A. Introduction

This report is part of the Newburgh Area Transportation and Land Use Study, a multi-modal planning project under the direction of the Orange County Planning Department (OCPD) on behalf of the Orange County Transportation Council (OCTC). OCPD has retained a team of consultants lead by AKRF, Inc. (the “Consultant Team”) to conduct a comprehensive, integrated, multi-modal evaluation of transportation and land use conditions within the study area. The study area for this project encompasses the City of Newburgh and the four Towns of Newburgh, New Windsor, Montgomery and Cornwall and the villages within those towns (Walden, Montgomery, Maybrook, and Cornwall-on-Hudson).

A separate report prepared under the Newburgh Area Transportation and Land Use Study evaluates the public transit needs of study area residents and recommends new bus routes to serve the City, surrounding areas in the Town of Newburgh, Town of New Windsor, Town of Cornwall, and Village of Cornwall-on-Hudson, and linkages between the City of Beacon Metro-North Railroad station and Stewart Airport. Recommended improvements to transit within the City of Newburgh would double the frequency of service along Broadway and expand service to shopping areas not currently served. The transit report also identifies the need for new bus stops, bus shelters, and signage. The transit report as well as other study documents can be found on the Study website: www.newburghareastudy.info.

This report includes an evaluation of existing conditions, an analysis of project precedents in other communities with similar conditions, the results of a public workshop to engage the public in the planning process, and several concept plans and recommendations to show a range of alternatives to reconstructing Broadway and enhancing the overall economic vitality of the City of Newburgh.

Broadway in downtown Newburgh is a road serving multiple purposes. It is downtown Newburgh. It provides access between the City’s waterfront, its downtown, and points outside the City including shopping areas off Route 300 and Stewart Airport. As it transitions to New York State Route 17K in the Town of Newburgh, it is a gateway into the Mid-Hudson Valley and the many cultural attractions in Orange County. Because Broadway serves so many different purposes and so many different users it is in need of upkeep and the City of Newburgh is exploring options for rehabilitating Broadway.

This report focuses on options for redesigning Broadway to serve the needs of the City of Newburgh, residents of the City and Town of Newburgh, and visitors. It also considers the linkage between Broadway and NYS Route 17K in the Town of Newburgh – and how the different segments of the same roadway between the waterfront and Route 300 have distinct physical configurations and community characters.
B. Goals for the Broadway/Route 17K Corridor

Planning for Broadway should focus on ways to provide improved mobility and connectivity. The notion of connectivity is particularly important when recognizing the number of activity nodes along the Broadway and Route 17K corridor. The waterfront itself, at the eastern end of Broadway, is envisioned as an activity center with new restaurants, housing, and other mixed-use development. Moving west along the Broadway/17K corridor, other major nodes include SUNY Orange and St. Luke’s Cornwall Hospital (one block north of Broadway), downtown Newburgh, major shopping centers near Route 300, and Stewart Airport. Several smaller nodes such as neighborhood parks and government uses play an important role along the corridor.

The project team drafted five goals for consideration at a public design workshop. These goals were reviewed prior to the public workshop through a roundtable discussion with key stakeholders within the community, including representatives of both governmental agencies (City of Newburgh, Town of Newburgh, and New York State Department of Transportation), educational institutions (SUNY Orange and Mount Saint Mary), and private businesses.

The five goals presented at the public design workshop are:

1. **Make Broadway a more attractive and pedestrian-friendly environment that is more inviting for walking and business.**
   
   By making Broadway a more attractive and pedestrian-friendly environment, increased activity along Broadway can be encouraged. Visitors that enjoy walking along Broadway are more likely to patronize businesses and thereby make Broadway an attractive location for investors to open a business.

2. **Improve safety and mobility for all travel modes.**
   
   Safety and mobility should be improved for all travel modes in order to encourage and enable pedestrians, bicyclists, motorists, and transit riders to share the road and benefit from the amenities Broadway can offer.

3. **Provide an appropriate amount of parking to meet community needs.**
   
   An appropriate amount of parking must be provided to meet the needs of the community without sacrificing other amenities that can be provided with the roadway. As Broadway is improved, and its right-of-way altered, sufficient parking must continue to be made available to residents and visitors. An appropriate balance of sufficient parking and other amenities should be provided along all portions of the Broadway corridor.

