

Chapter 5. Plan Recommendations

...solutions that focus on the mobility of people and goods rather than the mobility of vehicles.

The previous chapters described the major facilities of the region's transportation system, outlined some of the issues that confront this system, and provided an overview of the anticipated financial resources that will be available for the plan period. The overall goal of this plan is to develop a combination of capital projects and other strategies that will enable the transportation system to meet the needs of the region. A key component of the transportation plan is the implementation of innovative solutions; solutions that focus on the mobility of people and goods rather than the mobility of vehicles. Infrastructure maintenance, selected capacity improvements, expanded public transit, additional pedestrian and bicycle facilities, and demand management strategies are all integral components of the plan recommendations.

This chapter is divided into four major sections. The first one highlights the **accomplishments** since the previous long-range transportation plan was adopted in mid-1998. The second and third sections outline **short-term recommendations** and **long-term recommendations**, respectively. Generally the short-term recommendations are expected to be accomplished between the present and 2006, and long-term between 2007 and 2025. The final section is a list of **future studies**, which includes projects and issues that need further analysis and discussion before definitive recommendations can be endorsed by the PDCTC. In this way, Connections 2025 and its recommendations will continue to evolve as new information becomes available. Figure 5-1 is a map of the long-range and future study projects.

The projects and actions in the first three sections (Accomplishments, Short-Term, Long-Term) are classified into one of three categories: 1) infrastructure maintenance and safety, 2) capacity, mobility and transportation alternatives, and 3) community enhancement and economic development. In general, **infrastructure maintenance and safety** projects include regular maintenance, rehabilitation, and replacement of transportation facilities, and projects intended to improve safety of all travelers. Typical projects include pavement resurfacing and preservation, bridge repair and rehabilitation, replacement of transit equipment (e.g. buses, locomotives), and a wide range of safety improvements. **Capacity, mobility, and transportation alternatives** includes projects or actions intended to increase the ability of the transportation system to meet anticipated levels of demand by either increasing capacity, reducing demand or providing additional options. Finally, **community enhancement and economic development** actions are intended to fit the transportation system into a larger context. Projects include traffic calming, welfare to work strategies, and technology improvements.

Plan Accomplishments 1998-2001

1. Infrastructure Maintenance and Safety

- Continued investment by NYSDOT, Dutchess County Public Works, and local governments in highway, road, traffic signal and bridge maintenance and repair activities. Major projects included rehabilitation of Route 9 through the City of Poughkeepsie and Route 308 between Route 9G and Route 199 in Rhinebeck, and the

replacement of the bridge that carries Route 44 over the Wappinger Creek in Pleasant Valley.



Dutchess County has been systematically replacing older buses in its fleet with newer vehicles.

- Systematic replacement of transit vehicles by Dutchess County LOOP Bus System.
- Rehabilitation, repair, replacement and upgrade of commuter rail facilities by MTA/Metro-North Railroad, including: stations, platforms, signals, passing sidings, rolling stock, parking lots, and Grand Central Terminal in Manhattan.
- Replacement and expansion of the walkway on the Mid-Hudson Bridge by the NYS Bridge Authority.

- Implementation of highway and road safety improvements on state, county and local facilities, including construction of an interchange at Miller Hill Road and relocation of the Appalachian Trail on the Taconic State Parkway, and the realignment of Route 376 in East Fishkill.



The NYSBA rehabilitated the walkway on the Mid-Hudson Bridge, which serves as a link between Dutchess and Ulster County for bicyclists and pedestrians.

- Completion of the **Taconic State Parkway Task Force Reports** by NYSDOT. NYSDOT has launched a program of temporary closings of median crossings to improve safety along the Taconic State Parkway. The

medians closed include; Stormville Road, Todd Hill Road, Arthursburg Road, Carpenter Road, Hibernia Road, Hollow Road, Willow Lane, Pumpkin Lane, Nine Partners Road, Willowbrook Road and Cold Spring Road. Hosner Mountain Road has restricted movements during peak periods.



Source: NYSDOT

The Highway Emergency Local Patrol (HELP) vehicles have been one of the most visible and successful projects implemented by NYSDOT.

- NYSDOT HELP (Highway Emergency Local Patrol) service has been added on the Taconic State Parkway from Putnam County to Route 55. It provides free motorist assistance during weekday commuter peak periods.

2. Capacity, Mobility and Transportation Alternatives

- Completion of MTA/Metro-North Railroad Harlem Line Extension to Tenmile River and Wassaic.
- Implementation of new express and through service on the MTA/Metro-North Railroad Hudson and Harlem lines.



Metro-North extended its Harlem Line six miles to a new station near Wassaic.

- Establishment and continued support of intercounty bus services between Dutchess and Orange, Putnam, Ulster and Westchester counties by NYSDOT in cooperation with private operators.
- Expansion and improvement of rail station parking lots on the Hudson and Harlem lines.
- Continued development and implementation of transportation demand management activities in cooperation with NYSDOT and its contractor, MetroPool.



Metro-North expanded and improved parking with construction of a new parking deck at Poughkeepsie.

