

HARRIMAN

Transit Supportive Development

Case Study



Summer 2009

Acknowledgements

Transit Supportive Development Harriman Case Study

This project was sponsored by the New York State Association of Metropolitan Planning Organizations and partially funded by the Orange County Transportation Council. This report was funded in part through grant[s] from the Federal Highway Administration [and Federal Transit Administration], U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation.

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Executive Summary

In the fall of 2007, the site adjacent to the Harriman train station was selected to be one of the New York State Metropolitan Planning Organizations' Transit Supportive Development case studies. The case studies, each from a different corner of New York State, present varying challenges and opportunities that focus on centering future development around new and existing transit service.

The Harriman site serves as an interesting and worthy case study for several reasons:

- **Existing commuter rail service** via Metro-North's Port Jervis and NJ Transit's Main and Bergen County lines;
- **The site's location** in one of the most rapidly suburbanizing places in the New York metropolitan region;
- **The opportunity to build on previous work**, done by RPA and Orange County Planning, among others, on the site's TSD potential;
- **The opportunity to provide an in-demand housing and neighborhood type that is currently lacking in the area;**
- **Proximity to state parks and nationally significant hiking trails**, uncommon for a train station in the metropolitan region.

The Harriman site also presents several unique challenges:

- **Municipal issues**
The study area, while located entirely in Orange County, straddles four municipalities: the towns of Woodbury and Monroe and the villages of Woodbury and Harriman;
- **Ownership**
Though the MTA owns the station parking lot and right-of-way for its tracks, the remaining portion of the site is privately owned; the primary owner has indicated a desire to develop his property in a transit-supportive land-use pattern and has participated in this workshop process;
- **Ecological constraints**
In addition to some difficult topography, the site contains large, significant wetlands areas.

A group of local stakeholders, including elected municipal officials, county and municipal planning staff, landowners, consultants, residents and Metro-North representatives, convened several times throughout the course of the project to address the above issues and opportunities and to collaboratively explore the site's potential as a transit-supportive development.

The centerpiece of the process was an interactive design workshop, held in June of 2008, at which stakeholders were presented with the opportunity to design the site. Building on planning and land use concepts developed in earlier meetings, each of the three stakeholder groups each came up with a concept sketch for the site, which included land-use, street network and open space recommendations. The three groups' sketches were then analyzed for common themes. The result was a series of synthesis diagrams, which provide a framework to guide future planning and development efforts.

The result of the process, detailed in this report, is an in-depth analysis of the current conditions of the site, projections as to how a transit-supportive development on the site would affect the surrounding area, and a series of planning framework diagrams. Together, a vision for the future of the Harriman train station site as Orange County's premier Transit-Supportive Development is presented.



Stakeholder Workshop Participants

PART I: Existing Conditions

Overview

Location

The study area is located in the southeast corner of Orange County. Once shielded by the Highlands from the suburban development pressures that moved outwards from New York City, this area of Orange County is now at the frontier of the ever-expanding New York metropolitan region. Relatively large tracts of open, developable land, increased tolerance for longer commutes, and increasing costs of living throughout the region have attracted developers and residents to Orange County. The mid-Hudson is facing the highest population growth rate in the region. As the chart to the right shows, its job growth rate is even with New York City and second only to northern New Jersey. Orange County in particular is projected to add over 88,000 residents and 54,000 jobs by 2030. These represent growth rates of 24% and 33% respectively.

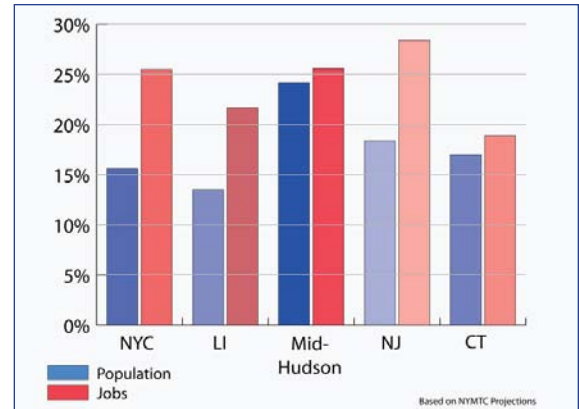
Roads

The study area is ideally located in terms of highway access, at the intersection of the New York State Thruway and Route 6/17 (the future I-86/Quickway). The New York Thruway is a major link between New York City, the Capital region, and the Adirondack region, and the Quickway links the downstate and upstate regions. Route 6 connects to the Palisades Parkway linking the study area to northern New Jersey and the metropolitan core. While the highway access has led to economic development in the study area, automobile dependency and the resulting traffic congestion have required a series of recent and planned upgrades to both highways and their interchanges.

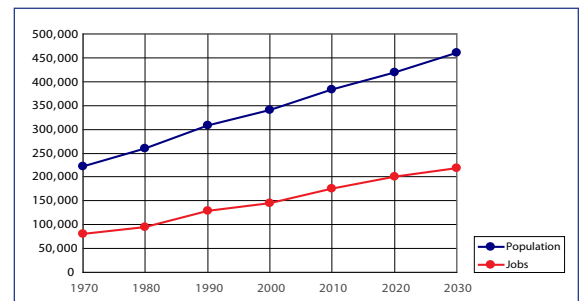
Rail

The Metro-North Harriman station, located at the southern end of the study area, provides daily service to Hoboken and New York Penn Station (with a transfer at Secaucus Junction) via the Port Jervis line. Due in part to its proximity to the New York State Thruway and its recently expanded 985-space parking lot, it is the line's busiest station.

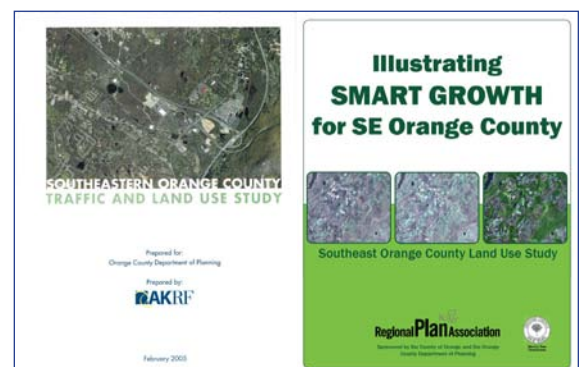
Under contract from Metro-North, NJ Transit runs 13 trains to and from Hoboken each weekday, and 7 trains in both directions on the weekend. Travel time is approximately one hour to Secaucus Junction, and 80 minutes to New York Penn Station. With the exception of one or two reverse peak trains, service is to Hoboken and New York in the morning and to Port Jervis in the evening. Most Port Jervis line service is express after Suffern, the last New York stop, bypassing most or all of the stops on NJ Transit's Main and Bergen lines before calling at Secaucus Junction and Hoboken, and one train a day in each direction runs non-stop between Harriman station and Secaucus Junction.



Population and Employment Rate of Change in the New York Metropolitan Region 2005-2030



Population and Employment Growth in Orange County 1970-2030



AKRF's *Southeast Orange County Traffic and Land Use Study*, prepared by AKRF, and *Illustrating Smart Growth for SE Orange County*, prepared by RPA, both identified the Harriman station area as an ideal location for transit-supportive development.

Planning

Orange County, in particular the Southeast corner where the Harriman train station is located, has seen explosive growth over the past decade. Skyrocketing real estate prices elsewhere in the region and a large amount of relatively affordable developable land with good highway and rail access to New York City have positioned Orange County as the next major recipient of suburban development in the metropolitan region. Coupled with this unprecedented growth have come increasing strains on the area's school systems, sewers, and, perhaps most visibly, roadways.

The Southeast Orange County (SEOC) Transportation and Land Use Task Force, a voluntary, grass-roots inter-municipal planning group, was formed in 1998 to respond to the challenges of dealing with rapid suburban sprawl-style growth. Targeting mobility as the greatest challenge to the region, the SEOC Task Force hired AKRF to conduct a traffic and land-use study that resulted in concrete transportation improvement projects throughout the region. While land use was addressed in the study, consensus comparable to that which evolved around transportation recommendations was never achieved.

Recognizing the importance of land use in a sustainable future for the region, the task force, together with Regional Plan Association, developed consensus, through a series of workshops, on a growth management plan for the region. This vision and the process by which it was achieved is outlined in *Illustrating Smart Growth for Southeast Orange County: Southeast Orange County Land Use Study*, released in early 2007. The report laid out a set of recommendations concerning land use and appropriate types of development.

While looking comprehensively at smart growth and mobility opportunities throughout the SEOC region, both reports identified the Harriman Metro-North station area as an ideal location for transit-supportive development. In fact, the RPA study found the Harriman station area to be the "single greatest opportunity in Southeast Orange County to capture a significant share of the region's growth in a neighborhood that is connected by transit to the job centers of northern New Jersey and New York City." Indeed, the availability of developable land, a train station with relatively frequent, fast commuter service to New York City, and proximity to a major node of commercial activity all contribute towards the enormous TSD potential of the site.

Building on the findings of the previous reports, RPA and the TSD Harriman stakeholder committee set out to envision what a transit-supportive development around the Harriman train station might look like.



This graphic, from the *Illustrating Smart Growth for SE Orange County*, shows one of several potential development scenarios for the Harriman station area within the context of a build-out analysis of the entire study area.

