DOWNER STREET CORRIDOR STUDY

FINAL REPORT

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DOWNER STREET CORRIDOR STUDY

Syracuse Metropolitan Transportation Council

Final Report

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1 INTRODUCTION

Over the course of its history, Downer Street has evolved to serve many functions, among them main street, commuter corridor, and gateway. With this evolution, the corridor has witnessed significant development pressure. In the past decade, the corridor has seen the construction of a residential subdivision, a senior housing complex, gas stations, pharmacies, restaurants, and convenience stores. As might be expected, this development has affected the transportation conditions on the corridor, prompting residents to voice concern regarding mobility, accessibility, safety, and sense of place.

In light of these concerns, and forseeing continued development, the Town of Van Buren proposed a comprehensive examination of land use and transportation conditions on the Downer Street corridor to the Syracuse Metropolitan Transportation Council (SMTC) in the spring of 2007. This study, authorized by the SMTC's member agencies, is the result. It has been designed to explore the existing patterns of land use and transportation in the Downer Street corridor and make recommendations regarding future land use and transportation. The aim is to improve not only accessibility and mobility in the corridor, but safety and sense of place as well.

1.1 PROBLEM STATEMENT

The issues that framed this study are summarized in the following problem statement, developed by the Study Advisory Committee (SAC) and the SMTC in the fall of 2007:

> Over the past decade, the Downer Street corridor has experienced significant commercial and residential development, which has led to concerns regarding the corridor's accessibility, safety, and sense of place. In light of continued expected development, the community recognizes the need for a corridor-wide plan to address the land use and transportation issues which contribute to these concerns.

1.2 STUDY GOALS

One of the first steps in the study was to clearly define the intent, or the desired outcomes, of the study. Through conversation between the SAC and SMTC, four major goals emerged:

- Improve roadway accessibility, safety, and mobility;
- Improve pedestrian, bike, and transit options (including ADA accessibility);
- Improve the visual character of the corridor; and
- Coordinate land use and transportation planning in order to promote sustainable growth.

1.3 STUDY PROCESS

In order to achieve the desired outcomes, the study:

- Examines the existing transportation and land use conditions on the corridor and identifies existing issues;
- Assesses the effects of future land use plans on the function of the corridor and identifies potential future issues;
- Develops land use and transportation alternatives, or scenarios, to address existing and future issues;
- Evaluates alternative scenarios in light of study goals, ability to address corridor issues, potential funding, and magnitude of impact;
- Makes short- and long-term recommendations for transportation and land use;
- Incorporates the input of stakeholders, including corridor residents and business owners; and
- Presents a final corridor-wide plan to guide future development which includes an implementation plan for use by local planning boards.

1.4 STUDY AREA

This study focused on the area immediately surrounding Downer Street between West Dead Creek Road (where Rt. 31 turns to the south at the blinking light) and Route 48 in the east. This area is approximately two miles in length and includes portions of the Town of Van Buren and the Village of Baldwinsville. Figure 1-1 shows the study area and key locations inside it.

Downer Street in the Village of Baldwinsville.

1.5 PUBLIC INVOLVEMENT

Engaging the public early and often in the planning process is not only required by numerous state and federal laws, but critical to the success of any planning effort. In order to enhance the public involvement process, the Downer Street Corridor Study included the development of a Public Involvement Plan (PIP), which is presented in its entirety in Appendix A. The PIP is a reflection of the SMTC's overarching Public Participation Plan, which outlines strategies for encouraging public involvement in transportation planning projects region-wide. The goals of the Downer Street Corridor Study PIP are to:

- Raise public awareness relative to the study's goals, objectives, and process, and
- Involve the public throughout the planning process.

The Study Advisory Committee (SAC) for the Downer Street Corridor Study included representation from the Town of Van Buren, Village of Baldwinsville, Syracuse Onondaga County Planning Agency (SOCPA), Onondaga County Department of Transportation (OCDOT), and New York State Department of Transportation (NYSDOT). The role of the SAC was to advise on the technical content of the study and to provide input throughout the project. Seven SAC meetings were held during the course of this study.

Figure 1-1 – Study Area

BACK OF FIGURE 1-1

Information about the study was distributed to a broader group of interested stakeholders, including all residents within the blocks immediately north and south of Downer Street, as well. These stakeholders received notices for the first public meeting held for the study. Attendees from the first public meeting were notified of the second. The public meetings were also broadcast on the local access TV station, PAC 98. In addition, the study included a focus group with Downer Street business-owners.

1.6 EXISTING PLANS

1.6.1 Regional Planning Documents

The past decade has seen the completion of several regional planning efforts that have implications for the Downer Street Corridor Study. These include the following.

- *2010 Development Guide for Onondaga County* (Syracuse Onondaga County Planning Agency, 1998): The *2010 Development Guide* is intended to shape future decisions on land use, transportation, and infrastructure in Onondaga County. The guide's policies are designed to promote investment in existing communities, the preservation of existing assets, sustainable urban and suburban settlement patterns, the protection of the rural economy, and access to natural resources. The *2010 Development Guide* encourages the public and private sectors to make funding, permitting, and planning decisions based on these goals, and to consider the effects of individual projects on the quality of life of all residents. The guide recommends the modification of land use regulations within cities, towns, and villages in order to encourage a renewed emphasis on areas currently served by infrastructure, mixed-use neighborhoods, higher density developments, and open space preservation.
- *Onondaga County Settlement Plan* (Duany Plater-Zyberk & Company and Environmental Design and Research, 2001): The *Onondaga County Settlement Plan* is intended to serve as a comprehensive 'toolbox' of strategies for local planning agencies. The strategies are designed to encourage traditional neighborhood development patterns as an alternative to the conventional suburban development that many deem an inefficient use of land and a burden on transportation facilities. The *Settlement Plan* includes a set of transportation policies to guide the county's infrastructure planning and recommends that these policies be implemented by individual municipalities as well. The transportation policies are recommended on three levels: the region, the neighborhood, and the street. Together, these policies are designed to:

Rural area in the Town of Van Buren.

  - Promote the choice of many transportation modes, including walking, biking, transit, and cars;
  - Emphasize the importance of accessibility and the positive impact of mixed land uses;

- Preserve existing highway capacity and concentrate development in nodes;
- Enhance connectivity for walking, biking, and driving; and
- Preserve natural resources.

- *Long Range Transportation Plan Update* (Syracuse Metropolitan Transportation Council, 2007): The SMTC's *Long Range Transportation Plan (LRTP)* is a 20-year guide for transportation development in the Syracuse metropolitan area. The LRTP presents a vision for the future that focuses on preserving and maintaining the existing transportation infrastructure. The LRTP seeks to address mobility constraints and expand travel choices primarily through innovative operations management and integrated transportation and land use planning, rather than infrastructure expansion. The goals of the LRTP 2007 update are:
  - *Safety:* Enhance the safety of the people using the transportation system;
  - *Mobility:* Improve the mobility options for people within the Syracuse metropolitan planning area;
  - *Environment:* Provide a clean and environmentally sound transportation system for current and future residents;
  - *Economy:* Enhance the area's economic competitiveness, thereby increasing opportunities for employment;
  - *Land Use:* Promote the development of an efficient urban area and a sense of community through transportation planning; and
  - *Facilities:* Provide safe, clean, well-maintained, and efficient transportation infrastructure.

Regional and Statewide Planning Themes
- Preserve and maintain existing infrastructure
- Address mobility constraints through operations management
- Expand travel choices
- Integrate land use and transportation planning

- *Strategies for a New Age: New York State's Transportation Master Plan for 2030* (New York State Department of Transportation, 2006): New York State's *Transportation Master Plan for 2030* serves as the federally recognized long range transportation plan for the State of New York pursuant to federal law and in accordance with state transportation law. The plan is focused on five priority areas: mobility and reliability, safety, security, environmental sustainability, and economic competitiveness. The plan recognizes the importance of integrated transportation and land use planning and supports the preservation of existing infrastructure, stating that "demands on the transportation system are influenced a great deal by land use decisions," and that the "preservation of existing assets and improvement management of the transportation system are the primary means of improving mobility and reliability for transportation customers."

1.6.2 Local Planning Studies

There have also been a number of local planning studies that affect the Downer Street corridor. General descriptions of each of these studies are included here. Specific findings are discussed, where applicable, in later chapters of this report.

- *Town of Van Buren Planning Reference Guide and Comprehensive Plan* (Town of Van Buren, 2002): The reference guide portion of this document includes not only a detailed history of Van Buren, but also an extensive inventory of existing visual, demographic, economic, environmental, transportation, and land use conditions. The comprehensive plan portion of the document establishes land use and transportation goals, objectives, and policies for a twenty year planning horizon. The comprehensive plan diagram also identifies future development areas. The majority of these are located immediately adjacent to 690 and I-90.
- *Central Business District Strategic Development Plan: Village of Baldwinsville, New York* (EDR, 2006): While this plan does not directly affect properties inside the Downer Street corridor, it does concern properties on the east end of the corridor on Route 48 (Syracuse Street) and Meadow Street. The plan suggests revitalizing riverfront properties along Meadow Street with condo, townhouse, and single-family residential development, a loop road, a publicly accessible riverfront trail, and boat slips. The plan also recommends mixed use infill development on Water Street at Syracuse Street, and traffic calming and streetscape improvements along Syracuse Street, Water Street, and Meadow Street.
- *Baldwinsville Village Extension Pilot Project, Onondaga County Settlement Plan* (Duany Plater-Zyberk & Company and Environmental Design and Research, 2001): The *Onondaga County Settlement Plan* included a pilot project for the area south of Downer Street and west of Route 48, a part of the Village of Baldwinsville and Town of Van Buren that is largely rural and projected for development. This pilot project, called the Baldwinsville Village Extension, advocated for dense growth in a pattern consistent with the existing village form. The project recommended adopting a Traditional Neighborhood Design (TND) code and, through the application of this code, continuing the grid to the south to create a series of distinct village neighborhoods, each with a focal point consisting of a park or plaza. Mixed uses surround these focal points, and the pattern of the neighborhood is designed to allow residents to access

The Baldwinsville Village Extension Pilot Project, Onondaga County Settlement Plan, 2001.

these uses by foot. The preservation of the existing stream corridors is also recommended, in an effort to create a continuous greenway network.

- *Baldwinsville Bypass Study* (NYSDOT, 1996): The New York State Department of Transportation (NYSDOT) considered a series of possible alternatives for a Baldwinsville Bypass in the 1990s. The NYSDOT's study built on the work of previous studies, including the SMTC's 1989 *Baldwinsville Bypass Alternative Report,* which developed seven road alternatives to bypass the downtown Baldwinsville, and in particular the busy Route 48/Route 31 (Four Corners) intersection. Ultimately, over ten alternatives were analyzed by NYSDOT, including a transportation system management alternative which involved capacity improvements (e.g. turning lanes) at Route 48 and Downer Street. The "Red Alternative" was found to meet most project goals and have the most quantitative benefits (in addition to the most significant adverse fiscal and environmental impacts). The Red Alternative was designed to link Route 48 just north of Van Buren Road with Route 31 east of the village. Phase I of this alternative, between Route 31 and Route 370, has since been constructed. Due largely to projected costs and the maintenance requirements of existing assets, no further engineering on Phase II has been completed.
- *Village of Baldwinsville Southern Village Development Master Plan: Issues and Strategies* (Syracuse Onondaga County Planning Agency, 1989): Baldwinsville's *Southern Village Development Master Plan* includes a number of recommendations for the portion of the village south of Downer Street and west of Route 48. The plan recommends residential development in a range of densities for this area, but also encourages the preservation of open space in floodplains and wetlands, aggressive access management on north/south roads, the construction of alternative east/west connectors, and the creation of an integrated local street network between private residential developments.

Downer Street at Crego Road.

- *Various traffic impact studies:* Between 2000 and the present, a number of studies were conducted to analyze the impact of proposed commercial and residential uses on the Downer Street corridor. Most of these studies concern the portion of Downer Street between 690 and Meigs Road, the central portion of the study area, as this is where most of the recent development on Downer Street has occurred. These studies include the following:
  - *Van Buren McDonald's Traffic Analysis* (Sear-Brown, 2000): This study, completed in late 2000, examined traffic implications associated with a proposed McDonald's at Downer Street and Crego Road/NW Sorrell Hill Road. The study's projections, which assumed a 2% per year increase in the baseline traffic pattern, showed an acceptable level of service for all approaches to the intersection except for northbound traffic during the noon peak travel hour. The study also found that, with the installation of a traffic light at this intersection and the elimination of McDonald's access directly from Downer Street, all negative traffic impacts would be mitigated. Since the time of this study, OCDOT has installed a

light at Downer Street and Crego Road and McDonald's access from Downer Street has been restricted to prohibit exiting left turns.

- *Traffic Analysis: Proposed Hess Express Gas Station and Convenience Market* (FRA Engineering, PC, 2002): The Hess report documented existing traffic conditions and evaluated impacts of the Hess gas station and convenience store located on the north side of Downer Street west of Crego Road. The analysis found no significant impact on level of service (i.e., that the intersection would continue to function at a level of service D). Consequently, no mitigation measures were proposed. The Hess Express has since been constructed.
- *Traffic Impact Study for Proposed Sorrel Hill Residential Development* (Dunn & Sgromo Engineers, PLLC, 2004): This report identified the traffic impacts of Sun Meadows, the 119 unit residential development south of Downer Street between 690 and Meigs Road. The study found unacceptable evening traffic impacts at the Downer Street/NW Sorrell Hill Road/Crego Road intersection, but no other adverse effects. In order to mitigate, the study recommended a traffic signal at this intersection. As noted above, OCDOT has since installed a light at Downer Street and NW Sorrell Hill Road, which has been renamed Sun Meadows Way. The Sun Meadows development is currently approximately 50% built.
- *Break in Access Study for the Crego Road Fire Station* (Plumley Engineering, 2004) and *Traffic Impact Study: Baldwinsville Fire Station* (Clough, Harbour, & Associates, 2004): These studies analyzed the impacts of a proposed Town of Van Buren fire station on the north side of Downer Street west of Crego Road. The studies noted the existing level of service problems during evening peak hours at the intersection of Downer Street/Crego Road/Sun Meadows Way. However, the studies did not expect any significant adverse impact associated with the fire station. The fire station has since been constructed.
- *Traffic Impact Study for Walgreens Pharmacy* (Dunn & Sgromo Engineers, PLLC, 2006): This study analyzed the impacts of a proposed Walgreens pharmacy at the intersection of Downer Street and Crego Road. The study projected continued unacceptable levels of service at this intersection during evening peak hours and a reduction to an unacceptable level of service during morning peak hours as well. Again, it was suggested that a traffic signal be added at the intersection of Downer Street and Crego Road/Sun Meadows Way in order to mitigate. The light has since been installed, and construction of the Walgreens has been completed.
- *Traffic Impact Assessment: Tri-County Mall Redevelopment* (GTS Consulting, 2007): This study analyzed the impacts of a demolition and reconstruction project at the Tri-County Mall on the southeast corner of the Downer Street and Meigs Road. The study found no significant impact to traffic operations on the west end of Downer Street, but projected volume-to-capacity issues at the intersection of Downer Street and Route 48 (Syracuse Street). The study suggested that improvements to this intersection should be reviewed with NYSDOT. The study also noted existing

delays at the 690 ramps. The Tri-County Mall redevelopment has not been completed.

2 EXISTING CONDITIONS

Information on the existing demographic, land use, and transportation conditions in the Downer Street corridor is presented below. This information is intended to document the current state of Downer Street and its surroundings and provide a baseline for developing future land use and transportation alternatives.

2.1 DEMOGRAPHICS

For the purposes of this study, demographic data was collected from two major sources: the U.S. Census Bureau's 2000 census and the 2000 Census Transportation Planning Package. The data from the 2000 census is obviously not current. For example, new subdivision developments in Van Buren, such as Sun Meadows, are not included. Because the 2000 Census is the most extensive source of data available for the study area, however, it has been referenced here. It remains useful for observing general characteristics and trends.

New residential construction at Sun Meadows.

The data was assembled using three overlapping geographic units: the town/village, the census block group, and the census block. Because the Downer Street corridor study area is relatively small, data for the smallest of these geographic units, the census blocks, was collected where possible. In cases where this was not possible, the larger geographies were used.

2.1.1 General Characteristics

According to the U.S. Census, approximately 4,000 people lived in the area surrounding Downer Street in 2000. Figure 2.1 shows the distribution of this population, as well as population density, for census blocks, the smallest designated geographic unit in the Downer Street corridor. The densest and most populated portions of the study area are generally found at the east end of the corridor in the Village of Baldwinsville. These areas, some with over eight people per acre, are comparable to some residential neighborhoods in the City of Syracuse in terms of population density. The portion of the study area west of the village line is generally not very densely populated, with fewer than two people per acre in most census blocks. The census blocks containing Harbour Heights present one of the few anomalies; this large residential development west of 690 has population densities similar to that of some parts of the Village of Baldwinsville.

The U.S. Census Bureau reports that, in 2000, there were just over 1,500 households in the four census block groups that comprise the study area. Census block group boundaries are shown in Figure 2.1. Household data shows that the households on the eastern and western ends of the corridor tended to be larger in size in 2000, while the households in the middle of the corridor were generally smaller. For example, the average household size in the group of blocks just east of 690 was 1.8 in 2000, while the block group around West Dead Creek Road had an average household size of 2.71. This is largely a function of the number of residents in the senior housing complexes located in the former block group.

Table 2.1 – Study Area Population by Age Group

Block Group Number	Total Population	Median Age	% Population by Age Group						
			Under 15	16 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and over
1 (West Dead Creek Road)	714	40.6	20.3%	10.1%	8.1%	21.1%	17.6%	12.6%	10.1%
2 (west of 690)	684	41.5	21.1%	9.9%	8.8%	17.5%	18.7%	10.7%	13.3%
3 (east of 690)	1,050	56.4	13.5%	7.1%	7.1%	9.8%	11.5%	9.0%	41.8%
4 (village)	1,660	36.4	22.0%	11.7%	13.6%	17.2%	15.0%	8.0%	12.5%
Total	4,108	N/A	19.4%	10.0%	10.2%	16.1%	15.2%	9.5%	19.7%

Source: U.S. Census Bureau, Census 2000

Table 2.2 – Study Area Population by Income & Poverty Rate

Block Group Number	Median Household Income	Poverty Rate
1 (West Dead Creek Road)	$66,667	3.0%
2 (west of 690)	$63,977	0.0%
3 (east of 690)	$16,417	16.6%
4 (village)	$38,487	10.5%

Source: U.S. Census Bureau, Census 2000

2.1.2 Social Characteristics

Social characteristics, particularly age, vary markedly across the Downer Street corridor. In 2000, the median ages for the Town of Van Buren and Village of Baldwinsville were fairly similar: 39.3 and 37.4 years respectively. However, median ages for the individual census blocks along Downer Street ranged widely, from 30.5 to 84.3 years. Predictably, the blocks east of 690 which contain senior housing exhibited the highest median ages. Figure 2.2 shows median age for residents in each census block in the study area.

Table 2.1 shows age statistics by block group. As with individual blocks, the age data for block groups varies widely, particularly for the under 15 and over 65 age groups. Generally, the block groups west of 690 (Block Groups #1 and #2) contain the most middle aged residents. The block group immediately east of 690 (#3), which contains the bulk of the senior housing in the study area, houses the most senior residents, while the village block group (#4) tends to be the youngest.

2.1.3 Economic Characteristics

As with social characteristics, a review of selected economic data for the study area shows a great degree of variation. According to the 2000 census, the block groups on Downer Street west of 690 (Block Groups #1 and #2) had significantly higher median household incomes than those east of the highway (#3 and #4). In fact, the median household incomes in these block groups were two to three times greater than those in the central portion of the corridor and the Village of Baldwinsville. As might be expected, the census block group which includes the newest commercial development, the malls, and the higher density senior housing (#3) exhibited the lowest median income of the four block groups which comprise the study area. The census block group to the farthest west (#1) had the highest median income. Table 2.2 includes a summary of income statistics for the four block groups in the study area.

Figure 2-1

Back of Figure 2-1

Figure 2-2

BACK OF Figure 2-2.

Table 2.3 – Study Area Workers by Means of Transportation to Work

Block Group	Workers	Car, truck, or van	Public transportation	Motorcycle	Bicycle	Walked	Worked at home
1 (West Dead Creek Road)	424	97.6%	0.0%	0.0%	0.0%	0.9%	1.4%
2 (west of 690)	344	98.5%	0.0%	0.0%	0.0%	0.0%	1.5%
3 (east of 690)	293	88.7%	1.0%	0.0%	0.0%	3.4%	6.8%
4 (village)	735	89.1%	0.5%	0.5%	1.5%	5.4%	2.9%
Total	1,796	92.9%	0.4%	0.2%	0.6%	3.0%	2.9%

Source: U.S. Census Bureau, Census 2000

Poverty rates mirror the median incomes cited above. The 2000 census showed that, in the block groups west of 690 (Block Groups #1 and #2), poverty rates ranged between zero and three percent. Meanwhile, between 10 and 17% of the population of the Downer Street block groups east of 690 (#3 and #4) lived in poverty. Poverty rates are included in Table 2.2.

Table 2.4 – Study Area Households by Vehicle Ownership

Block Group	Households	% of Households *Without* a Vehicle
1 (West Dead Creek Road)	263	1.5%
2 (west of 690)	244	1.6%
3 (east of 690)	514	27.2%
4 (village)	647	7.0%
Total	1,668	11.6%

Source: U.S. Census Bureau, Census 2000

2.1.4 Transportation

Table 2.3 shows means of transportation to work for workers in the four block groups which comprise the study area. As might be expected, private vehicles are by far the most popular form of transportation to work in the Downer Street corridor. Walking and biking, while not widely popular, had most prevalence in the Village of Baldwinsville block group (#4), where the environment is much more conducive to pedestrian mobility. Data shows that study area residents rarely use public transportation, although it had some popularity in the block group immediately east of 690 (#3), where the Central New York Regional Transit Authority (CNYRTA/Centro) has a park & ride facility.

Vehicle ownership in the study area is generally very high. The U.S. Census Bureau reports that in each of the census block groups west of 690 and at the east end of the Downer Street corridor (#1, #2, and #4), more than 90% of households had at least one vehicle. In the block group immediately east of 690, however, where senior housing is located, more than one in four households does *not* own a vehicle. Vehicle ownership data for each block group in the study area is shown in Table 2.4.

2.1.5 Conclusions

Demographics for the Downer Street corridor generally show typical suburban patterns: relatively high incomes, high auto ownership, and a high degree of auto-dependence. However, there are also some marked differences from the typical suburban pattern. In the east end of the corridor, densities are very high, similar to that of some portions of the City of Syracuse. The portions of the corridor occupied by senior housing facilities also exhibit

clear differences: a significantly lower median income, higher transit- and walking-dependence, and lower vehicle ownership than the rest of the corridor.

2.2 LAND USE & ZONING

The study area includes a mix of primarily commercial and residential land uses. In general, residential uses predominate on the eastern and western ends of the corridor, while commercial uses line Downer Street between the Baldwinsville village line and 690. The character of the uses on the corridor ranges from traditional hamlet to strip commercial to traditional suburban and rural. For purposes of description, the corridor has been divided into three sub-areas, shown in Figure 2.3, based on these shared characteristics. Land use and zoning for each of these sub-areas is discussed below. Existing assessed land use and zoning also appear in Figures 2.4 and 2.5. Definitions of the town and village zoning classes are included in Appendix B.

2.2.1 Downer Street West

The western portion of the Downer Street corridor, located in the Town of Van Buren, is historically rural in nature, with older single-family housing on large lots, significant stretches of vacant or agricultural land, and very little commercial development. In the past half century, there has been some conventional subdivision in this western portion of the corridor. For example, Harbour Heights, a typical 250-unit suburban development which has been under construction since the late 1960s, is located just west of 690 north of Downer Street. It is the only major housing development on Downer Street west of the highway. Recently, commercial pressures have been felt west of 690 as well. These commercial enterprises, including storage facilities, restaurants, and other small scale retail, are generally clustered around the 690 interchange.

The zoning in this portion of the corridor varies. Much of the land is zoned R-40, or residential with a minimum lot size of approximately one acre. A very small portion of the corridor at West Dead Creek Road is also zoned AR-80, or agricultural with a minimum lot size of approximately two acres. More recently, there has been some denser residential and commercial zoning in this section of the corridor, predominantly in the area around 690. The Town of Van Buren has zoned for local business and residential planned unit developments (PUDs) in the locations immediately west of the highway, and there is also a sizeable residential R-15 zone, with a minimum lot size of 15,000 SF, which houses the existing development at Harbour Heights. Harbour Heights is currently expanding to the east into a PUD zone.

