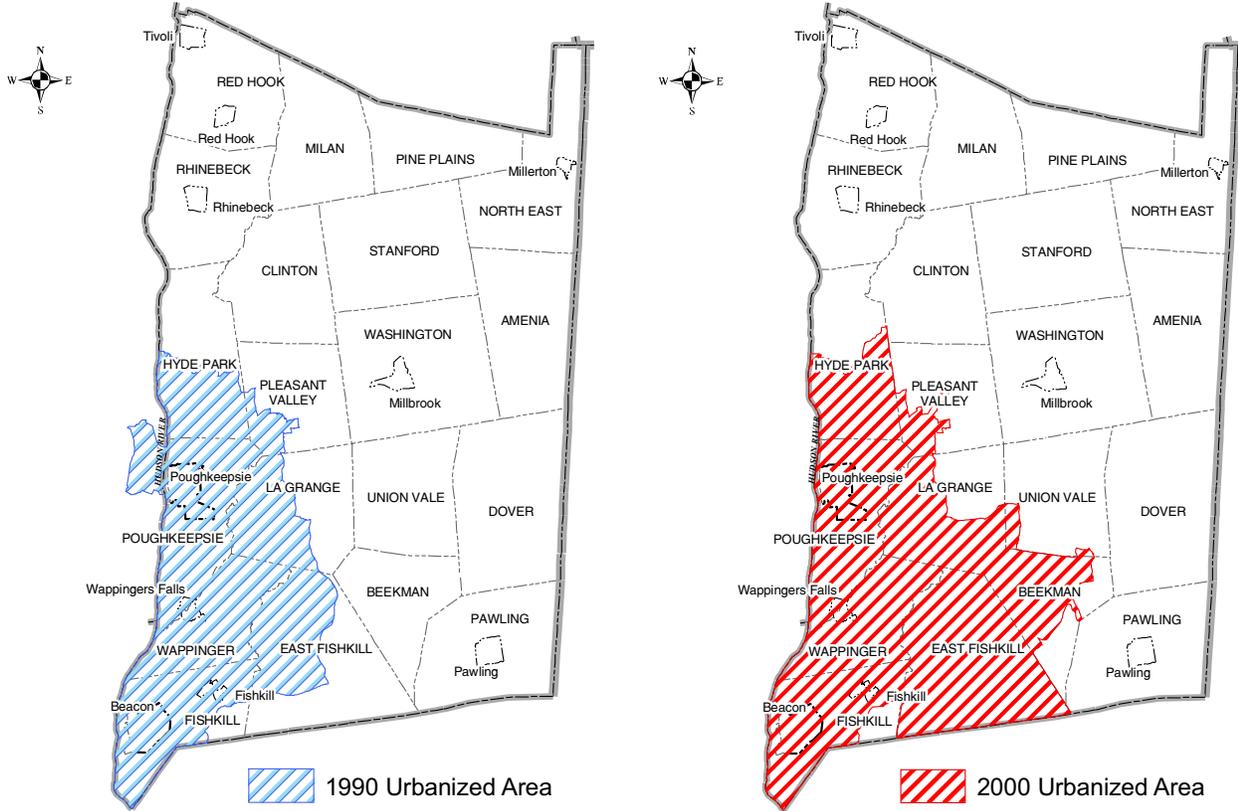
Generally, the expressways and principal arterials are state roads, and most city, town, and village roads are designed to provide access to adjacent property. The relationship between jurisdiction and function is less clear-cut for many roads that are between these extremes.

Jurisdiction

The New York State Department of Transportation maintains a summary of roadway jurisdiction in centerline miles. According to 2000 data there are nearly 2,400 centerline miles of public roads and highways in Dutchess County. Local governments are responsible for two-thirds of the roads. The remaining one-third is split between the county (393 miles) and state (411 miles).

The Adjusted 2000 Urbanized Area for Dutchess County includes 14 municipalities. The communities in the current 1990 urbanized area include fifty-eight percent of the local roads, over one-fifth of the county routes, and half of the state highway miles. The 2000 Urbanized Area for the first time includes parts of the Towns of Beekman and Union Vale. The highway mileage in the urbanized area will only increase when the PDCTC 2000 Urbanized Area Boundary is finalized in 2003 (Figure 2-1).

**Figure 2-1
Urbanized Area Boundaries 1990, 2000**



The urbanized area in Dutchess County spread east and south between 1990 and 2000.

Functional Analysis

The roads in Dutchess County have also been assigned a functional classification. There are seven broad categories, most with an urban or rural subset based on the road’s location.

- Interstate (urban and rural) - The U.S. interstate system links the major urban areas throughout the country and is designed to provide for large volumes of through traffic. Direct land access is prohibited. The example in our area is Interstate 84.
- Principal Arterial - Expressway (urban) - Like interstates, the arterial expressways are designed to carry through traffic. They are generally multi-lane facilities with grade separated interchanges and limited direct land access. An example of this in our area would be Route 9 in the City of Poughkeepsie.
- Principal Arterial (urban and rural) - Major arterials provide an integrated network for the movement of relatively heavy traffic on longer trips that cannot be served by expressways. Continuity of routes and traffic controls are needed to provide



Interstate 84 connects Dutchess County to the rest of the Federal Interstate system.

as free a flow of traffic as possible. The arterial network also provides a connection between the expressways and the collector and local street systems. Examples in our area are Route 22 and Route 55.

- Minor Arterial (urban and rural) - Minor arterials supplement the major arterial system by carrying trips of a more local nature. The level of travel mobility is generally lower, and there is greater emphasis on land access than in the previous categories. Examples in our area are Route 113 (Spackenkill Road) or Route 199.
- Collectors (urban and rural) - The main function of a collector is to conduct traffic from local streets to the arterial and/or expressways and vice versa. This allows traffic to be distributed (or collected) without exceeding the capacity of the local street system. Examples in our area are Route 376 or CR 93 (Myers Corners Road).



Local roads such as Arch Street in the Village of Pawling offer access to adjacent uses such as housing. These types of streets are generally designed to carry the lower amounts of traffic.

In rural areas the collector system has two subsets, Major Collector and Minor Collector. These roads differ primarily in the size of the communities they serve. Minor collectors carry fewer trips between communities. Examples in our area are Route 343 or CR 9 (Beekman Road).

- Local Roads (urban and rural) - The functions of a local road system are opposite those of the arterial system. Moving traffic is secondary to the primary purpose of providing access to adjacent properties; access includes pedestrian as well as vehicular movement.

Figure 2-2 and Figure 2-3 includes all of the roads in Dutchess County that are a part of the Federal Aid System. While it is relatively easy to classify the area’s roads according to the function they are currently serving, many roads are presently serving functions for which they were not originally designed. The most common examples are through routes like Route 9 and Route 44, which provide access to a range of commercial, office, and residential uses, or town roads originally designed for local traffic serving as through roads.

Pavement Conditions

The New York State Department of Transportation conducts annual pavement condition surveys as part of an overall “sufficiency rating” program. This survey is performed by using photographic and verbal scales during an “in-motion” windshield survey to assess surface and base pavement distress. Each highway section is then rated on a scale of 1-10, with 1 being the worst and 10 the best.