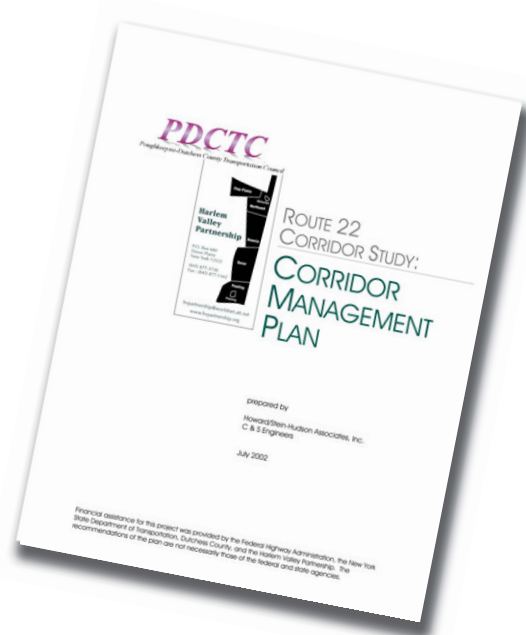
- Implementation of the E-ZPass electronic toll collection system on regional facilities, including those operated by the NYS Bridge Authority and NYS Thruway Authority.

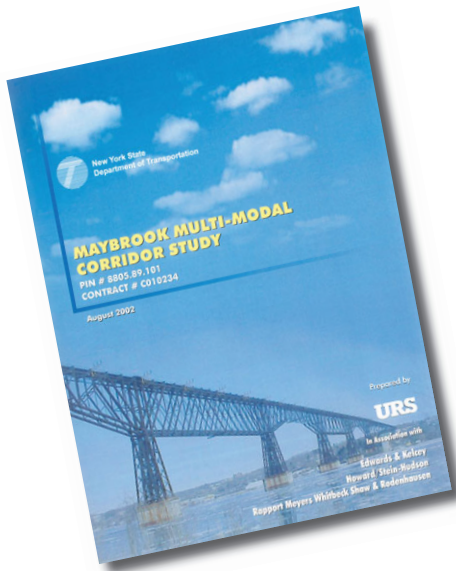


Dutchess County has completed two (of four) phases of the Harlem Valley Rail Trail in Amenia totaling about 8 miles in length. The remaining two phases are scheduled for completion in the near future.

- Upgrade of traffic lights at 12 intersections in the City of Poughkeepsie, and 3 in the City of Beacon.
- Reconstruction of Route 9-Interstate 84 interchange.
- Expansion of toll lane facilities on Mid-Hudson Bridge by the NYS Bridge Authority.
- Construction of the Harlem Valley Rail Trail between the hamlet of Amenia and Millerton.
- Construction of new pedestrian access from Mid-Hudson Bridge to Gerald Drive and the Poughkeepsie waterfront.

- Provision of new sidewalks in designated Pedestrian Zones and other activity centers, including the Hyde Park Crossroads Project.
- Installation of ADA-accessible curbs at intersections throughout the City of Poughkeepsie.
- Construction and rehabilitation of shoulders on designated Bicycle Routes and in other areas with high pedestrian and/or bicycle activity.
- Completion of the **Route 22 Corridor Management Plan** which guides the affected municipalities and NYSDOT in making decisions about future land use, site access, and transportation proposals.





- Completion of the **Maybrook Multimodal Corridor Study** by NYSDOT. The study recommends the construction of a 19-mile paved shared use trailway from Hopewell Junction to the City of Poughkeepsie and then continuing across the Mid-Hudson Bridge through the Town of Lloyd utilizing the Hudson Valley Trailway, continuing adjacent to Route 299 (off-road) through the Town and Village New Paltz linking with the Wallkill Valley Rail Trail.

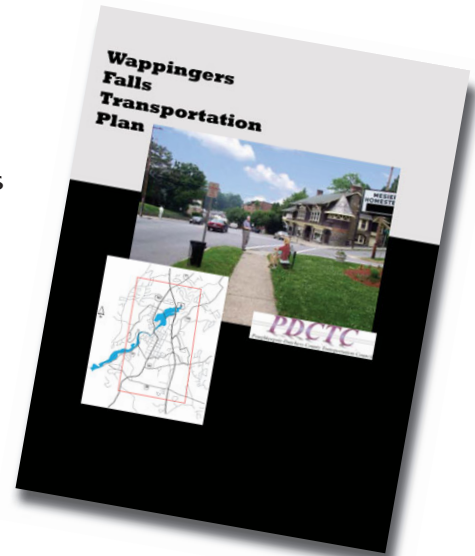
3. Community Enhancement and Economic Development

- Development of nine “community pedestrian plans” for hamlets, villages and activity centers

in the metropolitan area.

Implementation of plan recommendations, in whole or in part, have occurred in Highland (Lloyd), Hyde Park, Red Hook, Stanfordville, and Tivoli.

- Implementation of recommendations from the **Poughkeepsie Transportation Strategy**, which was endorsed by the City of Poughkeepsie Common Council in 1998. Initial projects included the realignment of the Dongan Square intersection, the conversion of Academy/Catharine Street from one-way to two-way, and the opening of the Main Mall to two-way traffic between Hamilton Street and Market Street.



- Completion of the **Wappingers Falls Transportation Plan**, which includes recommendations for pedestrian improvements, including traffic calming, on Route 9D and in the Village Center.



- Completion of the **Hopewell Hamlet Pedestrian Plan**, which includes recommendations for pedestrian improvements and roadway configurations to facilitate movement in the hamlet.
- Completion of the **LaGrange Town Center Plan**, which developed specific recommendations to create a commercial hub in the vicinity of Freedom Plains.
- Completion of **Beacon Line Feasibility Study** by MTA/Metro-North. The study determined that customer service would not be cost effective at this time. The Beacon Line will continue to be

used to shuttle equipment between the Hudson and Harlem Lines.