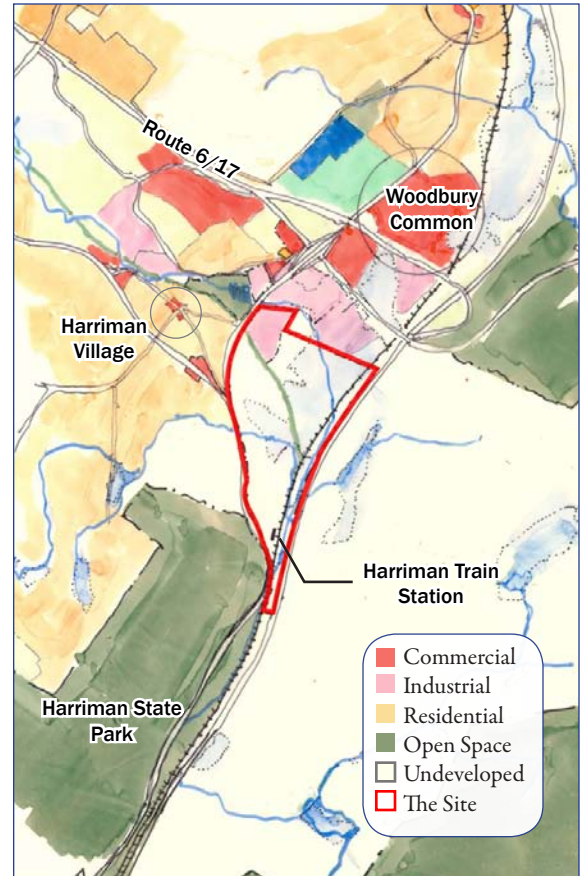
Study Area Context

As the map to the right shows, the study area includes, on one hand, one of the region's most impressive collections of open space resources, and on the other, large tracts of suburban-style development.

Located at one end of Orange County's central valley, which stretches from the Hudson Highlands to Schunmunk Mountain, the area features dramatic natural landscapes. Harriman State Park and the larger Palisades Interstate Park System hug the site, making the area a major regional recreational destination. In fact, there is an entrance to a hiking trail directly across the street from the station parking lot that connects with the 2,175 mile National Appalachian Scenic Trail.

Immediately north of the station area, clustered around the Thruway/US6/NY17 interchange, is a collection of big-box retail stores and the Woodbury Common Outlet Mall. Opened in 1985 and expanded twice since, Woodbury Common is one of the largest outlet malls in the country, and draws crowds from across the region and around the world. While contributing significantly to the county's sales and property tax rolls, the mall also generates large amounts of traffic, particularly at peak shopping times. Still, the mall's success and international draw have transformed the area into a shopping mecca, and there is a disproportionately large amount of retail activity in the area, relative to the population. In recent years, auto-oriented big-box chain retail stores, most surrounded by vast seas of parking, have sprung up around the interchange, further adding to the area's traffic woes.

To the west of the station area, across route 17, is the village of Harriman, which contains a small, neighborhood center consisting of several small-scale retail stores and some municipal offices.



The train station area is surrounded by significant concentrations of industrial, commercial and residential development, as well as an impressive collection of regional open-space resources



Harriman Village Center

There is a strong residential and commercial market in the study area, reflecting Southeast Orange County's natural amenities and transportation access. The average selling price for single-family homes in Orange County is in the \$325,000 to \$350,000 range. Second quarter data from 2007 shows that prices tend to be higher in the southeast corner of the county, with the village of Harriman's average at \$481,000. With almost 60% of the study area's housing being single-family, there are relatively few condos, co-ops, and townhouses on the market, and their sale prices are also significantly lower, around \$250,000 to \$275,000.

Office rents for Orange County are about half those in New York City. Class space rents for nearly \$20 per square foot, averaging between \$16-\$19 for newly-built space and triple net lease. Warehouse and industrial rents in Orange County average around \$4 per square foot, with \$6 per square foot being the high end.

In addition to typical residential and commercial uses, a 140-room hotel recently opened behind Kohl's, and there seems to be demand for more hotel rooms. Given the international and regional draws in the area, room rates range from \$75 to \$150 per night.

This analysis of existing market conditions informs the market potential on pages 16-17 of this report, and leads to the land-use programs contemplated in conceptual designs for the site.



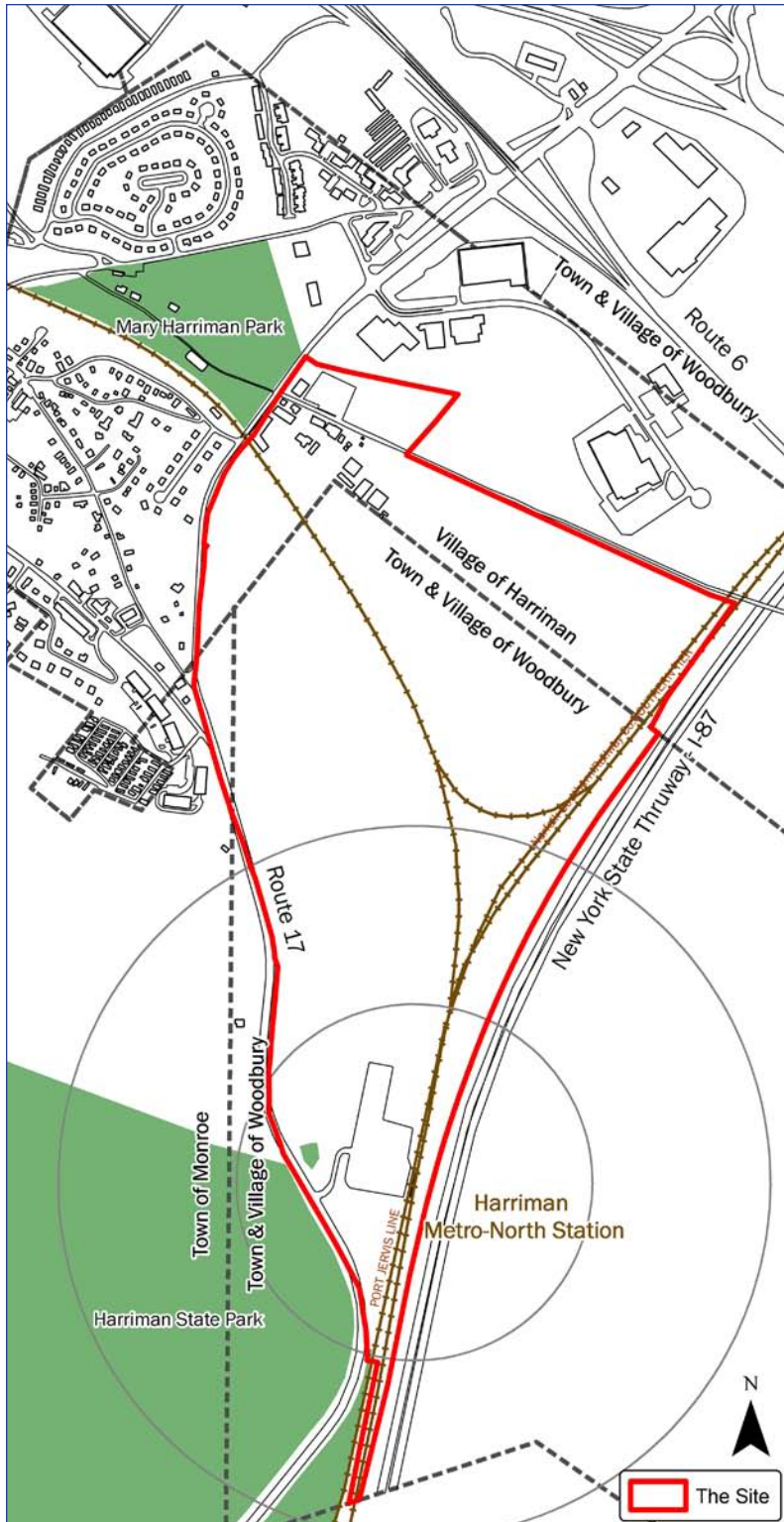
Woodbury Common Outlet Mall



Study Area Aerial Photograph

*All market analyses presented in this and future sections were conducted by Philips Preiss Shapiro Associates in the summer of 2008, prior to the current slump in residential and commercial markets.

The Site



The Site

Overview

The site, bounded in red in the graphic to the left, stretches from the southern end of the train station to Arden House Road. The site is made up of three distinct parcels, totaling approximately 330 acres in area. The southernmost parcel consists of the Harriman train station and parking lot, owned by Metro-North. Directly north of the Metro-North property, bounded by Route 17 to the west and the presently unused rail spur to the east, is the site's largest parcel, privately owned and hereafter referred to as "Parcel A." This parcel has never previously been developed. To the north of Parcel A is the second largest parcel, the wedge shaped Nepera parcel. The western edge of this parcel contains a series of industrial buildings, while the eastern edge is undeveloped and has significant ecological constraints. A small portion of the Nepera parcel lies north of Arden House Road and currently houses an office building. The concentric circles seen in the bottom half of the map represent a quarter-mile and half-mile radius of the Harriman train station, generally considered to be the distances at which transit-supportive development are most feasible.

Natural Features

As can be seen in the physical model shown on the facing page, the site contains significant topography, wetlands, and watercourses that dictate development opportunities. After sloping down quite steeply on the western side of the Route 17, the landscape flattens out closer to the station area, with a few hills surrounding the existing station parking lot. The area's wetlands cover the entire eastern half of the Nepera site and a large swath in the center of Parcel A. The wetlands push development towards Route 17 and bisect opportunities into the northern and southern halves of the site.