<u>Rating</u>	<u>Condition Description</u>
9-10	Excellent - No pavement distress
7-8	Good - Distress symptoms are beginning to show
6	Fair - Distress is clearly visible
1-5	Poor - Distress is frequent and may be severe

Source: NYSDOT

Figure 2-2
1991 Federal Aid Eligible Roads

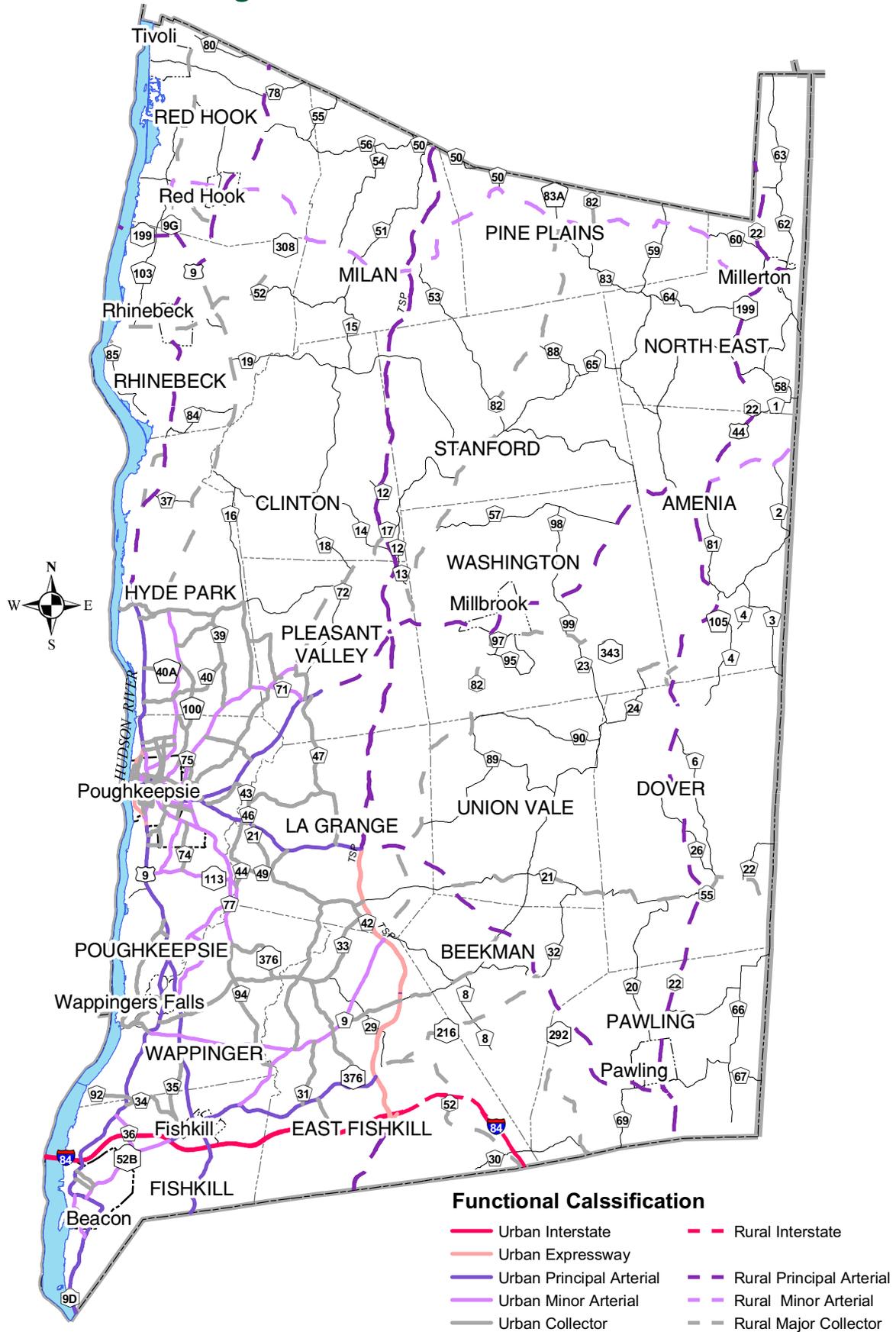
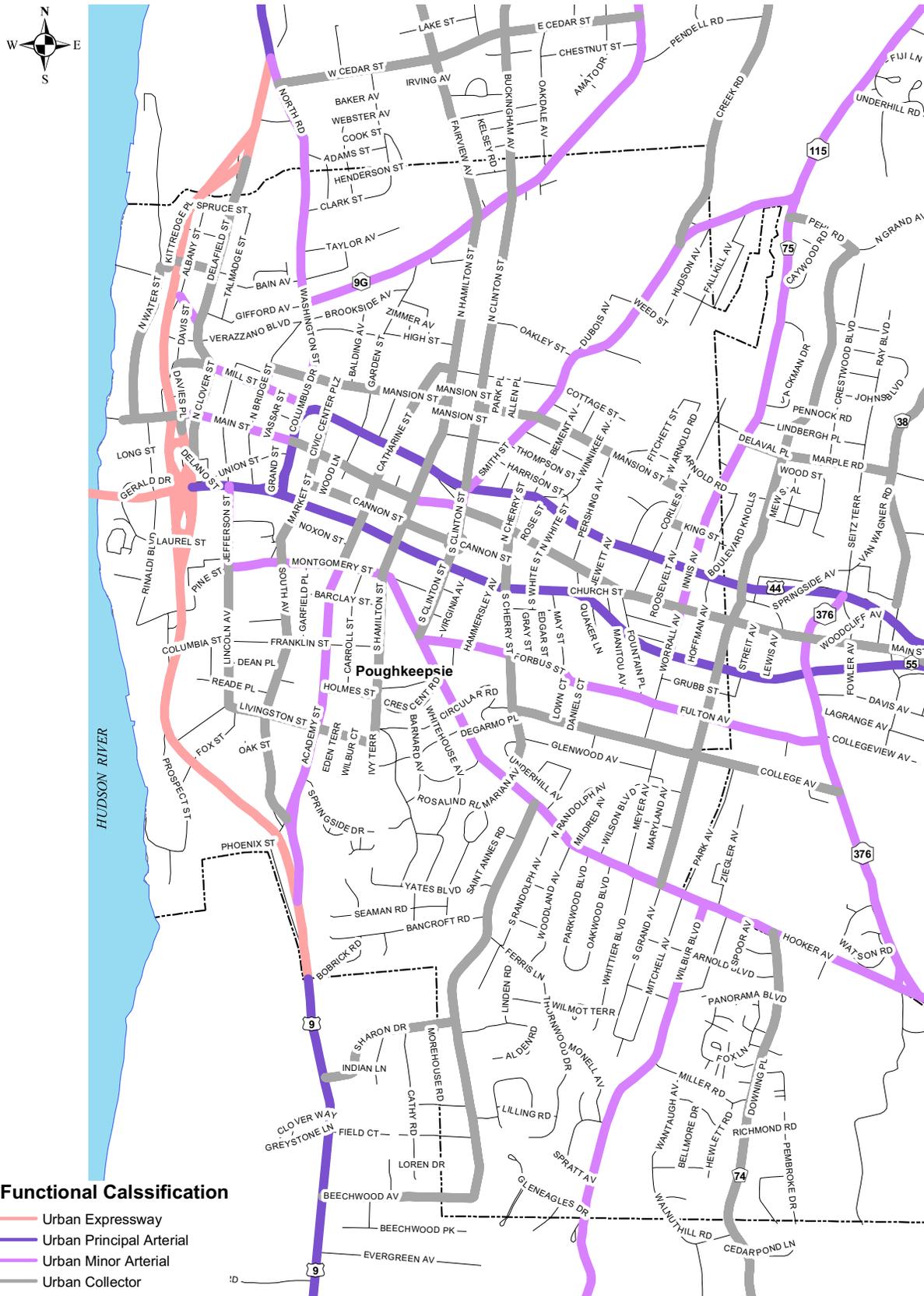


Figure 2-3
1991 Federal Aid Eligible Roads City of Poughkeepsie



In 2000 the surface conditions of the state roads in Dutchess County were in above-average condition with almost 81% of the road miles rated as either good or excellent, 16% as fair and 3% as poor.

