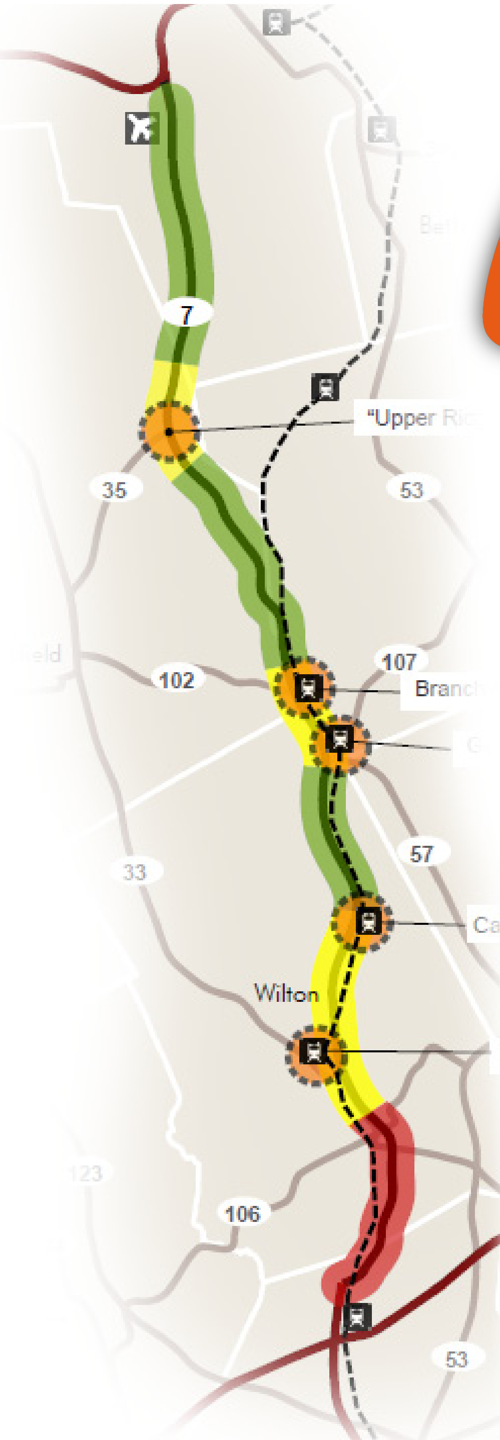
ROUTE 7 Transportation and Land Use Study

Recommended Transportation and Land Use Plan



Prepared for SWRPA and HVCEO

SWRPA
South Western Regional Planning Agency

HOUSATONIC VALLEY COUNCIL OF ELECTED OFFICIALS

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Executive Summary

The purpose of the Route 7 corridor study has been to develop a pro-active plan to address current and long-range travel and community quality of life issues along Route 7 in southwestern Connecticut and to build on opportunities to enhance them. The plan was prepared under the guidance of the South Western Regional Planning Agency (SWRPA), the Housatonic Valley Council of Elected Officials (HVCEO) and the municipalities of Danbury, Redding, Ridgefield, and Wilton.

The plan recognizes and considers the regional significance of the Route 7 corridor as it traverses numerous communities and links them physically, socially, and economically. Route 7 is an indispensable asset, but it also presents challenges for this region of Connecticut.

The vision for the future of Route 7 in this corridor and the community areas it traverses which grew out of the study process is as follows:

The Transportation System will:

- Provide a balance between local and regional travel needs
- Provide multi-modal choices with strong connectivity between modes
- Provide connectivity between major destinations
- Be safe for all users

Land Use and Development Patterns will:

- Be well defined in form and be focused in clusters
- Provide a mix of uses and services that are economically and environmentally sustainable
- Allow for land outside development clusters to be preserved

The study recommends transportation, land use, and economic or market strategies to achieve this vision for Route 7's future. The recommendations reflect the vision. Key recommendations can be summarized as follows:

For roads, the plan recommends:

- Roadway upgrades such as shoulder widening ,
- Isolated roadway widenings (an additional southbound lane in Wilton), but no comprehensive widening to four lanes,
- Intersection improvements, and
- Access management

The transit options build on and complement the planned improvements to the Danbury Branch Line service and include:

- Enhancements to the Route 7 Link Service,
- A new bus shuttle route between Ridgefield, Branchville, and Georgetown,
- Construction of a new mobility hub in Branchville, and
- The use of technology to provide bus prioritization along the length of Route 7.

For bicycling, the plan includes:

- Shoulder upgrades along much of Route 7,
- Bicycle accommodations at intersections,
- A bicycle signage program,
- Advancement of the off-road Norwalk River Valley Trail, and
- Bicycle amenities (racks) in village centers and at train stations.

Additionally, the plan recommends pedestrian improvements that include:

- Filling sidewalk gaps in Wilton from Norwalk to Grumman Hill Road,
- Numerous improvements to sidewalks in villages to provide better walking access to train stations, and
- Americans with Disabilities Act (ADA) upgrades at many pedestrian crossings.

From a development/land use perspective, a Preferred Land Use Scenario has been developed which follows a transect form. It is one that concentrates development in 'nodes' and separates these with transitions in land use intensity from urban edge down to rural/preservation areas. The recommended development pattern (Preferred Land Use Scenario) would limit the increase in intensity of new development over time, consistent with the Corridor Vision. In general, land uses that would be of higher activity level and more intense use of land would be clustered as follows:

- At the juncture of Route 7 and Route 35, in Ridgefield ("Ridgefield Gateway")
- Branchville Village, in Ridgefield
- Wilton Center, in Wilton
- South of Wilton Center where the transition occurs from suburban Wilton to the urban edge of Norwalk

The individual development nodes would vary in character and density based on location, functions they are expected to serve, and in the context of the communities where they are located. The recommendations for the Preferred Land Use Scenario are complemented by a vision and concept for each of three specific development nodes or "focus areas" including Wilton Train Station area, Branchville, and Ridgefield Gateway (Route 7 at Route 35). Future land use themes reflected in the concept plans for the development nodes include:

- A complementary multi-modal transportation system
- Walkable environments with strong connectivity among uses
- Transit-supportive development and environments
- A mix of uses within the node compatible with village or town center character
- Strategic location of parking
- Room for public spaces
- Gateways that define the entrances to the development nodes
- Access management

Finally, the plan recommends a number of land use, regulatory, and programmatic strategies to help facilitate the preferred land use vision. These include:

- Modified zoning
- Low impact development and watershed management techniques
- Design guidelines
- Parking strategies
- Utility infrastructure
- Regional partnerships
- Development incentives
- Public-private partnerships
- Village and corridor branding

This comprehensive set of transportation, land use, and market recommendations together can help realize the corridor vision.

A total of approximately $31 million dollars of infrastructure recommendations are included in the final improvement plan for the corridor. SWRPA and HVCEO have committed to overseeing and leading the collaborative effort necessary to move these recommendations forward on a local, regional, and/or state level. The two planning agencies will be working in coordination with each of the corridor towns and will work with the existing local and regional framework (local Boards of Selectmen, Local Planning and Zoning Boards and Town Planners, local Economic Development Commissions, and regional transit agencies, etc.) to facilitate implementation. These established entities can use this comprehensive plan to continue to communicate the Corridor Vision, foster local support, pursue funding sources, and work with implementing agencies; such as the Connecticut Department of Transportation (CTDOT), the Norwalk Transit District, and the Housatonic Area Transit District; to forward various elements of the plan. SWRPA and HVCEO will also convene an annual meeting of key representatives to review the status of the various plan elements with respect to their implementation.

The key to seeing these improvements implemented is to establish a proactive and logical framework to carry them out through a series of inter-related actions. As such, the elements of the plan have been packaged and assigned to logical "initiatives" to be forwarded each in a phased approach. This plan lays out an

Implementation Plan (Chapter 6) consisting of five major initiatives. The five initiatives include:

1. The Ridgefield Gateway Neighborhood Enhancement Initiative (around the junction of Route 37 and Route 7 in Ridgefield)
2. The Branchville Enhancement Initiative
3. The Wilton Train Station Area Enhancement Initiative
4. Route 7 Bicycle and Pedestrian Improvement Initiative
5. Route 7 Regional Mobility and Safety Improvement Initiative

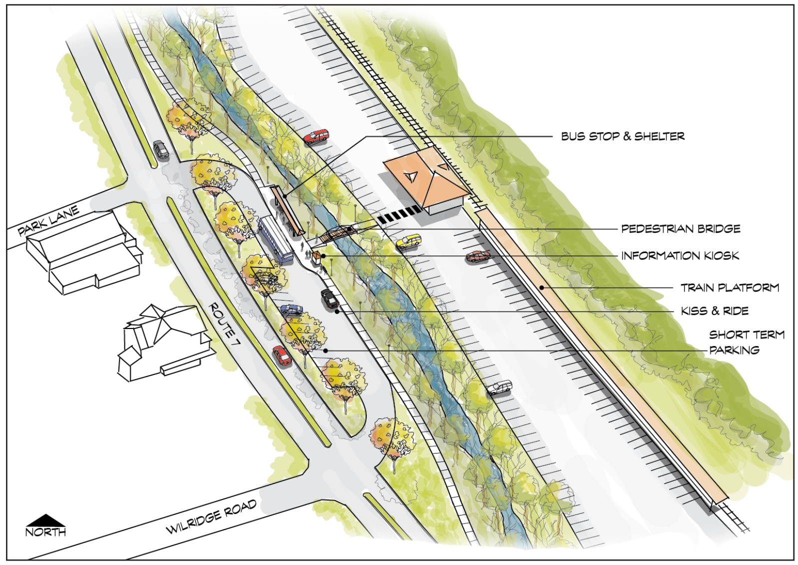


Illustration of Proposed Branchville Mobility Hub – A central element of the long-term Branchville Enhancement Initiative

These initiatives help provide a framework for advancing the various elements of the plan and package the overall recommendations in a logical and concise way. Within the Implementation Plan, high-priority projects have been identified as well as a number of low cost, short-term projects that can be completed right away to begin realizing the benefits that are expected from the recommended improvements in this plan. Some "early wins" from this plan will only serve to create momentum to move other elements of the plan forward.

Finally, given the very long history of studies and debate about the best transportation improvements in this corridor, this study offers a comprehensive list of cost-effective improvements to all modes of travel that can help compliment many of the efforts already completed in the corridor and address some immediate and short-term mobility, safety, and quality of life needs. This comprehensive, multi-modal plan provides a guideline and corridor vision for future transportation and land use decisions in the corridor.

Chapter 1: Introduction

1 - 1. Purpose

The purpose of the Route 7 corridor study is to develop a pro-active plan to address current and long-range travel and community quality of life issues along Route 7 in southwestern Connecticut and to build on opportunities to enhance them. A primary focus of the Route 7 Transportation and Land Use Study is to consider the integration of all of travel modes and travel choices in the corridor. The intent is to develop a plan that fills gaps in the transportation system and optimizes the effectiveness of the entire transportation system for a wide range of users.

This report provides full documentation of the study including a summary of the previously published Existing Conditions material, projected future conditions with no actions, and a set of transportation and land use recommendations for the corridor aimed at best realizing the vision for the corridor.

1 - 2. Public Involvement

A comprehensive public involvement effort was undertaken as part of this study. The public involvement efforts included:

- A website with interactive communications abilities,
- Periodic flyers, announcements, and press releases to advertise upcoming public events associated with the study,
- An intercept survey of businesses, patrons, and rail riders along the entire corridor,
- An Advisory Committee that met at key study milestones and helped provide guidance and input into key project decisions – particularly helping to set the Corridor Vision and Project Objectives,
- An Access Management Technical Committee to help guide the development of the curb cut and access management portion of the study,
- Public meetings at key milestones in the study,
- Design charrettes for geographic focus areas,

- Topic area coordination meetings, and
- Workshops to allow one-on-one coordination with property owners related to the development of the curb cut plans.

This outreach effort was extensive and aimed at using various methods to ensure that project decisions were well informed by input from the public and other stakeholders. The 2030 Corridor Vision that resulted from early public outreach efforts was used to guide the development of the plan throughout the entire study process.

1 - 3. Route 7 - 2030 Vision

Route 7 will continue to be the main artery for vehicle travel between Norwalk and Danbury. The overall transportation system in the corridor will provide a balance between local needs for travel and the need to efficiently move people and goods along Route 7 as part of the network of access throughout the region.

A variety of opportunities to travel by different means along Route 7, such as by rail, bus, walking and biking, will be offered, along with key connections among those means. To the fullest extent possible, gaps in the transportation system will be filled to meet the needs of the region's residents and all the different types of travelers utilizing Route 7, with improved access to transit, a safer pedestrian and bicycle network, and improved ease and convenience for using all modes of travel.

Development will be focused in clusters (community nodes) along the roadway and the current trend of linear sprawl will not continue. The community nodes will provide a diversity of services that enhance the quality of life for residents, and invite pass-through travelers to stop. The community nodes will serve as destinations that are easy to navigate by car, bicycle, and on foot.

Most new development will result from infill in the existing community nodes and reuse or redevelopment of existing sites consistent with the character of the surrounding community and landscape. The community nodes will be contained so as not to disrupt scenic views of undeveloped open spaces, forests, parks, and historic structures while traveling along route 7. The rural character of lands outside these community nodes and abutting the roadway will be preserved with no new strip or large-scale single-use developments.

Traffic on Route 7 will travel at reasonable speeds through the community nodes as a result of measures designed to encourage drivers to slow down, to improve safety and to minimize any degradation to the character of these places. The Route 7 roadway will be complemented by streetscaping within the community nodes to help integrate it into the community sense of place. This means such enhancements as landscaped sidewalks, aesthetic lighting, and street furniture such as benches, public art and public spaces.

1 - 4. Route 7 Guiding Principles

In order to achieve the vision for the Route 7 corridor, the study team developed the following guiding principles that helped guide the plan towards the long-term corridor vision. Therefore, future infrastructure improvements and development will be guided by the following principles:

- To balance the overall transportation system in the corridor between local needs for travel and the need to safely and efficiently move people and goods along Route 7 as part of a regional network
- To fill gaps in the existing transportation system to the extent possible
- To promote a transportation system that provides opportunity for travel by a variety of means (walking, bicycling, and transit [bus and rail] in addition to the automobile)
- To create a multi-faceted transportation system that conveniently links the community nodes both internally and to one another and contributes to community character within the community nodes
- To preserve valued community and natural resources and safeguard land identified for preservation
- To influence economic development consistent with the scale and character of existing community nodes and as described in the Route 7 Vision Statement
- To place priority on re-use of previously developed sites and on locating new development in community nodes; to encourage sustainable growth that utilizes existing resources whenever possible

- To pursue a compact, mixed-use pattern of development for community nodes that preserves or creates walkable neighborhoods and village character
- To foster a range of type and style of housing so that households from young adults to seniors can choose to live in the towns along the corridor

1 - 5. Study Area Overview/Regional Context

The study area for this corridor extends from the intersection of Miry Brook Road with Route 7 in Danbury to the intersection of Route 7 with Grist Mill Road just south of the Norwalk/Wilton town borders. The study area is shown in Figure 1-1. The area studied generally includes all of Route 7 as described above in a corridor of approximately 1/2 mile wide along the roadway. Where cohesive development abuts the roadway, the entire cluster of development was considered for the analyses extending beyond the ½ mile width as necessary.

This study recognizes and considers the regional significance of the Route 7 corridor as it traverses numerous communities and links them physically, socially, and economically. Route 7 is an indispensable asset, but it also presents challenges for this region of Connecticut. Route 7 is a key regional north-south travel corridor running the length of the State of Connecticut from Norwalk north to the state line in Massachusetts. Within the study area, it serves numerous functions including:

- Commuter traffic to and from key employment hubs in a) Norwalk and points north and south on I-95 and b) Danbury and points north, east, and west into Westchester County, New York,
- Commuter rail travel with train stations with direct access to Route 7 in Wilton and Branchville,
- Regional and local shopping needs, serving as the retail and service corridor for the surrounding towns. In addition, the corridor provides a direct route to shopping destinations in Norwalk, Wilton, and Danbury (Danbury Mall), and
- Main Street in Wilton, Connecticut, providing direct access to key community resources such as the Wilton Town Hall and Wilton High School.

As such, Route 7 is an essential travel corridor that serves a diversity of traveler and community needs while providing connectivity among several urbanized areas as well as suburban communities and beyond. The roadway also traverses and connects many expansive suburban residential and rural areas. In addition, secondary roads that intersect with Route 7 lead to key destinations including community/town centers in Redding, Ridgefield, and Weston.

The segment of Route 7 between Norwalk and Danbury has been studied for decades, with a variety of efforts to add highway capacity and to improve commuter rail operations and mobility. This section of Route 7 has experienced significant traffic growth through the years and significant development along its entire length; with the most concentrated development evidenced in the southern end of the corridor in Wilton. This trend of development has flowed northward from Norwalk's urban edge and southward from Danbury's regional mall and airport area; yet the intensity of development is not uniform along the length of the road. Substantial pockets of low density residential development still occur adjacent to Route 7 north of the town center in Wilton and in Redding and Ridgefield.

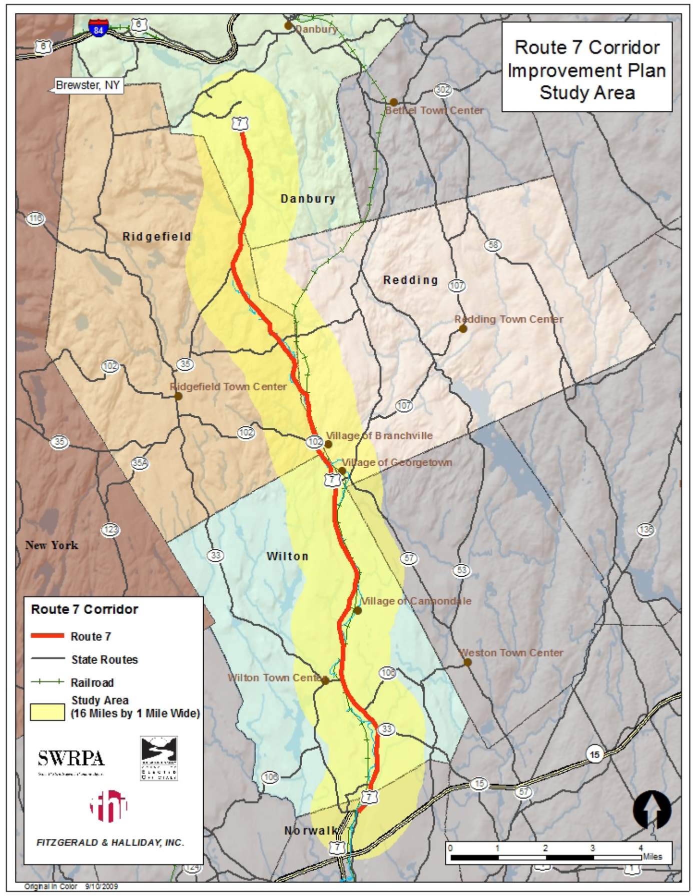


Figure 1-1: Study Area

A Route 7 Expressway, known locally as "Super 7", was considered but not further pursued years ago by the Connecticut Department of Transportation (CTDOT). In addition, shorter by-pass roads were contemplated from the end of the limited-access portion of Route 7 that currently terminates at Grist Mill Road to various 'landing points' in the vicinity of Kent Road and Route 33 in Wilton. These proposals were all dismissed due to potential environmental and community impacts and strong public opposition. Subsequently, a series of more localized roadway widening and intersection improvements has been implemented, are currently under construction, or are planned for the roadway.

1 - 6. Summary of Existing Conditions

The analysis of existing conditions for the Route 7 corridor was documented in detail in the Existing Conditions and Trends Technical Memorandum, January 2010 and culminated in the following findings about the corridor assets and needs in terms of the transportation system, land use, and the market for existing and future economic development. This section provides a brief summary of the findings for background and context to the corridor plan recommendations.

Transportation System Gaps and Opportunities

- Route 7 serves both intra- and inter-state travel markets. A high percentage of through trips, mixed with intermediate distance and local trips, rely on the highway as a vital spine for mobility in the corridor. This demand for mobility directly relates to economic growth opportunities in the future.
- A lack of network redundancy places intense pressure on the Route 7 corridor. When the highway breaks down for any reason, little opportunity to divert traffic is available and congestion can reach extreme levels. Quality of life impacts are a direct result.
- Peak traffic conditions exist for about two hours in the morning and three hours in the afternoon; however, volumes remain high for much of the day in both the northernmost and southernmost portions of the corridor where the more intense development patterns exist. In these areas, commuter traffic mixes with shopping and other trip purposes to create sustained traffic levels. Highway capacity will eventually be reached, and in some areas it already has, with limited opportunity for significant increases in the future.
- Current and planned roadway improvements are addressing a number of existing capacity and lane continuity constraints in Wilton and Danbury; however, the section of highway from Grist Mill Road to Route 33 is no longer programmed for improvement. The transition from expressway in Norwalk to an urban arterial with signalized intersections in Wilton presents a number of operational challenges.
- Transit in the corridor is growing and future improvements to the Danbury Branch Line are expected to generate additional rail ridership. This may necessitate the construction of additional parking at train stations, especially in Branchville where parking utilization is currently maximized.

- The interface between bus service and rail service for intra-state trips is very limited. Better coordination of bus and rail service will help increase transit ridership in the corridor.
- A strong travel demand between Danbury and Ridgefield, and to a lesser degree, Norwalk to Ridgefield exists. There are currently no transit routes serving that demand.
- Deficiencies in the sidewalk network and lack of bicycle amenities such as parking may be limiting use of the rail system. At a minimum, it discourages people who may walk or bicycle for shorter trips along the corridor.
- Route 7 is generally not suitable for walking and biking in the more developed centers such as Branchville, Cannondale and in the vicinity of Georgetown. The road design clearly favors the automobile and does little to influence driver behavior such as maintaining safe speeds and being aware of the presence of bicycles and pedestrians.

Land-Use and Development Potential

- The corridor is largely built-out and environmental constraints limit opportunities for new development. The majority of development opportunities will come from infill, maximizing use of underutilized parcels, and redevelopment.
- Current land use policy and regulations favor keeping the development patterns in the corridor as they exist today.
- Conversely, corridor communities are receptive to the idea of cohesive mixed-use development in nodes along the corridor. Such nodes would contain commercial development in well-defined areas and help preserve the rural character of the balance of the corridor.
- There are very limited opportunities for high-density residential development that could support workforce housing, such as townhouses.
- There are some loosely formed development clusters existing today that offer an opportunity for creation of more distinct and better defined development nodes.
- Three of the train stations in the corridor; Branchville, Georgetown (in development; not yet existing), and Wilton offer opportunity sites for transit oriented development (TOD), yet each is constrained in some way, creating some challenges to overcome for successful TOD.

Market Demand

- Route 7 is the service corridor for the region. There is unmet demand for services and goods which patrons typically prefer to purchase locally (closer to home) or at their convenience. These goods range from beauty salons to pharmacies to moderate-value general merchandise to specialty food shops to auto parts and tire stores.
- The biggest unmet residential market demand is for workforce housing ("workforce housing" generally consists of housing intended to serve and appeal to gainfully employed and essential workers in the community).
- The overall multi-family housing supply is limited and the demand is greater than supply.
- There also is unmet demand for senior housing. Rental- based senior housing is reported to have strong demand with few vacancies.
- There is continued demand for office space in Fairfield County, yet the vacancy rate within the corridor is somewhat high at 13%, suggesting there is somewhat of an oversupply. Vacant office space within the corridor may not closely align with demand.

Chapter 2: Overview of Corridor Recommendations

Recommendations provided herein have been developed in accordance with the Study Corridor Vision and Guiding Principles previously established. Many of the recommendations are interdependent; thus they are not presented as discrete improvements without relationship to one another. Rather, a holistic approach to corridor planning was taken, and key recommendations are 'packaged' in a way that maximizes benefits while remaining faithful to the Study Corridor Vision. This chapter synthesizes the Route 7 Corridor recommendations in a logical sequence and according to segments defined by their predominant land use composition.

Table 2-1 provides a summary of the transportation and land use recommendations included in the overall corridor plan. As shown in the table, the corridor plan consists of transportation improvements that include all relevant modes of travel in the corridor. For roads, the plan includes roadway upgrades, isolated roadway widenings, and intersection improvements. The transit options build on and complement the planned improvements to the Danbury Branch Line service and include enhancements to the Route 7 Link Service, a new bus shuttle route between Ridgefield, Branchville, and Georgetown, construction of a new mobility hub in Branchville, and the use of technology to provide bus prioritization along the length of Route 7. For bicycling, the plan includes shoulder upgrades along much of Route 7, bicycle accommodations at intersections, a bicycle signage program, advancement of the off-road Norwalk River Valley trail, and bicycle amenities (racks) in village centers and at train stations. Finally, the plan includes pedestrian improvements that include filling sidewalk gaps in Wilton from Norwalk to Grumman Hill Road, numerous improvements to sidewalks in villages and to provide better walking access to train stations, and ADA upgrades at many pedestrian crossings.

From a development/land use perspective, a Preferred Land Use Scenario is presented that concentrates development in 'nodes' and separates these with transitions in land use intensity from urban edge down to rural/preservation areas. The plan includes three "focus area" including Wilton Train Station area, Branchville, and Ridgefield Gateway (Route 7 and Route 35).

A variety of tools and strategies are recommended to help promote the development of the Preferred Land Use Scenario patterns over time and include:

- Modified zoning,
- Low impact development and watershed management techniques
- Design guidelines,
- Parking strategies,
- Utility infrastructure,
- Regional partnerships,
- Development incentives, and
- Public-private partnerships.

Finally, corridor and village branding should be considered. Corridor branding, such as marketing and signage identifying it as the "Ethan Allen Highway", could give the corridor itself some discrete identity and highlight its history and attractions. For the villages, a landscaping and signage program would give stronger identity to them and promote the businesses and amenities in these unique and enhanced places.

Table 2-1: Summary of Route 7 Transportation and Land Use Improvement Plan

TYPE OF RECOMMENDATION	DESCRIPTION	LOCATION	REPORT REFERENCE
ROADWAY RECOMMENDATIONS			
Roadway Cross Section Modifications			
Construct Additional Southbound Lane in Wilton	Include with State Project No. 102-305 to provide lane continuity in southbound direction south of Route 33 south junction to existing 4-lane cross section	Wilton – Urban Edge Segment	Chapter 5, Section 5 - 1
Shoulder Upgrades	Provide 5-foot shoulder wherever possible to provide improved sightlines, increased capacity, and better bicycle accommodations	Entire Corridor	Chapter 5, Section 5 - 1
Intersection Improvements			
Advance State Project No. 102-305	Intersection improvements between Grist Mill Road and Route 33 in Wilton – currently on hold due to funding constraints	Segment 1	Chapter 5, Section 5 - 1
Route 7 at Mountain Road (Route 107)	Additional turn lanes and signal modifications	Segment 4	Chapter 5, Section 5 - 1
Route 7 at Old Town Road	New signal and reconstruction	Segment 4	Chapter 5, Section 5 - 1
Route 7 at Route 102	Additional turn lanes and signal modifications	Segment 4	Chapter 5, Section 5 - 1
Route 7 at Route 35	Geometric modifications to scale-down intersection, improve safety, and better accommodate pedestrians	Segment 6	Chapter 5, Section 5 - 1
Route 7 at Laurel Lane	New signal and reconstruction	Segment 6	Chapter 5, Section 5 - 1
Route 7 at New Road	Signal modifications	Segment 6	Chapter 5, Section 5 - 1
Access Management Strategies	Enhance access design criteria in the zoning regulations and work to implement municipal Curb Cut Plans over time	Corridor-wide	Municipal Access Management Plans

TYPE OF RECOMMENDATION	DESCRIPTION	LOCATION	REPORT REFERENCE
TRANSIT RECOMMENDATIONS			
Route 7 Link Service Enhancements	Conduct study to explore enhancements in Route 7 Link service to consider increased headways, flexible service, infrastructure improvements (shelters)	Entire Corridor	Chapter 5, Section 5 - 3
New Shuttle Service	New shuttle loop between Georgetown, Branchville, and Ridgefield serving commuters and visitors to all three villages	Segment 4	Chapter 5, Section 5 - 3
Branchville Mobility Hub	Construct intermodal hub in Branchville that includes various travel modes, public space, real-time traveler information and commuter services	Branchville	Chapter 5, Section 5 - 3
Bus Prioritization	Special bypass lanes and signal prioritization systems to allow bus travel along Route 7 to avoid intersection congestion and delay	Corridor-wide	Chapter 5, Section 5 - 3
Train Station Parking Enhancements	Based on future ridership estimates, provide adequate train station parking at stations along Danbury Branch Line	Train Stations	Chapter 5, Section 5 - 3
BICYCLE RECOMMENDATIONS			
Shoulder Upgrades	Construct 5-foot wide striped shoulder along entire corridor where possible with bicycle friendly drainage structures and regular maintenance	Corridor-wide	Chapter 5, Section 5 - 4
Bicycle Accommodations at Intersections	Construct bicycle pockets at signalized intersections with dedicated right-turn lanes. Install advanced stop bars where crosswalks are located	Corridor-wide	Chapter 5, Section 5 - 4

TYPE OF RECOMMENDATION	DESCRIPTION	LOCATION	REPORT REFERENCE
Bicycle Signage Program	Install bicycle route markers and bicycle warning signs along corridor	Corridor-wide	Chapter 5, Section 5 - 4
Bicycle Racks	Install well-designed bicycle racks in village centers and train stations	Community Nodes and Train Stations	Chapter 5, Section 5 - 4
Norwalk River Valley Trail	Advance multi-purpose off-road Norwalk River Trail concept into design and construction	Corridor-wide	Chapter 5, Section 5 - 4

TYPE OF RECOMMENDATION	DESCRIPTION	LOCATION	REPORT REFERENCE
PEDESTRIAN RECOMMENDATIONS			
Connect Gaps in Sidewalks	From Norwalk to Grumman Hill Road	Wilton Urban Fringe Segment	Chapter 5, Section 5 - 5
Village and Train Station Sidewalk Improvements	Sidewalk and connectivity improvements as shown in Focus Area Enhancement Plans and to Cannondale Station	Community Nodes	Chapter 5, Section 5 - 5
ADA Upgrades	Improve intersections that are not fully ADA compliant including: Grist Mill Rd / DMV Driveway Drive to Georgetown Market Plaza Topstone Rd / Cains Hill Rd New Rd Haviland Rd / Great Pond Rd Route 35 W. Starrs Plain Rd	Various locations along corridor	Chapter 5, Section 5 - 5

TYPE OF RECOMMENDATION	DESCRIPTION	LOCATION	REPORT REFERENCE
LAND USE / REGULATORY RECOMMENDATIONS			
Focus Area Concept Plans	Advance the three Focus Area Concept Plans for Wilton Train Station area, Branchville, and the Ridgefield Gateway Area.	Segment 2, 4, and 6	Chapter 3, Future Land Use Conditions
Modified Zoning	Adopt hybrid form of 'Form-Based Code' for community design that is specific to each transect segment with varying degrees of density and allowable uses from Preservation to Urban Fringe Segments.	Corridor-wide	Chapter 4, Section 4 - 1
LID and Watershed Management Techniques	Require Low Impact Development (LID) techniques be applied for all future development/redevelopment in corridor; Consider best watershed management practices as part of the development approval process	Corridor-wide	Chapter 4, Section 4 - 2
Design Guidelines	Develop design criteria for each transect including pictures and graphics applicable to each zone to achieve the desired character.	Corridor-wide	Chapter 4, Section 4 - 3
Parking Strategies	Make efficient use of existing supply with parking management strategies; Modify regulations to discourage overbuilding, promote strategic parking design and location consistent with village character.	Village Centers	Chapter 4, Section 4 - 4
Utility Infrastructure	Provide water and sewer services as needed to support planned growth in development nodes	Development Nodes	Chapter 4, Section 4 - 5
Regional Partnerships	Foster inter-municipal collaboration to foster a regional approach to land use, economic development, and services.	Corridor-wide	Chapter 4, Section 4 - 6
Development Incentives	Offer regulatory and non-regulatory incentives to promote the type of development desired.	Village Centers	Chapter 4, Section 4 - 7
Public-Private Partnerships	Foster public-private partnerships to forward development ventures and public infrastructure projects.	Village Centers and Corridor-wide	Chapter 4, Section 4 - 8
Village Branding/Corridor Branding **"Ethan Allen Highway"**	Use signage and promotional materials to give community nodes stronger identity and sense of place. The Route 7 corridor itself could be branded to punctuate its history, corridor assets, and major destinations.	Village Centers and Corridor-wide	Chapter 4, Section 4 - 9

2 - 1. The Route 7 Corridor – Segment by Segment

Based on the Corridor Vision, in the future, the Route 7 corridor would have a series of unique segments, each with a clear development pattern and transportation infrastructure to serve the needs of the residents and travelers along the corridor. The overall proposed land use pattern for the corridor is shown in Figure 2-1. It is one that concentrates development in 'nodes' and separates these with transitions in land use intensity from urban edge down to rural/preservation areas.

The recommended development pattern (Preferred Land Use Scenario) would limit the increase in intensity of new development over time consistent with the Corridor Vision. It would result in less new square footage of development spread across the corridor than a continuation of current land use trends or status-quo with:

- Nearly 60 fewer housing units under the Preferred Scenario than projected with a continuation of existing development trends.
- Nearly 1,000,000 square feet less of growth in non-residential square footage under the Preferred Scenario than projected for the future with a continuation of the current regulatory framework

The individual development nodes would vary in character and density based on location, functions they are expected to serve, and in the context of the communities where they are located. In general, the corridor could be envisioned with the following segments:

- Segment 1: "Norwalk Urban Edge" -Grist Mill Road in Norwalk to Route 106 in Wilton (Urban edge character)
- Segment 2: "Suburban Wilton": - Route 106 to Cannon Road in Wilton (Suburban character with village center at Wilton Center)
- Segment 3: "Rural Wilton" - Cannon Road to just south of Route 107 in Wilton (Rural character with no significant additional development)
- Segment 4: "Georgetown/Branchville Suburban Stretch" - Route 107 to Depot Road in Ridgefield (Suburban character with Georgetown and Branchville Villages)
- Segment 5: "Rural Ridgefield" - Depot Road to just south of Route 35 in Ridgefield (Rural character with no significant additional development)

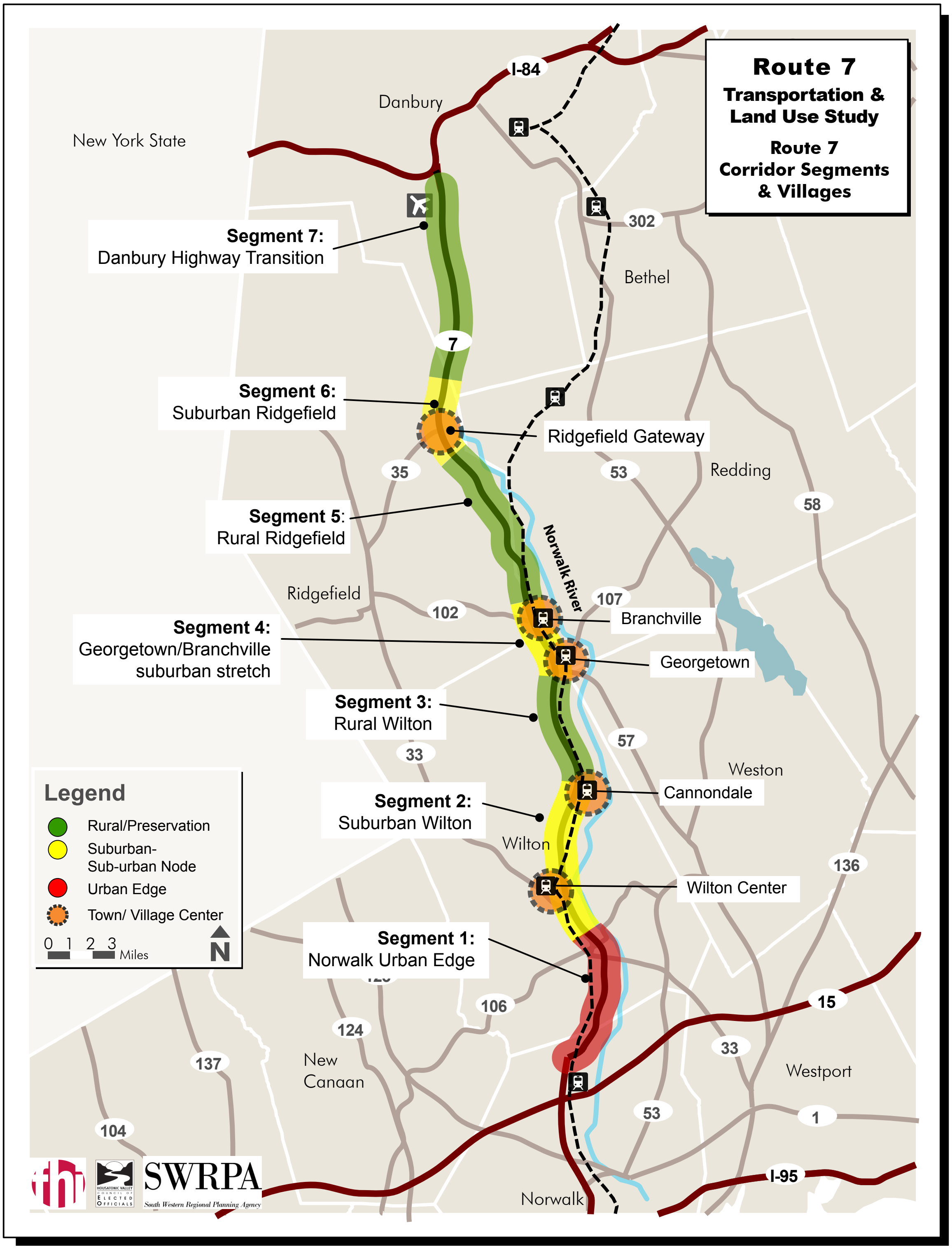


Figure 2-1: Corridor Segments and Villages

- Segment 6: "Suburban Ridgefield" - Just south of Route 35 to Laurel Lane in Ridgefield (Suburban character with "Ridgefield Gateway" Village node around Route 35 intersection)
- Segment 7: "Danbury Highway Transition" - Laurel Lane to the Route 7 expressway in Danbury (Rural character with no significant additional development)

As mentioned, five Village Center development nodes have also been identified within the corridor. Branchville and Ridgefield Gateway neighborhood are two nodes physically located on Route 7. Wilton Center, Cannondale, and Georgetown are located slightly off yet adjacent to Route 7. This plan recommends improved linkages to those village centers.

The preservation areas may also vary in character relative to the form and degree of preservation they are expected to afford. In general, the preservation areas in the Route 7 corridor will be characterized by very low density residential uses and preserved open spaces, which include significant natural areas with steep hills and cliff sides as well as wetlands and the Norwalk River. Commercial uses within these areas would remain as they are today, but new commercial development would be discouraged. This approach will help to limit the expansion of areas of impervious surface within the targeted preservation areas and also serve watershed preservation objectives.

This plan also recommends that Low Impact Development (LID) techniques be applied to all new development in the corridor and specifically within the development nodes to manage the quality and minimize the volume of added stormwater runoff to the Norwalk River.

Corridor-wide, transportation improvements have been developed to mitigate specific mobility, safety, and accessibility challenges while remaining sensitive to the characteristics of the land use environment in which they reside. The future conditions analysis presented later in this report serves as the basis for these recommendations. The following text briefly describes the challenges, character, and recommendations for each of these corridor segments.

2 - 2. Segment 1: "Norwalk Urban Edge"

Route 7 from Grist Mill Road in Norwalk just south of Wilton Center is characterized by high density, mostly non-residential, land development adjacent to the road that does not occur elsewhere in the study corridor. This area should be zoned for a mix of commercial and multi-family residential uses as well as limited scale light industrial activities (such as research and development). The zone should:

- Encourage planned mixed-use developments with interior circulation and linkage to adjacent developments
- Discourage isolated strip developments
- Encourage design with connectivity, pedestrian access, transit access, and landscaping

Significant transportation assets to the south, including the Metro North Commuter Rail Service, Interstate 95, the Merritt Parkway, and U.S. 1 feed the urban core of Norwalk. Route 7 taps into this confluence, first as an expressway in Downtown Norwalk, and then as a four-lane highway beginning at Grist Mill Road.

This segment of Route 7 must deal with the many challenges of a road at the edge of an urban network. From a capacity perspective, the road cannot efficiently deal with the heavy traffic demand that is present during peak hours of the day. Incremental road and intersection improvement projects over the years have given life to this operationally deficient segment, but often at the expense of the comfort and safety of bicyclists and pedestrians. The often linear (strip) development along this segment is most commonly accessed by the automobile, and the width of Route 7 has effectively been maximized with the completion of the recent CTDOT widening project in Wilton.

With continued growth in transportation demand along this segment, operational and safety conditions will only deteriorate further. To minimize the impacts of rising demand, improvements at key intersections are recommended and are included in the CTDOT project (State Project number 102-305) for this segment that is currently on hold due to funding constraints. When funding is available again, it is recommended that this project move forward. The intersection improvements include:

- Grist Mill Road/DMV Driveway

- West Rocks Rd/LA Fitness Driveway
- Intersection of U.S. Route 7 at Gateway Shopping Center driveway
- Intersection of U.S. Route 7 at Kennsett Avenue
- Intersection of U.S. Route 7 at Wilton Corporate Park
- Grumman Hill Road
- Route 33 (South Junction)

Chapter 5 provides graphical depictions of the intersection improvements planned for these locations.

A majority of this segment of Route 7 consists of four travel lanes (two in each direction), with the exception of the stretch of highway starting just south of Route 33 and ending in the vicinity of Arrowhead Road in Wilton. Along this segment, Route 7 northbound has two travel lanes, but only a single travel lane southbound. Traffic capacity analysis confirms that future traffic levels will exceed the road's physical capacity along this stretch. It is recommended that in addition to the intersection improvements recommended as part of state project 102-305, a 4-lane cross section be completed over the entire segment.

The heavy volume of traffic experienced along this segment of Route 7 also limits the efficiency of the bus transit system. As buses are subject to the same delay as cars, no distinct advantage is available to this higher capacity mode. Even with the intersection improvements recommended above, Route 7 will continue to struggle with the pressures of automobile growth into the future. Long-term sustainability of the corridor is dependent on solutions that offer viable alternatives to the car.

With planned improvements to the Danbury Branch Line, longer distance commuter travel is expected to improve; however, the shorter distance trips that use this segment of Route 7 for shopping, school, and work are reliant on the existing bus system and limited pedestrian networks currently in place. Bus service in the corridor does very well at serving commuters, but not so well for other purposes. Service is limited to the mornings and afternoons, and bus frequencies are not high enough to attract non-commuters. A thorough review of the Route 7 Link service is necessary to determine the efficiency and need of expanded service to meet the needs of a wider ridership base. Bus prioritization at congested intersections should be included in that review. Allowing buses to advance through congestion is a strong inducement to use transit over the car, and a wise investment with the limited road space available.

Bicycle travel can also be an effective alternative for this segment of Route 7. Five-foot wide paved and striped shoulders are recommended on the Route 7 corridor from the Route 33 south junction to the northern limits of the segment and beyond. While not marked as a bicycle lane, five-foot wide shoulders and shoulder striping would provide operating space for bicyclists. Route and warning signage, along with bicycle racks are necessary components of this recommendation. Just as with transit, bicycles should be given appropriate priority in the corridor.

The intersection of Route 7 and Ridgefield Road. (Route 33 South Junction) is recommended to include the provision for bicycle boxes. Bicycle boxes allow cyclists to avoid conflict with right-turning traffic while traveling through an intersection; additionally they provide bicyclists with a means of accessing a left-turn lane provided by advanced stop bars.

To augment the on-street bicycle improvements along this segment, it is recommended that the Norwalk River Valley Trail (also known as Route Seven Linear Trail) continue to be planned and developed. The trail is a multipurpose off-road trail that is planned to extend from Norwalk to Danbury. A substantial portion of the trail is planned on state owned property, a holdover from the once planned Super 7 project. From Norwalk to Route 33 the trail is planned to be a paved path, changing to a primarily soft surface north of Route 33. The paved section of the trail south of Route 33 presents an opportunity to extend bicycle facility improvement on Route 7 south into Norwalk.

For optimal mobility in the corridor, pedestrians must also be accommodated. There are several areas along this segment of Route 7 that would benefit from pedestrian facility improvements. Deficiencies noted include lack of sidewalks, gaps in sidewalks and lack of adequate intersection facilities such as curb ramps, crosswalks and well-placed pedestrian signals.

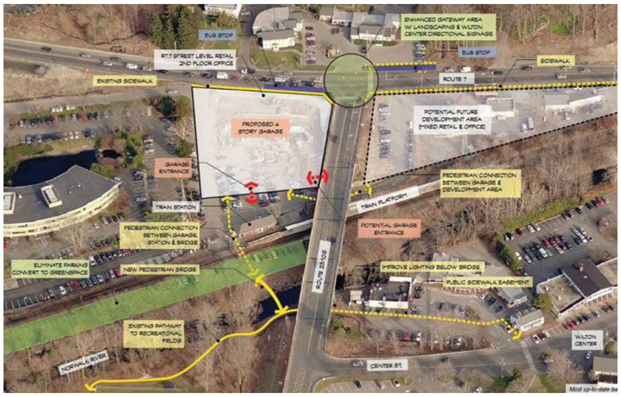
These pedestrian facility deficiencies are compounded by high speed and heavy traffic volumes on Route 7. Recommendations for improving pedestrian movement in the corridor include improving sidewalks between Norwalk and Grumman Hill Road. This area is characterized by a combination of retail, commercial, office, industrial, and multi-unit residential land uses, which creates a demand for pedestrian movement along the corridor. While a sidewalk network currently exists, it is incomplete with many gaps along the corridor. Connecting this network on at least one side of the roadway is a priority for improving pedestrian transportation in this area of the Route 7 corridor.

Finally, access design to the land uses along this segment of the corridor has a large impact on traffic flow and safety. The Wilton Access Management and Curb Cut Plan (which has been prepared as part of this study) recommends how zoning regulations can be modified to promote access management best practices as new development comes into Wilton on Route 7 and specific curb cut modifications to promote safe and efficient flow along Route 7 and between parcels.

2 - 3. Segment 2: "Suburban Wilton"

At the junction of Route 7 and Routes 33/106, a transition from the more densely developed Urban Edge to a suburban-style commercial corridor takes place. Route 7 through this area has recently been widened to accommodate two lanes in each direction plus turn lanes at major intersections. The widening of the highway has significantly reduced travel delay caused by peak hour traffic demand. The roadside is marked by frequent driveways to commercial establishments and access management is recommended to maintain safe operating conditions as future traffic increases along this segment.

Within this segment of Route 7, the Wilton Center Node is located at the intersection of Route 33 (northern junction) near the existing train station. Wilton Center is a well-established and cohesive village center. Development there is guided by a Village Center Design Zone which encourages new development to complement and add to the current cohesive character of the area. The primary need for planning for this area of the corridor is not for a new transit oriented development (TOD) area, but for making better pedestrian connections among Route 7, the train station, and the village. In doing so, these connections enhance both the sustainability of Wilton Center and the character and vibrancy of the train station area as a gateway to the village.



See Chapter 3 for details

The recommendations for the Wilton Train Station area complement the recently adopted Plan of Conservation and Development (POCD) and offer opportunities for increased parking, mixed-use development, and pedestrian linkages to Wilton Center. This concept plan for the Wilton Train Station area would, when implemented, result in the following changes in the area:

- Enhanced and more attractive gateway from Route 7 to Wilton Village,
- Additional commercial square footage with some commuter services on train station site,
- More aesthetically pleasing train station parking structure façade with additional capacity to serve new commercial parking demand,
- Ability to provide more secure and covered parking for commuters – including the relocation of existing parking on the west side of the tracks to eliminate vehicle grade crossing,
- Additional green space along the Norwalk River replacing the linear train station surface parking, and
- Strong pedestrian connection from train station to Wilton Center via new footbridge over the Norwalk River.

2 - 4. Segment 3: "Rural Wilton"

From the intersection of Route 7 at Cannon Road to just south of the Georgetown section of Route 7 at Mountain Road in Wilton, the corridor takes on a markedly different character than that to the south. The road narrows to a single lane in each direction, winding its way through a more densely vegetated environment associated with the Norwalk River Valley. Roadside development is less frequent in this section; however, Route 7 is the gateway to the off-corridor village of Cannondale; a historic village with quaint shops and the Cannondale Train Station; which provides access to Danbury Branch Line commuter rail service.

The winding alignment and rolling terrain requires drivers to navigate cautiously, although observed travel speeds along this segment are generally above 30 MPH.

The future conditions analysis that is presented later in this report illustrates that the daily traffic volume projected for this segment of Route 7 is approaching 28,000 vehicles per day, generally a daily volume that suggests the need to consider a four-lane cross section. However, a full-scale widening of this section, or any other portion of the two-lane cross section of Route 7, is not recommended for the following reasons:

- There are significant environmental and social constraints along this portion of Route 7 and a full-scale widening could not be completed without significant environmental and social impacts.
- Continued widening of Route 7, particularly if widened to four lanes for its entire length, has the potential to shift regional travel patterns and attract additional daily through traffic - in turn creating new congestion issues in the southern portion of the corridor that has already been widened or is planned to be upgraded to meet demands.
- Recommended upgrades to this section of roadway, including wider shoulders, implementing access management strategies, and improving sightlines will serve to add some capacity and will also improve safety for vehicles and bicyclists without attracting additional regional traffic.
- A widening is not consistent with the overall corridor vision, which calls for striking a balance between regional and local travel needs while preserving and enhancing the natural environment and the village clusters.

Within this segment, the village area of Cannondale is encountered traveling along Route 7 from the south. Turning east on Cannon Road directs travelers to the Cannondale Train Station and a series of small boutique shops and restaurants. A cannon located on the corner of the intersection used to serve as a landmark for this historic area. The cannon has since been removed from the intersection due to improvements to Route 7 and the Cannon Road intersection in 2009. Business owners at Cannondale Station are concerned that Cannondale has "fallen off the map" due to the lack of a landmark on Route 7 at Cannon Road. It is recommended that signage and landscaping be placed at the northeast corner of the Route 7 intersection with Cannon Road to help identify this unique village area that is not visible from Route 7.

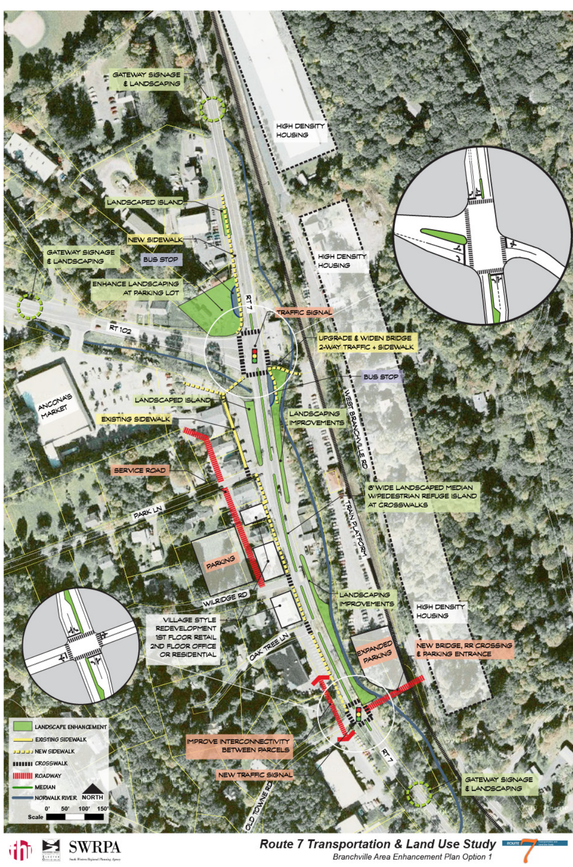
Proposed signage and landscaping for Cannondale

The provision for bicycle boxes at Route 7 and Cannon Rd. is recommended. Recommendations for improving pedestrian movement in the corridor include providing a sidewalk on Cannon Road from Route 7 to Cannondale Station to establish a strong a pedestrian link between development on the west side of Route 7 and Cannondale Station.

As with the other segments of Route 7, shoulders should be widened where possible and striped to allow comfortable operating space for bicyclists. The Norwalk River Valley Trail would be an asset to this area and is recommended to be advanced.

2 - 5. Segment 4: "Georgetown/Branchville Suburban Stretch"

Route 7 passes to the west of the Village of Georgetown at the intersection of Route 107 and into the Village of Branchville. Increased commercial activity along this segment of Route 7 contributes to slower travel speeds and localized traffic congestion. The Village of Georgetown to the east, and the planned new development including a newly activated train station, is expected to create additional traffic pressure on Route 7 in the future. To minimize the impacts of rising demand, the following intersections are required to be improved as part of the State Traffic Commission (STC) off-site improvements for the Georgetown Redevelopment project:



- Route 7 at Mountain Road/School Street - Geometric improvements
- Route 7 at Driveway to Georgetown Market Plaza - Geometric improvements
- Route 7 at North Main Street - New signal and geometric improvements

A five-foot shoulder is recommended through this area to facilitate bicycle travel. The provision for bicycle pockets at Route 7 and Mountain Rd. /School St (Route 57/107) is recommended.

About a mile north of Georgetown, around the junction of Route 102, Route 7 passes through another village area. This area is commonly referred to as Branchville and consists of a railroad station and a number of small commercial establishments. In a focused planning effort in Branchville as part of this study, two plans have been developed for the village (Option 1 and Option 2).

Option 1 of the proposed plan includes:

- Expanded surface train station parking to the south of the existing lot,
- A relocated and signalized southern access to the train station aligned with Old Town Road,
- Capacity improvements to the existing signalized intersection at Route 102,
- A landscaped median between the two signals with breaks in the median at side streets,
- The construction of new sidewalks servicing retail establishments on the west side of Route 7,
- Improved crossings of Route 7 at both traffic signals, and
- Streetscaping and signage and gateways on all three approaches to the village.

Option 2 of the Branchville Area Enhancement Plan builds on the ideas for Option 1 and takes them a step further. It includes sidewalk improvements for the east side of Route 7. In this plan, a riverwalk and a new pedestrian bridge over the Norwalk River would improve the connection between Branchville Station and the village.

An additional feature of this option is a three–story parking structure that offers room for retail space around the perimeter of the ground-level floor and is integrated with the community aesthetics. The Branchville Option 2 graphic (next page) illustrates how a parking structure with ground-level retail can be effectively integrated into the community space.

Another feature that distinguishes Option 2 is the development of what can be considered a “Mobility Hub” by redeveloping the current Precision Brake parcel to unify the character of entire village .

Branchville Option 2

From a land use perspective, it is recommended that a mixed-use village design zone be adopted which encompasses Branchville and replaces the current mostly commercial use zones. New residential housing is recommended and should be of a townhouse–style development that targets the workforce market (in terms of price range).

In addition, infrastructure in the form of water and sewer service should be extended as needed to support planned growth in the corridor development nodes and Branchville in particular. It is recommended that a more detailed study for the extension of water and sewer service to Branchville be initiated.

This segment of Route 7 is recommended to include an evaluation of the Route 7 Link bus service for increased frequency, all-day service, and bus prioritization at key intersections. Future demand forecasted for Route 7 indicates a strong travel market from both ends of the study corridor to Ridgefield. In addition, growth in Wilton and Weston is expected to contribute to increased trips to Ridgefield. Coincident with the redevelopment of the Georgetown Station area, a transit shuttle service could potentially serve this growing demand. It is recommended that expanded transit service between points along Route 7, including Georgetown, Branchville, and Ridgefield be studied in greater detail.

Additional access management recommendations, including consolidation of driveways and a raised median through this stretch of Route 7, will help to manage vehicular and pedestrian conflicts and maintain a safe operating speed through this area.