Land Use and Zoning

The greater part of the site, especially the area immediately surrounding the train station, is vacant, the one exception being the police sub-station and recently expanded Metro North parking lot located between the station and Route 17. There are some industrial and office buildings in the northernmost part of the site. However, since the closing of the Nepera complex, those buildings along Arden House Road have not been used. As mentioned earlier in this report, the site is surrounded by a major retail commercial agglomeration to the north and a residential village center (Harriman) to the west. Housing types vary from older, small-lot single family homes in and around the village center to more recent, larger-lot cul-de-sac subdivisions and multi-family condo-style dwellings in the northern corner of the village.

The bulk of the site is currently zoned for light industrial and office uses. In fact, the current tax parcel map for the town/village of Woodbury still shows the site subdivided in a typical suburban office/industrial park manner, with a curvilinear main road and cul-de-sacs coming off of it. Current Woodbury zoning mandates a rather large minimum lot size (two to ten acres) and allows office and specialized education and training uses as-of-right, with light industry, warehousing, industrial/office park and indoor recreation allowed by special permit.

Jurisdictional Issues

The site is located at the crossroads of four municipalities: the towns of Woodbury and Monroe and the villages of Woodbury and Harriman. Though the vast majority of the land area is located in the village of Woodbury, much of the northern portion of the site is in the village of Harriman, and a small sliver along Route 17 is part of the town of Monroe. Understandably, this creates a host of potential conflicts surrounding jurisdictional issues such as service provision, taxation and traffic. For example, despite having a relatively small portion of the site, the village of Harriman would probably absorb a disproportionately large share of the traffic generated by new development. One of the main goals throughout this process was to seek out opportunities for inter-municipal co-operation and come up with vision that produces positive results for all four municipalities.



Physical model of the site

Municipality	Zone	Uses			Intensity		
		As-of-right	Accessory	Special Permit	Min. Lot Size	Coverage	Height
Village of Harriman	Industrial (I)	<ul style="list-style-type: none"> manufacturing warehousing industrial office & research 	<ul style="list-style-type: none"> cafeterias clinics recreation 	<ul style="list-style-type: none"> garage outdoor storage (screened) 	40,000 sf	50%	50'
	Planned Area Development (PAD)	<ul style="list-style-type: none"> single family residential agriculture industrial uses schools 	-	-	43,560 sf (res), 217,800 sf (ag/ind)	15% (res), 25% (ag), 35% (ind)	35'
Town and Village of Woodbury	Light Industrial Office Park (LIO)	<ul style="list-style-type: none"> office specialized education and training 	-	<ul style="list-style-type: none"> light industry commercial recreation warehousing industrial park or office park 	87,120 sf (435,600 sf for industrial/office park)	65%	35'
Town of Monroe	General Business (GB)	<ul style="list-style-type: none"> general commercial municipal park utilities daycare hospital residential over non-residential 	-	<ul style="list-style-type: none"> indoor sports motel neighborhood shopping center single family dwelling movie theater 	10,000 sf	90%	35'/2.5 stories

Traffic Conditions

Commuter Pattern

The *Southeastern Orange County (SEOC) Traffic and Land Use Study*, using the 2000 census journey-to-work statistics, summarizes the commute pattern for residents of the towns of Blooming Grove, Monroe, and Woodbury and their respective villages. About half of the area's employed residents work within Orange County, and about 18 percent commute to New York City. The remaining commuters are split between Rockland County (12 percent), Westchester County (5 percent), and counties in northern New Jersey (11 percent).

The transportation choice used most frequently for the journey to work is the single-occupant vehicle. Nearly three-quarters of the workers 16 years and older living within the SEOC study area reported driving to work alone; only eight percent use public transit.

Level of Service and Delay Analysis

Table 1A below summarizes levels of service and delays for AM, PM and Saturday Mid Day peak hours as reported in the SEOC Study for the year 2002 for the major intersections in the study area. As can be seen, the major intersections along Route 17, Route 17M, Route 32 and County Route 105 operated at relatively good levels of service of A to D in most peak periods. The intersection of Route 32 and the EB Rte 17 ramps (highlighted) was the only one operating at Level of Service E.

Analysis of Origin of Harriman Station Parking Users

The map on the facing page shows the residential origins of the Harriman Station parking users. A significant number of commuters parking at the Harriman Station live outside of the immediate area and actually live closer to other stations on the line. Table 1B summarizes the origins by town. 57% of the Harriman Station parkers reside in the three nearest towns (Monroe, Woodbury and Chester). About 35% reside in other towns in Orange County and 8% reside outside of Orange County.

A cost/time comparison was conducted for the parkers who drive and park at the Harriman Station and could have driven to the nearest local station. Five zones with a number of residential origins were considered. The map on the facing page shows all five zones (A through E) on the area map with the Harriman Station parker origins. Table 1C summarizes for each zone the travel time gains and additional costs incurred by the decision to drive to the Harriman Station. For the purposes of this analysis, the out-of-pocket costs for driving were assumed to be 30 cents/mile. Using the average time savings and costs, one can conclude that the Harriman commuters pay an average of \$139 per month to save on average 28 minutes per day (total of AM and PM travel times). This corresponds to an average value of time of \$14 per hour, although this value seems to vary significantly from station to station. This figure should be considered when service changes and parking prices are adjusted.

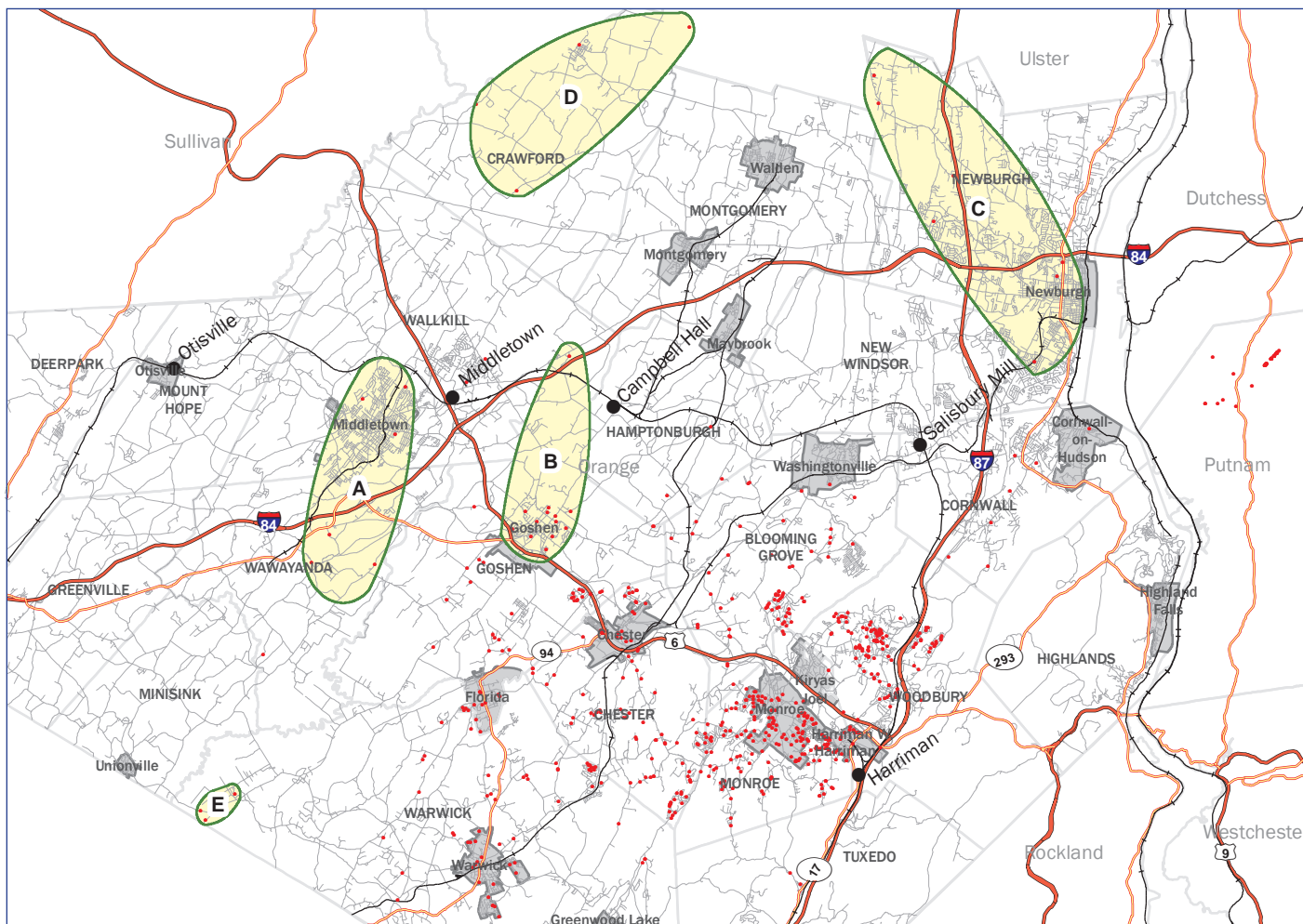
Major Street	Cross Street	Peak Hour LOS		
		AM	PM	Sat. MD
SR32	CR 105	A	A	B
	Woodbury Common North	A	B	C
	Woodbury Common South	A	B	B
	SR 17 WB Off Ramp/ Nininger Road	C	D	C
	SR 17 EB On/Off Ramps	E	D	E
	US Route 6 Off Ramp	A	B	B
	Larkin Drive / US Route 6 On Ramp	C	C	D
17M	SR 17	A	A	A
	SR 208	B	C	D