The Dutchess County Department of Public Works (DPW) does not regularly conduct pavement condition surveys. The last in-depth pavement condition study for all county roads was completed in 1993. Based on that study, approximately 45% of the county road miles were rated as excellent or good; 35% were considered fair, and the remainder were poor.

Since 1993 the Dutchess County Department of Public Works has implemented an aggressive repaving plan, paving 203 miles (51%) of the 396 total miles of roadway under their jurisdiction (Figure 2-4). The Dutchess County Department of Public Works continues to be aggressive in pavement resurfacing by repaving a certain percentage of their mileage each year.

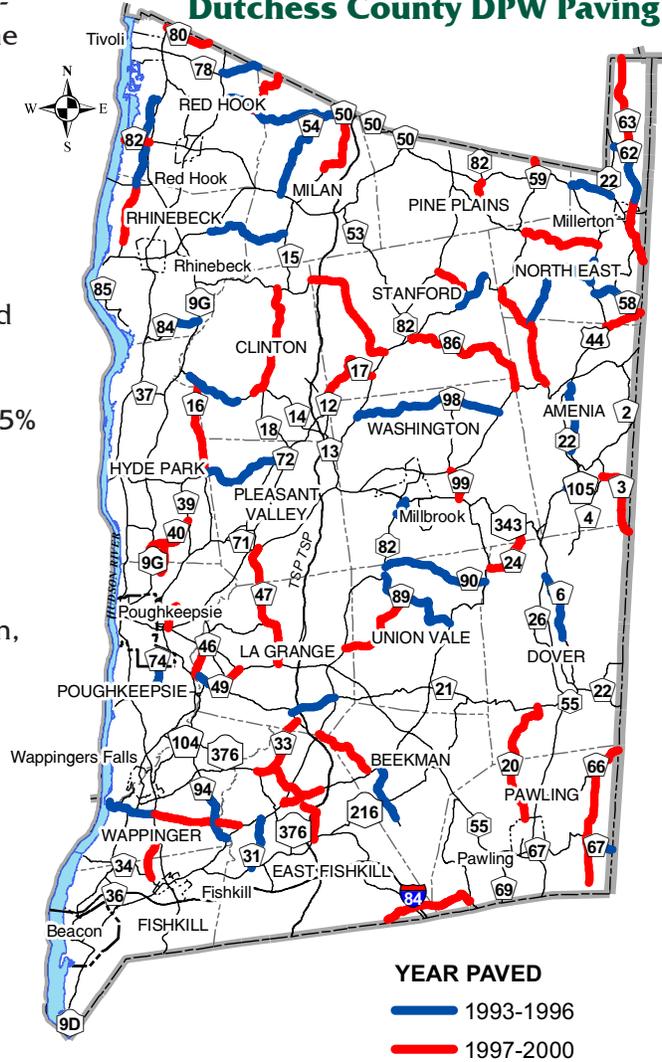
None of the local governments in the region have a formal pavement condition survey process. The Governmental Accounting Standards Board (GASB) has issued new standards to require municipalities that have revenues of \$10 million or more to assess the physical condition of their infrastructure (roads) in their financial statements by 2007.

Capacity and Congestion

Another important aspect of the highway and road system is its ability to carry traffic efficiently. Capacity is a measure of the road’s ability to accommodate vehicles over a given period of time. Characteristics such as the number of lanes, geometrics, shoulder widths, traffic signals, surrounding land use patterns, and the mix of vehicles (trucks vs. passenger cars) all affect the capacity of a road. Congestion occurs in those cases where capacity is insufficient to meet demand.

Two common measures of congestion are the Volume to Capacity Ratio (v/c) and Level of Service (LOS). The v/c ratio is a mathematical calculation of the volume of vehicles compared to the rated capacity of a road or intersection. If v/c is greater than 0.9, the facility is considered congested. Although a useful measure, the ratio does not fully account for operating conditions such as speed, maneuverability, travel time and motorist perception of the conditions. The Level of Service measure is intended to account for some of these perceptions. There are six levels of service, A through F, that

**Figure 2-4
Dutchess County DPW Paving**



work like standard school grades: A is best, F worst. In general a v/c below 0.5 is considered LOS A or B, between 0.5 and 0.9 corresponds to C and D, and above 0.9 the road is congested and operating at E or F. Brief descriptions of each level are outlined below.

- LOS A - Free flow.
- LOS B - Stable flow; presence of others in traffic stream begins to affect individual behavior.
- LOS C - In range of stable flow, but beginning of range where individual users are significantly affected by interactions with others in traffic stream.
- LOS D - High density but stable flow; speed and freedom to maneuver are severely restricted.
- LOS E - At or near capacity level; all speeds are reduced to a low, but relatively uniform value; usually unstable.
- LOS F - Forced or breakdown flow, exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point; queues form, extremely unstable.

Source: NYSDOT

Dutchess County does not have widespread occurrences of congestion. Most of the major highway and road facilities are currently operating at acceptable levels of service. The current NYSDOT-Region 8 Congestion Management System identify v/c ratios greater than 0.9 on the following routes; Route 9 in Hyde Park and Wappingers Falls, Route 9D in Wappingers Falls and Fishkill, Route 9G in Hyde Park, Route 44 in Poughkeepsie and Pleasant Valley, Route 52 in the Village of Fishkill, Route 55 in LaGrange, Route 376 in Poughkeepsie, and Interstate 84 in Fishkill and East Fishkill. There are also other, more isolated, locations mostly in the urbanized area. The Dutchess County Transportation Model does not show any other significant areas of congestion.



Courtesy NYSPA

The interchange between the Mid-Hudson Bridge and Route 9 is one of the areas with recurring congestion during peak periods.

The Dutchess County Department of Public Works does not do a regular assessment of capacity on its roads. As with the state system, most county routes are operating at acceptable levels of service, but there are isolated incidents of congestion on some roads in the urbanized area. County capacity improvement projects have focused on critical intersections.

Highway Safety

In addition to analyzing the function and capacity levels of the county's highway system, it is also important to understand the level of safety accompanying the system's use.

NYSDOT has an accident surveillance system, which is used to monitor the accident experience on the state highway system. Locations with significant variation from the normal statewide accident rates are identified and investigated on a continuing basis. If necessary, a safety improvement project is programmed to correct the safety deficient condition. In addition, whenever a project is designed along a state highway, a safety screening or analysis is performed to determine if there are any safety problems within the project limits that should be corrected.

The Dutchess County Department of Public Works also conducts an accident surveillance system on its roadways. If necessary, a safety improvement project is programmed to correct the safety deficient condition.

Bridge Facilities

Like highways, bridges are usually classified according to jurisdiction: state, county, municipal, or special authority. In Dutchess County most bridges are under local (county or municipal) control. There are also three large bridges operated by the New York State Bridge Authority that handle trans-Hudson travel.