4. **Provide adequate road capacity for vehicular traffic.**
   
   Adequate roadway capacity for vehicular traffic should be provided in order to facilitate transportation along the Broadway corridor without significant delays. Changes and improvements for one mode of transportation can potentially have adverse effects on other modes of transportation. Roadway improvements should consider existing and future demands on the corridor, and be designed to safely and efficiently accommodate motorists.

5. **Incorporate green elements into the streetscape.**
   
   Broadway’s width provides numerous options for landscape treatments. Street-trees along the curb-line, sidewalk gardens at key pedestrian gathering locations, or medians can all be considered.

In order to help achieve these goals the concepts of “complete streets” and “context sensitive solutions” were incorporated into the planning process.

Complete streets are those that are designed for every type of user: motorist, transit rider, bicyclist, and pedestrian and includes physical features that allow for all levels of accessibility. Complete streets also create a sense of place within a community and become extensions of our homes and businesses where people can meet neighbors and conduct business. In August 2011, Governor Cuomo signed the “Complete Streets” bill (A. 8366, S. 5411) to require plans for improvements to roadways to consider the needs of pedestrians, bicyclists, public transportation riders, and motorists.

Context Sensitive Design is an approach to planning for transportation facilities that balances a desire to move vehicles efficiently through a network with the multiple contexts of the network and the multiple desired outcomes for the facility. Examples of relevant contexts include the community character, level of economic activity, demographics of people using the transportation facility, the historic and/or scenic character within which the facility is located, and the environmental setting.

Both complete streets and context sensitive solutions are built upon a ground-up grass-roots approach to planning and design that emphasizes the knowledge of the local community. Thus, there is no “one size fits all” solution for Broadway. It must be designed to meet the unique needs of the community.
The City’s Land Use Plan implements the PLAN-IT Newburgh Sustainable Master Plan. The Land Use Plan provides greater detail on how the City intends to guide future land use and where transit corridors (see image at bottom), gateways, and public squares are envisioned to focus revitalization efforts. Along Broadway public squares are identified at Lake Street (south side of Broadway) and Johnston Street (north side of Broadway). The Land Use Plan also identifies the potential creation of a “Mid-Broadway Transit Node” in the triangular area between Broadway and Washington Terrace just west of Lake Street.

In 2007, Leyland Alliance conducted a waterfront planning charrette in association with its proposed waterfront development (see image below). That project, which envisions approximately 1,350 residential units and approximately 100,000 to 250,000 square feet of retail space, would generate significant activity along Broadway and the waterfront. The Charrette, which was attended by more than 1,000 interested people, recognized Broadway as “Newburgh’s principal thoroughfare” and called for rehabilitation of buildings along Broadway with cafes and shops on the ground floor and apartments above. Several schematic designs were developed detailing how Broadway’s 133-foot cross-section (90 feet from curb-to-curb) could be redesigned to include a wide green median punctuated by squares at different strategic intersections. A transit line (shown as a streetcar) was shown within the green median and would connect downtown to Stewart.

A. Nelessen Associates conducted a Visual Preference Survey and visioning workshop for the Liberty and Grand Street Heritage Corridor in 2005 and 2006. That study evaluated the public’s desires for a wide range of roadway and streetscape improvements along Liberty and Grand Streets and the eastern-most portions of Broadway. Lessons learned from that experience can certainly be applied to planning for Broadway west to the Town of Newburgh.
C. Existing Conditions

The overall cross section of Broadway is somewhat unique to the region in its width and historic character. The roadway is the eastern end of the original Newburgh and Cochecton Turnpike built in the early 1800s as the land connection between the Hudson River and the Delaware River. Today NYS Route 17K follows the path of the former Newburgh and Cochecton Turnpike to Bloomingburg where NYS Route 17B then picks up the historic route between Monticello and Fosterdale.

Within the City of Newburgh, the NYS Route 17K designation begins at the intersection of US Route 9W/Robinson Avenue although the City maintains Broadway within its limits.