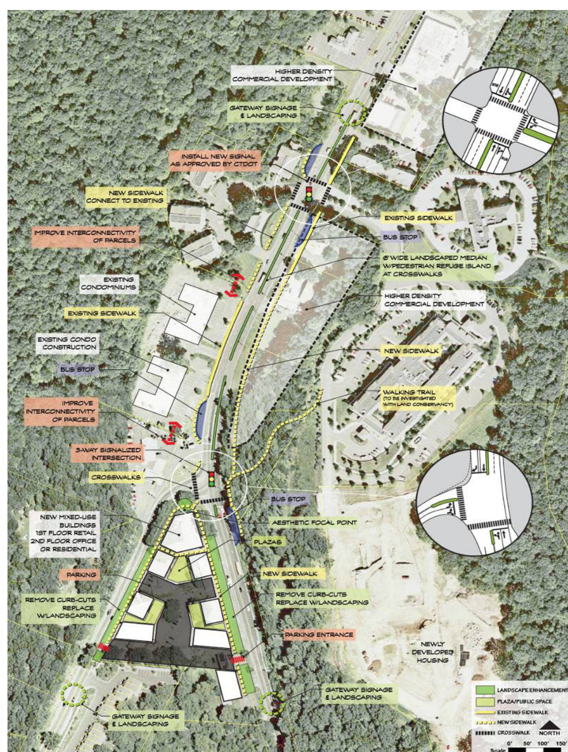
Bicycle travel through this segment should be accommodated by including five-foot wide paved and striped shoulders. Intersection improvements should include the provision for bicycle pockets at Route 7 and Branchville Rd. /Depot Rd. The Norwalk River Trail is also planned to run adjacent to Route 7 in this segment and can provide a physically separated facility for bicyclists who are less comfortable with riding on the road.

2 - 6. Segment 5: "Rural Ridgefield"

North of Depot Road in Branchville to just south of the junction of Route 35, the Route 7 corridor exhibits more rural characteristics. As a two-lane highway through this segment, Route 7 winds it way along the Norwalk River Valley. The Norwalk River is fed by the pure waters of Great Pond in Ridgefield and recreational fishing is a popular attraction along the course of the river. As water quality and preservation of this naturally rich area were cited as a priority by residents of Ridgefield, this segment of Route 7 was recommended to remain a two-lane cross section. Traffic volumes on this portion of the corridor are expected to be the lowest predicted anywhere along the entire corridor length. The only intersection improvement that is recommended in this segment is a re-timing of the traffic signal at New Road to allow more green time to Route 7 under year 2030 traffic conditions.

2 - 7. Segment 6: "Suburban Ridgefield"

Beginning just south of the junction of Route 35 and Route 7, a significant development node exists. This area is located at the nexus of two distinctly different Route 7 highway segments. While Route 7 to the south of the intersection is a narrow, tree-lined road, Route 7 to the north is a high speed thoroughfare that will soon be four lanes through to the expressway stub in Danbury. A logical location for a community node, this intersection is at the heart of a unique gateway to Ridgefield, Fairfield County, and destinations along Route 7. In this report, this area is identified as "Upper Ridgefield".



See Chapter 3 for details

Traffic is heavy through this intersection, and future forecasts indicate that significant growth in traffic will be to and from Ridgefield along Route 35. Operationally, this intersection has sufficient capacity to accommodate future traffic growth. Safety is the primary issue and it is recommended that the southbound approach to the intersection be redesigned to control vehicle speeds. This can be achieved by reducing lane width to 11 feet and installing a median between the northbound and southbound lanes. In addition, the corner radius at the Route 35 approach should be reduced to slow traffic as it makes a right turn onto Route 35. The improvements planned for this area are shown in more detail in Chapter 4, Future Land Use Conditions.

A limited sidewalk network currently exists in this area. The Upper Ridgefield Enhancement Plan calls for a completion of the sidewalk network in this area on both sides of Route 7. A new signalized intersection and crosswalk at the northern limit of this area (Laurel Lane) would provide a pedestrian loop from retail stores at the south end of the area connecting to residential development at the north end of the area. In addition to sidewalk improvements, a walking trail from the Route 7/35 intersection to retirement housing east of Route 7 is recommended to provide a direct link between housing and new retail development. Proposed bus stops at the Route 7/35 intersection would be served by the proposed pedestrian sidewalk network.

The Ridgefield Access Management and Curb Cut Plan complements the above recommendations and demonstrates how zoning regulations can be modified to promote access management best practices as new development comes into Ridgefield on Route 7 and specific curb cut modifications to promote safe and efficient flow along Route 7 and between parcels.

From a zoning perspective, it is recommended that a mixed-use commercial corridor design zone be adopted that encompasses this community node and replaces the current mix of zones. This area should be zoned to allow a mix of residential and somewhat larger scale non-residential uses and including second-story apartments over first-floor retail in the same structure. The rendering to the left illustrates an example of a new mixed-use development on the corner of Route 7 and Route 35.

2 - 8. Segment 7: "Danbury Highway Transition"

For the remainder of the Route 7 roadway north to the expressway linking I-84 to the corridor in Danbury, Route 7 is designed to efficiently handle the heavy traffic volume to which it is subjected. The ongoing construction project to widen the highway will ensure smoother flow and faster travel speeds than experienced along segments of Route 7 south of Route 35. No roadway modifications are recommended along this segment, except those identified in the Danbury Access Management and Curb Cut Plan.

Chapter 3: Future Conditions

The driving factor that affects the transportation conditions in the corridor in the future is how land is used and the resulting travel demand patterns that the new land development patterns create. As such, this discussion of future conditions begins first with a discussion of potential land use scenarios for the future. This chapter also provides the background and rationale for the land use and transportation recommendations that were summarized briefly in the previous chapter. The subsequent chapters provide further detail and discussion on some of the recommended plan elements.

3 - 1. Future Land Use Conditions

Two land use scenarios were developed and analyzed in order to select a Preferred Land Use Scenario for future transportation planning purposes. These two scenarios included:

- The Status Quo Land Use Scenario, reflecting future market demand and development potential with no regulatory changes. Potential additional development in the corridor under this scenario could include up to 817 new dwelling units and 2.87 million square feet of additional non-residential square footage
- The Transect Form Land Use Scenario, reflecting more contemporary land use principles as well as Smart Growth principles. Potential additional development in the corridor under this scenario is more concentrated in "nodes" and could include up to 760 new dwelling units and 1.86 million square feet of additional non-residential square footage

To be realistic, the scenarios also needed to be balanced against the physical constraints and economic opportunities presented by the corridor today. The scenarios, are also founded on a regional perspective for the corridor, one that crosses municipal lines.

An equally important purpose for defining these scenarios was to help determine which transportation system improvements will best serve the vision for the future. The two are intertwined. As noted elsewhere, transportation is not just about getting traffic smoothly from point A to point B. In order to achieve the future vision for quality of life, and to be sustainable, development must be well served by an effective transportation system that includes all means of travel. Conversely, in order for the transportation system to be sustainable and function well, land use patterns need to reflect Smart Growth. That is, the distribution and character of development should enable the transportation system to operate effectively and efficiently. Also, the land use form can encourage travel by means other than a car, creating a setting within which the convenience, capacity, safety, and functionality of all elements of the transportation system can be sustained.

Status Quo Land Use Scenario

To understand the potential future land use conditions with no regulatory changes (status quo), development potential was assessed. Each of the vacant and developable parcels in the corridor was evaluated to determine its capacity in terms of square footage of new use. From this, the key issues and opportunities for future land use in the corridor were determined. The analysis assumed current zoning and environmental constraints would remain unchanged. Primary questions were how much more development might there be in the future under the 'status quo', where would development be likely to locate, what type of development might that be, and how will that affect quality of life for residents and travel on Route 7.

The assessment of existing land use patterns, environmental constraints, and market demand indicates that the majority of future development in the corridor can be expected to come from infill, use of underutilized parcels, and redevelopment. Most of the vacant and underutilized parcels occur on the edges of current town and village centers or small clusters of activity.

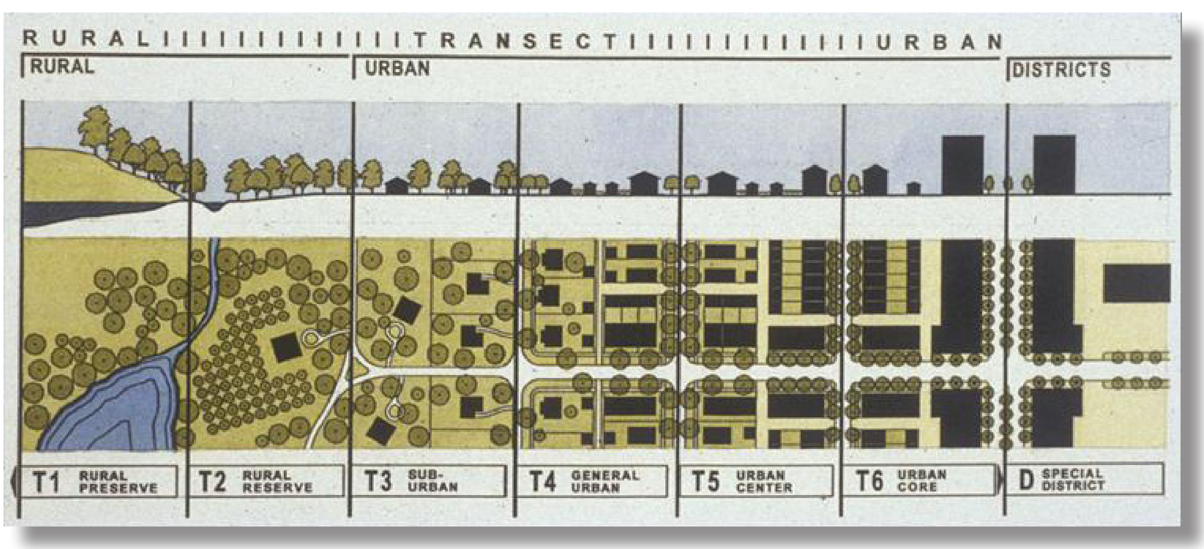
The total future developable area in the corridor is approximately 314 acres. This is a relatively small number. It is partly reflective of the narrow width of the area studied, which focused on parcels adjacent to Route 7 and just beyond. More so, it is reflective of the physical limitations for new construction in the corridor as well as numerous well established uses which make the corridor largely built-out.

Nonetheless, there is market demand for new retail uses in the corridor along with workforce housing. This positive climate for economic growth means that when vacant and underutilized sites become available, they have strong potential to be developed. Given no change in the zoning for the corridor, future land use would likely continue to be dispersed along the corridor with some more intensive infill expanding the edges of the existing development clusters and village centers. Development is also likely to be attracted to the densely developed commercial urban fringe of Wilton at the Norwalk city line.

The Status Quo Land Use Scenario would likely, in spite of corridor constraints, result in the continuation of sprawl development patterns. This is not consistent with the Corridor Vision of clusters of developments with village-like environments and preservation of areas in between. This type of development pattern also tends to rely more heavily on vehicle travel rather than facilitate the ability to travel using other modes such as public transportation and walking.

Transect Form Land Use Scenario

The Corridor Vision, which was defined early in the study process, required the study team to consider a land use pattern known as Transect Form. Transect Form is one that defines development in a series of zones that transition from sparse rural farmhouses to dense urban core. Each zone contains a similar transition from the edge to the center. Transect Form provides a framework for regulating land uses that focuses on design and protects and preserves the character of each transect. The existing Route 7 land use patterns already show glimpses of the Transect Form as a result of corridor constraints and transition between activity nodes. However, within the existing regulatory framework, eventually the



Transect Form Land Patterns

glimpses of this Transect Form that exist today could become less well defined and preservation zones and village zones could be compromised towards sprawl-like development patterns. Because the Transect Form Land Use Scenario serves to better define the existing land development patterns, particularly with respect to formalizing clusters of development and preserving areas in between, it is more closely aligned with the Corridor Vision. To facilitate the continued development of these land use patterns, a defined Preferred Land Use Scenario was developed and is described below.

Methodology

The steps in crafting the future Preferred Land Use Scenario included:

- Articulating guiding parameters for the scenario
- Applying those parameters to drafting a macro-level concept for the pattern of land use corridor-wide
- Review and discussion with the Technical Advisory Committee
- Consensus on three targeted development nodes (focus areas) for more in-depth study
- More intensive analysis of the targeted development nodes
- Evaluating opportunities for Transit-Oriented Development (TOD)
- Developing concept plans for future land use form within the identified development nodes
- Review and discussion with the Technical Advisory Committee and presentation at public workshops for feedback

The guiding parameters used in this methodology included:

Meet the Corridor Vision:

- Development will be focused in clusters (community nodes)
- Linear sprawl will be discouraged
- The community nodes will provide a diversity of services that enhance the quality of life for residents, and invite pass-through travelers to stop

- The community nodes will serve as destinations that are easy to access and navigate by car, bicycle, transit, and on foot
- Most new development will result from infill in the community nodes and from reuse or redevelopment of existing sites consistent with the character of the surrounding community and landscape
- The community nodes will be well defined and designed so as not to disrupt scenic views of undeveloped open spaces, forests, parks, and historic structures along Route 7
- The rural character of lands outside the community nodes and abutting the roadway will be preserved
- New strip or large-scale single-use developments will be discouraged

Apply Smart Growth Principles:

- Encourage sustainable growth
- Preserve valued community and natural resources and safeguard land identified for preservation
- Locate development where there is or will be infrastructure (water, sewer, and roads) and concentrate development there before using raw land
- Place priority on locating new development in targeted growth areas
- Pursue a compact, mixed-use pattern of development that preserves or creates walkable neighborhoods and village character
- Foster housing choice
- Provide adequate public facilities to support the envisioned development form and transportation system

Seek Sustainability:

- Use strategies that meet society's present needs without compromising the ability of future generations to meet their own needs
- Use of methods, systems, and materials that won't deplete resources or harm natural cycles
- Create development under which humans and nature exist in productive harmony, and fulfill the social, economic and other requirements of present and future generations

Consider Environmental Quality for the Future:

- Protect and preserve the Norwalk River environment throughout the Route 7 corridor
- Protect preserved open spaces along the corridor
- Incorporate green/open/public space within the development nodes
- Minimize the addition of impervious surfaces in future land use form
- Preserve historic resources and recognize them as an asset within the Route 7 corridor

3 - 2. Preferred Corridor Land Use Scenario

The resulting Preferred Land Use Scenario displays:

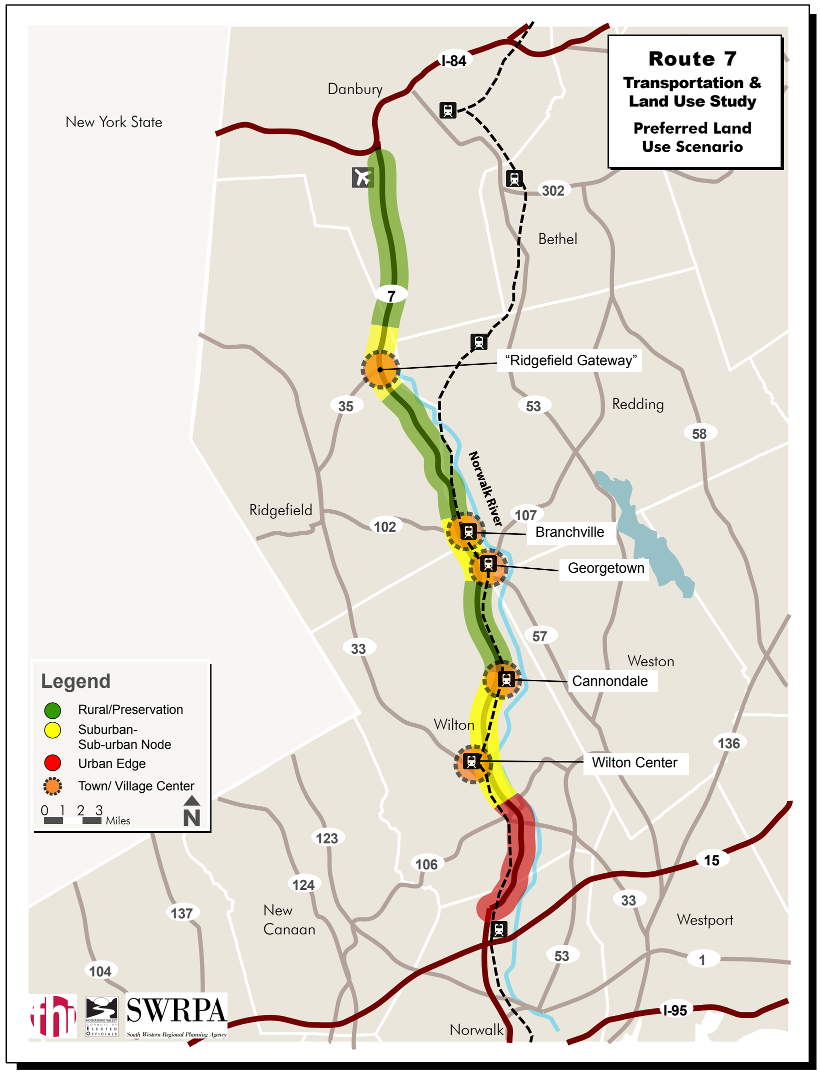
- A realistic pattern of desirable future land use for the corridor as a whole that reflects Smart Growth principles and the Route 7 Vision Statement
- Conceptual or schematic plans for three key focus areas within the corridor where significant opportunities exist to encourage more cohesive villages, town centers, and development nodes consistent with the Corridor Vision

The overall proposed land use pattern for the corridor is shown in Figure 3-1. It is one that concentrates development in 'nodes' and separates these with preservation areas. The development nodes would vary in character and density based on location, functions they are expected to serve, and in the context of the communities where they are located. In general, land uses that would be of higher activity level, and more intense use of land would be clustered as follows:

- At the juncture of Route 7 and Route 35, in Ridgefield ("Ridgefield Gateway")
- Branchville Village, in Ridgefield
- Wilton Train Station Area, in Wilton
- South of Wilton Center where the transition occurs from suburban Wilton to the urban edge of Norwalk

The preservation areas may also vary in character relative to the form and degree of preservation they are expected to afford. In general, the preservation areas in the Route 7 corridor will be characterized by very low density residential uses,

Figure 3-1: Preferred Land Use Scenario



preserved open spaces, and significant natural areas with steep hills and cliff sides as well as wetlands and the Norwalk River. Commercial uses within these areas would remain as they are today, but new commercial development would be discouraged.

The land use categories for the Preferred Land Use Scenario are based on the transect model. Each category is described in more detail in Table 3-1.

3 - 3. Targeted Development Nodes – Areas of Focus

Three focus areas were identified for further study as part of development of the Preferred Land Use Scenario. These are targeted areas for creating more cohesive, walkable, pedestrian-oriented community nodes as village centers and are consistent with the overall Corridor Vision. The areas of focus were agreed upon by the Technical Advisory Committee and included:

- Ridgefield Gateway (Routes 7 and 35 Intersection Area)
- Branchville
- Wilton Train Station Area

An extensive community outreach process for each focus area was conducted which included two design charrettes per area. The first session aimed to understand the issues and refined vision for the focus area based on input from local residents and town representatives. The second session, which was an open-house format, presented a draft concept plan for each focus area and solicited feedback as to how well the concepts met the vision and how the draft concepts should be modified.

Table 3-1: Description of Land Use Categories in Preferred Land Use Scenario

Map Color	Looks something like.........	Title	Description
Green		Rural Or Rural Residential	Open space, farmland, or very low density single family residential – homes on lots of 2 acres or more and
Orange	 	Town/Village Center	Cohesive cluster of mixed-uses - an area that serves as a destination, meeting neighborhood or community needs for goods and services as well offering gathering places, opportunities for social interaction, and community resources (such as libraries, schools, or senior centers). Development is dense with parking shared both on and off-street. It is also as area perceived and identified by community residents as cohesive and creating a neighborhood.
Yellow		Suburban – Mixed-Use/ Sub-urban Nodes	Areas of mixed development in what is commonly thought of as a suburban setting; individual uses are physically separated by landscaping/buffers/ side yards; lots of ½ to 1 acre or consolidated lots–some connectivity among parcels ; includes small planned development such a life-style center – no big box development – buildings generally no more than 4 stories.
Red		Urban Edge - Gateway	Very dense suburban development with zero lot lines – individual uses generally on ¼ acre or less with some connectivity among parcels; individual structures are very close to one another, but there remains physical separation among buildings; includes planned development such as commercial plazas.

As a result of this focused community interaction, future land use concept plans were developed for each focus area based on a refined vision. The challenges and goals for each focus area were evaluated as part of the concept development. The following sections present the background and concept plans for each of the three focus areas and a description of the concept plan elements.

"Ridgefield Gateway" (Routes 7 and 35 Intersection) Focus Area

"Ridgefield Gateway" (Route 7 at Route 35) is completely auto-oriented today. Yet, there are more people living in and near the area as senior and retirement housing has been developed and some condominiums are being completed. There is an opportunity to make the area better serve the needs of these local residents and to create a destination which offers services and goods in a well-designed life-style center. Based on the community input from the two design charrettes held for this area, a refined vision was developed and is articulated below.

RIDGEFIELD GATEWAY AREA VISION

In the future, the area of Route 7 at the junction with Route 35 will be a well-defined neighborhood featuring positive aesthetic qualities that will create a gateway to lower Fairfield County. It will have more well-connected, small-scale developments with a mix of retail, office, and housing, including workforce apartments or condominiums. The retail development will provide convenience goods such as a pharmacy for local residents so they do not have to travel far by car for those goods. Traffic through the neighborhood will travel efficiently but at relatively slow speeds that will allow pedestrians to cross the roads safely.

Further, the community felt that the Ridgefield Gateway area should be designed for:

- A human-scale, walkable environment
- Room for public spaces
- Connectivity among uses
- Additional traffic lights – to make it easier to access Route 7 from the residential sites
- Safety for pedestrians
- Becoming a gateway to Ridgefield and from upper Fairfield County to lower Fairfield County

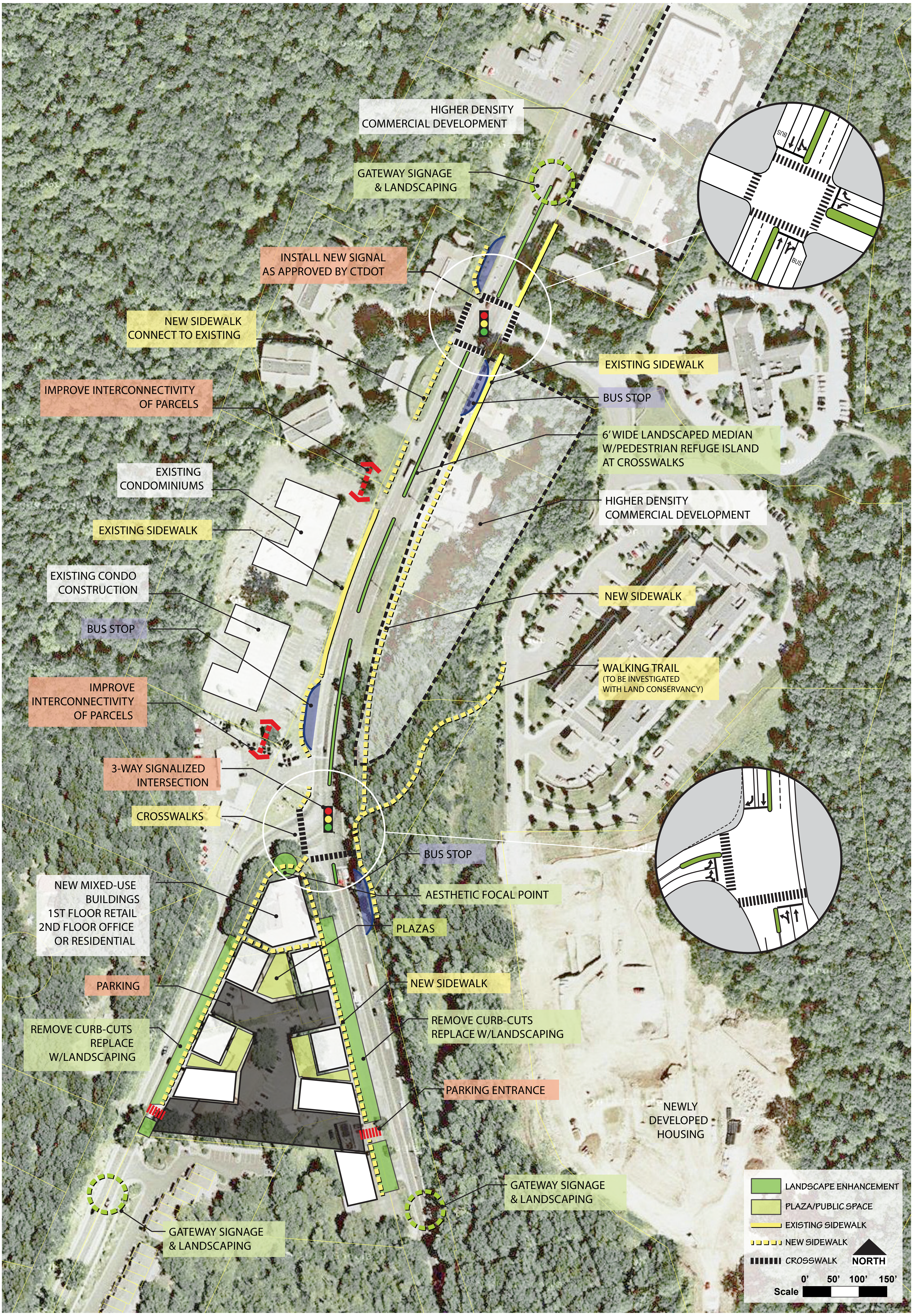
- A traffic/roadway environment that is more conducive to stopping at retail establishments in the area

The future conceptual enhancement plan for Ridgefield Gateway is shown in Figure 3-2. Key elements of the plan include:

- Redevelopment of the southwest corner of the intersection to provide a new mixed-use center with outside dining, community space, adequate parking and vibrant commercial environment that provides a commercial focal point for the area (see rendering below)
- Provisions for more commercial development on the east side of Route 7 (approximately 60,000 square feet of new retail and office space)
- A new signal (as recently approved by CTDOT) to the north of the existing signal at the access road to the high density senior housing complex
- A landscaped median between the two signals
- An enhanced and complete sidewalk system along both sides of Route 7, including protected crosswalks and a pathway to the housing complex and the new mixed-use center
- Bus stops
- Consolidated driveways were possible and improved interconnections between parcels
- Gateway signage and landscaping on all three approaches to the area to serve to alert drivers of the upcoming activity node and slow approaching traffic

Ridgefield Gateway view looking south at proposed mixed use center

Figure 3-2: Ridgefield Gateway Enhancement Plan



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Route 7 Transportation & Land Use Study

Ridgefield Gateway Area Enhancement Plan

Branchville Focus Area

For Branchville, two concepts emerged. This was for several reasons. There will be increased commuter rail service available in Branchville as the Danbury Branch Line improvements are implemented. As these rail improvements are in the early planning stages, any changes in the commuter activity and related economic and land development opportunities in Branchville are expected to be long term. In addition, the Georgetown development with new train station and large parking capacity will be constructed over the coming years. It is expected to have a dynamic synergy with Branchville. This synergy is expected to evolve over the long term, or next 20 years. At the same time, the vision for the area calls for maintaining the "folksy" feel of Branchville as a village. In the short-term, opportunities still exist to create a more vibrant village. The short-term concept for Branchville focuses on a low-density TOD concept while the long-term vision allows for some limited increase in density with stronger associated TOD design including the concept of a New Mobility Hub which capitalizes on the central location of the Branchville Train Station.

Based on the community input from the two design charrettes held for Branchville, a refined vision was developed and is articulated below.

BRANCHVILLE VISION

In the future , Branchville will be a strong, cohesive mixed-use village. It will have outdoor public spaces, landscaping, and amenities that will be inviting to visitors and residents alike. Parking will be located so visitors can park once and walk throughout the village. Branchville will have well-connected small-scale developments with a mix of retail and housing. The pedestrian environment along and across Route 7 will be pleasant and safe. The train station will be well connected to the rest of the village where commuters live, shop, or dine.

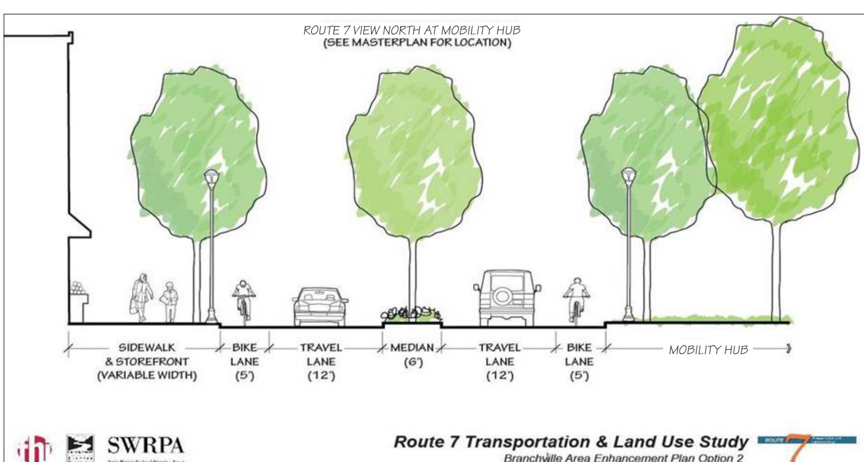
Further, the community felt that Branchville should be designed for:

- A more walkable environment
- Room for public spaces
- Connectivity among uses and across Route 7
- Safety for pedestrians
- Gateways that define the entrances to the village

- Better access for bicyclists and maintained bicycle paths
- More parking for rail station but no parking on Route 7
- A riverwalk between river and Route 7 with park/playground
- Complementing the planned Georgetown Redevelopment in Redding
- Becoming a *lower density* Transit-Oriented-Development
- Bus shelters and transit signage
- Turning lanes at Old Town Road
- Access to village off Route 7

The first future conceptual enhancement plan (Option 1) for Branchville is shown in Figure 3-3. Key elements of the plan include:

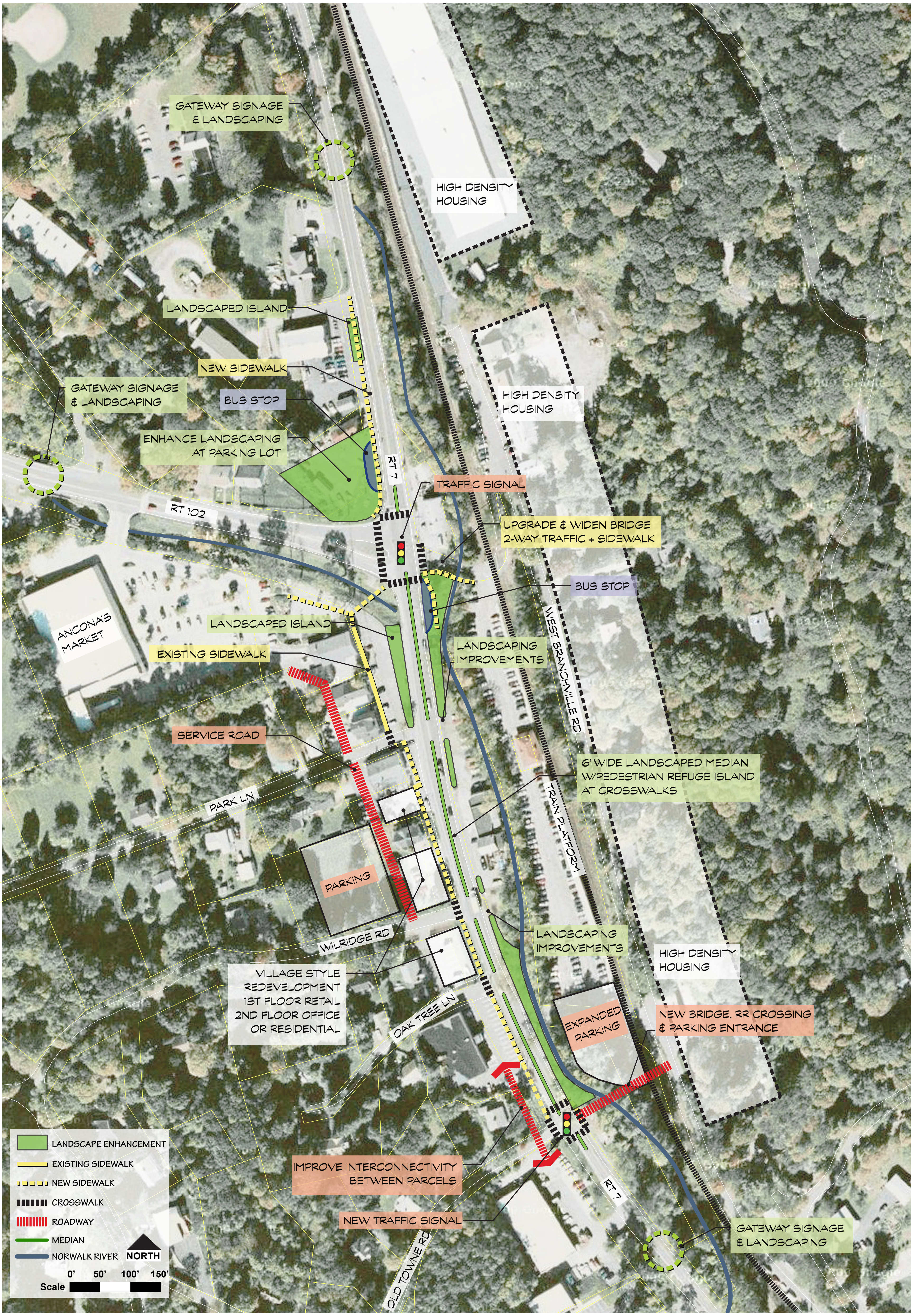
- A relocated and signalized southern access to the train station at Old Town Road. This requires a relocated and upgraded bridge over the Norwalk River as well as a relocated and upgraded railroad crossing
- Modifications to the existing Route 102 intersection to handle increased traffic volumes in the future
- A landscaped center median between these two signals defining the "core" of the village and also serving to slow traffic and limit turning movements to side streets and major driveways
- Sidewalk enhancements throughout the village and crosswalks at both signalized intersections to better connect both sides of Route 7 within the village



Branchville cross-section

- Workforce Housing – townhouse-style housing on the east side of Route 7 and the railroad tracks (approximately 50 new residential units)
- Elimination of the grade crossing north of the train station
- Additional rail station parking at the southern end of the existing surface lot

Figure 3-3: Branchville Enhancement Plan Option 1



- Bus stops at the corners of the Route 102 and Route 7 intersection
- Landscaping and gateway treatments to alert drivers that they are entering the village and to improve aesthetics of the village

The second option (Option 2, Figure 3-4) developed for Branchville is a longer-term vision of the village and builds on the first option to also include:

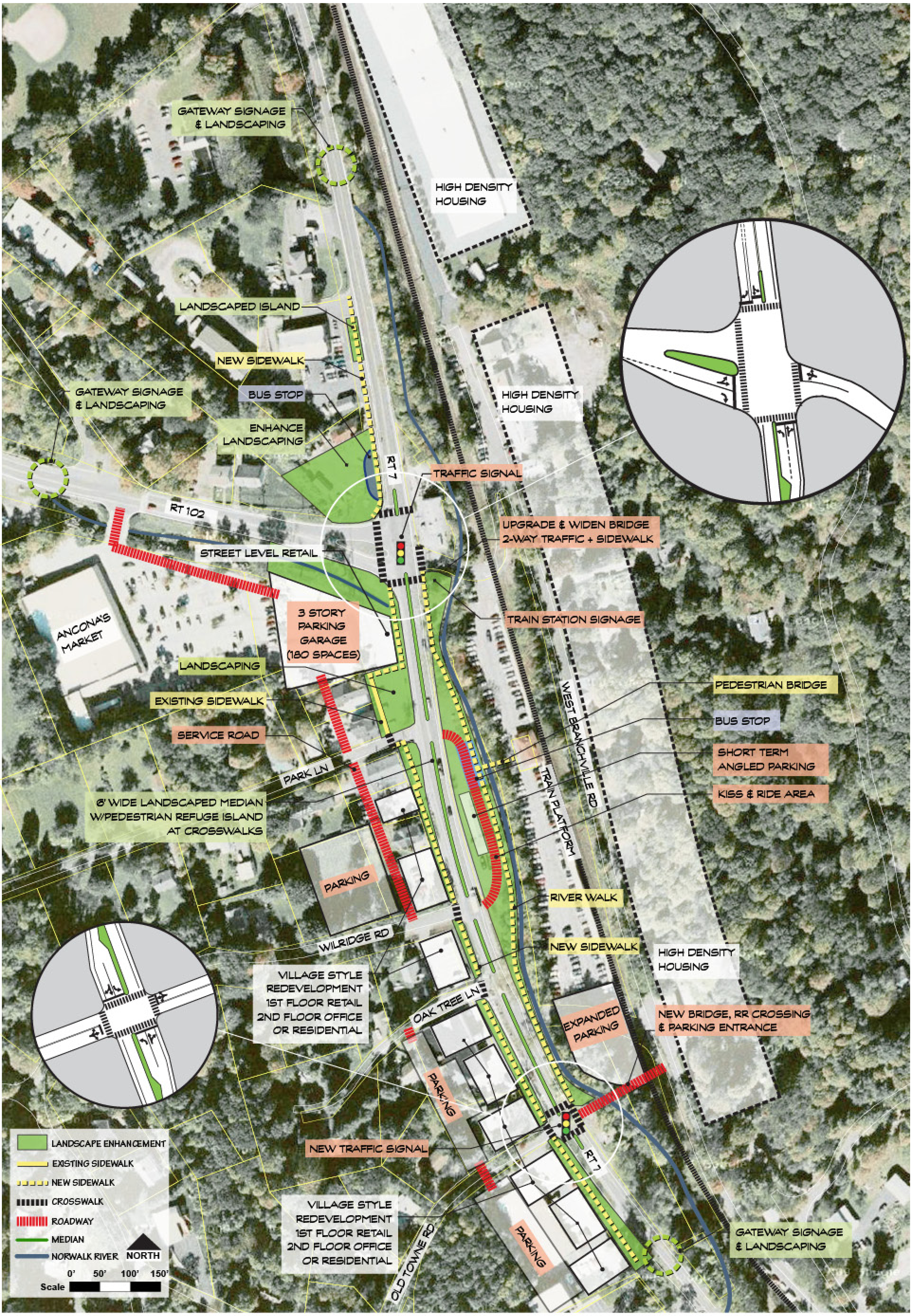
- A parking structure (with ground-level retail) on the south west corner of the Route 102 and Route 7 intersection. This structure will serve both commuter parking needs and commercial parking demand from the various businesses in the village
- More intense redevelopment on the west side of Route 7 with buildings closer to the road and parking in the rear (approximately 16,000 square feet of new office and retail space)
- A "Mobility Hub" at the current Precision Brake parcel to unite the entire village. A Mobility Hub is an area or site which integrates various transportation modes, commuter services, and to help travelers seamlessly connect from one point to another, from one transportation mode to another, with the complete trip in mind


Branchville - View looking north to Route 102

The Branchville mobility hub area is recommended to include:

- Commuter rail station
- Parking (long-term and short-term – including a kiss-and-ride area)
- Bus stops for various bus services (regional, commuter shuttles, and paratransit, and taxi services)
- Bicycle racks
- Public open space
- Strong and safe pedestrian connections across Route 7 and the Norwalk River
- Information kiosk
- Commercial uses to serve commuter services needs
- Improved directional signage and village branding

Figure 3-4: Branchville Enhancement Plan Option 2



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Route 7 Transportation & Land Use Study
Branchville Area Enhancement Plan Option 2

Wilton Train Station Focus Area

Wilton Center is already a well-established and cohesive village center. Development there is guided by a Village Center Design Zone which encourages new development to complement and add to the current cohesive character of the area. The need, therefore, for planning for this area of the corridor was not for a new Transit Oriented Development area, but for making connections. The focus in Wilton was on making connections from the train station area to Wilton Center to complete the street network and, in doing so, enhance both the sustainability of Wilton Center and the character and vibrancy of the train station area.

Based on the community input from the two design charrettes held for the Wilton Train Station area, a refined vision was developed and is articulated below.

WILTON TRAIN STATION AREA VISION

In the future, the Wilton Train Station area will be aesthetically appealing with clustered activity that complements and is well connected to Wilton Center. A system of sidewalks and paths will be in place to allow pedestrians to cross the roads safely. There will be effective connections to a system of regular transit service that will take residents, visitors, and commuters alike to and from Wilton Center and businesses on Route 7 throughout Wilton. The future Wilton Train Station site design will include additional uses on site, and will respect the beauty of the Norwalk River.

Further, the community felt that the Wilton Train Station area should be designed to:

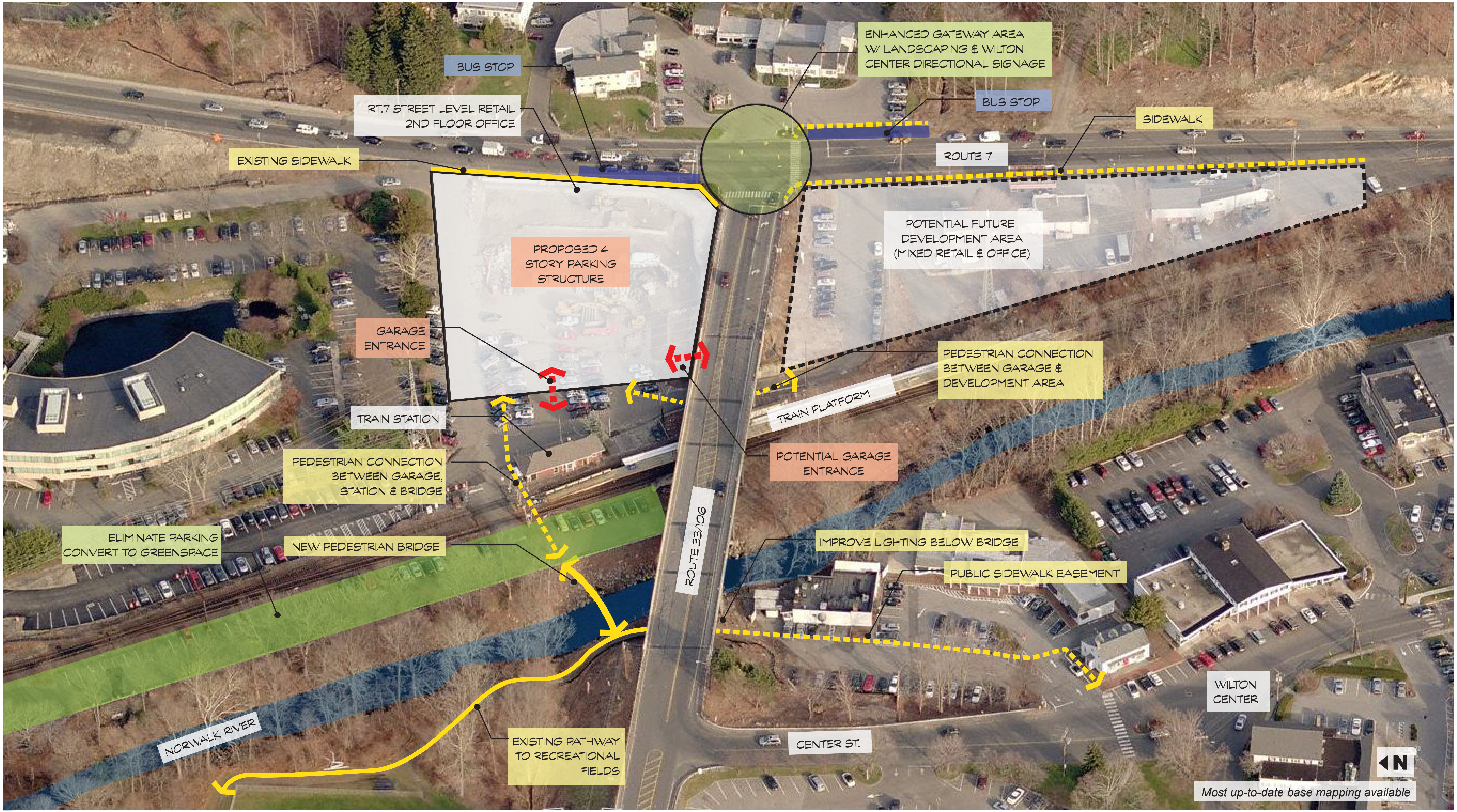
- Support the vision for Wilton Center from the Plan of Conservation and Development
- Connect to Wilton Center
- Provide safety for pedestrians
- Create a more attractive gateway to the train station and Wilton Center
- Provide more and well-designed parking
- Provide more services for commuters on the train station site
- Respect and complement recreational use and preserve the Norwalk River and its environment

The future conceptual enhancement plan for the Wilton Train Station focus area is shown in Figure 3-5. Key elements of the plan include:

- Enhanced and more attractive gateway from Route 7 to Wilton Village
- Additional commercial square footage with some commuter services on train station site (approximately 10,000 square feet of additional retail space in parking structure)
- More aesthetically-pleasing train station parking structure façade with additional capacity to serve new commercial parking demand
- Ability to provide more secure and covered parking for commuters – including the relocation of existing parking on the west side of the tracks to eliminate vehicle grade crossing
- Additional green space along the Norwalk River replacing the train station surface parking
- Strong pedestrian connection from train station to Wilton Center via new footbridge over the Norwalk River
- The rendering below provides a conceptual view of what a parking structure as part of the Wilton Train Station Area might look like. This rendering provides a street-level view from Route 7 looking north.

Rendering courtesy of GWG Architects

Figure 3-5: Wilton Train Station Area Enhancement Plan



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Route 7 Transportation & Land Use Study
Wilton Train Station Area Enhancement Plan

ROUTE 7 Transportation and Land Use Study

3 - 4. Future Transportation System Conditions

Over the next 25 years, changes in population and employment in the region will present new challenges to the transportation system. In order to plan for those challenges, travel demand estimates were developed to understand how the existing system will be able to service travelers in the corridor. The following section discusses transportation needs for future year 2030.

Future Growth in Travel Demand

Along the Route 7 study corridor, forecasted average daily traffic as provided by the CTDOT is expected to vary from about 23,000 to 38,000 vehicles per day as shown in Table 3-2. This is a 19% (at the lower end) to a 34% (at the higher end) increase in existing traffic levels. In general, the heaviest traffic will continue to exist at the northern-most and southern-most limits of the corridor where the highway transitions into an urban setting.

Table 3-2: Projected Future Traffic Demand

Location	Number of Lanes	2009	2030	Absolute Change	Annual Change	Total Growth
North of Route 35	4	28,400	34,800	6,400	0.97%	23%
Between Route 35 and Branchville	2	18,200	23,400	5,200	1.20%	29%
North of Branchville	2	20,200	27,000	6,800	1.39%	34%
North of Georgetown (Route 107)	2	22,000	27,800	5,800	1.12%	26%
North of Route 33 (N. Jct.)	4	31,600	37,600	6,000	0.83%	19%
North of Route 33 (S. Jct.)	4	30,600	36,400	5,800	0.83%	19%
South of Route 33 (S. Jct.)	3-4	27,200	32,400	5,200	0.84%	19%

Source: CTDOT

These projections indicate that approximately 5,000 to 7,000 new vehicles per day are expected to use the corridor with the most significant growth in the middle section of the corridor which seems to be consistent with the more intense development around the Georgetown redevelopment site. These volumes also reflect an unconstrained roadway condition, essentially illustrating the "latent demand" along the corridor, and not necessarily the actual volumes that will be realized if existing capacity constraints are not changed. The two-lane cross section in the central portion of the corridor essentially constrains the amount of regional through traffic that the corridor will attract. Without widening the entire corridor to 4 lanes, it's likely that average daily volumes on the existing 2-lane segment will remain in the low 20,000s.

Overall, and as stated in the previous land use discussion, the Route 7 corridor is not expected to experience much development growth over the next twenty-five years, with mostly redevelopment, infill, and some new development expected primarily in the Georgetown area of the corridor. It is therefore understandable that the majority of traffic growth will result from longer distance, regional trips using Route 7 to travel between I-84 and I-95/Rt 15. The strong travel demand growth in the northern half of the corridor is attributed to a significant travel demand forecasted between Danbury (and points north) and Ridgefield.

2030 No-Build Traffic Conditions

CTDOT provided peak hour traffic volume projections for the year 2030, representing Future No-Build Traffic Volumes. The No-Build traffic conditions include the completion of the Georgetown Land Development Project in Redding and the associated off-site roadway improvements required by the State Traffic Commission (STC). The Future No-Build volumes also include anticipated through traffic growth and background traffic growth in the corridor. The No-Build volumes do not include increased density of development in the Focus Areas as proposed in the Preferred Land Use Scenario. Finally, the No-Build condition does not include the completion of State Project No. 102-305 in the south end of the corridor as this project is no longer on the State's long range plan due to lack of funding.

Capacity analyses were conducted for 2030 No-Build condition at the study area intersections for the morning and evening peak hours. The intersection capacity analyses results are summarized in Table 3-3, which illustrates the changes in level of service between the Existing (2009) and 2030 No-Build conditions. These results illustrate, in red, locations where future intersection improvements may be warranted.

Table 3-3: Capacity Analysis Summary – 2030 No-Build Condition

Route 7 Study Intersections	Existing Condition (2009)		No-Build Condition (2030)	
Intersection	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Grist Mill Rd/DMV Driveway	**F**	**F**	**F**	**F**
West Rocks Rd/I-Park Driveway	D	**F**	**E**	**F**
Foxboro Dr.	A	A	A	B
Kent Rd	A	B	C	C
Kensett Ave/Plaza Driveway	B	B	C	C
Wilton Corp. Park (50 Danbury Rd)/Self Storage Dr.	A	A	A	A
Grumman Hill Rd/ASML Driveway	C	B	**E**	D
Route 33 (South Junction)	**E**	**E**	**F**	**F**
Mountain Rd/School St	C	D	D	C
Georgetown Market Plaza	B	D	B	C
North Main Street	N/A	N/A	C	C
Branchville Rd/Depot Rd	C	B	**E**	**F**
Topstone Rd/Cains Hill Rd	B	C	C	D
New Rd	B	C	**F**	**F**
Haviland Rd/Great Pond Rd	B	B	B	C
Route 35	B	C	B	D
Bennett's Farm Rd	A	B	A	B
Triangles Plaza Driveway	A	A	B	B
Starrs Plain Rd	A	A	A	B

Source: Fitzgerald & Halliday, Inc., August 2010

According to the CTDOT Design Manual (2003) the minimum acceptable intersection LOS is D. The analysis results shown in the table describe the operational effectiveness of the study area intersections. Results from the LOS analysis for the study area intersections under 2030 No-Build conditions indicate that the following six intersections will operate at failing levels of service under future conditions (less than LOS D) during at least one peak hour:

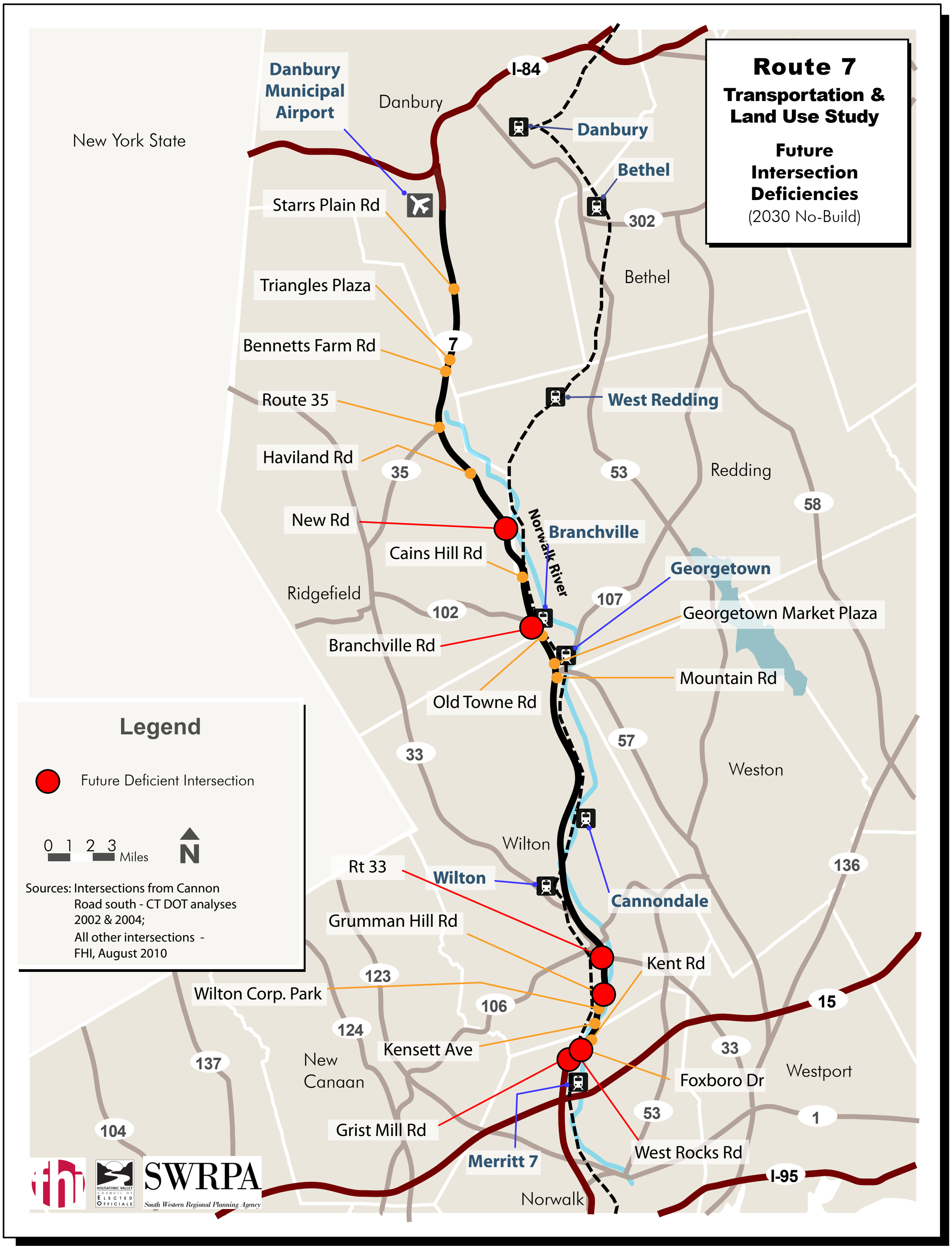
- Route 7 at Grist Mill Road/DMV Driveway: Operates at LOS F during both peak hours. This intersection fails under Existing (2009) conditions during both peak hours and the poor operations will be exacerbated due to traffic growth.

- Route 7 at West Rocks Road/I-Park Driveway: Operates at LOS F during the PM peak hour. This intersection fails during the PM peak hour under Existing (2009) conditions and the poor operations will be exacerbated due to traffic growth.
- Route 7 at Grumman Hill Road/ASML Driveway: Operates at LOS E during the 2030 AM peak hour, primarily due to heavy westbound left turns at the intersection.
- Route 7 at Route 33 (South Junction): Operates at LOS F during the AM and PM peak hours. This intersection fails during the PM peak hour under Existing (2009) conditions and the poor operations will be exacerbated due to anticipated traffic growth.
- Route 7 at Branchville Road/Depot Road: Operates at LOS F during the PM peak hour, primarily due to heavy southbound turns.
- Route 7 at New Road: Operates at LOS F during the PM peak hour due to forecasted traffic growth.

Figure 3-6 illustrates the locations where intersections are expected to have deficient levels of service in 2030 with no further improvements.

The recent reconstruction of Route 7 from Wolf Pit Road to the North Junction of CT 33 & 106 and from Old Danbury Road to the vicinity of Olmstead Hill Road in Wilton has resulted in a 4-lane cross section that will serve forecasted growth in travel demand for at least the next 20 years. Between the southern junction of Route 33 and Grist Mill Road, Route 7 will continue to experience traffic delay as a result of peak hour volumes exceeding the functional capacity of the road. North of the recent roadway improvement in Wilton, pockets of traffic congestion will continue to develop from the Georgetown section of Route 7 through Branchville. This segment of road serves a mix of through and local traffic, and has a distinctively village-like character.

Figure 3-6: Future Intersection Deficiencies



Preferred Land Use Scenario Traffic Generation

The Preferred Land Use Scenario identifies discrete development nodes with two locations identified for a more cohesive and somewhat denser form of development adjacent to the highway. The two locations include the village of Branchville, near the Route 102 intersection and Branchville Train Station, and the Route 7 Junction with Route 35 ("Ridgefield Gateway").

Conceptual plans have been developed as part of this study and were illustrated previously in this report. These two areas warrant closer investigation from a traffic perspective because additional land development is proposed which will generate additional trips to and from these areas. It is also important to make sure that a balance between vehicular mobility and a strong community character is maintained, as per the study vision. Village or neighborhood character alludes to an environment where people can choose to walk or bicycle instead of drive, vehicle speed is controlled, safety is maximized, and social interaction is encouraged.