State Bridges

NYSDOT owns 131 bridges in Dutchess County and maintains 102 of them, the rest are maintained by the Thruway Authority. According to the latest bridge inspection data, approximately 18.3 percent of these structures are considered deficient. Deficient merely means that some significant component of the structure has a rating of less than “5” on a scale of 1 (worst) to 7 (new). A deficient structure can render safe service for many years. NYSDOT implemented a 21st Century goal for bridges to ‘Assure a safe and serviceable bridge infrastructure for all public highway facilities in New York State at the lowest practical life-cycle cost.’ The goal has three performance measures: Safety, Preservation, and Serviceability. The goal includes a performance measure that ties the percentage of deficient bridges to the functional classification of the road (Figure 2-5). The overall goal for non-deficient bridges is 79.1%, this is made up of a goal of 84.2% for state bridges and 74.5% for local bridges.

**Figure 2-5
NYSDOT Hierarchy Based Bridge Goal - Target Year 2015**

Future Goal, % Non-Deficient

Functional Classification	State Bridges	Local Bridges	Total Bridges
NHS	90%	90%	90%
Minor Arterial	80%	80%	80%
Collector	70%	70%	70%
Local	70%	70%	70%
Total	84.2%	74.5%	79.1%

Source: NYSDOT

County and Local Bridges

Responsibility for rating the condition of non-state bridges (spans in excess of 20 feet) is shared by the Dutchess County Department of Public Works (DCDPW) and NYSDOT using the NYSDOT ratings system. The purpose of this monitoring and rating system is to identify bridges that are deficient so that rehabilitation funding priorities can be established. Forty-seven percent of the 142 bridges under the jurisdiction of DCDPW are currently classified as deficient.

Restricted Bridges

There are certain bridges in the state, called “R Rated Bridges,” that limit the types of vehicles that can travel on them. The “R Rated Bridges” are bridges that cannot safely carry more than legal loads. Bridges in Dutchess County with an “R” rating are listed in Figure 2-6.

Figure 2-6
R-Restricted Posted Bridges in Dutchess County 2000

BIN	Description	Feature Crossed
1047720	CR 78 (Broadway)	Stony Creek
3342660	CR 3 (South Amenia Rd)	Webatuck Creek
3342710	CR 7 (Beekman-Poughquag Rd)	Fishkill Creek
3342730	CR 7 (Main St)	Whaley Lake Stream
3342750	CR 8 (Green Haven Rd)	Fishkill Creek
3342780	CR 18 (Centre Rd)	Little Wappinger Creek
3342820	CR 14 (Hollow Rd)	Little Wappinger Creek
3343280	CR 21 (Noxon Rd)	Jackson Creek
3343340	Fish Woods Rd	Creek (No Name)
3343440	CR 61 (Indian Lake Rd)	Webatuck Creek
3343490	CR 50 (Jackson Corners Rd)	Roeliff Jansen Kill
3343530	Route 115	Little Wappinger Creek
3343680	Kidd Ln	Stony Creek
3343730	CR 79 (Linden Ave)	Saw Kill
3343870	CR 17 (Salt Point Tpk)	Willow Brook
3343880	CR 17 (Salt Point Tpk)	Wappinger Creek
3343920	CR 21 (Bruzgal Rd)	Fishkill Creek
3343930	CR 21 (Bruzgal Rd)	Fishkill Creek
3344080	Canoe Hill Rd	East Branch Wappinger Creek

Source: NYSDOT

Hudson River Crossings

The New York State Bridge Authority operates and maintains five toll bridges that cross the Hudson River: the Rip Van Winkle, Kingston-Rhinecliff, Mid-Hudson, Newburgh-Beacon, and Bear Mountain. The panoramic vistas of the Hudson River Valley afforded by the bridges have led to all five bridges being designated as Scenic Roads by the New York State Department of Environmental Conservation. Four of these bridges have walkways that enable pedestrians to experience the views of the valley. The Rip Van Winkle and the Bear Mountain Bridges allow bicyclists to ride across the bridges, while the Beacon-Newburgh and the Mid-Hudson have separated paths available. The recent

re-decking project on the Kingston-Rhinecliff Bridge, added eight-foot shoulders to accommodate bicyclists, this will eliminate the need for a permit to ride across the bridge. Three of the bridges touch down in Dutchess County: The Kingston-Rhinecliff in the north, the Mid-Hudson at mid-county, and Newburgh-Beacon in the south.

In 2000 the three Dutchess crossings carried over 42.7 million vehicles - an increase of 5.9 million vehicles in the last ten years. More than half of the vehicles (23.1 million) were carried on the Newburgh-Beacon Bridge. Over 12.9 million vehicles used the Mid-Hudson Bridge, while the Kingston--Rhinecliff Bridge carried 6.7 million vehicles (Figure 2-7).

Figure 2-7
Traffic Volumes by Vehicle Classification

	1980	Percent	2000	Percent	Percent Change
Kingston-Rhinecliff					
Commuter Cars	1,611,356	27.6%	1,177,428	17.4%	-26.9%
Non-Commuter Cars	4,048,690	69.2%	5,364,454	79.3%	32.5%
Commercial	187,636	3.2%	226,892	3.4%	20.9%
Total	5,847,682		6,768,774		15.8%
Mid-Hudson					
Commuter Cars	3,954,288	35.1%	3,471,980	35.1%	12.2%
Non-Commuter Cars	7,499,840	61.3%	8,976,630	61.3%	19.7%
Commercial	443,870	3.6%	465,240	3.6%	4.8%
Total	11,897,998		12,913,850		8.5%
Newburgh-Beacon					
Commuter Cars	3,928,226	19.0%	2,975,036	19.0%	-24.3%
Non-Commuter Cars	13,004,124	68.9%	16,747,200	68.9%	28.8%
Commercial	2,198,442	12.0%	3,387,012	12.0%	54.1%
Total	19,130,792		23,109,248		20.8%

Source: New York State Bridge Authority

Note: NYSBA changed the requirements for a commuter fare in 1998.

Although the available data indicate that all three bridges experienced drops in commuter traffic, the numbers are not directly comparable. The Authority implemented the E-ZPass system on all of its bridges between February and November of 1998. E-ZPass changed the definition of commuter by requiring users to cross the bridge 17 times during a calendar month. The previous booklet system, which designated commuters, was not this restrictive allowing people to be counted as commuters when they might not have been using the bridge on a daily basis.

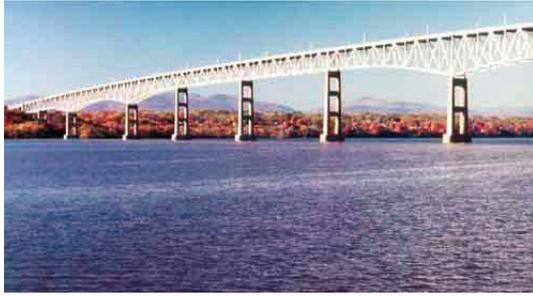
The northern-most of the three bridges, the Kingston-Rhinecliff Bridge, serves primarily local traffic between northeastern Ulster and northwestern Dutchess counties. Its average daily traffic count remains the



Courtesy NYSBA

The implementation of the E-ZPass system on all of the NYSBA bridges in 1998 is an example of using technology to increase operational efficiency.

Courtesy NYSBA



Kingston-Rhinecliff Bridge

lowest of the three bridges in Dutchess County. This facility recently underwent a major overhaul in the form of a re-decking project.

On a per-lane basis, the Mid-Hudson Bridge is the most heavily traveled of the three bridges and

continues to retain the highest percent of commuter crossings, compared to the other two bridges. In addition to carrying vehicles across the bridge, it also has facilities for bicycles and pedestrians, which have undergone improvements. The walkways were expanded in 1999, and the northern walkway was complemented with the addition of a new ramp from the bridge to Gerald Drive in the City of Poughkeepsie.