Table 1A: Levels of Service at key intersections

Town/ Municipality	Users #	Users %
Town of Monroe	193	26%
Town of Woodbury	126	17%
Town of Chester	104	14%
Town of Warwick	78	11%
Town of Blooming Grove	63	9%
Town of Goshen	40	5%
Other Towns in Orange County	77	10%
Out of Orange County	58	8%
Total	739	100%

Note: All towns include village data

Table 1B: Harriman Station parking users



Map of Harriman Station parking users

Zone	Number of Addresses	Municipality	Driving to The Harriman Station			Driving to The Local MTA Station				Train From Local Station to Harriman Station			Total for Using the Local Station		Average Gains for Using Local Station	
			Time *	Dist. *	Cost/ Month	Station Name	Time *	Dist. *	Cost/ Month	Rail Cost	Travel Time		Time/ Day	Cost/ Month	Time/ Day	Cost/ Month
											AM	PM				
A	6	New Hampton	23	20.5	\$ 258.3	Middletown	9	6.6	\$ 83.2	\$ 28.0	34	33	85	\$ 111.2	-39	\$ 147.1
B	14	Goshen	21	17.7	\$ 223.0	Campbell Hall	9	4.1	\$ 51.7	\$ 18.0	25	26	69	\$ 69.7	-27	\$ 153.4
C	7	Newburgh	23	19.8	\$ 249.5	Salisbury	14	8.9	\$ 112.1	\$ 9.0	14	14	56	\$ 121.1	-10	\$ 128.3
D	4	Pine Bush	35	31.4	\$ 395.6	Campbell Hall	23	16.6	\$ 209.2	\$ 18.0	25	26	97	\$ 227.2	-27	\$ 168.5
E	3	Pine Island	33	25.3	\$ 318.8	Middletown	27	19.4	\$ 244.4	\$ 28.0	34	33	121	\$ 272.4	-55	\$ 46.3
Total	34															
Weighted Average															-28.1	\$ 139.4

* One way trip

Table 1C: Cost Benefit Comparison for Local Station vs. Harriman Station Use

PART II: What Could Be

What is TSD?

Transit supportive development (TSD) can take on various forms, but at its core it consists of a mix of housing, shops, restaurants, offices, civic buildings, and open space in a compact, pedestrian-friendly environment within walking distance of a transit station, that supports both community character and transit ridership. In conceptualizing how Harriman Station could be re-imagined as a Transit Supportive Development, the following goals were used as guidelines:

- Connect the surrounding area to the transit facility by creating an environment that accommodates the automobile but favors alternative forms of mobility, pedestrians, bicyclists, and buses and jitneys;
- Make the station area a community destination;
- Orient buildings towards streets and public spaces and solve the parking problem creatively;
- Encourage human-scale buildings and architectural design;
- Favor land-uses that support compact, mixed-use environments as opposed to auto-dependent land-uses.



Poughkeepsie, NY



Yonkers, NY



South Orange, NJ

Summary of Past Plans

#1 - 1989

Industrial
1,419,000 sf

Retail
52,700 sf



#2 - 2006

Industrial
1,337,000 sf

Retail
52,700 sf

Office
42,000 sf

Indoor Recreation
39,000 sf



Several design concepts have been proposed over the past two decades for the 165 acres of the site between Route 17 and the Heritage Trail (this includes the Metro-North property and Site A, and excludes the Nepera parcel). As the diagrams on this page illustrate, plans have gradually progressed toward a more compact, mixed-use form of development that better responds to the site's environmental constraints and transit accessibility. This shift is due, in part, to the closing of Nepera's industrial operations, which would have precluded residential development in close proximity.

Plan #1, the ICC preliminary subdivision plan for site A, approved by the town of Woodbury in 1989, laid the site out as a typical suburban-style industrial park, with big-box buildings and large parking lots oriented around a central access road.

#3 - 2006

Residential
150 units

Mixed Use
490,000 sf

Retail
48,000 sf

Office
120,000 sf

Flex Commercial/
Industrial
300,000 sf

Civic
42,500 sf

Garage
525,000 sf



#4 - 2007

Residential
230 units

Retail
102,000 sf

Office
295,450 sf

Indoor Recreation
100,000 sf

Hotel/Conf
67,800 sf

Flex Commercial/
Industrial
50,000 sf

Garage
498,600 sf



Plan #2 is a 2006 update of plan #1, responding to new wetland regulations. It is built on the same general industrial park layout, but shows greater respect for the site's environmental constraints by having the access road and development curve westward to avoid the wetlands.

Plan #3, produced during the 2006 Southeast Orange County Visioning process, marks a significant departure from past plans, designating the immediate station area as a mixed-use, transit-supportive development, while retaining commercial and industrial uses to the north of the site.

Plan #4, the latest concept from the area's largest property owner, prepared by Esposito and Associates, features the same basic concept of housing and mixed-use near the station, though it shows more single-family residences stretching to the northern part of the site. In the plan, the northern end of the site is visualized as a primarily commercial area, with a variety of retail, office, hotel, and recreational uses.

* All four diagrams above are sketches produced by RPA of previous concepts for the site.

Market Potential

As the chart below suggests, the optimal land-use pattern for the study area is one that balances four criteria: transit-friendliness, locational bias, market strength, and fiscal implications.

In some cases, all of the criteria align with the overall objectives of a transit-friendly vision plan. In other cases, conflicting forces may be at play. For example, there may be a relatively strong market for large warehousing and distribution and for light manufacturing, but this is not a transit-supportive use, either in terms of place-making or creating additional ridership. Similarly, there may be a strong market for more single-family housing, but this is neither fiscally positive nor is it transit-supportive.

On the other hand, attached townhouses and small apartment buildings are the most transit-supportive, both in terms of place-making and ridership. But residential uses will only be fiscally positive if they are designed as part of a compact, mixed-use town-center environment.

It is also important to understand that a complete neighborhood /transit supportive center should include amenities and activities that create value, even if they are not supported by commercial real estate markets. These are sometimes called “loss-leaders”. These include a community center, a school, a municipal facility of some kind, and all of the open space amenities: restored wetlands, trails, parks.

To state the obvious, the southern portion of the site should be reserved for those uses that gain value from their proximity to the future station area and that can create the kind of lively, mixed-use environment associated with transit-friendly development. Housing has a special role to play here. The north portion of the site should be reserved for larger-format industrial and commercial uses, which can take advantage of better highway access.

Residential

- As the chart on the facing page reveals, the market for all housing types is fairly strong in this area. With the exception of single family homes, all of the types are fiscally neutral, due largely to the fact that higher density housing types tend to attract fewer school-age children. As those types (townhouses, apartments, etc) also happen to be more transit-supportive in that they generate more transit trips, it makes sense to locate them in the southern half of the site, within walking distance of the train station.
- Senior housing is growing in popularity, so it may make sense to consider some age-restricted units, perhaps in a later phase (even though it is a young county, there will be a gradual “graying” of the population). There seems to be a significant amount of demand on the part of empty-nesters to downsize and then remain in the community/area. However, it would be preferable to locate this type of housing in the northern half of the site, as senior housing tends to produce fewer transit trips.
- Affordable units for policemen, firemen, teachers, and low-income families would go a long way toward making density more palatable in this low-density region.
- Currently, relative affordability is one of the main draws to Orange County, but it is important to keep in mind that commuters (30% of Orange County’s workforce commute to jobs outside the county) often earn salaries above the County’s median income.
- The economics of building rental units tends not to work in this area - building costs are too high compared to what can be charged for rent. Rentals are constructed in the county, but more to the south and in Rockland County.
- As with most places around the country, residents are especially concerned about rising school taxes that can be caused by denser development. This is especially true around the site, where a large proportion of tax revenue is directed towards the Monroe-Woodbury Central School District (which is a high performer). Research shows that Transit Supportive Developments generally produce far fewer school-age children than typical suburban developments. A field investigation of 10 TSDs with 2,200 housing units found they contained 50 public school-age children (PSAC), a PSAC multiplier of 0.02 per housing unit, while standard residential multipliers average 0.14 PSAC per unit. For example, 100 unit TSD and traditional suburban developments would produce:

TSD: 100 units X .02 = 2 children
Traditional: 100 units X .14 = 14 children

- In the short term, build stacked units for younger buyers near the train station (the county's median age of 35 years is the lowest in the region; Orange County is the only county in the region in which half the population is under 35 years old; yet the county complains of "brain drain")

Retail

- With the exception of the front 30 acres of the Nepera site, which fronts on busy Route 17, the site is generally a poor location for retail. While the Nepera site could support a mid-size box retail tenant, most of the retail throughout the rest of the site, particularly closest to the station, is likely to be smaller-scale commuter-oriented convenience retail.
- The only real possibility to fill local demand (and service for new residents) would be a community-scaled supermarket (roughly 40,000 square feet), though there is a fair amount of competition.

Office

- There is little to no demand for conventional office space (up to 250,000 square feet) at the site. Most of this demand is or will happen up towards Stewart Airport.
- There could be demand for some professional office space (mostly geared towards new residents). Once developed as a concept, a mixed-use TSD might attract those Manhattan professionals looking to move out of the City, willing to set up satellite offices in small 1,000 – 5,000 square foot spaces.
- Because of projected growth in the number of senior residents, there may be potential for a community

building which provides preventive care and other services; right now, seniors have to be bussed or brought via ambulance over great distances just to get basic services. As it is not likely that users of these services will be accessing the facility by train, it would be preferable to locate the building on the northern half of the site.