Broadway begins at Colden Street, at the top of the bluff overlooking the Hudson River. From its origination, Broadway is steeply inclined for a single block to Grand Street with one wide lane plus angled parking and sidewalks on each side of the street. The curb-to-curb width in this location is about 90 feet and the speed limit is 30 mph. Halfway from Washington Place to Grand Street, the street is paved with bricks, with the west leg of the intersection of Broadway and Washington Center also having a raised median to channelize traffic and provide pedestrian refuge for the crossing the wide intersection.

From Grand Street to West Street, Broadway maintains the same width but now consists of two wide, striped travel lanes in each direction, with angled, metered parking adjacent to a wide sidewalk on either side of the street. The four-way intersections are signalized and have pedestrian signal indicators, and three-way intersections are under stop control. Traffic varies through the day, being lighter in the morning, and heavier in the afternoon.

Upon crossing from the City into the Town of Newburgh and continuing to I-87, Broadway becomes Route 17K and widens significantly to a 53 foot width, with two travel lanes in each direction, a three-foot painted median buffer, occasional sidewalks on the north side of the street, and no sidewalks on the south side. There is no on-street parking and the speed limit is 40 mph. The Target Shopping Center intersection is signalized and there is a left turn lane into Target from eastbound Route 17K. At Auto Park Place, Route 17K widens slightly, adding shoulders and a 12-foot painted median buffer also used for left turn lanes at major intersections. The major bus commuter facility, the Route 17K Park and Ride, is located just east of Auto Park Place. Overall, land uses are less dense commercial uses, consisting of car dealerships and big box retailers. Because of
the large, suburban parcels, there are not excessive curb cuts. Speeding may be a concern along this segment, as a speed trap was observed on westbound Route 17K approaching the 30 mph zone near the City line.

The Newburgh Beacon Bus Corporation provides two fixed route bus services—the Northside and the Southside—which operate in the City of Newburgh and to several locations just outside of the city. Both routes operate continuously along Broadway/Route 17K from Liberty Street in the City of Newburgh to the shopping destinations in the Town of Newburgh along Union Avenue/Route 300 (including the Newburgh Mall and WalMart). Where the services differ is in their alignments after turning off of Broadway: the Northside route provides service to the residential areas directly to the north of Broadway and to the Mid-Valley Mall and the Shop-Rite in the Town of Newburgh, while the Southside route offers service to the residential areas south of Broadway in the City of Newburgh and the Town of New Windsor to the shopping destinations in Vails Gate (including the Big V Shopping Plaza and Price Chopper). Both the Northside and Southside routes offer relatively infrequent service due to the length of each trip and the assignment of one bus to each line, with each bus offering 120 minute headways throughout their service day. Since both routes operate the same routing along the Broadway/NY State Route 17K corridor and the shopping areas on NY State Route 300, service on the trunk portion of the lines offer hourly bus service in these areas.

The Newburgh Beacon Bus Corporation also operates a commuter shuttle, the Newburgh-Beacon Shuttle, which offers service to Metro-North’s Beacon station from Broadway in the City of Newburgh, and from the 17K Park-Ride lot and Stewart International Airport in the Town of Newburgh. The Newburgh-Beacon Shuttle offers morning peak service that is more frequent eastbound, to accommodate the Newburgh area residents who are traveling towards New York City on the MTA Metro-North Hudson Line, while offering more frequent service westbound during the afternoon peak, evening and late night service. The Newburgh-Beacon Shuttle is scheduled to meet the majority of each northbound and southbound MTA Metro-North Hudson Line trains throughout the shuttle’s service day.

Taxis serve as the primary means of “public” transportation for many residents of the City of Newburgh who are seeking to get to destinations not served by the local bus system.
D. Public Design Workshop

A critical component of the plan for the Broadway corridor is incorporating solutions to meet the needs of the public. A public workshop was held in the City of Newburgh on November 7, 2009 to better understand those needs. A group of approximately 75 community members gathered to discuss options for the future of the Broadway/Route 17K corridor.

The first portion of the workshop was a presentation that introduced the concepts of complete streets and context sensitive solutions. The Consultant Team presented a series of images showing how complete streets and context sensitive design had been applied in other communities. A number of the photographs presented in this report are those same images and are presented here as examples of how different treatments could be applied to Broadway.