To estimate the traffic operations impacts of the additional development shown in the conceptual plans for the Branchville and Upper Ridgefield areas, traffic volumes under 2030 Build conditions were estimated. These volumes included the 2030 No-Build estimates provided by CTDOT as well as the additional traffic expected to be generated by the proposed additional development in the two focus areas where additional density is suggested. It should be noted that because minimal new development is suggested for the Wilton Train Station area, no traffic impact assessment was conducted.

The additional development proposed for the Branchville and Ridgefield Gateway areas consists of a combination of retail, office space, and residences. The traffic volumes that would be generated for these proposed uses were estimated using the Institute of Transportation Engineers (ITE) publication titled *Trip Generation, 7th Edition*. The additional trips resulting from the proposed increases in development density at these two focus areas are summarized in Tables 3-4 and 3-5 for Branchville and Ridgefield Gateway, respectively.

Table 3-4: Additional Trip Generation - Branchville Area

	Weekday	AM Peak Hour			PM Peak Hour		
	Total	In	Out	Total	In	Out	Total
West of Route 7							
Retail (10,000 SF)	443	6	3	9	12	15	27
Office (4,000 SF)	44	5	1	6	1	5	6
Residential (5 DU)	29	0	2	2	2	1	3
Subtotal		*11*	*6*	*17*	*15*	*21*	*36*
East of Route 7							
Residential (50 DU)	293	4	18	22	18	9	27
Subtotal		*4*	*18*	*22*	*18*	*9*	*27*
Total		15	24	39	33	30	63

Source: Fitzgerald & Halliday, Inc., August 2010

As shown, the total number of trips generated based on the proposed increase in density in Branchville is less than 65 vehicle trips during the afternoon peak hour (and less the 40 vehicle trips during the morning peak hour). As a comparison, the addition of 65 trips represents just over two percent of the approximately 3,000 trips that are expected to enter the intersection of Route 102 and Route 7 during the afternoon peak hour. The overall impact of these additional trips when distributed throughout the network is expected to be insignificant.

Table 3-5: Additional Trip Generation – Ridgefield Gateway

	Weekday	AM Peak Hour			PM Peak Hour		
	Total	In	Out	Total	In	Out	Total
West of Route 7							
Retail (38,000 SF)	1,684	22	10	32	45	58	103
Office (19,000 SF)	207	26	3	29	5	23	28
Residential (16 DU)	94	1	6	7	6	3	9
Total		*49*	*19*	*68*	*56*	*84*	*140*

Source: Fitzgerald & Halliday, Inc., August 2010

Slightly more development is proposed for the Ridgefield Gateway focus area and therefore the total number of trips generated by this additional development is also higher with 140 new trips expected during the afternoon peak hour. As a comparison, the addition of 140 trips represents four percent of the approximately 3,500 trips that are expected to enter the intersection of Route 35 and Route 7 during the afternoon peak hour. Like in Branchville, the overall impact of these additional trips, when distributed throughout the network, is expected to be insignificant.

Finally, these estimates of additional new trips is considered conservative (overestimated) because they do not take into account the reduction in trips along the corridor from the preservation of land outside these development clusters. They also do not take into account the transit or walking trip reduction that is more possible, particularly in Branchville, with enhanced transit service and access.

Chapter 4: Land Use/Regulatory Recommendations

In addition to the land use concepts shown on the Preferred Land Use Scenario and Focus Area Concept Plans, there are a number of specific recommendations for land use management that are also essential components of achieving the future land use vision. These include:

- Modified zoning
- Low impact development and watershed management techniques
- Design guidelines
- Parking strategies
- Utility infrastructure
- Regional partnerships
- Development incentives
- Public-private partnerships
- Village branding

4 - 1. Modified Zoning

It is recommended that a hybrid of a form-based code approach be adopted for zoning in the corridor. This would include adding more design related provisions to achieve the development form desired and modifying the number and restrictions on allowable uses. In general, all uses could be allowed in most zones with a limited number of prohibited uses, relative to the character of the area. The manner in which this should be applied for each of the land use area types shown on the corridor-wide land use scenario would be:

Rural/Preservation Areas: These areas should be zoned to permit only low density residential (such as net density of 1 unit per 2 acres or greater), traditional farming, and passive recreational uses such as community parks. This zone should also allow for cluster subdivisions in lieu of the traditional single family home on one large lot to support the creation of linked open spaces and habitat corridors. Some limited commercial activities could be permitted at a very small scale directly on Route 7 (such as adaptive reuse of historic period homes and home occupations).

What is a Form-Based Zoning Code?

- Focuses on the form of the built environment
- Aims to create a specific type of 'place'
- Some undesirable uses prohibited
- All other uses allowed
- Graphics with design standards are key

Existing commercial uses would be allowed to continue (grandfathered in) but would not be allowed to expand or intensify in the future. It is recommended that each corridor community revisit their zoning for the designated preservation areas and adjust existing zoning districts to incorporate these objectives.

Town/Village Areas: These areas should be zoned for a mixed-use village center design that allows a mix of residential and non-residential uses including second-story apartments over first-floor retail in the same structure. The zone should:

- Limit the footprint (5,000 square feet or less) and height (three stories or less) of all uses, to maintain a village scale environment
- Require parking to be behind buildings which front on the street
- Have very limited (or no) requirements for separation between buildings and between buildings and the street
- Allow lot coverage – total building footprint on a lot – of up to 80 percent
- Require design with connectivity, sidewalks, and landscaping
- Prohibit a concise range of incompatible uses such as drive-thrus, heavy manufacturing, warehousing, and automotive sales lots.

Suburban Mixed-Use /Sub-urban Nodes: These areas should be zoned to allow a mix of residential and somewhat larger scale non-residential uses and including second-story apartments over first-floor retail in the same structure. The zone should:

- Limit the footprint (15,000 square feet or less) and height (four stories or less) of all uses, to avoid big-box development, the need for excessive surface parking, and building scale that is out of character with the surroundings
- Encourage planned mixed-use developments with interior circulation and linkage to adjacent developments
- Discourage isolated strip developments
- Encourage design with connectivity, pedestrian access, and landscaping
- Prohibit a limited range of incompatible uses such as big-box retailers, heavy manufacturing, freight distribution centers, and warehousing.

Urban Edge/Gateway: These areas should be zoned for a mix of commercial and multi-family residential uses, as well as limited scale light industrial activities (such as research and development). The zone should:

- Encourage planned mixed-use developments with interior circulation and linkage to adjacent developments
- Discourage isolated strip developments
- Encourage design with connectivity, pedestrian access, transit access, and landscaping

More specifically, for each of the focus areas, the following recommendations are made.

Ridgefield Gateway (Route 7 at 35): It is recommended that a mixed-use commercial corridor design zone be adopted that encompasses this suburban node and replaces the current mix of zones. It would be as described above for a suburban node with a range of design criteria and parking standards to encourage development consistent with the concept plan for the area. The concept plan should be adopted as an addendum to the zoning regulations and as a design guide to development in the node.

Branchville: It is recommended that a mixed-use village design zone be adopted which encompasses Branchville and replaces the current mix of zones. The zone would be as described above for a village area and similar to that which is in use for Wilton Center. The concept plan should be adopted as an addendum to the zoning regulations and as a design guide to development in the node.

Wilton Train Station: It is recommended that the Wilton Center design zone be expanded to encompass the train station area.

4 - 2. Low Impact Development and Watershed Management Techniques

It is recommended that Low Impact Development (LID) techniques be required to be included for all new development and redevelopment projects in the study corridor. This can be done through the land development approval process. LID is a series of techniques which minimize the volume of additional stormwater flows created as runoff from new development. This is achieved with site design to limit new impervious surfaces and innovative stormwater conveyance and processing technologies such as bio-retention basins which mange the quality of runoff. LID should also be applied to all new public infrastructure projects such as parking structures.

Along with this, it is recommended that each of the corridor communities consider applying watershed management strategies to preserve and enhance the quality of water resources throughout the corridor, consistent with the Corridor Vision. This can be achieved by mapping out the tracts of preserved open space and sensitive environmental areas such as the Norwalk River and areas of undeveloped steep slope and exploring opportunities not only to preserve them, but to maintain natural 'green' corridors linking them. In this manner, fragmentation of undeveloped watershed lands (and habitats) can be avoided. The proposed Transect Land Use Form, when implemented, will facilitate and support this effort. The total land area affected by development would be significantly less under the Preferred Land use Scenario, thereby decreasing the likely fragmentation of potentially affected natural resources.

4 - 3. Design Guidelines

In order to implement a form-based approach to community design, there is a need for well articulated design criteria in the zoning regulations regarding what is considered consistent and complementary to the community setting. The depth and specifics of the design criteria would vary depending on the character desired for each transect and community on the corridor. This would be accomplished with written design criteria, graphics and pictures associated with each mixed-use zone. Design issues that be should addressed include:

- Proportions and massing of buildings
- Public views of properties and maintenance of vistas
- Lighting and fencing
- Preservation of existing mature trees, stone walls, and distinctive natural features
- Natural buffers between the suburban mixed-use/nodes and rural preservation areas

- Landscaping standards
- Open space and public/community spaces standards
- Low-impact design standards (LID) for stormwater management (such as requirements for vegetated drainage swales) and minimizing paved/impervious surfaces
- Location and design of parking, loading, and trash receptacles
- Design and placement of new access roads and requiring connectivity among streets and among parcels
- Preferred roof lines, pitch and treatments
- Preferred façade design and materials
- Common exterior signage design themes
- Requirements for pedestrian friendly streets, sidewalks, bicycle paths, and pedestrian amenities such as benches and shade/shelter; bicycle parking
- Encouragement for well-defined public spaces with seating, shade/shelter, water fountains, and outdoor art

Written design criteria can recommend architectural styles and building facades which are acceptable. While these cannot be mandated under current Connecticut statutes regarding zoning (except in limited instances), they can serve as powerful guides to development design. Most development applicants appreciate clear guidance on preferred design that they can then work to fit into their site development plans.

4 - 4. Parking Strategies

Provisions for parking must balance the community need to ensure there is an adequate supply of parking against other community goals such as maintaining village character and at the same time not create an oversupply of parking, resulting in excessive pavement. In the Route 7 corridor overall this can be accomplished with some change in the zoning provisions for parking such as:

- Maximum as well as minimum parking requirements by land use
- Clear standards for parking facility/lot design including landscaping and low-impact design (such as bio-retention basins for stormwater management)

- Encouragement of efficient use of land set aside for parking with opportunities for:
  - Shared parking,
  - Parking located within a reasonable walking distance, but off-site from a development
  - Meeting parking requirements with the use of municipal spaces
  - Paying a fee in-lieu of parking; funds can be used for construction of public parking or for new transit service
  - Reduced space requirements for mixed-use environments or where transit/rail service serves a development (such as village centers)
  - Allowances for green parking (use of pervious parking surfaces) and/or unpaved areas reserved for future parking supply

More specifically, it is recommended that Ridgefield develop a strategic parking supply plan for Branchville. This plan should identify target locations (such as the proposed parking structure) for developing municipally-owned parking facilities that can meet most of the future village parking demand. The projected future parking demand in the village as estimated in this plan can set a starting point for tailoring the parking requirements in the zoning regulations to the village area.

4 - 5. Utility Infrastructure

Infrastructure, in the form of water and sewer service, should be extended as needed to support planned growth in the corridor development nodes and Branchville in particular. It is recommended that a more detailed study for the extension of water and sewer service to Branchville be initiated.

4 - 6. Regional Partnerships

The State of Connecticut offers a discreet number of opportunities for municipalities to look beyond their own borders to partner in regional initiatives that are beneficial to all the communities involved. If the land use vision for Route 7 is to be realized, the communities in the corridor will need to take advantage of those opportunities to partner either formally or informally for success. Opportunities for inter-municipal collaboration that should be considered for the Route 7 corridor include:

- Working on joint committees sponsored through the SWRPA and HVCEO – such as the SWRPA Regional Housing Committee
- Coordination of zoning approaches between abutting communities and diligent use of inter-municipal referral of zoning applications near the municipal boundaries
- Participating in a regional economic development commission
- Participating in inter-municipal services agreements for shared services such as information technology, public safety, and public works

4 - 7. Development Incentives

Communities can use a diversity of both regulatory and non-regulatory incentives to attract the types of businesses they wish to see in a targeted growth area.

Regulatory incentives contained in the zoning ordinance can include:

- Allowances for greater intensity/density of structures on a lot
- More flexibility in parking
- Flexibility in open space, public space, and/or signage requirements
- Reductions or waivers of fees associated with development applications

In addition, communities can offer a streamlined development approval process for desirable forms of development. For example, in Tolland, Connecticut the zoning administrator can approve some developments that are allowed by right and meet all site plan requirements, bypassing the formal Planning and Zoning application and decision making process. In order to encourage the construction of workforce housing, the regulations can also offer a streamlined or expedited application process for developments that incorporate targeted housing in the development nodes.

Non-regulatory incentives by a municipality are generally financial and can include:

- Prioritizing funding of infrastructure improvements to targeted areas of the community where redevelopment and/or infill is desired,

- Offering matching funds to pay for off-site improvements that may be required to mitigate a project's impacts such as impacts to roadways or stormwater management systems,
- Offering matching funds for site amenities such as landscaping and pedestrian facilities,
- Offering tax credits, tax-increment financing, and tax breaks or deferrals for desirable projects. These tax benefits can be varied in form as well such as straight property tax relief, tax relief tied to affordable housing unit, or job-creation tax credits,
- Creation of a development financing authority and/or a housing trust fund, and
- Offering to partner with a business to offer parking options

4 - 8. Public-Private Partnerships

Public-private partnerships in the Route 7 corridor could promote desirable land use and productive relationships between private developers and the community through shared responsibility for:

- Parking facilities,
- Public access to open space; public gathering spaces within private development,
- Sidewalk and bicycle path connections from private to public facilities,
- Shared driveways and access roads from public roads to private development, and
- Workforce housing ventures

4 - 9. Village Branding/Corridor Branding

One of the most effective measures for capturing and communicating the identity of a village or corridor is through branding. Branding is typically accomplished through the creation and display of village signs as well as promotional materials that carry or highlight the identity of the village or corridor. Village signs are a popular tool in Europe where the sign is used to record village events and local history. The symbolism of these signs can be a reminder of local history and culture. It is recommended that a signage program be adopted as a regional partnership to promote the identity of the development nodes as special places and the corridor as a whole.

For the corridor, an identity, such as "Ethan Allen Highway" should be decided on and forwarded through signage design and promotional materials. A consistent signage design can be installed throughout the corridor and promotional materials can highlight the corridor assets and major destinations. Directional signage, to destinations of interest such as Cannondale Village, Georgetown Village, Downtown Ridgefield, and Connecticut's only National Historic Site, Weir Farm, can be included in the signage program to guide travelers to locations not directly on Route 7.

For the Villages, signage should be placed on various approaches to each village center; its image could be used as a logo or letterhead for local community groups and activities.

Villages and development nodes within the Route 7 corridor, such as Branchville and Ridgefield Gateway, could host a contest for sign designs. This activity would, in itself, be a community building event.

Cannondale Village

The area near Cannondale Village has a rich history, with its settlement beginning in the early 18th century. In 1790, John Cannon established a General Goods store near the Norwalk River crossing. The area then became known as Cannon's. The name was later changed to Cannondale in 1915 to avoid confusion with Canaan. That same year, a Civil War cannon was placed at the intersection of Danbury Road (Route 7) and Cannon Road.

Enhanced gateway signage for Cannondale Village at Route 7 and Cannon Road.

The cannon has since been removed from the intersection during recent improvements to Route 7 and the Cannon Road intersection in 2009. Business owners at Cannondale Station have since been concerned that Cannondale has "fallen off the map" due to the lack of a landmark at Cannon Road.

It is recommended that signage and landscaping be used at the northeast and southeast intersections of Route 7 and Cannon Road to assist in wayfinding for Cannondale Station and Village.

What is TOD?

- Transit Oriented Development
- Walkable, human scale, pedestrian oriented places
- Aims for community form that supports transit use
- Transit is directly accessible and complements development

4 - 10. Transit Oriented Development (TOD) Recommendations

Based on the findings of the TOD analysis (see Appendix B), it is recommended that targeted efforts be made to stimulate development form that is supportive of transit usage and which can be supported in turn by transit access. Those targeted efforts should include:

- Modifying zoning in Branchville to encourage village-scale development
- Pursue infrastructure improvements that will create a stronger, more cohesive pedestrian access system in Branchville and link the Wilton Center to train station areas
- Initiate a more detailed study to plan for the extension of water and sewer service to Branchville, its costs and when it may be necessary based on infill development
- Ongoing coordination with the Danbury Branch Line Study to best coordinate plans for parking supply
- Pursue opportunities for public-private partnerships to develop workforce housing in Branchville

4 - 11. Economic Development/Marketing Recommendations

The market analysis suggests that the corridor could support development incorporating a variety of retail uses, particularly those that provide basic convenience/necessity shopping within the corridor. It is recommended that the towns within the corridor form a regional economic development agency and explore using the following tools:

Public-Private Partnerships

Develop detailed written business partnership strategy; explore creating an organization that is a public-private partnership collaborative to conduct marketing and promotions specifically within the corridor.

Branding & Promotion

Seek out a collaborative relationship with the local Chambers of Commerce to assist with general promotions and business attraction campaign. Then, develop a program to brand the villages and development nodes in the corridor as destinations along this segment of Route 7. This can include such things as:

- Signage along Route 7 as described above,
- Tourism brochures,
- Advertising on buses, bus schedules, and the train, and
- Coordination of local events such as farmer's markets on consecutive days of the week in each community along the corridor

Business Retention

Develop and maintain a matrix of existing businesses, key contacts, and number of employees. This list should be used to create a regular schedule for contacting existing businesses to gauge issues, concerns, and ideas.

Chapter 5: Transportation System Recommendations

A series of transportation system recommendations have been developed to address the future travel demands in the corridor to the extent possible within the Corridor Vision and to support the Preferred Land Use Scenario. Recommendations have been made for all relevant travel issues and modes and consist of:

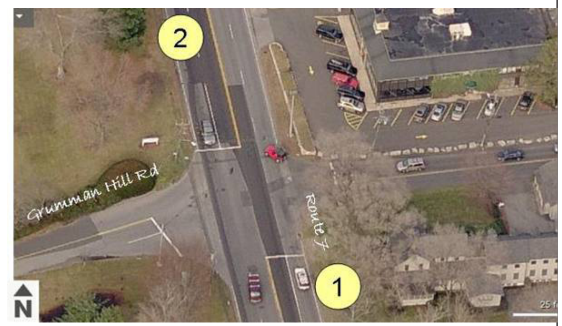
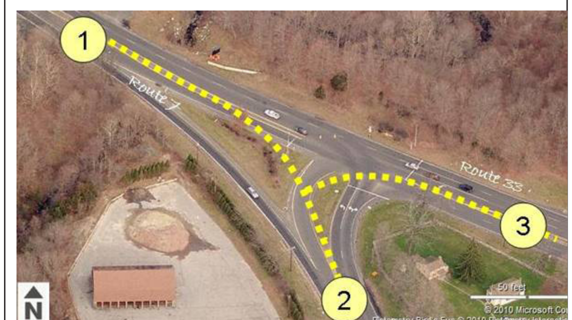
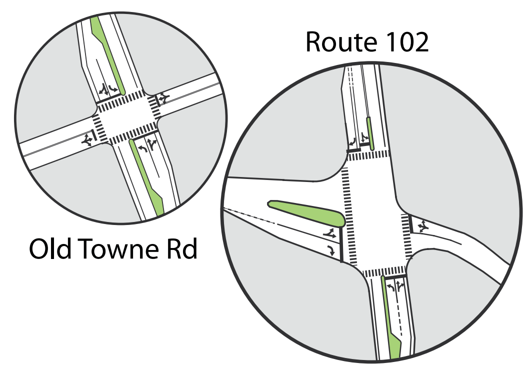
- Capacity improvements
- Safety improvements
- Transit enhancements
- Bicycle enhancements, and
- Pedestrian improvements

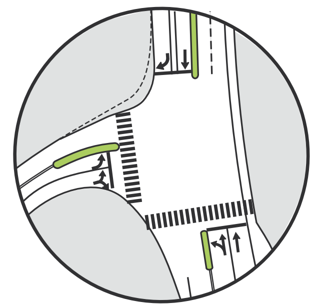
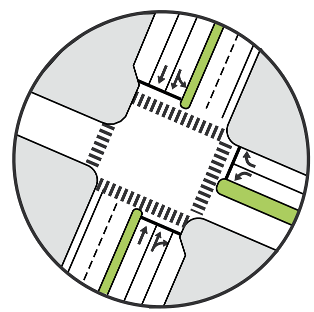
5 - 1. Capacity Improvements

Over the next 25 years, Route 7 will experience additional pressures brought on by increasing traffic, largely resulting from increased development beyond the corridor itself. Route 7 is both a conduit for regional traffic and a primary access point to several activity centers along its length. The study vision aims to satisfy both needs. Traffic operations should be maintained to a reasonable level, while quality of life and additional intensification of development within existing village centers is prioritized. For this reason, no further widening of Route 7 from 2 lanes to 4 lanes is recommended in this study. Traffic capacity will maximized to the extent practicable at intersections, safety will be emphasized, and alternative modes of travel will provide options for the future sustainability of mobility along the corridor. It is, however, recommended that one additional southbound lane be constructed on Route 7 in Wilton south of Route 33 (south junction) to provide a consistent 4-lane cross section in the southern end of the corridor and to provide additional capacity in the highly traveled segment.

Table 5-1: Recommended Intersection Improvements

Intersection	Recommendation	Illustration
Grist Mill Road/ DMV Driveway *	There are significant projected peak hour traffic volumes in the eastbound and southbound direction at this intersection. The eastbound approach has the most significant storage deficiency and thus takes precedence for green time. Proposed improvements include: 1. Addition of a combined left-turn and through lane on the northbound approach 2. Addition of a combined right-turn and through lane on the southbound approach. 3. Dual left-turn lanes and one combined through and right-turn lane on the eastbound approach 4. The westbound approach includes a shared left-turn and through lane and a right-turn lane	
West Rocks Rd/LA Fitness Driveway *	Vehicle queuing occurs along U.S. Route 7 from Grist Mill Road and extends through the West Rocks intersection. West Rocks Road westbound has a heavy left-turning traffic volume. The Proposed improvement is to: 1. Provide sufficient green time to West Rocks Road without significantly reducing the operating conditions of U.S. Route 7. Lane arrangements remain as is.	
Route 7 from West Rocks Road to Grumman Hill Road *	Four intersection improvements between West Rocks Rd. and Grumman Hill Rd. were recommended in State Project # 102-305: 1. Intersection of U.S. Route 7 at Gateway Shopping Center driveway 2. Intersection of U.S. Route 7 at Kent Road 3. Intersection of U.S. Route 7 at Kennsett Avenue 4. Intersection of Route 7 at Wilton Corporate Park	

Intersection	Recommendation	Illustration
Grumman Hill Road *	Grumman Hill Road experiences a significant volume of commuter traffic during the A.M. peak hour with a high left-turn volume. During the P.M. hour, there is a heavy volume of left-turning vehicles from the southbound direction onto Grumman Hill Road. The proposed lane arrangement along Route 7 consists of: 1. Two through lanes and an exclusive left-turn lane in the northbound direction 2. Two through lanes and an exclusive left-turn lane in the southbound direction	
Route 33 (South Junction) *	The alignment of the Route 7 and Route 33 intersection is proposed to be modified to process Route 7 as the primary movement. The proposed improvement consists of: 1. Dual (2) left-turn lanes and two through lanes on Route 7 southbound 2. Two through lanes and one right-turn lane on Route 7 northbound 3. Dual (2) left-turn lanes and one right-turn lane on Route 33 northbound	
Old Town Rd**	Through Branchville, Route 7 experiences peak hour congestion as heavy through traffic interacts local traffic. Some of the operational improvements recommended are as follows: Install traffic signal at this intersection, relocate the access to Branchville Station across from Old Town Road and coordinate this with the signal at Route 102	
Route 102**	Reconfigure southbound approach to include a shared left-turn/ through lane and a right turn lane.	

Intersection	Recommendation	Illustration
New Road**	At New Road, traffic growth along Route 7 will result in delay at the existing traffic signal. It is recommended to adjust signal timings to optimize operations by allotting the green time to the heavier movements along Route 7.	
Route 35**	Operationally, this intersection has sufficient capacity to accommodate future traffic growth. Safety is the primary issue and it is recommended that the southbound approach be mitigated to control vehicle speeds. In addition, the corner radius at the Route 35 approach should be reduced. Intersection improvements within the context of the village plan are shown in the Ridgefield Gateway Enhancement Plan.	
Housing Complex Driveway**	To accommodate significant traffic associated with the senior housing complex, a new traffic signal here has been approved by the CTDOT.	

**As proposed in the Preliminary Design (PD) Report for the Reconstruction of US Route 7, State Project # 102-305, dated September 2004.*

*** New intersection improvements recommended as part of this study.*

A number of Route 7 corridor intersections are expected to operate poorly under future 2030 traffic levels and improvements to these intersections are recommended. See the summary of improvements in Table 5-1. It should be noted that the intersection improvements shown from Grist Mill Road in Norwalk to Route 33 (south junction) in Wilton were previously recommended and advanced to the design phase in CTDOT State Project No. 102-305 and are outlined and recommended here as part of this study to stress the importance of advancing that project when funding becomes available.

Table 5-2 provides a summary of the Level of Service (LOS) for the study intersections where improvements are recommended under Build (2030) conditions compared to No-Build (2030) conditions, representing an estimate of traffic operations with the above recommendations implemented.

Table 5-2: Capacity Analysis Summary with Recommended Intersection Improvements

Route 7 Study Intersections	No-Build Conditions (2030)		Build Conditions (2030)	
Intersection	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Grist Mill Rd/DMV Driveway	F	F	F	F
West Rocks Rd/I-Park	E	F	F	F
Foxboro Drive	A	B	A	B
Kent Rd	C	C	B	B
Kensett Ave/Plaza Driveway	C	C	B	A
Wilton Corporate Park/Self Storage Dr.	A	A	A	A
Grumman Hill Rd/ASML Dr.	E	D	C	D
Route 33 (South Junction)	F	F	C	C
Old Town Road	N/A	N/A	C	D
Branchville Rd/Depot Rd	E	F	D	D
New Rd	F	F	D	C
Route 35	B	D	B	D
Housing Complex Driveway	N/A	N/A	B	B

In addition to the improvements previously mentioned, all corridor intersections' signal timing and phasing should be optimized to respond to the increase in traffic expected in year 2030. CTDOT routinely adjusts their traffic signal equipment to keep pace with changing travel demand. Figure 5-1 summarizes all roadway capacity improvements recommended as part of this study.

5 - 2. Safety Improvements

A number of locations had been identified as having higher incidences of vehicular crashes over a three-year period. The recent construction projects on Route 7 are expected to address many of these areas. Accident records at these recently upgraded locations should be reevaluated in three years to determine if a meaningful reduction in crashes has resulted from this project. The following intersection improvements are anticipated to reduce vehicular accidents under Build conditions (2030):

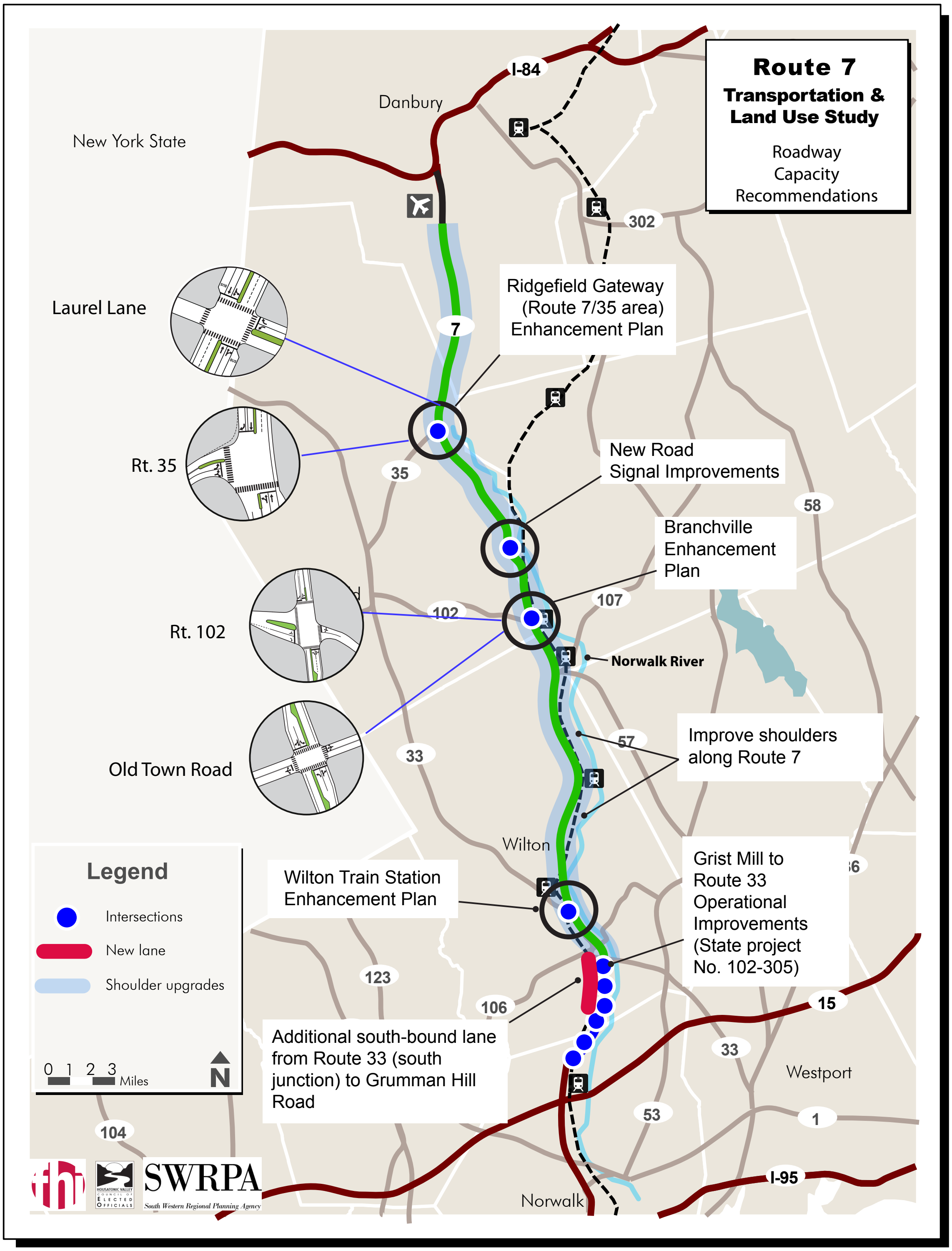
Kensett Ave & Wilton Common Shopping Center Driveway and the Mobil Gas Station Driveway (including the intersection with Grumman Hill Road)

These intersections experience a higher rate of rear-end collisions, typically occurring when a vehicle is traveling too fast or is following too closely behind a vehicle which stops to make a left turn into a driveway. As proposed in the Preliminary Design (PD) Report for the Reconstruction of US Route 7, State Project # 102-305, the addition of exclusive left-turn lanes northbound and southbound will allow left-turning vehicles to exit the flow of traffic while waiting to turn, decreasing the likelihood of rear-end collisions. Giving left-turning vehicles an exclusive phase may also mitigate turning collisions.

Wilton Hills Condos Driveway to and including the intersection with Rt. 33

The accident patterns on this segment are characterized mainly by rear-end collisions, typically associated with areas containing numerous commercial driveways. As proposed in the Preliminary Design (PD) Report for the Reconstruction of US Route 7, State Project # 102-305, realigning the intersection of Route 7 and Route 33 to make Route 7 the primary movement is recommended. This reconfiguration, along with the addition of the thru lanes, should improve operations in this area, decreasing the likelihood of rear-end collisions.

Figure 5-1: Roadway Capacity Improvement Recommendations



Sources: FHI, January 2010

Pimpewaug Road to Catalpa Road, including the intersection with School Road

This intersection has a history of rear-end collisions, often associated with high traffic levels between 3 p.m. and 6 p.m., a timeframe which begins with school dismissal and the start of after-school activities and ends with the evening commute. The rear-end collisions in this segment were typically a result of motorists traveling too fast or following too closely in congested conditions. The recent addition of travel lanes on Route 7 in this area should serve to mitigate rear-end collisions as the additional lanes will provide adequate space for thru-traffic to bypass turning vehicles. Accident data should be routinely evaluated to confirm a reduction in crashes.

Route 35 to Laurel Lane

The accident patterns on this segment are characterized by rear-end collisions, typically associated with high speeds, numerous commercial driveways and motorists following too closely. The changes outlined on the concept plan for Route 7 on this segment are recommended to mitigate both rear-end and turning collisions in this area. These improvements include narrowing lane widths to 11 feet, providing a raised landscaped center median, and decreasing the corner radius at Route 35. These improvements are expected to slow traffic as travels through this village-like area and transitions from a 4-lane, high speed expressway to a 2-lane, rural highway. The signalization of Laurel Lane is also expected to reduce speeds, regulate turning movements, and provide significantly increased safety for vehicles entering Route 7 from Laurel Lane.

5 - 3. Transit Enhancement Recommendations

This section provides an assessment of the potential future transit gaps as well as recommendations to enhance transit services and options in the corridor. As a result of the land use patterns suggested in the Preferred Land Use Scenario, the resulting clusters of activity along the corridor can be more effectively served by transit and a clearer pattern of transit service needs can be seen. In addition, the travel demand growth patterns examined for the future also suggest where transit service could be an effective and useful travel option to commuters and other travelers in the corridor.

Future Transit Gaps

A review of existing transit service in the corridor revealed that the commuter travel market is reasonably well served by the 7 Link, Danbury Branch Line, and numerous employer shuttles. Improvements being planned for the Danbury Branch Line should enhance the convenience to commuters by providing faster service and more parking capacity at stations. For this study, forecasted travel demand was used to identify potential gaps in transit service in year 2030. While some of these gaps may not currently be present, anticipated changes in population and employment patterns over the next twenty years reveal the potential need to adapt to shifting travel demand through new or expanded transit service in the corridor.

The travel demand analysis identified origin-destination (O-D) patterns that are either not currently served by transit, or that may be underserved by transit in the future. The demand analysis revealed a few areas of growth that warrant an expanded discussion of transit's role in serving this demand. The most significant growth is expected along Route 7 from Danbury to Ridgefield. This includes not only trips beginning and ending in Danbury, but also those coming from locations to the north of Danbury and along I-84. The ongoing expansion of Route 7 in the northern portion of the corridor is expected to accommodate this significant increase in traffic, but as of now this trip cannot be made in any way but by car.

Another area of growth is between Norwalk and Wilton. Although this area does not have as high a growth rate as the Danbury to Ridgefield O-D pair, its growth forecast is in addition to an already high existing traffic volume along this stretch of Route 7. The recent expansion of Route 7 in Wilton will easily satisfy this additional traffic; however, the Grist Mill Road to Route 33 segment of the corridor will likely always be challenging to navigate during peak travel hours.

Additionally, growth in travel demand to and from Ridgefield is expected to come from the south as well. Wilton and Weston are expected to generate a 15% growth in travel demand to Ridgefield. This figure includes trips generated by the Georgetown land development project.

These defined patterns of growth represents an opportunity to explore how transit may be able to offer a competitive option to the automobile for trip makers. A transportation system that relies too heavily on roadway capacity to satisfy travel demand will soon find itself in need of additional improvement. Transit service can provide longer-term capacity to move people to destinations on and adjacent to Route 7, and can be expanded incrementally to respond to increases in ridership demand. Transit also is a key component of a corridor vision that is rooted in maintaining the environment and quality of life in corridor towns.

Transit Enhancement Recommendations

Five transit enhancement recommendations are shown in Figure 5 - 2 and include:

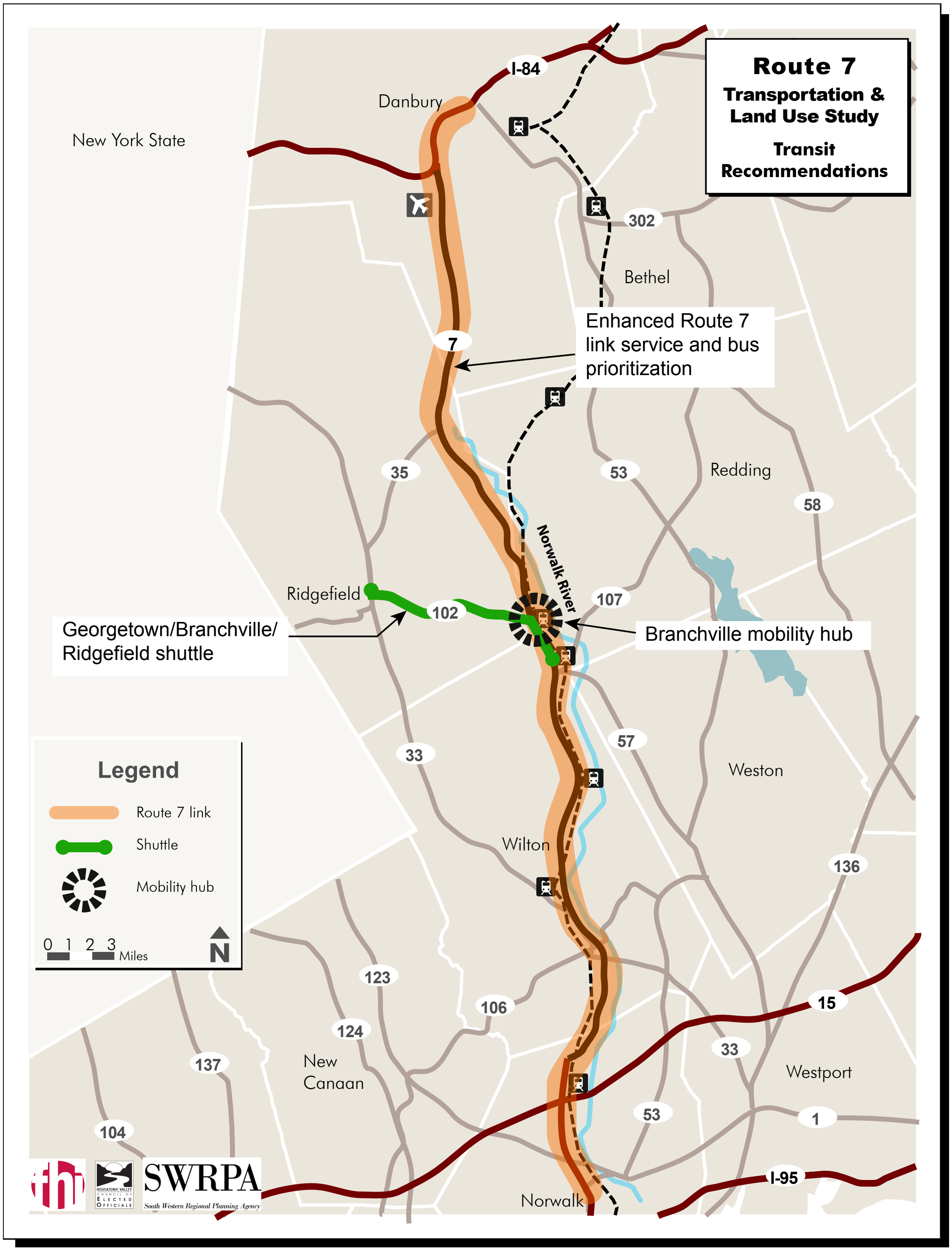
1. Enhancements to Route 7 Link Service
2. New shuttle service - Georgetown/Branchville/Ridgefield Shuttle
3. Mobility hub - Branchville
4. Bus prioritization
5. Train station parking enhancements

Enhancements to Route 7 Link Service

Discussions with the Norwalk Transit District and Housatonic Area Regional Transit have taken place and it was acknowledged that an evaluation of the existing 7 Link bus service that operates along the corridor should be undertaken. In addition to growth in demand from Norwalk to Wilton, these agencies have recognized the need to explore adding frequency to bus service in parts of the corridor as well as offering all-day service. Currently, there is not enough data available to determine if such enhancements are warranted; therefore, it is recommended that a study be commissioned to evaluate the existing service characteristics of the Route 7 Link service along the corridor. This existing service connects Danbury to Norwalk, along Route 7, and currently runs during peak and shoulder-peak periods (6 AM to 11:50 AM and 3 PM to 8:45 PM), with approximately 60 minute headways during these timeframes. A future study might include the following components:

- Evaluate the existing ridership: It is critical to know what the existing ridership numbers are, and which, if any, vehicles are at or over capacity, as well as where the riders are coming from. Ridership origin and destination could be achieved via an on-board ridership survey.

Figure 5-2: Transit Enhancement Recommendations



Sources: FHI, January 2010

- Establish the ridership demand: Based on any existing transit ridership projections in the region and information from the ridership survey, estimate what the ridership demand along the corridor is both now and into the future.
- Develop a proposed schedule and service frequency sufficient to meet the estimated ridership demand. This schedule should be detailed in nature and fit into the existing schedule with modifications as needed. It should assign specific bus numbers to each route and identify station stop times along the corridor.
- Determine the total vehicle fleet size necessary to meet the estimated ridership demand. Estimate the number of additional buses needed to serve the corridor. Additional buses would be estimated to accommodate overflow on the existing service, as well as capture additional riders from the increased service.
- Estimate the total capital costs for these service improvements, which would include new buses and possible new storage space. Based on the ridership estimate, it is also necessary to determine if any bus stop improvements, such as shelters, benches, or fare collection equipment, are needed to accommodate the increase in riders.
- Estimate the total operating and maintenance (O&M) costs for the increase in service. This includes all of the costs to run the service, such as driver/operator pay, fuel, vehicle maintenance, and other obligations of NTD and HART.
- Engage the public and transit stakeholders to achieve maximum input from those most affected by changes to transit service.
- Explore new technologies developed to enhance the transit experience and maximize the efficiency and effectiveness of the service.
- Explore the relationship between the train stations at both ends of the corridor (Norwalk and Danbury), along the corridor, and the bus hubs. Improving intermodal transfers should be a priority.
- Explore potential for demand-responsive service to supplement the fixed-route service on Route 7

The Route 7 Link Study should be a near-term priority, as current demand may warrant more immediate modifications to the transit service.

New Shuttle Service – Georgetown/Branchville/Ridgefield

Longer-term, service from the Route 7 corridor to Ridgefield should be considered. No service currently exists and previous attempts to offer this service have provided very marginal results. With future projections of demand to this off-corridor city, and the future demand projected to result from the Georgetown land development project, more growth in the Branchville village, and the opportunity to connect Ridgefield to both the Branchville and Georgetown train stations, a new service may one day become a viable option. This service could potentially provide both commuter-based headways (frequent peak hour service coordinated with train schedules) as well as less frequent all day service to provide connections for patrons and visitors to Ridgefield, Branchville, and Georgetown.

Mobility Hub in Branchville

The concept plan for Branchville (Option 2) recommends that the concept of a New Mobility Hub be designed an implemented in Branchville. In theory, the New Mobility Hub concept integrates all possible modes of travel with traveler services and facilities and real-time travel information. They are essentially an intermodal station with a safe, vibrant pedestrian environment and include many of the following:

- Vehicle parking,
- Local bus, subway, or streetcar stops,
- Intercity and regional transit connections,
- Taxis,
- Car rentals or car sharing stations,
- Bicycle storage and bicycle sharing stations,
- Ferry services,
- Traveler services and facilities – such as coffee shops, wifi stations, and
- Real-time traveler information stations

In practice, planners and designers aim to integrate as many of these elements into a mobility hub as practical given the individual situation. This usually includes a subset of the "ideal" make up of a mobility hub. In Branchville, a New Mobility Hub includes:

- Commuter rail station,
- Parking (long-term and short-term – including a kiss-and-ride area,
- Bus stops for various bus services (regional, commuter shuttles, and paratransit),
- Bicycle racks,
- Public open space,
- Strong and safe pedestrian connections across Route 7 and the Norwalk River,
- Information kiosk,
- Commercial uses to serve commuter services needs, and
- Improved directional signage and village branding

Bus Prioritization

Finally, as part of the corridor vision to offer a balance in travel modes and make transit a competitive alternative to driving, prioritization of buses should be an essential component of the future Route 7 Link service and any other bus service operating along portions of Route 7. Bus prioritization would enhance the Route 7 Link service and with improved travel times, will make bus travel more attractive. No additional widening of Route 7 means that the corridor will never achieve 'expressway-like' conditions where free-flow speeds prevail and vehicles travel delay-free. Such conditions are not congruent with the corridor vision and would be a detriment to the overall character of the corridor. Pockets of delay will continue to exist and motorists will be expected to practice safe driving behavior, especially in areas where an intensification of development will create a village-like environment and increased pedestrian activity.

As cars experience delays, so do buses. Both transit agencies operating in the corridor are receptive to the idea of providing buses with the opportunity to bypass localized congestion to gain travel time advantages. Special bypass lanes and signal prioritization systems can provide buses with a much needed advantage over the automobile, and impacts to traffic would be minimal to non-existent. A study and conceptual design for corridor-wide bus prioritization could be included in the study of enhanced Route 7 Link Service; which recommends that innovative approaches to bus prioritization be part of the enhanced Route 7 Link service. Some examples of what a bus prioritization would look like on Route 7 are included in Appendix C.

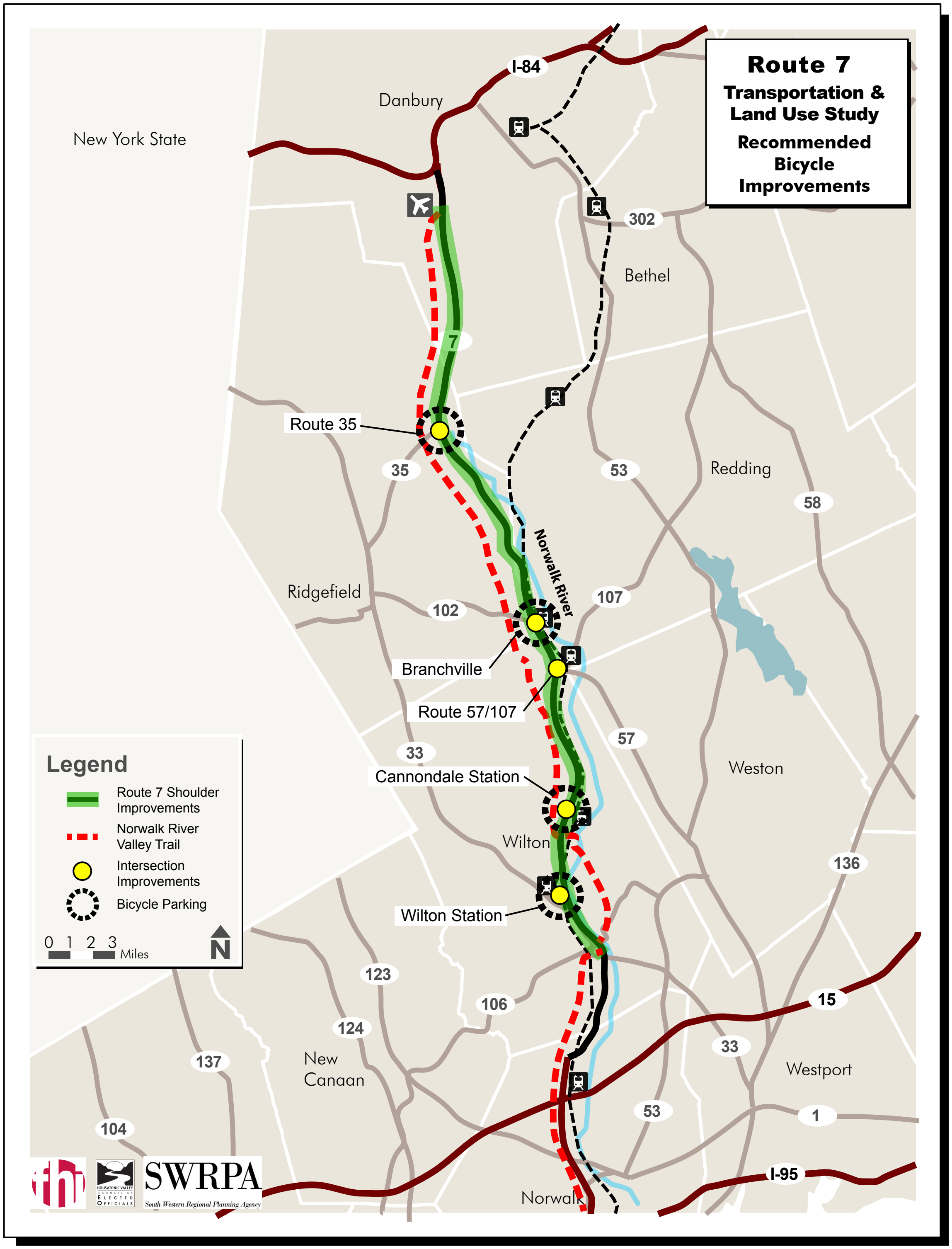
Train Station Parking Enhancements

Ridership estimates for future Danbury Branch Line commuter rail service are in the process of being developed. They will also be an indication of future rail-associated parking needs. The CTDOT estimates will be based on their statewide travel demand model and converted into future parking demand at each station as part of the Danbury Branch Line Study.

Improved service to the Branch Line is expected to increase ridership and increase future parking demand. While the specific ridership and parking demand numbers at each station are still not finalized, it is assumed that improved service on the Branch Line will increase ridership and parking demand at all stations and that increases in parking supply, wherever possible will provide for increased access to transit. As such, this study suggests train station parking enhancements and expansions as follows:

Branchville – increased surface parking immediately adjacent to and south of the existing surface lot as shown in the Branchville Enhancement Plan (Options 1 and 2). Also, it is recommended that the feasibility of constructing a municipal or public/private parking structure be pursued on the west side of Route 7 to serve overflow station parking needs as well as the parking needs within the village. Earlier studies suggested the construction of a two-level parking deck on the train station parcel. When earlier concepts were evaluated as part of this study, there were concerns about the feasibility, efficient layout, and cost effectiveness of a deck on the station site. Specifically, the long and narrow footprint of the site would result in a poor circulation and inefficient ramping system; likely resulting in a very high price per space. Also, the earlier idea to access the upper level of the deck from the rear required bridging over the railroad tracks, another challenging and expensive approach for a relatively small structure. When taking into account the constraints at the existing site as well as the community's vision of the Branchville village, this study recommended an alternative location for a potential parking structure to serve multiple needs in the village and takes advantage of a more cost-effective layout for such a structure. The concept plans for Branchville (Option 2) illustrate the possible location of such a structure on the southwest corner of Route 102 and Route 7. It is envisioned that such a structure would include a small amount of ground floor retail and that its design would be carefully planned to fit within the village context and aesthetics.

Figure 5-3: Recommended Bicycle Improvements



Sources: FHI, January 2010

Georgetown Train Station – a new parking structure is planned as part of the Georgetown Transit Oriented Development project. The structure will serve both train station parking demand as well as on-site parking demand for other uses. The structure is expected to be located adjacent to the new train platform and provide 200-300 spaces allocated for commuter rail parking and an additional 300 spaces for other uses.

Cannondale Station – Cannondale station parking is well used and some days close to capacity. It is recommended that some additional surface parking be provided within the context and character of the village, taking into account that the Wilton Station, the next station just south of Cannondale, has the potential to handle more significant additional demand in a proposed parking structure.

Wilton Station – While recent improvements to the Wilton Station have addressed the immediate parking shortfalls, eventually parking demand will increase and the long-standing proposal to build a parking structure on the site should be advanced. This study evaluated the early concepts for a 3-story open deck on the site and recommends that a more aesthetically pleasing, enclosed, 4-story structure be considered; one that includes retail at the Route 7 street level to provide a more pleasing gateway to Wilton Center from Route 7 while providing commuter retail or other services on the station site.

In all locations, it is recommended that innovative technologies and construction approaches be incorporated into all train station parking designs. Innovations such as electric vehicle plug-in stations, solar-powered structures, green building principles, public art, innovative parking fee and management systems, design-build contracts, and public-private partnerships should all be considered as these enhancements move forward.

5 - 4. Bicycle Improvements

Despite carrying a high volume of traffic and having limited facilities for bicyclists, Route 7 is the primary connector for many locations and communities within the Norwalk River Valley. Route 7 is used by bicyclists due to relatively flat grades and no other significant north/south alternatives in the valley.

Route 7 is comprised of two distinct segments in terms of the bicycle rider's experience. The segment south of Route 33 (north junction) has four travel lanes, striped shoulders less than two feet wide and frequent curb cuts for commercial, industrial, office, and residential land uses. Route 7 slightly north of Route 33 is more rural in nature and primarily has two travel lanes with striped shoulders that vary in width from one foot to several feet.

Issues or deficiencies within the corridor present today and expected to continue in the future include the following:

- Lack of riding space on the roadway
- High speed traffic and heavy traffic volumes
- Difficult left hand turns at signalized intersections due to lack of queuing space
- Conflict with right turning traffic, particularly at right turn slip lanes
- Drainage structures which interfere with operating space at shoulder
- Lack of signage acknowledging the legitimate presence of bicyclists
- Debris on shoulder of roadway

Given these roadway conditions and the distinctly different bicycle environments on Route 7 north and south, it is recommended that bicycle improvements within the study area be focused on Route 7 north of the Route 33 south junction. Recommended improvements are shown in Figure 5 - 3 and include the following:

- Five-foot wide striped shoulder with drainage structures located behind shoulder (bicycle-friendly catch basin grates where not possible) with regular maintenance (sweeping)
- Advanced stop bars for left-turn bicycle queuing
- Bicycle pockets between right-turn lanes and through lanes
- Bicycle warning sign and/or bicycle route signage (upon completion of other improvements)
- Bicycle racks at village locations and train stations
- Routine maintenance (sweeping) of shoulder
- Advance the Norwalk River Valley Trail development

The recommendations herein seek to address the identified issues while recommending facilities that appear feasible for implementation and maintenance in the Route 7 corridor context. While traffic volumes and speeds are not directly addressed by the recommendations, they can be mitigated through the provision of, and improvements to, bicycle facilities.

Striped Shoulders

Five-foot wide paved and striped shoulders are recommended on the Route 7 corridor from the Route 33 north junction north to Danbury. While not marked as a bicycle lane, five-foot wide shoulders and shoulder striping would provide operating space for bicyclists. The value of shoulders for bicycling is outlined in a 1998 FHWA study titled *"Implementing Bicycle Improvements at the Local Level"*. Recommendations for shoulder width from this study are as follows:

To accommodate bicyclists, a minimum paved shoulder width of 1.2m (4ft) should be provided. Paved shoulders that are as narrow as 0.9m (3ft) can also help improve conditions for bicyclists, however, and are recommended where 1.2m (4ft) widths cannot be achieved. Generally, any additional paved shoulder width is better than none at all. The width of a usable paved shoulder should be measured from the edge of a gutter pan. Where guardrails, curbs, or other roadside barriers exist, the minimum recommended width of a paved shoulder is 1.5m (5ft).

Shoulders should be free of obstructions such as drainage structures. Drainage structures should be set back from edge of roadway so as not to interfere with bicycle travel. Where this is not possible, drainage grates should be bicycle-friendly construction that allows safe travel over the grate. The shoulder also needs to be maintained so as to minimize the accumulation of sand, gravel, broken glass and other debris.

It should be noted that some locations along the Route 7 corridor may not accommodate a five-foot wide shoulder due to steep hill sides and/or the Norwalk River very closely abutting the roadway. These constrained locations are located primarily on the two-lane segment north of Cannon Road in Wilton and portions between Route 102 in Branchville and Route 35 in Ridgefield.

Intersection Improvements for Bicyclists

A considerable amount of conflict between bicyclists and motorists occurs at intersections. A lack of bicycle facilities at intersections requires bicyclists to make improvised movements in turning or continuing straight; their movements therefore being somewhat unpredictable to motorists. The provision of bicycle facilities gives bicyclists operating space and reduces conflict by reducing ambiguity in the path of a bicycle at an intersection.