Mid-Hudson Bridge

Courtesy NYSBA

The interchange between Route 44/55 and Route 9 at the eastern approach to the Mid-Hudson Bridge is confusing and often congested. The “figure-eight” configuration of this interchange requires traffic entering and exiting Route 9 to cross paths over very short distances. The weaving pattern can cause conflicts at any time, but the problems are most severe during peak periods. The area around the interchange is constrained by surrounding development.

Courtesy NYSBA



Newburgh-Beacon Bridge

The double-span, five-lane Newburgh-Beacon Bridge, which carries Interstate 84, has the largest total volume of the Bridge Authority’s five facilities. Interstate 84 not only serves as an important link in the regional road system, but has also stimulated major business and commercial development in the southwestern corner of Dutchess County. In 2000 the Bridge Authority reduced one lane of traffic on the northern span that carries westbound traffic to create a breakdown lane for traffic. This change is in effect during non-peak hours.

Public Transit - Bus

Dutchess County is served by a range of local public bus, para-transit, and private carrier services. The most visible public bus services are provided by the Dutchess County LOOP Bus System and the City of Poughkeepsie Bus System. There are also several private carriers in the region, and some state, county, and not-for-profit social service agencies that operate transportation services as part of their client programs.

Poughkeepsie Bus System

Poughkeepsie Transit operates seven routes in the city and nearby locations in the towns of Hyde Park and



Riders exiting a Poughkeepsie Transit bus in the Arlington section of Poughkeepsie.



The LOOP system is a county wide transit system that provides service for commuters and non-work related trips.

Poughkeepsie. The fleet consists of nine vehicles with seven vehicles operating the service. In 2000 Poughkeepsie Transit carried about 407,509 passengers. This is about sixteen percent lower than 1990 (483,293). The City of Poughkeepsie leases a vehicle to LOOP, which provides scheduling and transportation for the city’s ADA service.

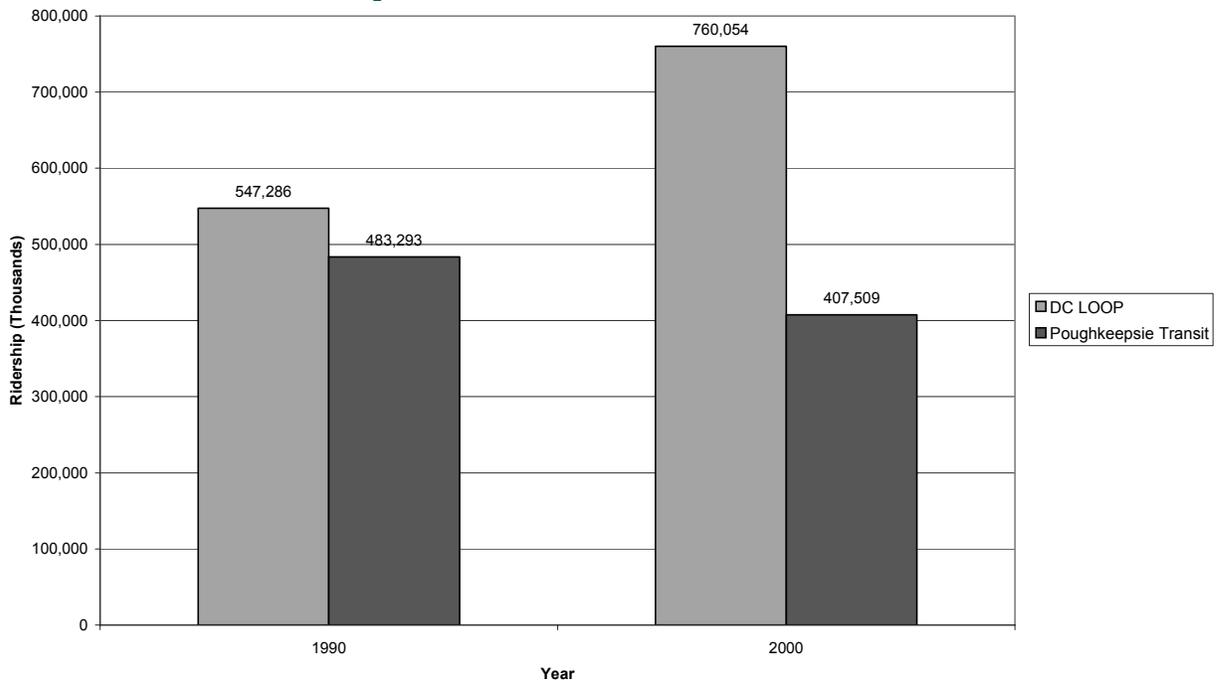
Dutchess County LOOP

Dutchess County maintains a fleet of 52 vehicles to operate fixed route service, commuter train connection service and two demand response services, Dial-A-Ride, and a rural para-transit service. LOOP also schedules and provides non-emergency Medicaid transportation for Dutchess County residents, through a contract with the Dutchess County Department of Social Services. LOOP maintains the Dutchess County Transportation Center in Fishkill.

In 2000 LOOP carried 615,894 passengers on its fixed route service, 49,284 passengers on the commuter train connection service, 29,324 passengers on Dial-A-Ride and 74,099 passengers on the community para-transit service. LOOP fixed route service has had a 20% increase in ridership since 1990 (511,250). The Dial-A-Ride service has decreased by about 11% since 1990 (33,058). Towns that participate in the Dial-A-Ride program include: Beekman, East Fishkill, Fishkill, Hyde Park, LaGrange, Pleasant Valley, Poughkeepsie, Red Hook, Rhinebeck, Wappinger, and the City of Poughkeepsie. The para-transit service and the Commuter Train Connection service began in 1993 and have had stable ridership.

Ridership data for the public transit systems indicate that the Dutchess County system increased, while in Poughkeepsie the trend is down (Figure 2-8).

Figure 2-8
Public Transit Ridership



Source: DC LOOP and Poughkeepsie Transit

Private Carriers

Adirondack Trailways, Arrow, Leprechaun Lines, and ShortLine provide regular transit service in Dutchess County. Adirondack Trailways offers service from Newburgh to Kingston with a stop in Poughkeepsie. Arrow provides service between New Paltz and Poughkeepsie. Leprechaun Lines offer service from the town of Poughkeepsie to White Plains and runs the Newburgh-Beacon Shuttle. ShortLine provides service from Rhinebeck to Fishkill and then to New York City (Figure 2-9).

The first Transportation Plan identified inter-county service as a priority, and NYSDOT took the initiative and sponsored several demonstration projects that served Dutchess County commuters. Current NYSDOT-sponsored transit service include the Dutchess-White Plains Express between Poughkeepsie and White Plains and the Newburgh-Beacon Shuttle both operated by Leprechaun Lines.