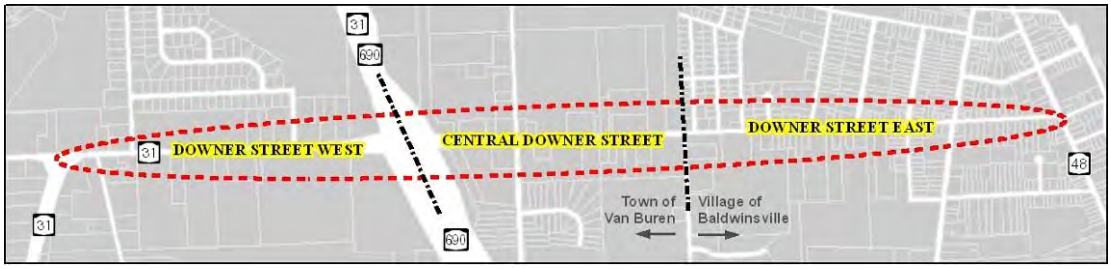


Figure 2.3 Study Sub-Areas

Figure 2-4 – Existing Land Use Map

Back of Figure 2.4

Figure 2-5 ZONING

BACK OF FIGURE 2-5

2.2.2 Central Downer Street

The central portion of the corridor, also located in the Town of Van Buren, contains a mix of newer residential and commercial uses, focused primarily in the area immediately east of 690. As in the area west of the highway, there has been recent residential development pressure in this portion of Downer Street. The Sun Meadows subdivision, for instance, located on Sun Meadows Way, is one of the newest residential developments on the corridor, and will eventually include 119 single-family units. The central portion of Downer Street also includes the vast majority of the corridor's commercial uses. These consist mainly of detached chain retail, such as McDonald's and Walgreens, and strip mall development. The newest of this commercial development has generally concentrated near the 690 interchange and has occurred on formerly residential lots. Several lots along Downer Street in this area remain residential, with older single-family homes. There is also a sizable agricultural site in this portion of the corridor, the Crego Farm. A community park is located immediately east of the River Mall.

Top to bottom: New residential development in the central portion of the Downer Street corridor; Residential Downer Street in Baldwinsville.

The Town of Van Buren has zoned the lots which front Downer Street in this portion of the corridor, including existing residential lots, general and local business. Behind these parcels, the zoning is residential, with lots varying in size from approximately ¼ acre (north of Tappan Street near the village line) to one acre (near 690). There is also a sizeable planned unit development south of Downer Street in this area, where the Sun Meadows subdivision is currently being constructed.

2.2.3 Downer Street East

The eastern segment of the Downer Street corridor lies inside the Village of Baldwinsville, and as a result, its development patterns are quite different. The majority of the village area is residential in use, with a traditional neighborhood development pattern: small blocks, small lots, a grid street network, and consistent setbacks. In addition, there are large tracts of vacant or agricultural land, a series of wetlands, and some higher density senior housing located south of the corridor in this area. There are also several community service uses, including an elementary school, cemetery, a rehabilitation center, and one enclosed mall complex, the Tri-County Mall, which occupies a large commercial lot at Downer Street and Meigs Road. This mall is slated for redevelopment.

Zoning in the eastern portion of the corridor is almost entirely residential, except for the business zone around the Tri-County Mall and the commercial zone at Route 48 and Mildred Avenue. The Village of Baldwinsville has zoned the majority of the residential land in this area R-1, for single or two-family dwellings on a minimum lot size of 7,500 SF. Higher density zoning, in an R-2 district, is found south of the Tri-County Mall. There is also a largely undeveloped planned development district south of the Tri-County Mall. Some lower density residential exists southeast of the study area.

2.3 TRANSPORTATION SYSTEM

The transportation networks in the study area are designed to serve people traveling by various transportation modes. The primary network in the study area is intended for vehicular traffic. However, there are also accommodations inside the study area for transportation by transit, foot, and bike. The existing condition of each of these networks is discussed below.

Functional Classifications
Functional classification is the process by which roads are grouped into classes according to the service they are intended to provide. *Arterials* provide the highest level of mobility at the highest speed for long, uninterrupted travel. *Collectors* provide less mobility and are designed for travel at lower speeds and for shorter distances. *Local* roads provide the least mobility, but highest accessibility, of road types.

2.3.1 Vehicular Network

As the land use and character changes along the length of Downer Street, so does road ownership, functional classification, and geometry. The conditions of the existing vehicular network in the study area is shown in Figures 2.6 and 2.7. Again, for purposes of description, the corridor has been broken into three sub-areas.

Downer Street West

The western end of Downer Street, from West Dead Creek Road to 690, is owned by the New York State Department of Transportation (NYSDOT) and classified as a minor arterial. As is consistent with many rural roads, this portion of Downer Street has two wide travel lanes, narrow striped shoulders, and a speed limit of 55 miles per hour. Near the diamond interchange at 690, the road widens to four lanes through the underpass, and the speed limit shifts to 40 mph. The only signal on this portion of the street is located at the three-leg intersection at West Dead Creek Road, where there is a light that flashes northbound red and eastbound/westbound yellow. The condition of the pavement is generally good, and the road is marked throughout. There is no on-street parking at any point in this section of the corridor.

Table 2.5 – Downer Street West: Level of Service Summary

Location (control)		AM	PM	Saturday
West Dead Creek Road	WB Left/Through	A (7)	A (5)	- (-)
	NB Left/Right	A (10)	A (9)	- (-)
	Overall	**Unsignalized Intersection**		
690 SB Off-ramp/ E. Sorrell Hill Road	WB Left/Through	A (8)	A (6)	A (6)
	NB Left/Right	B (11)	B (12)	B (11)
	SB Left/Through/Right	D (28)	F (62)	F (57)
	Overall	**Unsignalized Intersection**		
690 NB Ramps	EB Left/Through	A (4)	A (7)	A (3)
	NB Left/Through/Right	B (13)	E (43)	B (15)
	Overall	**Unsignalized Intersection**		

Source: Traffic analysis prepared by FRA. Traffic counts compiled by SMTC from counts completed by NYSDOT, GTS Consulting, and SMTC.

FRONT OF FIGURE 2-6 OWNERSHIP/FUNCTIONAL CLASS

BACK OF FIGURE 2-6

FIGURE 2-7 PHYSICAL CONDITIONS – VEHICULAR NETWORK

BACK OF FIGURE 2-7

FRONT OF FIGURE 2-8 TRAFFIC COUNTS: AM

BACK OF FIGURE 2-8

FRONT OF FIGURE 2-9 TRAFFIC COUNTS: PM

BACK OF FIGURE 2-9

FRONT OF FIGURE 2-10 TRAFFIC COUNTS: SATURDAY

BACK OF FIGURE 2-10

Levels of service (LOS) for turning movements at intersections in this portion of the study area are shown in Table 2.5. Traffic counts and locations are shown in Figures 2.8, 2.9, and 2.10. Full traffic analysis reports are included in Appendix C. In general, most of the turning movements on Downer Street west of 690, including the 690 on- and off-ramps, are currently functioning at acceptable levels of service. However, there are some areas of high delay, including the 690 southbound and northbound off-ramps, which function at a LOS E or F for some movements during the evening peak hour. Some movements at the southbound off-ramp also function at a LOS F during the Saturday midday peak hour.

Central Downer Street

The middle portion of Downer Street, from the Hess Express entrance east to Meigs Road, is owned by the Onondaga County Department of Transportation (OCDOT). The street is classified as a major collector. As noted above, the portion of Downer Street directly under and around the 690 interchange is four lanes in width.

Traveling east, however, the road almost immediately narrows to two lanes. There are eastbound and westbound left-turn lanes at the one signalized intersection in this area, Crego Road. A double-striped yellow median, often used as a two-way center turn lane, runs from this intersection to the mall entrance at Rite Aid. The speed limit in this area of the corridor is 40 miles per hour. In general, the road is in very good condition, with much of it recently paved and striped. There is no on-street parking in this portion of the corridor.

Intersection Level of Service

A level of service analysis compares the *actual* volume of traffic at an intersection to the *maximum* volume of traffic that can pass through that intersection and assigns one of six letter grades, called a level of service (LOS), to the intersection based on its performance. LOS A represents ideal conditions with minimal delay to travelers. LOS F indicates excessive delay. Generally, LOS D is considered the minimum acceptable level of service. For a more detailed description of level of service, see Appendix C.

Roadway Connectivity

Roadway connectivity allows drivers to maximize their access to homes, businesses, and institutions along a corridor while minimizing their travel on major arterials. The goal is to preserve the primary functions of the arterial – serving through trips and providing access to the highway – by moving shorter local trips to secondary roadways.

Table 2.6 – Central Downer Street: Level of Service Summary

Location (control)		AM	PM	Saturday
Crego Road/ Sun Meadows Way	EB Left	A (4)	A (6)	A (4)
	EB Through/Right	A (5)	A (6)	A (5)
	WB Left	A (3)	A (4)	A (4)
	WB Through/Right	A (4)	A (6)	A (5)
	NB Left/Through/Right	B (13)	B (11)	B (12)
	SB Left/Through/Right	B (12)	B (12)	B (13)
	Overall	**A (6)**	**A (7)**	**A (6)**
Meigs Road	WB Left/Through	A (1)	A (2)	A (1)
	NB Left/Right	B (12)	C (21)	C (18)
	Overall	**Unsignalized Intersection**		

Source: Traffic analysis prepared by FRA. Traffic counts compiled by SMTC from counts completed by NYSDOT, GTS Consulting, and SMTC.
Note: Some counts taken prior to the signalization of Crego Road.

In general, this more recently developed section of the corridor does not have a very high degree of roadway connectivity – it lacks the variety of secondary and tertiary routes that allow people different transportation choices. This is especially true for the areas of newer residential and commercial developments. For example, someone wanting to travel from Walgreens to Hess or Sun Meadows would need to travel on the arterial, Downer Street, since no vehicular or pedestrian connection is provided between these nearby destinations. The opposite is true for the Pizza Hut, P&C, and Rite Aid, where one can easily drive between businesses without using Downer Street.

Levels of service for turning movements at intersections in the central portion of the study area are shown in Table 2.6. Traffic counts and locations are shown in Figures 2.8, 2.9, and 2.10, and traffic analysis reports are included in Appendix C. At the present time, the two intersections in this area are functioning at acceptable levels of service. Annual Average Daily Traffic (AADT) for this portion of Downer Street is approximately 9,200 vehicles/day.

Downer Street East

The portion of Downer Street located inside the Village of Baldwinsville is owned by the Village of Baldwinsville and classified as a major collector. Smaller residential streets feed into the north side of Downer Street at regular intervals throughout this section of the corridor. The street generally consists of two fairly narrow travel lanes and does not have a striped shoulder or center line at the present time. The speed limit is 30 miles per hour. There are two signalized intersections in this area, at Frawley Drive and at Route 48. The pavement in this portion of the street is very new and in good condition. As in other sections of the corridor, there is no on-street parking.

The residential areas on the north side of Downer Street in this portion of the study area have a high degree of street connectivity. Residents of these neighborhoods can access the River Mall, Van Buren School, downtown Baldwinsville, Route 48, and each other without traveling on Downer Street. The same is not true for the south side of Downer Street through this area. For example, someone wanting to travel from Syracuse Homes to a residence on Seneca Street would be forced to use Downer Street.

Levels of service for turning movements at intersections in the eastern portion of the Downer Street corridor are shown in Table 2.7. Traffic counts and locations are shown in Figures 2.8, 2.9, and 2.10, and traffic analysis backup is included in Appendix C. At the present time, all of the intersections are functioning at an acceptable level of service during the morning, evening and Saturday midday peak hours. However, the traffic impact assessment completed for the Tri-County Mall redevelopment shows that, with the completion of this project, excessive delays may develop during the evening peak hour at the Route 48 intersection. AADT for this portion of the corridor is approximately 7,500 vehicles/day.

Table 2.7 – Downer Street East: Level of Service Summary

Location (control)		AM	PM	Saturday
Frawley Drive	EB Left/Through/Right	A (2)	A (4)	A (3)
	WB Left/Through/Right	A (2)	A (4)	A (3)
	NB Left/Through	B (16)	B (16)	B (17)
	NB Right	B (15)	B (15)	B (16)
	SB Left/Through/Right	B (17)	B (15)	B (16)
	Overall	**A (4)**	**A (5)**	**A (4)**
Seneca Street	EB Left/Through/Right	A (1)	A (1)	- (-)
	WB Left/Through/Right	A (1)	A (1)	- (-)
	NB Left/Through/Right	B (11)	C (16)	- (-)
	SB Left/Through/Right	B (11)	B (12)	- (-)
	Overall	**Unsignalized Intersection**		
Canton Street	EB Left/Through/Right	A (1)	A (1)	A (1)
	WB Left/Through/Right	A (1)	A (1)	A (2)
	NB Left/Through/Right	B (13)	C (16)	C (21)
	SB Left/Through/Right	B (11)	B (14)	C (16)
	Overall	**Unsignalized Intersection**		
Route 48	EB Left/Through/Right	B (18)	C (32)	C (23)
	WB Left/Through/Right	B (13)	B (15)	B (12)
	NB Left/Through/Right	A (8)	C (26)	B (17)
	SB Left/Through/Right	B (11)	B (13)	B (18)
	Overall	**B (11)**	**C (22)**	**B (19)**

Source: Traffic analysis prepared by FRA. Traffic counts compiled by SMTC from counts completed by NYSDOT, GTS Consulting, and SMTC.

2.3.2 Transit Network

Three Centro routes, 82, 182, and 282, operate within the study area. All of these are located in the central and eastern portions of the corridor. These routes use Syracuse Street/Route 48 to provide access between Baldwinsville, points north, and downtown Syracuse. At times of peak commuter traffic and during mid-day, these routes also extend down Downer Street to connect to the Tri-County Mall park & ride.

Tri-County Mall park & ride

Each of these routes provides service every day of the week. Hours and frequency vary but service is generally provided from early morning through early evening with relatively long headways (30 minutes or longer between bus arrivals). As is true throughout the Centro system, the bus routes within the study area provide transportation from a suburban area to downtown Syracuse with the major transfer point located downtown.

Figure 2.11 shows the location of transit facilities and routes within the study area. As noted above, there is a park & ride facility at the Tri-County Mall. The small shelter that

Top to bottom: Pedestrian in shoulder at Downer Street and Crego Road; Personal motorized vehicles crossing the Tri-County Mall parking lot.; Removed mow strip at Wilkinson Place; Pedestrians crossing in the Village of Baldwinsville.

comprises the stop for the park & ride is new and in good condition. In addition to this shelter, many bus stop signs are located on both the north and south sides of Downer Street between the Tri-County Mall facility and Route 48. Due to the narrow width of the road in this portion of the corridor, buses are not able to pull over completely at these stops.

2.3.3 Pedestrian Network

The pedestrian environment varies widely along the length of the Downer Street corridor. In portions of the corridor, traffic speeds and a lack of pedestrian facilities actually discourage walking. In other parts of Downer Street, in contrast, the pedestrian environment has been planned for and developed. Figure 2.11 shows pedestrian facilities in the study area. Again, for purposes of description, the corridor has been divided into three sub-areas.

Downer Street West

In the rural portion of the corridor west of 690, there are no sidewalks, marked crosswalks, or other pedestrian amenities, such as trash cans, street lights, or benches. Speeds in this portion of the corridor are fairly high, and generally discourage walkers from using the road as a path. Similarly, the area of Downer Street beneath 690 is subject to fairly high speeds and heavy traffic, and does not pose an inviting pedestrian environment. There is one trail in this portion of the corridor, a snowmobile path that crosses Downer Street just west of 690.

Central Downer Street

As in the western portion of the corridor, the central part of Downer Street has few pedestrian amenities. Aside from the new Walgreens, which has a sidewalk on both of its street frontages, and a small piece of sidewalk between McDonald's and Dunkin' Donuts, there is no dedicated pedestrian space in this portion of the corridor. In order to reach stores, pedestrians are forced to walk along roadsides and through large parking lots that lack designated walkways. The shoulders in this area are generally fairly wide, which allows pedestrians to use the street as walking space. However, high speeds (40 mph) and heavy traffic make this option uninviting. Lighting is intermittent and generally a choice of private business owners. There are no marked crosswalks or pedestrian signals at the signalized intersection in this area.

Figure 2-11 – Transit/Ped Map

BACK of FIGURE 2-11

Downer Street East

The portion of Downer Street within the Village of Baldwinsville, by virtue of being the oldest and most residential segment of the corridor, houses the most significant pedestrian accommodations in the study area. Sidewalks run from Wilkinson Place east down the north side of Downer Street and from the Tri-County Mall east down the south side of Downer Street. The sidewalks are generally two to four feet in width and consist of a mix of concrete and asphalt. In some locations, the sidewalks show signs of disrepair. A mow strip with intermittent street trees separates the sidewalks from traffic through most of the village. The mow strip has been eliminated on the north side of Downer Street between Monica Place and Wilkinson Place in order to accommodate wider driving lanes. There is no street lighting in this portion of the corridor and only one marked crosswalk, on the north side of the Downer Street/Seneca Street intersection. There are no marked crosswalks at the signalized intersections in this area and only one set of pedestrian signals, located at the Rt. 48 intersection. This is the only intersection signalized for pedestrians in the study area.

The only areas of the Downer Street corridor inside the village that lack pedestrian accommodations altogether are the Tri-County Mall and the intersection at Meigs Road. There are no sidewalks or marked crosswalks in these areas, aside from a very small segment of sidewalk at the corner of the Rite Aid property. The large parking lot at the Tri-County Mall completely lacks pedestrian amenities. Without dedicated space, pedestrians are generally forced to use the street or the mall parking lot as a path.

2.3.4 Bicycle Network

Downer Street serves as a portion of New York State Bike Route 5, which crosses the state from Niagara Falls to the Massachusetts border. Signs for the bike route are posted along the length of Downer Street. As is consistent with other state bike routes, since these routes are intended for experienced cyclists who are comfortable sharing the roadway with fast-moving vehicles, there is no dedicated bike lane on Downer Street. As noted above, the shoulders in the central portions of the corridor are fairly wide and paved, creating space for cyclists. There are no known bike storage facilities in the study area.

3 EXPECTED FUTURE CONDITIONS

Demographic trends, development trends, projected land use, and planned roadway improvements will impact future transportation conditions in the study area. Assumptions relevant to future conditions are presented below.

3.1 DEMOGRAPHIC TRENDS

The U.S. Census Bureau served as the source for the demographic trends cited below. Demographic trends for the study area communities are also summarized in Table 3.1. Again, it should be noted that while the 2000 census is the most recent and reliable data source for study area demographics, the datasets cited here are not current. However, they are useful for their ability to show general trends.

According to the U.S. Census Bureau:

- While the Town of Van Buren's population decreased in the period between 1990 and 2000, the number of households in the town actually increased, by 7.3%. This inconsistency can be explained through average household size, which dropped in the Town of Van Buren over this decade. This trend, stable or decreasing population coupled with an increase in households, mirrors that of Onondaga County, although in Van Buren, it appears more pronounced.
- Between 1990 and 2000, the Village of Baldwinsville's population increased by 7%. Over the same period, the number of households increased by more than twice as much: 16.4%. As in Van Buren, average household size fell over the same period. The rate of increase in households in the village was significantly higher than that of the town or the county.

Table 3.1 – Trends in Selected Study Area Demographics (1990-2000)

	Town of Van Buren			Village of Baldwinsville			Onondaga County		
	1990	2000	% change	1990	2000	% change	1990	2000	% change
Total population	13,367	12,667	-5.2%	6,591	7,053	7.0%	468,973	458,336	-2.3%
Households	5,234	5,618	7.3%	2,511	2,924	16.4%	177,898	181,153	1.8%
Average household size	2.54	2.37	-6.7%	2.59	2.46	-5.0%	2.64	2.46	-6.8%
Population 65 years and over	1,463 (10.9%)	1,884 (14.9%)	28.8%	899 (13.6%)	1,104 (15.7%)	22.8%	60,840 (13.0%)	63,294 (13.8%)	4.0%
Median income (household)	$34,636	$43,003	24.2%	$30,000	$40,143	33.8%	$31,783	$40,847	28.5%
Individuals below poverty	593 (4.4%)	816 (6.6%)	37.6%	436 (6.7%)	574 (8.2%)	31.7%	46,462 (9.9%)	54,208 (12.2%)	16.7%

Source: U.S. Census Bureau, Census 1990 and 2000 (SF 1 and SF 3)
Note: Since portions of the Village of Baldwinsville lie inside the Town of Van Buren, Baldwinsville data are included in the statistics for Van Buren.

- Senior populations in both Van Buren and Baldwinsville grew significantly between 1990 and 2000. Over this decade, the senior population in Van Buren grew by almost 30%, while Baldwinsville's over 65 population grew by 22.8%. The senior population county-wide, meanwhile, grew by only 4%.
- Disparity of wealth is also growing in the study communities. Between 1990 and 2000, the median household income in Van Buren increased by 24.2%. Simultaneously, the number of individuals living below the poverty line increased by 37.6%. Likewise, in Baldwinsville, the median household income increased by 33.8% over the period from 1990 to 2000, while the number of individuals below the poverty line increased by 31.7%. These statistics generally mirror county trends, although the numbers of individuals below poverty level in the study communities appear to be growing more rapidly than those county-wide. This may be a function of the development of numerous senior housing facilities in the study area.

Demographic Trends
- Limited population growth
- Increasing number of households
- Aging population with needs for compact and affordable housing
- Increasing number of residents living below the poverty line

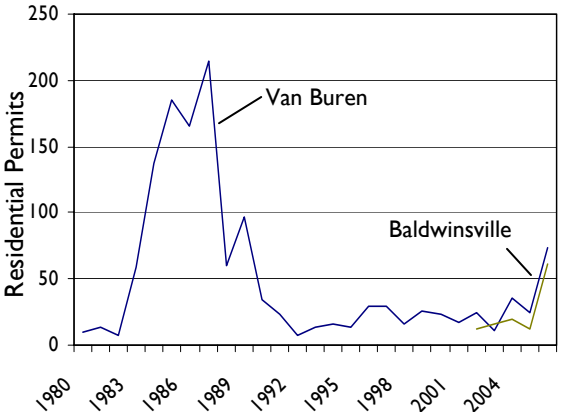
3.2 DEVELOPMENT TRENDS

Development trends for the study area communities are cited below. Sources for development trend data include the 2002 *Town of Van Buren Comprehensive Plan,* SOCPA, and the Town of Van Buren.

The following trends were noted in the *Town of Van Buren Comprehensive Plan* in 2002:

- The pace of residential development in Van Buren appeared to be slowing. The plan reported that the town had issued almost five times as many residential building permits in the 1980s as it had during the 1990s. Of the 1,154 permits issued over those two decades, 82% were issued in the 1980s and only 18% were issued in the 1990s.
- The plan also reported that the proportion of county-wide growth that could be attributed to the Town of Van Buren had declined sharply. In the 1980s, Van Buren issued 5.2% of all residential permits in Onondaga County. By the 1990s, that proportion had decreased to 1.9%.

Figure 3.1 – Residential Permits, Town of Van Buren and Baldwinsville (1980-2006)



Sources: Town of Van Buren Comprehensive Plan, SOCPA

Since the writing of the comprehensive plan, however, there have been increases in the pace of development in Van Buren.

- Data from the Syracuse Onondaga County Planning Agency (SOCPA) shows that the number of residential permits issued annually by the town has risen in the past several years. From 2000-2006, the town issued 209 permits, with most of these concentrated in 2006. Figure 3.1 shows residential building permits issued annually by the town for the past two decades.

- Actual home construction data from the last ten years also shows an increase, with the number of homes built per year in Van Buren growing from an average of 10.6 in the period from 1996-2000 to 16.6 from 2001-2005. In 2005, the last year from which data is available, 28 new homes were built in Van Buren.
- The most recent data available from SOCPA shows that the town's proportion of county-wide permits has also increased. In the 1990s, the town issued 1.9% of Onondaga County permits, as compared to 2.6% in the period from 2000-2006.

There has also been an increase in the level of residential development in the Village of Baldwinsville:

- SOCPA data also indicates that the number of residential permits issued by the Village of Baldwinsville has grown sharply in the past several years. The number of permits issued in the village in 2006 more than quadrupled that of the previous year. The number of permits issued annually by the village since 2000 is also shown in Figure 3.1.

Commercial development continues, particularly in the central portion of the corridor, where a drug store, storage units, and a gas station have been added in the past five years.

3.3 FUTURE LAND USE

Figure 3.2 shows the future land use in the study area as envisioned in the *Town of Van Buren Comprehensive Plan* and by the Village of Baldwinsville. According to the *Town of Van Buren Comprehensive Plan*, and in keeping with demographic trends, increases in Van Buren's number of households are projected for the next decades. The town assumes that these households will live in expanding suburban areas or on large rural residential lots, and that pressures on agricultural and natural resources will increase. The comprehensive plan recommends residential development in areas already served by community services and facilities. Some of this future residential demand is expected for higher density housing to accommodate an aging population.