Hospitality

- The United States Military Academy at West Point (the county's largest employer) is a big source of demand (visits, games, reunions). It is only a 20-minute drive away from the site on Route 6.
- A hotel at this site could also be geared to attracting Woodbury Common shoppers.

Recreation / Entertainment

- A major "New Roc City"-type all-in-one entertainment complex seems unlikely. However, a skating rink or small recreational facility might make sense.
- Though a major multi-screen cinema would probably not make sense on this site, it is conceivable that a small, community movie house or theater could do well.

Civic / Institutional

- There is some local need for playing fields.
- The Fire Department in Harriman has indicated a need or desire to move, which might be worth looking into.
- The Exit 131 reconstruction (Route 17 and Route 6 intersection) will force a loss of some park & ride (bus) spaces.

	Land Uses	Criteria			
		Transit Friendly	Location Bias	Market	Fiscal Implications
Residential Uses	Attached Townhouses	Yes	South	Strong	=
	Small Apartment Buildings	Yes	South	Intermediate	=
	Senior Housing	No	North	Intermediate	=
	Single Family	No	North	Strong	-
	Mixed Use	Yes	South	Strong	=
	Retail/Apartment Above	Yes	South	Strong	=
Non-Residential Uses	Commercial - Retail	Yes	North	Strong-Intermediate	+
	Commercial - Office	Yes	North	Intermediate-Weak	+
	Entertainment	Somewhat	Either	Intermediate-Weak	+
	Hospitality	Somewhat	North	Strong	+

Mobility Solutions

The Effects of TSD

To test the traffic and parking effects of transit supportive development at the Harriman station, two hypothetical development programs were formulated: the first lays out the site in a typical suburban layout where all land uses are on separate parcels each with its own access off of a main internal circulation road, and the second does so in a TSD pattern where all uses are integrated in a mixed-use development zone. In the TSD scenario the trips made between the various uses could either be made on foot or they could be made by car on internal roads. The hypothetical development mix, in both scenarios, was devised from the most recent proposals for the area and included 100,000 square feet (sf) of retail use, 300,000 sf office, 100,000 sf indoor recreation, 68,000 sf of hotel/conference space, 50,000 sf of flexible commercial space, and 320 dwelling units (a mix of apartments, condominiums, townhouses and single-family homes).

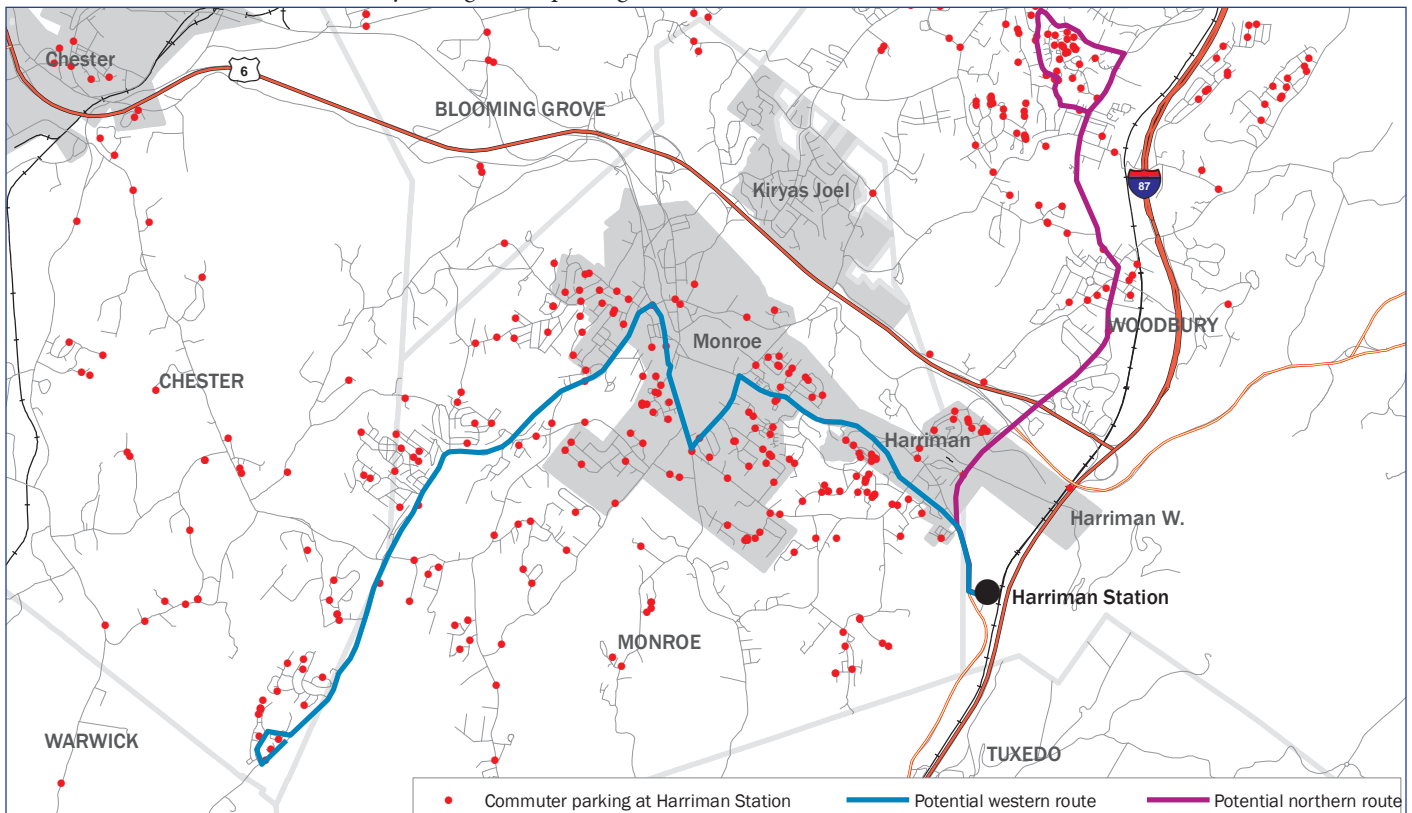
The comparative analysis showed that the TSD scenario could reduce the parking supply by about 750 spaces (a 30% reduction over the suburban scenario or a potential savings of \$15 million in parking structure). The savings were achieved by having shared parking for the railroad

commuters, some of the apartment dwellers, the recreation, hotel and retail users.

The traffic generation (external to the TSD area) was also reduced by 32% to 36%, due to the internal trips made between the various uses and the higher percentage of trips made on transit. It should be noted that these percentages of parking and traffic gains may not be the same for all TSDs. The benefits depend on the types of uses, the density and mix, and the magnitude of each use.

Shifting Harriman Station Parkers Back to Their Home Stations

As shown in Part I of this report, a significant number of commuters parking at the Harriman station could use their local train stations. Their decision to drive to the Harriman station adds to the local levels of congestion and the overall vehicle miles of travel. This choice is influenced by the cost of the monthly rail pass, the monthly cost to park at each station, the availability of parking at each station and the trains' travel time between the local station and Harriman. Metro-North Railroad should take into consideration these variables as the train service and stations get upgraded, and the



Potential shuttle routes serving Harriman Station

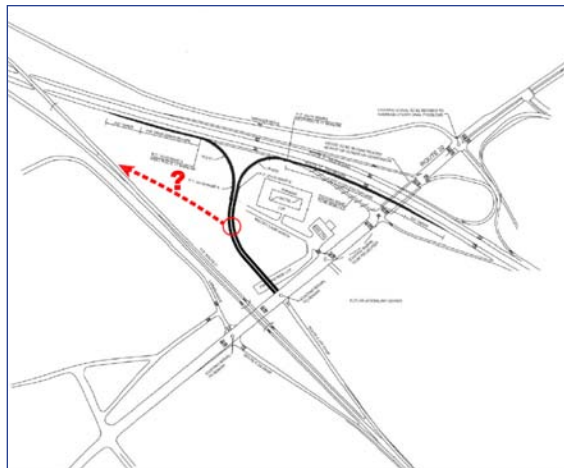
fares and parking costs get adjusted. It is recommended that Metro-North consider examining the effect of differentiated parking rates for outlying stations.

Potential Shuttle Bus Routes

As previously discussed, many users of the Harriman Station currently live in three adjacent towns. The map on the facing page shows two potential shuttle bus routes that could serve a large amount of these users, one stretching to the west and one north of Harriman Station. The blue route would run within a 1/4 - mile of 81 commuters, and within 1/2 - mile of an additional 62 commuters. The round-trip route length would be about 20 miles and could be operated within 1 hour. The purple route runs within a 1/4 - mile of 53 commuters and within 1/2 - mile of an additional 79. The length for this route is about 13 miles roundtrip and could be operated in less than 1 hour.

Potential Woodbury Station

The idea of an additional rail station located north of Woodbury Common has been discussed in the past. The origin analysis of the Harriman commuters shows that about 115 commuters residing generally north of Woodbury Common could shift from the Harriman station to a new Woodbury station. This represents a traffic reduction of about 16% at the Harriman station, as well as fewer cars driving through the critical intersections along Route 32 south of Woodbury Common. Vehicle miles of travel would be reduced in the corridor. This new station could also have beneficial effects in that it may divert some Woodbury Common shoppers out of their cars onto the railroad.