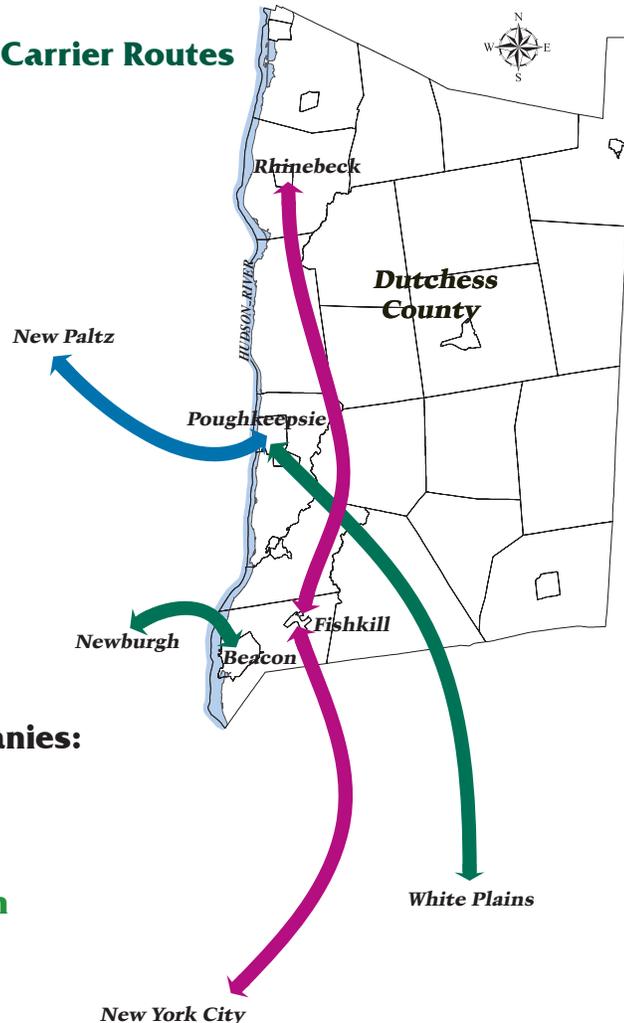
Social Service Agencies

There are several public and private agencies that provide some level of transportation service to their clients. In almost all cases the transportation is ancillary to the main purpose or mission of the agency. The PDCTC is working with a group of public and non-profit social service agencies to evaluate current levels of transportation service, identify unmet needs, and develop a plan to improve availability and coordination of transportation available in the county.

Public Transit - Rail

Passenger train service in Dutchess County is provided by Amtrak and Metro-North Railroad (MNR), a subsidiary of the Metropolitan Transportation Authority (MTA). CSX currently provides rail freight service in Dutchess County. Since the last transportation update, Norfolk Southern Corporation (NS) and CSX Corporation (CSX) have purchased and divided Consolidated Rail Corporation (Conrail). There has been no significant impact on existing passenger operations.

Figure 2-9
Private Bus Carrier Routes



Bus Companies:

Arrow

Leprechaun

ShortLine

Amtrak

Intercity service between New York City and Albany is provided in the western part of Dutchess with stops at Poughkeepsie and Rhinecliff. Since 1991, ridership from Dutchess County has doubled (Figure 2-10).

**Figure 2-10
Amtrak Ridership 1991, 2000**

Line/Station	Weekday		
	1991	2000	% Change
Poughkeepsie	40,200	59,274	47.5%
Rhinecliff	79,200	180,029	127.3%
Total	119,400	239,308	100.4%

**Yearly figures are based on Amtrak's fiscal year which runs October 1 to September 30.*

In 1997 Amtrak began selling commutation tickets from Rhinecliff to New York City. Amtrak was established by the federal government and has received subsidies from the federal budget for operating passenger service across the

country. Amtrak trains currently receive operating priority over freight trains from CSX on the eastern shore rail line north of Poughkeepsie, which is expected to continue.

The New York State Department of Transportation and Amtrak will be improving rail service over the next few years. Improvements to the track and rolling stock will allow higher speed operation. Service frequency will also be increased.

Metro-North Railroad

Founded as a public benefit corporation in 1983, as a division of the Metropolitan Transportation Authority, Metro-North Railroad is the nation's third largest commuter railroad. Metro-North serves five suburban counties in New York State (Westchester, Putnam, Dutchess, Rockland, and Orange), two in Connecticut (Fairfield and New Haven) and two urban counties in New York (Bronx and Manhattan). The Harlem, Hudson and New Haven Lines terminate at Grand Central Terminal in Manhattan



Source: NYSDOT

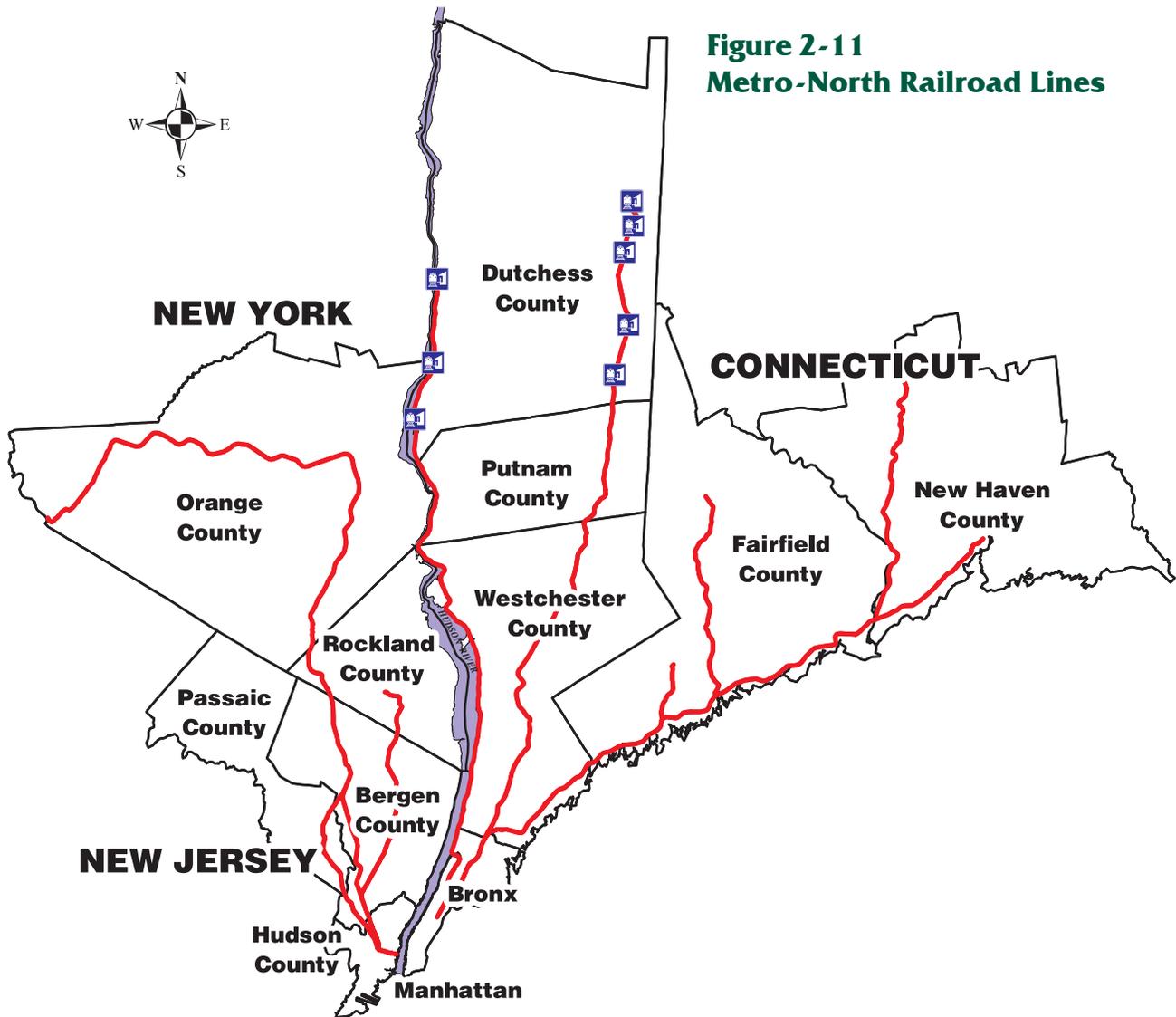
Metro-North offers regular train service to New York City and Westchester County on its Hudson and Harlem lines.

and the Port Jervis and Pascack Valley Lines terminate in Hoboken, New Jersey (Figure 2-11).