Intersection improvements recommended on Route 7 include the provision of bicycle pockets where dedicated right-turn lanes exist and the use of advanced stop bars where crosswalks are located immediately in front of a stop bar. Bicycle pockets allow cyclists to avoid conflict with right-turning traffic while traveling through an intersection; additionally they provide bicyclists with a means of accessing a left-turn storage area provided by advanced stop bars. Intersections within the study area (from south to north, beginning at the Route 33 north junction) that would benefit from these improvements include:

- Route 7 at Ridgefield Rd. (Route 33 North Junction),
- Route 7 at Cannon Rd. (Cannondale Station),
- Route 7 at Mountain Rd./School St (Route 57/107),
- Route 7 at Branchville Rd./Depot Rd. (Branchville), and
- Route 7 at Route 35.

Marker Signage

Bicycle route marker signs are effective in instructing drivers that bicycles are expected to be present on the roadway and have a right to operate on the roadway. They also instruct bicyclists that the route is deemed to be acceptable for riding. Marker signs would be effective for use once bicycle facilities on Route 7 are improved so as to make the roadway acceptable for bicycle route designation.

Bicycle Warning Signage

Bicycle warning signs are effective in instructing drivers that bic to be present on the roadway and have a right to operate on therefore recommended that the bicycle warning sign be usec of Route 33. This sign should be used where sight lines are lir conditions such as narrow shoulders force bicyclists into trave

While "Share the Road" signs have increasingly been used to support bicycling and communicate the presence of bicyclists to motorists, the signs send a confusing message to both bicyclists and motorists. It begs the question "How exactly is the road to be shared?" Is the bicyclist expected to share a lane even when it is not safe for them to do so? Motorists may also resent being instructed how to react to and operate with bicyclists. It is therefore recommended that the bicycle warning sign be used as a standalone measure to make motorists aware of the expected presence of bicyclists.

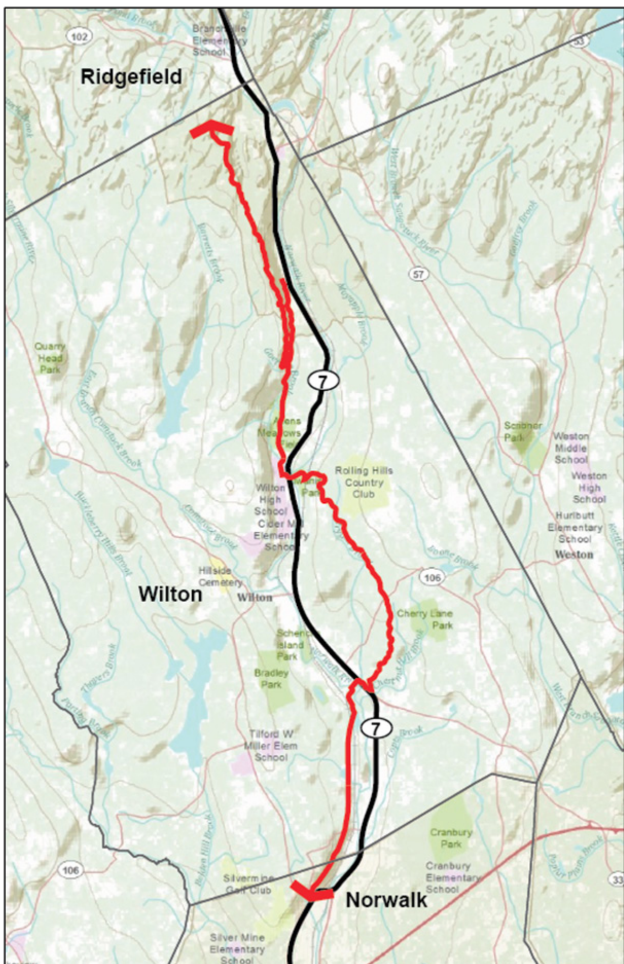
Bicycle Racks

Bicycle racks are an important component of a bicycle transportation system. They are as to bicycles as a parking lot is to a car. Racks should be placed in village locations and a train stations within the Route 7 corridor. These locations include but are not limited to:

- Wilton Center and Wilton Station,
- Cannondale,
- Branchville, and
- Upper Ridgefield.

Norwalk River Valley Trail

The Norwalk River Valley Trail (also known as Route Seven Linear Trail) is a multipurpose off-road trail that is planned to extend from Norwalk to Danbury. A substantial portion of the trail is planned on state owned property, a holdover from the once planned Super 7 project. In 1995 Milone and MacBroom produced a report and schematic design for a segment of the trail from Norwalk to Wilton (see Figure 5-4).



Norwalk River Valley Trail

From Norwalk to Route 33 the trail is planned to be a paved path, changing to a primarily soft surface north of Route 33. The paved section of the trail south of Route 33 presents an opportunity to extend bicycle facility improvement on Route 7 south into Norwalk. With improvements to on-road bicycle facilities on Route 7 north of Route 33, it becomes possible to develop a bicycle-friendly corridor extending from Norwalk to Danbury.

5 - 5. Pedestrian Improvements

There are several areas along the Route 7 corridor which would benefit from pedestrian facility improvements. Deficiencies noted include lack of sidewalks, gaps in sidewalks, and lack of adequate intersection facilities such as curb ramps, crosswalks, and well placed pedestrian signals. These facility deficiencies are compounded by high speed and heavy traffic volumes on Route 7. Priorities for improving pedestrian movement in the corridor are shown in Figure 5 - 4 and include:

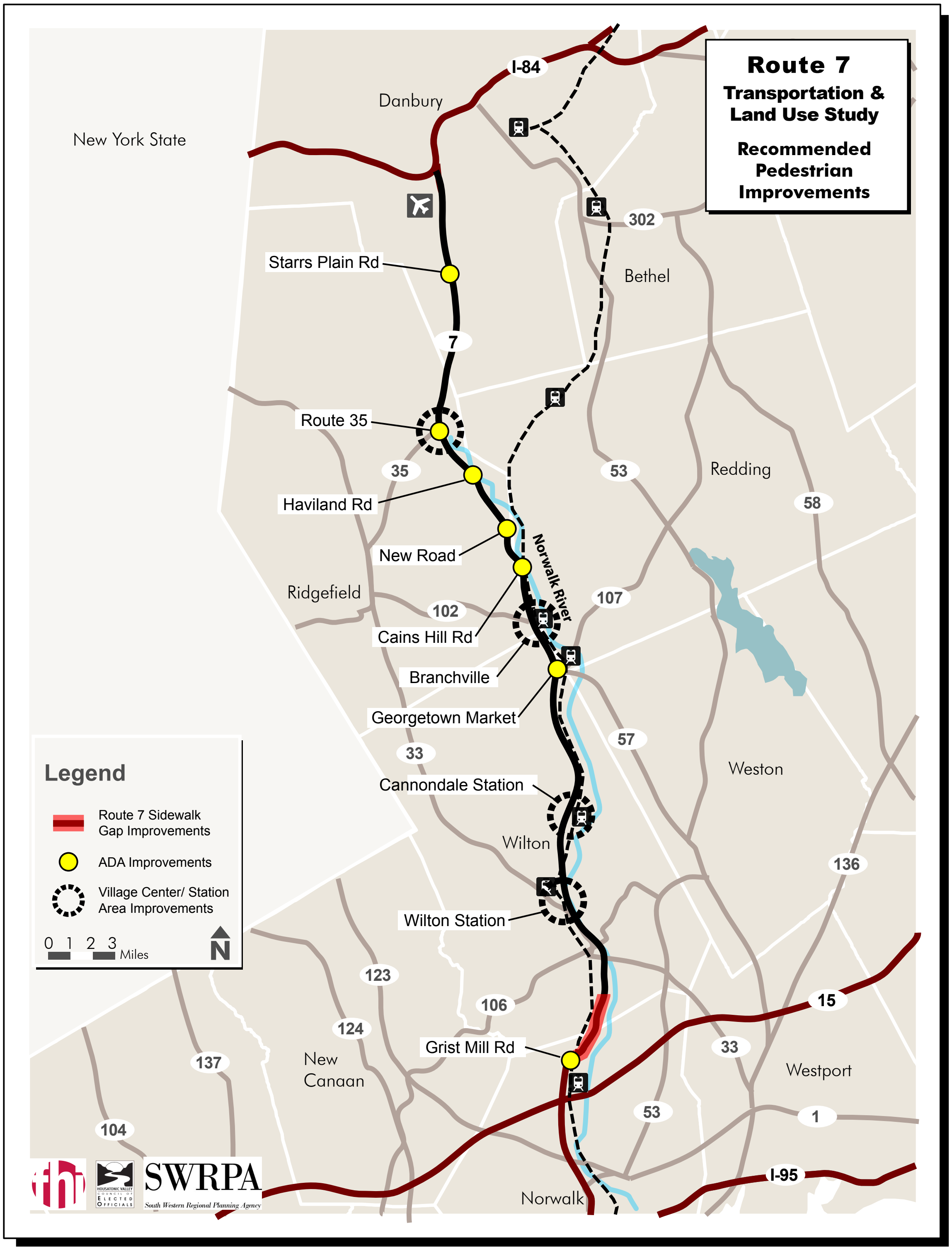
- Connect gaps in sidewalk network between Norwalk and Grumman Hill Road in Wilton
- Improve sidewalk networks at village and train station locations:
  - Ridgefield Gateway
  - Branchville Station and Village
  - Cannondale Station
  - Wilton Station
- Improve intersections that are not fully ADA compliant

Improvements should be targeted at areas which display the greatest need or demand.

Ridgefield Gateway

The junction of Route 7 and Route 35 (Ridgefield Gateway) is an area of mixed residential, retail, office, and commercial development. A limited sidewalk network currently exists in this area. The Ridgefield Gateway Area Enhancement Plan calls for a completion of the sidewalk network in this area on both sides of Route 7. A new signalized intersection and crosswalk at the northern limit of this area would provide a pedestrian loop from retail stores at the south of the area connecting to residential development at the north of the study area. In addition to sidewalk improvements, a walking trail from the Route 7/35 intersection to retirement housing east of Route 7 would provide a direct link between housing and retail development. Proposed bus stops in Ridgefield Gateway would be served by the proposed pedestrian sidewalk network.

Figure 5-4: Recommended Pedestrian Improvements



Sources: FHI, January 2010

Branchville Station and Village

Several pedestrian improvements are recommended for the Branchville village area. These improvements are shown in detail in the Branchville Area Enhancement Plan. Option 1 of the proposed plan includes the construction of new sidewalks servicing retail establishments on the west side of Route 7 from Old Town Road north past the Route 102 junction. Additional improvements include a new crossing at Old Town Road, landscaping, and a landscaped median which would calm traffic between Old Town Road and Route 102.

In Option 2 of the Branchville Area Enhancement Plan, sidewalk improvements are recommended for the east side of Route 7. In this scenario, a riverwalk and a new pedestrian bridge over the Norwalk River would improve the connection between Branchville Station and the Village.

Cannondale Station

Cannondale Station is located on Cannon Road several hundred feet east of Route 7. The intersection of Route 7 and Cannon Road has recently been rebuilt and signalized. Despite new roadway construction at this intersection and a retirement home development on the west side of Route 7, there is no sidewalk from Route 7 to Cannondale Station.

A sidewalk on Cannon Road from Route 7 to Cannondale Station would provide a pedestrian link between development on the west side of Route 7 and Cannondale Station.

Wilton Station

Despite a distance of only a few hundred feet from Center Street in Wilton, Wilton Station is separated from Wilton Center by a rail line, the Norwalk River and the Route 33 Bridge. Currently, pedestrians are expected to walk from Center Street over the south side of the Route 33 bridge, cross Route 33 at the Route 7 junction, walk along the west side of Route 7 and through the station parking lot in order to access the train station.

A more direct route to the station would cross the Norwalk River on a footbridge immediately north of the Route 33 bridge and at grade with the train station. This bridge could connect the station building with an existing pathway and small shopping plaza off Center St. The construction of this footbridge and sidewalks to and from (as illustrated in the Wilton Train Station Area Enhancement Plan) would provide a significant improvement to pedestrian movement between Wilton Center and Wilton Station.

New sidewalk construction on the east side of Route 7 immediately south of Grumman Hill Road significantly improves the pedestrian transportation network.

Sidewalk Improvements between Norwalk and Grumman Hill Road

The Route 7 corridor from Norwalk to Grumman Hill Road in Wilton is characterized by a combination of retail, commercial, office, industrial, and multi-unit residential land uses. This mixture of land uses creates a demand for pedestrian movement along the corridor. While a sidewalk network currently exists, it is incomplete with many gaps along the corridor. Connecting this network on at least one side of the roadway is a priority for improving pedestrian transportation in this area of the Route 7 corridor.

Americans with Disabilities Act (ADA) Improvements

Ensuring that all persons, including persons with disabilities, have access to public transportation facilities is a Federal law. Despite this mandate, many of the pedestrian push buttons in the corridor are not accessible to persons with disabilities. These buttons are located in places that pose serious challenges for those that are blind or in wheelchairs. Many of these actuated signal buttons are located behind guiderails, on steep embankments, and/or in tall brush. Intersections within the Route 7 corridor that require improvement with respect to ADA guidelines include:

- Grist Mill Road / DMV Driveway
- Drive to Georgetown Market Plaza
- Topstone Road / Cains Hill Road
- New Road
- Haviland Road / Great Pond Road
- Route 35
- W. Starrs Plain Road

Chapter 6: Implementation Plan

The responsibility for implementing the recommendations contained in this plan will be shared among SWRPA, HVCEO and the municipalities of Danbury, Redding, Ridgefield, and Wilton. Where appropriate, however, these bodies should actively seek the cooperation, support (financial and otherwise), and involvement of other stakeholders such as the Connecticut Department of Transportation, the Department of Economic and Community Development, and the local business community, and local residents. As a first collaborative step for the transportation system, the towns should coordinate with SWRPA and HVCEO to identify priority projects for inclusion in the Regional Transportation Improvement Plans and the Statewide Transportation Improvement Program. Ongoing coordination with CTDOT will also be especially important for those recommendations that involve traffic improvements.

The Route 7 Transportation and Land Use Study resulted in a broad range of recommendations including village plans, corridor-wide roadway, transit, pedestrian, and bicycle improvements, as well as institutional strategies to establish a regulatory framework to support and promote the goals of the corridor plan.

The study process, which included a broad stakeholder and public outreach component, developed the list of recommended improvements in the corridor. The key to seeing these improvements implemented is to establish a proactive process to carry them out through a series of inter-related actions. As such, the elements of the plan have been packaged and assigned to logical "initiatives" to be forwarded in a phased approach which is most easily carried out locally. SWRPA and HVCEO have committed to overseeing and leading the collaborative effort necessary to move these recommendations forward on a local, regional, or state level. They will be working in coordination with each of the corridor towns and will work with the existing local and regional framework (local Board of Selectmen, Local Planning and Zoning Boards and Town Planners, local Economic Development Commissions, and regional transit agencies, etc.) to facilitate implementation. These entities all use this comprehensive plan to continue local support, pursue funding sources, and work with implementing agencies, such as CTDOT, to forward elements of the plan. SWRPA and HVCEO will also convene an annual meeting of key representatives to review the status of the various plan elements with respect to their implementation.

This section presents the suggested series of initiatives to forward the various elements of the Plan. The five initiatives include:

1. The Ridgefield Gateway Neighborhood Enhancement Initiative
2. The Branchville Enhancement Initiative
3. The Wilton Train Station Area Enhancement Initiative
4. Route 7 Bicycle and Pedestrian Improvement Initiative
5. Route 7 Regional Mobility and Safety Improvement Initiative

The description of each initiative is accompanied by a suggested time frame for completion of various elements. The time frames include:

- Short-term – could be completed in one to three years and should be initiated immediately. These are considered "Early Wins" from this study and have strong support for immediate implementation and could be advanced quickly.
- Mid- term – could be completed in four to ten years.
- Long-term – could be completed after ten years and over time.

A total of approximately $31 million dollars of infrastructure recommendations are included in the five Route 7 corridor initiatives identified as part of the study. The largest items in this cost figure account for almost $26 million of this estimate and include:

- Two parking structures: one at the Wilton Train Station and one in Branchville (almost $18.6 million estimated for both structures),
- Reconfiguration of the access to the Branchville Train Station and construction of an adjacent mobility hub in Branchville ($4.25 million estimated including reconstruction of two small bridges over the Norwalk River and relocation of a railroad crossing), and
- Roadway upgrades including an additional lane in Wilton for a short distance, shoulder upgrades, and reconstruction of ten intersections (six of which are included in previous State project #102-305 in Wilton totaling almost $3 million estimated.

6 - 1. The Initiatives

Initiative 1: Ridgefield Gateway Neighborhood Enhancement Plan

Approximately $1.2 million of construction projects have been identified for the Ridgefield Gateway neighborhood. The elements of the plan are shown in Table 6-1 and generally include:

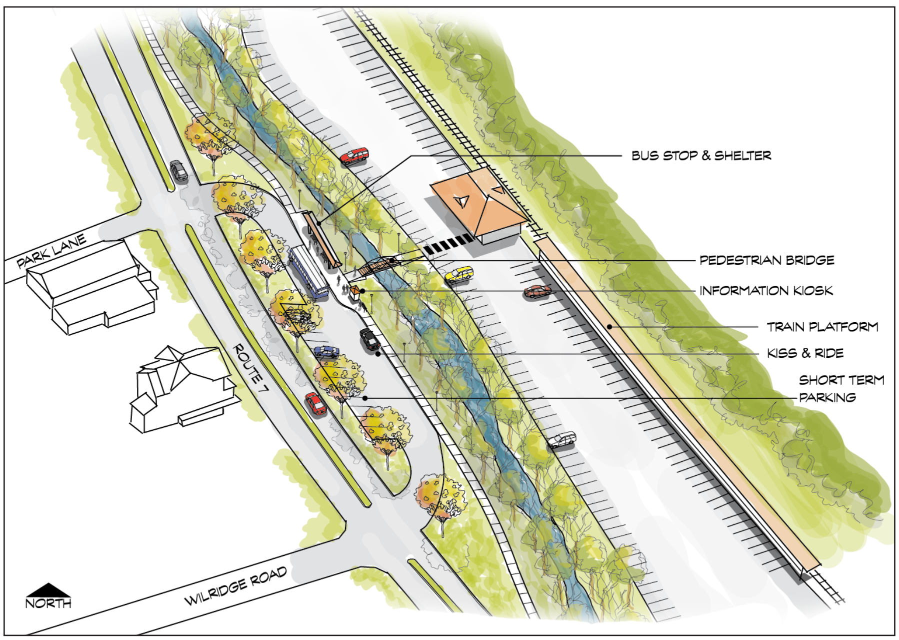
- Zoning modifications and design guidelines to encourage mixed-use throughout the village and facilitate additional service retail development including the redevelopment of the southwest corner of the area as a mixed-use focal point of neighborhood,
- Signalization of the roadway at the access road to the senior housing complex,
- Streetscape project including landscaped center median between signals,
- Modification to the existing Route 35/Route 7 intersection to scale down its size and slow speeds, and
- Sidewalks, pathways, bus stops, gateway signage, and neighborhood branding.

Time Frame:

- Short-term: Zoning modifications, neighborhood branding, gateway signage, and signalization of driveway to senior housing complex (approved by CTDOT in fall 2010).

- Mid-term: Streetscape enhancements, sidewalks, and bus stops.
- Long-term: Redevelopment over time, median installation, and intersection modifications.

Initiative 2: Branchville Enhancement Plan



Phase 1 of the Branchville Enhancement Plan proposes a total of $5.325 million in capital construction costs for the first phase and includes:

- Zoning modifications and design guidelines to encourage and facilitate infill and redevelopment with higher commercial density and workforce housing while maintaining Branchville's quaint village character,
- Relocated and signalized southern train station driveway (including reconstruction of Norwalk River Bridge and relocation and upgrade of existing rail crossing),
- Additional surface parking at station south of existing lot,
- Upgrade and reconstruction of the Route 102/Route 7 intersection to better accommodate future traffic volumes,
- An internal service road and additional village parking behind buildings on the west side of Route 7, and
- Streetscape project including landscaped center median between signals and complete sidewalk system including public open space.

Phase 2 of the Branchville Enhancement Plan builds on Phase 1 and is estimated to cost an additional $6.030 million and includes:

- A Mobility Hub adjacent to the train station to provide multimodal options such as bus transfers, bicycle parking, pedestrian access to station via a new pedestrian bridge, a convenient pick up and drop off area, and traveler information, and
- A multi-use parking structure to serve future train station demand as well as parking needs within the village.

Time Frame:

- Short-term: Increased train station surface parking, upgrades to Route 7 at Route 102, zoning modifications, and design guidelines.
- Mid-term – Revised access to train station with new southern signal, and streetscape project between signals with median.
- Long-term –Internal service road, mobility hub, and parking structure.

Initiative 3: Wilton Train Station Enhancement Plan

Rendering courtesy of GWG Architects

Almost $14 million of construction projects have been identified for the Wilton Train Station Enhancement Plan, with the overwhelming majority ($13.5 million) for a parking structure. The elements of the plan are shown in Table 6-1 and generally include:

- Development of an attractive gateway from Route 7 to Wilton Village,
- An aesthetically-pleasing train station parking structure with context-sensitive façade, street-level retail, upper story mixed-use, and capacity to meet future parking needs,
- Additional commercial space with commuter services at the station,
- A new footbridge over the Norwalk River to connect the station to Wilton Village, and
- Additional green space along the Norwalk River.

Time Frame:

- Short-term: Gateway signage and train station commercial space (programmed in 2010).
- Mid-term: Green space along Norwalk River with foot bridge and sidewalk improvements.
- Long-term: Train station parking structure with context-sensitive façade and mixed-use space.

Initiative 4: Route 7 Bicycle and Pedestrian Improvement Initiative

The Plan includes about $560,000 in bicycle and pedestrian improvements including:

- Completing gaps in sidewalks
- Better pedestrian connections to Cannondale Station
- ADA upgrades at seven intersections along Route 7
- Shoulder upgrades to better accommodate commuter bicycling
- Bicycle accommodations at intersections
- Bicycle signage program
- Bicycle shelters (secure covered racks and shelters) in villages and train stations
- Advancing the Norwalk River Valley Trail

Time Frame:

- Short-term: ADA upgrades, bicycle signage program, advancing Norwalk River Valley Trail study, and bicycle shelters in villages and train stations.
- Mid-term: Shoulder upgrades, Cannondale pedestrian connections, bicycle accommodations at intersections, bicycle shelters in villages and at train stations, and completing gaps in sidewalk system.
- Long-term: None

Initiative 5: Route 7 Regional Mobility and Safety Improvements Initiative

A number of recommendations in the Plan require regional perspective, collaboration, and coordination to move forward. These infrastructure improvements are estimated at $3,625,000.

- Additional southbound lane for 1/3 mile in Wilton for lane continuity,
- Advancement of State Project No. 102-305 intersection improvements,
- Shoulder upgrades,
- Other intersection safety and capacity improvements (CTDOT, planning regions and towns),

- Regional transit recommendations – Enhanced Route 7 Link Service and Bus Prioritization, initiated with a study of best alternatives for enhancing service,
- Access management – Towns adopt Access Management Plans, and
- Village and corridor branding.

Time Frame:

- Short-term: Adoption of Access Management and Curb Cut Plans, zoning modifications, design guidelines, and regional transit study.
- Mid-term: Regional transit connections and shoulder upgrades, corridor branding and signage.
- Long-term: Roadway modifications and intersection upgrades.

Table 6-1: Summary of Initiatives and Order-of-Magnitude Costs

ROUTE 7 REGIONAL MOBILITY AND SAFETY IMPROVEMENTS INITIATIVE						
IMPROVEMENT	**DESCRIPTION**	**TOWN/ LOCATION**	**ORDER-OF-MAGNITUDE COST***	**LEAD**	**TIMING**	**COMMENTS**
Construct additional southbound lane	Include with State Project No. 102-305 to provide lane continuity in southbound direction throughout Wilton	Wilton	$750,000	CTDOT	Mid-term	Approximately 2,000 linear feet (LF) of new lane south of Route 33 (south junction)
Shoulder upgrades	Provide 5-foot shoulder wherever possible to provide improved sightlines, increased capacity, and better bicycle accommodations	Entire Corridor	$350,000	CTDOT	Mid-term	12 miles restriping with spot improvements. No additional widening due to cost and impacts.
Advance State Project No. 102-305	Intersection improvements between Grist Mill Road and Route 33 in Wilton – currently on hold due to funding constraints	Wilton – South of Route 33 (south junction)	$1.875 million	CTDOT	Mid-term	$875,000 at Grist Mill Road; Approximately $1 million for remaining five intersections
Route 7 at Route 107	Additional turn lanes and signal modifications	Wilton	$1.525 million	CTDOT/STC	Long-term	Privately funded as part of Georgetown Redevelopment project
Route 7 at New Road	Signal modifications	Ridgefield	Negligible – regular maintenance	CTDOT	Long-term	Monitor signal operations and modify when volumes warrant signal modifications
Access management strategies	Enhance access design criteria in the zoning regulations and work to implement Curb Cut Plans over time	Corridor-wide	Negligible	Each Town	Long-term	Implement curb cut plans over time as site plans are submitted to town
Route 7 Link Service Enhancement Study	Conduct study to explore enhancements in Route 7 Link service	Entire Corridor	$50,000 study cost; capital and operating costs TBD PER study	NTD and HART	Short-term	Include study of bypass lanes
Bus Prioritization	Special bypass lanes and signal prioritization systems to allow bus travel to avoid intersection congestion and delay	Corridor-wide	$600,000 based on 20 intersections	CTDOT with coordination with NTD and HART	Mid-term	Study feasibility as part Route 7 Link Service Enhancement Study
Village/ Corridor Branding "Ethan Allen Highway"	Use of signage and other promotions to strengthen identity of community nodes. Brand Route 7 corridor. Develop marketing strategy and plan.	Community Nodes and Corridor-wide	varies	CTDOT/ Planning Agencies working in cooperation	Short-term	Draft villages 'marketing' plan ; Consider design competition or hiring a consultant to develop branding program
TOTAL ESTIMATED INFRASTRUCTURE INVESTMENT:			**$3,625,000**			Does not include $1.525 million for private improvements or $50,000 transit study cost

[shaded box] = high priority   * = 2010 dollars

BICYCLE AND PEDESTRIAN INITIATIVE

IMPROVEMENT	DESCRIPTION	TOWN/ LOCATION	ORDER-OF-MAGNITUDE COST	LEAD	TIMING	COMMENTS
Shoulder Upgrades	Provide 5-foot striped shoulder along entire corridor where possible with bicycle-friendly drainage structures and maintenance	Corridor-wide	$350,000	CTDOT	Mid-term	12 miles restriping with spot improvements. No widening due to impacts
Bicycle Accommodations at Intersections	Construct advanced stop bars and bicycle pockets at signalized intersections	Corridor-wide	$100,000	CTDOT	Short-term	Cost associated with restriping and relocating of magnetic detection strips
Bicycle Signage Program	Install bicycle route markers and bicycle warning signs along corridor	Corridor-wide	$10,000	CTDOT	Short-term	Bicycle Route markers should be placed on existing State Route marker signs. New warning signs
Bicycle Racks/ Secure Shelters	Install well-designed bicycle racks in village centers and train stations	Community Nodes and Train Stations	$10,000	Each Town	Short-term	Assumes 20 racks in focus areas and train stations at $500/each
Norwalk River Valley Trail	Advance multi-purpose off-road Norwalk River Valley Trail concept into design and construction	Corridor-wide	Construction costs TBD based on study	Norwalk River Valley Trail Committee	Short-term	Trail routing study to be initiated soon. Funding is already in place.
Cannondale Village Pedestrian Connection	Construct sidewalk on north side of Cannon Road from Route 7 to Cannondale station with pedestrian signal head.	Wilton/ Cannondale	$105,000	Wilton	Mid-term	700 LF sidewalk + Ped signal head
Connect Gaps in Sidewalks	From Norwalk to Grumman Hill Road	Wilton	$300,000	CTDOT	Mid-term	2,200 LF of new sidewalk
ADA Upgrades	Improve intersections that are not fully ADA compliant	Seven locations along corridor	$35,000	CTDOT	Short-term	7 locations @ $5,000 per location
	TOTAL ESTIMATED INFRASTRUCTURE INVESTMENT:		**$560,000**			Does not include $350,000 for shoulder upgrades already shown in the Regional Improvement Initiative or $175,000 for trail study

= high priority   * = 2010 dollars

BRANCHVILLE ENHANCEMENT PLAN INITIATIVE					
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**LEAD**	**TIMING**	**COMMENTS**
Route 7 at Old Town Road	New signal and reconstruction	$475,000	CTDOT	Long-term	Relocate driveway plus new signal
Route 7 at Route 102	Additional turn lanes and signal modifications	$260,000	CTDOT	Mid-term	New southbound turn lane and signal
Station surface parking expansion	Adjacent to and south of existing surface lot; 15,000 SF; approximately 46 new spaces	$230,000	CTDOT	Mid-term	
Reconfigure station access		$3.5 million	CTDOT	Long-term	Includes reconstruction of bridges and RR crossing relocation
Rear service road and surface parking		$360,000	Ridgefield	Long-term	Does not include property acquisition costs
Median and curb cut modifications		$250,000	CTDOT	Long-term	
Sidewalks	Includes public open space and gathering areas	$250,000	CTDOT/ Ridgefield	Mid-term	
Parking Structure (Phase 2)	Located on southwest corner of Route 102/Route 7 intersection; 200 spaces; 3 levels	$5.1 million	Ridgefield or Private	Long-term	Public private partnership potential
Mobility Hub (Phase 2)	Construct intermodal hub in Branchville that includes various modes, public space, real-time information, and commuter services	$750,000	CTDOT and/ or Town of Ridgefield	Long-term	Does not include property acquisition or environmental remediation costs
Sidewalks (Phase 2)		$100,000	CTDOT/ Ridgefield	Long-term	More than Option 1 and includes pedestrian bridge between mobility hub and train station
New shuttle service (Phase 2)	New shuttle loop between Georgetown, Branchville, and Ridgefield serving commuters and visitors to all three villages	$80,000	HART/EDC/ Private	Long-term	Potential public/private partnership; operating costs not included
		$5,325,000	Phase 1		
		$6,030,000	Phase 2 – not including property acquisition costs		
	TOTAL ESTIMATED INFRASTRUCTURE INVESTMENT:	**$11,355,000**	Total		

[shaded box] = high priority * = 2010 dollars

RIDGEFIELD GATEWAY ENHANCEMENT PLAN INITIATIVE					
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**LEAD**	**TIMING**	**COMMENTS**
Route 7 at Route 35	Geometric modifications to scale-down intersection, improve safety, and better accommodate pedestrians	$265,000	CTDOT	Long term	New medians, curb and sidewalk
Route 7 at Senior Housing Complex Driveway	New signal and reconstruction	$250,000	CTDOT	Short-term	Recently approved by CTDOT – funding source uncertain
Landscaped median	Granite curbing with landscaping and brick treatment	$310,000	CTDOT	Long-term	1300 LF of 6′ wide median.
Sidewalks	Sidewalk connects gaps in pedestrian network	$300,000	CTDOT	Long-term	2500 LF 5′ wide sidewalk
Walking Trail		$80,000	Ridgefield	Mid-term	Requires easement from Land Trust
	TOTAL INFRASTRUCTURE INVESTMENT:	**$1,205,000**			Does not include cost for proposed park and ride lot

WILTON TRAIN STATION AREA ENHANCEMENT PLAN INITIATIVE					
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**LEAD**	**TIMING**	**COMMENTS**
Parking Structure	4 levels with ground floor retail	$13.5 million	CTDOT/ Wilton	Long-term	Include ground level-retail and additional parking for added retail demand as well as future station parking demand; replace surface spaces on west side of tracks in parking structure
Footbridge	Provides direct connection between Train Station and Wilton Center	$350,000	Wilton	Mid-term	
Complete Sidewalk Network		$100,000	Wilton	Mid-term	
	TOTAL ESTIMATED INFRASTRUCTURE INVESTMENT:	**$13,950,000**			

= high priority

* = 2010 dollars

Appendices

Appendix A: Transit-Oriented Development (TOD) Potential

One of the tasks for this study was to consider opportunities for Transit Oriented Development (TOD) in four discreet locations within the corridor:

- I-Park in Wilton
- Wilton Center
- Branchville
- Georgetown

A fundamental quality of TOD is that it offers a human-scale environment that is people focused as opposed to automobile focused. It achieves this, in large part, with convenient, safe, and inviting access to a train station (or fixed-guideway busway station) and connections to the station by walking, bicycling, bus, and automobile.

The focus of the analysis for this study was on whether this form of development could and *should* be encouraged for these locations. There is or will be a rail station in all but one of the studied TOD locations and upgrades to the Danbury Branch Line rail service are in the planning stages. If an increase in the number of rail commuters can be expected along Route 7, is there an opportunity to strengthen the economic base, walkability, and community fabric in these locales with TOD? To answer this question, a targeted study of TOD potential was conducted. It considered:

- Fundamental conditions needed for TOD to happen and the feasibility of that for each location – TOD sustainability criteria
- Whether TOD will be beneficial for these locations
- What infrastructure and other changes would be necessary to implement TOD

TOD Sustainability Criteria

TOD requires more than transit service to be sustainable. TOD is most successful when physical, market and institutional factors, both at a transit station and within the broader community, are present. These factors include::

Developable acreage	There must be vacant or underutilized *developable* land within close proximity to the station. There needs to be opportunity to change the character of development to that which is less auto-oriented over time - and this means land for development, redevelopment, and infill.
Mixed use permitted	A core element of successful TOD is a mix of uses. Thus, zoning within the station area (generally ¼ to 1/3 mile of the station itself) must allow mixed uses, preferable in a single building.
Limited number of property owners	It is easier to accomplish TOD when the land needed to create the TOD has one or a few property owners. When there are multiple owners, the task of land assembly can inhibit the ability to create a suitable TOD development site. The impetus for TOD to occur is when developers see the opportunity to successfully aggregate parcels and create a planned, unified, integrated design for a mixed-use development with linkages to the transit station or hub.
Market demand	The real estate market near the station must support any development that occurs within the TOD. Note that there may be a market for one type of development at a station, e.g., housing, while another type (e.g., office) may not be viable.
Higher densities allowed	To truly support transit, TOD should be built at medium to high densities. The research indicates that residential densities of at least 8-12 units per acres are necessary to support transit. Employment densities should be close to 50 employees per acre for rail transit[1].

Walkability	A fundamental goal of TOD is to provide opportunities for people to undertake daily tasks without using an automobile. An inviting pedestrian environment that includes sidewalks, good lighting, landscaping, and street furniture, and in which pedestrians feel safe, is essential to a successful TOD. The TOD must also be within comfortable walking distance of the transit station.
Multimodal transit access	TOD is most successful where there are several transportation options. Multimodal transit access will provide more opportunities for those living or working in the TOD to limit use of auto travel, and will allow for reductions in on-site parking requirements, thus freeing up more land for the TOD itself.
Existing community resources	TODs benefit from proximity to community activity centers, such as schools, libraries, senior centers, and arts centers. These types of uses help provide daytime and evening activity that can help the TOD remain vibrant even during hours of reduced transit service. They also provide destinations for transit users when located within walking distance of a transit station, and can help create a critical mass of clientele for commercial uses in the TOD.
Train station	TOD is most successful when sited near a physical station building along a fixed-guideway transit corridor. TOD means a situation where development and transit ridership are mutually supportive. The permanence of a station building and fixed-guideway corridor make a potential TOD site more sustainable than a site located along a bus route, where a change in routing can eliminate service to the TOD.
Utilities	Sites served by water and sewer are necessary to accommodate the densities that support TOD.

Local government receptiveness	TODs represent a development type that may not be familiar to a community. Higher densities, mixed uses, and reductions in parking requirements are just a few of the characteristics of successful TODs that may require strong support from local leaders in order to sell the concept to the public. Further, it is easier for developers to build single-use projects. TODs will have more success in communities where government officials are willing to adopt regulations that require TOD characteristics such as mixed uses, and where officials work with developers to facilitate TOD.

1 Cervero, Robert, et. al., Transit-Oriented Development in the United States: Experience, Challenges, and Prospects, TCRP Report 102, Transit Cooperative Research Program Transportation Research Board, 2004. http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_102.pdf

While not every TOD encompasses all of these factors, the more that are present, the more likely the TOD will succeed.

The factors described above are most characteristic of more traditional urban TODs. In more suburban or rural corridors, such as the Route 7 corridor, traditional TOD densities are not appropriate. However, development in the vicinity of transit stations can still be designed to support transit and create a sustainable, mixed use environment. Condominium and townhouse development near a station does not need to be built at urban densities to encourage walking and transit use. Keys to success in more rural settings include encouraging a mix of uses within walking distance of each other and the train station, allowing residents, employees and visitors to walk to different destinations without depending on an automobile. Careful design and pedestrian amenities that knit the station area together, creating a sense of place will provide an environment that will support sustainable, transit supportive development, while respecting the existing character of the village.

Of the TOD-supportive characteristics listed above, market demand is the only factor over which a community has limited control. All of the other factors can be enhanced with local government efforts (e.g., zoning changes to allow higher densities and mixed uses, creating design standards, siting of community resources) and/or developer initiative (e.g., land assembly, designing for walkability.)

Findings and Conclusions

The four TOD sites analyzed for this study were evaluated based on each of the factors described above. The following table summarizes this analysis. The Route 7 corridor is characterized by rural areas punctuated by commercial nodes. Public participation and meetings with community leaders revealed that the towns along the corridor wish to protect their rural areas, as well as environmental resources such as the Norwalk River and its watershed. The corridor does not lend itself to high densities, which would be out of character for the villages along the rail line. Instead, the emphasis of TOD in the corridor should be on design – creating a pedestrian environment that includes linkages to the train station, safe pedestrian access along and crossing Route 7, and design requirements encouraging ground floor retail, allowing second story residential, zero setbacks, and parking to the rear of buildings. The TOD evaluation for each station is discussed in the following table.

TOD Features	I-Park	Wilton Center	Georgetown	Branchville
Mixed-use permitted	Yes	Yes	Yes	No
Max density allowed	Up to 25,000 SF without Special Permit; 3 units/ acre	30,000 SF– # residential units not specified	Max density aligned with redevelopment plans	6,0000 SF bldg or 1 house/acre
Market Demand	Yes	Yes	Yes	Yes
Local government receptiveness	Yes	Yes	Yes	Yes
Developable Acreage	None- one underutilized site – 300,000 SF	Yes – west of Old Danbury Rd	Existing 52-acre redevelopment plan	Very limited
Walkable	Auto-oriented	Yes	Yes	Auto-oriented
Existing community resources	No	Yes – Library	Planned community space	Yes - Elementary school
Multimodal Access	Some bus service	Yes – lacks connectivity	Yes	Yes
# Property owners	Numerous	Numerous	Limited	Numerous
Train Station	No	Yes	Planned	Yes
Utilities	Yes	Yes	Yes	No

I-Park in Wilton

The I-Park site demonstrates market demand that would support TOD-type uses. The site is most appropriate for commercial development, abuts the existing rail line, and existing allowable commercial densities are sufficient to support and be supported by transit. The Norwalk Transit District and the Town of Wilton support TOD. However, there are several impediments to TOD at this site. There is no current train station at the site, and none is planned. The closest train station is only 1/2 mile away near the interchange of Route 7 and Route 15. Given this, it is very unlikely that another train station will be warranted or practical in terms of added rail service so close to the existing heavily used station. The Danbury Branch Line study is not recommending a new station in this location. The pedestrian environment between the Merritt 7 station and I-Park is poor. The current environment is entirely auto-oriented and largely built-out with suburban strip commercial development. There are no vacant lots at I-Park, although there is some redevelopment potential on the site. Parcels around I-Park are in multiple ownerships. No community resources are present. Overall, the area does not lend itself to successful TOD. TOD should not be pursued further in this location.

Wilton Center

Wilton Center possesses many of the necessary characteristics for successful TOD. In fact, Wilton Center has already developed with a mix of uses that are transit-supportive. The rail station is being upgraded and new space for small retail uses will be available at the station. The Town is interested in retaining and promoting the transit-conducive mix and density of uses that currently exist in the town center. The one TOD element currently missing in Wilton Center is safe, attractive and convenient pedestrian access between the train station and the town center. Improvement of pedestrian access could increase the viability of both rail service and the businesses in Wilton Center. Efforts to enhance connectivity and in particular, to create a pedestrian walkway that would connect the station to the town center, preferably via a pedestrian bridge across the Norwalk River, should be the focus of new TOD efforts in Wilton Center.

Georgetown

The analysis revealed that the Georgetown station area possesses all of the necessary factors for sustainable TOD, except an existing train station. However, a new station is planned to open Georgetown within the next ten years as part of the redevelopment of the Gilbert and Bennett wire factory. This overall redevelopment plan is a TOD concept in the early construction stages. It will include 416 residential units, 300,000 square feet of commercial space (offices, restaurants and shops as well as light manufacturing), a performing arts center, a health club, a bed and breakfast, and a parking structure. The development is within a short walk (10 minutes or less) of the proposed new train station in Georgetown. Because this project design is a TOD concept and is moving forward, no further analysis or recommendations for TOD in this location are warranted.

Branchville

Branchville is a unique village area in Ridgefield and along Route 7 that currently has some qualities that are supportive of TOD including a train station, market demand, local government supportiveness, and community resources. It is important that the vision for the Route 7 corridor includes strengthening the cohesiveness and sustainability of Branchville as a village, regardless of any TOD initiatives.

The assessment for Branchville uncovered several deficiencies that could hinder TOD, but also revealed intriguing opportunities to bolster transit-supportive development in the vicinity of the train station and along Route 7. Current zoning does not allow densities that would support TOD, particularly for residential uses, and mixed uses are not allowed. However, town officials are supportive of changes that would make the zoning more conducive to transit-oriented development. There are limited vacant sites for new development, but there are opportunities for redevelopment and infill along Route 7. The self-storage facility located just north of the station, for example, is not the highest and best use of this land. This parcel provides a strong opportunity for redevelopment into higher density townhouse development that could provide workforce housing in close proximity to the train. While parking at the station currently reaches maximum capacity on a regular basis, there are opportunities to reorganize parking at the station and expand parking opportunities at new facilities within walking distance of the station, thus creating development potential at the station for small mixed-use (office and retail) projects. In addition, commuter parking demand is not expected to grow significantly in the future, following implementation of the Danbury Branch Line upgrades. Seventy-one added spaces are projected to be needed, based on ridership estimates for the enhanced Danbury Branch Line service. This suggests that future parking demand by commuters driving to the station will not conflict with or undermine opportunities for pedestrian-focused activity at or near the station.

One issue at Branchville is the lack of utilities to support development. Currently, Branchville does not have municipal sewer and water service. A limited increase in density in Branchville is proposed with the concept plan presented in the following section of this report. Consequently, the tipping point at which the village will need water and sewer service is unknown. Nonetheless, there may be an opportunity to connect to the system at Georgetown and this is an option that can be explored in the future.

Another major issue hindering transit-supportive development in Branchville is walkability. Currently, there are no sidewalks along Route 7 in this area, and traffic congestion and volumes make crossing this roadway difficult. The current development pattern features surface parking lots in front of existing buildings, or between buildings, creating a gap-toothed development pattern that is not pedestrian-friendly. Further, there are not good pedestrian connections between the station and Route 7. These deficiencies can be addressed. The existing station can be redesigned to include pedestrian pathways from the station to Route 7. The adoption of zoning and design standards for infill and new or redevelopment along Route 7 can incorporate requirements for sidewalks and pedestrian amenities. Strategies to create a pedestrian-friendly environment could include:

- Prohibiting surface lots in front of buildings,
- Creating open space and sidewalks along route 7,
- Encouraging infill development,
- Requiring ground floor retail in new development, and allowing residential uses above
- Installing traffic signals that include a walk cycle,
- Adopting mixed-use zoning, and
- Initiating a streetscape program to enhance the pedestrian experience.

Overall, the Branchville station area provides an opportunity to enhance the existing development node with a stronger transit connection. By better connecting the station to the existing uses, encouraging some higher density workforce housing, and creating a better pedestrian environment along Route 7, the station can be better integrated into the community. This represents a nontraditional TOD opportunity where community design is supportive of transit usage and conversely, transit access can advance the goals for village vitality and sustainability.

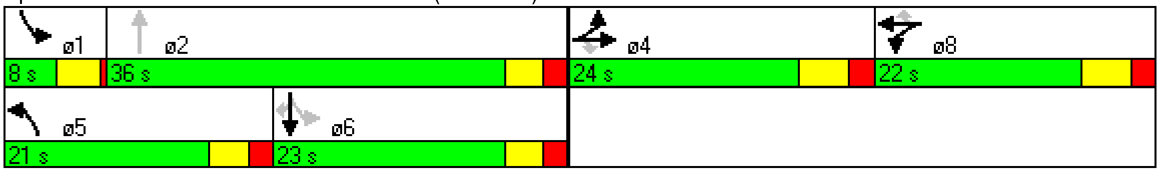
Appendix B: Traffic Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1170	80	500	30	60	20	280	370	30	20	480	1240
Satd. Flow (prot)	1681	1695	1583	0	1831	1583	1770	1842	0	1770	1863	1583
Flt Permitted	0.950	0.958			0.983		0.950			0.510		
Satd. Flow (perm)	1681	1695	1583	0	1831	1583	1770	1842	0	950	1863	1583
Satd. Flow (RTOR)			543			22		5				695
Lane Group Flow (vph)	674	685	543	0	98	22	304	435	0	22	522	1348
Turn Type	Split		Perm	Split		Perm	Prot			pm+pt		Perm
Protected Phases	4	4		8	8		5			1	6	
Permitted Phases			4			8		2		6		6
Total Split (s)	24.0	24.0	24.0	22.0	22.0	22.0	21.0	36.0	0.0	8.0	23.0	23.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	4.0	5.0	5.0
Act Effct Green (s)	18.0	18.0	18.0		10.7	10.7	20.1	40.1		26.1	19.2	19.2
Actuated g/C Ratio	0.20	0.20	0.20		0.12	0.12	0.22	0.45		0.29	0.21	0.21
v/c Ratio	2.01	2.02	0.72		0.45	0.11	0.77	0.53		0.07	1.31	1.52
Control Delay	487.1	493.4	9.3		43.1	15.3	48.0	22.7		22.6	187.4	262.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	487.1	493.4	9.3		43.1	15.3	48.0	22.7		22.6	187.4	262.1
LOS	F	F	A		D	B	D	C		C	F	F
Approach Delay		352.9			38.0			33.1			238.7	
Approach LOS		F			D			C			F	
Queue Length 50th (ft)	~636	~648	0		53	0	158	153		0	~418	~956
Queue Length 95th (ft)	#857	#869	95		98	21	#310	314		m12	m#433	m#971
Internal Link Dist (ft)		936			258			771			1601	
Turn Bay Length (ft)			400			175				60		
Base Capacity (vph)	336	339	751		326	300	395	824		330	398	885
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	2.01	2.02	0.72		0.30	0.07	0.77	0.53		0.07	1.31	1.52

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.02
Intersection Signal Delay: 247.6 Intersection LOS: F
Intersection Capacity Utilization 113.1% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)

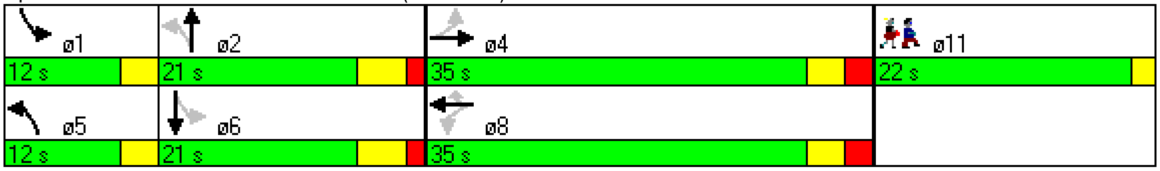


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	50	300	70	130	180	1190	130	80	1300	70
Satd. Flow (prot)	0	1706	0	0	1790	1583	1770	3486	0	1770	3511	0
Flt Permitted		0.817			0.731		0.100			0.108		
Satd. Flow (perm)	0	1409	0	0	1362	1583	186	3486	0	201	3511	0
Satd. Flow (RTOR)		54				71		11			5	
Lane Group Flow (vph)	0	98	0	0	402	141	196	1434	0	87	1489	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	12.0	21.0	0.0	12.0	21.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	5.5	4.0
Act Effct Green (s)		28.3			28.3	28.3	53.4	43.0		46.0	36.9	
Actuated g/C Ratio		0.31			0.31	0.31	0.59	0.48		0.51	0.41	
v/c Ratio		0.20			0.94	0.26	0.64	0.86		0.40	1.03	
Control Delay		12.3			62.0	12.9	13.3	21.0		15.1	60.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		12.3			62.0	12.9	13.3	21.0		15.1	60.8	
LOS		B			E	B	B	C		B	E	
Approach Delay		12.3			49.2			20.1			58.3	
Approach LOS		B			D			C			E	
Queue Length 50th (ft)		17			215	28	30	435		20	~496	
Queue Length 95th (ft)		53			#389	71	m22	m72		41	#681	
Internal Link Dist (ft)		174			156			1601			796	
Turn Bay Length (ft)						60	125			390		
Base Capacity (vph)		501			449	570	308	1670		268	1443	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.20			0.90	0.25	0.64	0.86		0.32	1.03	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 39.7	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)



Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

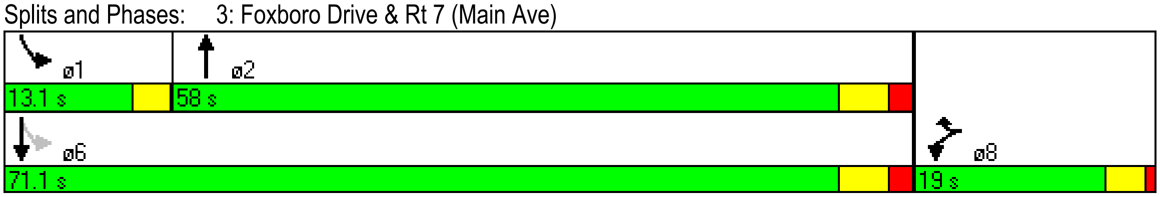
Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	60	30	1380	20	10	1380
Satd. Flow (prot)	1770	1583	3532	0	1770	3539
Flt Permitted	0.950				0.135	
Satd. Flow (perm)	1770	1583	3532	0	251	3539
Satd. Flow (RTOR)		33	3			
Lane Group Flow (vph)	65	33	1522	0	11	1500
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Act Effct Green (s)	8.6	8.6	72.9		76.6	75.0
Actuated g/C Ratio	0.10	0.10	0.81		0.85	0.83
v/c Ratio	0.38	0.18	0.53		0.03	0.51
Control Delay	44.4	15.4	5.4		1.9	3.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.4	15.4	5.4		1.9	3.8
LOS	D	B	A		A	A
Approach Delay	34.6		5.4			3.8
Approach LOS	C		A			A
Queue Length 50th (ft)	36	0	117		1	115
Queue Length 95th (ft)	73	27	316		4	186
Internal Link Dist (ft)	424		796			1174
Turn Bay Length (ft)	70				200	
Base Capacity (vph)	295	291	2860		382	2944
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.22	0.11	0.53		0.03	0.51

Intersection Summary

Cycle Length: 90.1
Actuated Cycle Length: 90.1
Offset: 18 (20%), Referenced to phase 2:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 5.6 Intersection LOS: A
Intersection Capacity Utilization 52.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)

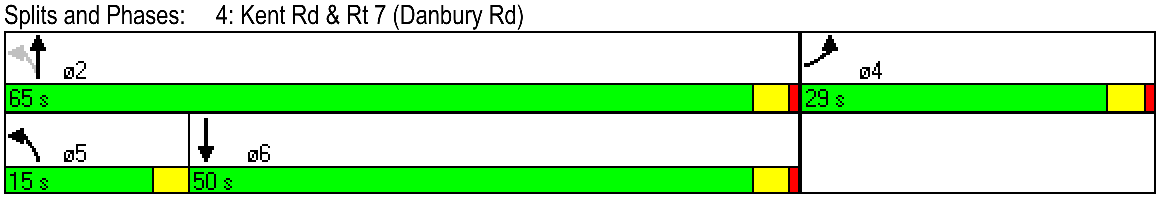


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	40	40	1320	1320	80
Satd. Flow (prot)	1711	0	1770	3539	3507	0
Flt Permitted	0.971		0.111			
Satd. Flow (perm)	1711	0	207	3539	3507	0
Satd. Flow (RTOR)	35				9	
Lane Group Flow (vph)	108	0	43	1435	1522	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Total Split (s)	29.0	0.0	15.0	65.0	50.0	0.0
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Act Effct Green (s)	20.0		71.8	71.6	66.8	
Actuated g/C Ratio	0.21		0.76	0.76	0.71	
v/c Ratio	0.28		0.18	0.53	0.61	
Control Delay	23.4		5.6	7.0	11.0	
Queue Delay	0.0		0.0	0.0	0.9	
Total Delay	23.4		5.6	7.0	11.9	
LOS	C		A	A	B	
Approach Delay	23.4			6.9	11.9	
Approach LOS	C			A	B	
Queue Length 50th (ft)	36		6	193	292	
Queue Length 95th (ft)	82		15	245	371	
Internal Link Dist (ft)	1288			1174	346	
Turn Bay Length (ft)			200			
Base Capacity (vph)	481		358	2696	2495	
Starvation Cap Reductn	0		0	0	626	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.22		0.12	0.53	0.81	

Intersection Summary

Cycle Length: 94
Actuated Cycle Length: 94
Offset: 54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 10.0 Intersection LOS: A
Intersection Capacity Utilization 62.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	10	50	130	10	50	40	1310	30	20	1220	10
Satd. Flow (prot)	0	1701	0	1770	1630	0	0	3525	0	0	3532	0
Flt Permitted		0.874		0.674				0.862			0.909	
Satd. Flow (perm)	0	1517	0	1255	1630	0	0	3042	0	0	3214	0
Satd. Flow (RTOR)		52			54			4			2	
Lane Group Flow (vph)	0	108	0	141	65	0	0	1500	0	0	1359	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	59.0	59.0	0.0	6.0	65.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Act Effct Green (s)		20.1		20.1	20.1			61.9			61.9	
Actuated g/C Ratio		0.22		0.22	0.22			0.69			0.69	
v/c Ratio		0.28		0.50	0.16			0.72			0.61	
Control Delay		18.5		37.9	11.7			11.1			9.1	
Queue Delay		0.0		0.0	0.0			3.8			0.0	
Total Delay		18.5		37.9	11.7			14.9			9.1	
LOS		B		D	B			B			A	
Approach Delay		18.5			29.6			14.9			9.1	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		26		71	5			237			189	
Queue Length 95th (ft)		70		131	37			318			249	
Internal Link Dist (ft)		164			716			346			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		394		293	422			2095			2213	
Starvation Cap Reductn		0		0	0			497			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.27		0.48	0.15			0.94			0.61	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

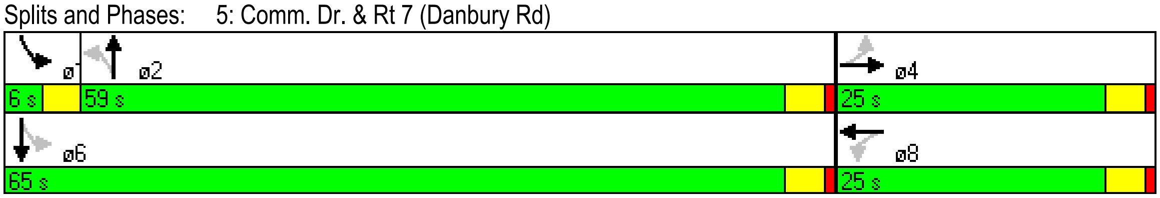
Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.5 — Intersection LOS: B

Intersection Capacity Utilization 89.5% — ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)