- Transportation Enhancement Projects - Several projects that received funding under the ISTEA Transportation Enhancement program have been completed or are under construction.
- Construction of a landscaped median in the Town of Poughkeepsie along Route 9 and Route 55.
- Dutchess County LOOP Bus System worked with regional and county economic development organizations to establish new bus service between Poughkeepsie and the Harlem Valley to meet needs identified by area employers.

Short-Term Recommendations 2002-2006

1. Infrastructure Maintenance and Safety

- Highway Infrastructure - (\$29.8 Million)
Includes 20 state, 5 county and 4 local projects. The state projects cover over 65 miles of roadway while the county projects cover over 5 miles of roadway. Many local projects are not included on the TIP because they are not eligible for federal capital funds.
- Bridge Infrastructure - (\$28.6 Million)
This includes work on 2 state and 27 county and local bridges, such as Route 115 over the Little Wappinger Creek (\$1.6 Million) and Route 376 over the Whortlekill Creek (\$1.7 Million).
- Bridge Infrastructure (NYS Bridge Authority) - (\$121.0 Million)
Includes system-wide expenses, major projects in our area include: replacement of the deck on the Kingston-Rhinecliff Bridge (\$13.3 Million) and restoration of 3-lane toll collection on the Kingston-Rhinecliff Bridge (\$3.1 Million).
- Transit Infrastructure (Local) - (\$14.3 Million)
Includes the regular replacement of 15 buses, 1 trolley and 5 support vehicles for the Dutchess County LOOP system, and the replacement of 9 buses and 1 support vehicle for the City of Poughkeepsie Transit. Both local systems will also upgrade their fareboxes.
- Transit Infrastructure (Metro-North Railroad) - (\$3.2 Million)
Includes system-wide equipment replacement.
- Bicycle and Pedestrian Infrastructure - (\$1.8 Million)
Includes the normal NYSDOT Region 8 sidewalk/crosswalk program. This could include the replacement of deteriorated sidewalks/crosswalks, extension of existing sidewalks/crosswalks or construction of new sidewalks/crosswalks. (\$1.8 Million).
- Safety Improvements - (\$24.2 Million)
Eight state and 8 county projects are included in this category. Work includes NYSDOT's work median closures on the Taconic State Parkway. Many infrastructure and capacity projects also have safety components.

- Traffic and Intersection Improvements - (\$14.3 Million)
Includes upgrading traffic signals and providing operational improvements at various Intersections throughout Dutchess County, such as Little George St. at Smith St. and Creek Rd., CR 28 (Old Hopewell Rd.) at CR 94 (All Angels Hill Rd.) and CR 21 (Noxon Rd.) at CR 49 (Titusville Rd.).

2. Capacity, Mobility and Transportation Alternatives

- Highway Capacity - (\$13.2 Million)
Route 9 in the Town of Wappinger and Village of Wappingers Falls (\$12.1 Million)
Addition of a third southbound lane from Mesier Avenue to CR 93 (Myers Corners Road). This project includes a pedestrian crossing of the Wappinger Creek.

Construction of a new roadway to connect between Hollowbrook Office Park and Imperial Boulevard in the Village of Wappingers Falls (\$1.2 Million).

- Transit Capacity (Metro-North Railroad) - (\$348.4 Million)
Includes the Poughkeepsie Parking Deck and Intermodal Project and the expansion of the Wassaic Station parking lot.
- Newburgh-Beacon Ferry Service (NYSDOT and Metro-North) – (\$1.5 Million)
This includes the lease of a ferry boat to provide regular ferry service between Newburgh (Orange County) and Beacon.
- Bicycle/Pedestrian Capacity - (\$6.4 Million)
Dutchess County has secured funding for the third phase of the **Harlem Valley Rail-Trail** between Amenia and the new Metro-North train station at Wassaic. CMAQ funds were received for the **North Cedar Street Pathway, Sargent Avenue Sidewalks, Harlem Valley Rail Trail Phase IV** from Millerton north to Columbia County. The County also received TEA-21 High Priority funds to construct the **Mid-County Rail-Trail** on the abandoned railroad right-of-way between Poughkeepsie and Hopewell Junction in East Fishkill.

In addition three projects (**Bannerman Castle Trail, Wilderstein Trail Development, and Wappinger Greenway Trail**) received funding from the State Recreational Trails Program.

- Demand Management - (\$1.3 Million)
Construct a new park-and-ride lot along the Taconic State Parkway to facilitate ridesharing (\$0.7 Million).

Regional Demand Management Program (\$2.6 Million annually) - The TDM unit at NYSDOT-Region 8 coordinates travel demand management activities in the region's seven counties including its contract with MetroPool inc., which is a not for profit corporation dedicated to promoting ridesharing, transit, bicycle/pedestrian and other TDM options. MetroPool programs in Dutchess, Ulster and Orange counties combined average approximately \$0.08 Million per year.

The Newburgh-Beacon Shuttle has been very successful with ridership increasing from 50 riders per day four years ago to close to 200 per day today. Service was extended to Stewart Airport in January 2003.

3. Community Enhancement and Economic Development

- Other Projects - (\$6.1 Million)
Construction of a Hudson River Scenic Overlook at Marist College (\$0.4 Million).