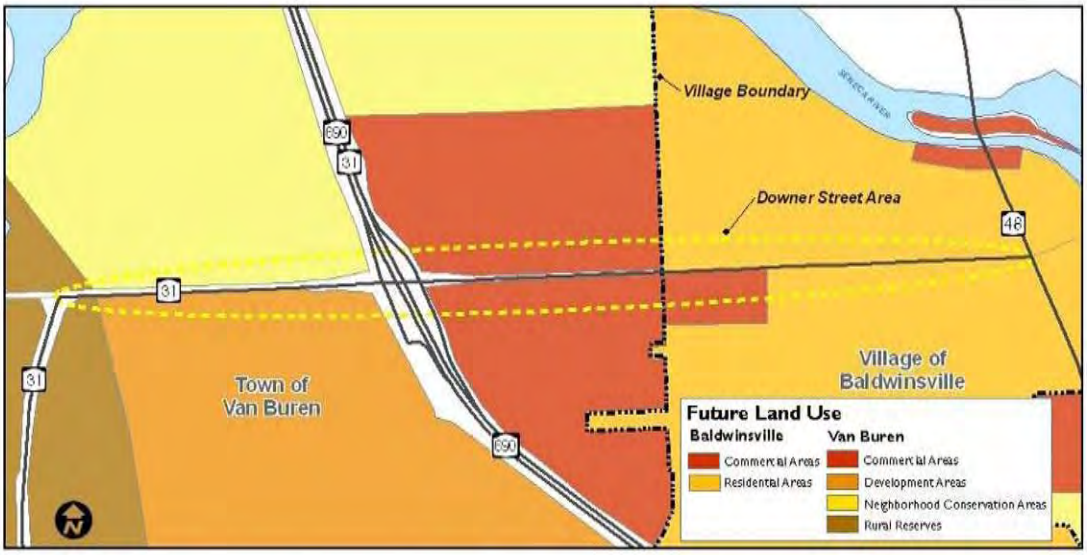


Figure 3.2 Future Land Use

The *Comprehensive Plan* also notes the following:

- Currently, sewer infrastructure only exists in Van Buren east of 690 and in Harbour Heights. However, the Onondaga County sanitary district includes all of the study area and extends well beyond it. The county's sanitary district incorporates much of the currently rural area south and west of 690.
- The town's water service area includes the study area, but does not extend west of West Dead Creek Road. Similarly, its extent south and west of 690 is not as broad as the sanitary district's.
- The town's comprehensive plan diagram for 2020 shows "neighborhood conservation areas" north of Downer Street west of 690 and north of Tappan Street east of 690. These areas are defined as healthy, existing neighborhoods which should serve as models for future housing. The plan notes that new projects in these areas should follow design guidelines that encourage compatibility with surrounding uses.
- Residential development areas include the currently rural land west of 690 and south of Downer Street.
- New commercial development is expected to keep pace with residential development in Van Buren. The comprehensive plan notes that many opportunities for commercial redevelopment exist. The plan suggests concentrating new commercial development in existing commercial centers and planned communities.
- The comprehensive plan diagram for 2020 shows commercial land use in the entire area west of the village line and east of 690, except for a small neighborhood conservation area north of Tappan Street. Commercial is also shown on Route 48 south of Mildred Avenue.

The *Central Business District Strategic Redevelopment Plan* for Baldwinsville provides some additional information about future land uses. This plan recommends mixed use and higher density residential development north and east of the study area.

Downer Street at the Tri-County Mall.

3.4 PROJECTED DEVELOPMENT

As trends and plans indicate, the potential for development on the Downer Street corridor is significant. In order to intelligently plan for this growth, it is important to estimate both the extent of future development and the impacts that this development will have on infrastructure, traffic, and community character. For estimation purposes, a planning year of 2027 was used.

3.4.1 Known Development Projects

As of now, it is assumed that several new developments, as well as some redevelopment, will be permitted in the study area over the course of the next 20 years, The following were identified by the town and village as known development projects:

- The Sun Meadows subdivision is currently approximately 50% built. It is assumed that the remaining 50% of the development's 119 permitted units will be constructed in the project's final phase, which will occur over the next several years. The subdivision will eventually have access on Meigs Road.
- Construction will continue on the addition to Harbour Heights, with approximately 130 additional units expected in the final phase.
- Golden Legacy is a 48 unit senior apartment complex located south of Downer Street off Meigs Road. One of the complex's buildings, which will contain 24 additional units, has yet to be built. It is assumed that this addition will generate 12 morning and 16 afternoon trips during peak hours.
- Syracuse Home is a short term rehabilitation and senior assisted living facility. Syracuse Home is proposing an expansion of its facility which will add seven staff members and five visitors to the daily traffic. This change is expected to generate a maximum of 12 trips during peak hour at 3 p.m.
- When completed, the Shoppes at Baldwinsville, the proposed redevelopment of the Tri-County Mall, will include 152,000 SF of retail building space and 21,000 SF of office. This will replace the existing 72,416 SF of leasable retail space in the mall. Construction is expected to begin in the next year.
- The Van Buren Fire Department will be constructed off Crego Road just north of Downer Street. Since trips generated with this use are unpredictable, they have not been included in future traffic projections.

This study assumes that all of these projects, which are summarized in Table 3.2. and shown on Figure 3.3, will be completed by 2027.

Table 3.2 – Known Development Projects (2027)

Project Name	Projected Development
Sun Meadows	Approximately 65 single-family homes
Harbour Heights	Approximately 130 units (half townhouse and half single-family)
Golden Legacy	24 units[1]
Syracuse Home	Addition of 7 staff and 5 visitors during peak hour[1]
Tri-County Mall/ Shoppes at Baldwinsville	152,000 SF

3.4.2 Projected Development on Vacant Lands

As part of the strategy for estimating the extent of as yet unplanned development, eighteen vacant properties in the vicinity of Downer Street with the potential to be developed over the next 20 years were identified. In most cases the properties are zoned residential, but a few are commercially zoned or part of planned development districts (PDD). The majority of the vacant parcels identified have frontages directly on Downer Street.

[1] Trip generation numbers supplied through traffic impact studies prepared by other entities.

Two large parcels off Downer Street, Crego Farm and a planned development district in the southern portion of the Village, were also included in the development projections due to their large size and close proximity to the corridor. These parcels have been discussed as development sites, in some cases for years. For example, residential development on the PDD south of Downer Street on the east and west sides of Canton Street has been anticipated since the 1989 *Village of Baldwinsville Southern Village Development Master Plan* and the *Onondaga Settlement Plan.*

Since the amount and timing of the buildout of these parcels is difficult to predict, three levels of development intensity were studied: 25%, 50%, and 75%. The maximum development potential (or full buildout) of each parcel, measured in number of units and/or square feet of building, was estimated based upon its acreage and the current zoning. Each parcel maximum yield was then reduced to reflect 25%, 50%, and 75% of full buildout, which more realistically captures how vacant parcels would likely develop over time. The potential resulting development is depicted in Table 3.3.

Table 3.3 – Speculative Buildout of Vacant Lands

	Zoning	Parcel Size (in acres)	Unit of Measure	Potential Buildout (% of full buildout)		
				25%	50%	75%
Town of Van Buren						
Parcel 1	R-40	5.19	number of units	1	2	3
Parcel 2	R-40	0.92	number of units	0	0	1
Parcel 3	R-40	11.90	number of units	3	6	9
Parcel 4	R-40	8.72	number of units	2	4	6
Parcel 5 (a)*	PUD	5 (of 15.88)	number of units	4	8	12
Parcel 5 (b)*	PUD	10.88 (of 15.88)	SF of building	21,250 SF	42,500 SF	63,750 SF
Parcel 6	R-40	105.16	number of units	25	50	75
Parcel 7	LB	19.14	SF of building	31,250 SF	62,500 SF	93,750 SF
Parcel 8	LB	2.06	SF of building	6,980 SF	13,960 SF	20,940 SF
Parcel 9	GB	3.22	SF of building	7,000 SF	14,000 SF	21,000 SF
Parcel 10	R-40	22.11	number of units	5	11	16
Parcel 11	LB	0.64	SF of building	1,045 SF	2,090 SF	3,135 SF
Village of Baldwinsville						
Parcel 12	B-1	2.28	SF of building	10,000 SF	20,000 SF	30,000 SF
Parcel 13	R-1	2.60	number of units	3	6	9
Parcel 14	R-1	0.10	number of units	0	0	0
Parcel 15	R-1	2.37	number of units	3	5	8
Parcel 16	R-1	0.23	number of units	0	0	1
Parcel 17	R-1	0.15	number of units	0	0	0
Parcel 18	PDD	50.11	number of units	25	50	75

Notes:
- Number of residential units was determined by dividing the parcel size by the minimum lot size allowed under current zoning.
- Square footage of buildings was determined by dividing the parcel size by the maximum % of lot coverage allowed under current zoning.
- Residential development numbers account for dedicated ROW along all frontages. Commercial development numbers account for parking.

* Given the nature of the PUD district, development of Parcel 5 was assumed to include both residential and commercial components. +/- 5 acres of this site has recently been developed as a mini-storage facility.

FIGURE 3.3 VACANT BUILD OUT MAP

BACK OF FIGURE 3.3

3.4.3 Traffic Generation

Future traffic volumes associated with this development were calculated using a three-stage approach. First, a 1.5% annual growth rate was applied to existing volumes. This growth rate accounts for background growth, or future growth that will occur outside the corridor study area but impact future volumes on Downer Street due to commuter and travel patterns. The 1.5% rate is an average for roads in suburban areas such as the Town of Van Buren, and is similar to the growth rate used in regional modeling for the area. Secondly, the traffic generated from the five known developments, shown in Table 3.2, was added, producing "2027 baseline" traffic volume numbers. Lastly, the traffic created from the three potential buildout conditions (25%, 50% and 75%), as shown in Table 3.3, was added, producing "2027 buildout" traffic volumes.

Peak hour traffic generated by both the known developments and the potential buildout was determined using vehicular trip generation rates and equations provided in the *ITE Trip Generation Manual*. The trip generation and traffic analysis tables, provided in Appendix C, show the projected impact of the 2027 future development on the worst case PM peak hour peak conditions.

As shown in Table 3.4, in all buildout scenarios, or with any level of development, significant volume increases are projected. In the 25% buildout condition, traffic volume increases in the 20% to 35% range are projected. In the 50% buildout condition, traffic volume increases in the 33% to 56% range are projected, and in the 75% buildout condition, traffic volume increases in the 43% to 74% range are projected. Overall, the biggest increases in traffic under each of the 25%, 50%, and 75% buildout conditions are projected in the central portions of the corridor, between 690 and Crego Road. The volumes throughout the corridor for the 25%, 50%, and 75% buildout scenarios are included as Figures 3.4 through 3.6.

Table 3.4 - Projected Weekday PM Peak Hour Traffic Volumes (2027)

	AADT			% Change in Total Volume	
	EB	WB	Total	From 2027 Baseline	From Previous Buildout Scenario
Between Route 31 and 690 SB					
2027 Baseline	315	721	1,036	----------	----------
25% Buildout	387	859	1,246	20%	----------
50% Buildout	431	951	1,382	33%	11%
75% Buildout	469	1,017	1,486	43%	8%
Between Route 690 SB and Crego Road					
2027 Baseline	830	916	1,746	----------	----------
25% Buildout	1,175	1,188	2,363	35%	----------
50% Buildout	1,373	1,351	2,724	56%	15%
75% Buildout	1,545	1,499	3,044	74%	12%

Table 3.4 - Projected Weekday PM Peak Hour Traffic Volumes (2027) (continued)

Between Meigs Road and Frawley Dr.					
2027 Baseline	634	700	1,334	----------	----------
25% Buildout	841	869	1,710	28%	----------
50% Buildout	964	974	1,938	45%	13%
75% Buildout	1,073	1,061	2,134	60%	10%
Between Canton Street and Syracuse Street					
2027 Future Baseline	670	602	1,272	----------	----------
25% Buildout	857	762	1,619	27%	----------
50% Buildout	965	855	1,820	43%	12%
75% Buildout	1,060	936	1,996	57%	10%

3.5 FUTURE TRANSPORTATION CONDITIONS

Weekday PM peak hour traffic operations are presented in Table 3.5 for the existing condition, 2027 baseline, and the three potential buildout conditions (25%, 50%, and 75%). Under the 2027 baseline traffic projections and each of the buildout conditions, congested operations are projected. Each of the three signalized intersections in the study area showed overall congested levels of service (LOS), meaning an overall LOS below D, under the future buildout projections. In addition, five of the six unsignalized intersections showed projected operational problems, primarily on the side-street approaches, which may indicate a need for roadway improvements.

A discussion of poorly operating intersections follows. Peak hour traffic analysis tables for all study area intersections are presented in Appendix C. Turning movement volumes for each of the buildout projections are included as Figures 3-4, 3-5 and 3-6.

3.5.1 Downer Street at Route 690 Ramps

These two intersections currently operate with peak period congestion on the ramp approaches, and this congestion is projected to further worsen by the 2027 baseline and under each of the buildout conditions. Northbound and southbound approaches are projected to be especially problematic.

3.5.2 Downer Street at Crego Road/Sun Meadows Way

This signalized intersection currently operates at an overall LOS A but is projected to fall to LOS B under the 2027 future baseline. With the addition of the 25% buildout scenario, the overall LOS falls to D. Operations are projected to degrade to a LOS F with 1.7 minutes of delay under the 50% buildout condition and LOS F with 2.5 minutes of dealy under the 75% buildout condition. The southbound and eastbound approaches are projected to be especially problematic under the future buildout conditions.

3.5.3 Downer Street at Meigs Road

This unsignalized intersection currently operates at LOS C or better for all movements during the PM peak hour. However, without improvements, the northbound Meigs Road approach will degrade to LOS F with long delays by 2027.

3.5.4 Downer Street at Frawley Drive

This intersection currently operates at an overall LOS A but is projected to degrade to LOS D under the 50% buildout condition and LOS E with 70 seconds of delay under the 75% buildout condition. Eastbound and westbound approaches are projected to be especially problematic.

3.5.5 Downer Street at Seneca Street

This unsignalized intersection currently operates at LOS C or better for all movements during the PM peak hour. The northbound Seneca Street approach is projected to continue to operate at LOS C under the 2027 baseline condition. However, traffic operations for the northbound approach is projected to worsen to LOS E under the 25% buildout condition and LOS F under the 50% and 75% buildout condition.

3.5.6 Downer Street at Canton Street

This unsignalized intersection currently operates at LOS C or better for all movements during the PM peak hour. The southbound and northbound Canton Street approaches are projected to worsen to LOS D and F respectively under the 2027 baseline and further degrade under any of the buildout condition.

Table 3.5 - Projected Levels of Service (2027)

	Existing LOS	Future LOS (PM Peak)			
		2027 Baseline	25 % Buildout	50% Buildout	75% Buildout
West Dead Creek Rd (Unsignalized)					
WB Left	A (5)	A (6)	A (6)	A (7)	A (7)
NB Left/Right	A (9)	B (10)	B (11)	B (11)	B (12)
Overall	**This intersection is an unsignalized intersection**				
690 SB Off-ramp/E. Sorrell Hill Road (Unsignalized)					
WB Left	A (6)	A (7)	A (9)	B (12)	B (14)
NB Left/Right	B (12)	C (21)	F (54)	F (1040)	F (*)
SB Left/Through/Right	F (62)	F (*)	F (*)	F (*)	F (*)
Overall	**This intersection is an unsignalized intersection**				
690 NB Ramps (Unsignalized)					
EB Left	A (7)	B (11)	C (17)	D (25)	E (44)
NB Left/Through/Right	E (43)	F (816)	F (*)	F (*)	F (*)
Overall	**This intersection is an unsignalized intersection**				
Crego Road/Sun Meadows Way (Signalized)					
EB Left	A (6)	D (37)	F (163)	F (526)	F (626)
EB Through/Right	A (6)	B (12)	B (13)	C (24)	D (39)
WB Left	A (4)	A (5)	A (4)	B (15)	B (15)
WB Through/Right	A (6)	B (10)	B (11)	D (39)	E (76)
NB Left/Through/Right	B (11)	B (16)	C (33)	D (42)	D (41)
SB Left/Through/Right	B (12)	B (19)	F (84)	F (175)	F (281)
Overall	**A (7)**	**B (15)**	**D (39)**	**F (103)**	**F (148)**

Key: Letters represent Level of Service (Numbers represent seconds of delay)
* Delay is indeterminate due to over-capacity conditions. Long delays are expected.

Table 3.5 - Projected Levels of Service (2027) (cont.)

	Existing LOS	Future LOS (PM Peak)			
		2027 Baseline	25 % Buildout	50% Buildout	75% Buildout
Meigs Road (Unsignalized)					
WB Left	A (2)	A (2)	A (3)	A (4)	A (6)
NB Left/Right	C (21)	F (215)	F (*)	F (*)	F (*)
Overall	**This intersection is an unsignalized intersection**				
Frawley Drive (Signalized)					
EB Left/Through/Right	A (4)	B (13)	C (23)	D (48)	F (86)
WB Left/Through/Right	A (4)	B (11)	B (17)	C (34)	E (65)
NB Left/Through	B (16)	C (22)	C (25)	C (26)	C (26)
NB Right	B (15)	B (16)	B (17)	B (17)	B (18)
SB Left/Through/Right	B (15)	B (15)	B (18)	B (18)	B (18)
Overall	**A (5)**	**B (13)**	**C (21)**	**D (39)**	**E (70)**
Seneca Street (Unsignalized)					
EB Left	A (1)	A (1)	A (1)	A (1)	A (1)
WB Left	A (1)	A (1)	A (1)	A (1)	A (1)
NB Left/Through/Right	C (16)	C (25)	E (42)	F (62)	F (90)
SB Left/Through/Right	B (12)	B (15)	C (19)	C (23)	D (28)
Overall	**This intersection is an unsignalized intersection**				
Canton Street (Unsignalized)					
EB Left	A (1)	A (1)	A (1)	A (1)	A (1)
WB Left	A (1)	A (1)	A (1)	A (2)	A (2)
NB Left/Through/Right	C (16)	F (85)	F (441)	F (1090)	F (*)
SB Left/Through/Right	B (14)	D (28)	F (60)	F (112)	F (204)
Overall	**This intersection is an unsignalized intersection**				
Syracuse Street (Route 48) (Signalized)					
EB Left/Through/Right	C (32)	F (363)	F (505)	F (622)	F (715)
WB Left/Through/Right	B (15)	D (36)	C (33)	C (33)	C (33)
NB Left/Through/Right	C (26)	F (*)	F (*)	F (*)	F (*)
SB Left/Through	B (13)	C (31)	E (69)	F (94)	F (120)
Overall	**C (22)**	**F (471)**	**F (*)**	**F (*)**	**F (*)**

Key: Letters represent Level of Service (Numbers represent seconds of delay)

* Delay is indeterminate due to over-capacity conditions. Long delays are expected.

FIGURE 3.4 (25% BUILDOUT VOLUMES)

BACK OF FIGURE 3.4

FIGURE 3.5 (50% BUILDOUT VOLUMES)

BACK OF FIGURE 3.5

FIGURE 3.6 (75% BUILDOUT VOLUMES)

BACK OF FIGURE 3.6

3.5.7 Downer Street at Syracuse Street (Route 48)

This intersection currently operates at an overall LOS C. However, the overall LOS is projected to fall to F under the 2027 baseline condition with an overall delay of almost eight minutes. This projected congestion is primarily caused by poor traffic operations on both the eastbound Downer Street approach, which is one lane wide, and the northbound Syracuse Street approach, which is also one lane wide. This intersection continues to degrade under all three buildout conditions with projected delays on the eastbound approach increasing up to eight to twelve minutes. Delays on the northbound and soutbound approaches are also projected to be considerable.

4 ISSUES AND NEEDS ASSESSMENT

Identifying issues and needs across the corridor is a critical step in developing recommendations, and is the logical next step after identifying existing and projected future conditions. Issues and needs on the Downer Street corridor were identified through several mechanisms, including public input, access management assessment, accident analysis, non-motorized origin and destination analysis, and traffic analysis. Findings of the issues and needs assessment are summarized below.

4.1 PUBLIC INPUT

Public input was a critical element of this study. The two main goals of the public involvement were to provide information and education about the current and future operations within the study area and to solicit input on issues, opportunities, and needs. To that end, one focus group meeting and one public meeting were held during the needs assessment stage of the study. Public input is summarized below.

April 2, 2008 public meeting.

April 2008 Public Meeting
- More than 100 people attended
- Nearly two hours of information, comments, and questions
- Pages of ideas and concerns documented
- Surveys distributed

A business community stakeholder meeting was held on December 17, 2007. The group discussed existing conditions, proposed future developments, vision, issues, and potential solutions and recommendations. Participants in the meeting raised concerns regarding loss of community character, poor access management, lack of pedestrian accommodations, sprawling commercial development, and increasing congestion at key intersections. Notes from the meeting are included in Appendix A.

Over 100 study area residents attended a public meeting on April 2, 2008. The goal of the meeting was to obtain public comments on corridor aesthetics, safety, parking needs, public transportation, and potential overall improvements. A series of slides outlining the existing conditions, project goals and timeline were presented to the public, after which the meeting focused on gaining public input on several visioning questions. The public had the option to either comment during the meeting or to share their thoughts and ideas through a mail-in questionnaire. Notes from the meeting and completed questionnaires are included in Appendix A.

Based on the comments obtained from the business community stakeholder meeting, the public meeting, and the written questionnaire, a number of issues and needs within the corridor were compiled. These issues fell into several major categories, which are outlined below.

4.1.1 Safety

Residents commonly expressed concerns about high speeds along the corridor, low visibility and poor sight distance, and safety issues caused by poor access management, including the inability to safely make left hand turns in and out of side streets and some places of business.

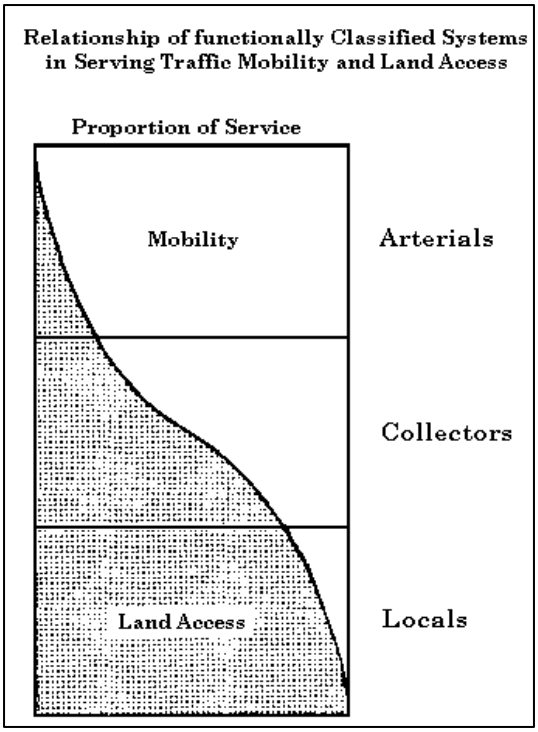


Figure 4.1: NYSDOT Road Functionality Diagram

Access Management
Access management is a strategy to manage access to land development while simultaneously preserving the flow of traffic on the surrounding transportation system in terms of safety, capacity, and speed.

Joint or Cross Access
Shared or cross-access driveways condense the access of multiple uses. They reduce the number of driveways on the road and preclude the need to access the road for short trips between parcels.

Pedestrian safety was also repeatedly mentioned. Suggested improvements included placing a traffic light or four-way stop at Canton Street to slow traffic and allow access from side streets, improving driveway spacing in order to reduce conflicts, standardizing sign placement and size for visibility, reducing the speed limit at the west and east ends of the corridor, and adding sidewalks.

4.1.2 Mobility

Because Downer Street is classified as a major collector from the 690 interchange to the eastern boundary and a minor arterial from the 690 interchange to the western boundary, it is intended to have a high mobility function. However, commuter traffic, commercial traffic, and residential traffic share the corridor, which led residents to express concern regarding their ability to access origins and destinations on the corridor by car, bike, and foot. Current traffic volumes make driveways and unsignalized side roads difficult to access. In many cases, residents stated that driveway entrances are too close to traffic signals, which creates turning and queuing conflicts. It was also pointed out that it can be extremely difficult to back out onto Downer Street from residential driveways and to access and exit Diane Reeves Memorial Park during events. Suggested improvements included condensing driveways to improve spacing and to reduce number of conflict points, improving connectivity, and developing right-turn only lanes for commercial developments. Improving traffic operations at 690 was also suggested, as was creating access roads to link commercial, residential, and recreational areas.

4.1.3 Access Management

Tied to the issue of mobility is the need to manage access to individual properties and developments. When access can be controlled, condensed, and well-managed, the roadway will naturally operate better and more safely. Residents voiced concerns regarding poorly defined access points, and the proliferation of access points for single developments. Side streets and driveways onto Downer Street can be difficult to access. Standards for primary and secondary egress are needed. The idea of creating incentives and regulations for shared access and connectivity was also discussed. For example, the recent changes at the McDonalds at Sun Meadows Way provide a good example of access management. The exit from McDonalds onto Downer Street formerly allowed for left and right movements onto Downer Street. This exit was recently modified to prevent left turns onto Downer Street; those vehicles wishing to turn left now use the Sun Meadows Way exit, at which they may take a right and proceed to the signalized intersection.

4.1.4 Connectivity

Creating connections throughout the corridor is desirable for both motorized and non-motorized activities, as it creates redundancy in the system that allows travelers to modify their trip based on current conditions and avoid the main road when possible. Many issues arose with respect to the lack of connectivity, particularly with regard to the lack of parallel vehicular routes. Residents noted the problematic nature of streets that lack multiple outlets, such as Monica Place. Residents also noted the lack of pedestrian connections, including the lack of off-road trails for walking or biking, lack of linkages from senior living areas to commercial areas, and lack of sidewalks within and to newer subdivisions. The public suggested improvements such as parallel roads, trails to connect various uses along the corridor, and the installation of sidewalks along the length of the corridor.