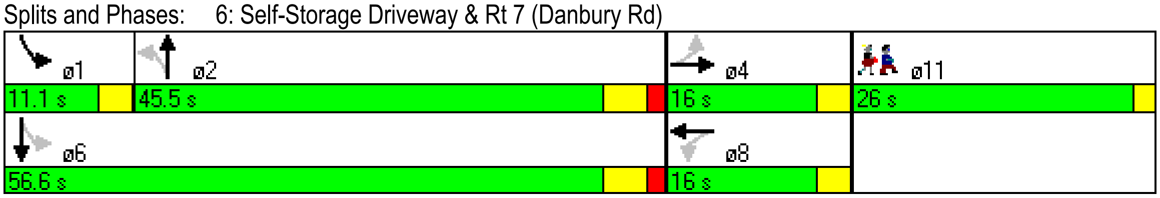


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	10	10	1200	50	100	1370	10
Satd. Flow (prot)	1863	1863	0	1770	1583	0	0	3518	0	1770	3536	0
Flt Permitted				0.833				0.937		0.166		
Satd. Flow (perm)	1863	1863	0	1552	1583	0	0	3296	0	309	3536	0
Satd. Flow (RTOR)					492			5			1	
Lane Group Flow (vph)	0	0	0	22	11	0	0	1369	0	109	1500	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Act Effct Green (s)				8.0	8.0			77.1		88.8	88.6	
Actuated g/C Ratio				0.08	0.08			0.78		0.90	0.90	
v/c Ratio				0.17	0.02			0.53		0.29	0.47	
Control Delay				45.8	0.1			5.7		2.9	2.2	
Queue Delay				0.0	0.0			0.0		0.0	0.2	
Total Delay				45.8	0.1			5.7		2.9	2.4	
LOS				D	A			A		A	A	
Approach Delay					30.6			5.7			2.5	
Approach LOS					C			A			A	
Queue Length 50th (ft)				13	0			171		7	101	
Queue Length 95th (ft)				38	0			226		12	126	
Internal Link Dist (ft)		108			84			1326			528	
Turn Bay Length (ft)				40						130		
Base Capacity (vph)				203	635			2577		397	3179	
Starvation Cap Reductn				0	0			0		0	769	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.11	0.02			0.53		0.27	0.62	

Intersection Summary

Cycle Length: 98.6
Actuated Cycle Length: 98.6
Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 4.2 Intersection LOS: A
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)



Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	26.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	240	110	60	70	1150	50	20	1230	100
Satd. Flow (prot)	0	1818	1583	0	1774	0	0	3507	0	0	3497	0
Flt Permitted		0.860			0.807			0.711			0.917	
Satd. Flow (perm)	0	1602	1583	0	1473	0	0	2501	0	0	3210	0
Satd. Flow (RTOR)			11		9			10			15	
Lane Group Flow (vph)	0	22	11	0	446	0	0	1380	0	0	1468	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)		22.0	22.0		22.0			60.0			60.0	
Actuated g/C Ratio		0.24	0.24		0.24			0.67			0.67	
v/c Ratio		0.06	0.03		1.22			0.83			0.68	
Control Delay		26.7	14.1		151.2			16.6			10.1	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		26.7	14.1		151.2			16.6			10.1	
LOS		C	B		F			B			B	
Approach Delay		22.5			151.2			16.6			10.1	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)		10	0		~312			267			206	
Queue Length 95th (ft)		29	13		#499			380			m188	
Internal Link Dist (ft)		250			1316			528			4196	
Turn Bay Length (ft)												
Base Capacity (vph)		392	395		367			1671			2145	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.06	0.03		1.22			0.83			0.68	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 31.8 Intersection LOS: C
Intersection Capacity Utilization 112.6% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

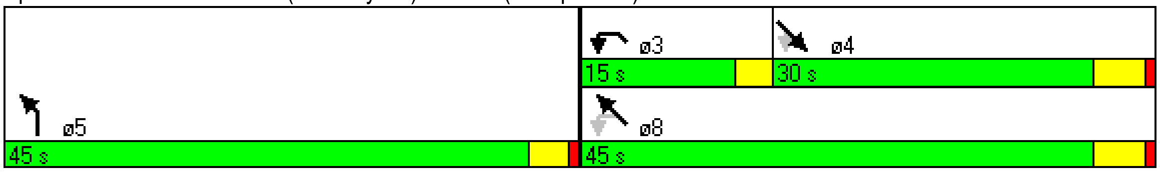
Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	780	300	500	950	500	630
Satd. Flow (prot)	3341	0	1863	1583	1770	3539
Flt Permitted	0.965				0.143	
Satd. Flow (perm)	3341	0	1863	1583	266	3539
Satd. Flow (RTOR)	86			848		
Lane Group Flow (vph)	1174	0	543	1033	543	685
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Act Effct Green (s)	37.9		25.0	25.0	45.1	43.1
Actuated g/C Ratio	0.42		0.28	0.28	0.50	0.48
v/c Ratio	0.81		1.05	0.98	1.41	0.40
Control Delay	24.8		86.4	31.6	223.9	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	24.8		86.4	31.6	223.9	16.7
LOS	C		F	C	F	B
Approach Delay	24.8		50.5			108.3
Approach LOS	C		D			F
Queue Length 50th (ft)	181		~340	118	~390	132
Queue Length 95th (ft)	m242		#536	#463	#606	183
Internal Link Dist (ft)	4196		2511			1627
Turn Bay Length (ft)					248	
Base Capacity (vph)	1569		518	1052	385	1693
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.75		1.05	0.98	1.41	0.40

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 60.8 Intersection LOS: E
Intersection Capacity Utilization 96.5% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

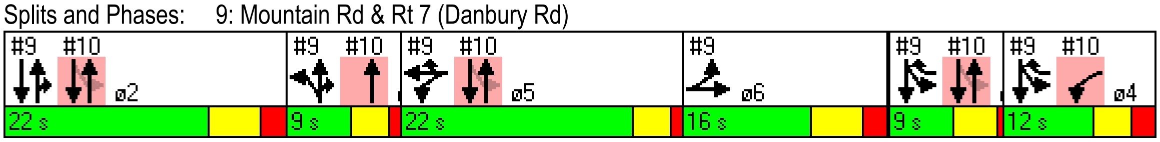


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	40	20	310	70	180	10	490	120	300	670	40
Satd. Flow (prot)	1770	1768	0	1681	1715	1583	1770	3539	1583	1770	3511	0
Flt Permitted	0.950			0.950	0.969		0.950			0.950		
Satd. Flow (perm)	1770	1768	0	1681	1715	1583	1770	3539	1583	1770	3511	0
Satd. Flow (RTOR)		22				196			130		8	
Lane Group Flow (vph)	43	65	0	206	207	196	11	533	130	326	771	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Act Effct Green (s)	10.3	10.3		17.7	17.7	39.0	5.0	27.0	27.0	20.5	40.5	
Actuated g/C Ratio	0.11	0.11		0.20	0.20	0.43	0.06	0.30	0.30	0.23	0.45	
v/c Ratio	0.21	0.29		0.62	0.61	0.25	0.11	0.50	0.23	0.81	0.49	
Control Delay	39.4	30.5		42.2	41.6	2.3	43.1	28.0	5.6	56.7	19.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	31.8	2.0	
Total Delay	39.4	30.5		42.2	41.6	2.3	43.1	28.0	5.6	88.5	21.0	
LOS	D	C		D	D	A	D	C	A	F	C	
Approach Delay		34.0			29.2			23.9			41.0	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	23	23		113	113	0	6	130	0	199	120	
Queue Length 95th (ft)	55	61		190	190	24	23	180	40	#366	206	
Internal Link Dist (ft)		362			686			885			165	
Turn Bay Length (ft)	90			380		190	50		900	130		
Base Capacity (vph)	202	221		336	343	788	98	1062	566	402	1583	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	87	628	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.21	0.29		0.61	0.60	0.25	0.11	0.50	0.23	1.03	0.81	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 57.3% ICU Level of Service B
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Satd. Flow (RTOR)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Total Split (s)	22.0	9.0	12.0
Total Lost Time (s)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

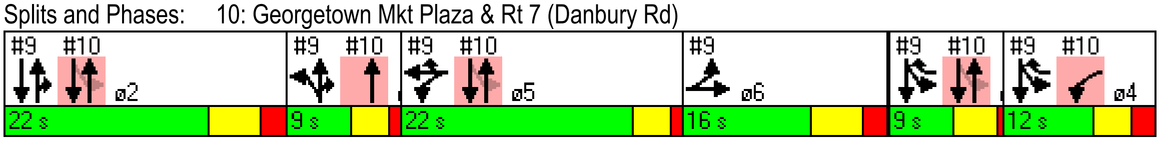
Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	50	50	680	30	50	960					
Satd. Flow (prot)	1694	0	3518	0	1770	3539					
Flt Permitted	0.976				0.292						
Satd. Flow (perm)	1694	0	3518	0	544	3539					
Satd. Flow (RTOR)	43		9								
Lane Group Flow (vph)	108	0	772	0	54	1043					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Act Effct Green (s)	7.0		58.0		39.4	39.4					
Actuated g/C Ratio	0.08		0.64		0.44	0.44					
v/c Ratio	0.63		0.34		0.23	0.67					
Control Delay	43.1		2.0		10.4	14.5					
Queue Delay	1.3		0.1		0.0	1.8					
Total Delay	44.4		2.1		10.4	16.3					
LOS	D		A		B	B					
Approach Delay	44.4		2.1			16.0					
Approach LOS	D		A			B					
Queue Length 50th (ft)	36		24		7	118					
Queue Length 95th (ft)	#105		27		20	160					
Internal Link Dist (ft)	127		165			133					
Turn Bay Length (ft)											
Base Capacity (vph)	171		2249		233	1512					
Starvation Cap Reductn	0		531		0	0					
Spillback Cap Reductn	10		0		0	296					
Storage Cap Reductn	0		0		0	0					
Reduced v/c Ratio	0.67		0.45		0.23	0.86					

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 50.6% ICU Level of Service A
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

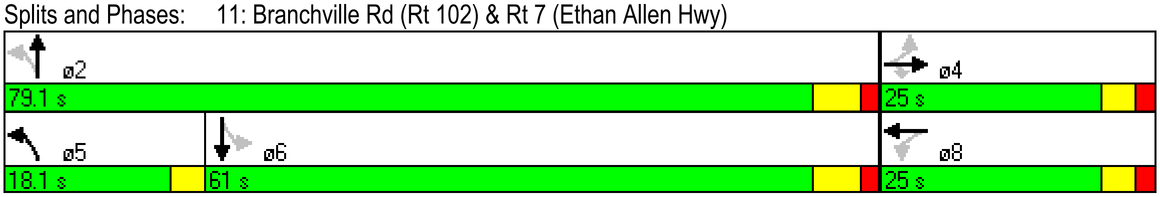


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	10	230	10	20	0	220	580	0	10	700	90
Satd. Flow (prot)	0	1786	1583	0	1833	0	1770	1863	0	0	1833	0
Flt Permitted		0.741			0.916		0.241				0.991	
Satd. Flow (perm)	0	1380	1583	0	1706	0	449	1863	0	0	1818	0
Satd. Flow (RTOR)			250								9	
Lane Group Flow (vph)	0	76	250	0	33	0	239	630	0	0	870	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Act Effct Green (s)		18.3	18.3		18.3		67.5	64.6			49.0	
Actuated g/C Ratio		0.19	0.19		0.19		0.72	0.69			0.52	
v/c Ratio		0.28	0.49		0.10		0.48	0.49			0.91	
Control Delay		39.2	8.5		35.8		7.4	8.2			36.1	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		39.2	8.5		35.8		7.4	8.2			36.1	
LOS		D	A		D		A	A			D	
Approach Delay		15.7			35.8			8.0			36.1	
Approach LOS		B			D			A			D	
Queue Length 50th (ft)		43	0		18		39	153			457	
Queue Length 95th (ft)		88	67		46		61	219			#749	
Internal Link Dist (ft)		550			290			1200			2587	
Turn Bay Length (ft)							100					
Base Capacity (vph)		291	532		361		521	1334			1007	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.26	0.47		0.09		0.46	0.47			0.86	

Intersection Summary

Cycle Length: 104.1
Actuated Cycle Length: 94
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 102.5% ICU Level of Service G
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

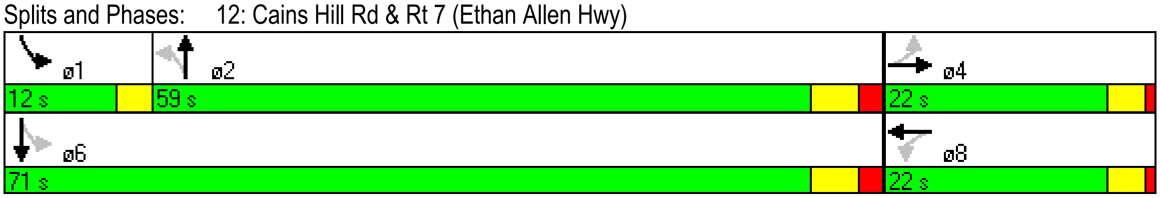
Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	40	50	50	190	50	60	500	0	20	500	10
Satd. Flow (prot)	0	1727	0	0	1805	0	1770	1863	0	1770	1857	0
Flt Permitted		0.962			0.932		0.457			0.288		
Satd. Flow (perm)	0	1670	0	0	1696	0	851	1863	0	536	1857	0
Satd. Flow (RTOR)		48			10						3	
Lane Group Flow (vph)	0	108	0	0	315	0	65	543	0	22	554	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Act Effct Green (s)		18.0			18.0		30.5	30.5		41.5	38.5	
Actuated g/C Ratio		0.27			0.27		0.46	0.46		0.62	0.58	
v/c Ratio		0.22			0.68		0.17	0.64		0.05	0.51	
Control Delay		13.2			30.0		12.0	18.0		5.0	10.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		13.2			30.0		12.0	18.0		5.0	10.4	
LOS		B			C		B	B		A	B	
Approach Delay		13.2			30.0			17.3			10.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		18			109		15	160		3	120	
Queue Length 95th (ft)		55			#219		37	258		10	192	
Internal Link Dist (ft)		407			189			2835			1876	
Turn Bay Length (ft)							94			220		
Base Capacity (vph)		487			466		507	1108		474	1299	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.22			0.68		0.13	0.49		0.05	0.43	

Intersection Summary	
Cycle Length: 93	
Actuated Cycle Length: 66.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

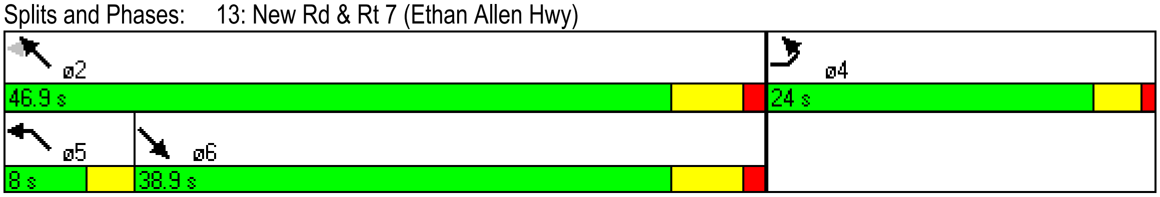


Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	30	20	710	70	30	530
Satd. Flow (prot)	1711	0	1840	0	0	1857
Flt Permitted	0.971					0.805
Satd. Flow (perm)	1711	0	1840	0	0	1500
Satd. Flow (RTOR)			9			
Lane Group Flow (vph)	55	0	848	0	0	609
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Act Effct Green (s)	19.0		31.5			40.1
Actuated g/C Ratio	0.28		0.54			0.69
v/c Ratio	0.11		0.84			0.58
Control Delay	19.8		25.8			10.8
Queue Delay	0.0		0.0			0.0
Total Delay	19.8		25.8			10.8
LOS	B		C			B
Approach Delay	19.8		25.8			10.8
Approach LOS	B		C			B
Queue Length 50th (ft)	18		334			144
Queue Length 95th (ft)	44		#586			229
Internal Link Dist (ft)	592		4303			332
Turn Bay Length (ft)						
Base Capacity (vph)	504		1043			1065
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.11		0.81			0.57

Intersection Summary

Cycle Length: 70.9
Actuated Cycle Length: 57.9
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.5 Intersection LOS: B
Intersection Capacity Utilization 76.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

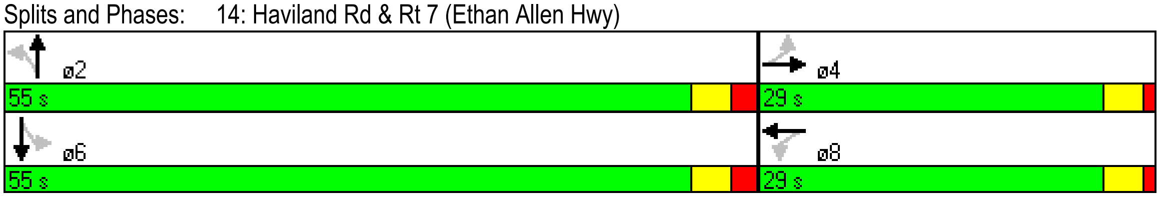
Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	10	10	30	30	20	10	530	10	10	700	20
Satd. Flow (prot)	0	1756	0	0	1767	0	0	1857	0	0	1853	0
Flt Permitted		0.846			0.881			0.986			0.992	
Satd. Flow (perm)	0	1522	0	0	1585	0	0	1833	0	0	1840	0
Satd. Flow (RTOR)								2			3	
Lane Group Flow (vph)	0	44	0	0	88	0	0	598	0	0	794	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Act Effct Green (s)		22.6			22.6			42.6			42.6	
Actuated g/C Ratio		0.34			0.34			0.75			0.75	
v/c Ratio		0.09			0.17			0.44			0.58	
Control Delay		20.2			20.8			8.6			10.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.2			20.8			8.6			10.9	
LOS		C			C			A			B	
Approach Delay		20.2			20.8			8.6			10.9	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		13			26			153			242	
Queue Length 95th (ft)		42			71			235			374	
Internal Link Dist (ft)		138			187			212			697	
Turn Bay Length (ft)												
Base Capacity (vph)		554			577			1412			1418	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.08			0.15			0.42			0.56	

Intersection Summary	
Cycle Length: 84	
Actuated Cycle Length: 56.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

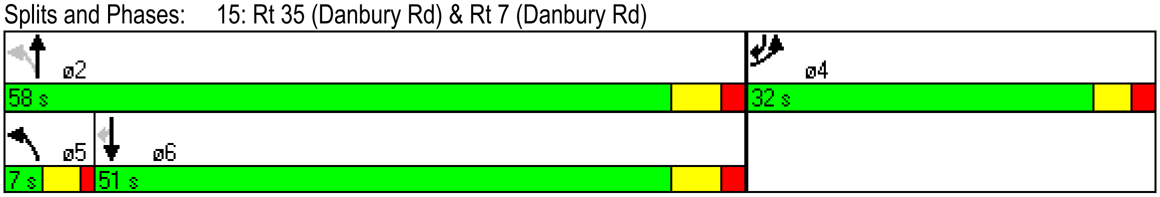
Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	380	70	40	510	630	600
Satd. Flow (prot)	3386	0	0	3525	1863	1583
Flt Permitted	0.959			0.760		
Satd. Flow (perm)	3386	0	0	2690	1863	1583
Satd. Flow (RTOR)	25					652
Lane Group Flow (vph)	489	0	0	597	685	652
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Act Effct Green (s)	19.2			36.0	28.8	54.2
Actuated g/C Ratio	0.29			0.54	0.43	0.82
v/c Ratio	0.49			0.41	0.85	0.46
Control Delay	22.1			9.4	27.5	1.2
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	22.1			9.4	27.5	1.2
LOS	C			A	C	A
Approach Delay	22.1			9.4	14.7	
Approach LOS	C			A	B	
Queue Length 50th (ft)	75			60	226	0
Queue Length 95th (ft)	157			100	395	9
Internal Link Dist (ft)	1007			425	2009	
Turn Bay Length (ft)	180					
Base Capacity (vph)	1262			1717	1023	1431
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.39			0.35	0.67	0.46

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 66.5	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

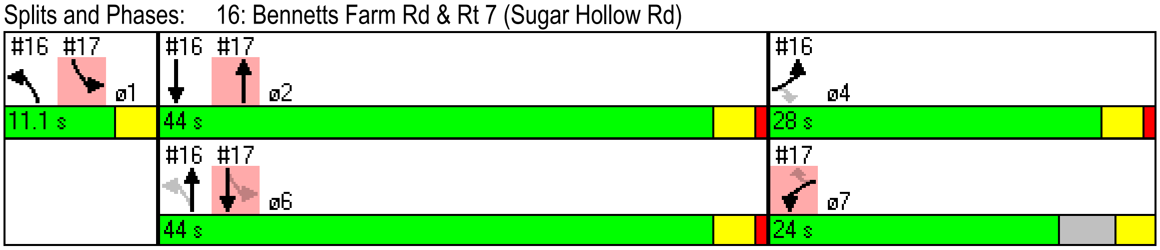
Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	50	30	10	790	1270	20	
Satd. Flow (prot)	1770	1583	1770	3539	3532	0	
Flt Permitted	0.950		0.124				
Satd. Flow (perm)	1770	1583	231	3539	3532	0	
Satd. Flow (RTOR)		33			3		
Lane Group Flow (vph)	54	33	11	859	1402	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	24.0
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Act Effct Green (s)	24.0	24.0	57.0	55.5	55.5		
Actuated g/C Ratio	0.29	0.29	0.69	0.67	0.67		
v/c Ratio	0.11	0.07	0.04	0.36	0.59		
Control Delay	22.5	8.4	6.2	9.3	2.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	22.5	8.4	6.2	9.3	2.6		
LOS	C	A	A	A	A		
Approach Delay	17.1			9.3	2.6		
Approach LOS	B			A	A		
Queue Length 50th (ft)	21	0	2	107	0		
Queue Length 95th (ft)	48	20	8	200	0		
Internal Link Dist (ft)	408			1795	86		
Turn Bay Length (ft)			80				
Base Capacity (vph)	511	481	307	2362	2358		
Starvation Cap Reductn	0	0	0	0	1		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.11	0.07	0.04	0.36	0.59		

Intersection Summary	
Cycle Length: 83.1	
Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

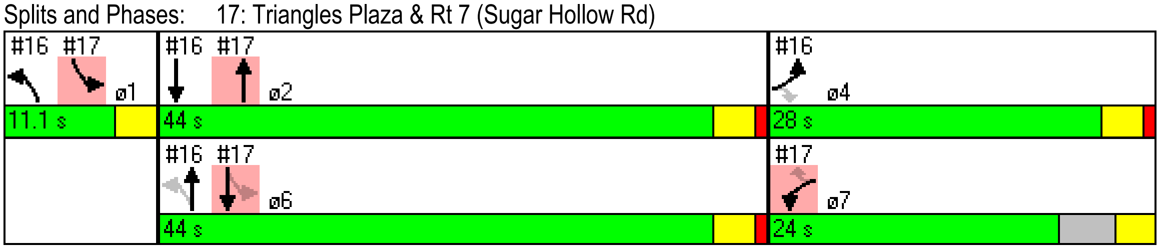


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	0	10	820	20	0	1290	
Satd. Flow (prot)	1863	1583	3525	0	1863	3539	
Flt Permitted							
Satd. Flow (perm)	1863	1583	3525	0	1863	3539	
Satd. Flow (RTOR)		260	4				
Lane Group Flow (vph)	0	11	913	0	0	1402	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Total Split (s)	24.0	24.0	44.0	0.0	11.1	44.0	28.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Act Effct Green (s)		20.9	55.5			55.5	
Actuated g/C Ratio		0.25	0.67			0.67	
v/c Ratio		0.02	0.39			0.59	
Control Delay		0.1	2.9			12.4	
Queue Delay		0.0	0.1			0.0	
Total Delay		0.1	3.0			12.4	
LOS		A	A			B	
Approach Delay			3.0			12.4	
Approach LOS			A			B	
Queue Length 50th (ft)		0	26			220	
Queue Length 95th (ft)		0	33			398	
Internal Link Dist (ft)	204		86			664	
Turn Bay Length (ft)							
Base Capacity (vph)		656	2354			2362	
Starvation Cap Reductn		0	272			0	
Spillback Cap Reductn		0	0			0	
Storage Cap Reductn		0	0			0	
Reduced v/c Ratio		0.02	0.44			0.59	

Intersection Summary

Cycle Length: 83.1
Actuated Cycle Length: 83.1
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 8.6 | Intersection LOS: A
Intersection Capacity Utilization 39.0% | ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

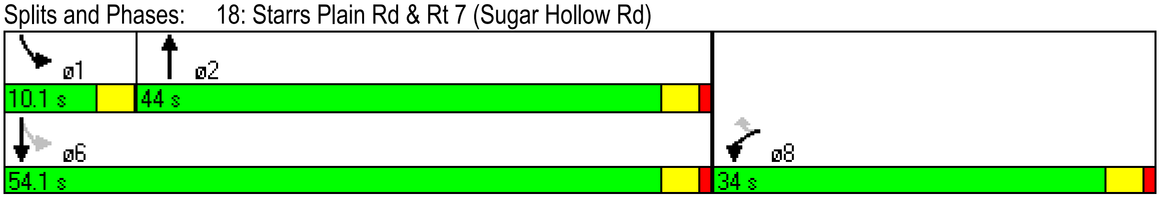


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	40	150	860	10	30	1260
Satd. Flow (prot)	1770	1583	3532	0	1770	3539
Flt Permitted	0.950				0.251	
Satd. Flow (perm)	1770	1583	3532	0	468	3539
Satd. Flow (RTOR)		163	2			
Lane Group Flow (vph)	43	163	946	0	33	1370
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Act Effct Green (s)	6.4	6.4	35.0		38.7	37.9
Actuated g/C Ratio	0.12	0.12	0.67		0.68	0.72
v/c Ratio	0.20	0.48	0.40		0.08	0.54
Control Delay	24.7	10.5	5.4		2.8	4.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	24.7	10.5	5.4		2.8	4.3
LOS	C	B	A		A	A
Approach Delay	13.5		5.4			4.2
Approach LOS	B		A			A
Queue Length 50th (ft)	10	0	37		2	64
Queue Length 95th (ft)	42	47	127		7	125
Internal Link Dist (ft)	336		3518			2397
Turn Bay Length (ft)					80	
Base Capacity (vph)	705	729	2490		461	2750
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.22	0.38		0.07	0.50

Intersection Summary

Cycle Length: 88.1
Actuated Cycle Length: 52.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 5.4 Intersection LOS: A
Intersection Capacity Utilization 45.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1300	10	370	10	30	10	450	630	20	10	430	1120
Satd. Flow (prot)	1681	1686	1583	0	1840	1583	1770	1853	0	1770	1863	1583
Flt Permitted	0.950	0.953			0.988		0.950			0.396		
Satd. Flow (perm)	1681	1686	1583	0	1840	1583	1770	1853	0	738	1863	1583
Satd. Flow (RTOR)			402			11		2				658
Lane Group Flow (vph)	706	718	402	0	44	11	489	707	0	11	467	1217
Turn Type	Split		Perm	Split		Perm	Prot			Perm		Perm
Protected Phases	4	4		8	8		5				6	
Permitted Phases			4			8		2		6		6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	21.5	21.0		21.5	21.5	21.5
Total Split (s)	23.0	23.0	23.0	22.0	22.0	22.0	22.0	45.0	0.0	23.0	23.0	23.0
Total Split (%)	25.6%	25.6%	25.6%	24.4%	24.4%	24.4%	24.4%	50.0%	0.0%	25.6%	25.6%	25.6%
Maximum Green (s)	17.0	17.0	17.0	16.0	16.0	16.0	17.0	40.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	Min	Min	None	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	17.0		7.6	7.6	25.4	48.4		18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19		0.08	0.08	0.28	0.54		0.20	0.20	0.20
v/c Ratio	2.22	2.26	0.64		0.28	0.08	0.98	0.71		0.07	1.25	1.44
Control Delay	581.4	598.0	8.9		42.5	20.5	70.4	20.9		38.0	160.9	224.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	581.4	598.0	8.9		42.5	20.5	70.4	20.9		38.0	160.9	224.3
LOS	F	F	A		D	C	E	C		D	F	F
Approach Delay		461.9			38.1			41.1			205.6	
Approach LOS		F			D			D			F	
Queue Length 50th (ft)	~688	~703	0		24	0	275	281		6	~351	~748
Queue Length 95th (ft)	#912	#928	80		55	16	#504	449		m8	m#430	m#776
Internal Link Dist (ft)		936			258			771			1601	
Turn Bay Length (ft)			400			175				60		
Base Capacity (vph)	318	318	625		327	290	499	997		148	373	843
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	2.22	2.26	0.64		0.13	0.04	0.98	0.71		0.07	1.25	1.44

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.26	
Intersection Signal Delay: 260.5	Intersection LOS: F
Intersection Capacity Utilization 110.9%	ICU Level of Service H

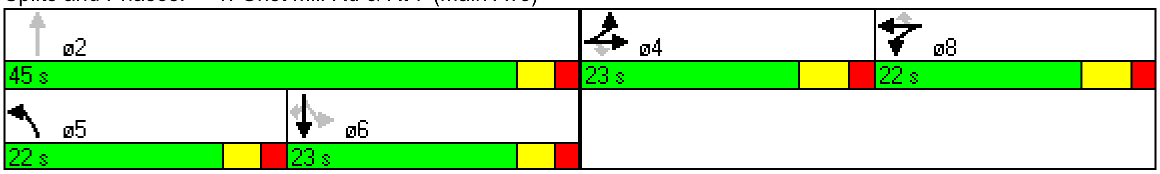
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	60	170	300	20	160	60	1590	320	170	1110	20
Satd. Flow (prot)	0	1698	0	0	1779	1583	1770	3451	0	1770	3529	0
Flt Permitted		0.513			0.403		0.169			0.085		
Satd. Flow (perm)	0	880	0	0	751	1583	315	3451	0	158	3529	0
Satd. Flow (RTOR)		76				91		25			2	
Lane Group Flow (vph)	0	315	0	0	348	174	65	2076	0	185	1229	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	13.3	13.3		13.3	13.3	13.3	8.0	20.5		8.0	20.5	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	12.0	28.0	0.0	12.0	28.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	31.1%	13.3%	31.1%	0.0%	13.3%	31.1%	0.0%
Maximum Green (s)	22.7	22.7		22.7	22.7	22.7	9.0	22.5		9.0	24.4	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.9		3.0	2.0	
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	0.0	1.6		0.0	1.6	
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	3.6	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.5		1.0	2.5	
Recall Mode	None	None		None	None	None	None	C-Max		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7			22.7	22.7	49.7	42.0		59.0	51.8	
Actuated g/C Ratio		0.25			0.25	0.25	0.55	0.47		0.66	0.58	
v/c Ratio		1.13			1.84	0.37	0.25	1.28		0.60	0.60	
Control Delay		120.1			423.2	16.3	6.7	151.3		21.9	14.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		120.1			423.2	16.3	6.7	151.3		21.9	14.5	
LOS		F			F	B	A	F		C	B	
Approach Delay		120.1			287.5			146.9			15.5	
Approach LOS		F			F			F			B	
Queue Length 50th (ft)		~175			~303	37	7	~805		46	231	
Queue Length 95th (ft)		#340			#470	93	m9	m417		110	304	
Internal Link Dist (ft)		174			156			1601			796	
Turn Bay Length (ft)						60	125			390		
Base Capacity (vph)		279			189	467	333	1625		319	2032	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		1.13			1.84	0.37	0.20	1.28		0.58	0.60	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 9 (10%), Referenced to phase 2:NBTL, Start of Green
Control Type: Actuated-Coordinated

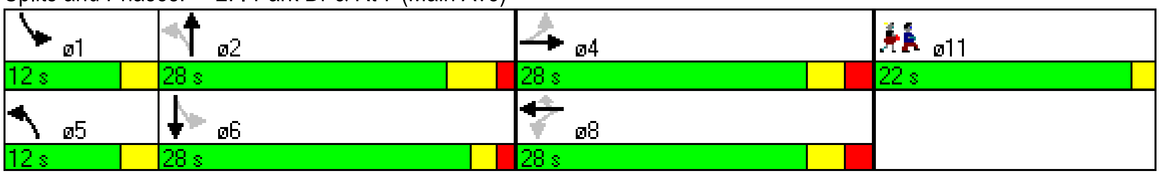
Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	20.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	0.0
Flash Dont Walk (s)	22.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 1.84	
Intersection Signal Delay: 119.4	Intersection LOS: F
Intersection Capacity Utilization 114.9%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)

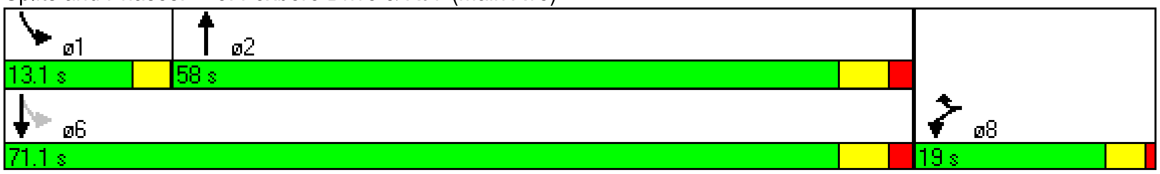


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	70	1600	110	50	1330
Satd. Flow (prot)	1770	1583	3504	0	1770	3539
Flt Permitted	0.950				0.069	
Satd. Flow (perm)	1770	1583	3504	0	129	3539
Satd. Flow (RTOR)		76	13			
Lane Group Flow (vph)	76	76	1859	0	54	1446
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	7.0	7.0	20.0		7.0	20.0
Minimum Split (s)	11.0	11.0	25.9		10.1	25.9
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	0.0%	14.5%	78.9%
Maximum Green (s)	15.0	15.0	52.1		10.0	65.2
Yellow Time (s)	3.0	3.0	3.9		3.0	3.9
All-Red Time (s)	1.0	1.0	2.0		0.1	2.0
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.5	2.5	2.5		2.0	2.5
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	9.1	9.1	66.4		76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74		0.84	0.83
v/c Ratio	0.42	0.33	0.72		0.23	0.49
Control Delay	44.8	13.2	11.4		4.1	3.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.8	13.2	11.4		4.1	3.9
LOS	D	B	B		A	A
Approach Delay	29.0		11.4			3.9
Approach LOS	C		B			A
Queue Length 50th (ft)	42	0	326		4	112
Queue Length 95th (ft)	82	39	485		12	185
Internal Link Dist (ft)	424		796			1174
Turn Bay Length (ft)	70				200	
Base Capacity (vph)	295	327	2586		291	2925
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.26	0.23	0.72		0.19	0.49

Intersection Summary	
Cycle Length: 90.1	
Actuated Cycle Length: 90.1	
Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 61.8%	ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	60	100	1470	1140	120
Satd. Flow (prot)	1687	0	1770	3539	3490	0
Flt Permitted	0.978		0.126			
Satd. Flow (perm)	1687	0	235	3539	3490	0
Satd. Flow (RTOR)	62				16	
Lane Group Flow (vph)	119	0	109	1598	1369	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Minimum Initial (s)	20.0		5.0	15.0	15.0	
Minimum Split (s)	29.0		8.0	19.0	19.0	
Total Split (s)	29.0	0.0	16.0	66.0	50.0	0.0
Total Split (%)	30.5%	0.0%	16.8%	69.5%	52.6%	0.0%
Maximum Green (s)	25.0		13.0	62.0	46.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		0.0	1.0	1.0	
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	1.0		1.0	0.2	0.2	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	15.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	20.0		68.0	67.0	60.1	
Actuated g/C Ratio	0.21		0.72	0.71	0.63	
v/c Ratio	0.29		0.42	0.64	0.62	
Control Delay	18.6		9.2	9.0	12.4	
Queue Delay	0.0		0.0	0.0	2.3	
Total Delay	18.6		9.2	9.0	14.7	
LOS	B		A	A	B	
Approach Delay	18.6			9.0	14.7	
Approach LOS	B			A	B	
Queue Length 50th (ft)	28		17	234	245	
Queue Length 95th (ft)	76		32	295	326	
Internal Link Dist (ft)	1288			1174	346	
Turn Bay Length (ft)			200			
Base Capacity (vph)	490		378	2496	2212	
Starvation Cap Reductn	0		0	0	672	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.24		0.29	0.64	0.89	

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 95
Offset: 54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	0	50	60	0	20	20	1400	100	60	1150	10
Satd. Flow (prot)	0	1674	0	1770	1583	0	0	3500	0	0	3529	0
Flt Permitted		0.895		0.701				0.923			0.736	
Satd. Flow (perm)	0	1527	0	1306	1583	0	0	3234	0	0	2602	0
Satd. Flow (RTOR)		54			125			14			2	
Lane Group Flow (vph)	0	87	0	65	22	0	0	1653	0	0	1326	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	6.0	6.0		20.0	20.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	10.0		24.0	24.0		19.0	19.0		6.0	19.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	58.0	58.0	0.0	8.0	66.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%	64.4%	64.4%	0.0%	8.9%	73.3%	0.0%
Maximum Green (s)	20.0	20.0		20.0	20.0		54.0	54.0		5.0	62.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	0.2	0.2		1.0	1.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)				15.0	15.0							
Flash Dont Walk (s)				1.0	1.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)		17.2		20.0	20.0			67.6			67.6	
Actuated g/C Ratio		0.19		0.22	0.22			0.75			0.75	
v/c Ratio		0.26		0.22	0.05			0.68			0.68	
Control Delay		15.7		31.1	0.2			9.5			10.1	
Queue Delay		0.0		0.0	0.0			1.4			0.0	
Total Delay		15.7		31.1	0.2			11.0			10.1	
LOS		B		C	A			B			B	
Approach Delay		15.7			23.3			11.0			10.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		15		30	0			269			217	
Queue Length 95th (ft)		54		66	0			352			301	
Internal Link Dist (ft)		164			716			346			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		381		290	449			2432			1955	
Starvation Cap Reductn		0		0	0			541			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.23		0.22	0.05			0.87			0.68	

Intersection Summary

Cycle Length: 90

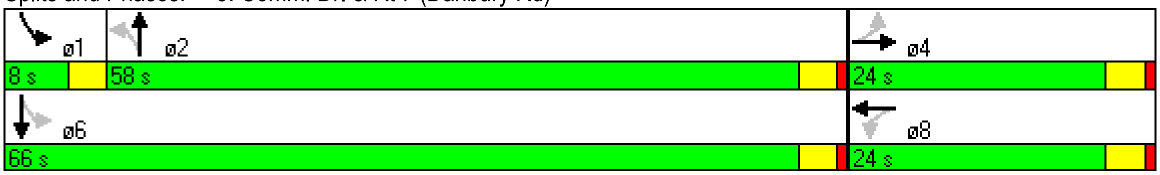
Actuated Cycle Length: 90

Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 100.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	30	80	0	80	10	1500	20	10	1150	10
Satd. Flow (prot)	1770	1583	0	1770	1583	0	0	3532	0	1770	3536	0
Flt Permitted	0.604			0.736				0.944		0.111		
Satd. Flow (perm)	1125	1583	0	1371	1583	0	0	3334	0	207	3536	0
Satd. Flow (RTOR)		392			487			2			1	
Lane Group Flow (vph)	11	33	0	87	87	0	0	1663	0	11	1261	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0		5.0	15.0	
Minimum Split (s)	11.1	11.1		11.1	11.1		20.5	20.5		8.1	20.5	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Split (%)	16.2%	16.2%	0.0%	16.2%	16.2%	0.0%	46.1%	46.1%	0.0%	11.3%	57.4%	0.0%
Maximum Green (s)	12.9	12.9		12.9	12.9		40.0	40.0		8.0	51.1	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.9	3.9		3.0	3.9	
All-Red Time (s)	0.1	0.1		0.1	0.1		1.6	1.6		0.1	1.6	
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.1	10.1		10.1	10.1			78.3		82.3	79.9	
Actuated g/C Ratio	0.10	0.10		0.10	0.10			0.79		0.83	0.81	
v/c Ratio	0.10	0.06		0.62	0.15			0.63		0.04	0.44	
Control Delay	40.6	0.2		61.3	0.5			6.2		2.1	3.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.3	
Total Delay	40.6	0.2		61.3	0.5			6.2		2.1	3.7	
LOS	D	A		E	A			A		A	A	
Approach Delay		10.3			30.9			6.2			3.7	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	6	0		54	0			148		1	88	
Queue Length 95th (ft)	23	0		102	0			362		4	140	
Internal Link Dist (ft)		108			84			1326			528	
Turn Bay Length (ft)	40			40						130		
Base Capacity (vph)	147	548		179	630			2648		300	2866	
Starvation Cap Reductn	0	0		0	0			0		0	808	
Spillback Cap Reductn	0	0		0	0			0		0	0	
Storage Cap Reductn	0	0		0	0			0		0	0	
Reduced v/c Ratio	0.07	0.06		0.49	0.14			0.63		0.04	0.61	

Intersection Summary

Cycle Length: 98.6
Actuated Cycle Length: 98.6
Offset: 14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	3.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	26%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	90	50	60	10	70	10	1450	230	70	1070	20
Satd. Flow (prot)	0	1818	1583	0	1700	0	0	3468	0	0	3518	0
Flt Permitted		0.739			0.688			0.946			0.639	
Satd. Flow (perm)	0	1377	1583	0	1194	0	0	3281	0	0	2255	0
Satd. Flow (RTOR)			54		45			42			3	
Lane Group Flow (vph)	0	196	54	0	152	0	0	1837	0	0	1261	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		7.0	15.0		15.0	15.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0		10.0	19.0		19.0	19.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%	0.0%	11.1%	71.1%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0		7.0	60.0		50.0	50.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0	1.0		1.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	13.0	13.0	13.0	13.0	13.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		19.2	19.2		19.2			62.8			62.8	
Actuated g/C Ratio		0.21	0.21		0.21			0.70			0.70	
v/c Ratio		0.67	0.14		0.52			0.80			0.80	
Control Delay		44.3	9.0		28.6			12.8			14.1	
Queue Delay		0.0	0.0		0.0			1.2			0.0	
Total Delay		44.3	9.0		28.6			14.0			14.1	
LOS		D	A		C			B			B	
Approach Delay		36.7			28.6			14.0			14.1	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		105	0		54			296			181	
Queue Length 95th (ft)		171	28		111			471			m295	
Internal Link Dist (ft)		250			1316			528			4196	
Turn Bay Length (ft)												
Base Capacity (vph)		337	428		326			2302			1574	
Starvation Cap Reductn		0	0		0			248			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.58	0.13		0.47			0.89			0.80	

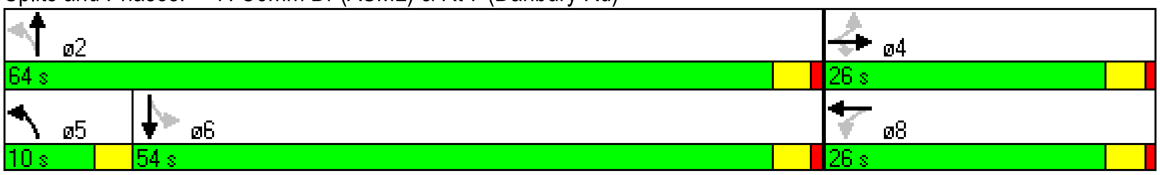
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 104.7%	ICU Level of Service G
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	1200	380	620	750	270	520
Satd. Flow (prot)	3355	0	1863	1583	1770	3539
Flt Permitted	0.963				0.143	
Satd. Flow (perm)	3355	0	1863	1583	266	3539
Satd. Flow (RTOR)	64			737		
Lane Group Flow (vph)	1717	0	674	815	293	565
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Minimum Initial (s)	10.0		20.0	20.0	5.0	20.0
Minimum Split (s)	14.0		25.0	25.0	8.0	25.0
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	0.0%	33.3%	33.3%	16.7%	50.0%
Maximum Green (s)	41.0		25.0	25.0	12.0	40.0
Yellow Time (s)	3.0		4.0	4.0	3.0	4.0
All-Red Time (s)	1.0		1.0	1.0	0.0	1.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	4.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	C-Min	None	C-Min
Act Effct Green (s)	41.0		25.0	25.0	42.0	40.0
Actuated g/C Ratio	0.46		0.28	0.28	0.47	0.44
v/c Ratio	1.10		1.30	0.84	0.90	0.36
Control Delay	73.3		179.2	13.3	51.9	17.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	73.3		179.2	13.3	51.9	17.4
LOS	E		F	B	D	B
Approach Delay	73.3		88.4			29.1
Approach LOS	E		F			C
Queue Length 50th (ft)	~304		~496	34	109	107
Queue Length 95th (ft)	#696		#707	#284	#260	148
Internal Link Dist (ft)	4196		2511			1627
Turn Bay Length (ft)					248	
Base Capacity (vph)	1563		518	972	325	1573
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	1.10		1.30	0.84	0.90	0.36

Intersection Summary

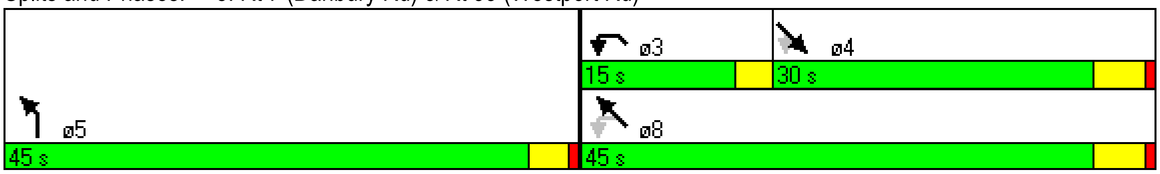
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.30
Intersection Signal Delay: 69.5 Intersection LOS: E
Intersection Capacity Utilization 104.6% ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



9: Mountain Rd & Rt 7 (Danbury Rd)
Timing Plan: PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	60	30	150	30	330	10	740	450	360	620	50
Satd. Flow (prot)	1770	1768	0	1681	1713	1583	1770	3539	1583	1770	3500	0
Flt Permitted	0.950			0.950	0.968		0.950			0.950		
Satd. Flow (perm)	1770	1768	0	1681	1713	1583	1770	3539	1583	1770	3500	0
Satd. Flow (RTOR)		23				209			489		11	
Lane Group Flow (vph)	54	98	0	98	98	359	11	804	489	391	728	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Minimum Initial (s)	15.0	15.0		5.0	5.0		5.0					
Minimum Split (s)	21.0	21.0		9.0	9.0		9.0					
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	0.0%
Maximum Green (s)	10.0	10.0		18.0	18.0		5.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		3.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effct Green (s)	10.0	10.0		18.0	18.0	39.0	5.0	27.0	27.0	20.2	40.2	
Actuated g/C Ratio	0.11	0.11		0.20	0.20	0.43	0.06	0.30	0.30	0.22	0.45	
v/c Ratio	0.27	0.45		0.29	0.29	0.45	0.11	0.76	0.60	0.98	0.46	
Control Delay	40.7	36.1		33.4	33.2	6.3	43.1	34.0	5.9	80.6	15.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	102.3	2.3	
Total Delay	40.7	36.1		33.4	33.2	6.3	43.1	34.0	5.9	182.9	17.8	
LOS	D	D		C	C	A	D	C	A	F	B	
Approach Delay		37.8			15.9			23.5			75.5	
Approach LOS		D			B			C			E	
Queue Length 50th (ft)	29	40		50	50	33	6	216	0	~273	138	
Queue Length 95th (ft)	64	89		97	97	73	23	286	72	m#414	m170	
Internal Link Dist (ft)		362			686			885			165	
Turn Bay Length (ft)	90			380		190	50		900	130		
Base Capacity (vph)	197	217		336	343	804	98	1062	817	397	1569	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	86	677	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.45		0.29	0.29	0.45	0.11	0.76	0.60	1.26	0.82	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.48	
Intersection Signal Delay: 41.4	Intersection LOS: D
Intersection Capacity Utilization 72.0%	ICU Level of Service C

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Satd. Flow (RTOR)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	21.0	8.0	10.0
Total Split (s)	22.0	9.0	12.0
Total Split (%)	24%	10%	13%
Maximum Green (s)	16.0	5.0	7.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

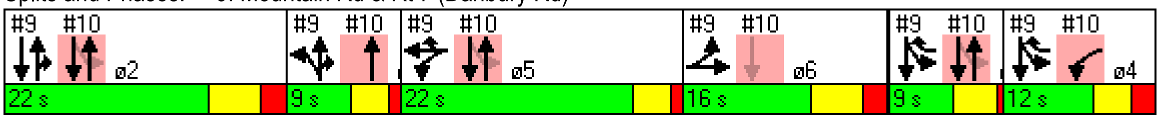
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	120	110	1060	60	80	910					
Satd. Flow (prot)	1698	0	3511	0	1770	3539					
Flt Permitted	0.975				0.129						
Satd. Flow (perm)	1698	0	3511	0	240	3539					
Satd. Flow (RTOR)	40		11								
Lane Group Flow (vph)	250	0	1217	0	87	989					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5	6					
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0						9.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	0.0%	68.9%	0.0%	58.9%	58.9%	10%	24%	10%	24%	18%
Maximum Green (s)	7.0						5.0	16.0	5.0	18.0	10.0
Yellow Time (s)	3.0						3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						1.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	C-Max	None	None	None
Act Effct Green (s)	7.0		58.0		39.4	57.0					
Actuated g/C Ratio	0.08		0.64		0.44	0.63					
v/c Ratio	1.48		0.54		0.83	0.44					
Control Delay	272.7		2.8		75.8	4.9					
Queue Delay	37.0		0.3		0.0	0.5					
Total Delay	309.7		3.1		75.8	5.4					
LOS	F		A		E	A					
Approach Delay	309.7		3.1			11.1					
Approach LOS	F		A			B					
Queue Length 50th (ft)	~177		32		22	60					
Queue Length 95th (ft)	#327		36		#143	77					
Internal Link Dist (ft)	127		165			133					
Turn Bay Length (ft)											
Base Capacity (vph)	169		2267		105	2241					
Starvation Cap Reductn	0		430		0	0					
Spillback Cap Reductn	9		0		0	717					
Storage Cap Reductn	0		0		0	0					
Reduced v/c Ratio	1.56		0.66		0.83	0.65					

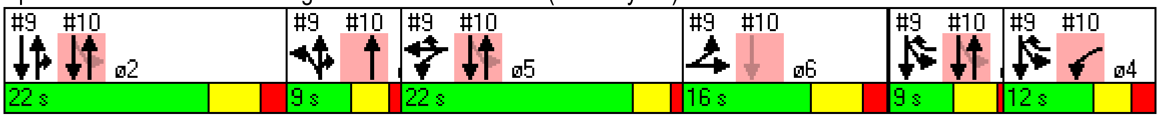
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.48	
Intersection Signal Delay: 36.6	Intersection LOS: D
Intersection Capacity Utilization 69.6%	ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



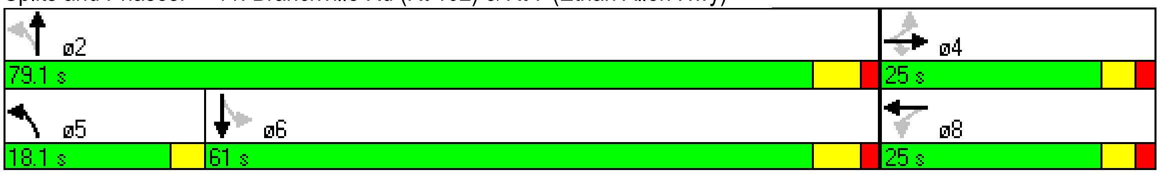
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	20	250	0	10	10	230	870	0	10	650	70
Satd. Flow (prot)	0	1786	1583	0	1736	0	1770	1863	0	0	1837	0
Flt Permitted		0.744					0.264				0.985	
Satd. Flow (perm)	0	1386	1583	0	1736	0	492	1863	0	0	1811	0
Satd. Flow (RTOR)			272		11						8	
Lane Group Flow (vph)	0	142	272	0	22	0	250	946	0	0	794	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		3.0	15.0		15.0	15.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0		6.5	21.0		21.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	0.0%	17.4%	76.0%	0.0%	58.6%	58.6%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		15.0	73.1		55.0	55.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	4.2		4.2	4.2	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.1	1.8		1.8	1.8	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	1.5	1.5	1.5	1.5	1.5		1.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None		None	None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		18.8	18.8		18.8		60.4	57.5			44.6	
Actuated g/C Ratio		0.21	0.21		0.21		0.69	0.66			0.51	
v/c Ratio		0.48	0.49		0.06		0.52	0.77			0.86	
Control Delay		40.1	8.0		23.2		8.6	15.2			28.5	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		40.1	8.0		23.2		8.6	15.2			28.5	
LOS		D	A		C		A	B			C	
Approach Delay		19.0			23.3			13.8			28.5	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		71	0		5		41	308			357	
Queue Length 95th (ft)		150	69		27		70	489			549	
Internal Link Dist (ft)		550			290			1200			2587	
Turn Bay Length (ft)							100					
Base Capacity (vph)		318	573		407		530	1329			1035	
Starvation Cap Reductn		0	0		0		0	0			0	
Spillback Cap Reductn		0	0		0		0	0			0	
Storage Cap Reductn		0	0		0		0	0			0	
Reduced v/c Ratio		0.45	0.47		0.05		0.47	0.71			0.77	

Intersection Summary

Cycle Length: 104.1
Actuated Cycle Length: 87.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.86

Intersection Signal Delay: 19.6 Intersection LOS: B
Intersection Capacity Utilization 114.0% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

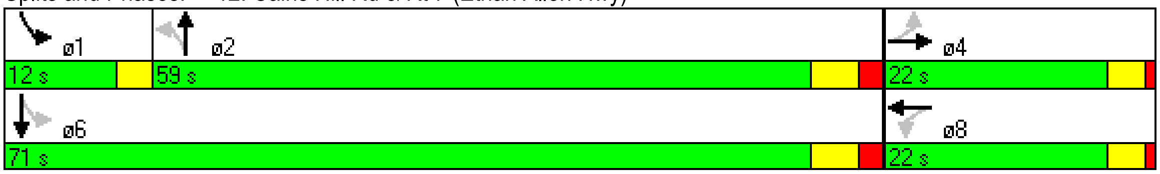


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	130	90	10	30	30	70	810	20	40	500	10
Satd. Flow (prot)	0	1760	0	0	1742	0	1770	1855	0	1770	1857	0
Flt Permitted		0.989			0.958		0.457			0.092		
Satd. Flow (perm)	0	1745	0	0	1681	0	851	1855	0	171	1857	0
Satd. Flow (RTOR)		31			33			2			3	
Lane Group Flow (vph)	0	250	0	0	77	0	76	902	0	43	554	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	18.0	18.0		18.0	18.0		30.0	30.0		5.0	30.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		36.0	36.0		8.0	36.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Split (%)	23.7%	23.7%	0.0%	23.7%	23.7%	0.0%	63.4%	63.4%	0.0%	12.9%	76.3%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		53.0	53.0		9.0	65.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		0.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	12.0	12.0		12.0	12.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		18.2			18.2		43.7	43.7		55.1	52.0	
Actuated g/C Ratio		0.23			0.23		0.54	0.54		0.69	0.65	
v/c Ratio		0.60			0.19		0.16	0.89		0.19	0.46	
Control Delay		33.2			20.0		9.6	28.7		5.7	8.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		33.2			20.0		9.6	28.7		5.7	8.2	
LOS		C			B		A	C		A	A	
Approach Delay		33.2			20.0			27.2			8.0	
Approach LOS		C			B			C			A	
Queue Length 50th (ft)		102			18		17	366		6	120	
Queue Length 95th (ft)		198			58		39	572		14	178	
Internal Link Dist (ft)		407			189			2835			1876	
Turn Bay Length (ft)							94			220		
Base Capacity (vph)		420			407		505	1102		285	1299	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.60			0.19		0.15	0.82		0.15	0.43	

Intersection Summary
Cycle Length: 93
Actuated Cycle Length: 80.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89

Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	50	30	670	20	10	840
Satd. Flow (prot)	1715	0	1855	0	0	1861
Flt Permitted	0.970					0.993
Satd. Flow (perm)	1715	0	1855	0	0	1850
Satd. Flow (RTOR)			3			
Lane Group Flow (vph)	87	0	750	0	0	924
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Minimum Initial (s)	19.0		10.0		5.0	10.0
Minimum Split (s)	23.0		15.9		8.0	15.9
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Split (%)	33.9%	0.0%	54.9%	0.0%	11.3%	66.1%
Maximum Green (s)	20.0		33.0		5.0	41.0
Yellow Time (s)	3.0		4.4		3.0	4.4
All-Red Time (s)	1.0		1.5		0.0	1.5
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		2.5		0.2	2.5
Recall Mode	None		Min		Min	Min
Walk Time (s)	14.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	19.3		28.2			37.4
Actuated g/C Ratio	0.30		0.47			0.62
v/c Ratio	0.17		0.86			0.81
Control Delay	20.5		28.4			18.8
Queue Delay	0.0		0.0			0.0
Total Delay	20.5		28.4			18.8
LOS	C		C			B
Approach Delay	20.5		28.4			18.8
Approach LOS	C		C			B
Queue Length 50th (ft)	29		269			292
Queue Length 95th (ft)	62		#485			#561
Internal Link Dist (ft)	592		4303			332
Turn Bay Length (ft)						
Base Capacity (vph)	528		963			1192
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.16		0.78			0.78