A total of 119 Metro-North stations serve approximately 240,000 daily trips with a fleet of 723 electric rail cars, 169 coaches, and 46 diesel locomotives.



Amtrak has stops in Poughkeepsie and Rhinecliff and offers access to Albany, New York City and other major cities throughout the US.



**Figure 2-11
Metro-North Railroad Lines**

In July of 2000, Metro-North completed the Wassaic Extension and passenger service commenced. The project involved a six-mile extension of the Harlem Line from Dover Plains to a location north of the hamlet of Wassaic and construction of two new stations at Tenmile River and Wassaic. A layover yard was also

Since 1990, Metro-North ridership from Dutchess County has increased by almost 78%.

constructed at the terminus station.



Metro-North extended service on its Harlem Line in 2000 and established two new stations including Tenmile River.

There are eight stations in Dutchess County: Poughkeepsie, New Hamburg, and Beacon on the Hudson Line, and Wassaic, Tenmile River, Dover Plains, Harlem Valley/Wingdale, and Pawling on the Harlem Line. Since 1990, ridership from Dutchess County has increased by almost 78%. Metro-North carried 4,600 weekday passengers inbound from Dutchess County in 2000, compared to approximately 2,600 in 1990 (Figure 2-12).

**Figure 2-12
Metro-North Inbound Ridership 1990, 2000**

Line/Station	Weekday			Weekend		
	1990	2000	% Change	1990	2000	% Change
Hudson Line						
Poughkeepsie	1,011	1,598	58.1%	1,645	2,443	48.5%
New Hamburg	507	799	57.6%	300	677	125.7%
Beacon	931	1,611	73.0%	907	1,676	84.8%
Total	2,449	4,008	63.7%	2,852	4,796	68.2%
Harlem Line*						
Wassaic	n/a	139	n/a	n/a	466	n/a
Ten Mile River	n/a	27	n/a	n/a	32	n/a
Dover Plains	70	97	38.6%	182	138	-24.2%
Harlem Valley	26	120	361.5%	101	199	97.0%
Pawling	72	209	190.3%	67	144	114.9%
Total	168	592	252.4%	350	979	179.7%

*Service was initiated at Wassaic and Ten Mile River in July 2000.

Several public and private operators provide bus service to Metro-North and Amtrak stations. The Poughkeepsie Station is served by Poughkeepsie Transit, Arrow Bus, Leprechaun Lines, ShortLine, and the LOOP Commuter Train Connection (Hyde Park and Apple Valley routes). The New Hamburg and Beacon stations are serviced by separate LOOP Commuter Train Connection shuttles. The Beacon station is also serviced by the Newburgh-Beacon Shuttle. On the Harlem Line Pawling, Wingdale, and Dover Plains are served by Dutchess County LOOP.

Airport Facilities

There are four airports in Dutchess County (Dutchess Country, Sky Acres, Stark-Tater Skypark, and Stormville) that primarily serve private aircraft. The largest of these, the Dutchess County Airport is owned and operated by county government. There is no longer any commercial aviation activity at the Dutchess County Airport. The number of passengers served by the airport fell dramatically with the opening and expansion of Stewart Airport. In 1986 58,641 passengers were served by the County airport compared to only 12,066 passengers in 1999. Commercial service at the airport was suspended in August of 2001.



Dutchess County Airport has served private aircraft and corporate jets since commercial service ended in 2001.

The close proximity of Dutchess to Stewart International Airport in Orange County affects the options for additional regular carrier service in Dutchess County. Access to Stewart Airport from Dutchess requires crossing the Hudson on one of the major bridges, but the most direct route is I-84. There is no regular transit service to Stewart from Dutchess County at the present time. NYSDOT-Region 8 is planning to expand the current Newburgh-Beacon Shuttle service to connect to Stewart Airport in January 2003.



Stewart Airport in nearby Orange County, is a regional airport with several major carriers that offer service to major cities.

Stewart International Airport has become a regional airport offering connections to the major hubs of the U.S. (e.g. Atlanta, Chicago, Cincinnati, Philadelphia, Raleigh-Durham, Washington-Dulles). The airport is served by several carriers including American Airlines, ASA, Comair, Midway Airlines, United Express, and US Airways Express. The passenger terminal area recently underwent an expansion, which enhanced the airport's capabilities. Passenger counts have declined slightly in the past nine years. In 1991, the first full year of

operation, Stewart served 805,000 passengers, and in 2000 the number dropped to 532,948.

In April 2000, Stewart became the first airport in the country to be privatized under a new federal program, with management changing hands from New York State to the National Express Group.

Ferry Service

No ferry service currently operates in or to Dutchess County. Plans are underway to start ferry service from Newburgh (Orange County) to Beacon in 2004.



Future ferry service between Beacon and Newburgh will benefit from the newly constructed ferry dock in Beacon.

Freight Movement

The freight network in Dutchess County is comprised of major roads, rail lines, and barges, as well as access to air cargo facilities at Stewart International Airport in Orange County. The different types of freight movement; motor carriers, commercial railroads, air cargo companies, and barge services, are discussed in the following sections of this chapter.

The movement of freight or goods in Dutchess County is expanding as the network of infrastructure connecting the county to Stewart Airport, the Hudson Valley counties, the New York City region, Connecticut, and other areas, becomes more developed and integrated. The options for transporting freight include truck/motor carriers, commercial railroad, air cargo, and barges.

The NYSDOT Planning and Strategy Group acquired freight data from REEBIE Associates for 1995 freight movements. The REEBIE data details Interstate and Intrastate Commerce. With regard to intrastate commerce, Dutchess County shipped out 923,309 tons of freight and received 1,001,803 tons, motor carriers accounted for all intrastate commerce. Looking at interstate commerce Dutchess County shipped 1,289,913 tons and received 1,327,384 tons, 96% of the interstate shipments were made by motor carriers and 4% were by rail.

Motor Carriers

The primary means of transporting goods in Dutchess County is by motor carrier. The trend towards increased use of motor carriers for transporting goods has evolved over the years and is similar to national trends. In New York State, over seventy percent of its commodities are transported by motor carriers from their place of origin or transferred



The delivery of goods by truck is a major component of the region's economy and traffic on the region's roads.

from ports, railroads, or air cargo onto trucks/motor carriers to be delivered to markets and other destination points. The motor carrier traffic originating in the county is flowing between the major businesses and industries producing and/or distributing materials and products to local markets and end users. Much of the freight activity is transporting products and materials outside of Dutchess County into other counties in the Hudson Valley, New York City, Albany, Connecticut, and other export markets.

A major distribution center for Old Navy and Gap was recently completed in the Village of Fishkill. This is the distribution center for the Northeast and is expected to generate 30 or more truck trips per hour.