Following the presentation, participants self-selected into five groups that each had a facilitator and an urban designer or transportation planner. Using a “kit of parts” that demonstrated the various dimensions of roadway features (such as travel lanes, parking lanes, medians, and sidewalks), each group evaluated different combinations or configurations within Broadway. The kit of parts separated the various elements of Broadway – sidewalks, parking lanes (both angled parking and parallel parking), travel lanes and turn lanes, and medians – so that participants could create different combinations of those elements in different sections of Broadway to see which arrangements would achieve the goals set forth for complete streets.

The conversation in each of the groups varied, but several themes emerged:

- Broadway’s width presents many opportunities and many challenges.
- The transition in width at West Street limits the extension of a full median into the Town of Newburgh.
- Transit service needs to be attractive and accessible. While many residents argued for a light-rail system along Broadway, others believed that a more reasonable first step would be to improve existing bus service.
- A landscaped median or enhanced sidewalk should be considered with street-trees and seating areas.
- Access to convenient parking is important; but some spaces could be lost in order to accommodate other amenities within the right-of-way. Most participants agreed that angled parking could be converted into parallel parking but few were willing to entirely lose on-street parking.
- Pedestrian safety features such as bump-outs, pavement variations, and improved sidewalks would encourage pedestrian and economic activity.
- Interim or experimental improvements could be made inexpensively by restriping (painting) the road.

Whatever improvements are implemented should not preclude future options for enhancements should residential and economic activity increase in downtown Newburgh.

From those several themes, five schematic concepts were developed for the downtown area showing different combinations of parking (angled or parallel); travel, bike, and bus lanes; and width and configuration of medians and turn lanes. Combinations of these concepts could be applied on different blocks, although it is desired to have some continuity to improve overall efficiency and sense of place.

Within the “transition area” west of West Street where the right-of-way is not as wide and there is less flexibility to apply some of the concepts used in the downtown area, several diagrams were provided to illustrate how access management and pedestrian safety enhancements could be retrofitted into the roadway without compromising vehicular throughput.

For the portion of Route 17K in the Town of Newburgh three concepts are shown and discussed at the workshop. One concept introduces a service road on the southern side of Route 17K within the large front setbacks to provide access to existing businesses. A small median would separate this service road from the through traffic on Route 17K. On the north side of Route 17K a sidewalk would be provided. A second concept introduces a bikeway on the southern side of Route 17K that would occupy less of the front setbacks but would preserve all of the existing commercial driveways. A sidewalk along the northern side of Route 17K is also provided in this second option.
YOUR IDEAS COUNT!
Help shape the future of Broadway and 17K

Hands-on public design workshop
Saturday, November 7th, 9:30 AM to 12:30 PM
Presentation at 9:40 AM
Newburgh Activity Center
401 Washington St, Newburgh, NY

Don’t miss this special, interactive planning session to imagine a new future for Broadway and Route 17K from the City of Newburgh to Route 300:
• Help set direction for a “buildable” design concept in our community
• Work with experts to plan a streetscape and consider traffic flow, transit, pedestrians, public spaces and development
• Contribute your thoughts and ideas on what makes Broadway unique
• Help us anticipate attendance: e-mail to ProjectTeam@newburghareastudy.info, or call 845-855-7077.

Background:
The Newburgh Area Transportation and Land Use Study is looking at transportation, local transit, connectivity and development in northeastern Orange County. The study will produce an overall assessment and multi-modal plan for transportation, integrated with local and regional land use planning policies, to enhance mobility while preserving quality of life and the environment. The Orange County Planning Department, on behalf of the Orange County Transportation Council, invites residents, landowners, businesses, local officials and others to participate in this forward-thinking public planning effort.

Un Enfoque de Colaboración
Este esfuerzo es administrado por el Departamento de Planificación del Condado de Orange, que ofrece apoyo personal a la del Consejo de Transporte del Condado de Orange (OCTC). La supervisión de este trabajo es un grupo de asesoramiento de estudios de los organismos miembros OCTC y de los municipios miembros en este ámbito (todos los municipios son miembros OCTC). Un equipo de consultores de transporte y profesionales de la planificación de la tierra se ha comprometido a llevar a cabo el estudio.