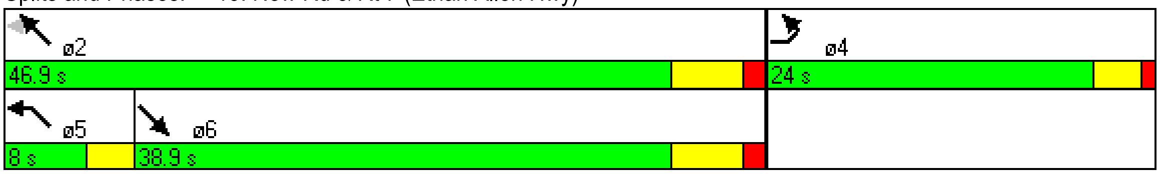
Intersection Summary

Cycle Length: 70.9
Actuated Cycle Length: 60.4
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.86

Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)

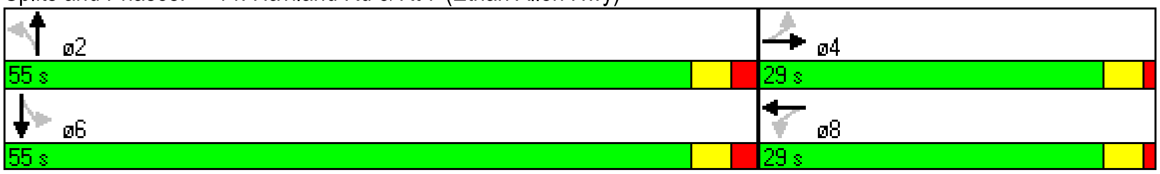


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	30	10	10	20	30	10	810	30	20	600	30
Satd. Flow (prot)	0	1789	0	0	1722	0	0	1852	0	0	1848	0
Flt Permitted		0.856			0.950			0.992			0.965	
Satd. Flow (perm)	0	1564	0	0	1649	0	0	1839	0	0	1787	0
Satd. Flow (RTOR)								4			5	
Lane Group Flow (vph)	0	77	0	0	66	0	0	924	0	0	707	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	22.0	22.0		22.0	22.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		25.0	25.0		25.0	25.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	34.5%	34.5%	0.0%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)	17.0	17.0		17.0	17.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		22.7			22.7			47.8			47.8	
Actuated g/C Ratio		0.31			0.31			0.77			0.77	
v/c Ratio		0.16			0.13			0.65			0.51	
Control Delay		23.1			22.7			12.5			9.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.1			22.7			12.5			9.3	
LOS		C			C			B			A	
Approach Delay		23.1			22.7			12.5			9.3	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		29			24			321			201	
Queue Length 95th (ft)		64			56			509			313	
Internal Link Dist (ft)		138			187			212			697	
Turn Bay Length (ft)												
Base Capacity (vph)		532			561			1418			1378	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.14			0.12			0.65			0.51	

Intersection Summary
Cycle Length: 84
Actuated Cycle Length: 62.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65

Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



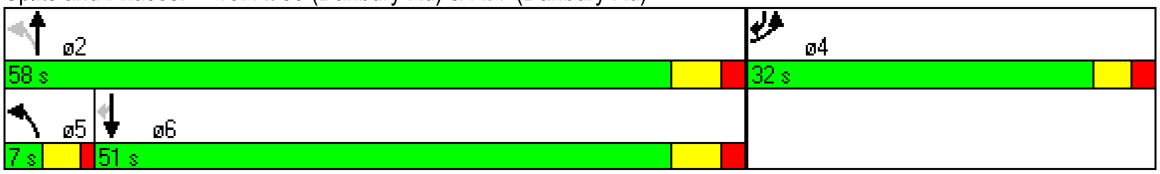
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	720	50	60	860	580	450
Satd. Flow (prot)	3417	0	0	3529	1863	1583
Flt Permitted	0.955			0.707		
Satd. Flow (perm)	3417	0	0	2502	1863	1583
Satd. Flow (RTOR)	8					489
Lane Group Flow (vph)	837	0	0	1000	630	489
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Minimum Initial (s)	18.0		3.0	15.0	15.0	18.0
Minimum Split (s)	27.0		7.0	21.0	21.0	27.0
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	0.0%	7.8%	64.4%	56.7%	35.6%
Maximum Green (s)	27.0		3.0	52.0	45.0	27.0
Yellow Time (s)	3.0		3.0	4.0	4.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		0.2	2.5	2.5	2.0
Recall Mode	None		Max	Min	Min	None
Walk Time (s)	12.0					12.0
Flash Dont Walk (s)	1.0					1.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	22.9			36.4	29.1	58.3
Actuated g/C Ratio	0.32			0.51	0.41	0.82
v/c Ratio	0.75			0.77	0.82	0.35
Control Delay	27.7			18.1	28.1	0.8
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	27.7			18.1	28.1	0.8
LOS	C			B	C	A
Approach Delay	27.7			18.1	16.2	
Approach LOS	C			B	B	
Queue Length 50th (ft)	161			142	230	0
Queue Length 95th (ft)	293			212	382	7
Internal Link Dist (ft)	1007			425	2009	
Turn Bay Length (ft)	180					
Base Capacity (vph)	1257			1531	979	1405
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.67			0.65	0.64	0.35

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 70.7
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.82

Intersection Signal Delay: 20.1	Intersection LOS: C
Intersection Capacity Utilization 92.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	10	30	30	1570	1020	60	
Satd. Flow (prot)	1770	1583	1770	3539	3511	0	
Flt Permitted	0.950		0.189				
Satd. Flow (perm)	1770	1583	352	3539	3511	0	
Satd. Flow (RTOR)		33			10		
Lane Group Flow (vph)	11	33	33	1707	1174	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0		5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0		23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	0.0%	28%
Maximum Green (s)	24.0	24.0	8.0	40.0	40.0		19.9
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0		0.1
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0	5.0	5.0		2.0
Recall Mode	None	None	None	C-Min	C-Min		None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8		
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70		
v/c Ratio	0.02	0.07	0.09	0.69	0.48		
Control Delay	21.4	8.4	6.1	17.4	1.9		
Queue Delay	0.0	0.0	0.0	0.1	0.0		
Total Delay	21.4	8.4	6.1	17.4	1.9		
LOS	C	A	A	B	A		
Approach Delay	11.7			17.2	1.9		
Approach LOS	B			B	A		
Queue Length 50th (ft)	4	0	6	436	16		
Queue Length 95th (ft)	16	20	16	#617	19		
Internal Link Dist (ft)	408			1795	86		
Turn Bay Length (ft)			80				
Base Capacity (vph)	511	481	398	2461	2444		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	92	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.02	0.07	0.08	0.72	0.48		

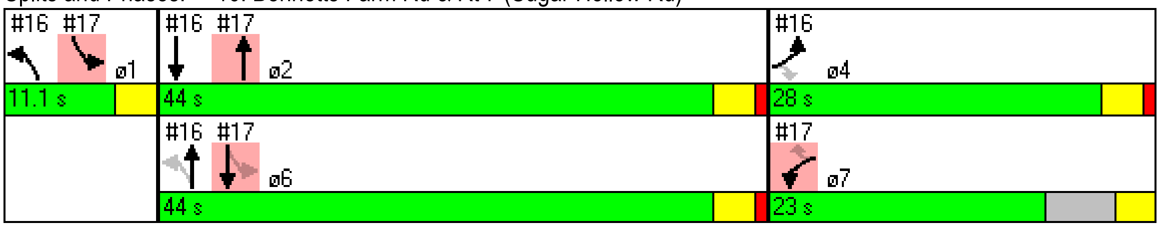
Intersection Summary
Cycle Length: 83.1
Actuated Cycle Length: 83.1
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	10	10	1550	30	10	1070	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539	
Flt Permitted	0.950				0.075		
Satd. Flow (perm)	1770	1583	3529	0	140	3539	
Satd. Flow (RTOR)		11	3				
Lane Group Flow (vph)	11	11	1718	0	11	1163	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Minimum Initial (s)	5.0	5.0	15.0		7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0		10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	0.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	0.0%	13.4%	52.9%	34%
Maximum Green (s)	19.9	19.9	40.0		8.0	40.0	24.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0		0.1	1.0	1.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0	2.0
Recall Mode	None	None	C-Min		None	C-Min	None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	16.9	16.9	57.8		61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70		0.74	0.70	
v/c Ratio	0.03	0.03	0.70		0.05	0.47	
Control Delay	20.9	11.4	6.7		6.3	12.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.9	11.4	6.7		6.3	12.1	
LOS	C	B	A		A	B	
Approach Delay	16.1		6.7			12.0	
Approach LOS	B		A			B	
Queue Length 50th (ft)	4	0	42		2	229	
Queue Length 95th (ft)	16	12	#598		8	298	
Internal Link Dist (ft)	204		86			664	
Turn Bay Length (ft)							
Base Capacity (vph)	530	482	2454		261	2461	
Starvation Cap Reductn	0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.02	0.02	0.70		0.04	0.47	

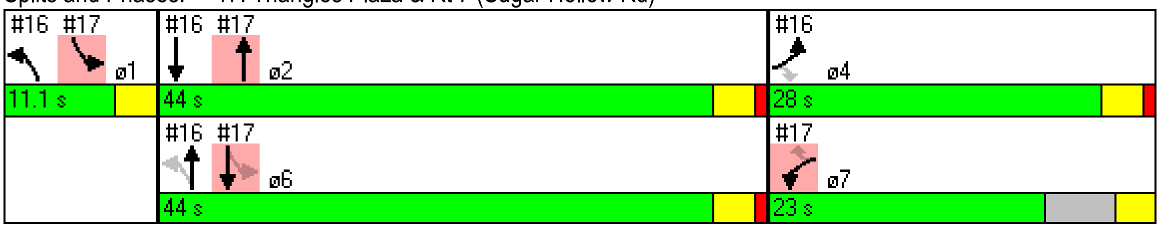
Intersection Summary
Cycle Length: 83.1
Actuated Cycle Length: 83.1
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

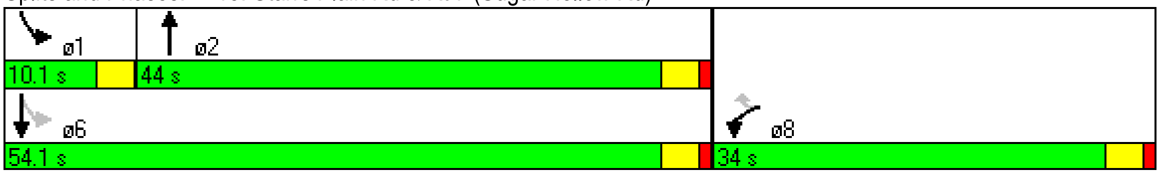


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	20	40	1550	30	130	1080
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.093	
Satd. Flow (perm)	1770	1583	3529	0	173	3539
Satd. Flow (RTOR)		43	3			
Lane Group Flow (vph)	22	43	1718	0	141	1174
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	5.0	5.0	15.0		4.0	15.0
Minimum Split (s)	23.0	23.0	19.0		7.1	19.0
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	0.0%	11.5%	61.4%
Maximum Green (s)	30.0	30.0	40.0		7.0	50.1
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		0.1	1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	Min	Min	Min		None	None
Walk Time (s)	18.0	18.0				
Flash Dont Walk (s)	1.0	1.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	5.5	5.5	40.0		49.9	49.0
Actuated g/C Ratio	0.09	0.09	0.64		0.80	0.78
v/c Ratio	0.14	0.24	0.76		0.49	0.42
Control Delay	28.6	13.3	11.0		11.0	2.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.6	13.3	11.0		11.0	2.8
LOS	C	B	B		B	A
Approach Delay	18.5		11.0			3.7
Approach LOS	B		B			A
Queue Length 50th (ft)	8	0	195		7	46
Queue Length 95th (ft)	27	26	318		47	76
Internal Link Dist (ft)	336		3518			2397
Turn Bay Length (ft)					80	
Base Capacity (vph)	611	574	2262		311	2786
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.04	0.07	0.76		0.45	0.42

Intersection Summary
Cycle Length: 88.1
Actuated Cycle Length: 62.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76

Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

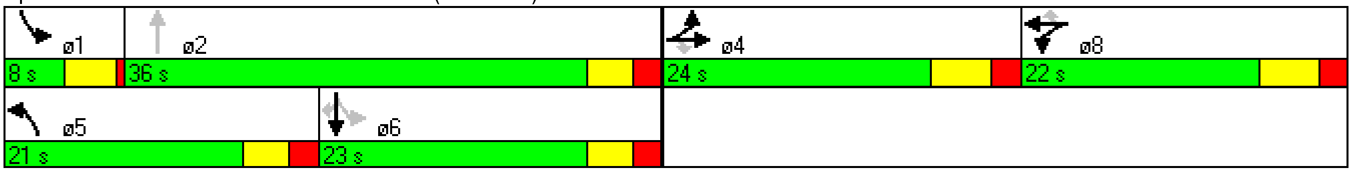
Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1390	80	600	30	60	20	330	440	30	20	570	1480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		175	0		0	60		0
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990				0.850
Flt Protected	0.950	0.957			0.983		0.950			0.950		
Satd. Flow (prot)	1681	1694	1583	0	1831	1583	1770	1844	0	1770	1863	1583
Flt Permitted	0.950	0.957			0.983		0.950			0.475		
Satd. Flow (perm)	1681	1694	1583	0	1831	1583	1770	1844	0	885	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			591			22		4				684
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			338			851			1681	
Travel Time (s)		23.1			7.7			19.3			38.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1511	87	652	33	65	22	359	478	33	22	620	1609
Shared Lane Traffic (%)	47%											
Lane Group Flow (vph)	801	797	652	0	98	22	359	511	0	22	620	1609
Turn Type	Split		Perm	Split		Perm	Prot			pm+pt		Perm
Protected Phases	4	4		8	8		5			1	6	
Permitted Phases			4			8		2		6		6
Total Split (s)	24.0	24.0	24.0	22.0	22.0	22.0	21.0	36.0	0.0	8.0	23.0	23.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	4.0	5.0	5.0
Act Effct Green (s)	18.0	18.0	18.0		10.7	10.7	21.3	40.1		24.9	18.0	18.0
Actuated g/C Ratio	0.20	0.20	0.20		0.12	0.12	0.24	0.45		0.28	0.20	0.20
v/c Ratio	2.38	2.35	0.83		0.45	0.11	0.86	0.62		0.07	1.66	1.86
Control Delay	652.8	638.2	15.2		43.1	15.4	55.4	25.3		23.2	332.3	410.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	652.8	638.2	15.2		43.1	15.4	55.4	25.3		23.2	332.3	410.3
LOS	F	F	B		D	B	E	C		C	F	F
Approach Delay		462.9			38.0			37.7			385.1	
Approach LOS		F			D			D			F	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.38	
Intersection Signal Delay: 354.3	Intersection LOS: F
Intersection Capacity Utilization 130.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	50	360	70	160	180	1420	160	100	1550	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	125		0	390		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.926				0.850		0.985			0.994	
Flt Protected		0.989			0.960		0.950			0.950		
Satd. Flow (prot)	0	1706	0	0	1788	1583	1770	3486	0	1770	3518	0
Flt Permitted		0.742			0.725		0.098			0.106		
Satd. Flow (perm)	0	1280	0	0	1350	1583	183	3486	0	197	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54				76		12			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		254			236			1681			876	
Travel Time (s)		5.8			5.4			38.2			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	54	391	76	174	196	1543	174	109	1685	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	467	174	196	1717	0	109	1761	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	12.0	21.0	0.0	12.0	21.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	5.5	4.0
Act Effct Green (s)		29.7			29.7	29.7	51.8	41.9		46.5	37.8	
Actuated g/C Ratio		0.33			0.33	0.33	0.58	0.47		0.52	0.42	
v/c Ratio		0.21			1.05	0.30	0.76	1.05		0.52	1.19	
Control Delay		12.5			87.3	14.2	20.5	49.7		19.8	119.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		12.5			87.3	14.2	20.5	49.7		19.8	119.2	
LOS		B			F	B	C	D		B	F	
Approach Delay		12.5			67.4			46.7			113.4	
Approach LOS		B			E			D			F	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 76.5 Intersection LOS: E
Intersection Capacity Utilization 97.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	60	30	1640	20	10	1640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3532	0	1770	3539
Flt Permitted	0.950				0.089	
Satd. Flow (perm)	1770	1583	3532	0	166	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		33	2			
Link Speed (mph)	30		30			30
Link Distance (ft)	504		876			1254
Travel Time (s)	11.5		19.9			28.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	33	1783	22	11	1783
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	33	1805	0	11	1783
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Act Effct Green (s)	8.6	8.6	72.9		76.6	75.0
Actuated g/C Ratio	0.10	0.10	0.81		0.85	0.83
v/c Ratio	0.38	0.18	0.63		0.04	0.61
Control Delay	44.4	15.4	6.7		2.0	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.4	15.4	6.7		2.0	4.7
LOS	D	B	A		A	A
Approach Delay	34.6		6.7			4.7
Approach LOS	C		A			A

Intersection Summary	
Area Type: Other	
Cycle Length: 90.1	
Actuated Cycle Length: 90.1	
Offset: 18 (20%), Referenced to phase 2:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 6.4	Intersection LOS: A
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	50	50	1570	1570	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.944				0.991	
Flt Protected	0.972		0.950			
Satd. Flow (prot)	1709	0	1770	3539	3507	0
Flt Permitted	0.972		0.065			
Satd. Flow (perm)	1709	0	121	3539	3507	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	37				10	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1368			1254	426	
Travel Time (s)	31.1			28.5	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	54	54	1707	1707	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	130	0	54	1707	1816	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Total Split (s)	29.0	0.0	15.0	65.0	50.0	0.0
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Act Effct Green (s)	20.0		67.0	66.0	59.5	
Actuated g/C Ratio	0.21		0.71	0.70	0.63	
v/c Ratio	0.33		0.31	0.69	0.82	
Control Delay	24.9		8.6	9.9	17.5	
Queue Delay	0.0		0.0	0.0	33.7	
Total Delay	24.9		8.6	9.9	51.2	
LOS	C		A	A	D	
Approach Delay	24.9			9.8	51.2	
Approach LOS	C			A	D	

Intersection Summary	
Area Type: Other	
Cycle Length: 94	
Actuated Cycle Length: 94	
Offset: 54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 30.6	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	10	50	160	10	60	40	1560	40	30	1460	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.872			0.996			0.999	
Flt Protected		0.980		0.950				0.999			0.999	
Satd. Flow (prot)	0	1701	0	1770	1624	0	0	3522	0	0	3532	0
Flt Permitted		0.870		0.674				0.841			0.852	
Satd. Flow (perm)	0	1510	0	1255	1624	0	0	2965	0	0	3012	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			65			5			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			796			426			1406	
Travel Time (s)		5.5			18.1			9.7			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	11	54	174	11	65	43	1696	43	33	1587	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	174	76	0	0	1782	0	0	1631	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	59.0	59.0	0.0	6.0	65.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Act Effct Green (s)		20.2		20.2	20.2			61.8			61.8	
Actuated g/C Ratio		0.22		0.22	0.22			0.69			0.69	
v/c Ratio		0.29		0.62	0.18			0.87			0.79	
Control Delay		19.5		42.1	10.7			17.6			13.3	
Queue Delay		0.0		0.0	0.0			30.6			0.0	
Total Delay		19.5		42.1	10.7			48.2			13.3	
LOS		B		D	B			D			B	
Approach Delay		19.5			32.6			48.2			13.3	
Approach LOS		B			C			D			B	

Intersection Summary

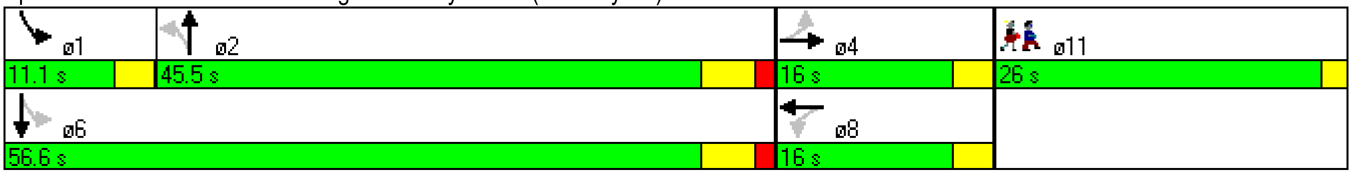
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 31.2 — Intersection LOS: C
Intersection Capacity Utilization 96.5% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	10	10	1430	50	100	1630	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		0	40		0	50		0	130		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt					0.850			0.995			0.999	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	1863	0	1770	1583	0	0	3522	0	1770	3536	0
Flt Permitted				0.833				0.934		0.116		
Satd. Flow (perm)	1863	1863	0	1552	1583	0	0	3289	0	216	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					488			4			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		188			164			1406			608	
Travel Time (s)		4.3			3.7			32.0			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	22	0	11	11	1554	54	109	1772	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	22	11	0	0	1619	0	109	1783	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Act Effct Green (s)				8.0	8.0			76.2		88.8	88.6	
Actuated g/C Ratio				0.08	0.08			0.77		0.90	0.90	
v/c Ratio				0.17	0.02			0.64		0.35	0.56	
Control Delay				45.8	0.1			7.6		4.1	2.8	
Queue Delay				0.0	0.0			0.0		0.0	0.3	
Total Delay				45.8	0.1			7.6		4.1	3.1	
LOS				D	A			A		A	A	
Approach Delay					30.6			7.6			3.1	
Approach LOS					C			A			A	

Intersection Summary	
Area Type: Other	
Cycle Length: 98.6	
Actuated Cycle Length: 98.6	
Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 5.4	Intersection LOS: A
Intersection Capacity Utilization 97.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)



Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	26.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	10	10	290	110	70	70	1370	60	30	1460	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.980			0.994			0.991	
Flt Protected		0.976			0.970			0.998			0.999	
Satd. Flow (prot)	0	1818	1583	0	1771	0	0	3511	0	0	3504	0
Flt Permitted		0.880			0.799			0.663			0.878	
Satd. Flow (perm)	0	1639	1583	0	1459	0	0	2332	0	0	3079	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11		9			10			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			1396			608			4276	
Travel Time (s)		7.5			31.7			13.8			97.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	315	120	76	76	1489	65	33	1587	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	11	0	511	0	0	1630	0	0	1729	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)		22.0	22.0		22.0			60.0			60.0	
Actuated g/C Ratio		0.24	0.24		0.24			0.67			0.67	
v/c Ratio		0.05	0.03		1.41			1.05			0.84	
Control Delay		26.6	14.1		228.5			53.0			15.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		26.6	14.1		228.5			53.0			15.3	
LOS		C	B		F			D			B	
Approach Delay		22.5			228.5			53.0			15.3	
Approach LOS		C			F			D			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 59.0 Intersection LOS: E
Intersection Capacity Utilization 129.0% ICU Level of Service H
Analysis Period (min) 15

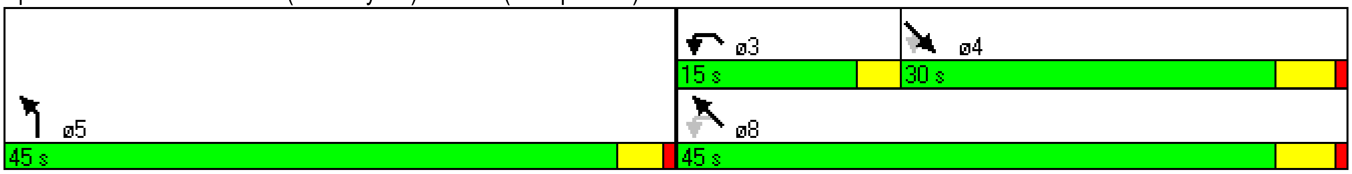
Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	930	360	600	1130	600	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	248	
Storage Lanes	2	0		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	0.95
Frt	0.958			0.850		
Flt Protected	0.965				0.950	
Satd. Flow (prot)	3341	0	1863	1583	1770	3539
Flt Permitted	0.965				0.143	
Satd. Flow (perm)	3341	0	1863	1583	266	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	87			846		
Link Speed (mph)	30		30			30
Link Distance (ft)	4276		2591			1707
Travel Time (s)	97.2		58.9			38.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1011	391	652	1228	652	815
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1402	0	652	1228	652	815
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Act Effct Green (s)	40.3		25.0	25.0	42.7	40.7
Actuated g/C Ratio	0.45		0.28	0.28	0.47	0.45
v/c Ratio	0.91		1.26	1.17	1.93	0.51
Control Delay	25.5		162.0	98.6	449.3	19.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	25.5		162.0	98.6	449.3	19.2
LOS	C		F	F	F	B
Approach Delay	25.5		120.6			210.4
Approach LOS	C		F			F

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.93
Intersection Signal Delay: 120.2 Intersection LOS: F
Intersection Capacity Utilization 113.5% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	50	30	460	90	250	20	600	230	410	820	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	380		190	50		900	130		0
Storage Lanes	1		0	1		1	1		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.943				0.850			0.850		0.991	
Flt Protected	0.950			0.950	0.967		0.950			0.950		
Satd. Flow (prot)	1770	1757	0	1681	1711	1583	1770	3539	1583	3433	3507	0
Flt Permitted	0.950			0.950	0.967		0.950			0.950		
Satd. Flow (perm)	1770	1757	0	1681	1711	1583	1770	3539	1583	3433	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28				233			250		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		442			766			965			245	
Travel Time (s)		10.0			17.4			21.9			5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	33	500	98	272	22	652	250	446	891	54
Shared Lane Traffic (%)				41%								
Lane Group Flow (vph)	54	87	0	295	303	272	22	652	250	446	945	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases											2	
Minimum Initial (s)	15.0	15.0		5.0	5.0		5.0					
Minimum Split (s)	21.0	21.0		9.0	9.0		11.0					
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	0.0%
Maximum Green (s)	10.0	10.0		18.0	18.0		3.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		4.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		2.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	6.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effct Green (s)	10.1	10.1		18.1	18.1	36.2	3.0	25.2	25.2	17.1	37.2	
Actuated g/C Ratio	0.12	0.12		0.21	0.21	0.42	0.03	0.29	0.29	0.20	0.43	
v/c Ratio	0.26	0.38		0.84	0.85	0.34	0.35	0.64	0.39	0.66	0.63	
Control Delay	40.4	32.2		57.0	57.6	3.4	58.6	31.1	5.5	42.9	22.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	4.6	44.9	
Total Delay	40.4	32.2		57.0	57.6	3.4	58.6	31.1	5.5	47.5	67.5	
LOS	D	C		E	E	A	E	C	A	D	E	
Approach Delay		35.4			40.5			24.8			61.1	
Approach LOS		D			D			C			E	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	21.0	8.0	10.0
Total Split (s)	22.0	9.0	12.0
Total Split (%)	24%	10%	13%
Maximum Green (s)	16.0	5.0	7.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Actuated Cycle Length: 86.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)

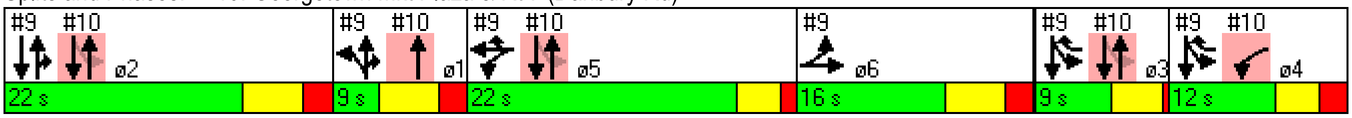
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	50	50	870	30	50	1230					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95					
Frt	0.932		0.995								
Flt Protected	0.976				0.950						
Satd. Flow (prot)	1694	0	3522	0	1770	3539					
Flt Permitted	0.976				0.237						
Satd. Flow (perm)	1694	0	3522	0	441	3539					
Right Turn on Red		Yes		Yes							
Satd. Flow (RTOR)	43		6								
Link Speed (mph)	30		30			30					
Link Distance (ft)	207		245			213					
Travel Time (s)	4.7		5.6			4.8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	54	54	946	33	54	1337					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	108	0	979	0	54	1337					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0						11.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	0.0%	68.9%	0.0%	58.9%	58.9%	10%	24%	10%	24%	18%
Maximum Green (s)	7.0						3.0	16.0	5.0	18.0	10.0
Yellow Time (s)	3.0						4.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						2.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	6.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	None	None	None	None
Act Effct Green (s)	7.0		51.7		36.6	36.6					
Actuated g/C Ratio	0.08		0.60		0.42	0.42					
v/c Ratio	0.61		0.47		0.29	0.90					
Control Delay	41.9		2.9		13.1	26.0					
Queue Delay	1.2		0.3		0.0	58.6					
Total Delay	43.1		3.2		13.1	84.6					
LOS	D		A		B	F					
Approach Delay	43.1		3.2			81.8					
Approach LOS	D		A			F					

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 86.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90

Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	1	95	920	15	145	1280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.866		0.998			
Flt Protected					0.950	
Satd. Flow (prot)	1613	0	3532	0	1770	1863
Flt Permitted					0.201	
Satd. Flow (perm)	1613	0	3532	0	374	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	103		3			
Link Speed (mph)	30		30			30
Link Distance (ft)	273		594			437
Travel Time (s)	6.2		13.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	103	1000	16	158	1391
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	1016	0	158	1391
Turn Type					pm+pt	
Protected Phases	6		2		1	1 2
Permitted Phases					1 2	
Minimum Initial (s)	5.0		15.0		5.0	
Minimum Split (s)	10.5		22.0		9.0	
Total Split (s)	10.5	0.0	38.5	0.0	21.0	59.5
Total Split (%)	15.0%	0.0%	55.0%	0.0%	30.0%	85.0%
Maximum Green (s)	5.0		32.5		17.0	
Yellow Time (s)	3.0		4.0		3.0	
All-Red Time (s)	2.5		2.0		1.0	
Total Lost Time (s)	5.5	4.0	6.0	4.0	4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		Max		Max	
Walk Time (s)	5.0		5.0		5.0	
Flash Dont Walk (s)	11.0		11.0		11.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	5.0		32.6		51.7	56.6
Actuated g/C Ratio	0.07		0.48		0.76	0.83
v/c Ratio	0.48		0.60		0.25	0.90
Control Delay	16.0		15.2		2.8	16.2
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	16.0		15.2		2.8	16.2
LOS	B		B		A	B
Approach Delay	16.0		15.2			14.8
Approach LOS	B		B			B

Intersection Summary	
Area Type:	Other
Cycle Length: 70	

Actuated Cycle Length: 67.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 83: North Main St. & Route 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	10	330	10	20	0	290	750	0	10	1040	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	100		0	0		0
Storage Lanes	0		1	0		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850								0.987	
Flt Protected		0.957			0.984		0.950					
Satd. Flow (prot)	0	1783	1583	0	1833	0	1770	1863	0	0	1839	0
Flt Permitted		0.726			0.909		0.150				0.992	
Satd. Flow (perm)	0	1352	1583	0	1693	0	279	1863	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283								8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			370			1280			2667	
Travel Time (s)		14.3			8.4			29.1			60.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	11	359	11	22	0	315	815	0	11	1130	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	359	0	33	0	315	815	0	0	1261	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Act Effct Green (s)		18.4	18.4		18.4		75.2	72.3			55.0	
Actuated g/C Ratio		0.18	0.18		0.18		0.74	0.71			0.54	
v/c Ratio		0.40	0.69		0.11		0.76	0.62			1.27	
Control Delay		42.7	17.2		36.2		24.5	10.1			155.5	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		42.7	17.2		36.2		24.5	10.1			155.5	
LOS		D	B		D		C	B			F	
Approach Delay		22.7			36.2			14.1			155.5	
Approach LOS		C			D			B			F	

Intersection Summary	
Area Type: Other	
Cycle Length: 104.1	
Actuated Cycle Length: 101.7	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 77.6	Intersection LOS: E
Intersection Capacity Utilization 130.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	50	60	60	230	60	80	640	0	30	930	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	94		0	220		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.938			0.977						0.997	
Flt Protected		0.992			0.992		0.950			0.950		
Satd. Flow (prot)	0	1733	0	0	1805	0	1770	1863	0	1770	1857	0
Flt Permitted		0.867			0.927		0.124			0.220		
Satd. Flow (perm)	0	1515	0	0	1687	0	231	1863	0	410	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			10						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		487			269			2915			1956	
Travel Time (s)		11.1			6.1			66.3			44.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	54	65	65	250	65	87	696	0	33	1011	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	380	0	87	696	0	33	1033	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Act Effct Green (s)		18.3			18.3		41.4	41.4		52.7	49.7	
Actuated g/C Ratio		0.23			0.23		0.53	0.53		0.67	0.64	
v/c Ratio		0.37			0.94		0.71	0.71		0.09	0.87	
Control Delay		23.9			66.0		47.4	17.8		4.2	20.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		23.9			66.0		47.4	17.8		4.2	20.9	
LOS		C			E		D	B		A	C	
Approach Delay		23.9			66.0			21.1			20.4	
Approach LOS		C			E			C			C	

Intersection Summary	
Area Type: Other	
Cycle Length: 93	
Actuated Cycle Length: 78.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.2	Intersection LOS: C
Intersection Capacity Utilization 100.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	40	30	950	90	40	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941		0.988			
Flt Protected	0.972					0.997
Satd. Flow (prot)	1704	0	1840	0	0	1857
Flt Permitted	0.972					0.400
Satd. Flow (perm)	1704	0	1840	0	0	745
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			9			
Link Speed (mph)	30		30			30
Link Distance (ft)	672		4383			412
Travel Time (s)	15.3		99.6			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	33	1033	98	43	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	1131	0	0	782
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Act Effct Green (s)	19.7		34.3			42.6
Actuated g/C Ratio	0.32		0.57			0.70
v/c Ratio	0.14		1.08			1.39
Control Delay	19.4		74.9			204.7
Queue Delay	0.0		0.0			0.0
Total Delay	19.4		74.9			204.7
LOS	B		E			F
Approach Delay	19.4		74.9			204.7
Approach LOS	B		E			F

Intersection Summary	
Area Type: Other	
Cycle Length: 70.9	
Actuated Cycle Length: 60.7	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.39	
Intersection Signal Delay: 123.8	Intersection LOS: F
Intersection Capacity Utilization 92.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	20	20	40	40	30	20	660	20	20	900	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.963			0.996			0.996	
Flt Protected		0.979			0.982			0.999			0.999	
Satd. Flow (prot)	0	1753	0	0	1762	0	0	1853	0	0	1853	0
Flt Permitted		0.856			0.879			0.961			0.980	
Satd. Flow (perm)	0	1532	0	0	1577	0	0	1783	0	0	1818	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								3			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			267			292			777	
Travel Time (s)		5.0			6.1			6.6			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	22	22	43	43	33	22	717	22	22	978	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	119	0	0	761	0	0	1033	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Act Effct Green (s)		25.1			25.1			49.5			49.5	
Actuated g/C Ratio		0.35			0.35			0.69			0.69	
v/c Ratio		0.14			0.22			0.61			0.82	
Control Delay		23.7			24.8			12.3			20.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.7			24.8			12.3			20.3	
LOS		C			C			B			C	
Approach Delay		23.7			24.8			12.3			20.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other

Cycle Length: 84

Actuated Cycle Length: 71.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.6 — Intersection LOS: B

Intersection Capacity Utilization 83.8% — ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	470	70	50	630	770	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180	0	270			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25	25	25			25
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	1.00
Frt	0.981					0.850
Flt Protected	0.958			0.996		
Satd. Flow (prot)	3396	0	0	3525	1863	1583
Flt Permitted	0.958			0.674		
Satd. Flow (perm)	3396	0	0	2385	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	19					804
Link Speed (mph)	30			30	30	
Link Distance (ft)	1087			505	2089	
Travel Time (s)	24.7			11.5	47.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	76	54	685	837	804
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	0	0	739	837	804
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Act Effct Green (s)	20.6			46.2	39.1	65.8
Actuated g/C Ratio	0.26			0.59	0.50	0.84
v/c Ratio	0.64			0.52	0.90	0.55
Control Delay	29.1			10.9	32.0	1.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	29.1			10.9	32.0	1.6
LOS	C			B	C	A
Approach Delay	29.1			10.9	17.1	
Approach LOS	C			B	B	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 78	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	60	40	20	970	1560	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	80			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25	25	25			25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	
Frt		0.850			0.997		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	3539	3529	0	
Flt Permitted	0.950		0.080				
Satd. Flow (perm)	1770	1583	149	3539	3529	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		43			3		
Link Speed (mph)	30			30	30		
Link Distance (ft)	488			1875	166		
Travel Time (s)	11.1			42.6	3.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	65	43	22	1054	1696	33	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	65	43	22	1054	1729	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	24.0
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Act Effct Green (s)	24.0	24.0	56.4	53.4	53.4		
Actuated g/C Ratio	0.29	0.29	0.68	0.64	0.64		
v/c Ratio	0.13	0.09	0.09	0.46	0.76		
Control Delay	22.8	7.8	6.8	11.8	7.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	22.8	7.8	6.8	11.8	7.0		
LOS	C	A	A	B	A		
Approach Delay	16.8			11.7	7.0		
Approach LOS	B			B	A		

Intersection Summary	
Area Type: Other	
Cycle Length: 83.1	
Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	0	10	1010	20	0	1590	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Frt		0.850	0.997				
Flt Protected							
Satd. Flow (prot)	1863	1583	3529	0	1863	3539	
Flt Permitted							
Satd. Flow (perm)	1863	1583	3529	0	1863	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		224	3				
Link Speed (mph)	30		30			30	
Link Distance (ft)	284		166			744	
Travel Time (s)	6.5		3.8			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	11	1098	22	0	1728	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	11	1120	0	0	1728	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Total Split (s)	24.0	24.0	44.0	0.0	11.1	44.0	28.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Act Effct Green (s)		20.9	53.4			53.4	
Actuated g/C Ratio		0.25	0.64			0.64	
v/c Ratio		0.02	0.49			0.76	
Control Delay		0.1	3.4			18.6	
Queue Delay		0.0	0.0			0.1	
Total Delay		0.1	3.4			18.8	
LOS		A	A			B	
Approach Delay			3.4			18.8	
Approach LOS			A			B	

Intersection Summary	
Area Type: Other	
Cycle Length: 83.1	
Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 47.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	180	1060	20	40	1550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	80	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.191	
Satd. Flow (perm)	1770	1583	3529	0	356	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		193	3			
Link Speed (mph)	30		30			30
Link Distance (ft)	416		3598			2477
Travel Time (s)	9.5		81.8			56.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	196	1152	22	43	1685
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	196	1174	0	43	1685
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Act Effct Green (s)	6.8	6.8	45.5		51.3	50.4
Actuated g/C Ratio	0.10	0.10	0.70		0.79	0.77
v/c Ratio	0.29	0.58	0.48		0.11	0.62
Control Delay	30.8	12.5	6.2		2.4	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	30.8	12.5	6.2		2.4	4.7
LOS	C	B	A		A	A
Approach Delay	16.4		6.2			4.6
Approach LOS	B		A			A

Intersection Summary	
Area Type: Other	
Cycle Length: 88.1	
Actuated Cycle Length: 65.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

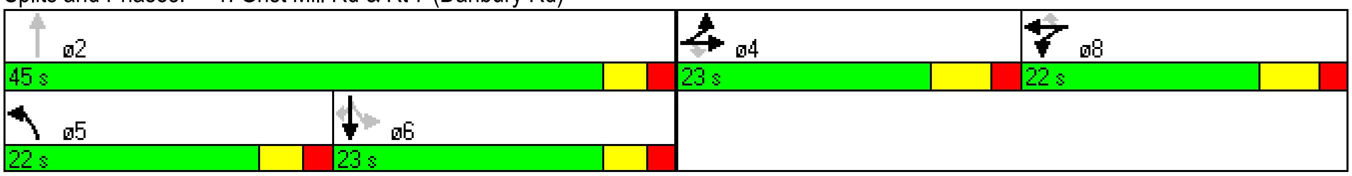
Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1550	10	400	10	30	10	540	750	20	10	550	1300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		175	0		0	60		0
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.996				0.850
Flt Protected	0.950	0.953			0.988		0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	0	1840	1583	1770	1855	0	1770	1863	1583
Flt Permitted	0.950	0.953			0.988		0.950			0.336		
Satd. Flow (perm)	1681	1686	1583	0	1840	1583	1770	1855	0	626	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			427			11		2				652
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			338			851			1681	
Travel Time (s)		23.1			7.7			19.3			38.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1685	11	435	11	33	11	587	815	22	11	598	1413
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	842	854	435	0	44	11	587	837	0	11	598	1413
Turn Type	Split		Perm	Split		Perm	Prot			Perm		Perm
Protected Phases	4	4		8	8		5				6	
Permitted Phases			4			8		2		6		6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	21.5	21.0		21.5	21.5	21.5
Total Split (s)	23.0	23.0	23.0	22.0	22.0	22.0	22.0	45.0	0.0	23.0	23.0	23.0
Total Split (%)	25.6%	25.6%	25.6%	24.4%	24.4%	24.4%	24.4%	50.0%	0.0%	25.6%	25.6%	25.6%
Maximum Green (s)	17.0	17.0	17.0	16.0	16.0	16.0	17.0	40.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	Min	Min	None	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	17.0		7.6	7.6	25.4	48.4		18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19		0.08	0.08	0.28	0.54		0.20	0.20	0.20
v/c Ratio	2.65	2.69	0.67		0.28	0.08	1.18	0.84		0.09	1.60	1.69
Control Delay	769.8	786.5	9.6		42.5	20.5	130.8	27.7		37.0	303.7	330.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	769.8	786.5	9.6		42.5	20.5	130.8	27.7		37.0	303.7	330.1
LOS	F	F	A		D	C	F	C		D	F	F
Approach Delay		621.3			38.1			70.2			320.7	
Approach LOS		F			D			E			F	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.69
Intersection Signal Delay: 368.3 | Intersection LOS: F
Intersection Capacity Utilization 127.1% | ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Danbury Rd)

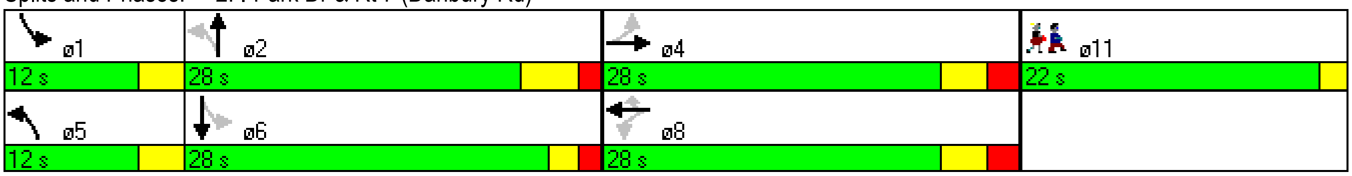


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	60	170	360	20	190	60	1890	380	200	1320	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	125		0	390		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.921				0.850		0.975			0.998	
Flt Protected		0.990			0.955		0.950			0.950		
Satd. Flow (prot)	0	1698	0	0	1779	1583	1770	3451	0	1770	3532	0
Flt Permitted		0.363			0.401		0.103			0.085		
Satd. Flow (perm)	0	623	0	0	747	1583	192	3451	0	158	3532	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76				91		25			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		254			236			1681			876	
Travel Time (s)		5.8			5.4			38.2			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	65	185	391	22	207	65	2054	413	217	1435	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	315	0	0	413	207	65	2467	0	217	1457	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	13.3	13.3		13.3	13.3	13.3	8.0	20.5		8.0	20.5	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	12.0	28.0	0.0	12.0	28.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	31.1%	13.3%	31.1%	0.0%	13.3%	31.1%	0.0%
Maximum Green (s)	22.7	22.7		22.7	22.7	22.7	9.0	22.5		9.0	24.4	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.9		3.0	2.0	
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	0.0	1.6		0.0	1.6	
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	3.6	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.5		1.0	2.5	
Recall Mode	None	None		None	None	None	None	C-Max		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7			22.7	22.7	50.0	42.3		59.0	51.8	
Actuated g/C Ratio		0.25			0.25	0.25	0.56	0.47		0.66	0.58	
v/c Ratio		1.47			2.20	0.44	0.33	1.51		0.71	0.72	
Control Delay		259.4			577.4	19.0	8.0	253.7		29.6	16.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		259.4			577.4	19.0	8.0	253.7		29.6	16.8	
LOS		F			F	B	A	F		C	B	
Approach Delay		259.4			391.0			247.4			18.5	
Approach LOS		F			F			F			B	

Intersection Summary

Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 9 (10%), Referenced to phase 2:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.20	
Intersection Signal Delay: 190.9	Intersection LOS: F
Intersection Capacity Utilization 130.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: I-Park Dr & Rt 7 (Danbury Rd)



Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	20.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	0.0
Flash Dont Walk (s)	22.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	70	1900	110	50	1580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3511	0	1770	3539
Flt Permitted	0.950				0.060	
Satd. Flow (perm)	1770	1583	3511	0	112	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		76	11			
Link Speed (mph)	30		30			30
Link Distance (ft)	504		876			1254
Travel Time (s)	11.5		19.9			28.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	76	2065	120	54	1717
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	76	2185	0	54	1717
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	7.0	7.0	20.0		7.0	20.0
Minimum Split (s)	11.0	11.0	25.9		10.1	25.9
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	0.0%	14.5%	78.9%
Maximum Green (s)	15.0	15.0	52.1		10.0	65.2
Yellow Time (s)	3.0	3.0	3.9		3.0	3.9
All-Red Time (s)	1.0	1.0	2.0		0.1	2.0
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.5	2.5	2.5		2.0	2.5
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	9.1	9.1	66.4		76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74		0.84	0.83
v/c Ratio	0.42	0.33	0.84		0.24	0.59
Control Delay	44.8	13.2	16.0		4.6	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.8	13.2	16.0		4.6	4.7
LOS	D	B	B		A	A
Approach Delay	29.0		16.0			4.7
Approach LOS	C		B			A

Intersection Summary	
Area Type:	Other
Cycle Length: 90.1	

Actuated Cycle Length: 90.1
Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 11.6 — Intersection LOS: B
Intersection Capacity Utilization 70.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Danbury Rd)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	70	120	1750	1360	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.927				0.986	
Flt Protected	0.977		0.950			
Satd. Flow (prot)	1687	0	1770	3539	3490	0
Flt Permitted	0.977		0.069			
Satd. Flow (perm)	1687	0	129	3539	3490	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	60				16	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1368			1254	426	
Travel Time (s)	31.1			28.5	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	76	130	1902	1478	152
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	130	1902	1630	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Minimum Initial (s)	20.0		5.0	15.0	15.0	
Minimum Split (s)	29.0		8.0	19.0	19.0	
Total Split (s)	29.0	0.0	16.0	66.0	50.0	0.0
Total Split (%)	30.5%	0.0%	16.8%	69.5%	52.6%	0.0%
Maximum Green (s)	25.0		13.0	62.0	46.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		0.0	1.0	1.0	
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	1.0		1.0	0.2	0.2	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	15.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	20.0		68.0	67.0	57.5	
Actuated g/C Ratio	0.21		0.72	0.71	0.61	
v/c Ratio	0.35		0.64	0.76	0.77	
Control Delay	21.4		26.1	11.5	17.2	
Queue Delay	0.0		0.0	0.0	25.5	
Total Delay	21.4		26.1	11.5	42.7	
LOS	C		C	B	D	
Approach Delay	21.4			12.5	42.7	
Approach LOS	C			B	D	

Intersection Summary

Area Type: Other	
Cycle Length: 95	
Actuated Cycle Length: 95	
Offset: 54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	0	50	70	0	30	20	1670	120	70	1380	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.916			0.850			0.990			0.999	
Flt Protected		0.981		0.950				0.999			0.998	
Satd. Flow (prot)	0	1674	0	1770	1583	0	0	3500	0	0	3529	0
Flt Permitted		0.891		0.701				0.918			0.646	
Satd. Flow (perm)	0	1520	0	1306	1583	0	0	3217	0	0	2284	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			109			14			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			796			426			1406	
Travel Time (s)		5.5			18.1			9.7			32.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	0	54	76	0	33	22	1815	130	76	1500	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	76	33	0	0	1967	0	0	1587	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	6.0	6.0		20.0	20.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	10.0		24.0	24.0		19.0	19.0		6.0	19.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	58.0	58.0	0.0	8.0	66.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%	64.4%	64.4%	0.0%	8.9%	73.3%	0.0%
Maximum Green (s)	20.0	20.0		20.0	20.0		54.0	54.0		5.0	62.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	0.2	0.2		1.0	1.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)				15.0	15.0							
Flash Dont Walk (s)				1.0	1.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)		17.2		20.0	20.0			67.6			67.6	
Actuated g/C Ratio		0.19		0.22	0.22			0.75			0.75	
v/c Ratio		0.26		0.26	0.08			0.81			0.92	
Control Delay		15.7		31.9	0.3			13.6			24.2	
Queue Delay		0.0		0.0	0.0			6.3			0.0	
Total Delay		15.7		31.9	0.3			20.0			24.2	
LOS		B		C	A			B			C	
Approach Delay		15.7			22.3			20.0			24.2	
Approach LOS		B			C			B			C	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 113.7% ICU Level of Service H
Analysis Period (min) 15

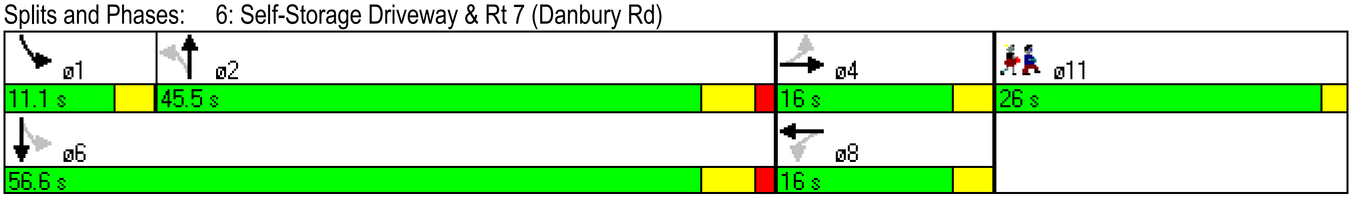
Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	30	80	0	80	10	1790	20	10	1370	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		0	40		0	50		0	130		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.998			0.999	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1583	0	1770	1583	0	0	3532	0	1770	3536	0
Flt Permitted	0.604			0.736				0.942		0.067		
Satd. Flow (perm)	1125	1583	0	1371	1583	0	0	3327	0	125	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		378			486			1			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		188			164			1406			608	
Travel Time (s)		4.3			3.7			32.0			13.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	33	87	0	87	11	1946	22	11	1489	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	33	0	87	87	0	0	1979	0	11	1500	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0		5.0	15.0	
Minimum Split (s)	11.1	11.1		11.1	11.1		20.5	20.5		8.1	20.5	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Split (%)	16.2%	16.2%	0.0%	16.2%	16.2%	0.0%	46.1%	46.1%	0.0%	11.3%	57.4%	0.0%
Maximum Green (s)	12.9	12.9		12.9	12.9		40.0	40.0		8.0	51.1	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.9	3.9		3.0	3.9	
All-Red Time (s)	0.1	0.1		0.1	0.1		1.6	1.6		0.1	1.6	
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.1	10.1		10.1	10.1			78.3		82.3	79.9	
Actuated g/C Ratio	0.10	0.10		0.10	0.10			0.79		0.83	0.81	
v/c Ratio	0.10	0.07		0.62	0.15			0.75		0.06	0.52	
Control Delay	40.6	0.3		61.3	0.5			8.6		2.3	4.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.4	
Total Delay	40.6	0.3		61.3	0.5			8.6		2.3	4.4	
LOS	D	A		E	A			A		A	A	
Approach Delay		10.4			30.9			8.6			4.4	
Approach LOS		B			C			A			A	

Intersection Summary

Area Type: Other	
Cycle Length: 98.6	
Actuated Cycle Length: 98.6	
Offset: 14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)



Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	3.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	26%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

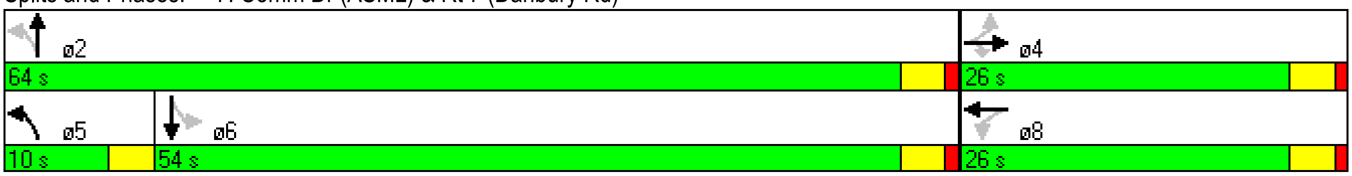
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	90	50	70	10	80	10	1730	270	80	1270	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.932			0.980			0.998	
Flt Protected		0.976			0.979						0.997	
Satd. Flow (prot)	0	1818	1583	0	1700	0	0	3468	0	0	3522	0
Flt Permitted		0.721			0.650			0.944			0.563	
Satd. Flow (perm)	0	1343	1583	0	1128	0	0	3274	0	0	1989	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54		24			41			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			1396			608			4276	
Travel Time (s)		7.5			31.7			13.8			97.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	98	54	76	11	87	11	1880	293	87	1380	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	54	0	174	0	0	2184	0	0	1489	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		7.0	15.0		15.0	15.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0		10.0	19.0		19.0	19.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%	0.0%	11.1%	71.1%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0		7.0	60.0		50.0	50.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		0.0	1.0		1.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	13.0	13.0	13.0	13.0	13.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		19.2	19.2		19.2			62.8			62.8	
Actuated g/C Ratio		0.21	0.21		0.21			0.70			0.70	
v/c Ratio		0.69	0.14		0.67			0.95			1.07	
Control Delay		45.6	9.0		41.4			23.8			57.5	
Queue Delay		0.0	0.0		0.0			15.9			0.0	
Total Delay		45.6	9.0		41.4			39.7			57.5	
LOS		D	A		D			D			E	
Approach Delay		37.7			41.4			39.7			57.5	
Approach LOS		D			D			D			E	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 46.1 Intersection LOS: D
Intersection Capacity Utilization 118.5% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

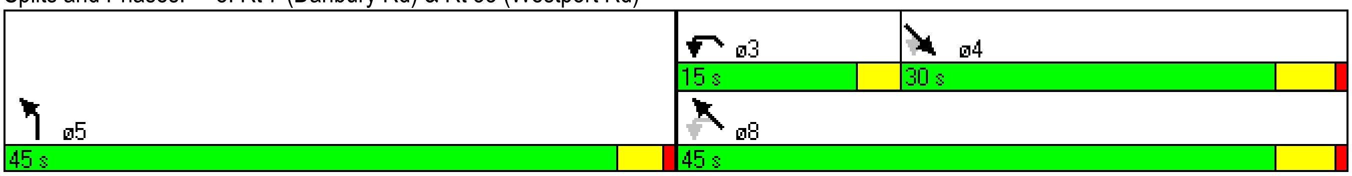


Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	1430	450	740	890	320	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	248	
Storage Lanes	2	0		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	0.95
Frt	0.964			0.850		
Flt Protected	0.963				0.950	
Satd. Flow (prot)	3355	0	1863	1583	1770	3539
Flt Permitted	0.963				0.143	
Satd. Flow (perm)	3355	0	1863	1583	266	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	64			733		
Link Speed (mph)	30		30			30
Link Distance (ft)	4276		2591			1707
Travel Time (s)	97.2		58.9			38.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1554	489	804	967	348	674
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2043	0	804	967	348	674
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Minimum Initial (s)	10.0		20.0	20.0	5.0	20.0
Minimum Split (s)	14.0		25.0	25.0	8.0	25.0
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	0.0%	33.3%	33.3%	16.7%	50.0%
Maximum Green (s)	41.0		25.0	25.0	12.0	40.0
Yellow Time (s)	3.0		4.0	4.0	3.0	4.0
All-Red Time (s)	1.0		1.0	1.0	0.0	1.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	4.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	C-Min	None	C-Min
Act Effct Green (s)	41.0		25.0	25.0	42.0	40.0
Actuated g/C Ratio	0.46		0.28	0.28	0.47	0.44
v/c Ratio	1.31		1.55	1.00	1.07	0.43
Control Delay	164.2		285.1	38.3	93.7	18.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	164.2		285.1	38.3	93.7	18.2
LOS	F		F	D	F	B
Approach Delay	164.2		150.3			43.9
Approach LOS	F		F			D

Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.55
Intersection Signal Delay: 133.7 Intersection LOS: F
Intersection Capacity Utilization 122.4% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	70	40	300	40	470	20	910	650	460	760	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	380		190	50		900	130		0
Storage Lanes	1		0	1		1	1		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.946				0.850			0.850		0.989	
Flt Protected	0.950			0.950	0.963		0.950			0.950		
Satd. Flow (prot)	1770	1762	0	1681	1704	1583	1770	3539	1583	3433	3500	0
Flt Permitted	0.950			0.950	0.963		0.950			0.950		
Satd. Flow (perm)	1770	1762	0	1681	1704	1583	1770	3539	1583	3433	3500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				159			542		12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		442			766			965			245	
Travel Time (s)		10.0			17.4			21.9			5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	76	43	326	43	511	22	989	707	500	826	65
Shared Lane Traffic (%)				44%								
Lane Group Flow (vph)	65	119	0	183	186	511	22	989	707	500	891	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Minimum Initial (s)	10.0	10.0		5.0	5.0		5.0					
Minimum Split (s)	16.0	16.0		9.0	9.0		9.0					
Total Split (s)	16.0	16.0	0.0	16.0	16.0	36.0	11.0	38.0	38.0	20.0	47.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	17.8%	17.8%	40.0%	12.2%	42.2%	42.2%	22.2%	52.2%	0.0%
Maximum Green (s)	10.0	10.0		12.0	12.0		7.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		3.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effct Green (s)	10.0	10.0		12.0	12.0	28.0	7.0	34.0	34.0	16.0	41.0	
Actuated g/C Ratio	0.11	0.11		0.13	0.13	0.31	0.08	0.38	0.38	0.18	0.46	
v/c Ratio	0.33	0.55		0.82	0.82	0.85	0.16	0.74	0.76	0.82	0.56	
Control Delay	42.0	39.9		66.8	66.8	28.5	41.7	28.3	11.7	47.0	13.0	
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.1	0.0	28.9	11.7	
Total Delay	42.0	39.9		66.8	66.8	28.6	41.7	28.4	11.7	76.0	24.7	
LOS	D	D		E	E	C	D	C	B	E	C	
Approach Delay		40.6			44.6			21.7			43.1	
Approach LOS		D			D			C			D	

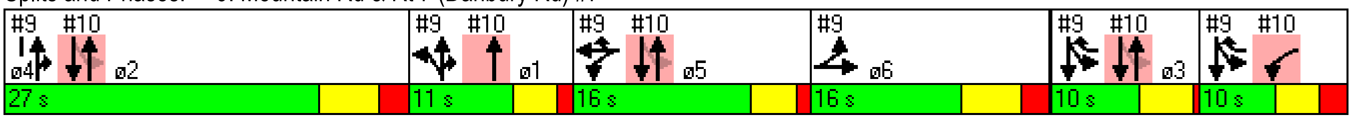
Intersection Summary	
Area Type:	Other
Cycle Length: 90	

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	22.0	8.0	10.0
Total Split (s)	27.0	10.0	10.0
Total Split (%)	30%	11%	11%
Maximum Green (s)	21.0	6.0	5.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd) #7

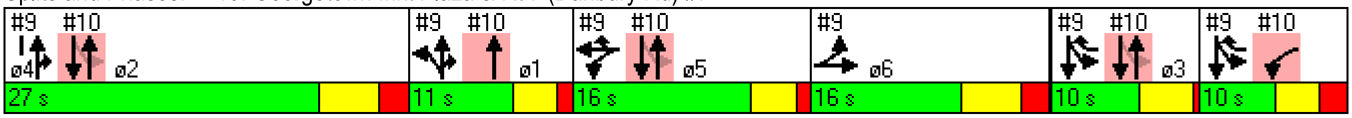


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	120	110	1380	60	80	1160					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95					
Frt	0.935		0.994								
Flt Protected	0.975				0.950						
Satd. Flow (prot)	1698	0	3518	0	1770	3539					
Flt Permitted	0.975				0.103						
Satd. Flow (perm)	1698	0	3518	0	192	3539					
Right Turn on Red		Yes		Yes							
Satd. Flow (RTOR)	39		9								
Link Speed (mph)	30		30			30					
Link Distance (ft)	207		245			213					
Travel Time (s)	4.7		5.6			4.8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	130	120	1500	65	87	1261					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	250	0	1565	0	87	1261					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	10.0
Minimum Split (s)	10.0						9.0	22.0	8.0	9.0	16.0
Total Split (s)	10.0	0.0	64.0	0.0	53.0	53.0	11.0	27.0	10.0	16.0	16.0
Total Split (%)	11.1%	0.0%	71.1%	0.0%	58.9%	58.9%	12%	30%	11%	18%	18%
Maximum Green (s)	5.0						7.0	21.0	6.0	12.0	10.0
Yellow Time (s)	3.0						3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						1.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	C-Max	None	None	None
Act Effct Green (s)	5.0		56.0		35.0	35.0					
Actuated g/C Ratio	0.06		0.62		0.39	0.39					
v/c Ratio	1.91		0.71		1.16	0.92					
Control Delay	459.1		4.7		178.6	25.6					
Queue Delay	41.2		0.7		0.0	23.8					
Total Delay	500.3		5.4		178.6	49.5					
LOS	F		A		F	D					
Approach Delay	500.3		5.4			57.8					
Approach LOS	F		A			E					

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	

Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 66.8	Intersection LOS: E
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7

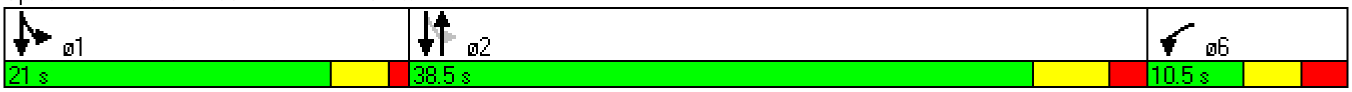


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	160	1490	20	125	1240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.873		0.998			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1621	0	3532	0	1770	1863
Flt Permitted	0.997				0.123	
Satd. Flow (perm)	1621	0	3532	0	229	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	174		3			
Link Speed (mph)	30		30			30
Link Distance (ft)	273		594			437
Travel Time (s)	6.2		13.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	174	1620	22	136	1348
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	1642	0	136	1348
Turn Type					pm+pt	
Protected Phases	6		2		1	1 2
Permitted Phases					1 2	
Minimum Initial (s)	5.0		15.0		5.0	
Minimum Split (s)	10.5		22.0		9.0	
Total Split (s)	10.5	0.0	38.5	0.0	21.0	59.5
Total Split (%)	15.0%	0.0%	55.0%	0.0%	30.0%	85.0%
Maximum Green (s)	5.0		32.5		17.0	
Yellow Time (s)	3.0		4.0		3.0	
All-Red Time (s)	2.5		2.0		1.0	
Total Lost Time (s)	5.5	4.0	6.0	4.0	4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		Max		Max	
Walk Time (s)	5.0		5.0		5.0	
Flash Dont Walk (s)	11.0		11.0		11.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	5.0		32.5		51.5	55.5
Actuated g/C Ratio	0.07		0.46		0.74	0.79
v/c Ratio	0.67		1.00		0.25	0.91
Control Delay	20.3		43.0		4.4	17.6
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	20.3		43.0		4.4	17.6
LOS	C		D		A	B
Approach Delay	20.3		43.0			16.4
Approach LOS	C		D			B

Intersection Summary	
Area Type:	Other
Cycle Length: 70	

Actuated Cycle Length: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 29.8	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 83: North Main St. & Route 7

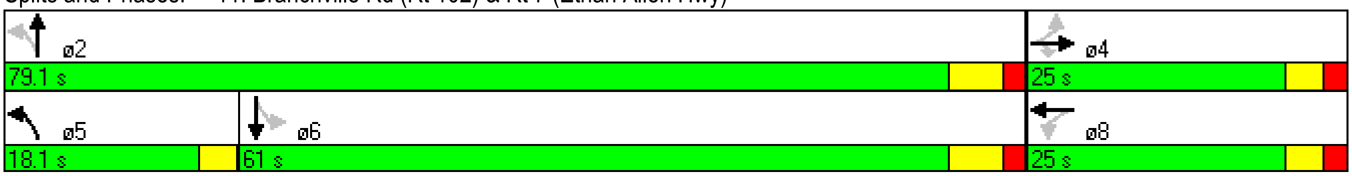


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	20	340	0	10	10	340	1200	0	10	940	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	100		0	0		0
Storage Lanes	0		1	0		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.932						0.988	
Flt Protected		0.958					0.950					
Satd. Flow (prot)	0	1785	1583	0	1736	0	1770	1863	0	0	1840	0
Flt Permitted		0.737					0.185				0.568	
Satd. Flow (perm)	0	1373	1583	0	1736	0	345	1863	0	0	1045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			299		11						7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			370			1280			2667	
Travel Time (s)		14.3			8.4			29.1			60.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	22	370	0	11	11	370	1304	0	11	1022	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	370	0	22	0	370	1304	0	0	1131	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		3.0	15.0		15.0	15.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0		6.5	21.0		21.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	0.0%	17.4%	76.0%	0.0%	58.6%	58.6%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		15.0	73.1		55.0	55.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	4.2		4.2	4.2	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.1	1.8		1.8	1.8	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	1.5	1.5	1.5	1.5	1.5		1.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None		None	None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		18.8	18.8		18.8		76.0	73.1			57.4	
Actuated g/C Ratio		0.18	0.18		0.18		0.74	0.71			0.56	
v/c Ratio		0.69	0.69		0.07		0.86	0.98			1.93	
Control Delay		55.0	16.3		23.8		30.9	37.4			446.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		55.0	16.3		23.8		30.9	37.4			446.4	
LOS		D	B		C		C	D			F	
Approach Delay		28.7			23.8			36.0			446.4	
Approach LOS		C			C			D			F	

Intersection Summary

Area Type: Other	
Cycle Length: 104.1	
Actuated Cycle Length: 102.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.93	
Intersection Signal Delay: 172.4	Intersection LOS: F
Intersection Capacity Utilization 148.3%	ICU Level of Service H
Analysis Period (min) 15	

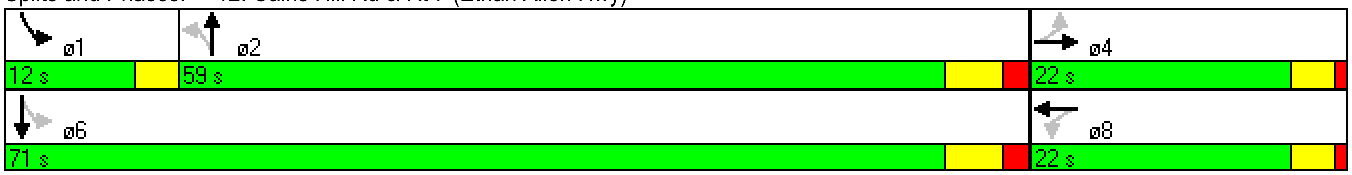
Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	160	110	20	40	40	90	1080	30	50	840	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	94		0	220		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.949			0.946			0.996			0.996	
Flt Protected		0.997			0.990		0.950			0.950		
Satd. Flow (prot)	0	1762	0	0	1745	0	1770	1855	0	1770	1855	0
Flt Permitted		0.976			0.788		0.225			0.071		
Satd. Flow (perm)	0	1725	0	0	1389	0	419	1855	0	132	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			32			3			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		487			269			2915			1956	
Travel Time (s)		11.1			6.1			66.3			44.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	174	120	22	43	43	98	1174	33	54	913	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	0	0	108	0	98	1207	0	54	935	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	18.0	18.0		18.0	18.0		30.0	30.0		5.0	30.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		36.0	36.0		8.0	36.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Split (%)	23.7%	23.7%	0.0%	23.7%	23.7%	0.0%	63.4%	63.4%	0.0%	12.9%	76.3%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		53.0	53.0		9.0	65.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		0.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	12.0	12.0		12.0	12.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		18.0			18.0		53.6	53.6		65.0	62.0	
Actuated g/C Ratio		0.20			0.20		0.60	0.60		0.72	0.69	
v/c Ratio		0.86			0.36		0.39	1.09		0.28	0.73	
Control Delay		55.2			26.3		15.5	76.2		7.2	13.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		55.2			26.3		15.5	76.2		7.2	13.0	
LOS		E			C		B	E		A	B	
Approach Delay		55.2			26.3			71.7			12.7	
Approach LOS		E			C			E			B	

Intersection Summary		
Area Type:	Other	
Cycle Length: 93		
Actuated Cycle Length: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.09		
Intersection Signal Delay: 46.5		Intersection LOS: D
Intersection Capacity Utilization 100.9%		ICU Level of Service G
Analysis Period (min) 15		

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	60	40	870	30	20	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.946		0.995			
Flt Protected	0.971					0.999
Satd. Flow (prot)	1711	0	1853	0	0	1861
Flt Permitted	0.971					0.579
Satd. Flow (perm)	1711	0	1853	0	0	1079
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			3			
Link Speed (mph)	30		30			30
Link Distance (ft)	672		4383			412
Travel Time (s)	15.3		99.6			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	43	946	33	22	1217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	979	0	0	1239
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Minimum Initial (s)	19.0		10.0		5.0	10.0
Minimum Split (s)	23.0		15.9		8.0	15.9
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Split (%)	33.9%	0.0%	54.9%	0.0%	11.3%	66.1%
Maximum Green (s)	20.0		33.0		5.0	41.0
Yellow Time (s)	3.0		4.4		3.0	4.4
All-Red Time (s)	1.0		1.5		0.0	1.5
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		2.5		0.2	2.5
Recall Mode	None		Min		Min	Min
Walk Time (s)	14.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	19.5		33.9			42.1
Actuated g/C Ratio	0.30		0.52			0.64
v/c Ratio	0.21		1.02			1.72
Control Delay	21.3		55.7			348.4
Queue Delay	0.0		0.0			0.0
Total Delay	21.3		55.7			348.4
LOS	C		E			F
Approach Delay	21.3		55.7			348.4
Approach LOS	C		E			F

Intersection Summary

Area Type: Other

Cycle Length: 70.9

Actuated Cycle Length: 65.3	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 210.0	Intersection LOS: F
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

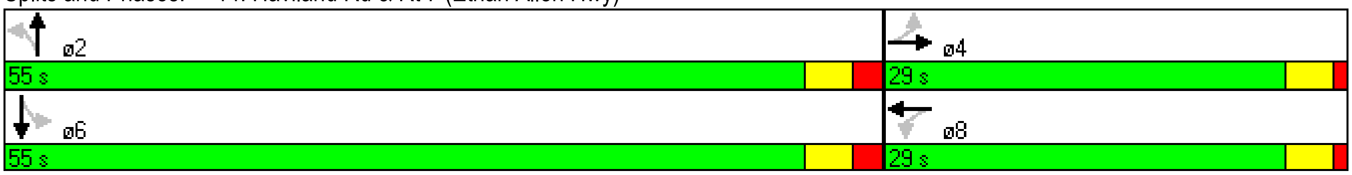
Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	40	20	20	30	40	20	1050	40	30	760	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.941			0.995			0.994	
Flt Protected		0.980			0.989			0.999			0.998	
Satd. Flow (prot)	0	1774	0	0	1734	0	0	1852	0	0	1848	0
Flt Permitted		0.861			0.929			0.979			0.932	
Satd. Flow (perm)	0	1559	0	0	1628	0	0	1815	0	0	1726	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								4			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			267			292			777	
Travel Time (s)		5.0			6.1			6.6			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	22	22	33	43	22	1141	43	33	826	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	98	0	0	1206	0	0	902	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	22.0	22.0		22.0	22.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		25.0	25.0		25.0	25.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	34.5%	34.5%	0.0%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)	17.0	17.0		17.0	17.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		22.5			22.5			52.6			52.6	
Actuated g/C Ratio		0.30			0.30			0.69			0.69	
v/c Ratio		0.23			0.20			0.96			0.75	
Control Delay		24.9			24.4			35.0			17.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.9			24.4			35.0			17.0	
LOS		C			C			D			B	
Approach Delay		24.9			24.4			35.0			17.0	
Approach LOS		C			C			D			B	

Intersection Summary	
Area Type:	Other
Cycle Length: 84	

Actuated Cycle Length: 75.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 91.3%	ICU Level of Service F
Analysis Period (min) 15	

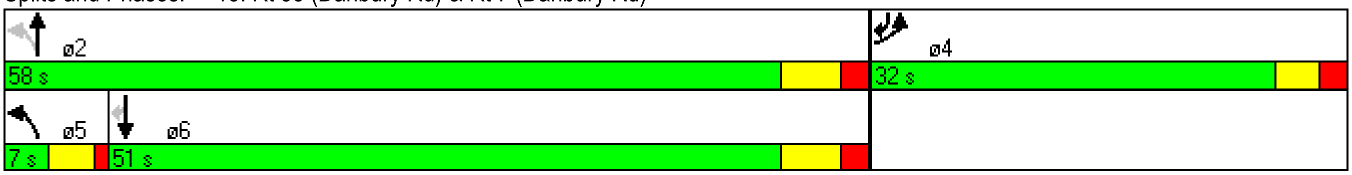
Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	890	60	80	1060	710	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180	0	270			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25	25	25			25
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	1.00
Frt	0.991					0.850
Flt Protected	0.955			0.997		
Satd. Flow (prot)	3420	0	0	3529	1863	1583
Flt Permitted	0.955			0.616		
Satd. Flow (perm)	3420	0	0	2180	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	8					598
Link Speed (mph)	30			30	30	
Link Distance (ft)	1087			505	2089	
Travel Time (s)	24.7			11.5	47.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	967	65	87	1152	772	598
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1032	0	0	1239	772	598
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Minimum Initial (s)	18.0		3.0	15.0	15.0	18.0
Minimum Split (s)	27.0		7.0	21.0	21.0	27.0
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	0.0%	7.8%	64.4%	56.7%	35.6%
Maximum Green (s)	27.0		3.0	52.0	45.0	27.0
Yellow Time (s)	3.0		3.0	4.0	4.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		0.2	2.5	2.5	2.0
Recall Mode	None		Max	Min	Min	None
Walk Time (s)	12.0					12.0
Flash Dont Walk (s)	1.0					1.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	27.0			51.5	44.5	77.5
Actuated g/C Ratio	0.30			0.58	0.50	0.87
v/c Ratio	0.99			0.98	0.83	0.41
Control Delay	59.0			39.6	29.1	1.0
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	59.0			39.6	29.1	1.0
LOS	E			D	C	A
Approach Delay	59.0			39.6	16.8	
Approach LOS	E			D	B	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 89.5	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 36.5	Intersection LOS: D
Intersection Capacity Utilization 110.4%	ICU Level of Service H
Analysis Period (min) 15	

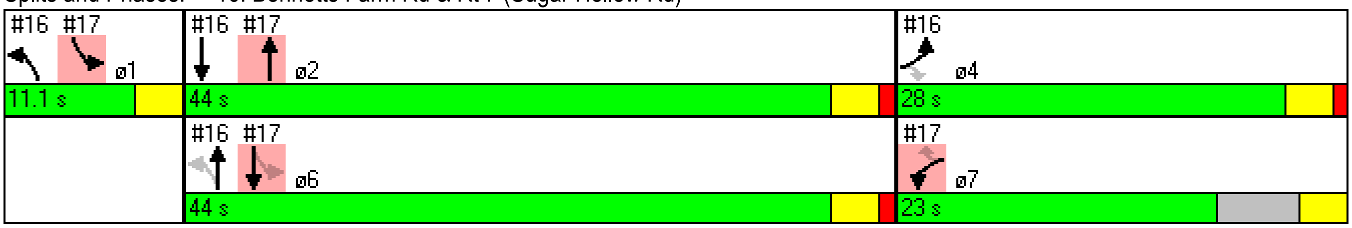
Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	20	40	40	1930	1250	80	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	80			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25	25	25			25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	
Frt		0.850			0.991		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	3539	3507	0	
Flt Permitted	0.950		0.122				
Satd. Flow (perm)	1770	1583	227	3539	3507	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		43			11		
Link Speed (mph)	30			30	30		
Link Distance (ft)	488			1875	166		
Travel Time (s)	11.1			42.6	3.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	22	43	43	2098	1359	87	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	22	43	43	2098	1446	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0		5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0		23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	0.0%	28%
Maximum Green (s)	24.0	24.0	8.0	40.0	40.0		19.9
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0		0.1
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0	5.0	5.0		2.0
Recall Mode	None	None	None	C-Min	C-Min		None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8		
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70		
v/c Ratio	0.04	0.09	0.14	0.85	0.59		
Control Delay	21.7	7.8	6.6	23.7	3.0		
Queue Delay	0.2	0.0	0.0	4.3	0.0		
Total Delay	22.0	7.8	6.6	28.0	3.0		
LOS	C	A	A	C	A		
Approach Delay	12.6			27.6	3.0		
Approach LOS	B			C	A		

Intersection Summary	
Area Type: Other	
Cycle Length: 83.1	
Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	10	10	1920	30	10	1320	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Frt		0.850	0.998				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	3532	0	1770	3539	
Flt Permitted	0.950				0.075		
Satd. Flow (perm)	1770	1583	3532	0	140	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		11	3				
Link Speed (mph)	30		30			30	
Link Distance (ft)	284		166			744	
Travel Time (s)	6.5		3.8			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	11	2087	33	11	1435	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	11	2120	0	11	1435	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Minimum Initial (s)	5.0	5.0	15.0		7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0		10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	0.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	0.0%	13.4%	52.9%	34%
Maximum Green (s)	19.9	19.9	40.0		8.0	40.0	24.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0		0.1	1.0	1.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0	2.0
Recall Mode	None	None	C-Min		None	C-Min	None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	16.9	16.9	57.8		61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70		0.74	0.70	
v/c Ratio	0.03	0.03	0.86		0.05	0.58	
Control Delay	20.9	11.4	14.0		6.3	14.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.9	11.4	14.0		6.3	14.0	
LOS	C	B	B		A	B	
Approach Delay	16.2		14.0			14.0	
Approach LOS	B		B			B	

Intersection Summary	
Area Type:	Other
Cycle Length: 83.1	

Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

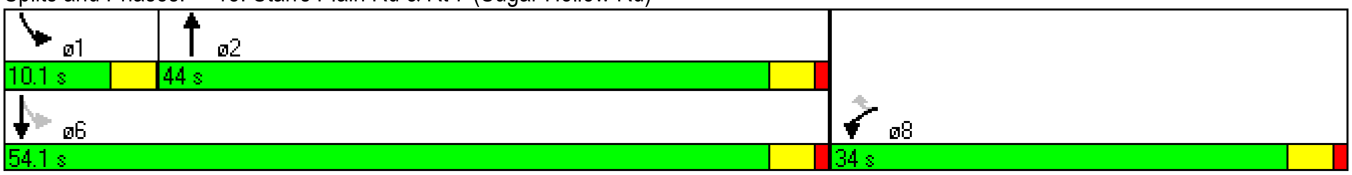
Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	30	50	1900	40	160	1330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	80	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.093	
Satd. Flow (perm)	1770	1583	3529	0	173	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		54	3			
Link Speed (mph)	30		30			30
Link Distance (ft)	416		3598			2477
Travel Time (s)	9.5		81.8			56.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	54	2065	43	174	1446
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	54	2108	0	174	1446
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	5.0	5.0	15.0		4.0	15.0
Minimum Split (s)	23.0	23.0	19.0		7.1	19.0
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	0.0%	11.5%	61.4%
Maximum Green (s)	30.0	30.0	40.0		7.0	50.1
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		0.1	1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	Min	Min	Min		None	None
Walk Time (s)	18.0	18.0				
Flash Dont Walk (s)	1.0	1.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	5.8	5.8	40.0		50.6	49.7
Actuated g/C Ratio	0.09	0.09	0.63		0.80	0.78
v/c Ratio	0.20	0.28	0.95		0.58	0.52
Control Delay	29.8	12.8	22.9		15.1	3.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	29.8	12.8	22.9		15.1	3.4
LOS	C	B	C		B	A
Approach Delay	19.3		22.9			4.7
Approach LOS	B		C			A

Intersection Summary

Area Type: Other
Cycle Length: 88.1
Actuated Cycle Length: 63.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	1390	80	60	20	330	440	20	570
Lane Group Flow (vph)	1511	739	98	22	284	586	22	2229
Turn Type	Split			custom	Prot		Prot	
Protected Phases	4	4	8	8	5	2	1	6
Permitted Phases				8		2		
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	9.0	9.0	9.0	9.0	15.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	21.0	21.0	8.0	21.0
Total Split (s)	47.0	47.0	22.0	22.0	25.0	71.0	10.0	56.0
Total Split (%)	31.3%	31.3%	14.7%	14.7%	16.7%	47.3%	6.7%	37.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.5	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	None	C-Max	None	C-Max
Act Effct Green (s)	41.0	41.0	13.0	13.0	23.0	79.0	6.4	51.0
Actuated g/C Ratio	0.27	0.27	0.09	0.09	0.15	0.53	0.04	0.34
v/c Ratio	1.61	1.19	0.62	0.14	1.15	0.54	0.29	1.89dr
Control Delay	315.0	131.2	82.6	23.2	157.3	22.5	79.8	304.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	315.0	131.2	82.6	23.2	157.3	22.5	79.8	304.3
LOS	F	F	F	C	F	C	E	F
Approach Delay		254.6	71.7			66.5		302.1
Approach LOS		F	E			E		F
Queue Length 50th (ft)	~1089	~684	94	0	~361	175	21	~1482
Queue Length 95th (ft)	#1226	#936	156	29	#603	229	53	#1610
Internal Link Dist (ft)		936	258			771		1601
Turn Bay Length (ft)	190			175	500		60	
Base Capacity (vph)	938	622	195	189	247	1092	76	1385
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.61	1.19	0.50	0.12	1.15	0.54	0.29	1.61

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 46 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 240.3 Intersection LOS: F
Intersection Capacity Utilization 138.3% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

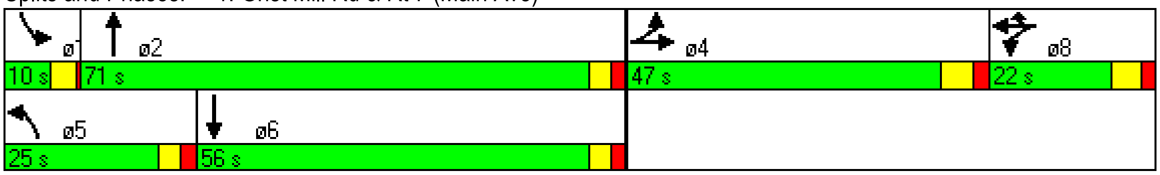
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations										
Volume (vph)	20	20	360	70	160	180	1420	100	1550	
Lane Group Flow (vph)	0	98	0	467	174	196	1717	109	1761	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	12.0	21.0	12.0	21.0	22.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	13.3%	23.3%	13.3%	23.3%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	3.9	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	5.5	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effct Green (s)		29.7		29.7	29.7	52.0	40.8	45.4	35.6	
Actuated g/C Ratio		0.33		0.33	0.33	0.58	0.45	0.50	0.40	
v/c Ratio		0.21		1.05	0.30	0.64	1.08	0.47	1.27	
Control Delay		12.5		87.3	14.2	24.1	75.0	17.1	152.0	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		12.5		87.3	14.2	24.1	75.0	17.1	152.0	
LOS		B		F	B	C	E	B	F	
Approach Delay		12.5		67.4			69.8		144.1	
Approach LOS		B		E			E		F	
Queue Length 50th (ft)		17		~292	39	50	~594	26	~668	
Queue Length 95th (ft)		53		#478	90	119	#787	54	#858	
Internal Link Dist (ft)		174		156			1601		796	
Turn Bay Length (ft)					60	125		390		
Base Capacity (vph)		459		446	573	307	1586	274	1392	
Starvation Cap Reductn		0		0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	
Reduced v/c Ratio		0.21		1.05	0.30	0.64	1.08	0.40	1.27	

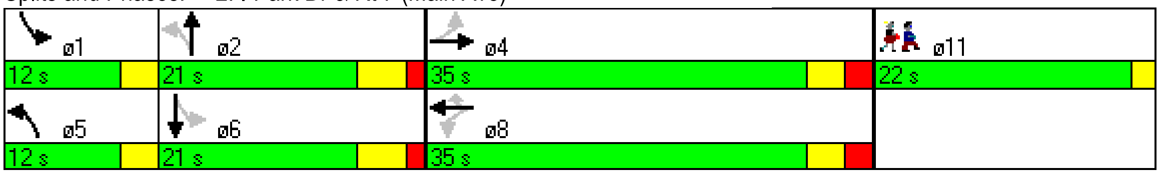
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 98.9	Intersection LOS: F
Intersection Capacity Utilization 97.7%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	60	30	1640	10	1640
Lane Group Flow (vph)	65	33	1805	11	1783
Turn Type		custom		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	18.0	18.0	121.0	11.0	132.0
Total Split (%)	12.0%	12.0%	80.7%	7.3%	88.0%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effct Green (s)	10.5	10.5	128.9	134.6	132.9
Actuated g/C Ratio	0.07	0.07	0.86	0.90	0.89
v/c Ratio	0.52	0.23	0.59	0.05	0.57
Control Delay	81.5	22.9	5.6	1.7	3.5
Queue Delay	0.0	0.0	0.5	0.0	0.0
Total Delay	81.5	22.9	6.1	1.7	3.5
LOS	F	C	A	A	A
Approach Delay	61.8		6.1		3.5
Approach LOS	E		A		A
Queue Length 50th (ft)	63	0	192	1	188
Queue Length 95th (ft)	113	35	445	4	282
Internal Link Dist (ft)	424		796		1174
Turn Bay Length (ft)	70			200	
Base Capacity (vph)	166	179	3036	254	3139
Starvation Cap Reductn	0	0	680	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.18	0.77	0.04	0.57

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 38 (25%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)

Lane Group	EBL	EBT	NBL	NBT	SBT	ø1	ø8
Lane Configurations							
Volume (vph)	70	0	50	1570	1570		
Lane Group Flow (vph)	0	130	54	1707	1816		
Turn Type	Perm		pm+pt				
Protected Phases		4	5	2	6	1	8
Permitted Phases	4		2				
Detector Phase	4	4	5	2	6		
Switch Phase							
Minimum Initial (s)	20.0	20.0	5.0	15.0	15.0	4.0	4.0
Minimum Split (s)	29.0	29.0	9.0	19.0	19.0	8.0	20.0
Total Split (s)	29.0	29.0	9.0	52.0	52.0	9.0	29.0
Total Split (%)	32.2%	32.2%	10.0%	57.8%	57.8%	10%	32%
Yellow Time (s)	3.0	3.0	3.5	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	0.5	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		
Lead/Lag			Lead	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	C-Max	C-Max	None	None
Act Effct Green (s)		20.0	62.0	62.0	54.7		
Actuated g/C Ratio		0.22	0.69	0.69	0.61		
v/c Ratio		0.37	0.30	0.70	0.85		
Control Delay		24.0	8.7	10.4	11.9		
Queue Delay		0.0	0.0	0.4	0.0		
Total Delay		24.0	8.7	10.7	11.9		
LOS		C	A	B	B		
Approach Delay		24.0		10.7	11.9		
Approach LOS		C		B	B		
Queue Length 50th (ft)		43	9	265	154		
Queue Length 95th (ft)		95	19	338	206		
Internal Link Dist (ft)		1288		1174	346		
Turn Bay Length (ft)			200				
Base Capacity (vph)		435	181	2438	2137		
Starvation Cap Reductn		0	0	0	2		
Spillback Cap Reductn		3	0	250	0		
Storage Cap Reductn		0	0	0	0		
Reduced v/c Ratio		0.30	0.30	0.78	0.85		

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	40	10	160	10	40	1560	30	1460
Lane Group Flow (vph)	0	108	174	76	43	1739	33	1598
Turn Type	Perm		Perm		Prot		pm+pt	
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8				6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	4.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	8.0	19.0	7.0	19.0
Total Split (s)	24.0	24.0	24.0	24.0	9.0	57.0	9.0	57.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	10.0%	63.3%	10.0%	63.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.5	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		20.0	20.0	20.0	5.0	57.5	58.7	56.6
Actuated g/C Ratio		0.22	0.22	0.22	0.06	0.64	0.65	0.63
v/c Ratio		0.29	0.62	0.18	0.44	0.77	0.22	0.72
Control Delay		18.8	42.8	10.9	68.4	7.4	8.2	14.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay		18.8	42.8	10.9	68.4	7.4	8.2	14.5
LOS		B	D	B	E	A	A	B
Approach Delay		18.8		33.1		8.9		14.4
Approach LOS		B		C		A		B
Queue Length 50th (ft)		26	90	5	27	311	5	330
Queue Length 95th (ft)		71	#161	40	m39	331	13	421
Internal Link Dist (ft)		164		716		346		1326
Turn Bay Length (ft)					50		50	
Base Capacity (vph)		375	279	411	98	2252	180	2224
Starvation Cap Reductn		0	0	0	0	18	0	0
Spillback Cap Reductn		0	0	0	0	0	0	38
Storage Cap Reductn		0	0	0	0	0	0	0
Reduced v/c Ratio		0.29	0.62	0.18	0.44	0.78	0.18	0.73

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 13.2 Intersection LOS: B

Intersection Capacity Utilization 67.7% ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Kensett Ave & Rt 7 (Danbury Rd)

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	ø4	ø11
Lane Configurations								
Volume (vph)	20	0	10	1430	100	1630		
Lane Group Flow (vph)	22	11	11	1608	109	1783		
Turn Type	Perm		Perm		pm+pt			
Protected Phases		8		2	1	6	4	11
Permitted Phases	8		2		6			
Detector Phase	8	8	2	2	1	6		
Switch Phase								
Minimum Initial (s)	8.0	8.0	15.0	15.0	5.0	15.0	8.0	3.0
Minimum Split (s)	11.1	11.1	20.5	20.5	8.1	20.5	11.1	26.0
Total Split (s)	11.6	11.6	95.4	95.4	17.0	112.4	11.6	26.0
Total Split (%)	7.7%	7.7%	63.6%	63.6%	11.3%	74.9%	8%	17%
Yellow Time (s)	3.0	3.0	3.9	3.9	3.0	3.9	3.0	2.0
All-Red Time (s)	0.1	0.1	1.6	1.6	0.1	1.6	0.1	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	3.1	3.1	5.5	5.5	3.1	5.5		
Lead/Lag			Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes			
Recall Mode	None	None	Max	Max	None	Max	None	None
Act Effct Green (s)	8.0	8.0	97.9	97.9	109.6	109.5		
Actuated g/C Ratio	0.06	0.06	0.82	0.82	0.92	0.92		
v/c Ratio	0.21	0.03	0.06	0.56	0.37	0.55		
Control Delay	59.8	0.1	3.7	4.9	4.2	2.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5		
Total Delay	59.8	0.1	3.7	4.9	4.2	2.7		
LOS	E	A	A	A	A	A		
Approach Delay		39.9		4.9		2.8		
Approach LOS		D		A		A		
Queue Length 50th (ft)	17	0	2	216	7	140		
Queue Length 95th (ft)	46	0	6	267	12	167		
Internal Link Dist (ft)		84		1326		528		
Turn Bay Length (ft)	40		50		130			
Base Capacity (vph)	111	432	199	2895	374	3251		
Starvation Cap Reductn	0	0	0	0	0	858		
Spillback Cap Reductn	0	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0		
Reduced v/c Ratio	0.20	0.03	0.06	0.56	0.29	0.75		

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 119.1	
Natural Cycle: 90	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

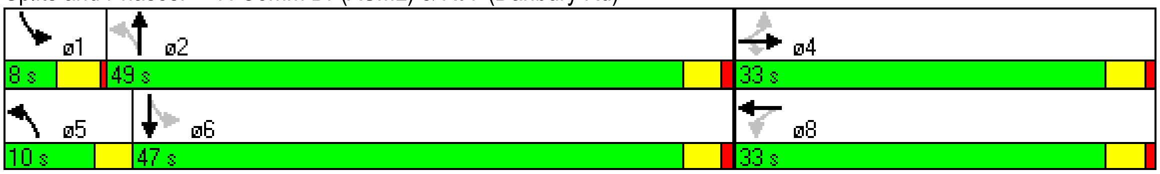
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	10	10	10	290	110	70	1370	30	1460
Lane Group Flow (vph)	0	22	11	255	256	76	1554	33	1696
Turn Type	Perm		Perm	Perm		pm+pt		pm+pt	
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	7.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	19.0	8.0	19.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0	10.0	49.0	8.0	47.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	11.1%	54.4%	8.9%	52.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		22.5	22.5	22.5	22.5	59.0	53.8	56.0	51.5
Actuated g/C Ratio		0.25	0.25	0.25	0.25	0.66	0.60	0.62	0.57
v/c Ratio		0.06	0.03	0.78	0.62	0.34	0.74	0.17	0.84
Control Delay		23.6	11.7	47.4	33.4	11.2	17.9	8.8	23.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay		23.6	11.7	47.4	33.4	11.2	18.2	8.8	23.1
LOS		C	B	D	C	B	B	A	C
Approach Delay		19.6			40.4		17.9		22.8
Approach LOS		B			D		B		C
Queue Length 50th (ft)		10	0	143	124	13	344	6	405
Queue Length 95th (ft)		26	12	213	187	38	#508	19	#675
Internal Link Dist (ft)		250			1316		528		4198
Turn Bay Length (ft)						50		50	
Base Capacity (vph)		514	518	424	521	221	2107	193	2011
Starvation Cap Reductn		0	0	0	0	0	114	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.04	0.02	0.60	0.49	0.34	0.78	0.17	0.84

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

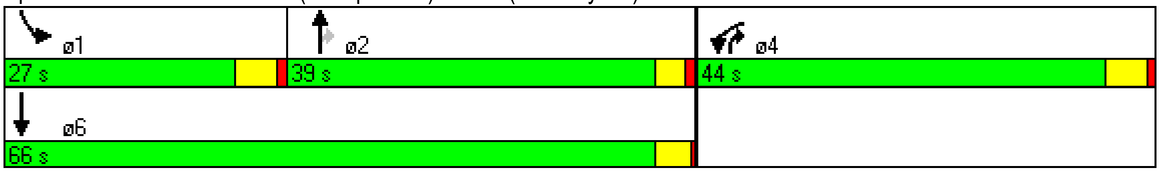


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	600	750	930	360	600	1130
Lane Group Flow (vph)	652	815	1011	391	652	1228
Turn Type		Free		pm+ov	Prot	
Protected Phases	4		2	4	1	6
Permitted Phases	4	Free		2		
Detector Phase	4		2	4	1	6
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0	20.0	4.0
Minimum Split (s)	25.0		14.0	25.0	25.0	20.0
Total Split (s)	44.0	0.0	39.0	44.0	27.0	66.0
Total Split (%)	40.0%	0.0%	35.5%	40.0%	24.5%	60.0%
Yellow Time (s)	4.0		3.0	4.0	4.0	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.0	5.0	5.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Min		None	Min	Min	Min
Act Effct Green (s)	25.9	94.3	32.6	62.5	21.7	59.4
Actuated g/C Ratio	0.27	1.00	0.35	0.66	0.23	0.63
v/c Ratio	0.69	0.51	0.83	0.37	0.82	0.55
Control Delay	35.1	1.2	35.8	7.8	45.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	1.2	35.8	7.8	45.9	11.6
LOS	D	A	D	A	D	B
Approach Delay	16.3		28.0			23.5
Approach LOS	B		C			C
Queue Length 50th (ft)	187	0	287	90	197	197
Queue Length 95th (ft)	245	0	#422	137	#325	318
Internal Link Dist (ft)	1626		4198			2523
Turn Bay Length (ft)	248				450	
Base Capacity (vph)	1250	1583	1285	1120	803	2266
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.51	0.79	0.35	0.81	0.54

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 94.3
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Rt 33 (Westport Rd) & Rt 7 (Danbury Rd)



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations												
Volume (vph)	50	50	460	90	250	20	600	230	410	820		
Lane Group Flow (vph)	54	87	295	303	272	22	652	250	446	945		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases										2		
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	15.0	15.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	21.0	21.0	9.0	9.0		11.0					21.0	8.0
Total Split (s)	16.0	16.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	22.0	9.0
Total Split (%)	17.8%	17.8%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	24%	10%
Yellow Time (s)	4.0	4.0	3.0	3.0		4.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		2.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	6.0	6.0	6.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					None	None
Act Effct Green (s)	10.1	10.1	18.1	18.1	36.2	3.0	25.2	25.2	17.1	37.2		
Actuated g/C Ratio	0.12	0.12	0.21	0.21	0.42	0.03	0.29	0.29	0.20	0.43		
v/c Ratio	0.26	0.38	0.84	0.85	0.34	0.35	0.64	0.39	0.66	0.63		
Control Delay	40.4	32.2	57.0	57.6	3.4	58.6	31.1	5.5	42.9	22.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	44.9		
Total Delay	40.4	32.2	57.0	57.6	3.4	58.6	31.1	5.5	47.5	67.5		
LOS	D	C	E	E	A	E	C	A	D	E		
Approach Delay		35.4		40.5			24.8			61.1		
Approach LOS		D		D			C			E		
Queue Length 50th (ft)	29	31	172	177	8	13	172	0	128	208		
Queue Length 95th (ft)	64	77	#325	#333	38	#41	232	55	m145	m233		
Internal Link Dist (ft)		362		686			885			165		
Turn Bay Length (ft)	90		380		190	50		900	130			
Base Capacity (vph)	205	228	351	357	795	62	1026	636	676	1508		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	161	638		
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Reduced v/c Ratio	0.26	0.38	0.84	0.85	0.34	0.35	0.64	0.39	0.87	1.09		

Intersection Summary

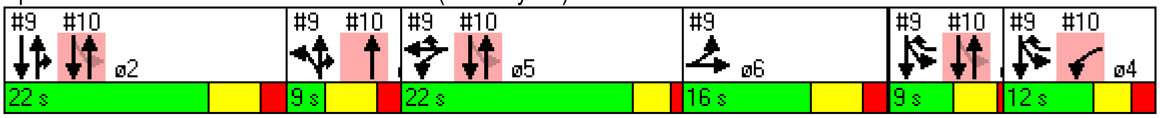
Cycle Length: 90
Actuated Cycle Length: 86.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 44.5 Intersection LOS: D
Intersection Capacity Utilization 63.5% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	12.0
Total Split (%)	13%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)

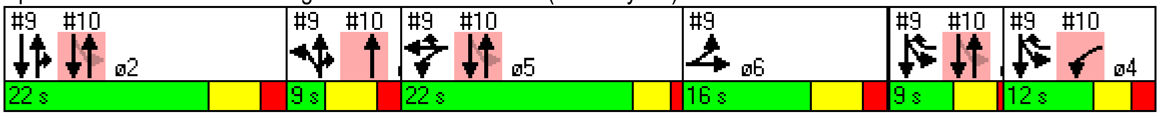


Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	50	870	50	1230					
Lane Group Flow (vph)	108	979	54	1337					
Turn Type			Perm						
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases			2 3 5						
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0				11.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	62.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	68.9%	58.9%	58.9%	10%	24%	10%	24%	18%
Yellow Time (s)	3.0				4.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				2.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	6.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	None	None	None	None
Act Effct Green (s)	7.0	51.7	36.6	36.6					
Actuated g/C Ratio	0.08	0.60	0.42	0.42					
v/c Ratio	0.61	0.47	0.29	0.90					
Control Delay	41.9	2.9	13.1	26.0					
Queue Delay	1.2	0.3	0.0	58.6					
Total Delay	43.1	3.2	13.1	84.6					
LOS	D	A	B	F					
Approach Delay	43.1	3.2		81.8					
Approach LOS	D	A		F					
Queue Length 50th (ft)	36	33	7	184					
Queue Length 95th (ft)	#105	37	23	#307					
Internal Link Dist (ft)	127	165		133					
Turn Bay Length (ft)									
Base Capacity (vph)	177	2101	186	1493					
Starvation Cap Reductn	0	506	0	0					
Spillback Cap Reductn	11	0	0	308					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	0.65	0.61	0.29	1.13					

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 86.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	80	10	343	10	20	293	750	10	1040	110
Lane Group Flow (vph)	0	98	373	0	33	318	815	0	1141	120
Turn Type	Perm		pm+ov	Perm		pm+pt		Perm		Perm
Protected Phases		4	5		8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	5	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	3.0	10.0	10.0	3.0	15.0	15.0	15.0	15.0
Minimum Split (s)	18.0	18.0	6.1	18.0	18.0	6.1	21.0	21.0	21.0	21.0
Total Split (s)	35.0	35.0	16.0	35.0	35.0	16.0	85.0	69.0	69.0	69.0
Total Split (%)	29.2%	29.2%	13.3%	29.2%	29.2%	13.3%	70.8%	57.5%	57.5%	57.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	0.1	2.0	2.0	0.1	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	3.1	5.0	5.0	3.1	6.0	6.0	6.0	6.0
Lead/Lag			Lead			Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.4	46.2		13.4	98.5	95.6		64.7	64.7
Actuated g/C Ratio		0.11	0.38		0.11	0.82	0.80		0.54	0.54
v/c Ratio		0.65	0.58		0.18	0.67	0.55		1.15	0.14
Control Delay		70.3	28.2		48.8	37.1	6.1		105.4	6.4
Queue Delay		0.0	0.0		0.0	0.0	0.2		0.0	0.0
Total Delay		70.3	28.2		48.8	37.1	6.3		105.4	6.4
LOS		E	C		D	D	A		F	A
Approach Delay		37.0			48.8		15.0		95.9	
Approach LOS		D			D		B		F	
Queue Length 50th (ft)		74	194		24	187	172		~1013	16
Queue Length 95th (ft)		127	283		53	#314	328		#1316	48
Internal Link Dist (ft)		550			290		859		2587	
Turn Bay Length (ft)						100				
Base Capacity (vph)		338	647		414	475	1485		996	888
Starvation Cap Reductn		0	0		0	0	137		0	0
Spillback Cap Reductn		0	0		0	0	0		0	0
Storage Cap Reductn		0	0		0	0	0		0	0
Reduced v/c Ratio		0.29	0.58		0.08	0.67	0.60		1.15	0.14

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 54.2	Intersection LOS: D
Intersection Capacity Utilization 120.3%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	20	50	60	230	80	640	30	930
Lane Group Flow (vph)	0	141	0	380	87	696	33	1033
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	26.0	26.0	26.0	26.0	56.0	56.0	8.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	62.2%	62.2%	8.9%	71.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		21.3		21.3	43.8	43.8	55.0	51.9
Actuated g/C Ratio		0.26		0.26	0.53	0.53	0.66	0.62
v/c Ratio		0.33		0.86	0.84	0.71	0.10	0.89
Control Delay		21.4		51.6	78.1	19.6	5.4	25.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		21.4		51.6	78.1	19.6	5.4	25.0
LOS		C		D	E	B	A	C
Approach Delay		21.4		51.6		26.1		24.4
Approach LOS		C		D		C		C
Queue Length 50th (ft)		44		205	37	263	5	420
Queue Length 95th (ft)		97		#373	#133	388	14	#755
Internal Link Dist (ft)		407		189		2835		1876
Turn Bay Length (ft)					94		220	
Base Capacity (vph)		443		454	110	1045	347	1208
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.32		0.84	0.79	0.67	0.10	0.86

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 83.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 29.1 Intersection LOS: C
Intersection Capacity Utilization 100.6% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

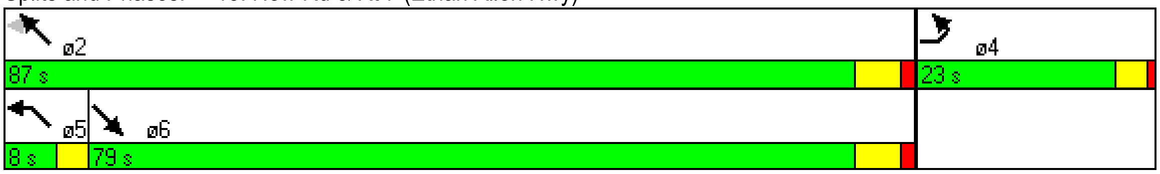
Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	40	950	40	680
Lane Group Flow (vph)	76	1131	0	782
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	23.0	79.0	8.0	87.0
Total Split (%)	20.9%	71.8%	7.3%	79.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	19.9	63.8		73.2
Actuated g/C Ratio	0.20	0.66		0.76
v/c Ratio	0.23	0.92		0.99
Control Delay	41.6	29.2		46.1
Queue Delay	0.0	0.0		0.0
Total Delay	41.6	29.2		46.1
LOS	D	C		D
Approach Delay	41.6	29.2		46.1
Approach LOS	D	C		D
Queue Length 50th (ft)	47	624		~239
Queue Length 95th (ft)	92	#1015		#528
Internal Link Dist (ft)	592	4303		332
Turn Bay Length (ft)				
Base Capacity (vph)	337	1290		799
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.23	0.88		0.98

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 96.2
Natural Cycle: 110
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 36.3 — Intersection LOS: D
Intersection Capacity Utilization 92.6% — ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	30	20	40	40	20	660	20	900
Lane Group Flow (vph)	0	77	0	119	0	761	0	1033
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		22.4		22.4		49.2		49.2
Actuated g/C Ratio		0.29		0.29		0.69		0.69
v/c Ratio		0.17		0.26		0.61		0.82
Control Delay		24.0		25.0		12.3		20.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		24.0		25.0		12.3		20.3
LOS		C		C		B		C
Approach Delay		24.0		25.0		12.3		20.3
Approach LOS		C		C		B		C
Queue Length 50th (ft)		30		47		230		414
Queue Length 95th (ft)		64		92		358		#736
Internal Link Dist (ft)		138		187		212		697
Turn Bay Length (ft)								
Base Capacity (vph)		493		507		1238		1262
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.16		0.23		0.61		0.82

Intersection Summary	
Cycle Length: 84	
Actuated Cycle Length: 70.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	474	50	634	785	755
Lane Group Flow (vph)	613	0	743	853	821
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	27.0	7.0	53.0	46.0	27.0
Total Split (%)	33.8%	8.8%	66.3%	57.5%	33.8%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effct Green (s)	20.1		43.7	36.7	62.8
Actuated g/C Ratio	0.27		0.58	0.49	0.84
v/c Ratio	0.66		0.54	0.93	0.56
Control Delay	27.8		11.1	37.3	1.7
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	27.8		11.1	37.3	1.7
LOS	C		B	D	A
Approach Delay	27.8		11.1	19.8	
Approach LOS	C		B	B	
Queue Length 50th (ft)	132		86	352	0
Queue Length 95th (ft)	186		126	#626	10
Internal Link Dist (ft)	1007		425	2009	
Turn Bay Length (ft)	180				
Base Capacity (vph)	993		1411	956	1464
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.62		0.53	0.89	0.56

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 74.9
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 19.3 | Intersection LOS: B
Intersection Capacity Utilization 81.2% | ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

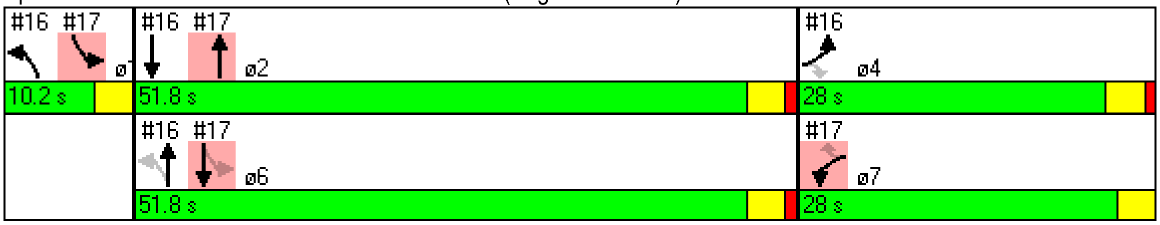
Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	60	40	20	970	1560	
Lane Group Flow (vph)	65	43	22	1054	1729	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	24.0
Total Split (s)	28.0	28.0	10.2	51.8	51.8	28.0
Total Split (%)	31.1%	31.1%	11.3%	57.6%	57.6%	31%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effct Green (s)	24.0	24.0	63.3	60.3	60.3	
Actuated g/C Ratio	0.27	0.27	0.70	0.67	0.67	
v/c Ratio	0.14	0.09	0.10	0.44	0.73	
Control Delay	26.2	8.7	6.5	10.8	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.2	8.7	6.5	10.8	4.6	
LOS	C	A	A	B	A	
Approach Delay	19.2			10.7	4.6	
Approach LOS	B			B	A	
Queue Length 50th (ft)	28	0	4	142	1	
Queue Length 95th (ft)	60	25	12	257	#41	
Internal Link Dist (ft)	408			1795	86	
Turn Bay Length (ft)			80			
Base Capacity (vph)	472	454	221	2372	2366	
Starvation Cap Reductn	0	0	0	0	1	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.14	0.09	0.10	0.44	0.73	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 7.4 Intersection LOS: A
Intersection Capacity Utilization 70.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

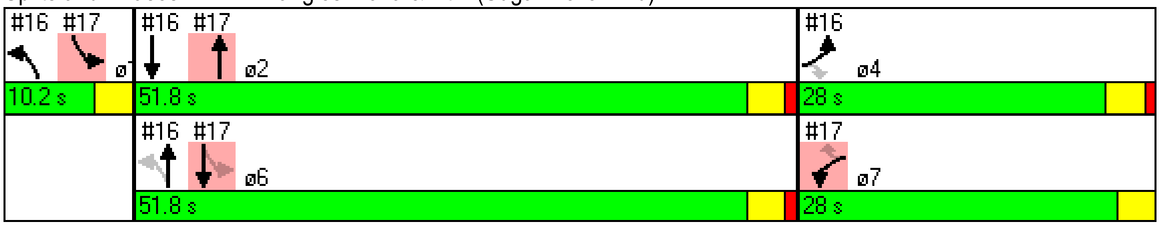


Lane Group	WBR	NBT	SBT	ø1	ø4
Lane Configurations					
Volume (vph)	10	1010	1590		
Lane Group Flow (vph)	11	1120	1728		
Turn Type	Perm				
Protected Phases		2	6	1	4
Permitted Phases	7				
Detector Phase	7	2	6		
Switch Phase					
Minimum Initial (s)	5.0	15.0	15.0	7.1	24.0
Minimum Split (s)	24.0	19.0	19.0	10.2	28.0
Total Split (s)	28.0	51.8	51.8	10.2	28.0
Total Split (%)	31.1%	57.6%	57.6%	11%	31%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		
Total Lost Time (s)	3.1	4.0	4.0		
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	None	None
Act Effct Green (s)	20.9	60.3	60.3		
Actuated g/C Ratio	0.23	0.67	0.67		
v/c Ratio	0.02	0.47	0.73		
Control Delay	0.1	3.2	16.5		
Queue Delay	0.0	0.0	0.0		
Total Delay	0.1	3.2	16.6		
LOS	A	A	B		
Approach Delay		3.2	16.6		
Approach LOS		A	B		
Queue Length 50th (ft)	0	34	321		
Queue Length 95th (ft)	0	41	#631		
Internal Link Dist (ft)		86	664		
Turn Bay Length (ft)					
Base Capacity (vph)	583	2366	2372		
Starvation Cap Reductn	0	100	0		
Spillback Cap Reductn	0	0	30		
Storage Cap Reductn	0	0	0		
Reduced v/c Ratio	0.02	0.49	0.74		

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 47.3%	ICU Level of Service A
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	

Queue shown is maximum after two cycles.