4.1.5 Transit, Pedestrian, and Bicycle Accommodations

The public stressed the need for pedestrian accommodations, including sidewalks, street trees, and other elements which help to create character. Additionally, residents noted that bike amenities are lacking on the corridor, and that an inadequate shoulder for biking exists at the west end of Downer Street. Residents also noted that transit is underutilized, potentially because of a lack of information. It was also stated that some feel the wait time between buses is too long, which can discourage ridership. Suggested improvements include changing zoning to require sidewalks in new developemtns, building out the sidewalk network, consolidating the transit stops along the corridor and better siting stops to encourage efficiency and ridership. There is also the potential to extend bus routes up the Route 31 corridor into Clay and Cicero.

4.1.6 Land Use

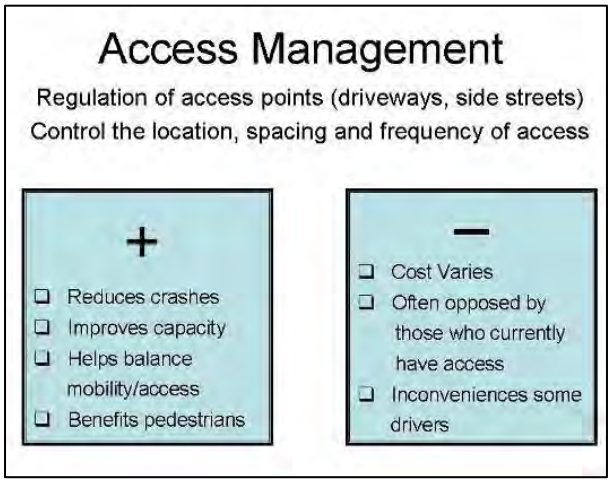
Residents voiced concern that the commercial stretch of Downer Street has a sprawling feel, and to some extent lacks the character and identity of older portions of the corridor. Residents advocated for the preservation of green space along the corridor in order to maintain its rural character, especially in the portion west of Route 690. Residents felt that commercial makes sense east of Route 690, but that development in this area should be mixed-use and more densely constructed to encourage walking, create character, and preserve green space. Residents felt that the village land uses should be preserved.

4.1.7 Aesthetics

The importance of a sense of identity and visual appeal was clearly expressed by the community. Many of the residents who attended the public meeting were particularly concerned about maintaining some sense of small town and rural character, beautifying the corridor where possible, and making Downer Street an attractive gateway to their community. Concerns included a cluttered visual environment and the lack a unified look. Poorly maintained infrastructure (sidewalks and curbing), in addition to outdated and over-scaled business signs, were also mentioned as issues. Residents suggested improving the look and style of signage on the corridor, adopting design standards that will create a more defined corridor feel, and zoning that encourages the preservation and extension of the rural village character. Trees are desired along the entire corridor to help extend the small town character along the entire street.

4.1.8 Coordination

Understanding the link between land use and transportation is critical, especially when planning for future growth. Residents expressed concerns regarding planning for development and its potential repercussions. In thinking about how land develops in the future, the impacts on the transportation system should be thoroughly assessed. Residents expressed the need for coordinated review of land use changes with consideration for impacts on the transportation system, including non-motorized modes, and for better coordination between town and village when reviewing proposed developments.



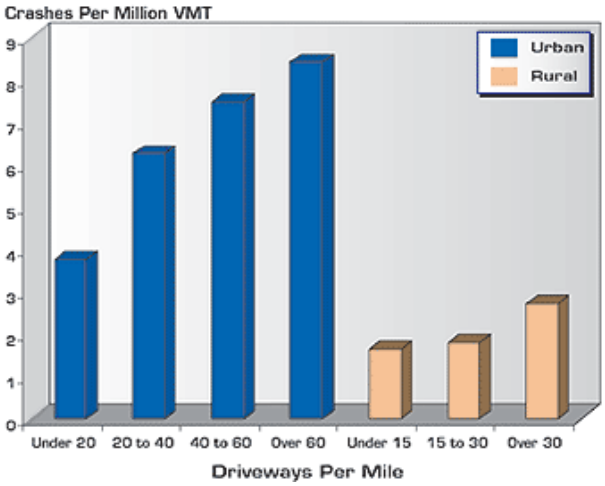


Figure 4.2: Driveway Density and Accident Rates

4.2 ACCESS MANAGEMENT ANALYSIS

As part of the review of existing conditions, an inventory of Downer Street driveway access points was conducted. The results of this inventory are displayed in Figure 2.7 and summarized in Table 4.1 below.

The Downer Street corridor has a total of 108 driveway access points along its entire length. Overall, the Downer Street corridor has a moderate driveway density, with an average driveway spacing of approximately 210 feet between driveways on each side of the street. However, the density of existing development along Downer Street, and accordingly driveway density, varies widely from west to east.

In the Downer Street West area, the majority of the driveway access points are residential and the overall driveway density is low (18.3 driveways/mile). All 13 driveways provide unrestricted access. In the Central Downer Street area, almost all of the driveways are commercial in nature and the driveway density varies from low, between Route 690 and Crego Road (22.2 driveways/mile), to relatively high, between Crego Road and Meigs Road (54.3 driveways/mile). There is one driveway in this area which prohibits left turns (McDonalds), with the remaining 24 driveways providing unrestricted access. In the Downer Street East area, the village portion of the road, the majority of the driveways are residential, and the driveway density is relatively high between Meigs Road and Seneca Street (69.4 driveways/mile) to very high between Seneca Street and Syracuse Street (116.1 driveways/mile). All 70 driveways in this area provide unrestricted access. The high driveway density in the central and eastern portions of Downer Street, combined with other issues like the lack of cross access and the arterial function of the roadway, contribute to many of the concerns noted by the public, particularly turning and queuing conflicts and congestion.

Table 4.1 - Summary of Existing Driveway Access Points

Segment	Distance (Miles)	Driveway Access Points			
		North Side	South Side	Total	Driveways per Mile
Downer Street West					
Route 31 to 690	0.71	5	8	13	18.3
Central Downer Street					
690 to Crego Road	0.27	3	3	6	22.2
Crego Road to Meigs Road	0.35	8	11	19	54.3
Downer Street East					
Meigs Road to Seneca Street	0.49	15	19	34	69.4
Seneca Street to Syracuse Street	0.31	20	16	36	116.1
Overall	**2.13**	**51**	**57**	**108**	**50.7**

The relationship between driveway spacing and roadway safety is clear. As shown in Figure 4.2, the Federal Highway Administration (FHWA) has developed statistics showing the relationship between accident rates and driveway density. For a corridor like Downer Street, there is typically a significant increase in accidents when driveway densities exceed 20 driveways per mile.

Given the posted speed limits along Downer Street, the existing driveway densities for each of the three corridor segments are well in excess of driveway spacing standards generally accepted as good access management. In the more rural, western part of the corridor, a driveway density of no more than 20 driveways per mile would be appropriate, while in the central part of the corridor, slightly higher driveway densities of 40 to 50 driveways per mile would be appropriate. In the eastern part of the corridor, driveway densities are especially problematic. This area is primarily residential and developed, meaning that driveways are not likely to be eliminated. In this area, other potential solutions, including left-turn restrictions and cross access, may be needed to address access management concerns.

4.3 ACCIDENT ANALYSIS

An accident analysis was conducted based on accident data collected between January 1, 2004 and December 31, 2006[2] on the Downer Street corridor and made available through the NYSDOT's Safety Information Management System. The complete accident analysis is provided in Appendix D.

There were 87 accidents reported within the study area in the three-year period studied. For purposes of analysis, these accidents were divided into two categories: those that

[2] It is important to note that the safety data examined within this report includes only those accidents with geographic reference information. Approximately 27% of the Onondaga County accidents reported in the time frames noted are not tied to a particular road segment or intersection and are therefore not included within this accident review. In addition, it should be noted that the 2004-2006 dataset was not complete at the time that this document was written. This dataset includes all reportable accidents (those over $1,000 in damage) that occurred between 2004 and 2006 in the study area, but only some of the known non-reportable accidents. At the time this document was written, non-reportable information, in its entirety, had not yet been added to the dataset.

occurred on roadway segments between major intersections and those that occurred at intersections. In the three-year period studied, there were a total of 45 roadway segment accidents and 42 intersection accidents recorded.

4.3.1 Segment Accidents

A summary of recorded accidents and resulting accident rates for each roadway segment on the Downer Street corridor appears in Table 4.2. Accident rates were calculated for each roadway segment and compared to the New York State average for roadways with similar access control, geometry, and development area (urban or rural). Particularly high accident segments, their potential causes, and potential corrective measures are discussed below. These segments are also highlighted in Table 4.2.

West Dead Creek Road to East Sorrell Hill Road/Route 690 SB Off-Ramp

There were 20 accidents in this 0.71mile stretch of two-lane roadway during the period studied. This segment's rate of 4.64 accidents per million vehicle miles traveled is significantly higher than the NYS Average Reportable Accident Rate of 1.39 accidents per million vehicle miles traveled. There were six accidents in which a vehicle struck a fixed object. This section of Downer Street has a higher posted speed limit (55mph) than the rest of the corridor, is more rural in nature, and has narrow shoulders with roadside obstructions, such as trees and utility poles, located close to the edge of the shoulder. During the public involvement process, a safety concern was raised about the number of speeding trucks on this section of Downer Street. Widening existing shoulders and relocating fixed objects away from the roadway edge might improve the safety of this

Table 4.2 - Accident Rate Calculations - Corridor Roadway Segments (2004-2006)

Roadway Segment	Distance (miles)	Number of Accidents				2007 AADT*	Accident Rate per MVMT**	NYS Average Reportable Accident Rate	Higher than NYS Average Reportable Accident Rate?
		2004	2005	2006	Total				
West Dead Creek Road to E. Sorrell Hill Rd/ 690 SB Off-Ramp	0.71	7	7	6	20	5,540	4.64	1.39	YES
East Sorrell Hill Road/690 SB Off-Ramp to 690 NB Ramps	0.09	2	0	1	3	6,910	4.41	1.28	YES
690 NB Ramps to Crego Road/Sun Meadows Way	0.18	0	2	1	3	7,420	2.05	1.11	YES
Crego Road/Sun Meadows Way to Meigs Road	0.35	2	1	0	3	5,860	1.34	1.11	YES
Meigs Road to Frawley Drive	0.08	0	0	0	0	4,940	0	1.11	No
Frawley Drive to Seneca Street	0.41	6	5	4	15	4,660	7.17	1.11	YES
Seneca Street to Canton Street	0.09	0	0	0	0	4,330	0	1.11	No
Canton Street to Syracuse Street (NYS Route 48)	0.22	1	0	0	1	4,540	0.91	1.11	No
TOTAL	2.13	18	15	12	45				

* AADT = Annual Average Daily Traffic estimated from 2004 AADT by increasing volumes by 0.6% annually.

** MVMT = Million Vehicle Miles Traveled.

roadway segment. In addition, these improvements may have the added benefit of increasing sight distance for vehicles exiting driveways and side streets.

East Sorrell Hill Road/Route 690 SB Off-Ramp to the Route 690 NB Ramps
There were three accidents in this 0.09 mile stretch of free access, urban, undivided, four-lane roadway during the period studied. The accident rate is 4.41 accidents per million vehicle miles traveled, which is significantly higher than the NYS Average Reportable Accident Rate of 1.28 accidents per million vehicle miles traveled. There were no discernible accident patterns from the data reviewed. There were two rear-end accidents and one unknown accident. None of the accidents resulted in injuries or fatalities. Weather, surface and light conditions do not appear to be large contributing factors of these accidents.

Frawley Drive to Seneca Street
There were 15 accidents in this 0.41 mile stretch of two-lane roadway during the period studied. The roadway segment accident rate of 7.17 accidents per million vehicle miles traveled is significantly higher than the NYS Average Roadway Reportable Accident Rate of 1.11 accidents per million vehicle miles traveled. The incidence of rear-end accidents, six during the period studied, may indicate a need for access management solutions in this section of Downer Street, potentially including a reduction in driveway access points, the addition of left-turn lanes at select locations, a center two-way left-turn lane, or improvements in interparcel access/cross connections.

4.3.2 Intersection Accidents

A summary of recorded intersection accidents and resulting accident rates are shown below in Table 4.3. Accident rates were calculated for each intersection and compared with the New York State average for intersections with similar roadway geometry and development area (urban or rural). Particularly high accident intersections, potential causes, and potential corrective measures are discussed below. These segments are also highlighted in Table 4.3.

Intersection of Downer Street and Crego Road/Sun Meadows Way
There were 14 accidents at this intersection during the period studied. Most of these were right-angle accidents. The intersection accident rate of 1.46 accidents/million entering vehicles (MEV) is significantly higher than the NYS Average Intersection Reportable Accident Rate of .12 accidents per million entering vehicles. In 2007, a traffic signal was installed at this intersection as mitigation for the construction of Walgreens. With the installation of a traffic signal, the accident rate at this intersection is expected to drop, as a signal typically reduces the number of right-angle accidents.

Intersection of Downer Street and Seneca Street
There were six accidents at this intersection during the period studied. The intersection accident rate of 1.16 accidents/million entering vehicles is higher than the NYS Average Intersection Reportable Accident Rate of .12 accidents per million entering vehicles. This intersection is in close proximity to the Canton Street intersection, which also has a high accident rate. A traffic signal in this area could generate gaps at Seneca Street which allow

Table 4.3 - Accident Rate Calculations - Corridor Roadway Intersections (2004-2006)

Intersection	Number of Accidents				Downer Street 2007 AADT	Cross Street 2007 AADT*	Rate per MEV**	NYS Average Reportable Accident Rate	Higher than NYS Average Reportable Accident Rate?
	2004	2005	2006	Total					
Downer Street & West Dead Creek Road	0	0	0	0	2,610	1,520	0.00	0.10	No
Downer Street & E. Sorrell Hill Road/ 690 SB Off-Ramp	0	0	0	0	6,970	2,080	0.00	0.12	No
Downer Street & 690 NB Ramps	0	0	1	1	7,270	970	0.11	0.12	No
Downer Street & Crego Road/Sun Meadows Way	7	5	2	14	7,370	1,410	1.46	0.12	YES
Downer Street & Meigs Road	1	1	0	2	4,910	1,250	0.30	0.19	YES
Downer Street & Frawley Drive	0	2	0	2	4,870	480	0.34	0.34	No
Downer Street & Seneca Street	0	1	5	6	4,570	170	1.16	0.12	YES
Downer Street & Canton Street	6	4	4	14	4,450	950	2.37	0.12	YES
Downer Street & Syracuse Street (Route 48)	2	1	0	3	2,780	9,730	0.22	0.34	No
TOTAL	16	14	12	42					

* AADT = Annual Average Daily Traffic estimated from 2004 AADT by increasing volumes by 0.6%.

** MEV = Million Entering Vehicles.

better access to Downer Street. With two-thirds of the accidents occurring at night, this might indicate the need for street lighting at this intersection as well.

Intersection of Downer Street and Canton Street

There were 14 accidents at this intersection during the period studied. The intersection accident rate of 2.37 accidents per million entering vehicles is significantly higher than the NYS Average Intersection Reportable Accident Rate of .12 accidents per million entering vehicles. This intersection has the highest accident rate of all the intersections within the study area. This high accident rate, and the fact that 10 of the 14 accidents were right-angle or left-turning accidents, indicates the probable need for a traffic signal. A cursory analysis shows that, during a one-year period (July 2005 through June 2006), six accidents at this location were right-angle or left-turning accidents. This satisfies the accident portion of the federal signal warrant.

The location of elderly housing in the general vicinity of this intersection and the needs of elderly pedestrians and drivers should be considered in the accident analysis of this location as well. The portion of Downer Street from Frawley Drive to Syracuse Street houses senior living facilities and a senior center, yet has no signalized intersections and no controlled pedestrian crossings. The addition of a traffic signal at the intersection of

Downer Street and Canton Street could help to accommodate vehicular and pedestrian traffic in this area.

Alternate or interim solutions could include installing warning signs that give drivers advanced notice of the intersection. Also, the installation of a radar speed monitoring device could reduce travel speeds, increase driver awareness, and help to reduce the potential for accidents. There is some indication that roadside obstructions may be a problem in this area as well, particularly in the winter when snow accumulates.

4.3.3 Conclusions

The accident analysis shows that there are areas of concern on the Downer Street corridor. The first is the west end of the corridor, where narrow shoulders, the presence of roadside obstructions (trees and utility poles), and reportedly high rates of speed appear to be the dominant issues. The accident rates in this part of the corridor over the time period studied are generally higher than the New York State average. Possible mitigation measures could include lowering the speed limit, widening the existing shoulder, and/or relocating fixed objects in the area.

In the central portion of the corridor, there was a high incidence of rear-end accidents between Frawley Drive and Seneca Street in the three-year period studied. This type of accident could be mitigated with the implementation of access management solutions that remove turning vehicles from traffic flow and reduce the number of turning vehicles altogether, such as right-turn lanes, a center two-way left-turn lane, or land use measures, such as interparcel connections between commercial developments.

There are also areas of concern at the east end of the corridor. The most problematic intersection is that of Downer Street and Canton Street. A cursory warrant analysis shows that the incidence and type of accidents at this intersection satisfy the accident portion of the federal signal warrant. Mitigation could include interim measures, such as warning signs and speed monitoring, or the installation of a signal at the intersection of Downer Street and Canton Street.

4.4 NON-MOTORIZED TRAVEL ANALYSIS

As part of the identification of needs within the corridor, an assessment of the existing and potential origins and destinations for non-motorized trips was completed. Each end of the Downer Street study area is anchored by a residential neighborhood. With the construction of the Sun Meadows subdivision, residential development is beginning to materialize in the central portion of the corridor as well. Currently, non-motorized connections are weak between these residential areas and existing recreation, institutional, and commercial destinations along the corridor, such as the Tri-County Mall, River Mall, Diane Reeves Park, and the Van Buren Elementary School. Figure 4.3 illustrates the proximity of residential areas to the centralized commercial area along the corridor, and denotes areas where origin trips are likely to occur (the highly populated residential developments) and common destinations.

Most of the corridor is lacking sidewalks and bike treatments. The development of the Walgreens site at the northwest corner of Crego Road and Downer Street included construction of a concrete sidewalk along both road frontages. However, a gap remains between these pedestrian improvements and existing residential neighborhoods. No sidewalks exist along the north side of Downer Street west of the Walgreens site, and sidewalks are similarly absent eastward between Crego Road and Wilkinson Place Extension. Along the south side of Downer Street sidewalks do not begin until east of the Tri-County Mall where they are part of the village sidewalk network. There are no striped crosswalks, pedestrian signal heads, and pedestrian signage within the corridor.

4.5 TRAFFIC ANALYSIS

The results of the existing and future traffic analysis were also used to identify issues and needs. The reports from this analysis are included in Appendix C. At the present time, few of the intersections on the corridor have traffic operations problems. The 690 ramps are the only intersections on Downer Street with failing levels of service, and this is only the case for some movements. However, given the level of projected development on the corridor, poor future traffic operations are expected. Analysis of projected future traffic operations show likely issues at the 690 ramps, Crego Road/Sun Meadows Way, Meigs Road, Frawley Drive, Seneca Street, Canton Street, and Syracuse Street.

One way to avoid the projected future operational problems is through land use planning. Limiting development would limit the amount of traffic generated on the corridor, and thereby reduce the projected problems at corridor intersections. Alternatively, choosing to develop in a more dense, mixed-use fashion than is currently the case would allow residents to move more easily by alternative modes, reducing reliance on cars and eliminating some vehicle trips.

Other options for mitigating forecasted traffic issues include changes to the roadway network. Poor future traffic operations could be improved by enhancing capacity at existing signalized intersections and, potentially, through the installation of traffic signals at several unsignalized intersections, including both Route 690 ramps, Meigs Road, and Canton Street.

Based on the level of delay projected, the Downer Street corridor most likely cannot sustain much more than the 50% buildout condition, even with the addition of new traffic signals, roadway changes, and better access management. The limited available capacity at the intersection of Downer Street with Syracuse Street (Route 48) is the greatest constraint to the continued development of the Downer Street corridor.

FIGURE 4.3 – ORIGINS AND DESTINATION

BACK OF FIGURE 4.3

5 DEVELOPMENT AND ANALYSIS OF RECOMMENDATIONS

Based on the issues and needs assessment, a series of draft recommendations for the Downer Street corridor was developed. In order to prioritize these recommendations, several layers of evaluation were conducted. First, recommendations were evaluated based on cost and their ability to meet project goals. Second and in addition, physical improvements that lend themselves to transportation modeling were analyzed based on their impact on the transportation network. Using the results of this evaluation, the Study Advisory Committee reviewed and prioritized the draft recommendations. Immediately thereafter, a public meeting was held to gain input on the prioritized recommendations.

5.1 PRELIMINARY RECOMMENDATIONS

Preliminary recommendations were developed as a product of the needs assessment and through an understanding of best practices. These recommendations included policy changes and physical improvements. Each aimed at addressing the corridor goals, which were developed at the outset of the study and further developed as they appear in Appendix E. To better evaluate these preliminary recommendations, they were grouped into four categories:

5.1.1 Safety

- Expand shoulders at west end of the corridor
- Remove roadside obstructions
- Reduce speed limits and monitor/enforce speeds, particularly at west end
- Add signals and access control at key locations (690, Meigs Road, Canton Street)

5.1.2 Access Management and Mobility

- Adopt access management ordinance/policy (including regulations and incentives for rear/shared access, interparcel connections, driveway spacing, and condensing driveways)
- Develop new east-west connections (Sun Meadows to Meigs Road, Crego Road to Massey Place, Meigs Road to Route 48)
- Improve capacity at key locations (Crego Road, Route 48, shared center turn lane)

5.1.3 Alternative Modes

- Provide better information on public transit
- Work with Centro to consolidate and better site transit stops
- Provide adequate sidewalks that are universally accessible
- Provide crosswalks, signal heads, and other pedestrian amenities
- Create off-road pathways for pedestrians, bicyclists, and other users
- Add bicycle treatments along Downer Street

5.1.4 Land Use, Aesthetic, and Policy

- Promote dense, mixed-use, and infill development
- Preserve and enhance character, particularly the tree-lined streetscape
- Create gateway features at ends of corridor
- Improve process for coordinated town-village-county review
- Create design criteria for corridor (signage, landscaping, massing, etc.)
- Improve master plan review process for large development parcels

5.2 EVALUATION BY GOALS & COST

Recommendations were assessed for their performance against project goals using a series of evaluation matrices. A narrative describing the evaluation and the full matrices are included in Appendix E. Cost estimates were also developed for the recommendations based on professional experience. Recommendations were then ranked by number of goals achieved and relative cost. A summary of the findings of this evaluation is provided in Table 5.1.

5.3 TRAFFIC EVALUATION

In addition to evaluating the recommendations based on their cost and performance against project goals, physical recommendations that could be modeled were analyzed using traffic analysis software to evaluate how they impact traffic operations within the study area. It should be noted that there are limitations to this type of analysis. The traffic evaluation only identifies implications to the transportation network. It does not assess potential community, environmental, or social impacts.

5.3.1 Alternative Scenarios

Physical recommendations that could be modeled were grouped into three scenarios. The first, Scenario 1, looks at relatively simple and low cost changes to the roadway network. Scenario 2 tests medium cost changes, and Scenario 3 tests the highest cost and most complex roadway alterations. The analysis is cumulative, meaning that Scenario 2 includes everything in Scenario 1 and that Scenario 3 includes all improvements in both previous scenarios. The scenarios are summarized in Table 5.2 and are visually depicted on Figures 5.1-5.5.

For purposes of comparison, the 50% buildout scenario was used as the base condition for 2027. The 50% buildout scenario was chosen, with input from the Advisory Committee, because it was considered the practical upper limit of development within the corridor for the next 20 years, given existing land use patterns, zoning requirements, wetlands and other site constraints, and the desired extent of development as defined in Town of Van Buren and the Village of Baldwinsville plans.

Using the 2027 50% buildout as a comparison, each of the scenarios was analyzed for their impact on specific intersections and the network as a whole. Table 5.4 summarizes the results of this analysis. As the alternatives are cumulative, the intent is to identify the extent of change necessary to positively affect traffic operations at key locations within the study area.