Six Transportation Enhancement projects in the PDCTC region were approved by the statewide transportation Enhancement Advisory Committee. In 2000: **Hudson Valley Rail Trail** (Lloyd), **Matteawan Road Path** (Beacon), **purchase of development rights** (East Fishkill). In 2002: **Pawling Village Green** (Pawling), **Hyde Park Crossroads** (Hyde Park), **Stonewall Restoration** (Hyde Park). NYSDOT has agreed to construct improvements to Raymond Avenue (Route 376) based on recommendations developed in the **Arlington Revitalization Project**. The improvements are expected to include crosswalks, curb extensions (bump outs), decorative street lights, and new street trees. The state is also considering reducing the number of lanes and constructing one or more roundabouts.

Long-Term Recommendations 2007-2025

1. Infrastructure Maintenance and Safety

- Highway Infrastructure - \$686.8 Million
Estimates for long-term pavement needs were made by NYSDOT-Region 8 for the state, county and local road networks. State needs are estimated at \$483.6 million, county at \$103.5 million, and local at a minimum of \$100 million.

Included in this total are projects on two of the region's most significant facilities. Rehabilitation of the **Taconic State Parkway** (\$150.0 Million) from Miller Hill Road to the Columbia County line, possible establishment of grade-separated facilities at three locations CR 29 (Carpenter Road), Hosner Mountain Road, and CR 42 (Arthursburg Road), and closing or other action at other at-grade intersections as appropriate design efforts are completed. Rehabilitation of pavement and bridges on **Interstate 84** in Dutchess County (\$40.3 Million). Other projects include **Route 55** in LaGrange (\$5.2 Million), **Route 9** in southern Fishkill (\$2.6 Million), and **Route 9D** in Fishkill, Wappinger and Wappingers Falls (\$19.5 Million).

- Bridge Infrastructure - \$195.5 Million
Bridge infrastructure needs were also made by NYSDOT-Region 8. State needs are estimated at \$104.5 million, and county/local needs at \$91.0 million for the period 2007-2025.
- Bridge Infrastructure (NYS Bridge Authority) - \$261.0 Million
The New York State Bridge Authority anticipates two large infrastructure projects during the plan period. The replacement and/or rehabilitation of the main suspension cables on the Mid-Hudson Bridge is estimated at \$63 million. Both the north and south roadway decks of the Newburgh-Beacon Bridge will need resurfacing at a cost of \$98.0 million. Bridge Authority general infrastructure needs are estimated at \$100.0 million. There is no information beyond 2020.
- Transit Infrastructure (Local) - \$18.9 Million
Regular replacement of buses, support /service vehicles, shop equipment, and other accessories (e.g. fareboxes) for the Dutchess County LOOP (\$15.4 Million) and Poughkeepsie Transit (\$3.5 Million).

- **Transit Infrastructure (Metro-North Railroad) - \$2.2 Billion**
System wide equipment purchases of \$2.2 billion. For maintaining rolling stock in a state of good repair for the 2000-2019 time period. This is based on the MTA's twenty year needs assessment. Additional information will be available when the next needs assessment is completed for the period 2005-2024.
- **Safety Improvements - \$8.5 Million**
Four specific safety projects have been identified by Dutchess County. Safety improvements may also be implemented as part of the infrastructure and capacity projects (e.g. elimination of at-grade intersections).

CR 21 (East Noxon Road) Union Vale and Dover (\$3.0 Million) Realignment and construction of shoulders from CR 9 (Clove Valley Road) east for 4.0 miles.

CR 41 (East Market Street) Hyde Park (\$2.5 Million). Realign the road between Pine Woods Road and Route 9.

CR 77 (Vassar Road) Poughkeepsie (\$1.0 Million). Realign and reconstruct the road between Route 376 and Sutton Park Road.

CR 110 (Jackson Road) Poughkeepsie and Wappinger (\$2.0 Million). Realign a portion of the road and rebuild bridge over Wappinger Creek.

2. Capacity, Mobility and Transportation Alternatives

- **Highway Capacity - \$76.0 Million**
These projects are intended to improve operations and meet existing and anticipated capacity deficiencies in the region. Other potential capacity and traffic operations projects are discussed in the **Future Studies** section of this element.

Route 9 in Fishkill and Wappinger (\$19.5 Million). Widen to six lanes between Route 52 and CR 93 (Middlebush/Myers Corners Road).

Interstate 84 and Route 9D Interchange (\$52.0 Million). Improve interchange and examine the possibility of providing direct access to the Dutchess County Transportation Center.