¡Participe!
El estudio invita a todos a compartir ideas y opiniones sobre los sistemas de transporte, el carácter de la comunidad y los patrones de desarrollo económico. Una serie de talleres de diseño público se llevará a cabo entre Septiembre de 2009 y Enero de 2010 para desarrollar una base colectiva de planificación. Públicas de Comunicaciones (boletines, volantes, folletos) a mantener a todos informados sobre el avance del estudio y estimular la asistencia a las reuniones. El sitio web de estudio: www.newburghareastudy.info características anuncios de reuniones y el material para su revisión.

Los visitantes pueden inscribirse para recibir boletines de noticias y compartir opiniones.
Broadway Concept 1
Maintain the current arrangement of travel lanes and angled parking but introduce a variable width median.

- Maintains the existing angled parking along Broadway.
- Maintains two travel lanes in each direction.
- Provides left-turn lanes in key locations.
- Incorporates a 15-foot-wide green median, bumpouts, and curb extensions to shorten pedestrian crossings.
- Incorporates sidewalk streetscaping.
Broadway Concept 2

Maintain the current arrangement of travel lanes and angled parking but introduce a shared bicycle lane and variable width median.

- Maintains the existing angled parking along Broadway.
- Provides one travel-lane and one bus, bicycle, and right-turn lane in each direction.
- Provides left-turn lanes in key locations.
- Incorporates a 15-foot-wide green median, bumpouts, and curb extensions to shorten pedestrian crossings.
- Incorporates sidewalk streetscaping.
**Broadway Concept 3**

Retain the current arrangement of two travel lanes in each direction, but switch the parking to parallel parking and use the additional space for a shared bicycle lane.

- Converts all parking along Broadway to parallel parking.
- Provides two travel lanes in each direction.
- Provides left-turn lanes in key locations.
- Provides a Class II bike lane between the parking lane and travel lane.
- Incorporates an 18-foot-wide green median.
- Provides curb extensions to shorten pedestrian crossings except at bus stops.
- Incorporates sidewalk streetscaping.
**Broadway Concept 4**
Reduce the number of travel lanes to one in each direction, switch the parking to parallel parking and introduce a green median and a bike lane between the parking lane and sidewalk.

- Converts all parking along Broadway to parallel parking.
- Provides one travel lane in each direction.
- Provides left-turn lanes at all intersections.
- Incorporates a 27-foot-wide green median.
- Provides limited curb extensions to shorten pedestrian crossings.
- Incorporates sidewalk streetscaping.
- Provides a Class I bike lane at sidewalk level that is physically separated from pedestrian and vehicular traffic.
Broadway Concept 5
Retain two travel lanes in each direction and consider a combination of parallel parking with bike lane and angled parking with a shared travel/bicycle lane. Provide a consistent 17-foot-wide median.

- Provides a mix of angled and parallel parking.
- Provides two travel lanes in each direction.
- Bike lanes are provided as Class II lanes in locations with parallel parking and shared vehicular/bike lanes in locations with angled parking.
- Incorporates a consistent 17-foot-wide green median.
- Provides curb extensions to shorten pedestrian crossings at key locations.
- Incorporates sidewalk streetscaping.
Transition Concept

At the point where Broadway transitions into Route 17K near the City/Town line consider a set of improvements to address vehicular and pedestrian traffic. Areas shown in green represent potential improvements within the existing right-of-way.

- Use access management to reduce number and width of curb cuts.
- Provide crosswalks along curb-cuts to designate a pedestrian zone.
- Curbs are provided to channelize vehicular flows.
- Landscaping and trees are added to separate pedestrian and vehicular traffic.
- Dedicated bike lanes are provided where right-of-way width allows.
Route 17K Concept 1

Within the Town of Newburgh where Route 17K becomes more commercial in character, consider alternative sections within the existing right-of-way to separate trips between commercial uses from through traffic. A new service road could facilitate through traffic while providing access between shopping centers. In this Concept, a service road is added to the south side of Route 17K and is separated from the main portion of Route 17K with a green median.

- Create a service road to control access to commercial uses.
- Provide crosswalks across the service road and across Route 17K to key locations.
- Landscaping and trees are added to separate pedestrian and vehicular traffic.
Route 17K Concept 2

An alternative approach to the service road would be a new shared pedestrian and bike lane along the south side of Route 17K. This Class I bike lane would provide safe, separated space for bicyclists and pedestrians to access the commercial uses along Route 17K in the Town of Newburgh and allow bicycle/pedestrian access into the City of Newburgh.