Table 5.1 - Summary of Recommendations by Goals Achieved and Cost

Recommendation	# of goals achieved
Minimal cost (little or no cost to municipality)	
Improve master plan review process for large development parcels	7
Provide better information on public transit	6
Work with Centro to consolidate and better site transit stops	6
Improve process for coordinated town-village-county review	4
Reduce speed limits and monitor/enforce speeds, particularly at west end	3
Promote dense, mixed-use, and infill development	2
Create design criteria for corridor (signage, landscaping, layout, etc)	1
Low cost ($5,000 to $100,000)	
Adopt access management ordinance/policy (including regulations and incentives for rear/shared acess, interparcel connections, driveway spacing, and condensing driveways)	12
Develop new east-west connection from Sun Meadows Way to Meigs Road	8
Add bicycle treatments along Downer Street	7
Expand shoulders at west end of the corridor	2
Remove roadside obstructions	2
Preserve and enhance character, particularly the tree-lined streetscape	2
Create gateway features at ends of corridor	2
Medium cost ($100,000 to $300,000)	
Develop new east-west connection from Crego Road to Massey Place	8
Provide adequate sidewalks that are universally accessible	8
Provide crosswalks, signal heads, and other pedestrian amenities	8
Create off-road pathways for pedestrians, bicyclists, and other users	8
Add signals and access control at key locations (690, Meigs Road, Canton Street)	6
Improve capacity at key locations (Crego Road, Route 48, shared center turn lane)	3
High cost (over $300,000)	
Develop new east-west connection from Route 48 to Meigs Road	8

Table 5.2 - Recommendations Modeled for Traffic Implications

Scenario 1
Connection from Sun Meadows Way to Meigs Road[3]
New traffic signal at Meigs Road with additional northbound lane
Removal of light at Frawley Drive
New traffic signal at Canton Street
Scenario 2 (in addition to all components of Scenario 1)
690 southbound ramp signal and additional lane
690 northbound ramp signal and additional lane
Connection from Crego to Massey to access ballpark
Shared center turn lane from Crego Road to Frawley Drive
Additional southbound right turn lane at Crego Road
Scenario 3 (in addition to all components of Scenario 1 and 2)
Connection from Route 48 to Meigs Road
Left turn lane from Downer Street to Route 48 northbound
Right turn lane from Route 48 to Downer Street westbound

5.3.2 Impacts on Traffic Operations

Scenario 1 was developed as a low cost alternative to address short-term transportation needs, and as a result, this scenario does not perform as well as other scenarios in terms of traffic operations. The connection of the Sun Meadows neighborhood to Meigs Road will provide a second point of access for that neighborhood, and as a result, some traffic will divert off Downer Street. This recommendation has been discussed at the town and village levels with the developer and will be implemented in the near future. The relocation of the existing signal from Frawley Drive to Meigs Road improves operations significantly for the side street approach at that intersection, while operations for the side street approaches at Frawley Drive degrade significantly. However, this change would help to serve both the proposed re-development of the Tri-County Mall and broader, more regional needs. The addition of the traffic signal at Canton Street is largely safety-driven. The operational benefit at this intersection is significant.

Scenario 2 adds more costly improvements to Scenario 1, which enables it to meet more corridor-wide transportation needs. This scenario addresses the future congestion issues at the western end of the Downer Street corridor, as the addition of traffic signals and left turn lanes at both Route 690 off-ramps improves operations for all movements. The addition of the southbound right turn lane on Crego Road significantly improves peak hour traffic operations at both Crego Road/Sun Meadows Way and at Meigs Road. The provision of a center turn lane from Crego Road to Frawley Drive ensures that left turning traffic poses minimal disruptions to through traffic. To be most effective, this widening should be coupled with an access management plan to help minimize the addition of unnecessary driveways and preserve the function of the roadway. The connection from Crego Road to Massey Place is a logical network extension that would provide alternative access, reducing the congestion that result from park traffic.

[3] At the time of developing initial recommendations, this connection was not a given. However, conversations between the town, village, and the developer have led to this connection being planned for the near future.

Front of Figure 5.1 – Run 1

Back of Figure 5.1 – Run 1

Front of Figure 5.2 – Run 2

Back of Figure 5.2 – Run 2

Front of Figure 5.3 – Crego/Downer improvement detail

Back of Figure 5.3 – Crego/Downer improvement detail

Front of Figure 5.4 – Run 3

Back of Figure 5.4 – Run 3

Front of Figure 5.5 – Downer St and Route 48 detail

Back of Figure 5.5 – Downer St and Route 48 detail

Table 5.3 - Level of Service Summary for Alternative Scenarios

Movement	Existing LOS	2027 Future LOS (PM Peak)			
		Base Condition (includes 50% buildout)	Scenario # 1	Scenario # 2	Scenario # 3
West Dead Creek Rd (Unsignalized)					
WB Left/Through	A (5)	A (7)	A (7)	A (7)	A (7)
NB Left/Right	A (9)	B (11)	B (11)	B (11)	B (11)
Overall	**Unsignalized Intersection**				
690 SB Off-ramp/E. Sorrell Hill Road (Unsignalized & Signalized)					
EB Through/Right	A(0)	A(0)	A(0)	C (27)	C (27)
WB Left	--	--	--	C (29)	C (29)
WB Left/Through (TH)	A (6)	B (12)	B (12)	B (13)	B (13)
NB Left/Right	B (12)	F (1040)	F (1192)	C (22)	C (22)
SB Left	--	--	--	D (38)	D (38)
SB Left/Through/Right (TH/RT)	F (62)	F (*)	F (*)	C (24)	C (24)
Overall	**Unsignalized**			**C (24)**	**C (24)**
690 NB Ramps (Unsignalized & Signalized)					
EB Left/Through (TH)	A (7)	D (25)	D (26)	B (20)	B (20)
WB Through/Right	A (0)	A (0)	A(0)	A (7)	A (7)
WB Right	--	--	--	A (3)	A (3)
NB Left/Through/Right (TH/LT)	E (43)	F (*)	F (*)	D (40)	D (40)
NB Right	--	--	--	A (1)	A (1)
Overall	**Unsignalized Intersection**			**B (12)**	**B (12)**
Crego Road/Sun Meadows Way (Signalized)					
EB Left	A (6)	F (526)	F (532)	E (70)	E (70)
EB Through/Right	A (6)	C (24)	C (24)	B (15)	B (15)
WB Left	A (4)	B (15)	A (9)	A (10)	A (10)
WB Through/Right	A (6)	D (39)	D (40)	E (61)	E (61)
NB Left/Through/Right	B (11)	D (42)	D (39)	D (39)	D (39)
SB Left/Through/Right (TH/LT)	B (12)	F (175)	F (175)	D (44)	D (44)
SB Right		--	--	D (41)	D (41)
Overall	**A (7)**	**F (103)**	**F (104)**	**D (41)**	**D (41)**
Meigs Road (Unsignalized & Signalized)					
EB Through/Right	A(0)	A(0)	B (13)	D (35)	E (64)
WB Left	--	--	--	C (31)	D (41)
WB Left/Through (TH)	A (2)	A (4)	F (218)	A (9)	B (11)
NB Left	--	--	E (76)	D (55)	E (63)
NB Left/Right (RT)	C (21)	F (*)	C (30)	C (28)	C (25)
Overall	**Unsignalized**		**F (103)**	**C (28)**	**D (45)**

Key: Letters represent level of service (Numbers represent seconds of delay)
Note: In the movement column, if the letters in parentheses indicate the future lane(s) when improvements (such as a new turn lane) are added.

Table 5.3 - Level of Service Summary for Alternative Scenarios

Movement	Existing LOS	2027 Future LOS (PM Peak)			
		Base Condition (includes 50% buildout)	Scenario # 1	Scenario # 2	Scenario # 3
Frawley Drive (Signalized & Unsignalized)					
EB Left/Through/Right	A (4)	D (48)	A (1)	A (1)	A (1)
WB Left/Through/Right	A (4)	C (34)	A (7)	A (8)	A (5)
NB Left/Through	B (16)	C (26)	F (*)	F (103)	F (52)
NB Right	B (15)	B (17)	D (30)	D (28)	C (19)
SB Left/Through/Right	B (15)	B (18)	F (*)	F (94)	D (25)
Overall	**A (5)**	**D (39)**	**Unsignalized Intersection**		
Seneca Street (Unsignalized)					
EB Left/Through/Right	A (1)	A (1)	A (1)	A (1)	A (1)
WB Left/Through/Right	A (1)	A (1)	A (1)	A (1)	A (1)
NB Left/Through/Right	C (16)	F (62)	F (115)	F (115)	E (46)
SB Left/Through/Right	B (12)	C (23)	D (30)	D (30)	C (19)
Overall	**Unsignalized Intersection**				
Canton Street (Unsignalized & Signalized)					
EB Left/Through/Right	A (1)	A (1)	B (12)	B (12)	A (9)
WB Left/Through/Right	A (1)	A (2)	A (9)	A (9)	A (8)
NB Left/Through/Right	C (16)	F (1090)	C (23)	C (23)	B (19)
SB Left/Through/Right	B (14)	F (112)	C (21)	C (21)	B (17)
Overall	**Unsignalized**		**B (11)**	**B (11)**	**A (9)**
Syracuse Street Route 48 (Signalized)					
EB Left	--	--	--	--	F (161)
EB Left/Through/Right (TH/RT)	C (32)	F (622)	F (621)	F (621)	B (18)
WB Left/Through/Right	B (15)	C (33)	C (33)	C (33)	D (41)
NB Left/Through/Right (TH/RT)	C (26)	F (*)	F (*)	F (*)	F (113)
SB Left/Through/Right (TH/LT)	B (13)	F (94)	F (94)	F (94)	B (13)
SB Right	--	--	--	--	A (3)
Overall	**C (22)**	**F (*)**	**F (*)**	**F (*)**	**E (75)**
Sun Meadows Way & Meigs Rd (Unsignalized)					
EB Left/Through/Right	--	--	B (12)	B (12)	C (18)
WB Left/Right	--	--	--	--	B (10)
SB Left/Through/Right	--	--	A(0)	A(0)	A (4)
Overall	**Unsignalized Intersection**				
Meigs Road Connection & Syracuse St					
EB Left/Right	--	--	--	--	D (26)
NB Left/Through	--	--	--	--	A (4)
Overall	**Unsignalized Intersection**				

Table 5.3 - Level of Service Summary for Alternative Scenarios

Movement	Existing LOS	2027 Future LOS (PM Peak)			
		Base Condition (includes 50% buildout)	Scenario # 1	Scenario # 2	Scenario # 3
Meigs Road Connection & Canton Rd					
EB Left/Through/Right	--	--	--	--	B (12)
WB Left/Right	--	--	--	--	B (12)
SB Left/Through/Right	--	--	--	--	A (1)
Overall	**Unsignalized Intersection**				

Key: Letters represent Level of Service (Numbers represent seconds of delay)
Note: In the movement column, if the letters in parentheses indicate the future lane(s) when improvements (such as a new turn lane) are added.

Scenario 3 makes major changes on the eastern end of the corridor to manage traffic flow onto Downer Street from Syracuse Street (Route 48). The additional turn lanes relieve queuing issues at the Syracuse Street intersection, and the new road connection diverts traffic destined for the eastern end of the Downer Street corridor or for destinations along Meigs Road, including the Tri-County Mall redevelopment. However, with both improvements, congested traffic operations are still forecasted at Route 48.

5.4 PUBLIC INPUT ON RECOMMENDATIONS

Based on the results of the goal, cost, and traffic evaluations, draft recommendations were prioritized by the SAC. Subsequently, a second public meeting was held on February 11, 2009 to review the prioritized recommendations with the public. Many comments arose both at the meeting and during the comment period thereafter. These include the following:

- The character of the corridor, particularly at the east end, which is fostered through street trees, sidewalks, and planting strips, should be preserved and enhanced. This character is valued over traffic operations or level of service.
- Adding turn lanes in the village at Route 48 and Downer Street will have a significant negative impact on the village character. Trees should not be taken, nor should property, sidewalks, or the planting strip. The Meigs Road connection to Route 48 is preferable to capacity improvements at the intersection.
- Speeding is a problem throughout the corridor, and particularly at the west end. A study of the appropriateness of the speed limit is needed.
- A light at Canton Street should be preceded by interim solutions that may address the safety problem (e.g. stop signs, speed monitoring, improving sight lines).
- The 690 ramps currently present safety and congestion problems during peak hours.
- Access management issues continue to create safety problems, particularly with regard to driveways, such as those for Sunoco.
- Traffic speeds and volumes on Tappan Street cause concern.

- Interparcel connections should be developed.
- The Frawley Drive light should not be removed, as the redevelopment of Tri-County Mall is based on its current location.
- High priority should be given to completing a basic sidewalk network within the core area of the corridor.

All materials related to this meeting, including a copy of the presentation and all comments received, are included in Appendix A.

5.5 CONCLUSIONS

After considering the performance of the recommendations with respect to study goals, estimating costs, analyzing the impacts of recommendations on the function of the roadway network, and reviewing the recommendations with the public, recommendations that appear to have the greatest merit begin to emerge. A discussion of those recommendations, grouped according to category, follows.

5.5.1 Safety

Four of the five recommendations in this category were solely measured against the goals, as they are not recommendations that can be modeled for their impact on traffic operations. The following recommendations achieve safety goals and carry minimal or low cost:

- Expand shoulders at the west end of the corridor
- Remove roadside obstructions
- Reduce speed limits and monitor/enforce speeds, particularly at west end

The last recommendation in this category, which achieves most goals in this grouping, is to add signals and access control, such as left turn restrictions and consolidated driveways. Adding signals at certain locations was analyzed in the traffic analysis. Among these signals, the one that appears to have the most impact on safety is the signal at Canton Street and Downer Street. This signal would help slow traffic at this location, and provide a signalized pedestrian crossing that would benefit the senior and student populations. This is a medium-cost improvement with significant benefits. However, public reaction to this recommendation was mixed, as some saw the merit in the safety improvement, while others who live in close proximity questioned how well a signal would address the accident problem and how it would impact the houses nearby.

5.5.2 Access Management and Mobility

One recommendation within this category ranked very high when measured against project goals and carried little to no cost: adopting an access management ordinance/policy. This recommendation not only meets goals related to access management and mobility, but also safety and connectivity. It has the potential to help improve the overall operation of Downer Street with little to no cost to the municipality or the developer if implemented in advance of the design process.

The next highest ranking recommendation for this group was to create additional east-west routes. Three new connections that create east-west redundancy were modeled and analyzed for their benefit to the transportation network. They are:

- Connection from Sun Meadows Way to Meigs Road
- Connection from Crego Road to Massey Place
- Connection from Crego Road to Route 48

The first is currently being engineered and is the shortest connection to make. It will largely benefit residents of the Sun Meadows housing development by allowing people who live in that development and want to travel to the redeveloped Tri-County Mall and other commercial areas along Meigs Road to avoid Downer Street. It will also provide a second entrance point to that development for emergency services.

The second connection, from Crego Road to Massey Place, provides a secondary entrance to the existing Diane Reeves Memorial Park and also allows people traveling toward the neighborhoods of Massey Place and Frawley Drive to use this back entrance rather than travel on Downer Street. Creating another link in the village street system could provide some relief to congested portions of Downer Street. Overall, this recommendation addresses a specific problem: limited access to the existing park, which is a particularly significant issue in the evenings of ballgames. However, it also benefits the overall network by relieving backups onto Downer Street. This connection is likely to have a medium cost. The public reaction to this recommendation was mixed. Some felt it would address the peak hour problem during ballgames while others were concerned with the local impact to residents on Massey Place, and also had concern whether the intersection of Crego Road and Downer Street could handle the additional capacity. Given the addition of a new southbound right turn lane proposed at this intersection, this concern would be largely addressed.

The last new roadway connection is from Meigs Road to Route 48. This new roadway, almost a mile in length, would have a high cost given the length of road and amount of right-of-way that would need to be acquired. However, this new connection would greatly improve operations of the Route 48 intersection with Downer Street, providing an alternative route for those traveling to points east and west of the study area. It would provide a direct link to the commercial area for those who currently travel northbound on Route 48 to head west on Downer Street. This connection is most important for relieving congestion at the Route 48 and Downer Street intersection. Public response to this preliminary recommendation was markedly positive, especially when weighed against the possibility of adding turn lanes at Route 48.

Several additional access management recommendations, while ranking lower in the evaluation, also have significant benefits. The first is to identify and address areas for capacity improvements. Neither overall widening of Downer Street, nor specific capacity

improvements at the Downer Street and Route 48 intersection were overwhelmingly supported by those in attendance at the public meetings. However, small spot improvements to address specific problem areas, such as the recommendation to have a shared center turn lane along Downer Street from Crego Road to Frawley Drive (or Meigs Road, should the light be moved), have merit. This particular improvement provides additional capacity in this area, which will alleviate future congestion while providing an opportunity for gateway treatments, safe pedestrian crossings, and aesthetic improvements.

Lastly, the installation of traffic signals appears to be merited at key locations. Each of the following three signals were analyzed:

- Meigs Road and Downer Street (relocation of existing Frawley Drive light)
- Canton Street and Downer Street
- 690 off ramps (both northbound and southbound directions)

From an access management perspective, the relocated signal at Meigs Road and Downer Street provides a significant benefit to overall access management on the corridor. It would encourage people going to the redeveloped Tri-County Mall to use Meigs Road as the primary access point rather than the existing Frawley Road entrance. Furthermore, a signal at this location would benefit travelers from the Sun Meadows Way development when that development is connected to Meigs Road. From an access management perspective, this relocated signal recommendation can improve operations significantly at this commercial center.

Adding a signal at Canton Street would also significantly improve mobility. A signal in this location would improve traffic operations, particularly for the side street approaches, which would allow travelers to use Canton Street as a parallel to Route 48. Public reaction to this change, however, was mixed.

Signalizing the ramps at 690 would also improve mobility on the corridor, as gaining access to Downer Street from 690 proves difficult during peak hours and will become more difficult under projected future conditions. With the addition of these signals, levels of service will improve significantly. Signalizing these two intersections and adding an additional lane to separate turning movements would have a medium level cost. Existing capacity issues at this location will only worsen as development continues along the corridor.

5.5.3 Multi-Modal

There are no recommendations in the multi-modal category that lend themselves to traffic modeling to assess impacts on the function of the transportation network. The assessment of these recommendations was therefore based solely on performance against project goals. All recommendations in this category achieve safety, mobility, and transit/pedestrian/bicycle accommodation goals. The physical improvements recommended, such as creating additional off-road pathways and providing new and improved crosswalks, carry a medium cost, depending on where they are implemented. The evaluation of these recommendations

illustrates that any of the multi-modal recommendations will help the community meet project goals. The three recommendations that meet most goals are:

- Provide adequate sidewalks that are universally accessible
- Provide crosswalks, signal heads, and other pedestrian accommodations
- Create off road pathways for pedestrian, bicycles, and other users

Broad public support exists for these recommendations.

5.5.4 Land Use, Aesthetics, and Policy

Similar to the multi-modal recommendations, the recommendations grouped into this category were analyzed based solely on cost, goals, and public response. Again, evaluating these recommendations against the projects goals is the primary method for prioritizing the recommendations. The clear leader in this group is the recommendation to improve the master plan review process for large development parcels. This recommendation entails minimal cost to the municipality involved. The other recommendation meeting most project goals is to improve the process for coordinated town-village-county review. This recommendation has little associated cost.

6 RECOMMENDATIONS & IMPLEMENTATION

This report is a planning-level study and makes physical and policy recommendations that should be considered by the Town of Van Buren and the Village of Baldwinsville in the future. Many of the recommendations require further analysis, not only for feasibility and engineering, but for community and environmental impacts as well. Each of the recommendations, presented in order of priority, is provided below.

Based on the analysis of the recommendations, the recommendations were organized into three categories that reflect suggested implementation timelines: near-term (0-5 years), mid-term (5-10 years), and long-term (10+ years). The recommendations were also organized by cost into the following ranges:

- Minimal Cost – little to no cost to municipality (e.g. administrative task or paid by others)
- Low Cost – approximately $5,000 to $100,000
- Medium Cost – approximately $100,000-$300,000
- High Cost – Over $300,000

6.1 NEAR-TERM RECOMMENDATIONS (0-5 YEARS)

The near term recommendations were deemed feasible within the next five years. Some were classified as such due to their nature as "low hanging fruit," meaning that they can be easily achieved with little or no cost Several others carry a higher cost but either satisfied a significant number of goals and/or addressed safety concerns while still remaining a relatively small-scale undertaking. Both the Study Advisory Committee and the general public agreed that the recommendations that could improve safety should be given highest priority.

6.1.1 Minimal Cost

Reduce speed limits and monitor/enforce speeds.

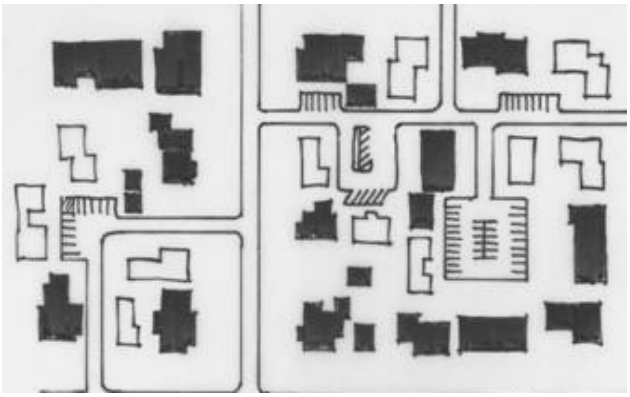
Speeding is an issue particularly at the western end of the corridor and in the village. Speeds along Downer Street are regulated by NYSDOT west the 690 interchange, and as such, any modification to the the speed limit in that portion of the corridor must be approved by that agency. The Town of Van Buren has noted that they have sent letters requesting the speed limit west of the 690 interchange to be evaluated for potential reduction. This is the best method for getting the speed limit changed. Further noting this concern and documenting the problem in studies such as this one provides additional support. The town should continue contacting NYSDOT to request that the speed limits be reassessed. There is no direct cost to the municipalities for this effort. The speed limit within the village is set locally, and therefore conversations within the Village of Baldwinsville should continue as to the appropriate speed for the village portion of Downer Street.

Provide better information on public transit.

The participants at both public meetings noted that there is a lack of information about the routes, schedule, and fares for available public transit serving the Downer Street corridor.

The information exists. However, there appears to be a disconnect in terms of making it readily available to the public. To provide better access to this information, the town and village should provide links to Centro's website from their own, and work with Centro to make hard copies of schedules available at key community locations. Utilizing existing municipal websites and existing information from Centro allows this recommendation carry no direct cost.

Work with Centro to consolidate and better site transit stops.
There are many existing bus stops on Downer Street. To maximize the potential use of these stops, their locations should be periodically reassessed to ensure they are properly located and sited. Ensuring that bus stops are located where shelter and adequate space exist, in addition to linking stops to likely origins and destinations via safe pedestrian accommodations, will maximize the potential use within the corridor. Centro likely has the capacity to help assess the existing stops within the Downer Street study area. This recommendation is therefore likely to carry minimal cost for the municipalities.



Top: Identifying locations for potential infill development (in white) within appropriate areas.
Bottom: Existing mixed-use development in Baldwinsville.

Promote dense, mixed-use, and infill development.
Within an area such as the Downer Street corridor, opportunities exist to encourage denser and more mixed-use development in a grid pattern, as currently exits in the village. This type of development is in keeping with town plans. It reduces reliance on cars by placing origins and destinations in closer proximity, allowing people to use their feet, bikes, and transit more efficiently. This is particularly important with respect to the existing and growing senior populations on the corridor that are reliant on alternative modes of transportation. Encouraging mixed-use residential, office, and commercial development in multiple stories, similar to that which exists in downtown Baldwinsville, will also help create the character supported by local residents.

In keeping with the town's comprehensive plan, new development of this type should be focused within or adjacent to areas of the town and village that are currently developed. For example, the portion of the corridor from Sun Meadows Way to Frawley Drive has the largest cluster of existing commercial uses, with several parcels available for development and redevelopment. Concentrating future development within these areas rather than allowing development to sprawl into greenspaces in the more residential and rural areas of the corridor will reduce overall trips generated, allow for multi-purpose (shared) trips, help preserve character, and make the corridor more walkable and

transit-friendly. Outparcel development on the edges of large existing lots will also help in this regard.

New development should be planned with internal street networks and interparcel connections - vehicular links to existing developments. Over time, this will help to extend the existing grid network and thereby improve vehicular and pedestrian mobility. It will also help prevent people from driving between adjacent parcels and continually accessing Downer Street. This is particularly beneficial when adjoining uses are similar in nature and people would tend to frequent both parcels in a single trip, as is often the case with retail parcels. Interparcel pedestrian connections should also be required.

Extending the grid to the south of Downer Street, as shown in the Onondaga County Settlement Plan.

The best means of promoting dense mixed-use and infill development is with progressive land use planning and local zoning codes. Land use planning and zoning ordinances can be revised by the town, village, and their local planning boards, often with guidance from the county planning agency, for an overall minimal cost. With careful changes, these codes can foster the type of mixed-use and infill development that is not only healthy for the character of the community, but for traffic operations as well.

Create design criteria for the corridor.

When a corridor has a common look, or feeling, it is easier for people to identify it as part of a "place" rather than just a road going through a place, while also making it an attractive place for people to live and visit. This common look is best achieved through design criteria that guide development within an area. Design criteria typically focus on the look and location of signage, buildings and parking locations relative to the main roadway, landscaping elements, and sometimes building facades, massing, and height. There are many templates available for design criteria that could be adapted for use within the Downer Street corridor, including Brewerton's recently completed form-based code. Most communities will adopt these criteria as part of an overlay district within their municipal zoning. Creating the design criteria for the corridor could be handled with in-kind services of local municipal staff and with guidance from the county planning department. If the municipalities decided to have more custom-created design criteria crafted, it could require a more substantial investment, pushing this into the low-cost category. At both public meetings, the community felt strongly about the aesthetics of this corridor and felt that unifying the corridor visually would help to create a cohesive sense of place in this main gateway to both the town and village.

Improve master plan review process for large development parcels.

The benefit of forethought can not be understated when considering the potential future development of large parcels, especially within a corridor such as Downer Street, which is


Left: Poorly planned development with many streets terminating in cul-de-sacs, allowing for little connectivity.
Right: Traditional street grid pattern allowing for street redundancy and connectivity.

already experiencing some congestion problems and has significant development potential. While both the town and village already have some measures in place to encourage good site master planning, the process could be improved upon. Among the potential improvements to this process are: creating a universal checklist for local planning boards outlining the important elements to consider during plan review; developing and using graphic examples of poorly planned and well planned sites; generating a standard list of requirements for master planned sites to hand out to land owners and developers; and providing land owners and developers with references within the municipality or county who act as information clearinghouses and can provide assistance or referrals. Site plan review processes should include special consideration for internal road networks that foster the continuation of the grid. Likewise, pedestrian and bike accommodations, including sidewalks, should be required.