Proposed Rt. 17/32 Interchange

Roadway Improvements

- ➔ New York State DOT is planning to improve the interchange of Route 17 and Route 32. The diagram below shows the proposed new eastbound ramps. The existing eastbound off-ramp from Route 17 onto Route 32 would be eliminated. In addition southbound traffic on Route 32 that wants to access the New York State Thruway would be prohibited to make a left turn onto the eastbound (EB) on-ramp towards the Thruway and would be diverted further south to the new EB on-ramp via a right turn. This would eliminate the traffic light at the existing EB ramps. The possibility of a westbound on-ramp from the new ramps onto the Route 6 connection to Route 17 should also be investigated. This on-ramp may divert some vehicles that today want to avoid the traffic congestion in the interchange area and drive through Harriman instead.
- ➔ As suggested by the SEOC Traffic and Transportation Study, the speed limit along Route 17 in the vicinity of the station area should be reduced from 55 mph to 45 mph.
- ➔ A new north-south collector road located east of Route 17/32 needs to be built as part of the new developments near the station and on the Nepera site. This new collector road will carry internal trips between all new uses and will allow greater flexibility in circulation routes in the north-south direction. Pedestrian circulation will also be enhanced by providing a sidewalk along this collector. Ideally this collector road should extend all the way north to Woodbury Common along the railroad right-of-way. This new road would thus serve as an additional link across Route 6 and Route 17 (future I-86).

Trail Enhancements

The abandoned rail overpass over Route 17 is being removed, but a pedestrian connection should be maintained as part of the Heritage Trail.

PART III: TSD for Harriman

The Workshops

Stakeholder Committee Meeting

After a walk-through of the site in December of 2007, the first stakeholder meeting was held on April 3rd, 2008, at the Woodbury Fire Hall in Highland Mills. At that meeting, the consultant team presented the stakeholder group with its preliminary research, which included several test schemes for the study area. A roundtable discussion followed, in which stakeholders were asked to critique the test schemes, alert the group to any points that may have been overlooked, and bring the issues they found most relevant to the table. This discussion formed the basis for the Harriman-TSD design brief, a document detailing the major design, land use and open space and environmental priorities for the site.

Observations and Comments

Some key observations and comments that arose out of the April 3rd meeting were:

- support for treating the site's wetlands as an open space amenity, with development oriented toward but respectful of these environmentally sensitive areas;
- support for the creation of a new north-south road between the station area and Woodbury Common and the retail agglomeration north of Route 6, possibly parallel to the Metro North train tracks;
- suggestions of developing the northern part of the site as an extension of the adjacent Harriman village center, while taking steps to ensure that any retail there complements, rather than competes with, businesses in the existing center;
- include vacant, buildable land on the western side of route 17 for consideration;
- include existing plans for active adult multi-family residences in the basemaps and model the test schemes don't correspond to municipal boundaries, which could raise a whole host of issues surrounding jurisdiction.

Outcome and Next Steps

The consultant team agreed to complete another round of research to respond to the issues raised, provide more detailed information on traffic and fiscal implications of the site, and revise the test schemes to reflect the discussions that took place during the meeting.

Stakeholder Committee Design Workshop

The consultant team and the stakeholder group reconvened on the evening of June 23rd, 2008, at the Monroe-Woodbury Staff Development Center in downtown Harriman. Participants were split into three diverse groups of 8 to 10 stakeholders, each group facilitated by a planner or urban designer. A brief presentation explained the site's history, environmental constraints, and challenges. The presentation also outlined the basic concepts behind Transit Supportive Development as well as the traffic and fiscal implications of developing the site. Group members were asked to consider all of these factors as they worked together to imagine what the site might look like in 20 years. Finally, each group was asked to synthesize its vision and recommendations into three main framework diagrams: infrastructure, land use, and open space.



Stakeholder Workshop Participants

Design Brief

Each participant was given a design brief, which further laid out opportunities and challenges to keep in mind while discussing and drawing up schemes. It also set a threshold for program considerations, giving participants a general goal/limit as to how much development they could put in the area. This design brief outlines issues and opportunities that should be part of any planning, design and development program for the site.

Street Network Ideas:

- Create a linked street and block network.
- Create a new north-south road linking the station area to Arden House Road. Consider extension of the new road to points north of Route 17 by building a road adjacent to the tracks.
- Create frontage roads along the edges of wetlands and other open spaces to ensure public amenity value.
- Design multi-modal streets for biking and walking.
- Design for intermodal connections to buses and shuttle buses, including a possible shuttle bus to the Woodbury Common Mall.

Land-Use Concepts

- Create a compact, mixed use station area with a significant residential component and living over shops and/or offices.
- The site is naturally divided into a southern and northern portion. The south/TSD portion can be primarily mixed use/ residential. The north portion can be primarily commercial/industrial.
- Create a “gateway” at the intersections of South Main Street, Route 17M and Route 17.
- The north corner of parcel A is within the Village of Harriman. This corner of the site, because it relates to Mary H. Harriman Memorial Park and because it is connected via Grove Street to the Village center of Harriman, is suitable for mixed use.
- In the longer term, parking at the station will have to be structured. Metro North railroad has a projected need for just over 1,000 spaces by 2025.
- A hotel may be appropriate at the north end of the site, where there is good highway access. A smaller-scale inn could be part of the TSD at the station area.
- A new civic use of some kind should be part of a complete community here. This might include a new nature center, village hall, or village court.

Open Space and Environmental Concepts

- Respect environmental features and resources: steep slopes, wetlands, mature forestation.
- Employ passive storm water management strategies (bioswales; “green streets”).
- Create a network of linked open spaces: resources include the Heritage trail, which extends from the station area to downtown Harriman, the Village of Monroe and beyond; Mary H. Harriman Memorial Park; new neighborhood-scale parks in any new residential areas; the new station area public space; the wetlands/forested areas; Harriman State Park.
- Treat the wetlands as a public open space amenity.
- Minimize encroachments on, or crossings of, wetlands.

Implementation Issues

- Create a comprehensive plan that can nevertheless be built in phases by different land owners.
- Consider municipal boundaries in the phasing strategy.

Threshold Program Considerations established for Parcel A in 1989*:

- Maximum 58.9% impervious cover
- 1440 peak trips
- 200,000 gal./day discharge capacity to Ramapo River
- 2 million sf commercial
- 800 dwelling units
- 1,471,000 sf development program
- 1,000 Metro North Parking Spaces

*thresholds were approved by the town for Parcel A in 1989 and represent what could be put on the site now relatively easily, without need for further approvals. Thresholds for the entire site will need to be updated and will likely be larger than those for Parcel A alone.



Stakeholder Workshop Participants

Workshop Sketches

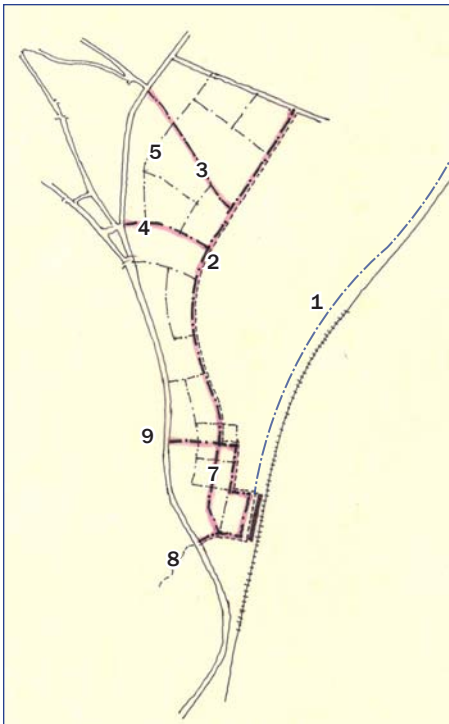
Key roadway, open space and land use recommendations were extracted from each of the three design concepts produced at the workshop.



Synthesis Diagrams

The recommendations from the workshop can be synthesized into a set of diagrams which capture the common design concepts for the site.

Infrastructure



North

1. Possible extension north to Woodbury parallel to Metro-North right-of-way.
2. "Wetlands Parkway" between station area and other sites and to Arden House Road and Commerce Drive.
3. Extension of Grove Street into the site adjacent to Heritage Trail.
4. Road from Village of Harriman "gateway" at South Main St. to new Wetlands Parkway.
5. At least one additional linking road across Heritage Trail alignment to the Nepera site and Arden House Road.
6. Flexible street and block network to maintain connectivity, but for longer blocks: 660' max between intersections.

South

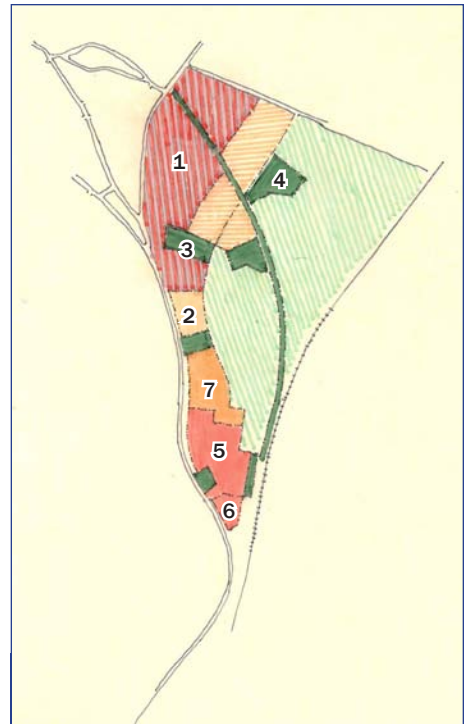
7. Neighborhood-scale street and block network.
8. Principal connection to station area at or near existing access point.
9. At least one additional connection to RT-17 at north edge of new TSD neighborhood.