- Create a shared pedestrian and bike lane on the south side of Route 17K.
- Retain all existing commercial driveways.
- Provide crosswalks at key locations.
- Landscaping and trees are added to separate bicycle traffic from vehicular traffic.
E. Applying “Complete Streets” to Broadway

The schematic concepts that were developed by the Consultant Team following the public design workshop build upon the principles of complete streets and use techniques that have been successfully applied in urban and suburban communities through the United States and elsewhere in the world. This section highlights some of those techniques and provides photographs or renderings illustrating how they may be applied.

Some of the possible solutions could very easily be implemented at minimal cost with introduction of new painted lines on the roadway to delineate bike lanes, medians, transit stops, or changes in parking. Other “street furniture” such as planters or bollards could be installed to provide further definition to the new pattern. The City of New York has implemented a very popular pedestrian mall along Broadway using paint and planters (at right, above). Once the City evaluates whether this pattern has long-term viability, it could formalize the pedestrian zones with raised curbs and permanent plantings, or it could choose to remove the area and return the space to parking and travel lanes. The City of Newburgh could consider a similar experiment.

Improved Streetscape

An environment characterized solely by pavement and concrete creates an unpleasant pedestrian experience and has poor aesthetic qualities. In such a scenario, a pedestrian can feel out of place as these conditions are more typical of an arterial highway rather than a bustling downtown. A variety of techniques exist to help soften such an environment. The most common techniques involve physical changes such as adding street furniture or landscaping.

Shade trees, planting boxes, and landscaped medians are often found on wide streets to add interest to the right-of-way and to provide a buffer between vehicles and pedestrians. By providing buffers, pedestrians on a sidewalk feel safer than they would with vehicles traveling at high rates of speed without such a buffer.

There are numerous options for creating such a buffer that improve aesthetics while simultaneously improving pedestrian safety. These options include grade separation, varying pavement types, trees, bollards, road shoulders, or parked vehicles.

The Village of Monticello in Sullivan County recently completed a reconstruction of its Broadway (part of the same historic Newburgh to Cocheeton Turnpike as here in Newburgh) that used the width of its sidewalks to accommodate new street trees and planted lawn malls to reduce the amount of impervious surface within the downtown (at right, below).
Improved Pedestrian Mobility

Broadway’s width is a particular challenge to improving pedestrian access from one side of the street to the other.

Reducing the crossing distance on Broadway could be achieved through provision of a median in the center of the roadway to provide a refuge for pedestrians or by creating sidewalk “bumpouts” in key locations. Bumpouts shorten the distance that pedestrian have to cross, provide opportunities for bus stops, and also serve the purpose of calming traffic.

Enhanced Transit

Access to enhanced transit service was raised by a number of public design workshop participants and stakeholders within the community as a critical need within the City of Newburgh. Transit service that provides access to jobs, medical appointments, and shopping centers is an essential element of a complete streets program.

The Study Team developed a series of short-term enhancements to transit service that are outlined below. These improvements to transit could be integrated with other improvements to the Broadway streetscape to emphasize the convenience and ease of use of the transit service. New bus shelters and signposts with bus schedules could be provided to make the bus service more visible to the community.

Bicycle Transportation

Enhancing access to bicyclists is a key element of complete streets. Bicycles are a popular means of transportation for many individuals and most improvements can be made at very low cost.

Downtown environments like the City of Newburgh are especially conducive to bicycle transportation due to the proximity of residences to schools, local businesses, and work places. Newburgh has several high employment generators like St. Luke’s Cornwall Hospital, Mount St. Mary College, and SUNY Orange. Colleges are often high generators of bicycle traffic due to the popularity of bicycling among college students.

Dedicated bicycle lanes provide bike riders with increased safety as they separate riders from vehicles moving at higher rates of speeds. Similarly, dedicated bike lanes separate riders from pedestrians. Bike lanes can be located in various locations within the right-of-way. Bike lanes can also be separated from pedestrian and vehicular traffic with grade separations or other buffers.