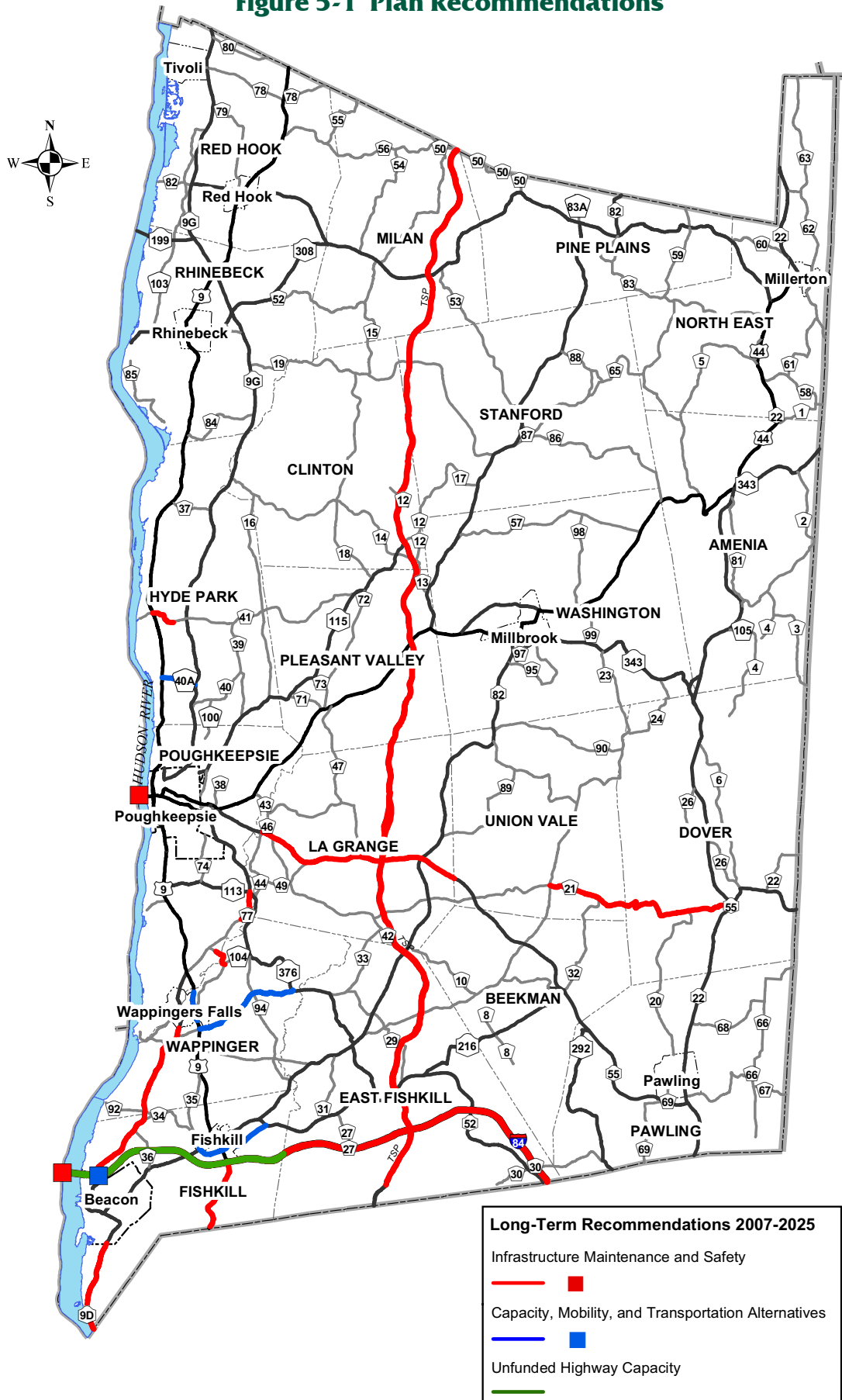
Route 52 Bypass in Fishkill (\$3.0 Million). Construction of a new public road in the village and town of Fishkill between Blodgett Road and Route 52. This would work in conjunction with other on-going projects to create a bypass connecting Route 52 in the Town of Fishkill to Route 52 just west of the Village of Fishkill.

CR 93 (Myers Corners Road) in Wappinger (\$1.5 Million). Construct continuous left-turn lane between Route 9 and Route 376 to improve operations.

- **Unfunded Highway Capacity - \$39.0 Million**
This project has been identified as desirable, but cannot be funded within the estimated resource limits developed for the 2007-2025 period. If additional resources are identified, this project will be added to the long-range plan.

Interstate 84 in Fishkill and Beacon (\$39.0 Million). Widen I-84 from 4 lanes to 6 lanes from Route 9D to Route 9.

Figure 5-1 Plan Recommendations



- **Transit Capacity (Metro-North Railroad) - \$185.0 Million**
These projects are intended to meet anticipated demand for passenger rail service in the larger Mid-Hudson and New York metropolitan regions.

Equipment Purchase (\$170.0 Million). Systemwide equipment purchase to accommodate new passengers.

Metro-North Parking Expansion (\$15.0 Million). Continue the program to expand and improve parking facilities at select Metro-North stations. Overall Metro-North Railroad is expecting to spend \$200 million system-wide on parking expansion.

- **Pedestrian and Bicycle Capacity**
There are no specific pedestrian and bicycle projects identified for the 2007-2025 period beyond those in the current Transportation Improvement Program (e.g. Harlem Valley Rail Trail, Mid-County Rail Trail). The PDCTC supports the inclusion of sidewalks, paths, and wider (4-5 foot) shoulders as appropriate in the design and construction of appropriate infrastructure and reconstruction projects. The continuation of the Recreational Trail Program will give local communities an opportunity to establish new facilities.
- **Intelligent Transportation Systems (ITS) - \$10.0 Million**
NYSDOT-Region 8 has completed its “early deployment” planning study for ITS in the Lower Hudson Valley, including Dutchess County. It is estimated that approximately \$10.0 million of the \$30.0 million will be spent in the Poughkeepsie Metropolitan Area. The goals of ITS are to reduce congestion, improve mobility and safety, and manage the overall system more effectively. A Regional Transportation Management Center (TMC) is under construction in Hawthorne, Westchester County. It will be a multi-agency center (initially NYSDOT, State Police, NYS Thruway Authority, and Westchester County) that will operate 24 hours per day, 365 days per year. It will collect traffic and transit information and will use that information to manage traffic flows and interact with regional transit operators. Other projects will deploy surveillance and control equipment in major corridors (freeways, parkways, and arterials) over the next 5 to 10 years allowing the TMC to eventually manage these corridors within the lower Hudson Valley.
- **Demand Management - \$1.3 Million**
Transportation demand management (TDM) strategies are designed to manage existing capacity by improving efficiency or decreasing demand. The intention is to encourage people to use alternate modes of transportation where possible. NYSDOT estimates that it will spend about \$1.3 million during the plan period to promote alternative transportation, primarily for ridesharing and marketing efforts. Measures that could be used to alleviate system-wide or corridor congestion in this region are listed below.