Open Space



1. Heritage greenway on old railroad right-of-way.
2. Wetlands as passive open space resource with trails.
3. Active recreation nestled into western edges of wetlands.
4. Open space connection to Village of Harriman "gateway" at South Main Street.
5. "Greenway Streets" to link key open spaces.
6. Link to Mary H. Harriman Memorial and Harriman State Parks.

Land Use



North

1. Commercial/Industrial Mixed-use Zone
 - Flex industrial
 - Hotel
 - Intermediate-scale retail/office
 - Some small-scale retail that is complementary to Harriman Village Center.
 - Limited market-rate housing
2. Age-restricted housing
3. Public open space in development area
4. Active recreation at edge of wetlands

South

5. TOD Mixed Use Overlay Zone:
 - Small scale retail
 - Boutique inn or hotel
 - Residential densities between 30 and 40 dwelling units/acre
 - Structured parking
6. New "station plaza" adjacent to intermodal connections
7. New Residential Neighborhood
 - Primarily attached housing at between 10 and 20 dwelling units/acre

Workshop Outcomes

Road Network

The foundation for the road network strategy is to create as much connectivity as possible, both within the site, and to the site; and to facilitate other forms of mobility, especially biking and walking, as much as possible.

The centerpiece of the road network strategy is to create a new north-south road from the station to the north end of the site, linking parcel A, the Nepera parcel and, potentially, the developments along Commerce Drive. There was concern raised that this new north-south connector may become a high-speed cut-through. While this is a legitimate concern, the consultant team believes that this depends very much on how the road is designed. Rather than utilize an arterial design similar to Route 17, this road's design as a "wetland parkway" could discourage high speed through-put by incorporating a series of traffic calming techniques: narrow travel lanes, frequent intersections (signalized or not), on-street parking, and other devices such as "bulb-outs" or raised "tables" at intersections.

An additional north-south road parallel to the active rail right-of-way has been discussed, and has the potential to link the station and development at the site to Woodbury Common and Central Valley, acting as a bypass to Route 32. As described in the Traffic and Mobility sections of this report, the new road to Woodbury would provide relief from traffic on Route 17, especially at the nexus of Route 6 and the Thruway approaches. There are, however, considerable technical challenges that would have to be addressed. These include encroachment on wetlands, topographic changes, and the fact that the right-of-way owned by Metro-North Railroad is probably not wide enough for a new road to be built a safe distance away, especially if a second track is ever built to improve service or manage the additional capacity needed for a connection to Stewart Airport.



Bulb-outs shorten crossing distances for pedestrians and force traffic to slow down

Connectivity within the site is achieved by creating street-and-block networks as opposed to cul-de-sacs. The workshop results suggest that the street-and-block network at the south and north ends of the site will be of different scales.

At the south end of the site, where a compact, mixed-use development would be more transit-supportive, the street-and-block network should be neighborhood scale, ideally with blocks that are not wider than 330 feet or longer than 660 feet.

At the north end of the site there is more support for commercial and industrial developments. Here, a somewhat coarser street-and-block network would allow for what may be larger-scale development types. Here blocks may be 660 feet wide as well as long. This should carry over onto the Nepera parcel as well. There should be cross-access between development parcels to increase connectivity and reduce pressure on the principal streets.



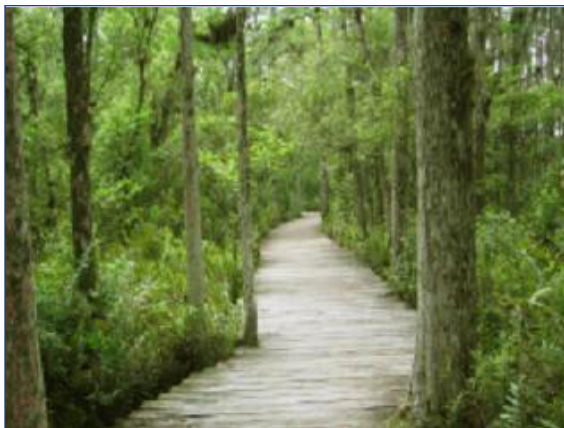
A green street connecting the site's major open spaces would be heavily landscaped and incorporate bike lanes and traffic calming features

In addition to the new north-south “Wetlands Parkway,” a second road toward Route 17 and the western edge of the site should link parcel A and the Nepera property to provide additional inter-parcel connectivity across the greenway.

Connectivity to the study area is currently limited to the station access road. The new “Wetlands Parkway,” coupled with the site’s internal street grid, must be designed in a way that maximizes connectivity between the site and the surrounding communities, ensuring that any traffic destined to or from the station area is distributed throughout the surrounding road network. Access should be enabled to both Route 17 and Arden House Road, with a primary “gateway” to the site created on its western edge.

In addition to the current access road leading to the station, all previous plans for the site identified a second point of access along Route 17 at either the intersection with South Main Street or 17M. These two roads intersect Route 17 at acute angles, stranding a narrow peninsula of land at 17M and making pedestrian crossing very difficult. A reconfigured intersection with either South Main Street or 17M could line up with a primary entrance point to the site and serve as the “gateway” to both the station area development and Harriman’s village center. One potential street grid for the development site would have both intersections paired with two parallel roads leading into the site, straddling a small wetland area and framing a new public open space at this “gateway.” Regardless of how the gateway is configured to facilitate pedestrian connections to Harriman Village Center, South Main Street should be the target of pedestrian improvements.

There may also be an opportunity to create two additional points of access along Route 17. A second point of access to the southern portion of the site may be



Wetlands can serve as open space amenities

necessary to accommodate traffic and pedestrian flows related to the most intense portion of the development site. Additionally, the workshop design studies show an access road to the site, roughly parallel to the Heritage Trail alignment, that is an approximate extension of Grove Street, strengthening the link to and synergy with Harriman village center. Because car traffic on this road will be relatively light, this road, like South Main Street, should be made as pedestrian- and bicycle-friendly as possible.

Finally, the “Wetlands Parkway” which continues north through the site onto the Nepera property should connect to Arden Hill Road (and potentially onward to Commerce Drive) to distribute traffic evenly out onto Route 17.

Open Space

The synthesis open space plan is one in which the underlying natural systems are reinforced and as many linkages as possible are created between existing and proposed open space resources. This includes connections to the two main established parks – Harriman State Park and Mary Harriman Memorial Park.

A significant portion of the site is covered with a wetlands complex that includes several streams and stands of mature trees. There are interesting topographical features on the site, often considered obstacles to development, which can be re-positioned as an asset and amenity.

For this to happen, the future development needs to address these open space resources rather than turn its back on them. The roads that go along the edges of the wetlands should be single-loaded frontage roads. This would guarantee that the wetlands and other open spaces will feel public because it will be possible to walk or bike along these edges. The primary elevations of the buildings, with their front doors and windows, would provide passive security for the open spaces as well. The protected natural resources must also become accessible and public. A network of trails throughout the study area would include trails and boardwalks through the conservation area and wetlands.

The centerpiece of the trail network will be the Heritage Trail, which is planned to run like a spine between the properties on the site and which can link the destinations beyond the site that are within biking distance to the train station.

In addition to the passive open spaces created within the conservation area, there are opportunities for active recreational spaces. The workshop design studies suggested that these new playing fields and parks could be nested

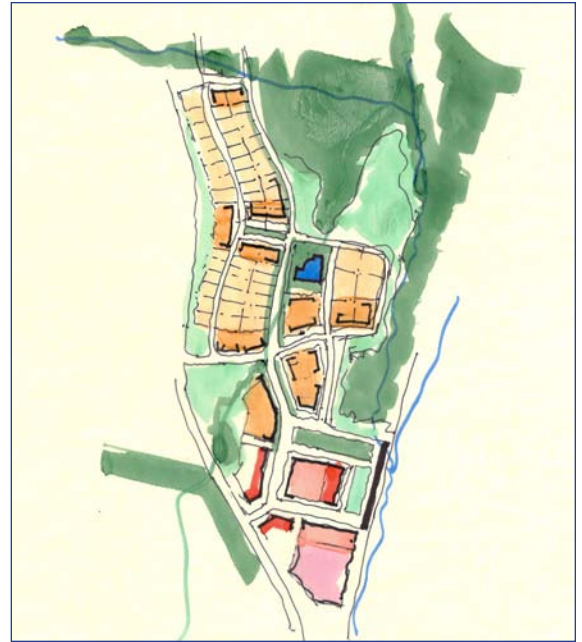
Workshop Outcomes (continued)

along the irregular western edge of the wetlands. Finally, the open space plan should include establishment of the “urban forest”; this is the aggressive greening of the built open spaces, including a new rail station plaza. New open spaces should serve as the principal “gateways” to the site, and neighborhood-scale open spaces should be located within the development areas. All streets should include robust landscaping both for shade and to retain water.

There is an opportunity to employ passive storm water management techniques throughout the site including bioswales and rain gardens. The challenge will be to reconcile these strategies with NY State regulations for pre-treating any water that discharges into the wetlands.

Land Use

Differences in proximity to Route 17 and to the train station, ecological constraints and market conditions resulted in distinct land-use programs for the northern and southern halves of the site.



Southern Area

Overall, there is consensus on a vision of a compact, mixed-use, transit-supportive development around the immediate station area. Any site plan would include the signature TSD use – housing. It would predominantly consist of small apartments, condominiums, and townhouses that would be marketed to young couples without children or empty nesters. Because these kinds of environments do not attract as many children as single family neighborhoods, housing here can be a net-positive ratable for the municipalities.