Improve process for coordinated town-village-county review.
Development does not stop at municipal lines, nor do the impacts of development recognize these borders. Traffic, noise, and community character impacts often spill over from one community to the next. Therefore, planning for development, and reviewing potential developments for their benefits and impacts, is best accomplished with direct involvement by the home municipality with oversight by neighboring communities. Involvement by the county ensures that regional impacts are considered. While the Town of Van Buren and the Village of Baldwinsville do communicate both formally and informally on municipal matters, and refer projects to the county per legal requirements, this process can be improved upon by ensuring discussions among these groups take place early in the planning process for large developments, for potential physical improvements, or regarding policies that could directly or indirectly impact one another. Most typically, these conversations willfocus on traffic impacts, economic impacts, and community character implications. Measures to achieve regular communication include scheduling quarterly meetings to be attended by representatives of both municipalities as well as the county, developing a municipal liaison to attend board meetings of the neighboring municipality, and copying the neighboring municipality and the county on board meeting minutes. There is no cost for regular communication, and it has the potential to prevent future problems and solve current ones.

6.1.2 Low Cost

Adopt an access management ordinance/policy.
Access management is the process of regulating and controlling access location, design, spacing and operation of intersections, driveways, and median openings to enable access to land uses while maintaining roadway safety and mobility. This is particularly important for major roadways, such as Downer Street, which are intended to provide efficient service to through-traffic movements. Having an access management ordinance or guiding policy is beneficial particularly for redeveloping or newly developed sites because it provides upfront

parameters regarding a development's ingress/egress onto main roadways. These regulations take the guesswork out of site access design for developers.

The ordinance should focus on reducing the overall number of access points, and therefore potential conflict points, along the corridor. It should also address the location of access points, ensuring the driveways to businesses do not interfere with intersection operations, which is a noted existing problem within the Downer Street corridor. For example, the location of the Sunoco driveways in close proximity to the Crego Road intersection, and the problems that these driveways cause, was repeatedly mentioned by the public. Condensing the driveways of this business to allow only the western access could help relieve the conflicts that these driveways create. Interparcel connections and rear access, both tools which allow travelers to move between locations without using the main road, should also be encouraged through the access management ordinance. Driveway maximums should also be developed. The following are suggested for the access management policy: 20 driveways/mile in the western portion of the corridor and 40 driveways/mile in the central portion of the corridor. In the eastern portion of the corridor, no additional driveways should be permitted. An access management ordinance would be enforced through the site plan review process, with additional enforcement by DOT (state or county) when developers are seeking new driveway permits.

The downfall of this recommendation is often the perception by landowners that without their own driveway or driveways, people will not frequent their business. Evidence shows, however, that providing safe access to business is more important to most drivers than providing direct or redundant access. Working with developers or business owners to condense their existing access points can be difficult, but the benefits that can be realized from reducing the number of curbcuts along Downer Street are significant.

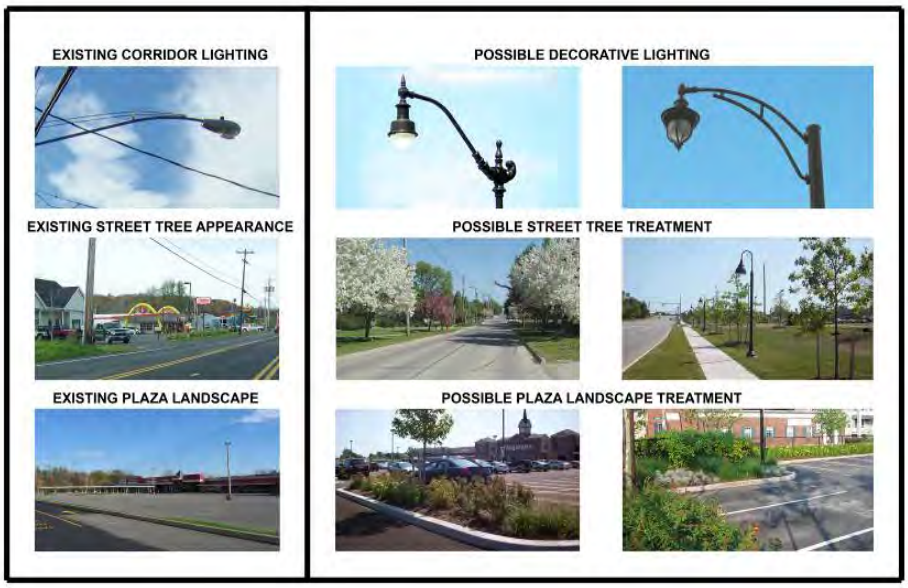
Expand shoulders at west end of the corridor.

The west end of Downer Street has a wide travel lane in each direction with narrow, striped shoulders, and a speed limit of 55 miles per hour. There is a mix of user groups on this stretch of road ranging from local residents to tourists to agricultural vehicles. Speeding, safety, and accessibility to and from driveways are concerns of local residents. Given the wide travel lanes, there may be an opportunity to obtain wider shoulders through simple restriping, which could potentially allow for the creation of designated bike lanes in the process. This would involve narrowing the travel lanes, which would also help to slow traffic. However, given that large agricultural vehicles use this road, the generous lane widths may be necessary. In this case, shoulders should be expanded through a construction/paving project. Additional investigation and design are needed to determine the course of action and ultimate cost for implementing this recommendation, which is aimed at improving the overall safety in this stretch of the corridor.

Remove roadside obstructions.

Roadside obstructions are anything that limits the line of sight for a driver, bicyclist or pedestrian looking to egress from a side road or driveway onto another road. These obstructions can be signs, fencing, landscaping or even snow during winter months. These

obstructions can become dangerous when they create blind spots or limit the overall sight distance at a location. This is particularly a problem at the west end of the corridor, although it was also noted near the Canton Street intersection. At all of the intersections within the corridor, an assessment can be done to determine if any physical obstructions are within the desired line of sight. In addition, intersections can be evaluated for the shoulder's ability to accommodate reasonable snowfall. A corridor-wide investigation of potential roadside obstructions can be completed for a low cost. Priority may be given to intersections or driveway areas, such as Canton Street, where high accident rates have been noted.



Lighting and landscape enhancement examples.

Preserve and enhance character, particularly the tree-lined streetscape.

Among the most discussed goals at the public meetings, and in particular the second meeting, was the community desire to ensure that existing streetscape amenities be retained and built upon in the future, and that any proposed road changes to the corridor not interfere with the tree-lined streetscape at the east end. The character and natural buffer provided by these trees, and the mow-strip between the right of way and the existing sidewalks, are valuable, unique features of this area. These amenities should be preserved where they exist and continued throughout the corridor, particularly in areas that are slated for sidewalks, from Harbour Heights to the east.

These improvements can be accomplished, at in least in part, by changing the zoning to require landscaping, sidewalks, and lighting. In places where no new development is occurring, other means would be necessary. Sometimes aesthetic improvements can be achieved when a roadway project is planned. Pedestrian amenities and landscaping can also be sponsored by a local chamber of commerce, funded through a local business improvement district, or funded through a municipal line item. There are also grant programs, such as the NYS Community Enhancement Facilities Grant, that are available for pedestrian-oriented streetscape improvements.

Develop new east-west connection from Sun Meadows Way to Meigs Road.

The physical improvement of creating a connection from Sun Meadows Way to Meigs Road was being considered before this study began. However, conversations stalled when cost sharing between the municipalities and developer were discussed. As of the time of this

report, those conversations are understood to be resuming. The importance of this connection is two-fold. First, the connection will allow residents of Sun Meadows to access Meigs Road, and businesses along it, without having to use Downer Street. Secondly, this second access point will provide redundant access to a large housing development for emergency services. As noted throughout the study, creating redundancy and multiple linkages is one way to limit congestion on Downer Street. This recommendation also has the benefit of beginning a more substantial full-corridor east-west connector, should this roadway then link to a connection from Meigs Road to Route 48. As with all the recommendations, this improvement may have impacts to the environment and elements of the community character and therefore requires further assessment. The cost of implementing this recommendation can likely be shared with the developer.

Create gateway features at the ends of the corridor.

As previously discussed in other recommendations, there is a strong desire in the community to make the Downer Street corridor more of a gateway into both the town and village. Furthermore, study has shown that motorists' speeds and driving habits are often positively influenced by cues from the street design and surrounding environment. Gateway treatments such as community signs and roadway features such as landscaped islands or colored, textured pavement are considered effective ways to create a better sense of place and calm traffic. These types of treatments should be considered at both entrances to the corridor from the 690 interchange and Route 48. On the western end, opportunities exist to integrate gateway features into a new median, while on the eastern end new signage or landscaping may be worked into the existing sidewalk areas. Gateway elements do not need to be expensive or elaborate to have an impact.

Pavement enhancement, signage, and gateway examples.

6.1.3 Medium Cost

Provide adequate sidewalks that are universally accessible.

The Downer Street corridor is used by people walking, biking, and in wheelchairs. With a school and park within the study area, and several senior housing communities, safe pedestrian crossings and accommodations that are ADA-accessible are a high priority. As previously discussed, there are existing sidewalks within the village portion of the corridor, and in a few of the commercial areas of the town portion. However, this network needs to be expanded, as shown in Figure 6.1. Sidewalks should extend from their existing termini in

the village west to Harbour Heights. Sidewalks should be located on both sides of the road from the village to Crego Road, and on the north side only from Crego Road west. In addition, consideration should be given to adding sidewalks on Meigs Road, especially as the connection from Sun Meadows Way to Meigs Road is completed.

The town should, as a first step, identify the high priority locations taking cues from the recommendations provided in this study, and begin to assess the costs for various linkages. As funding becomes available, the town can then implement the highest priority sidewalks. With changes to zoning ordinances, new developers in these areas can be required to fund or develop sidewalks as well. The village should also continue to ensure the quality of sidewalks throughout the corridor and maintain programs to replace and improve them as needed.

Add access control at Canton Street.
At the first public meeting, residents brought up safety concerns about accessing Downer Street from Canton Street. Further analysis during the accident review portion of this study revealed that this intersection has a significantly higher accident rate than the New York State average. A cursory analysis shows that this intersection may meet warrants for signalization given the existing volumes and accident history. In addition to helping address the safety issue at Canton Street, access control would help slow motorists traveling in this portion of the corridor, which is among the longest Downer Street segments east of the 690 interchange without a traffic control device. The installation of a signal in this location would also help accommodate the needs of elderly drivers and pedestrians, many of whom live in the general vicinity. A signal would help improve pedestrian safety.

However, this study alone would not result in a signal being located at this intersection. The next step is that a more detailed signal warrant analysis, beyond that completed for this study, should be conducted. This analysis should include additional investigation into accident history, types of accidents, and potential impacts on traffic operations and the community as a whole before determining if a signal is appropriate at this location. It is important to note that meeting a signal warrant does not require a signal to be installed.

Some residents who live close to this intersection stated that they feel a signal may not be appropriate or desirable and that interim measures, such as speed observations and installation of warning signs, should be attempted first. Additionally, there is some evidence that snow storage impedes visibility at this intersection in the winter. Efforts to address this issue should be attempted prior to installing a signal. These options should be investigated as part of the more detailed warrant analysis.

6.2 MID-TERM RECOMMENDATIONS (5-10 YEARS)

The mid-term recommendations were deemed to be feasible within a five- to ten-year timeframe. Many of these recommendations are physical improvements that require funding, design, and further engineering analysis before they can be implemented.

FRONT OF FIGURE 6.1

BACK OF FIGURE 6.1

6.2.1 Low Cost

Add bicycle treatments along Downer Street.

Share-the-road signage.

Downer Street serves as a portion of New York State Bike Route 5, which crosses the state from Niagara Falls to the Massachusetts border. Signs for the bike route are posted along the length of Downer Street. As is consistent with other state bike routes, since these routes are intended for experienced cyclists who are comfortable sharing the roadway with fast-moving vehicles, there is no dedicated bike lane on Downer Street. However, the shoulders in the central portion of the corridor are fairly wide and paved, creating space for cyclists. With the widening of shoulders proposed at the west end of the corridor, conditions for cyclists will improve in this area as well. Given the desire to make this corridor accessible to multi-modal users, bicycle treatments should be added where appropriate to further notify motorists that bicycles may be sharing the roadway. Share-the-road signage should be added along the length of Downer Street. Shared lane symbols could also be added to the pavement. Bike racks and storage should also be required at public buildings and at businesses throughout the corridor. This can be accomplished through changes in zoning.

6.2.2 Medium Cost

Provide crosswalks, signal heads, and other pedestrian amenities

Adding sidewalks within priority locations along the corridor is a near-term recommendation. To complement this recommendation, crosswalks and signal heads for pedestrian crossing should also be placed in logical locations throughout corridor from the 690 interchange to Route 48. The costs for installing crosswalks, ramps to sidewalks, and signal heads are likely to vary depending on the chosen design. However, each crossing and associated signal head should be a medium-cost recommendation. Similar to the prioritization of sidewalks, the town and village should work together to list the locations where these amenities are desired, and rank them for implementation. Adding crossings within the commercial areas and at intersections near the elementary school and the park should be considered high priority.

Create off-road pathways for pedestrians, bicyclists, and other users

In addition to the more formal sidewalk system discussed previously, the community has a desire to expand its already significant off-road trail system. One of the most opportune locations for a trail connection within the study area is from the Sun Meadows housing development to Meigs Road. A trail in this location would allow people to directly access Meigs Road and the Tri-County Mall area from a large subdivision. While some people are more apt to utilize a paved sidewalk either for safety reasons or ease of pushing a stroller, others enjoy the more natural environment provided by a trail or pathway. In developing a trail like this or others, the first step is to work with property owners to determine their interest in selling or donating land for a pathway, or allowing an easement across the property.

Develop new east-west connection from Crego Road to Massey Place

At the first public meeting, several residents discussed the backup that occurs on Downer Street during events at Diane Reeves Park. With only one access point to the ballpark, there is a capacity limitation. A new connection from the park at the northern boundary to link to Crego Road and/or Massey Place was explored to help provide redundant access. In addition to providing this secondary access point, this study suggests making the entrance from Downer Street one-way into the park, with all exiting traffic utilizing the new east-west roadway linking the park to Crego Road and/or Massey Place. This new roadway would also extend the grid and open up land for potential residential or commercial development in close proximity to similar uses, furthering the recommendation regarding dense infill development. Massey Place was constructed as a stub road which could logically be extended to continue the gridded land use pattern of the village into the town. As with other recommendations, this project would require greater analysis into the engineering feasibility and desirability by the community. There are likely to be impacts to the residents of Massey Place if traffic increases with this connection. There may be other alignments or alternatives that could provide the same benefit, such as linking the park to Tappan Street. These alternatives should be considered during further design and evaluation. Regardless, creating a secondary access point to the park would improve safety and also reduce congestion at the existing driveway from Downer Street.

Add signal at Meigs Road (relocation from Frawley Drive)

The existing signal at Frawley Drive currently serves both Frawley Drive and the Tri-County Mall. Due to existing and projected volumes at Meigs Road, this study considered signalizing that intersection as an alternative to Frawley Drive. When Sun Meadows Way connects to Meigs Road, the volumes on Meigs Road will increase, as they would if ultimately a connection was made from Meigs Road to Route 48. Given the close proximity of Meigs Road to the existing Frawley Drive signal, both would likely not be permitted. Signalizing the Meigs Road intersection would serve residents and businesses south of Downer Street by improving operations at that intersection. It would have significant value to the operations of the overall roadway network.

This study considered the benefits of having the redeveloped Tri-County Mall orient to create a primary access point onto Meigs Road, while utilizing the existing curbcut onto Downer Street as a secondary, non-signalized, driveway. Representatives of the owners of the Tri-County Mall stated that site plans have already been created that continue the use of the Frawley Drive signal as the primary access point.

A second alternative could be to condense Tri-County Mall's access to one primary entrance and align it with Ford Street, just to the east of Frawley Drive. The distance between Meigs Road and Ford Street may be substantial enough to allow for a signal at both intersections. Ultimately, the Ford Street entrance to the Tri-County Mall could be extended as a new north-south street through the property. In this case, and in keeping with good access management, both of the existing entrances into the Tri-County Mall site from Downer Street should be closed. The new street, if constructed, shouldy connect with Landrush Way south of the Tri-County Mall site, extending the grid and improving

connectivity. This alternative was not examined in detail as part of this study. Further investigation would be required.

Another consideration for the Meigs Road intersection that warrants future analysis is the realignment of Wilkinson Place to connect with Meigs Road, creating a four-way intersection that would likely require signalization. Again, if the signal at Frawley Drive remains, this new signal would not likely be permitted. However, when the new east-west connection is made from Sun Meadows Way, and if the new east-west connection linking Crego Drive to Massey Place behind the ballpark is also created, this realignment and signalization at the newly-formed four-way intersection would have significant value to the overall transportation network.

Additional conversations between the town, village, OCDOT, and Tri-County Mall development team should continue with regard to future signaling opportunities. In addition, the feasibility and desirability of realigning access points and developing the grid in this area should be investigated.

Improve capacity at Downer Street/Crego Road – southbound turn lane.
The intersection of Downer Street and Crego Road currently operates at an acceptable level of service, both overall and for individual movements. However, 2027 baseline projections with 50% buildout cause the southbound movement from Crego Road onto Downer Street to fail. To mitigate this, a capacity improvement is recommended to widen this intersection to accommodate a new southbound turning lane that would handle the through and left turn movements, while giving right turns their own lane for essentially free flow movement. This would mitigate the congestion problems anticipated for this movement as development continues within the corridor. The new fire station locating on Crego Road just north of the intersection with Downer Street makes this improvement even more important. Investigations into available right-of-way and impacts to community character and the environment would need to be completed before progressing with this recommendation. However, it is a medium-cost recommendation that would make significant operational improvements at this intersection.

6.2.3 High Cost

Improve capacity between Crego Road and Meigs Road - shared center turn lane.
The recommendation to add a shared center turn lane from Crego Road to Meigs Road was developed in reaction to public comments and the traffic analysis. This particular improvement, which was modeled as a center turn lane from Crego Road to Frawley Drive due to the uncertain nature of the signal at that location, provides additional capacity in this area, which will alleviate future congestion by separating turning vehicles from through traffic. The logical western boundary for this shared center turn lane is Crego Road. The eastern boundary should be Meigs Road, assuming the signal is relocated from Frawley Drive. With the center turn lane in place, there will be opportunities to add landscaping, gateway signage, and pedestrian refugee areas.

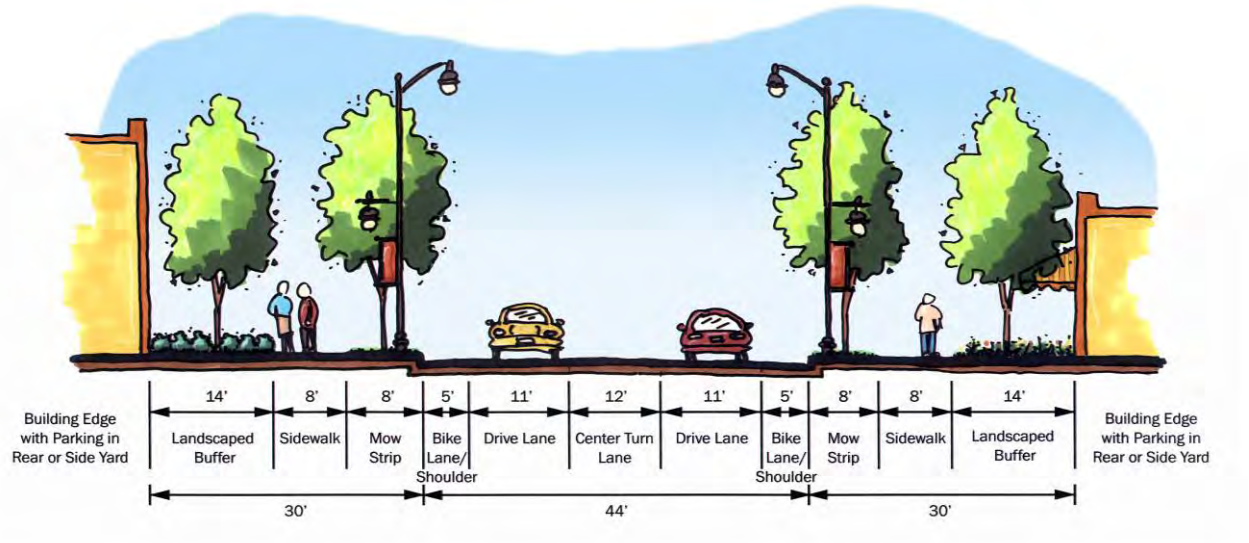


Figure 6.2: Potential typical cross section in Central Downer Street

Should the municipality choose to progress this recommendation, it would require further study regarding right-of-way limitations and overall engineering feasibility. With the assumption that additional land may need to be obtained and the roadway widened and restriped, this is a high-cost recommendation. It was, however, placed in the mid-term recommendations given the anticipated traffic improvements it yields and the opportunities for aesthetic and pedestrian safety improvements it could provide. A typical cross-section for this portion of roadway is provided as Figure 6.2.

6.3 LONG-TERM RECOMMENDATIONS (10+ YEARS)

There are only three recommendations that were placed into the long-term category. These are envisioned to be reasonable for the 10 years and beyond timeframe, as each carries a significant cost and would require a substantial amount of further investigation before being implemented.

6.3.1 Medium Cost

Improve capacity at Downer Street/Route 48 - turning lanes.

The intersection of Downer Street and Route 48 is currently operating at a level of service C during peak hour. Under the 2027 baseline conditions, which does not include any potential buildout of the parcels within the corridor, the level of service degrades to an F for several turning movements as well as for the intersection as a whole. This was noted in the traffic impact assessment for the Tri-County Mall redevelopment, which suggested the construction of an eastbound left turn lane at this location. Several of this study's recommendations would likely improve operations at this intersection, including adding an eastbound left turn lane, a southbound right turn lane, and a northbound left turn lane (which was not modeled due to projected site constraints); creating a new east-west roadway from Route 48 to Meigs Road; and promoting dense, mixed-use, infill development within the corridor, which would reduce traffic by colocating origins and destinations and

fostering the use of alternative modes. Traffic analysis showed that for future buildout, improvements to the level of service of this intersection would be seen with the addition of both the modeled turn lanes at the intersection and the new east-west road connection. The northbound turn lane would also likely be necessary.

The public reacted negatively to the idea of new turning lanes at this intersection due to the likely impacts on the neighboring properties, as some additional right-of-way would likely be required. Of most significant concern was the existing character associated with the street trees and grass mow-strip in this area. However, this study did not investigate how much (if any) right-of-way would be needed, and also did not evaluate modifications to roadway alignment that could mitigate these impacts. The public further felt strongly that this recommendation should only be considered after a thorough investigation is completed on the traffic impacts of a new east-west connector from Route 48 to Meigs Road. Several members of the public noted that they felt that this new roadway may improve operations at the intersection adequately enough to eliminate the need for the capacity improvement at Route 48 and Downer Street, even if the level of service was still considered failing. Ultimately, those residents in attendance stated that they value character over roadway capacity, and that no turn lanes should be added.

In addition to the social costs of this recommendation, the physical improvements are anticipated to be somewhat costly depending on the amount of right-of-way that would be required. This recommendation could easily become a high cost one depending on the engineering.

Add signals at 690 ramps.
The off-ramp movements at the 690 interchange are currently operating at poor levels of service due largely to the lack of signalization and high volumes at Downer Street. Signalizing the ramps would greatly improve the operations at these locations now and as development continues. Initial signal warrant investigations indicate that this intersection does not meet warrants now but will likely meet warrants as development continues. The town should notify the NYSDOT of the desire to investigate signals at these locations so they can begin to assess if and when they feel that the warrants may be met. Several residents noted concern that this signals are needed now for both accessibility and safety of accessing Downer Street from the highway off-ramps.

Alternative solutions to signalizing the ramps would be to reconfigure the 690 interchange or construct roundabouts at the intersections of the 690 ramps with Downer Street. Roundabouts would not only calm traffic and improve circulation, but would also create an opportunity for a gateway feature for those entering the Downer Street corridor from the west.

6.3.2 High Cost

Develop new east-west connection from Route 48 to Meigs Road.
A new connection road linking Meigs Road to Route 48 has been discussed within the town and village for years and has been included in several recent planning documents, including

the 1989 *Southern Village Development Master Plan* and the *Onondaga County Settlement Plan*. This east-west roadway has the potential to relieve congestion along Downer Street and at critical intersections, such as the Downer Street and Route 48 intersection. As part of the consideration that has already been given to this new roadway, a stub road, Legacy Drive, was put in as part of the Golden Legacy development. Optimally, north-south roadways should be planned for and developed as this east-west connection is built. The redundancy that could be created by the east-west connection, and the north-south connections surrounding it, is significant for current and future operations of Downer Street.