Ridesharing Projects - Support and expand current NYSDOT efforts at ride share matching. Large public and private employers in Dutchess County should be urged to support ridesharing and transit alternatives for their employees. NYSDOT contracts with MetroPool Inc. to promote ridesharing and transit use through on-site visits to employers, advertising on the radio and newspapers, the publication of a transit guide, and operation of a regional website for ridematching services for potential carpoolers, vanpoolers and transit users.

In late 2002, NYSDOT's three-year vanpool demonstration project began. The target group was Mid-Hudson commuters using the I-287 corridor. The project features innovative management techniques and subsidized fares to make the vanpool much more attractive to current solo drivers.

Marketing and Promotion - Market the existing transit and ride share programs more aggressively, and support greater coordination among regional transit agencies on matters of schedules, fares, and routes. Commuter Choice programs that encourage transit use through pre-tax payment of eligible transit costs can be used as part of a comprehensive marketing program.

Park and Ride Facilities - Identify appropriate locations for park and ride facilities that would support existing and new ridesharing and/or transit activities. Priority should be given to locations that will serve demonstrated need. Potential sites include the Taconic State Parkway, Interstate 84, Route 9 in southern Dutchess, and Orange County (for service to Beacon station). A total of 100 spaces at three locations are now available and more sites are being investigated and expected to come on line in the next two years. Increased municipal concern about maintenance costs may require an organized regional response to the process of constructing and maintaining new facilities.

Toll Policies - Use toll pricing strategies on Hudson River Bridges and other regional facilities to encourage use of transit and ridesharing options. This is especially critical in those instances where the responsible agency or authority contemplates a major capacity increase. Automatic fare collection systems such as E-ZPass may permit greater latitude in toll collection.

Pricing Strategies - Two strategies that could be useful are congestion pricing and "cashing out" free parking. The use of congestion pricing, paying more to travel at peak times, is common practice in many transit systems, but it is not widely used on road and bridge facilities. A parking "cash out" program would charge employees for parking on-site. Those employees who don't use the parking would be given the equivalent cost of parking to use for whatever they choose. Both strategies are intended to provide a financial incentive to employees to find alternate ways of traveling to work thereby reducing use of single-occupancy vehicles.

3. Community Enhancement and Economic Development

Concern about air quality issues and increased interest in development patterns that support a range of connections among neighborhoods and communities, transit, walking, and bicycling options has focused attention on land use and zoning controls as tools in enhancing the available transportation resources.

Community Plans - The PDCTC has worked with several local communities during the past five years to develop plans to address specific concerns. The following plans include recommendations that will require additional coordination between NYSDOT and the affected local governments.

- Wappingers Falls Transportation Plan – A major recommendation included traffic calming measures on East Main Street (Route 9D) in the vicinity of the Grinnell Library by narrowing the street, widening the sidewalk, maintaining on-street

parking, adding bulb outs, and adding high visibility crosswalks. Estimated cost of these improvements is about \$145,000.

- Hopewell Junction Pedestrian Plan – The plan had three focus areas: the commercial core along Route 82, the intersection of Route 82 and Route 376 and creating pathways into the hamlet from surrounding residential areas. In the commercial core the long-term vision was to create a tree-lined boulevard with a central median. Many of the other recommendations focused on better defining spaces for pedestrians and vehicles, and providing bicycle and pedestrian links among residential, commercial and social/recreational locations in the hamlet. The plan estimated that the long-term (five or more years) vision would cost \$2.6 million, and responsibility would be shared among state, local and private interests.
- LaGrange Town Center Plan – The Town Center Illustrative Plan included a proposed street system, building formats, and new residential neighborhoods. Key transportation elements include two “gateway” roundabouts on Route 55 at either end of the Town Center, landscaped median, bicycle and pedestrian facilities between Lauer Road and the Taconic State Parkway. The estimated cost of these improvements is \$4.6 million.
- Route 22 Corridor Management Plan – Over fifty separate recommendations that included land use and zoning modifications, capacity, operations, and safety improvements, new bicycle and pedestrian connections, and coordinated signage. A responsibility matrix was created to help guide the local communities, NYSDOT, and the Harlem Valley Partnership through the next steps. No cost estimates were developed as part of this plan.

Master Plans and Zoning Ordinances - Local governments should analyze land use plans to determine the potential transportation impacts of full development. The Town of Rhinebeck is in the process of developing a “build-out” analysis as part of its Comprehensive Plan that could serve as a model for other communities.

New growth should be matched to available or projected transportation capacity. Land use and density determinations should be based, in part, on the level of congestion and available capacity on surrounding roads. This type of analysis is critical in major highway corridors where opportunities for additional widening are limited.

Zoning and site plan regulations should include provision for transit, bicycle and pedestrian access in all major development projects.

Greenway Connections – As discussed in Chapter 3, *Greenway Connections* includes a series of Greenway Guides that are intended to assist local governments to encourage development that creates better communities and provides an integrated system of streets, paths, transit routes, open space corridors, and waterways that link the communities to one another and to the larger region. PDCTC will continue to support efforts by local communities to develop plans and implement projects that are consistent with *Greenway Connections*.