Residential densities would be tiered. The highest densities would be in the core of the station area and the lower densities towards the edges of the ¼ mile walking radius. A new residential neighborhood would extend north. While the predominant building type would still be attached housing, the densities would be lower. To achieve this vision of a compact, mixed-use station area, the current surface parking would have to be replaced with structured parking. New development should always be sited and oriented in ways that support the public open-space network.

In addition to housing, the TSD district could include a variety of other uses as part of a mixed-use environment. The ground floors of the buildings in the immediate station area would include small-scale retail, with perhaps one or two stores of intermediate size (~40,000 sf). Some professional office space could be located here as well as in mixed-use buildings. Other possible uses include a small scale hotel or inn, perhaps with meeting rooms.



Physical Model of the Southern Area



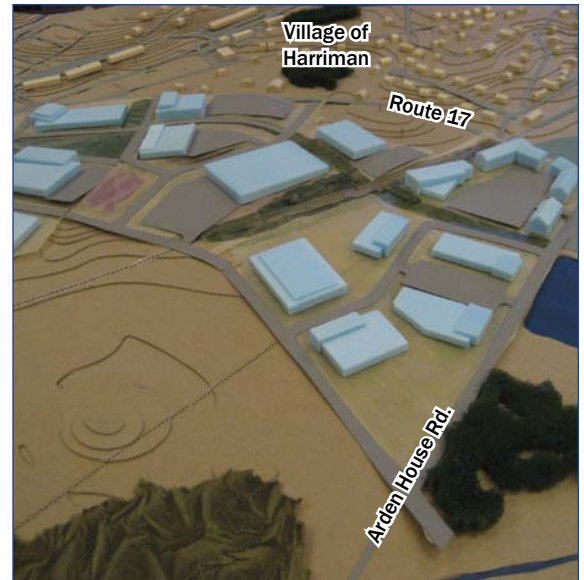
North Area

There was no complete consensus about the land uses on the northern portion of the site, although there was agreement about some fundamental ideas: this portion of the site could accommodate larger scale uses of whatever kind (light industrial, retail, indoor recreation); this portion of the site would have more of a commercial character than a residential character; and should relate to the village of Harriman center. In part, this possible land use mix would reflect the fact that this part of the site has better highway access. It is possible to get a sense of recent development patterns and market demand by looking at the development that has been taking place just a short distance to the north.

For the purposes of the “synthesis” framework diagram, two principal land use categories are indicated: mixed commercial/light industrial and residential.

The commercial and industrial zone could be populated by a variety of uses: “flex” industrial buildings, intermediate scale retail, indoor recreation, or others. Coverages and densities basically follow suburban standards here (50% coverage; 0.5 floor area ratio) with surface parking.

Unlike at the TSD in the south end of the site, residential uses here would be primarily senior housing or age-restricted communities. While these kinds of residential development are less transit-friendly, they would still be able to take advantage of access to the train station and they would provide some level of passive surveillance and activation of the open space resources here.



North area of the site, showing the village of Harriman across Route 17

Other complementary uses include a chain hotel, a school or community facility, or professional offices.

While it is true that this portion of the site is best suited to larger footprint automobile-oriented uses, there was interest at the workshop in creating some linkage to the Harriman village center. Intermediate scale retail uses, for example a supermarket such as a Whole Foods or Trader Joes, could be complimentary to the Village center if there are easy car and pedestrian connections across Route 17. Some smaller scale retail uses could provide a transition to the village scale of Harriman as well, but workshop participants sited concern with competition for the existing businesses in the village center.

It is important to note that despite the suburban character of this part of the site, basic urban design principles would apply: buildings and their entrances should be oriented towards the streets; buildings should be sited so that they frame well-defined spaces; to the greatest extent possible parking should be to the sides and behind buildings and large, uninterrupted fields of parking shall be subdivided into smaller, well-landscaped areas.

In terms of environmental issues, the large roof surfaces of the bigger footprint uses are ideal for green roofs or solar energy collection. The large surface parking lots can capture water in bioswales and other passive storm water management features.

PART IV: Next Steps

Short Term Actions

Map Major Elements of the New Roadway Network

The major points of entry to the site should be located and designed in coordination with New York State DOT as well as with the relevant parts of the municipal transportation/mobility plans. Special attention should be paid to the potential “gateway” at the intersections of 17, 17M and South Main Street.

The new north-south connecting road should be located and an easement created to allow the completion of this over time. The Rye Hill Generic EIS in the town of Monroe is a relevant and successful precedent for this. Basic design standards for this road should be coordinated among all three municipalities including sidewalks, bike lanes, traffic calming and design speed.

Map Major Elements of Pedestrian, Bicycle and Greenway Network

This is the non-automobile corollary to what is described above; new bicycle and pedestrian corridors should be located and easements created. Special considerations should be given to crossing points on the Route 17 to Harriman Park and Harriman State Park; the Heritage Greenway should be completed from the station area through the Village of Harriman.

Implement Study-Area Wide Pedestrian Improvements

A fundamental concept of the plan is that the multiple sites are linked to the larger context. This includes improved pedestrian and bicycle connections to the Village of Harriman. These streetscape and traffic-calming improvements, particularly along South Main Street and Grove Street, should be implemented now, as these have quality-of-life benefits for the residents of Harriman in the short term. In fact, alternative temporary pedestrian and bicycle linkages to the station should be considered – the Heritage Trail is the best immediate opportunity – as this will add to the property values in the existing neighborhoods in Harriman.

Review Existing Land-use Regulations for Conformity with the Draft Vision Plan

At the very least, once there is consensus around the comprehensive vision, each municipality must individually review its current master plan and zoning documents and change those provisions that directly undermine the vision – in other words, even if the revised regulations do not promote the vision, they should at minimum at least enable it. This means changing the most basic elements of the zoning ordinances, such as allowed uses, FAR coverage, and parking.

Long Term Implementation Strategies

The comprehensive plan is complex and the implementation challenges are amplified by the fact that there are multiple landowners and multiple municipalities involved. Acknowledging the realities of “home rule,” the implementation strategies can be conceived in terms of two levels, each progressively more challenging in terms of politics and administration, but each promising a better long-term outcome that is more consistent with this preliminary vision plan. It is also worth noting that continued close cooperation with Metro North will be necessary throughout the process.

Continue to Work with Metro-North

Obviously, the TSD vision depends entirely on the redevelopment of Metro-North property. In particular, the large expanses of surface parking must be replaced by buildings and public spaces and the Metro-North property must be completely integrated with the rest of the plan. An essential question will be whether it is possible to finance structured parking. This is an almost prohibitively expensive proposition, and some creative combination of public and private financing will be necessary. Structured parking would enable the kind of compact, mixed-use, pedestrian-oriented environment that is associated with the best village and town centers that historically grew up around the rail lines throughout the region. Having said that, a TSD environment does not depend on structured parking. Parking can be distributed in reasonably-scaled surface lots that are well screened by buildings and landscaping. Significant amounts of parking can be created by promoting as much on-street parking as possible. On-street parking has the added benefit of traffic-calming the new “neighborhood” streets. In any case, Metro-North will be a more than willing partner in accomplishing this, and its long-term need for 1,000 spaces must be accommodated.

Level One

Create TSD Zones within Each Municipality

At this level, each municipality would adopt land-use regulations that promoted the vision. This would differ from the basic level of implementation in several ways, including density bonuses to encourage the scale and character of the vision plan, for example, or incentives to build the greenways and other public spaces. Connections between the properties would be required even if the exact location and design are not fixed. Design standards would ensure some level of coordination and transition in scale and massing among the properties and between the municipalities.

Level Two

Create a Multi-Municipal TSD Design District

For the most part, the existing zoning does not support the vision described here. This is not primarily a matter of the uses, densities or coverages allowed (all of these can be addressed with Level One strategies), the real problem is that zoning is simply too blunt an instrument to manage a comprehensive plan of this complexity. A Level Two strategy would respond to the challenges of planning a site involving a large geography with multiple land owners and, more significantly, multiple municipalities and the vagaries and challenges of “home rule,” by enabling all three municipalities to jointly develop and administer a new Design District.

A Design District would go beyond zoning in several ways. Parking strategies can be more creatively managed – shared parking, shared facilities – across the entire study area. Environmental systems can be more effectively protected over a larger geographic area, to ensure a continuous greensward for habitat and storm water management.

Most importantly, it would enable the long-term implementation of the plan, recognizing that the comprehensive plan is likely to be built over several business cycles and several political administrations. The joint administering body would ensure that the main elements of the long-term plan were protected from short-term compromises. At the same time, changes could be made to the plan when necessary and in a way that does not undermine the most important aspects of the vision plan. Similarly, the phasing of the plan could be better managed, enabling the progressive completion of the vision plan in a way that will still achieve the objectives of the comprehensive plan.



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Through information sharing, research and training programs, the NYSMPOs helps each MPO address federal and state transportation policies and programs. The directors of all thirteen MPOs in the state meet regularly throughout the year. By convening, the association enables each individual MPO to better serve its own region by sharing information. In addition, working groups on topics such as safety, air quality and geographic information systems (GIS) meet periodically. Pooling financial resources, the association also conducts research and training programs, known as Shared Cost Initiatives. The NYSMPO's paid for the three Transit Supportive Demonstration projects and the a Statewide TSD guidebook presented here, using this common fund source.



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