Residents stated that they favor this recommendation over the turning lane improvements at Downer Street and Route 48. However, the roadway would not be without impacts to existing landowners along the route, as well as residents of roads that the new connector would link. In addition, any chosen alignment of this roadway would likely meet environmental constraints, and would carry a large cost for implementation. However, if consideration is given in the near-term to the desirability of this connection, then identifying cooperative land owners would be a logical first step, even if implementation of this roadway may not be immediately feasible given the high cost and extensive engineering and permitting that would be required.

Alternative routes, including utilizing the existing Mildred Avenue, should also be considered when alternatives for this new roadway are evaluated. Opportunities and constraints of various routes are part of the SEQRA (State Environmental Quality Review Act) process that accompanies infrastructure projects of this magnitude. This process helps to identify and evaluate alternatives, seeking the most feasible and beneficial recommendation.

6.4 CONCLUSION

Planning for future uses through efforts like this study allow decision-makers the opportunity to balance the growth of the community with the transportation upgrades often required to accommodate that growth. The recommendations outlined in this chapter should be utilized as a guide in mapping out the future of the Downer Street corridor by the Town of Van Buren and the Village of Baldwinsville. Together with partners such as NYSDOT, OCDOT, SMTC, local developers, and the general public, these municipalities can use these recommendations as a starting point for ensuring that Downer Street is not only a better place to travel by all modes, but a safer, more accessible, and more inviting place as well.

FIGURE 1.1

FIGURE 1.1

Study Area

Downer Street Corridor Study

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Fax: (315) 422-7753
www.smtcmpo.org

0 250 500 1,000 Feet

Basemap Copyrighted by Pictometry
Data Sources: Pictometry, 2006
Prepared by SMTC, 12/2007

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Legend
- Municipal Boundary
- Downer Street Area

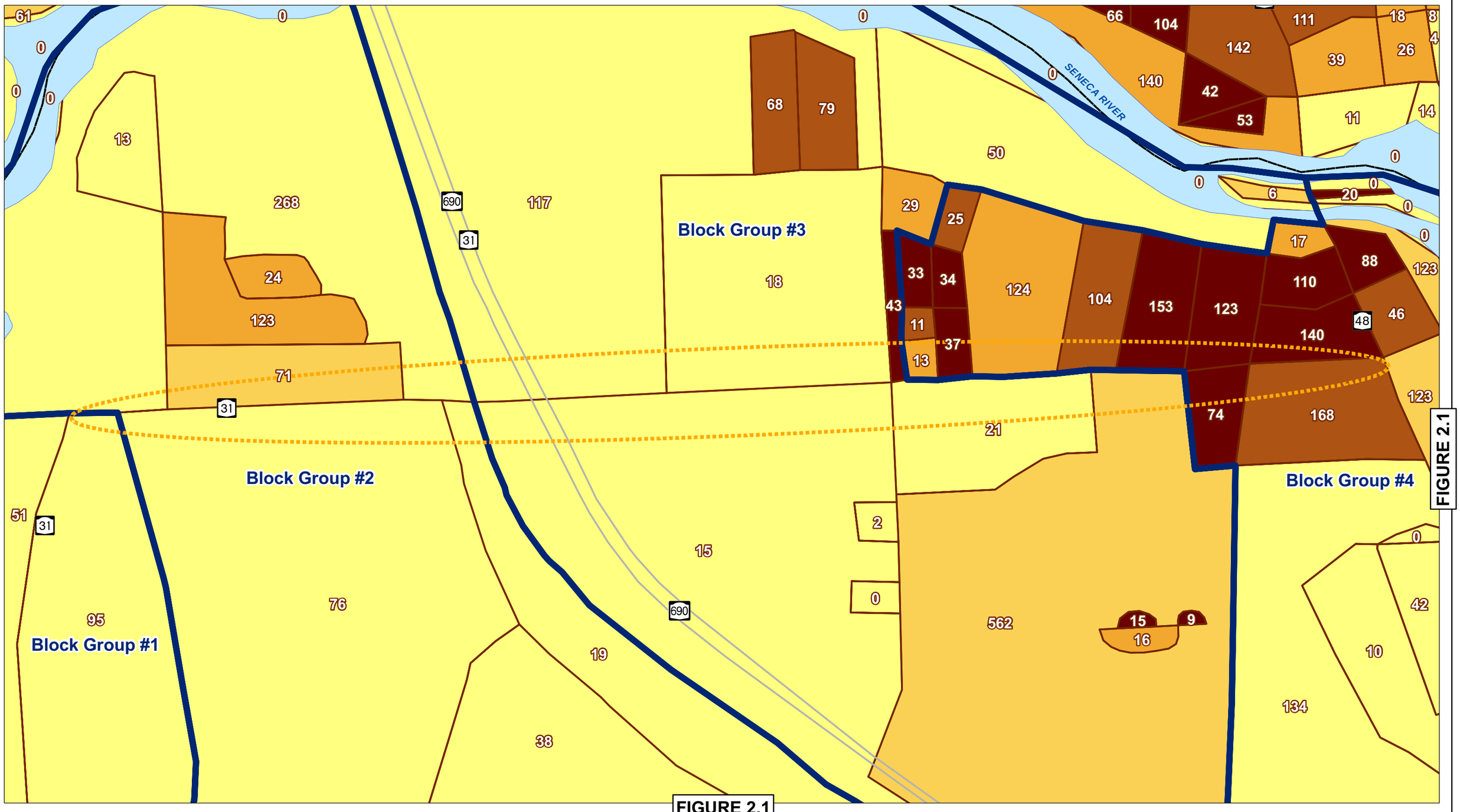

FIGURE 2.1

Population Density Per Acre Per Census Block

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0 255 510 1,020 Feet

Data Sources: 2000 Census
Prepared by SMTC, 10/2007

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Legend

- Downer Street Area
- Census Block Group Boundary
- Census Block Boundary
- Total Population (per block)

Population Density
Persons Per Acre

- 0-2 Persons
- 2-4 Persons
- 4-6 Persons
- 6-8 Persons
- 8+ Persons

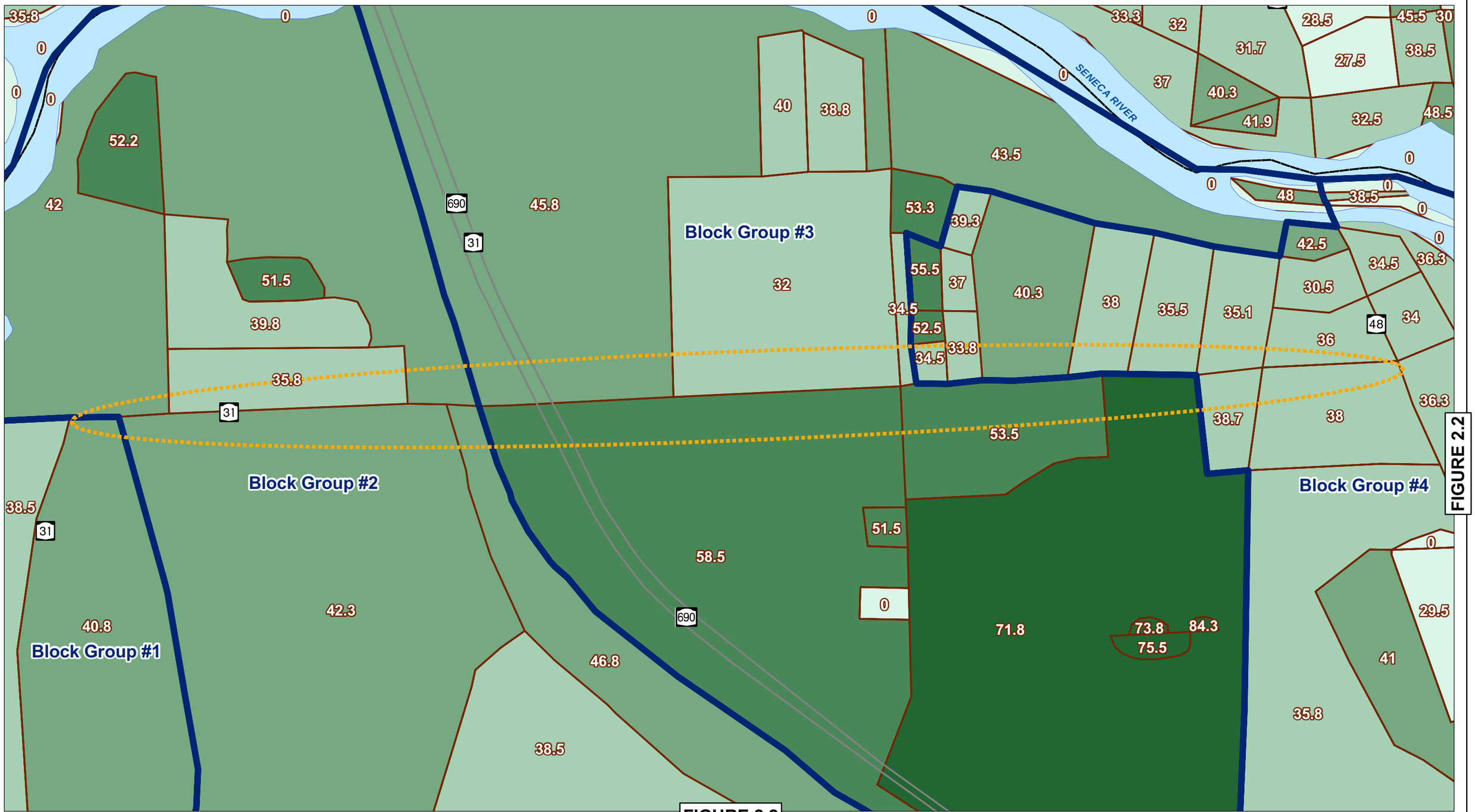

FIGURE 2.2

Median Age Per Census Block

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0 260 520 1,040 Feet

Data Sources: 2000 Census
Prepared by SMTC, 10/2007

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Legend

- Downer Street Area
- Census Block Group Boundary
- Census Block Boundary
- ## Median Age (per block)

Median Age Per Block

- 0-29 years of age
- 30-39 years of age
- 40-49 years of age
- 50-59 years of age
- 60+ years of age

FIGURE 2.4

Existing Assessed Land Use

Downer Street Corridor Study

FIGURE 2.4

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0 270 540 1,080 Feet

Data Sources: SOCPA, 2007
Prepared by SMTC, 10/2007

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Legend

Existing Land Use
- No Data
- Agriculture
- Residential
- Vacant
- Commercial
- Recreation and Entertainment
- Community Services
- Industrial
- Public Services
- Conservation Lands and Public Parks

FIGURE 2.5

Existing Zoning

Downer Street Corridor Study

FIGURE 2.5

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0 280 560 1,120 Feet

Data Sources: Town of VanBuren
and Village of Baldwinsville, 2007
Prepared by SMTC, 10/2007

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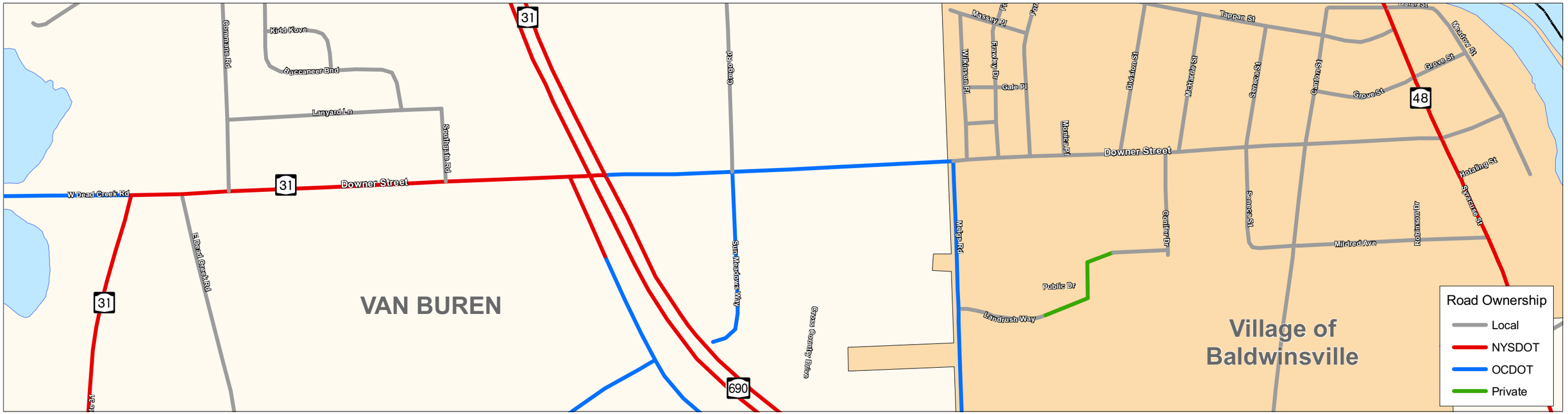
Van Buren Zoning
- Agricultural/Residential - AR-80
- Residence - R-40
- Residence - R-15
- Residence - R-10
- Local Buisness - LB
- General Business - GB
- Planned Unit Development - PUD

Baldwinsville Zoning
- Residential - R-1A
- Residential - R-1
- Residential - R-2
- Business - B-1
- Business - B-2
- Commercial - C
- Planned Development District - PDD



Road Ownership Map (Above)

Functional Classification Map (Below)

FIGURE 2.6

FIGURE 2.6

Road Ownership & Functional Classification

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0 270 540 1,080 Feet

Data Sources: SOCPA, 2006
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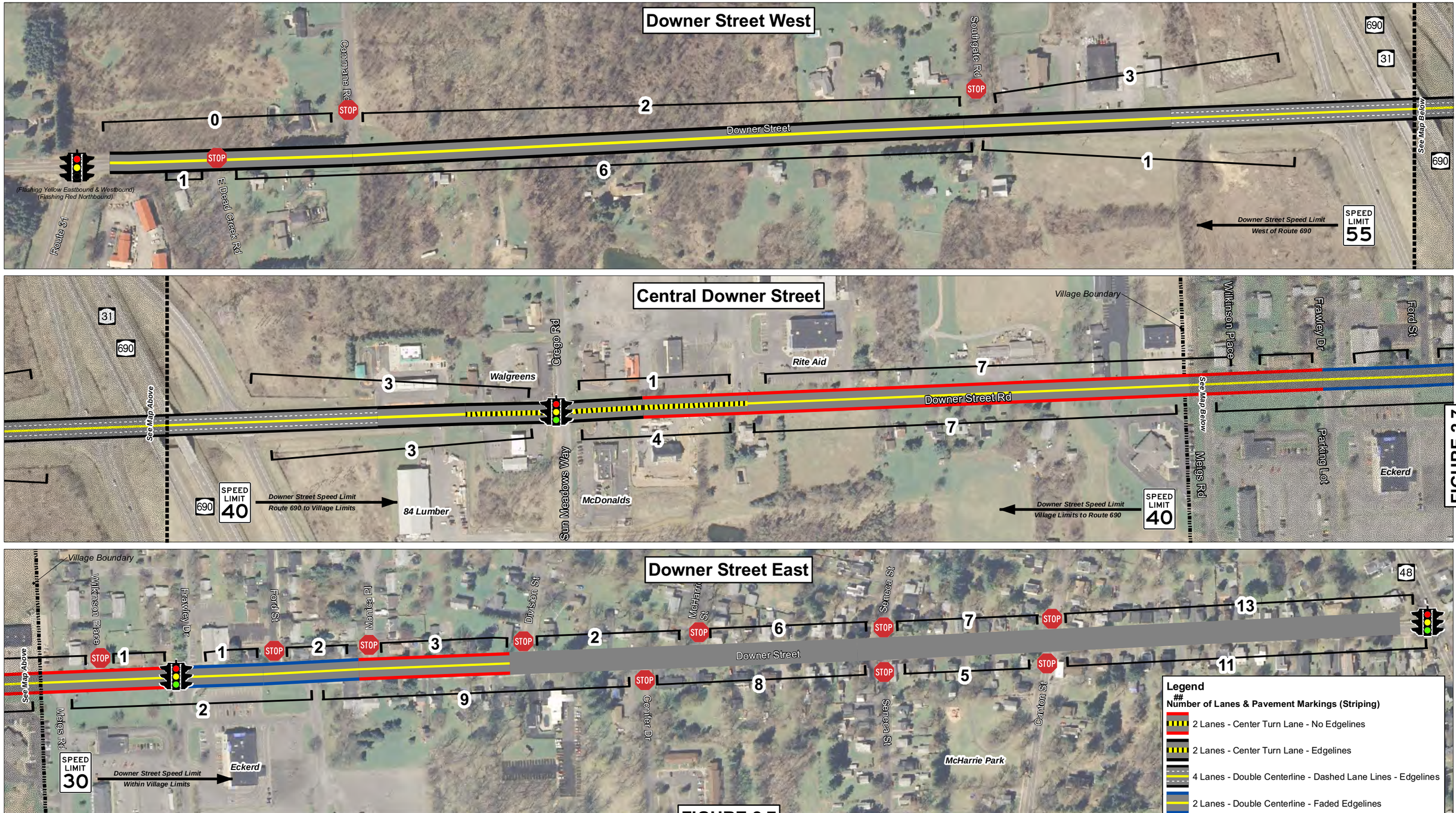

FIGURE 2.7

FIGURE 2.7

Existing Vehicular Network

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0 100 200 400 Feet

Data Sources: SMTC & SOCPA, 2007
Prepared by SMTC, 10/2007

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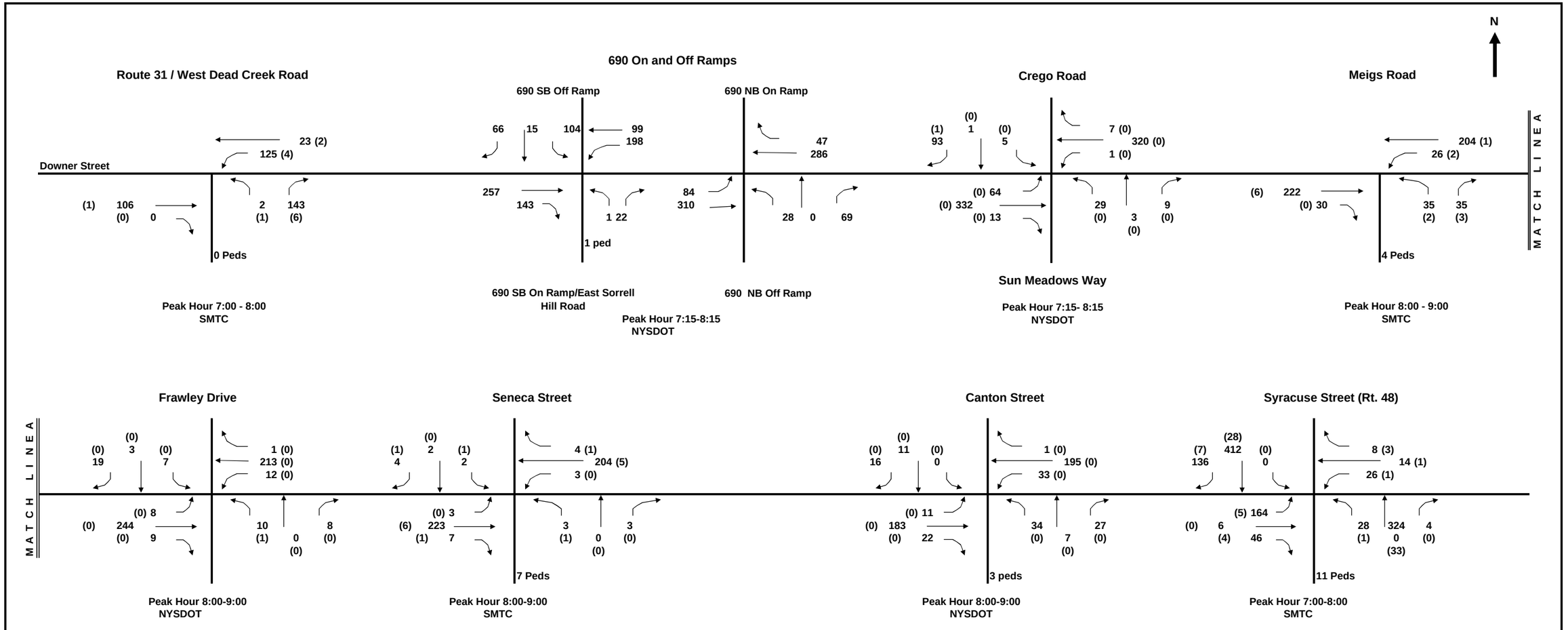
Figure 2.8 - Downer Street Turning Movement Volumes - AM Peak

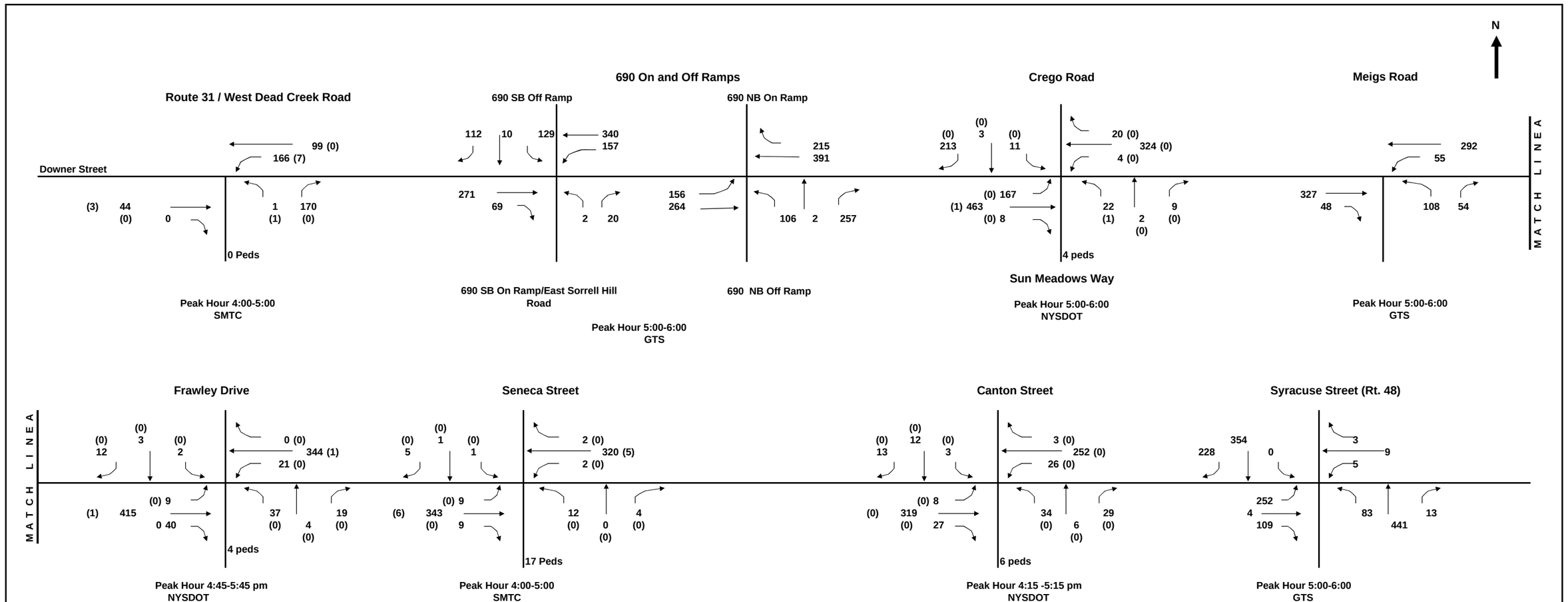


Notes: The street geometry of this diagram does not necessarily reflect the true geometry of the road network.
Number of heavy vehicles shown in parentheses. Counts from GTS did not include heavy vehicles or pedestrians.
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007.

DOWNER STREET
AM PEAK

Count Sources:
GTS, 6/2007
NYSDOT/Tristate, 2002 and 4/2007
SMTC, 12/07

Figure 2.9 - Downer Street Turning Movement Volumes - PM Peak

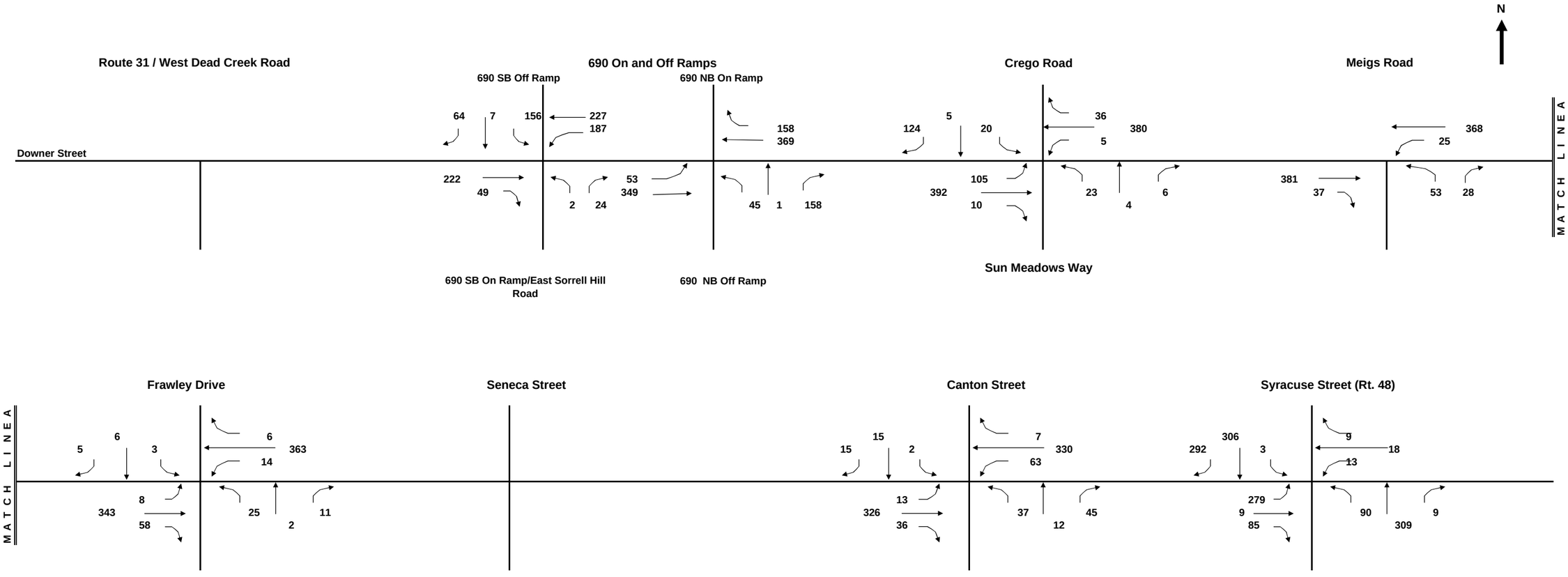


Note: The street geometry of this diagram does not necessarily reflect the true geometry of the road network.
Number of heavy vehicles shown in parentheses. Counts from GTS did not include heavy vehicles or pedestrians
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007.