Access Management - Develop strategies to protect capacity of major highway corridors in the region. Potential actions include limiting the number of individual access points, requiring the construction of service roads for new development or

redevelopment projects, purchasing or otherwise reserving right-of-way in corridors where widening is anticipated, and ensuring that major activity centers are easily accessible by transit services and bicycle and pedestrian facilities. The use of these strategies will require closer coordination between local planning and zoning boards and the state and county highway permit officials to ensure developer compliance. NYSDOT is developing access management plans in cooperation with local communities on Route 9 (Hyde Park) and Route 22 (Amenia, Dover, North East and Pawling).

Technology Improvements - Innovations in transportation technology hold some promise for improving efficiency and operations of our highway, bridge, and transit services. National efforts to develop practical low/zero emission vehicles may have a positive impact on air quality in the metropolitan area as availability and use become more widespread. Telecommuting, electronic links between home and office, could also help to decrease travel and pollution emissions in the region.

In addition to the ITS project mentioned previously, other potential ITS activities include automated fare collection, "real time" transit scheduling and dispatching, and regionally-linked variable message signs could be incorporated into existing systems. Implementation of ITS projects in Dutchess County will be pursued where appropriate and cost effective.

Future Studies

1. **Current Projects** - PDCTC and its member agencies are currently involved in planning studies that cover a range of transportation issues and opportunities. These plans will be completed within the next three years. The long-range plan will be amended as necessary to accommodate any recommendations from these projects.
- **Coordinated Transportation Study** - PDCTC is working with a coalition of public and private social service agencies to examine potential for better coordination and cooperation in providing transportation services for various groups in the County.
- **Penn Station Access Study** - Metro-North Railroad has the lead for this study. The study is examining ways (e.g. via the Hudson Line) to improve travel between MNR east of Hudson service territory and Penn Station. The Comparative Screening Results Report (2001) indicated that peak and off-peak service from the Hudson Line is technically feasible and will support many of the project goals. The next step is to review the remaining alternatives in greater detail. Project completion is expected in 2003.
- **Hudson Line Railroad Corridor Transportation Plan** - Metro-North Railroad, NYSDOT, Amtrak, CSX Transportation and Canadian Pacific Railway are working together to develop a comprehensive plan for the Hudson Line Corridor between New York City and Albany. The plan will focus on capacity improvements, increased flexibility to ensure reliability of all train operations, and increased operating speed on the Hudson Line. Project completion is expected in 2003.
- **Hudson/Empire Line Grade Crossings** – The present plans for high speed rail improvements do not foresee any increase in train speeds in Dutchess County. Grants are being pursued for installation of grade crossing signals and gates for the

Pirate Canoe Club crossing (Poughkeepsie) and the Poughkeepsie Yacht Club crossing (Hyde Park). At this time no projects have been initiated for improvements to the other grade crossings located on the Hudson Line in Dutchess County: Bank Street (Chelsea), Riverpoint Road (Hyde Park), River Road (Staatsburg), and Tivoli Dock (Tivoli).

- **Mid-Hudson Bridge Infrastructure** - The New York State Bridge Authority is continuing to monitor a condition identified as “stress corrosion hydrogen embrittlement” that has reduced the weight-bearing capacity of the main cables of the Mid-Hudson Bridge. Procedures designed to retard further deterioration have been implemented and periodic inspections to check for adverse changes and the pace of corrosion continue. If corrosion continues, however, replacement of the existing cables or augmentation with additional cables may be required in a ten to twenty year span. If cable replacement is necessary the process would result in a significant reduction in the traffic capacity for the duration of the project, which could be sixteen to twenty months.
- **Route 9-Route 44/55 Interchange (Mid-Hudson Bridge)** - Discussions continue between NYSDOT and the NYS Bridge Authority about the effectiveness and safety of this “bow-tie” interchange. Any proposed change will have to be carefully coordinated between the two agencies and the City of Poughkeepsie.
- **Poughkeepsie Intersection Improvements** - The *Poughkeepsie Transportation Strategy* completed in mid-1997 contained many recommendations concerning Route 44/55 through the City of Poughkeepsie. The City, NYSDOT and PDCTC have been working together to improve Route 44/55 in light of these recommendations. Currently, an effort is underway in cooperation with private property owners to make aesthetic improvements and to attempt some traffic calming within a demonstration, two-block segment of westbound Route 44/55. Further study is needed to allow implementation of safety improvements on westbound Route 44/55 in the vicinity of Washington and Main Streets. In addition anticipated development at the 400 block of Main Street may require design changes at the Smith/Clinton/WB Arterial Mill Streets intersection to accommodate vehicular access to the site. An alternative truck route to serve the Cottage Street business area also needs to be developed.
- **Route 9 and Route 9G Crossroads Project** – NYSDOT-Region 8 is working on a study of Routes 9 and 9G within the Town of Hyde Park. The study’s goals are to devise a program of land use and transportation improvement related strategies and actions coordinated with land use plans that further the goals of the Town’s 1997 Comprehensive Plan and prevents a repetition of the type of strip development presently south of Poughkeepsie along Route 9.
- **Regional Transportation and Visitors Center** – A coalition of public and private interests is cooperating in the development of a regional center in Hyde Park. The Regional Center Partnership, which includes the National Park Service, The Town of Hyde Park, Scenic Hudson, and the Hudson River Valley Heritage Area, recently received federal funds to begin the planning and design phase for a new regional center in the vicinity of the Franklin D. Roosevelt National Historic Site.
- **Beacon Visitor Center and Station Improvements** - The City of Beacon is working with a range of private and public interests to develop a coordinated design process for the waterfront that would promote transit-friendly, mixed use development around

the train station and connections between the station and ferry dock and other activity centers in the city.