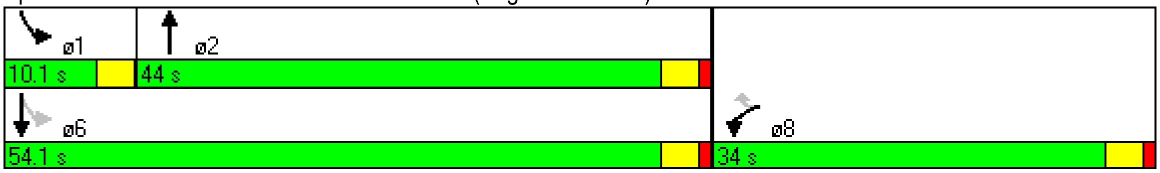
Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	50	180	1060	40	1550
Lane Group Flow (vph)	54	196	1174	43	1685
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	Min	None	Min
Act Effct Green (s)	6.8	6.8	41.4	46.8	45.9
Actuated g/C Ratio	0.11	0.11	0.68	0.73	0.75
v/c Ratio	0.27	0.56	0.49	0.12	0.63
Control Delay	29.7	12.0	6.4	2.7	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	12.0	6.4	2.7	4.9
LOS	C	B	A	A	A
Approach Delay	15.8		6.4		4.9
Approach LOS	B		A		A
Queue Length 50th (ft)	20	1	104	2	99
Queue Length 95th (ft)	50	53	180	9	195
Internal Link Dist (ft)	336		3518		2397
Turn Bay Length (ft)				80	
Base Capacity (vph)	635	691	2404	398	2732
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.28	0.49	0.11	0.62

Intersection Summary	
Cycle Length: 88.1	
Actuated Cycle Length: 60.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	20	0	22	0	20	1049	23	1384
Lane Group Flow (vph)	0	44	0	49	22	1147	25	1526
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	10.0	21.0	21.0	21.0
Total Split (s)	16.0	16.0	16.0	16.0	10.0	104.0	94.0	94.0
Total Split (%)	13.3%	13.3%	13.3%	13.3%	8.3%	86.7%	78.3%	78.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)		10.2		10.2	101.8	103.0	96.6	96.6
Actuated g/C Ratio		0.08		0.08	0.85	0.86	0.80	0.80
v/c Ratio		0.30		0.32	0.16	0.72	0.08	1.02
Control Delay		36.4		36.2	4.6	7.6	3.5	29.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	13.6
Total Delay		36.4		36.2	4.6	7.6	3.5	42.7
LOS		D		D	A	A	A	D
Approach Delay		36.4		36.2		7.6		42.1
Approach LOS		D		D		A		D
Queue Length 50th (ft)		16		18	2	312	4	~1398
Queue Length 95th (ft)		54		57	7	488	m4	m#1238
Internal Link Dist (ft)		148		203		262		859
Turn Bay Length (ft)					150		150	
Base Capacity (vph)		158		162	134	1598	312	1497
Starvation Cap Reductn		0		0	0	0	0	54
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.28		0.30	0.16	0.72	0.08	1.06

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Old Towne Road & Rt 7 (Danbury Rd)

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	1550	10	30	10	540	750	10	550
Lane Group Flow (vph)	1685	446	44	11	464	960	11	2011
Turn Type	Split			custom	Prot		Prot	
Protected Phases	4	4	8	8	5	2	1	6
Permitted Phases				8		2		
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	21.5	21.0	8.0	21.5
Total Split (s)	47.0	47.0	22.0	22.0	33.0	73.0	8.0	48.0
Total Split (%)	31.3%	31.3%	14.7%	14.7%	22.0%	48.7%	5.3%	32.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.5	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	None	C-Max	None	C-Max
Act Effct Green (s)	41.0	41.0	9.0	9.0	35.0	83.0	6.5	43.0
Actuated g/C Ratio	0.27	0.27	0.06	0.06	0.23	0.55	0.04	0.29
v/c Ratio	1.80	0.59	0.40	0.10	1.23	0.75	0.14	1.91dr
Control Delay	394.3	7.8	77.7	31.8	172.7	25.6	72.8	339.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	394.3	7.8	77.7	31.8	172.7	25.6	72.8	339.2
LOS	F	A	E	C	F	C	E	F
Approach Delay		313.4	68.5			73.5		337.8
Approach LOS		F	E			E		F
Queue Length 50th (ft)	~1271	8	42	0	~615	312	11	~1365
Queue Length 95th (ft)	#1406	103	84	21	#900	395	33	#1500
Internal Link Dist (ft)		936	258			771		1601
Turn Bay Length (ft)	190			175	500		60	
Base Capacity (vph)	938	751	196	179	376	1285	76	1193
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.80	0.59	0.22	0.06	1.23	0.75	0.14	1.69

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.80
Intersection Signal Delay: 259.1 — Intersection LOS: F
Intersection Capacity Utilization 146.1% — ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

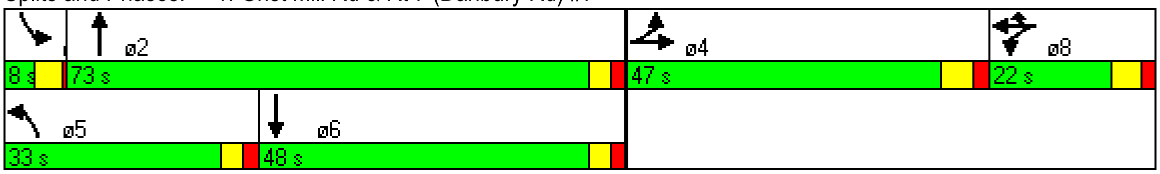
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Danbury Rd) #7



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations										
Volume (vph)	60	60	360	20	190	60	1890	200	1320	
Lane Group Flow (vph)	0	315	0	413	207	65	2467	217	1457	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	12.0	21.0	12.0	21.0	22.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	13.3%	23.3%	13.3%	23.3%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	2.0	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	3.6	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effct Green (s)		29.7		29.7	29.7	39.4	31.5	52.0	44.6	
Actuated g/C Ratio		0.33		0.33	0.33	0.44	0.35	0.58	0.50	
v/c Ratio		0.79		1.47	0.35	0.33	2.02	0.57	0.83	
Control Delay		36.5		257.0	13.4	14.8	482.2	20.2	25.6	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		36.5		257.0	13.4	14.8	482.2	20.2	25.6	
LOS		D		F	B	B	F	C	C	
Approach Delay		36.5		175.7			470.2		24.9	
Approach LOS		D		F			F		C	
Queue Length 50th (ft)		120		~325	43	15	~1180	58	367	
Queue Length 95th (ft)		#267		#504	98	32	#1355	129	#502	
Internal Link Dist (ft)		174		156			1601		796	
Turn Bay Length (ft)					60	125		390		
Base Capacity (vph)		397		281	591	267	1224	379	1751	
Starvation Cap Reductn		0		0	0	0	0	0	0	
Spillback Cap Reductn		0		0	0	0	0	0	0	
Storage Cap Reductn		0		0	0	0	0	0	0	
Reduced v/c Ratio		0.79		1.47	0.35	0.24	2.02	0.57	0.83	

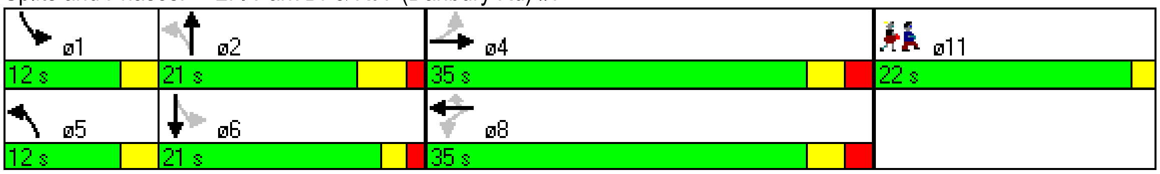
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.02	
Intersection Signal Delay: 263.1	Intersection LOS: F
Intersection Capacity Utilization 130.1%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: I-Park Dr & Rt 7 (Danbury Rd) #7



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	70	70	1900	50	1580
Lane Group Flow (vph)	76	76	2185	54	1717
Turn Type		custom		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	19.0	19.0	58.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	14.5%	78.9%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effct Green (s)	9.1	9.1	66.4	76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74	0.84	0.83
v/c Ratio	0.42	0.33	0.84	0.24	0.59
Control Delay	44.8	13.2	16.0	4.6	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	13.2	16.0	4.6	4.7
LOS	D	B	B	A	A
Approach Delay	29.0		16.0		4.7
Approach LOS	C		B		A
Queue Length 50th (ft)	42	0	478	4	154
Queue Length 95th (ft)	82	39	#804	14	252
Internal Link Dist (ft)	424		796		1174
Turn Bay Length (ft)	70			200	
Base Capacity (vph)	295	327	2590	279	2925
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.23	0.84	0.19	0.59

Intersection Summary

Cycle Length: 90.1
Actuated Cycle Length: 90.1
Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 11.6 Intersection LOS: B
Intersection Capacity Utilization 70.1% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foxboro Drive & Rt 7 (Danbury Rd) #7

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	60	0	10	120	1750	10	1360
Lane Group Flow (vph)	0	141	11	130	1902	11	1630
Turn Type	Perm			pm+pt		pm+pt	
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	20.0	20.0	4.0	5.0	15.0	4.0	15.0
Minimum Split (s)	29.0	29.0	20.0	9.0	19.0	8.0	19.0
Total Split (s)	27.0	27.0	27.0	9.0	54.0	9.0	54.0
Total Split (%)	30.0%	30.0%	30.0%	10.0%	60.0%	10.0%	60.0%
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		20.0	20.0	61.6	60.0	57.0	51.3
Actuated g/C Ratio		0.22	0.22	0.68	0.67	0.63	0.57
v/c Ratio		0.37	0.03	0.61	0.81	0.06	0.82
Control Delay		20.0	27.8	24.4	15.5	4.0	12.0
Queue Delay		0.0	0.0	0.0	0.5	0.0	0.0
Total Delay		20.1	27.8	24.4	16.0	4.0	12.0
LOS		C	C	C	B	A	B
Approach Delay		20.1	27.8		16.5		12.0
Approach LOS		C	C		B		B
Queue Length 50th (ft)		37	5	22	331	1	110
Queue Length 95th (ft)		90	19	80	#691	m2	128
Internal Link Dist (ft)		1288	223		1174		346
Turn Bay Length (ft)				200		50	
Base Capacity (vph)		428	476	213	2359	195	1999
Starvation Cap Reductn		0	0	0	0	0	0
Spillback Cap Reductn		2	0	0	144	0	0
Storage Cap Reductn		0	0	0	0	0	0
Reduced v/c Ratio		0.33	0.02	0.61	0.86	0.06	0.82

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.7 — Intersection LOS: B
Intersection Capacity Utilization 78.4% — ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd) #7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	30	0	70	0	20	1670	70	1380
Lane Group Flow (vph)	0	87	76	33	22	1945	76	1511
Turn Type	Perm		Perm		pm+pt		pm+pt	
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	4.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	8.0	19.0	6.0	19.0
Total Split (s)	24.0	24.0	24.0	24.0	8.0	58.0	8.0	58.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	8.9%	64.4%	8.9%	64.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.5	1.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		17.2	20.0	20.0	64.3	61.9	66.5	64.4
Actuated g/C Ratio		0.19	0.22	0.22	0.71	0.69	0.74	0.72
v/c Ratio		0.26	0.26	0.08	0.10	0.81	0.47	0.60
Control Delay		15.7	31.9	0.4	2.9	8.1	17.0	10.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay		15.7	31.9	0.4	2.9	8.1	17.0	10.5
LOS		B	C	A	A	A	B	B
Approach Delay		15.7		22.3		8.0		10.8
Approach LOS		B		C		A		B
Queue Length 50th (ft)		15	36	0	1	52	12	212
Queue Length 95th (ft)		54	75	0	m2	#111	39	368
Internal Link Dist (ft)		164		716		346		1326
Turn Bay Length (ft)					50		50	
Base Capacity (vph)		380	290	423	231	2413	183	2530
Starvation Cap Reductn		0	0	0	0	0	0	0
Spillback Cap Reductn		2	0	0	0	0	0	149
Storage Cap Reductn		0	0	0	0	0	0	0
Reduced v/c Ratio		0.23	0.26	0.08	0.10	0.81	0.42	0.63

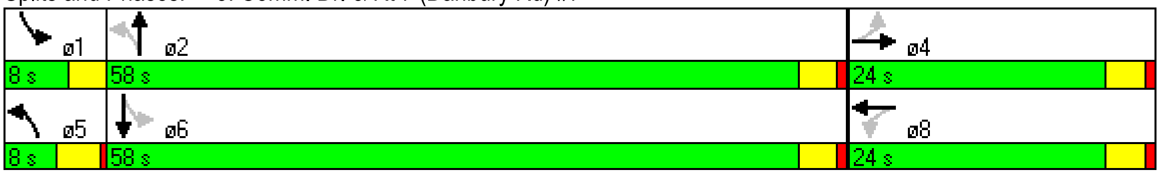
Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 80.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd) #7

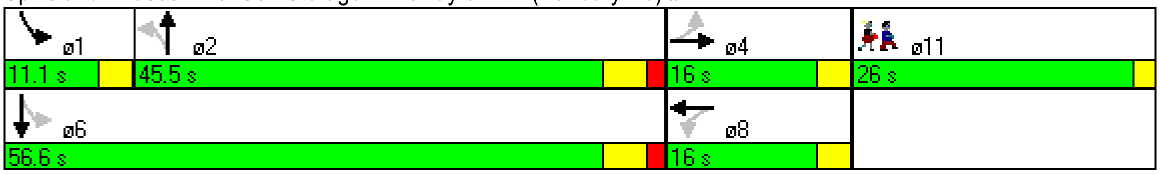


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø11
Lane Configurations									
Volume (vph)	10	0	80	0	10	1790	10	1370	
Lane Group Flow (vph)	11	33	87	87	11	1968	11	1500	
Turn Type	Perm		Perm		Perm		pm+pt		
Protected Phases		4		8		2	1	6	11
Permitted Phases	4		8		2		6		
Detector Phase	4	4	8	8	2	2	1	6	
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	15.0	15.0	5.0	15.0	3.0
Minimum Split (s)	11.1	11.1	11.1	11.1	20.5	20.5	8.1	20.5	26.0
Total Split (s)	16.0	16.0	16.0	16.0	45.5	45.5	11.1	56.6	26.0
Total Split (%)	16.2%	16.2%	16.2%	16.2%	46.1%	46.1%	11.3%	57.4%	26%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.9	3.9	3.0	3.9	2.0
All-Red Time (s)	0.1	0.1	0.1	0.1	1.6	1.6	0.1	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	3.1	3.1	5.5	5.5	3.1	5.5	
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	10.1	10.1	10.1	10.1	78.3	78.3	82.3	79.9	
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.79	0.79	0.83	0.81	
v/c Ratio	0.10	0.07	0.62	0.15	0.05	0.70	0.06	0.52	
Control Delay	40.6	0.3	61.3	0.5	4.0	7.4	2.3	4.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
Total Delay	40.6	0.3	61.3	0.5	4.0	7.4	2.3	4.4	
LOS	D	A	E	A	A	A	A	A	
Approach Delay		10.4		30.9		7.3		4.4	
Approach LOS		B		C		A		A	
Queue Length 50th (ft)	6	0	54	0	1	200	1	117	
Queue Length 95th (ft)	23	0	102	0	8	484	4	185	
Internal Link Dist (ft)		108		84		1326		528	
Turn Bay Length (ft)	40		40		50		130		
Base Capacity (vph)	147	536	179	630	240	2805	241	2866	
Starvation Cap Reductn	0	0	0	0	0	0	0	717	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.07	0.06	0.49	0.14	0.05	0.70	0.05	0.70	

Intersection Summary

Cycle Length: 98.6
Actuated Cycle Length: 98.6
Offset: 14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 7.3 Intersection LOS: A
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd) #7



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	90	90	50	70	10	10	1730	80	1270
Lane Group Flow (vph)	0	196	54	0	174	11	2173	87	1402
Turn Type	Perm		Perm	Perm		pm+pt		pm+pt	
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	7.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	19.0	8.0	19.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	60.0	8.0	58.0
Total Split (%)	24.4%	24.4%	24.4%	24.4%	24.4%	11.1%	66.7%	8.9%	64.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.0	18.0		18.0	64.2	57.6	62.8	62.0
Actuated g/C Ratio		0.20	0.20		0.20	0.71	0.64	0.70	0.69
v/c Ratio		0.74	0.15		0.69	0.04	0.97	0.54	0.58
Control Delay		52.4	9.9		39.1	3.7	30.8	22.0	9.0
Queue Delay		0.0	0.0		0.0	0.0	20.6	0.0	0.0
Total Delay		52.4	9.9		39.1	3.7	51.4	22.0	9.0
LOS		D	A		D	A	D	C	A
Approach Delay		43.2			39.1		51.1		9.7
Approach LOS		D			D		D		A
Queue Length 50th (ft)		106	0		65	2	~585	13	169
Queue Length 95th (ft)		#210	30		#158	6	#820	#60	325
Internal Link Dist (ft)		250			1316		528		4194
Turn Bay Length (ft)						50		50	
Base Capacity (vph)		265	360		254	307	2232	160	2434
Starvation Cap Reductn		0	0		0	0	160	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0
Reduced v/c Ratio		0.74	0.15		0.69	0.04	1.05	0.54	0.58

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 35.1 Intersection LOS: D

Intersection Capacity Utilization 86.8% ICU Level of Service E

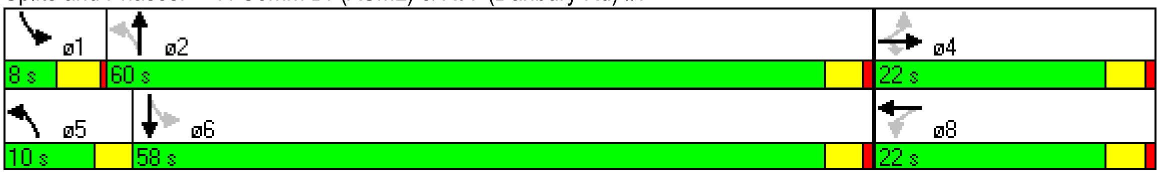
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd) #7



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	320	620	1430	450	740	890
Lane Group Flow (vph)	348	674	1554	489	804	967
Turn Type		Free		pm+ov	Prot	
Protected Phases	4		2	4	1	6
Permitted Phases	4	Free		2		
Detector Phase	4		2	4	1	6
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0	20.0	20.0
Minimum Split (s)	25.0		14.0	25.0	25.0	25.0
Total Split (s)	28.0	0.0	52.0	28.0	30.0	82.0
Total Split (%)	25.5%	0.0%	47.3%	25.5%	27.3%	74.5%
Yellow Time (s)	4.0		3.0	4.0	4.0	4.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Min		None	Min	Min	Min
Act Effct Green (s)	20.6	107.6	48.0	72.6	25.0	77.0
Actuated g/C Ratio	0.19	1.00	0.45	0.67	0.23	0.72
v/c Ratio	0.53	0.43	0.98	0.46	1.01	0.38
Control Delay	42.4	0.8	49.3	9.7	75.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	0.8	49.3	9.7	75.6	6.6
LOS	D	A	D	A	E	A
Approach Delay	15.0		39.8			37.9
Approach LOS	B		D			D
Queue Length 50th (ft)	112	0	536	140	~286	116
Queue Length 95th (ft)	158	0	#744	206	#435	164
Internal Link Dist (ft)	1650		4194			2471
Turn Bay Length (ft)	248				450	
Base Capacity (vph)	718	1583	1579	1082	798	2533
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.43	0.98	0.45	1.01	0.38

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 107.6
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 33.9 Intersection LOS: C
Intersection Capacity Utilization 89.0% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Rt 33 (Westport Rd) & Rt 7 (Danbury Rd) #7

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations												
Volume (vph)	60	70	300	40	470	20	910	650	460	760		
Lane Group Flow (vph)	65	119	183	186	511	22	989	707	500	891		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases												
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	16.0	16.0	9.0	9.0		9.0					22.0	8.0
Total Split (s)	16.0	16.0	16.0	16.0	36.0	11.0	38.0	38.0	20.0	47.0	27.0	10.0
Total Split (%)	17.8%	17.8%	17.8%	17.8%	40.0%	12.2%	42.2%	42.2%	22.2%	52.2%	30%	11%
Yellow Time (s)	4.0	4.0	3.0	3.0		3.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		1.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					C-Max	None
Act Effct Green (s)	10.0	10.0	12.0	12.0	28.0	7.0	34.0	34.0	16.0	41.0		
Actuated g/C Ratio	0.11	0.11	0.13	0.13	0.31	0.08	0.38	0.38	0.18	0.46		
v/c Ratio	0.33	0.55	0.82	0.82	0.85	0.16	0.74	0.76	0.82	0.56		
Control Delay	42.0	39.9	66.8	66.8	28.5	41.7	28.3	11.7	47.0	13.0		
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	28.9	11.7		
Total Delay	42.0	39.9	66.8	66.8	28.6	41.7	28.4	11.7	76.0	24.7		
LOS	D	D	E	E	C	D	C	B	E	C		
Approach Delay		40.6		44.6			21.7			43.1		
Approach LOS		D		D			C			D		
Queue Length 50th (ft)	35	51	108	109	121	12	251	64	141	107		
Queue Length 95th (ft)	75	106	#226	#228	#286	36	325	220	m151	m125		
Internal Link Dist (ft)		362		686			885			165		
Turn Bay Length (ft)	90		380		190	50		900	130			
Base Capacity (vph)	197	218	224	227	602	138	1337	935	610	1601		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	128	691		
Spillback Cap Reductn	0	0	0	0	1	0	23	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Reduced v/c Ratio	0.33	0.55	0.82	0.82	0.85	0.16	0.75	0.76	1.04	0.98		

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.91
Intersection Signal Delay: 34.5 Intersection LOS: C
Intersection Capacity Utilization 74.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.

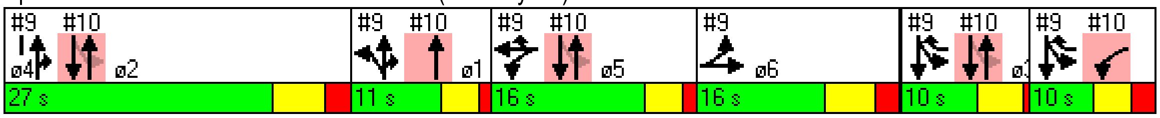
Lane Group	ø4
Lane Configurations	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	10.0
Total Split (%)	11%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd) #7



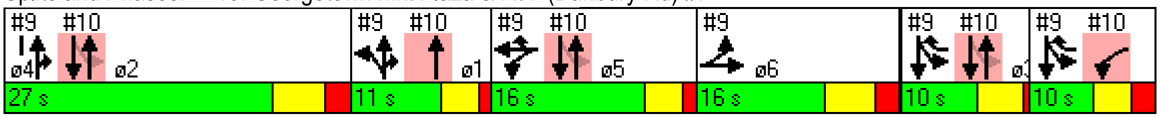
Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	120	1380	80	1160					
Lane Group Flow (vph)	250	1565	87	1261					
Turn Type			Perm						
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases			2 3 5						
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	10.0
Minimum Split (s)	10.0				9.0	22.0	8.0	9.0	16.0
Total Split (s)	10.0	64.0	53.0	53.0	11.0	27.0	10.0	16.0	16.0
Total Split (%)	11.1%	71.1%	58.9%	58.9%	12%	30%	11%	18%	18%
Yellow Time (s)	3.0				3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				1.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	4.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	C-Max	None	None	None
Act Effct Green (s)	5.0	56.0	35.0	35.0					
Actuated g/C Ratio	0.06	0.62	0.39	0.39					
v/c Ratio	1.91	0.71	1.16	0.92					
Control Delay	459.1	4.7	178.6	25.6					
Queue Delay	41.2	0.7	0.0	23.8					
Total Delay	500.3	5.4	178.6	49.5					
LOS	F	A	F	D					
Approach Delay	500.3	5.4		57.8					
Approach LOS	F	A		E					
Queue Length 50th (ft)	~201	60	~39	138					
Queue Length 95th (ft)	#351	79	#154	#295					
Internal Link Dist (ft)	127	165		133					
Turn Bay Length (ft)									
Base Capacity (vph)	131	2192	75	1376					
Starvation Cap Reductn	0	290	0	0					
Spillback Cap Reductn	6	0	0	169					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	2.00	0.82	1.16	1.04					

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 66.8	Intersection LOS: E
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	144	20	370	10	358	1210	10	950	93
Lane Group Flow (vph)	0	179	402	22	389	1315	0	1044	101
Turn Type	Perm		pm+ov		pm+pt		Perm		Perm
Protected Phases		4	5	8	5	2		6	
Permitted Phases	4		4		2		6		6
Detector Phase	4	4	5	8	5	2	6	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	3.0	10.0	3.0	15.0	15.0	15.0	15.0
Minimum Split (s)	18.0	18.0	6.1	18.0	6.1	21.0	21.0	21.0	21.0
Total Split (s)	20.0	20.0	23.0	20.0	23.0	100.0	77.0	77.0	77.0
Total Split (%)	16.7%	16.7%	19.2%	16.7%	19.2%	83.3%	64.2%	64.2%	64.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	0.1	2.0	0.1	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	3.1	5.0	3.1	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes		Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		15.0	39.9	15.0	96.9	94.0		71.0	71.0
Actuated g/C Ratio		0.12	0.33	0.12	0.81	0.78		0.59	0.59
v/c Ratio		1.05	0.67	0.10	1.09	0.90		1.00	0.11
Control Delay		132.6	31.2	31.4	81.0	10.7		53.1	9.6
Queue Delay		0.0	0.0	0.0	0.0	5.0		16.5	0.0
Total Delay		132.6	31.2	31.4	81.0	15.6		69.6	9.6
LOS		F	C	C	F	B		E	A
Approach Delay		62.4		31.4		30.5		64.3	
Approach LOS		E		C		C		E	
Queue Length 50th (ft)		~150	197	8	~293	409		~765	28
Queue Length 95th (ft)		#297	315	33	m#259	m398		#1096	53
Internal Link Dist (ft)		550		303		859		2587	
Turn Bay Length (ft)					100				20
Base Capacity (vph)		171	598	227	358	1459		1044	942
Starvation Cap Reductn		0	0	0	0	104		0	0
Spillback Cap Reductn		0	3	0	0	0		52	0
Storage Cap Reductn		0	0	0	0	0		0	0
Reduced v/c Ratio		1.05	0.68	0.10	1.09	0.97		1.05	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 47.1 Intersection LOS: D
Intersection Capacity Utilization 144.1% ICU Level of Service H
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

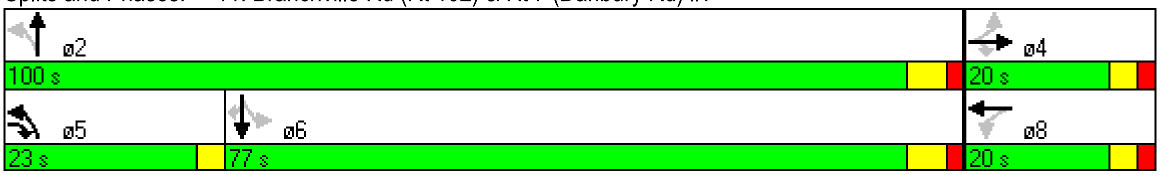
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Danbury Rd) #7



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	20	160	20	40	90	1080	50	840
Lane Group Flow (vph)	0	316	0	108	98	1207	54	935
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	22.0	22.0	22.0	22.0	59.0	59.0	12.0	71.0
Total Split (%)	23.7%	23.7%	23.7%	23.7%	63.4%	63.4%	12.9%	76.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		18.0		18.0	53.6	53.6	65.0	62.0
Actuated g/C Ratio		0.20		0.20	0.60	0.60	0.72	0.69
v/c Ratio		0.86		0.36	0.39	1.09	0.28	0.73
Control Delay		55.2		26.3	15.5	76.2	7.2	13.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		55.2		26.3	15.5	76.2	7.2	13.0
LOS		E		C	B	E	A	B
Approach Delay		55.2		26.3		71.7		12.7
Approach LOS		E		C		E		B
Queue Length 50th (ft)		158		36	27	~778	7	287
Queue Length 95th (ft)		#321		88	68	#1058	16	433
Internal Link Dist (ft)		407		189		2835		1876
Turn Bay Length (ft)					94		220	
Base Capacity (vph)		368		304	250	1105	249	1297
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.86		0.36	0.39	1.09	0.22	0.72

Intersection Summary

Cycle Length: 93
Actuated Cycle Length: 90
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 46.5 Intersection LOS: D
Intersection Capacity Utilization 100.9% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Danbury Rd) #7

Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	60	870	20	1120
Lane Group Flow (vph)	108	979	0	1239
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	23.0	79.0	8.0	87.0
Total Split (%)	20.9%	71.8%	7.3%	79.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	19.0	73.1		81.1
Actuated g/C Ratio	0.17	0.66		0.74
v/c Ratio	0.36	0.79		0.99
Control Delay	44.3	19.2		39.0
Queue Delay	0.0	0.0		0.0
Total Delay	44.3	19.2		39.0
LOS	D	B		D
Approach Delay	44.3	19.2		39.0
Approach LOS	D	B		D
Queue Length 50th (ft)	68	445		591
Queue Length 95th (ft)	122	643		#1161
Internal Link Dist (ft)	592	4303		332
Turn Bay Length (ft)				
Base Capacity (vph)	296	1232		1249
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.36	0.79		0.99

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Natural Cycle: 110	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Danbury Rd) #7

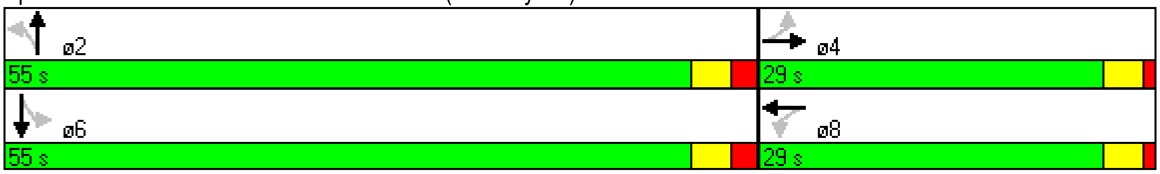
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	40	40	20	30	20	1050	30	760
Lane Group Flow (vph)	0	108	0	98	0	1206	0	902
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		22.0		22.0		52.6		52.6
Actuated g/C Ratio		0.27		0.27		0.69		0.69
v/c Ratio		0.25		0.22		0.96		0.75
Control Delay		25.1		24.5		35.0		17.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		25.1		24.5		35.0		17.0
LOS		C		C		D		B
Approach Delay		25.1		24.5		35.0		17.0
Approach LOS		C		C		D		B
Queue Length 50th (ft)		43		38		~692		326
Queue Length 95th (ft)		84		77		#935		#615
Internal Link Dist (ft)		138		187		212		697
Turn Bay Length (ft)								
Base Capacity (vph)		465		485		1261		1199
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.23		0.20		0.96		0.75

Intersection Summary

Cycle Length: 84
Actuated Cycle Length: 75.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 27.1 Intersection LOS: C
Intersection Capacity Utilization 91.3% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Haviland Rd & Rt 7 (Danbury Rd) #7



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	915	80	1085	271	561
Lane Group Flow (vph)	1060	0	1266	295	610
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	32.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	7.8%	64.4%	56.7%	35.6%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effct Green (s)	27.3		39.5	32.4	65.8
Actuated g/C Ratio	0.35		0.51	0.42	0.84
v/c Ratio	0.88		0.82	0.38	0.43
Control Delay	36.0		20.8	16.6	1.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	36.0		20.8	16.6	1.0
LOS	D		C	B	A
Approach Delay	36.0		20.8	6.1	
Approach LOS	D		C	A	
Queue Length 50th (ft)	244		231	95	0
Queue Length 95th (ft)	#459		295	150	8
Internal Link Dist (ft)	1007		425	2009	
Turn Bay Length (ft)	180				
Base Capacity (vph)	1204		1764	932	1431
Starvation Cap Reductn	0		0	0	0
Spillback Cap Reductn	0		0	0	0
Storage Cap Reductn	0		0	0	0
Reduced v/c Ratio	0.88		0.72	0.32	0.43

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 78
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 88.7% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd) #7

Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	20	40	40	1930	1250	
Lane Group Flow (vph)	22	43	43	2098	1446	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	28%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8	
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70	
v/c Ratio	0.04	0.09	0.14	0.85	0.59	
Control Delay	21.7	7.8	6.6	23.7	3.0	
Queue Delay	0.2	0.0	0.0	4.3	0.0	
Total Delay	21.9	7.8	6.6	28.0	3.0	
LOS	C	A	A	C	A	
Approach Delay	12.6			27.6	3.0	
Approach LOS	B			C	A	
Queue Length 50th (ft)	8	0	8	~710	20	
Queue Length 95th (ft)	25	23	19	#847	47	
Internal Link Dist (ft)	408			1795	86	
Turn Bay Length (ft)			80			
Base Capacity (vph)	511	488	318	2461	2442	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	294	0	0	295	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.09	0.14	0.97	0.59	

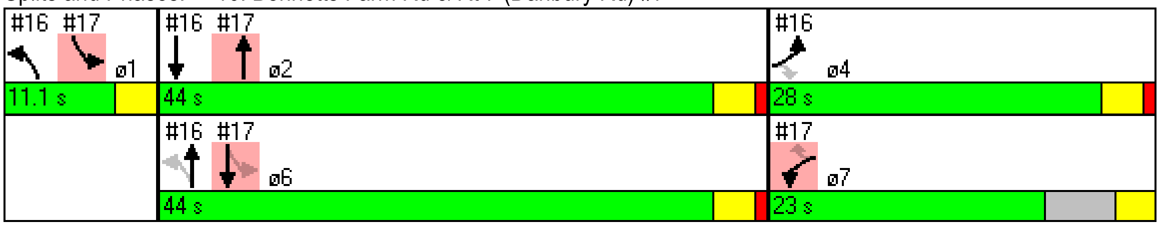
Intersection Summary	
Cycle Length: 83.1	
Actuated Cycle Length: 83.1	
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Danbury Rd) #7



Lane Group	WBL	WBR	NBT	SBL	SBT	ø4
Lane Configurations						
Volume (vph)	10	10	1920	10	1320	
Lane Group Flow (vph)	11	11	2120	11	1435	
Turn Type		Perm		pm+pt		
Protected Phases	7		2	1	6	4
Permitted Phases		7		6		
Detector Phase	7	7	2	1	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0	7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0	10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	13.4%	52.9%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0	0.1	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	4.0	3.1	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	None	C-Min	None
Act Effct Green (s)	16.9	16.9	57.8	61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70	0.74	0.70	
v/c Ratio	0.03	0.03	0.86	0.05	0.58	
Control Delay	20.9	11.4	14.0	6.3	14.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.9	11.4	14.0	6.3	14.0	
LOS	C	B	B	A	B	
Approach Delay	16.1		14.0		14.0	
Approach LOS	B		B		B	
Queue Length 50th (ft)	4	0	~206	2	318	
Queue Length 95th (ft)	16	12	#834	8	414	
Internal Link Dist (ft)	204		86		664	
Turn Bay Length (ft)						
Base Capacity (vph)	530	482	2457	261	2461	
Starvation Cap Reductn	0	0	1	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.02	0.02	0.86	0.04	0.58	

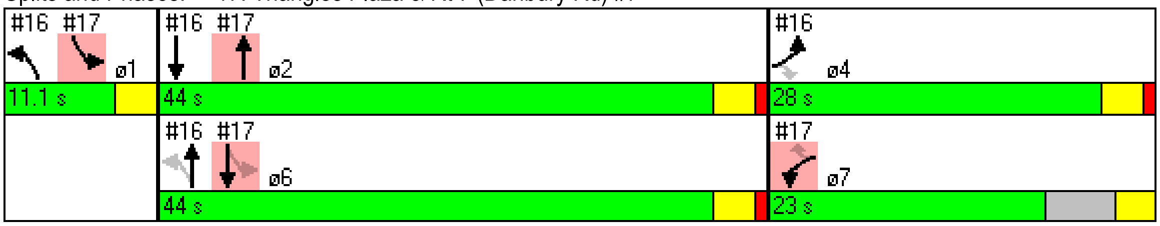
Intersection Summary

Cycle Length: 83.1
Actuated Cycle Length: 83.1
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 14.0 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 17: Triangles Plaza & Rt 7 (Danbury Rd) #7

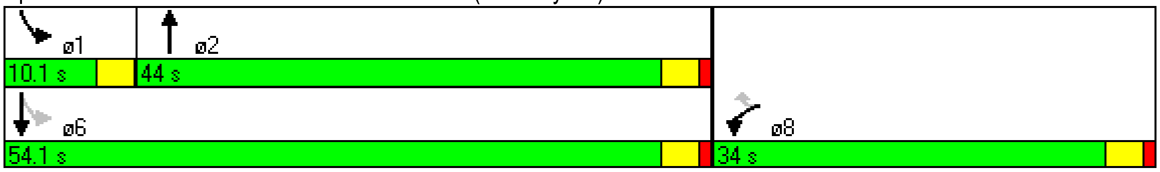


Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	30	50	1900	160	1330
Lane Group Flow (vph)	33	54	2108	174	1446
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	Min	Min	Min	None	None
Act Effct Green (s)	5.8	5.8	40.0	50.6	49.7
Actuated g/C Ratio	0.09	0.09	0.63	0.80	0.78
v/c Ratio	0.20	0.28	0.95	0.58	0.52
Control Delay	29.8	12.8	22.9	15.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	12.8	22.9	15.1	3.4
LOS	C	B	C	B	A
Approach Delay	19.3		22.9		4.7
Approach LOS	B		C		A
Queue Length 50th (ft)	12	0	333	9	68
Queue Length 95th (ft)	36	29	#596	69	114
Internal Link Dist (ft)	336		3518		2397
Turn Bay Length (ft)				80	
Base Capacity (vph)	606	577	2227	312	2773
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.05	0.09	0.95	0.56	0.52

Intersection Summary	
Cycle Length: 88.1	
Actuated Cycle Length: 63.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Danbury Rd) #7



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	20	0	4	0	20	1551	40	1296
Lane Group Flow (vph)	0	44	0	34	22	1697	43	1431
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	10.0	21.0	21.0	21.0
Total Split (s)	18.0	18.0	18.0	18.0	10.0	102.0	92.0	92.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	8.3%	85.0%	76.7%	76.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)		8.2		10.2	101.8	103.0	95.9	95.9
Actuated g/C Ratio		0.07		0.08	0.85	0.86	0.80	0.80
v/c Ratio		0.37		0.21	0.15	1.06	0.65	0.96
Control Delay		41.0		23.1	4.2	54.7	35.5	20.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.5
Total Delay		41.0		23.1	4.2	54.7	35.5	20.7
LOS		D		C	A	D	D	C
Approach Delay		41.0		23.1		54.1		21.1
Approach LOS		D		C		D		C
Queue Length 50th (ft)		17		3	2	~1502	10	~1205
Queue Length 95th (ft)		55		35	7	#1785	m13	m#1303
Internal Link Dist (ft)		181		200		261		859
Turn Bay Length (ft)					150		150	
Base Capacity (vph)		152		197	145	1597	66	1486
Starvation Cap Reductn		0		0	0	0	0	6
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.29		0.17	0.15	1.06	0.65	0.97

Intersection Summary

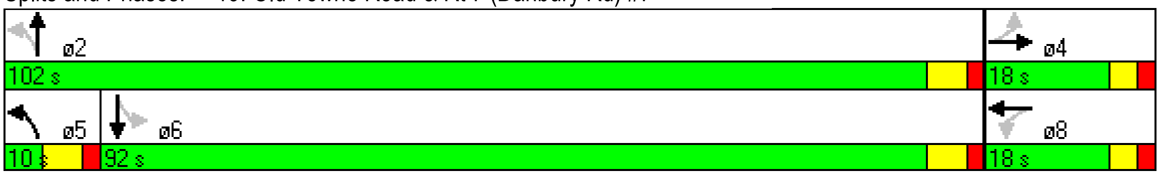
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 38.7 — Intersection LOS: D
Intersection Capacity Utilization 101.4% — ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Old Towne Road & Rt 7 (Danbury Rd) #7



Appendix C: Implementation Resources

The following offers sources of information for specific tools that can help the Route 7 implementation committees move ahead with putting the institutional and regulatory changes in place. The tools offered include sources for sample zoning language, examples of communities where the relevant policy or program change has been used, and suggestions for mechanisms to form mutually beneficial partnerships. The topic headings below correspond to the institutional and regulatory strategies outlined in the final chapter of the Route 7 Land use and Transportation Plan.

Modified Zoning

The Route 7 plan recommends that a hybrid form of rezoning be implemented that would achieve a transect form of graduated intensity of development, yet be tailored to Connecticut's framework for zoning and local conditions. The zoning code would focus more on the form of development, its physical characteristics, the formation of development nodes, and less on the activities permitted in each zone. Resources useful for implementing this change include:

- Five Steps of Hybrid Coding (A. Strungys, AICP; Caminos Ltd.May, 2008)
  - Target the area to be subject to the code
  - Articulate and set development policy-purposes for the zone(s)
  - Describe the desired physical form in words and pictures and identify which elements of the existing zone parameters will remain
  - Establish/compose written language for elements of design that are required versus encouraged; balance and reconcile original zoning language which is retained with new design-focused elements
  - Define how the code will be administered- review and decision-making process
- Hybrid form-based code examples:
  - City of Hamden, Connecticut
  - Park Ridge, Illinois, B-4 Uptown Business District Zoning
  - Village of Riverside, Illinois

- Development node - mixed use district examples: There are a wealth of examples of zoning regulations with provisions intended to result in compact mixed-use neighborhood design as well as open space conservation for the rural areas outside the development nodes. A brief listing of examples from Connecticut and elsewhere include:
  - Wilton, CT – Wilton Center Design District
  - Burlington, CT – Central Business District Overlay Zone
  - Suffield, CT – village district overlay, purchase of development rights program, also agricultural/open space zone
  - Washington, CT – special business districts for each development cluster
  - Town of Richmond, Vermont – rural village zoning
  - Section 4.1 – Model Smart Land Development Regulations – Interim Planning Advisory Services Report – American Planning Association, March 2006

Design Guidelines

The objective of the recommendation to adopt design guidelines for zoning in the Route 7 Corridor is to put more focus on the quality and character of development appropriate to each transect and the development nodes in particular. Design issues that should be addressed in the design guidelines include:

- Proportions and massing of buildings
- Setbacks from the street and adjacent buildings
- Public views of properties and maintenance of vistas
- Lighting and fencing
- Preservation of existing mature trees, stone walls, and distinctive rock outcroppings
- Natural buffers between the development nodes and suburban transects with preservation zones
- Landscaping standards
- Open space and public/community spaces standards

- Low-impact design standards (LID) for stormwater management (such as requirements for vegetated drainage swales) and minimizing paved/impervious surfaces
- Location and design of parking, loading, and trash receptacles
- Design and placement of new access roads and requiring connectivity among streets and among parcels
- Preferred roof lines, pitch and treatments
- Preferred façade design and materials
- Common exterior signage design themes
- Requirements for contributions of new development to pedestrian friendly streets, sidewalks, bicycle paths, and pedestrian amenities such as benches and shade/shelter; bicycle parking
- Encouragement for well-defined public spaces with seating, shade/shelter, water fountains, and outdoor art

Sources of more information and sample language in use today include:

- Simsbury, CT Design Guidelines
- Town of Enfield, Hazardville Design District, CT
- Cape Cod Village Design Guidelines - www.capecodcommission.org/bylaws
- Crossroads, Hamlet, Village, Town; Model Zoning Ordinance for Village Development- Randall Arendt, 2004
- Massachusetts – Smart Growth Toolkit - www.mass.gov/envir/smart_growth_toolkit/bylaws

Parking Strategies

The objective for adopting parking strategies is to manage parking supply such that it meets the demand for parking while not detracting from community character or creating spot locations of oversupply (or shortage) and excess area of paved, impervious surfaces. Strategies for development of a strategically sound parking supply include tools such as:

- Shared parking
- Parking maximums and flexible standards
- Public-private partnerships for parking
- Fee-in-lieu of parking programs
- Strategic location and pricing for on-street parking
- Parking garage design that incorporates retail frontage on the ground level and green space such as pocket parks along parking facades
- Requiring landscaping and low-impact-design for surface parking lots
- Locating off-street parking behind buildings which front on the street
- Ensuring pedestrian connectivity with parking including safe, accessible, sidewalks with pedestrian amenities such as lighting and benches

Sources of more information and sample language in use today include:

- Darien Parking Study – Fitzgerald & Halliday, Inc., 2006
- Model Regulations for Parking, Fitzgerald & Halliday, Inc., 2003
- Shared Parking Planning Guidelines – ITE, 1995
- City of Burlington, Vermont – parking program
- Montgomery County, Maryland – fee-in-lieu of parking program
- Shared Parking Model Ordinance, City of Portland, Online: http://transtoolkit.mapc.org/Parking//Referenced_pdfs/PortlandMetro_SharedParkingModelOrdinance.pdf

Regional Partnerships

Regional partnerships are voluntary or more formal associations among jurisdictions in a region to collaborate on reaching region-wide objectives or to share costs of services and infrastructure. Regional partnerships can be achieved through such mechanisms as:

- Inter-municipal agreements
- Regional planning agency committees
- Watershed planning collaboratives
- Economic development collaboratives
- Shared services agreements

Sources of more information and programs in use today include:

- Northwestern Connecticut Planning Collaborative; www.nwctplanning.org
- *Housatonic River Estuary Commission;* http://thehrec.org/
- *Bridgeport Regional Council (regional chamber of commerce);* http://www.brbc.org/cwt/external/wcpages/index.aspx
- *Bradley Economic Development League;* East Granby, Windsor, Suffield, and Windsor Locks ; *www.bradleydevelopment.com*

Development Incentives

Many communities use a diversity of both regulatory and non-regulatory incentives to attract the types of businesses they wish to see in a targeted district or node. Regulatory incentives contained in the zoning ordinance can include:

- Allowances for greater intensity/density of structures on a lot,
- More flexibility in parking, open space, public space, and/or signage requirements,
- Reductions or waivers of fees associated with development applications

In addition, some communities offer a streamlined development approval process for desirable forms of development. For example, in Tolland, the zoning administrator can approve some developments that are allowed by right and meet all site plan requirements, bypassing the formal Planning and Zoning application and decision making process. In order to encourage the construction of affordable workforce housing, the regulations can also offer a streamlined or expedited application process for developments that incorporate workforce housing in the development nodes.

Non-regulatory tools or incentives to encourage desirable development by a municipality are generally financial and can include:

- Creation of a development financing authority and/or a housing trust fund to facilitate housing partnerships
- Offering matching funds to pay for off-site improvements that may be required to mitigate a project's impacts such as impacts to roadways or stormwater management systems
- Offering matching funds for site amenities such as landscaping and pedestrian facilities
- Offering tax credits, tax-increment financing, and tax breaks or deferrals for desirable projects. These tax benefits can be varied in form as well such as straight property tax relief, tax relief tied to affordable housing unit, or job-creation tax credits
- .Offering to partner with a business to finance parking options

Public-Private Partnerships

Opportunities for public-private partnerships to promote desirable land use through a variety of venues including shared responsibility for:

- Parking facilities
- Public access to open space; public open space within private development
- Sidewalk and bicycle path connections from private to public facilities
- Infrastructure investment such as extension of water and sewer lines
- Brownfields redevelopment
- Shared driveways and access roads from public roads to private development
- Affordable housing ventures

The general process by which public-private partnerships can be encouraged or facilitated includes:

- Create an organization that is a public-private partnership collaborative to conduct a specified range of activities within the corridor. This organization could come in the form of a merchants association, a local development corporation or a business improvement district, *and/or*
- Designate of a sponsoring public agency with authority to pursue partnership arrangements for each specific type of activity, such as a parking authority for shared public –private parking
- Develop written policy to guide participation in the partnership, respond to potential partnership opportunities, and the steps in the process of negotiating partnership responsibilities as it interfaces with other development approval process steps
- Draft legal and financing framework for liability and fiscal responsibilities
- Create references in the zoning regulations, as needed, to opportunities to meet zoning requirements through partnerships such as fee-in-lieu of parking program

Sources of more information and programs or legislation in use today include:

- City of Hartford, Department of Development Services
- Capital City Economic Development Authority, Hartford
- Anchorage Downtown Partnership – Anchorage, Alaska; http://www.anchoragedowntown.org
- Virginia Public-Private Education Facilities and Infrastructure Act of 2002 (PPEA) and the Virginia Public-Private Transportation Act of 1995 (PPTA).

Appendix D: Order-of-Magnitude Cost Estimates

ROUTE 7 REGIONAL MOBILITY AND SAFTEY IMPROVEMENT INITIATIVE

IMPROVEMENT	DESCRIPTION	ORDER-OF-MAGNITUDE COST	COST ASSUMPTIONS/ CALCULATIONS
Construct additional southbound lane	Include with State Project No. 102-305 to provide lane continuity in southbound direction throughout Wilton	$750,000	Approximately 2,000 LF of new lane at $375/LF.
Shoulder upgrades	Provide 5-foot shoulder wherever possible to provide improved sightlines, increased capacity, and better bicycle accommodations	$350,000	12 miles restriping with spot improvements. No additional widening due to cost and impacts. $2/LF for removal and restriping = $253,440; contingencies @31% = $78,567; total cost = $332,000.
Advance State Project No. 102-305	Intersection improvements between Grist Mill Road and Route 33 in Wilton – currently on hold due to funding constraints	$1.875 million	$875,000 at Grist Mill Road; Approximately $1 million for remaining five intersections. Does not include costs to property impacts.
Route 7 at Route 107	Additional turn lanes and signal modifications	$1.525 million	Privately funded as part of Georgetown Redevelopment project – from STC documentation
Route 7 at New Road	Signal modifications	Negligible – regular maintenance	Monitor signal operations and modify when volumes warrant signal modifications
Access management strategies	Enhance access design criteria in the zoning regulations and work to implement Curb Cut Plans over time	Negligible	Implement curb cut plans over time as site plans are submitted to town
Route 7 Link Service Enhancement Study	Conduct study to explore enhancements in Route 7 Link service	$50,000 study cost; capital and operating costs TBD PER study	Include study of bypass lanes; planning study only, no design.
Bus Prioritization	Special bypass lanes and signal prioritization systems to allow bus travel to avoid intersection congestion and delay	$600,000 based on 20 intersections	Construction costs based on $30,000/intersection. Study feasibility as part Route 7 Link Service Enhancement Study.
Village/ Corridor Branding "Ethan Allen Highway"	Use of signage and other promotions to strengthen identity of community nodes. Brand Route 7 corridor. Develop marketing strategy and plan.	varies	Draft villages 'marketing' plan ; Consider design competition or hiring a consultant to develop branding program
		$3,625,000	Does not include construction costs for Route 7 ant 107 which is expected to be privately funded through STC process.

BICYCLE AND PEDESTRIAN INITIATIVE			
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**COST ASSUMPTIONS/ CALCULATIONS**
Shoulder Upgrades	Provide 5-foot striped shoulder along entire corridor where possible with bicycle-friendly drainage structures and maintenance	$350,000	12 miles restriping with spot improvements. No additional widening due to impacts. Cost included in Regional initiative.
Bicycle Accommodations at Intersections	Construct advanced stop bars and bicycle pockets at signalized intersections	$100,000	Cost associated with restriping and relocating of magnetic detection strips.
Bicycle Signage Program	Install bicycle route markers and bicycle warning signs along corridor	$10,000	Bicycle Route markers should be placed on existing State Route marker signs. New warning signs
Bicycle Racks/ Secure Shelters	Install well-designed bicycle racks in village centers and train stations	$10,000	Assumes 20 racks in focus areas and train stations at $500/each
Norwalk River Valley Trail	Advance multi-purpose off-road Norwalk River Valley Trail concept into design and construction	Construction costs TBD based on study	Trail routing study to be initiated soon by Norwalk River Valley Trail Steering Committee. Funding already allocated.
Cannondale Village Pedestrian Connection	Construct sidewalk on north side of Cannon Road from Route 7 to Cannondale station with pedestrian signal head.	$105,000	700 LF sidewalk + Ped signal head
Connect Gaps in Sidewalks	From Norwalk to Grumman Hill Road	$300,000	2,200 LF of new sidewalk @ $100/LF + contingencies.
ADA Upgrades	Improve intersections that are not fully ADA compliant	$35,000	7 locations @ $5,000 per location
		$560,000	Does not include $350,000 for shoulder upgrades already shown in the Regional Improvement Initiative

BRANCHVILLE ENHANCEMENT PLAN INITIATIVE			
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**COST ASSUMPTIONS/ CALCULATIONS**
Route 7 at Old Town Road	New signal and reconstruction	$475,000	Relocate driveway plus new signal
Route 7 at Route 102	Additional turn lanes and signal modifications	$260,000	New southbound turn lane and signal
Station surface parking expansion	Adjacent to and south of existing surface lot; 15,000 SF; approximately 46 new spaces	$230,000	46 spaces @ 325 SF per space @ $5,000/space = 230,800.
Reconfigure station access		$3.5 million	Assumes $1.25 million to reconstruct each bridge (2 bridges) and $1 million for RR crossing relocation.
Rear service road and surface parking	Approximately 60 new spaces and rear service road	$360,000	60 spaces @ $5,000/space = $300,000; $60,000 for service road. Does not include property acquisition costs.
Median and curb cut modifications		$250,000	900 LF at 6′ wide = 5,400 SF; Milling @ $1/SF = $5,400; Landscaping @$10/SF = $54,000; 1800 LF granite curb @ $35/LF = $63,000; labor and materials $125,000; contingencies 75%; Total Cost = $214,200.
Sidewalks	Includes public open space and gathering areas	$250,000	1800 LF = $180,000 + crosswalks, signal heads and contingencies.
Parking Structure (Phase 2)	Located on southwest corner of Route 102/ Route 7 intersection; 200 spaces; 3 levels	$5.1 million	75,000 SF in 3 levels; 10,000 SF of retail @ $40/SF = $400,000; 65,000 parking = 185 spaces (350 SF/space) @ $25,000/space = $4,625,000; Total cost = $5,025,000.
Mobility Hub (Phase 2)	Construct intermodal hub in Branchville that includes various modes, public space, real-time information, and commuter services	$750,000	Includes drainage ($20K), site reclaimation ($20K) parking and roadway ($84K), curbing, sidewalks and plazas ($52.5K), ped bridge ($100K), lighting ($30K), kiosk ($20K), bus shelter ($40K), furnishings and landscaping (460K) = $426,500 + 75% contingencies. Does not include property acquisition or environmental remediation costs.
Sidewalks (Phase 2)		$100,000	700 LF of additional sidewalk (in addition to Option 1) = $70,000 + contingencies.
New shuttle service (Phase 2)	New shuttle loop between Georgetown, Branchville, and Ridgefield serving commuters and visitors to all three villages	$80,000	Cost for vehicle. Potential public/private partnership; operating costs not included.
		$5,325,000 **$6,030,000**	Phase 1 Phase 2 – not including property acquisition costs
TOTAL INFRASTRUCTURE INVESTMENT:		**$11,355,000**	Total

RIDGEFIELD GATEWAY ENHANCEMENT PLAN INITIATIVE			
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**COST ASSUMPTIONS/ CALCULATIONS**
Route 7 at Route 35	Geometric modifications to scale-down intersection, improve safety, and better accommodate pedestrians	$265,000	New medians, curb and sidewalk
Route 7 at Senior Housing Complex Driveway	New signal and reconstruction	$250,000	Recently approved by CTDOT – funding source uncertain
Landscaped median	Granite curbing with landscaping and brick treatment	$310,000	1300 LF of 6′ wide median. 7,800 SF; Milling @ $1/LF = $7,800; landscaping @ $10/LF = $78,000; granite curb @ $35/LF = $91,000; Labor and materials $176,000; 75% contingencies; Total cost = $309,400
Sidewalks	Sidewalk connects gaps in pedestrian network	$300,000	2500 LF 5′ wide sidewalk @ $100/LF + contingencies
Walking Trail		$80,000	800 LF at $100/LF. Requires easement from Land Trust
	TOTAL INFRASTRUCTURE INVESTMENT:	**$1,205,000**	Does not include cost for proposed park and ride lot

WILTON TRAIN STATION AREA ENHANCEMENT PLAN INITIATIVE			
IMPROVEMENT	**DESCRIPTION**	**ORDER-OF-MAGNITUDE COST**	**COST ASSUMPTIONS/ CALCULATIONS**
Parking Structure	4 levels with ground floor retail	$13.5 million	Includes 30,000 SF retail and 485 parking spaces. Retail at $40/sf = $1,200,000; parking at $25,000/space = 12,125,000; total cost = 13,325,000.
Footbridge	Provides direct connection between Train Station and Wilton Center	$350,000	Includes footbridge and all design and permitting and environmental considerations.
Complete Sidewalk Network		$100,000	800 LF of new sidewalk at @$100/LF = $80,000 + contingencies
	TOTAL INFRASTRUCTURE INVESTMENT:	**$13,950,000**	
	TOTAL COST FOR ALL FIVE INITIATIVES:	**$30,695,000**	