Freight Rail

The rail lines that remain in Dutchess County are located along the Hudson River and the Harlem Valley (north-south rail lines), in the City of Poughkeepsie (branch rail lines), and along the southern edge of the county (east-west rail line). Freight service along the Hudson Line and the City of Poughkeepsie Branch rail line is provided by CSX. Currently CSX operates 4 trains per day on the Hudson Line. They estimate that in two years that number may double to 8. Canadian Pacific Railroad also operates one train a day on the Hudson Line and estimates that it might run 2 in two years.

Increased freight rail on the Hudson Line is affected by a number of factors including:

- competitiveness of rail service compared to trucks
- availability of time slots on a primarily passenger service line
- vertical clearance problems for double-stack and intermodal freight cars
- yard and track capacity issues



There is limited freight service on the Hudson Line (mostly at night) due to the high volume of passenger service from Metro-North and Amtrak during the day.

NYS DOT is working with Metro-North Railroad and CSX to increase overhead bridge clearances on the Hudson Line to allow trailer on flatcar service into New York City.

Air Cargo

The closest location for air cargo services in the Hudson Valley is at Stewart International Airport. Stewart International Airport provides national and international shipping capacity for local businesses that are receiving or exporting goods and products. At the present time Airborne, Emery, Federal Express, American Airlines, United Parcel Service, and the US Postal Service operate air cargo facilities at Stewart.



Courtesy of FedEx

Air cargo is a major component of the services offered at Stewart Airport.

The amount of cargo being shipped out of Stewart International Airport has increased in recent years with the development of the industrial park and other improvements for freight operators and shippers in the region. In the past decade the cargo tonnage moved at Stewart has ranged from almost 14,000 tons to just over 91,000 tons. In 1999 there was a total of 31,985 tons moved. There has been an increase in employment from cargo and freight forwarding companies in the region.

In addition to the existing 120,000 square feet of air cargo facilities, there is approximately 40,000 square feet available for future expansion. There are also improvements and plans formulated for the airport by New York State and the Stewart Master Plan committee. The expanded air cargo facilities and planned improvements to the airport will help attract more cargo and freight forwarding companies to the facilities and potential tenants to the industrial park. The expansion will also benefit businesses and freight companies in Dutchess County that use the air cargo services for domestic and international shipping. In addition to on-site improvements, there are also improvements planned on the surrounding transportation network. New interchanges are planned at I-84 and Drury Lane, and at I-84 and I-87 (NYS Thruway). These projects will give better access from the surrounding highways to Stewart International Airport.

Barge

There are several barge companies that continue to use the Hudson River as a means of transporting freight between New York City and Albany, with various distribution points along the way. The barge service in Dutchess County is limited to a few industrial sites along the river that receive and transport goods such as oil and lumber. There has been a decline in the use of barges for shipping goods in the region, due to technological improvements in other modes of transportation.

Bicycle and Pedestrian Facilities

There are few dedicated bicycle facilities in Dutchess County, and only the cities and major village centers have a significant network of sidewalks. According to the 2000 Census, approximately four percent of workers in Dutchess County cycle or walk to their jobs. There is little reliable information about other trip purposes.

The county continues to integrate bicycling and walking into the area's transportation system, but it will take a concerted effort by all to insure that these modes are promoted in future plans and projects. To facilitate bicycling and walking, issues of access, education, enforcement, information, safety, and security need to be addressed. Improving the overall environment for pedestrians and bicyclists will help increase use. In its previous long-range plans the PDCTC has identified areas where more formal accommodation of pedestrians is appropriate. These "Pedestrian Zones" (Figure 2-13) occur in

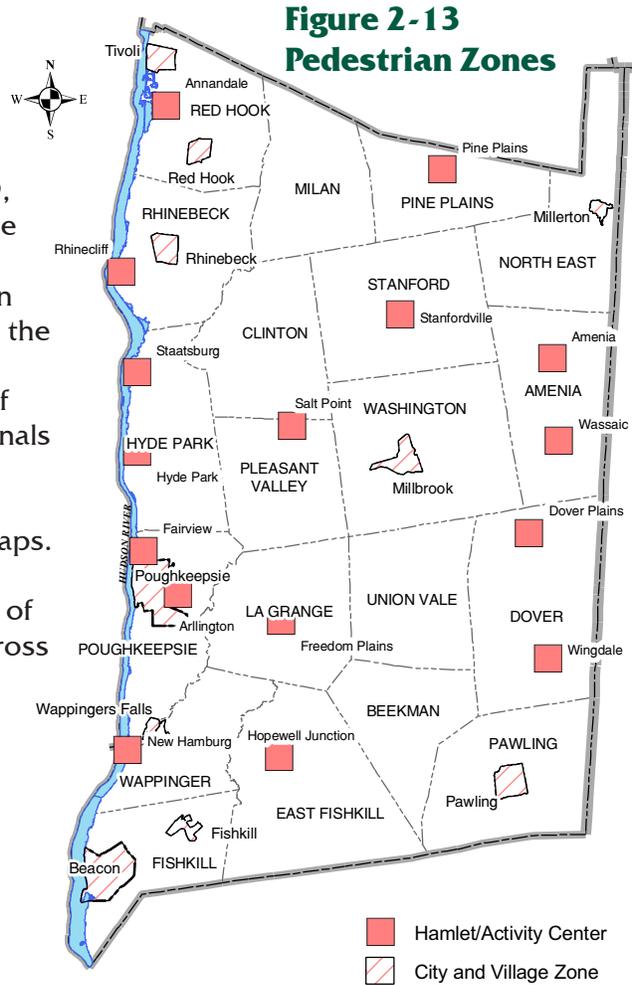


The Wilbur Boulevard path is one of the original shared use facilities in Dutchess County.

the cities, villages, larger hamlets, and other activity centers where walking is common.

An inventory of the county’s major sidewalk systems was completed in 1999, and a preliminary analysis shows that there are about 131 miles of sidewalks in the county. Most facilities are concentrated in the two cities, Beacon and Poughkeepsie, the eight villages, and in some of the larger hamlets. Generally, the facilities consist of sidewalks, crosswalks, and pedestrian signals in central business areas. Despite the relatively strong sidewalk networks in the traditional population centers, there are gaps.

- limiting sidewalks to only one side of the road requires pedestrians to cross the roadway to have an adequate and appropriate facility
- many of the sidewalk networks do not extend into residential neighborhoods from the business centers
- connections to major commercial strip areas are often lacking
- sidewalks may end mid-block or at municipal boundaries and do not connect to adjoining systems



The current Bicycle Network Map (Figures 2-14 and 2-15) identifies major bicycle routes in the metropolitan area. The vast majority of the routes are along existing state and county roads and will be accommodated with wider lanes and/or shoulders. There are proposals for some new facilities along abandoned rail corridors to serve pedestrians and bicyclists. Significant facilities include:



The Harlem Valley Rail Trail is the first rail trail in Dutchess County.

- NYS Bicycle Route 9 - Signed bicycle route between New York City and Montreal (Canada), a distance of 345 miles. This route is primarily on existing roads and is designed for experienced bicyclists.
- Wilbur Boulevard Path - Separate shared use facility (bicycle/pedestrian) in the city and town of Poughkeepsie.
- Route 113 (Spackenkill Road) - Signed bicycle route in Poughkeepsie.

new sidewalks, and designated bicycle lanes.

Summary

Roads and automobiles comprise the base of the Poughkeepsie area’s transportation system. Yet public transit, airport, freight, bicycle, and pedestrian systems and facilities also play an important role, by providing our residents with a wider-range of transportation choices.

**Figure 2-15
Bicycle Network (City of Poughkeepsie)**