Provision of bike racks on buses and at civic buildings, institutions, and even commercial centers can encourage use of bicycles for work, school, and shopping trips. The hybrid buses being purchased by Orange County for Broadway service will include bike racks.

Parking
The Broadway corridor is lined by numerous businesses and other uses that rely on on-street parking. Further west, uses along Route 17K tend to have on-site parking. These varying land use conditions along the corridor require careful attention in planning for on-street parking. Excess parking uses up space that can potentially be used for other amenities such as landscaped seating areas. Conversely, if parking is too difficult to find, some people may find other locations to shop and do business.

The current configuration along Broadway relies primarily on angled parking. This configuration provides the highest amount of on-street parking but also takes up significant amounts of space and creates potential traffic hazards as vehicles back out of spaces into a moving lane of traffic.

In order to address future uses of the Broadway right-of-way, it is worth considering locations where parking can be eliminated or converted to parallel parking. The exact configuration of parking can vary on each block based on demand and other uses. For example, it may be appropriate to eliminate a small section of parking to provide a bus stop.

It is also important to note that the range of alternatives for parking can include off-street municipal parking lots that can be accessed from Broadway or the intersecting roadways.
F. Recommendations

The Public Design Workshop elicited a number of interesting ideas that the community should pursue further. Because of its width, there are multiple feasible treatments for Broadway in downtown Newburgh. The width should be managed to improve vehicular and pedestrian safety, provide access to bicycles and transit, and enhance the streetscape, while still allowing for vehicles to efficiently move through the downtown.

Angled parking does not need to be preserved along the entire length of the street within the City. A parking strategy that combines angled and parallel parking can be employed coupled with improvements to municipal parking lots on side streets. The parking strategy could vary from block to block and from side to side in a way that best accommodates parking demand and alternative uses of the right-of-way.

Several small-scale streetscape improvements should be implemented to foster increased pedestrian activity. The vast sidewalk should be enhanced with shade trees, landscaping, visually interesting paving techniques, and pedestrian amenities such as garbage cans, human-scaled lighting, benches, and planting boxes.

Bumpouts or curb extensions should also be used to calm traffic while shortening crossing distances in an attempt to encourage pedestrian activity and balance transportation modes.

New bicycle infrastructure should be developed to improve bicycle safety and encourage bicycle use. Any bicycle infrastructure improvements should facilitate current usage by students at the college and within the downtown area. Bicycle improvements should also be accommodated within the Town of Newburgh along Route 17K.

The commercial portion of Broadway towards the City’s western boundary should incorporate access management strategies to limit the number of curb cuts and conflicts between cars and between cars and pedestrians.

Participants were divided as to whether a full-width median would be appropriate for Broadway as either a landscaped area or location of bus or rail transit. Many agreed that street trees along the curb would be more successful in creating an enhanced streetscape and some argued that locating transit in the center of the street might create safety issues for pedestrians seeking to use the transit.

Recommendations regarding transit service improvements are divided into short-term recommendations focused on improving fixed route service in the City of Newburgh and longer-term recommendations covering the entire Study Area. A detailed evaluation of the broader Newburgh Area transit needs and recommendations for improvements are contained in the full report on transit available on the Study’s website: www.newburghareastudyinfo.

Short-term recommendations for improving fixed route transit services in the City of Newburgh include the following:

- Modifying the routes currently in operation to improve headways and more efficiently serve communities adjacent to downtown Newburgh;
- Adding one new route to expand the geographic coverage of fixed route transit in an attempt to better serve parts of the Study Area north and south of the City of Newburgh that are major destinations for transit-dependent residents of the Study Area but currently are inaccessible or require a dial-a-bus, paratransit, or taxi trip;
- Developing and implementing a marketing and branding initiative to improve visibility of the transit service and provide better information to existing and potential new users regarding routes and schedules; and
- Producing, installing, and disseminating signage, bus graphics, shelters, maps, brochures, and other marketing materials to complement the marketing and branding initiative.

In the proposed short-term service recommendation, the revised Northside and Southside routes would be operated by three vehicles instead of two, allowing for 90-minute headways on each route, or effectively 45 minutes on the overlapping portion of the routes on Broadway and in the Route 300 commercial corridor. A fourth vehicle would operate the Mid-Valley/Vails Gate route on 90-minute headways. The service plan developed for the Short-Term Transit Recommendations suggests increasing the span of service to the hours of 6:00 AM and 9:00 PM on the weekdays and 7:00 AM and 7:00 PM on Saturdays.