- **Hudson River Valley Scenic Byways** - The Hudson River Valley Greenway, with funding from a Federal Highway Administration grant, is exploring the potential for a system of scenic byways in the Hudson River Valley. The primary goals of this study include: identifying criteria to evaluate and rank potential byways, providing local communities with information on obtaining byways grants, and establishing a list of potential scenic byways. Public input on the study has been actively sought through a series of public information meetings held in each of the 12 counties of the Hudson River Valley, including Dutchess.
 - **NYS DOT Region 8 ITS Architecture Study** - NYSDOT-Region 8 is currently engaged in a number of Intelligent Transportation System (ITS) Projects. The main project is the development of a “regional architecture” as required by Federal regulations. The Regional Architecture will ensure that the many systems being deployed communicate with each other.
 - **Route 22 Access Management Study** – NYSDOT and PDCTC will be working with the communities in the Harlem Valley to identify the placement and number of future access points along the Route 22 corridor in areas identified in the Route 22 Corridor Management Plan and the creation of a limited access overlay zone for each of the four municipalities.
 - **Interstate 84 Commercial Vehicle Parking/Rest Area Study** – NYSDOT requested that the PDCTC work on a project to develop planning level criteria for Rest Area design and location and analyze a list of potential locations for the development of a new Commercial Vehicle Parking/Rest Area along the Interstate 84 corridor between the Hudson River and Connecticut.
 - **Poughkeepsie Northeast Bypass** – One of the recommendations of the Maybrook Multitmodal Corridor Study was for further study on the use of the corridor for a highway between Route 55 and Dutchess Community College. Discussions continue between Dutchess County Public Works, NYSDOT, City of Poughkeepsie and Town of Poughkeepsie to address issues of traffic flow in and around Dutchess Community College and in particular the intersection of Smith Street with Little George Street and Salt Point Turnpike.
2. Other Issues - This section contains brief descriptions of some issues that require additional refinement and analysis before they can be included as part of a long-range transportation plan.
- **Mid-Hudson Bridge Capacity** - The NYS Bridge Authority continues to evaluate its role in meeting the mobility requirements of the region and is monitoring traffic on its facilities. Anticipated delays during commuting periods are expected to grow given the actual percentage of traffic volume increases compared to the one percent annual estimates used in their most recent study.

The Authority has implemented the E-ZPass toll collection system at all its facilities, and will study the need for other transportation demand management strategies as

well as capacity improvements in response to the projected transportation needs of the corridor.

- **Highway Capacity** - NYSDOT has identified five arterial highways and DC DPW has identified two major roads that may experience capacity/mobility problems before 2025. In all cases NYSDOT and DC DPW will study the capacity and mobility needs within the identified corridors and fully examine all possible alternatives including demand management techniques, improved transit, stricter land use and access controls, intersection improvements, community center bypasses, and widening to determine the best course of action.

Route 22 between Putnam County and Columbia County
 Route 44 between Overocker Road and Taconic State Parkway
 Route 52 between Route 9 and Route 376
 Route 55 between CR 21 (Noxon Road) and Taconic State Parkway
 Route 82 between Route 52 and Route 376
 CR 77 (Vassar Rd.) between Spring Rd. and CR 110 (Jackson Rd.)
 CR 40A (St. Andrews Rd.) between Route 9 and Route 9G

- **Bicycle and Pedestrian Projects** - Previous planning studies identified some projects and activities that have not yet been programmed. Some are relatively simple to implement, others are more complex, requiring inter-agency coordination. Some of the outstanding issues include:

Connect Regional Facilities – Explore the possibility of linking major bicycling and walking facilities, including **Harlem Valley Rail Trail**, **Mid-County Rail Trail**, **Hudson Valley Rail Trail (Lloyd)**, the **Maybrook Trailway** (Putnam County), and the **Appalachian Trail**. Support the development of the **Hudson River Greenway Trail** on both sides of the river.

Creek Road and Pendell Road Sidewalks - To link City of Poughkeepsie with Dutchess Community College.

Wilbur Boulevard Multi-Use Path - Extend path and/or signage south to Spackenkill Road (Route 113) and north to New York State Bike Route 9 at Hooker Avenue.

Beacon Line Rail Trail - The potential of establishing a rail-trail along the Beacon Line that would serve as link between the Putnam County rail-trail ending in Holmes (Pawling) and the Mid-County Rail Trail in Hopewell Junction should be examined.

Local Projects - Several municipalities are moving forward with local efforts to establish recreation and transportation facilities for pedestrians and bicyclists. Among the more active projects are the **Hyde Park Greenway Trail** between Staatsburg and the Roosevelt National Historic Site, the **Wappingers Falls Greenway Trail** around Wappinger Lake, the **LaGrange Greenway Trail**, the **Poughkeepsie Greenway Trail** between Marist College and the DeLaval Site, and the **Hucklebush Rail Trail** in Rhinebeck.

- **Dutchess County Transportation Center (Phase 2)** - The expansion of the intermodal center to connect directly to Interstate 84 will be examined as part of the analysis and design of the I-84-Route 9D interchange project.

Connections 2025 is not a static document. The TEA-21 regulations require that the PDCTC re-examine its long-range plan every three years to ascertain that it is still relevant for the metropolitan area. As the issues outlined above are studied and alternative actions developed, the Connections 2025 will be amended to reflect the changes.