In the short term, operations of the Newburgh-Beacon Shuttle between Newburgh and the Beacon Metro-North Railroad station should be improved via discussions between regional stakeholders, Orange County, the service operator, the Port Authority of New York and New Jersey, and the New York State Department of Transportation. Changing traffic patterns at Stewart Airport, opportunities to provide better access to emerging employment centers around Stewart Airport, and increasing demand for shuttle service to the Metro-North station should be taken into account during these discussions to ensure that the shuttle is operated in a cost-efficient manner.

These improvements to local bus service could be integrated with a proposal by the City of Newburgh to designate the triangular area between Broadway, Washington Terrace, and Lake Street as a potential “Mid-Broadway Transit Node” in its Future Land Use Plan. The proposed route map is consistent with that concept with both the Northside and Southside routes serving that location. A secondary hub at Liberty Street could be created where the Northside and Southside routes also intersect with the Mid-Valley/Vails Gate route. That hub could be implemented through streetscape improvements and signage.

Orange County has already placed an order for six to eight new hybrid fuel buses that would be needed to serve these three routes and has a Federal grant application pending to help pay for the new service. Orange County will also be working to make improvements to shelters and signs to make the new service more visible and accessible. The County’s Transit Orange initiative will help raise awareness of transit services throughout the County and increase the appeal and accessibility of local bus service.

Over time, as ridership grows, and as economic activity within Newburgh makes it viable, this transit corridor could evolve into enhanced service further west along Route 17K. One phased approach would integrate Bus Rapid Transit (BRT) service along Broadway. BRT uses a variety of physical and operational strategies to make buses more efficient and attractive to riders. A dedicated bus lane, signal prioritization for buses, and platform fare collection could be integrated into Broadway service as ridership increases and if funding becomes available.
available. It should be noted that the cost of light rail transit in comparison to bus transit is prohibitively expensive and would not be warranted with current levels of ridership. Vast increases in ridership and intensity of surrounding land uses would have to be seen in order to make light rail feasible.

A US General Accounting Office report on mass transit options surveyed a number of different bus transit and light rail transit projects throughout the country. Based on those surveys, the average cost per mile of a light-rail system today would be between $30 million and $50 million per mile. A street-car system might cost between $5 million and $10 million per mile. Compare that to estimates for bus transit, which ranged depending on whether buses ran along arterials (less than $1 million per mile), in HOV lanes (about $10 million per mile), or in dedicated busways (about $15 million per mile). The order of magnitude difference between running buses on an existing right-of-way and creating new light-rail lines is evident. Where no new right-of-way or structures are involved, costs for implementing rubber-tire (bus) solutions are considerably less expensive than light-rail.

Investments in bus service, or other improvements to the streetscape in downtown Newburgh, would in no way preclude the community from implementing any other solution in the future if the demand for transit and the availability of funding should be there.

Shortage of funding at all levels argues for consideration of creative implementation strategies in the short-term. The City of Newburgh could consider implementing physical reconstruction of Broadway using low-cost paint and bollard solutions (such as what was done on Broadway in the City of New York) or selecting specific “core” blocks for reconstruction. While phasing full reconstruction of Broadway might be attractive as funding sources become available, it should be noted that this phased approach might not yield long-term cost savings and may be difficult to implement given the complexities of sub-surface utilities serving businesses along Broadway. Indeed, recent experience with the reconstruction of Robinson Avenue/Route 9W or Broadway in the Village of Monticello (both of which exceeded $12 million) indicate the amount of investment that is needed to rebuild the aging infra-structure within an urban downtown.

The City of Newburgh should not be deterred by the complexities of rebuilding Broadway. The City should actively continue the dialogue with community residents and stakeholders as to the desired approach to enhancing the streetscape, enhancing transit, encouraging bicycling and pedestrian activities, and seeking parking alternatives. The City should also consider conducting more detailed surveying and investigations of sub-surface utilities. This information can be very useful in framing what is feasible over both the short-term and the long-term and would be essential in taking the next formal steps in developing detailed preliminary designs for the roadway reconstruction.