DOWNER STREET
PM PEAK

Count Sources:
GTS, 6/2007
NYSDOT/Tristate, 4/2007
SMTC, 12/2007

Figure 2.10 - Downer Street Turning Movement Volumes - Saturday Peak



Notes: The street geometry of this diagram does not necessarily reflect the true geometry of the road network
Number of heavy vehicles and pedestrians not counted on Saturday
Not all locations were counted on Saturday.
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007

DOWNER STREET
Saturday

Count Source:
GTS, 6/2007

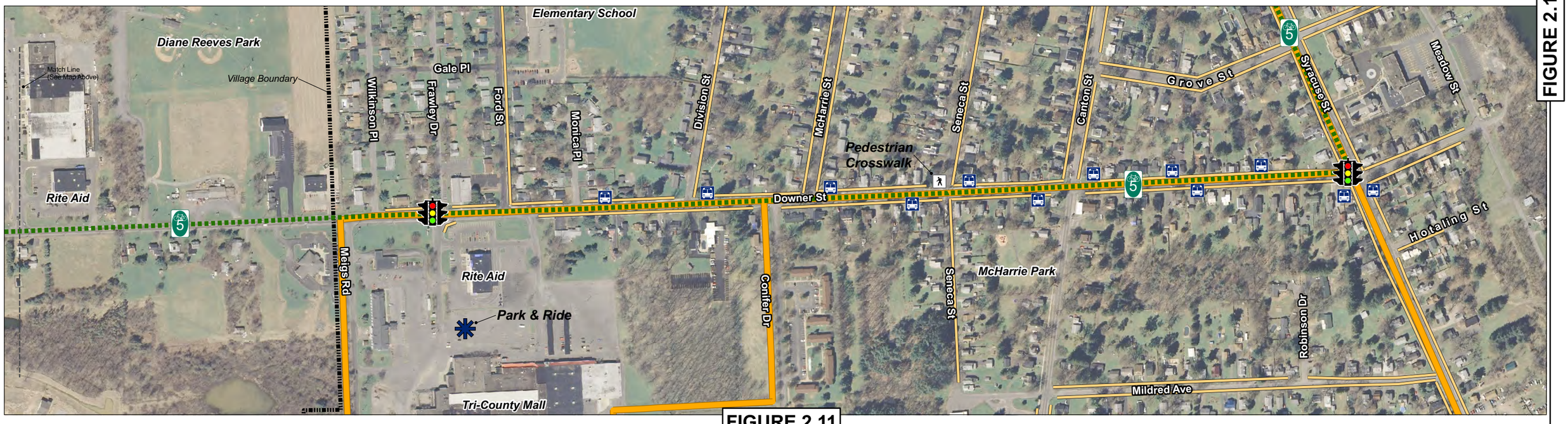


FIGURE 2.11

FIGURE 2.11

Existing Pedestrian & Transit Network

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0 175 350 700 Feet

Data Sources: SMTC, SOCPA & CENTRO, 2007
Prepared by SMTC, 10/2007

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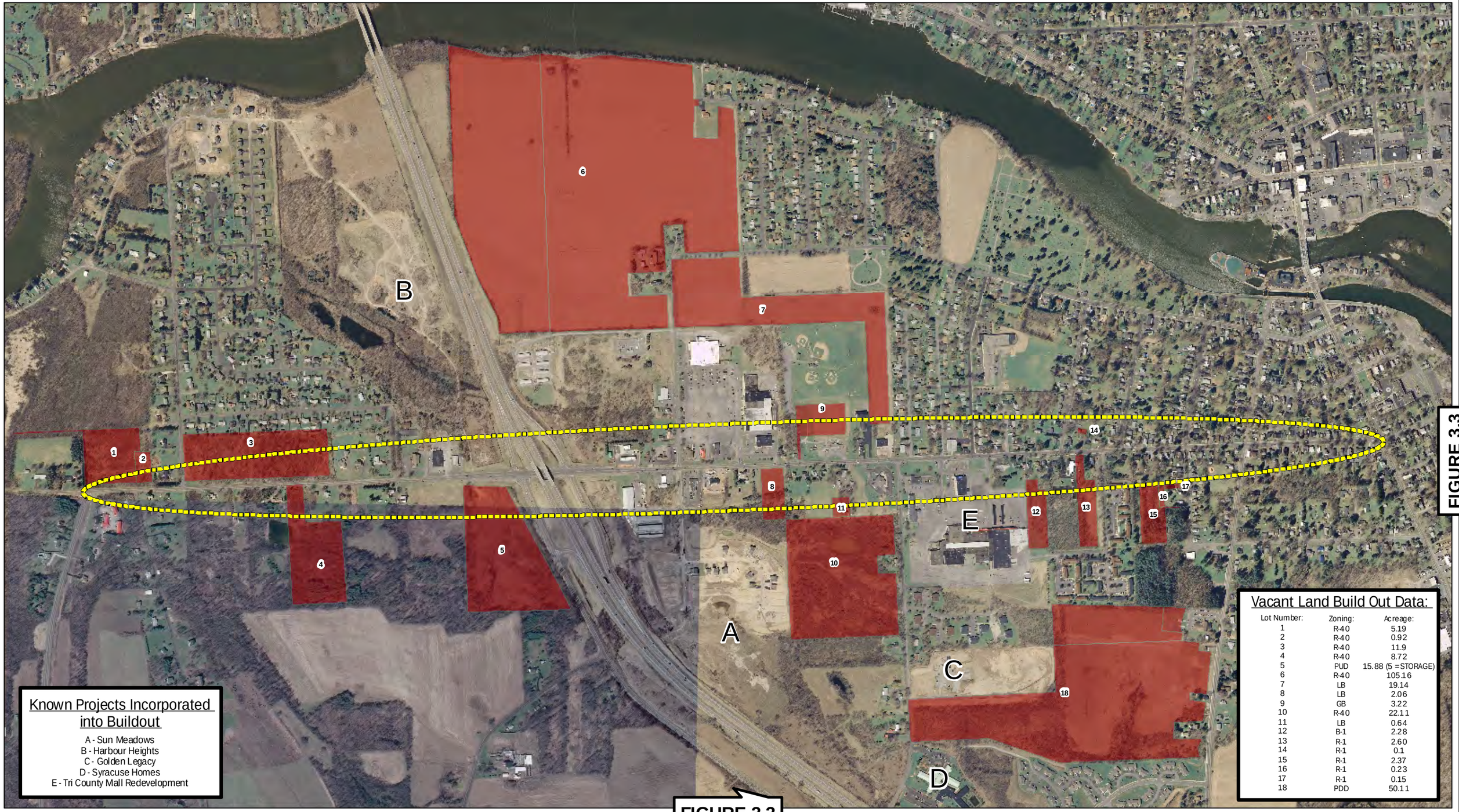
Legend
- Bus Stop
- Park & Ride
- Bus Route
- Bike Route 5
- Sidewalks



Known Projects Incorporated into Buildout

A - Sun Meadows
B - Harbour Heights
C - Golden Legacy
D - Syracuse Homes
E - Tri County Mall Redevelopment

Vacant Land Build Out Data:

Lot Number:	Zoning:	Acreage:
1	R-40	5.19
2	R-40	0.92
3	R-40	11.9
4	R-40	8.72
5	PUD	15.88 (5 =STORAGE)
6	R-40	105.16
7	LB	19.14
8	LB	2.06
9	GB	3.22
10	R-40	22.11
11	LB	0.64
12	B-1	2.28
13	R-1	2.60
14	R-1	0.1
15	R-1	2.37
16	R-1	0.23
17	R-1	0.15
18	PDD	50.11

FIGURE 3.3

Speculative Vacant Land Build Out

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Data Sources: SOCPA, 2007
Basemap prepared by SMTC, 2007

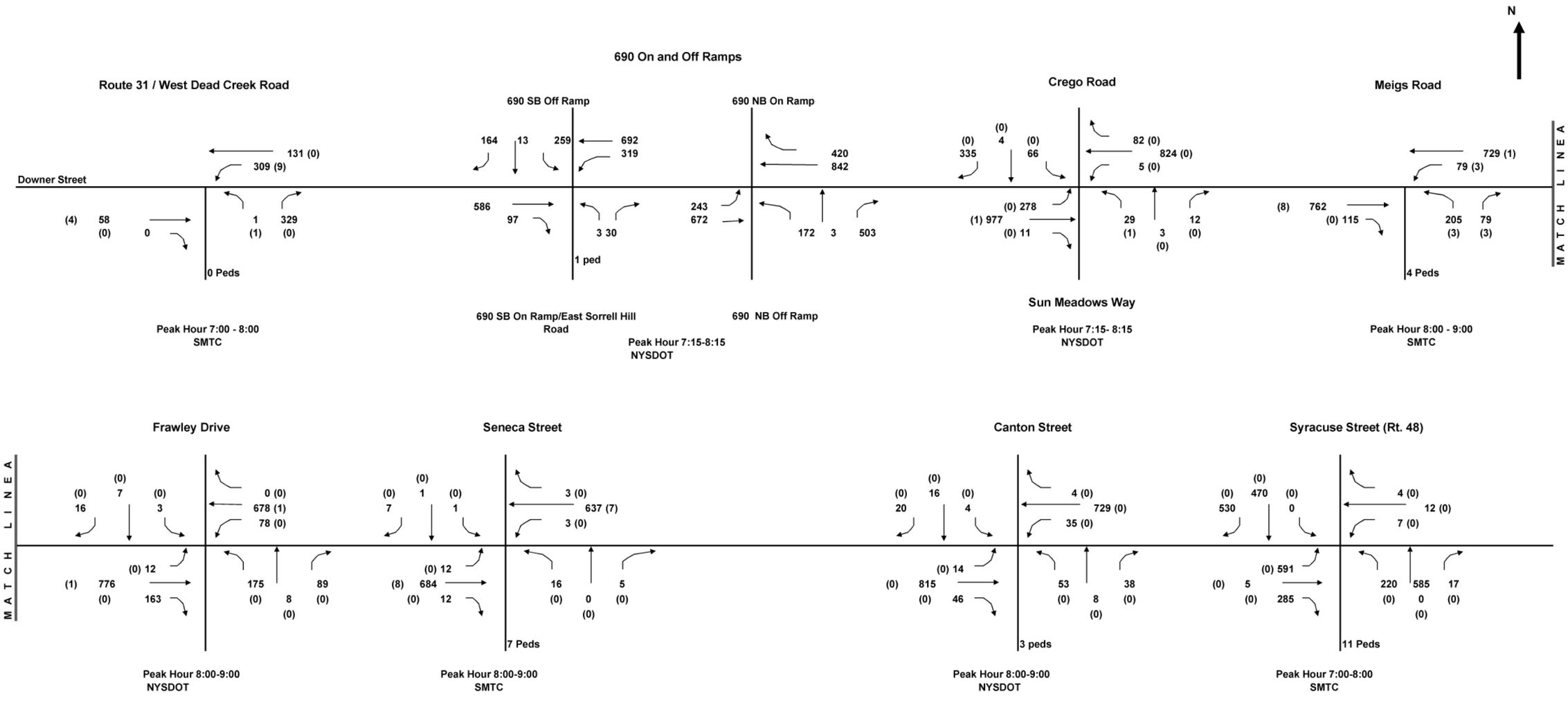
0 435 870 1,740 Feet

Legend

Downer_Study Area
Vacant Land Build Out

Figure 3.4 - Downer Street Turning Movement Volumes
PM Peak

(2027) 25% Build Out



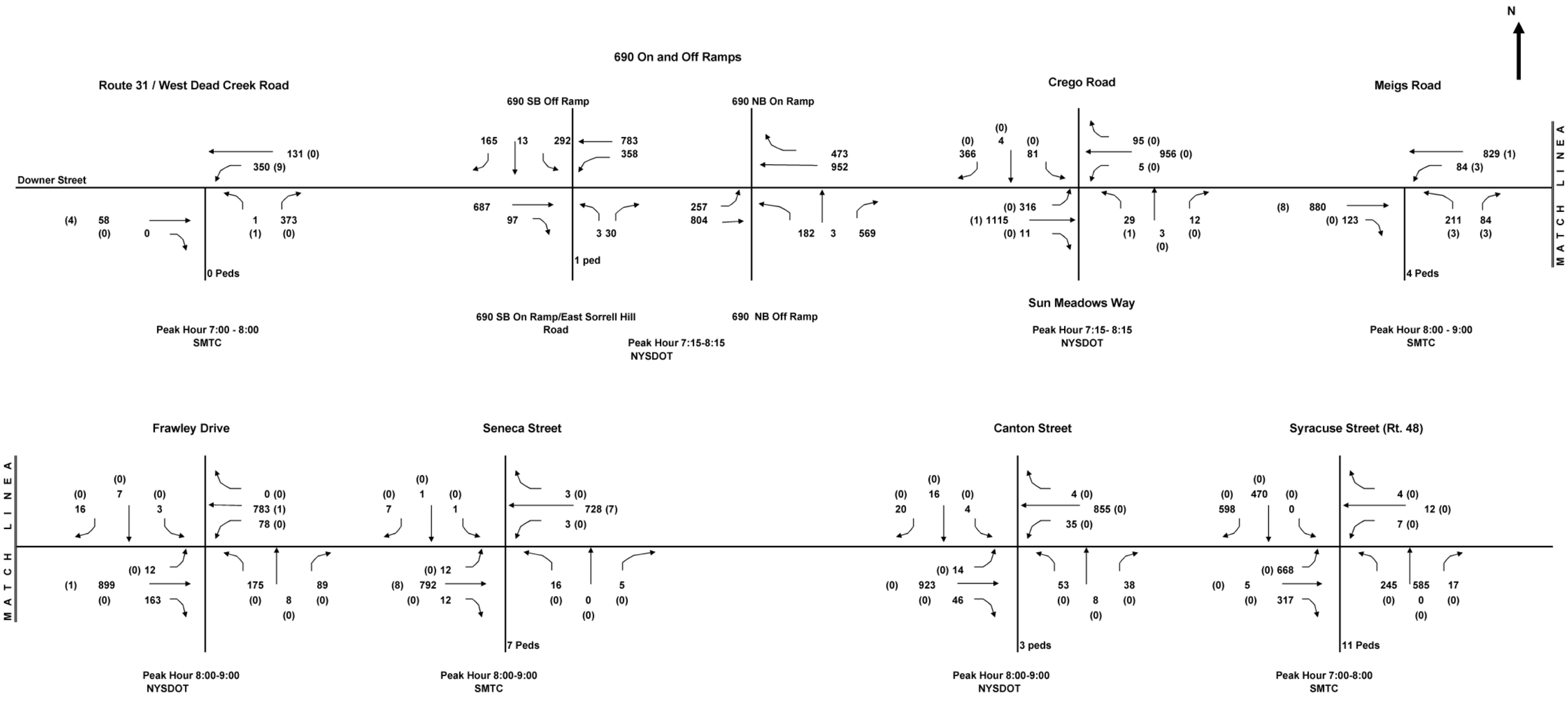
Notes: The street geometry of this diagram does not necessarily reflect the true geometry of the road network.
Number of heavy vehicles shown in parentheses. Counts from GTS did not include heavy vehicles or pedestrians.
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007.

DOWNER STREET
PM PEAK

Count Sources:
GTS, 6/2007
NYSDOT/Tristate, 4/2007
SMTC, 12/2007

Figure 3.5 - Downer Street Turning Movement Volumes
PM Peak

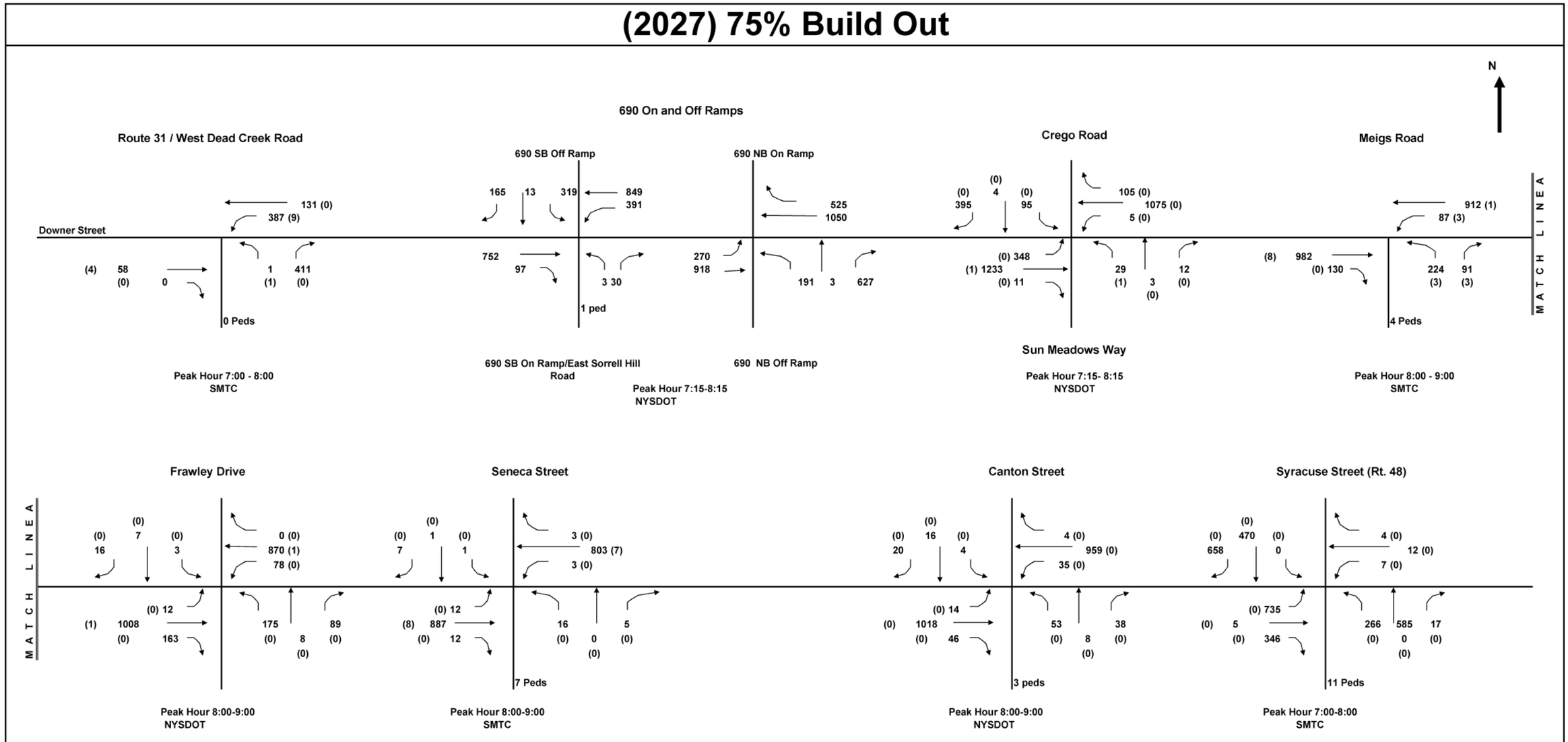
(2027) 50% Build Out



Notes: The street geometry of this diagram does not necessarily reflect the true geometry of the road network.
Number of heavy vehicles shown in parentheses. Counts from GTS did not include heavy vehicles or pedestrians.
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007.

DOWNER STREET
PM PEAK

Figure 3.6 - Downer Street Turning Movement Volumes
PM Peak



Notes: The street geometry of this diagram does not necessarily reflect the true geometry of the road network.
Number of heavy vehicles shown in parentheses. Counts from GTS did not include heavy vehicles or pedestrians.
Counts at Crego Road and Downer Street taken prior to installation of new traffic signal, which was installed during summer 2007.

DOWNER STREET
PM PEAK

Count Sources:
GTS, 6/2007
NYSDOT/Tristate, 4/2007
SMTC, 12/2007

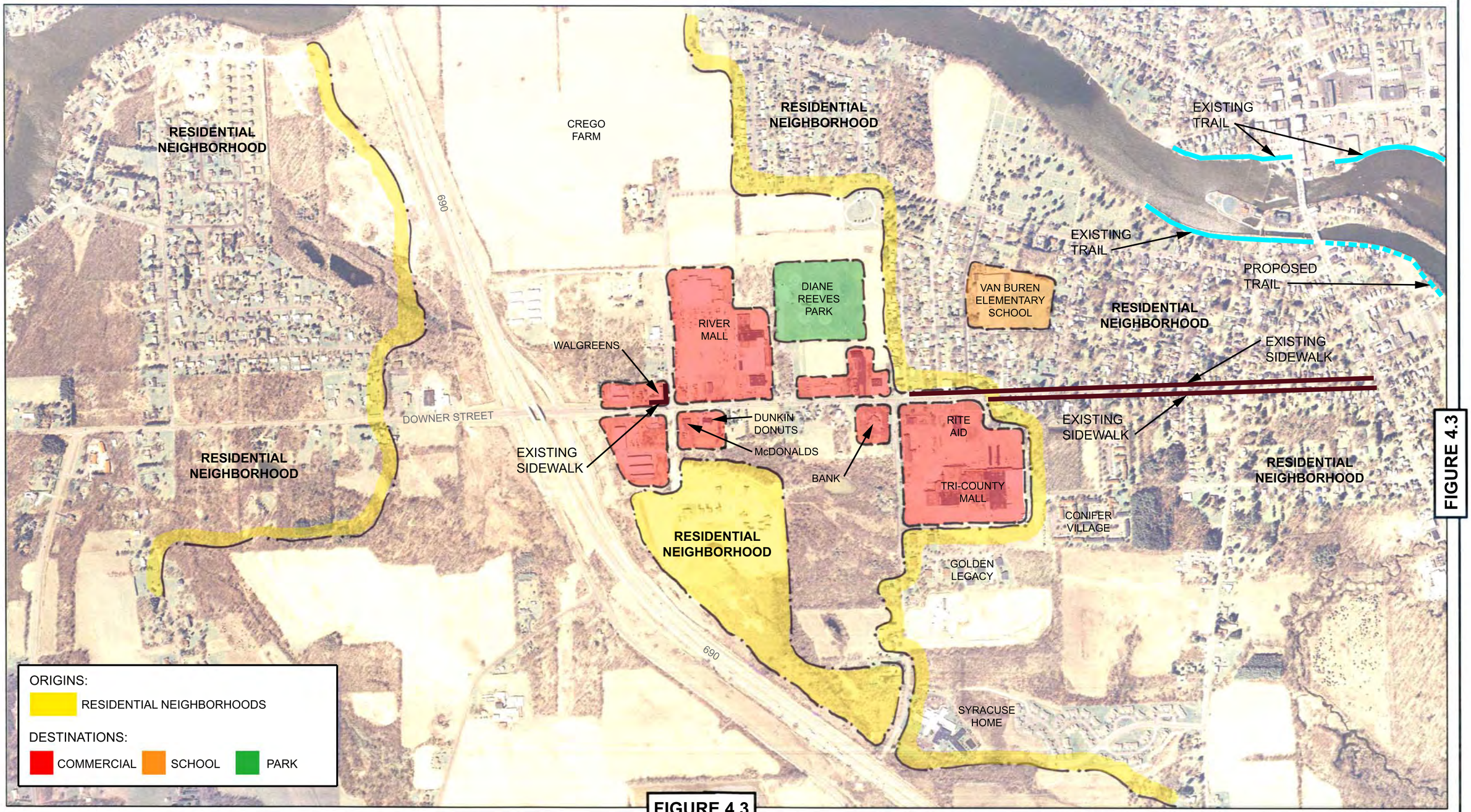


FIGURE 4.3

FIGURE 4.3

Potential Non-Motorized Travel Origins and Destinations

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0 312.5 625 1,250 Feet

Data Sources: SOCPA, 2007
Basemap by SMTC, 10/2007

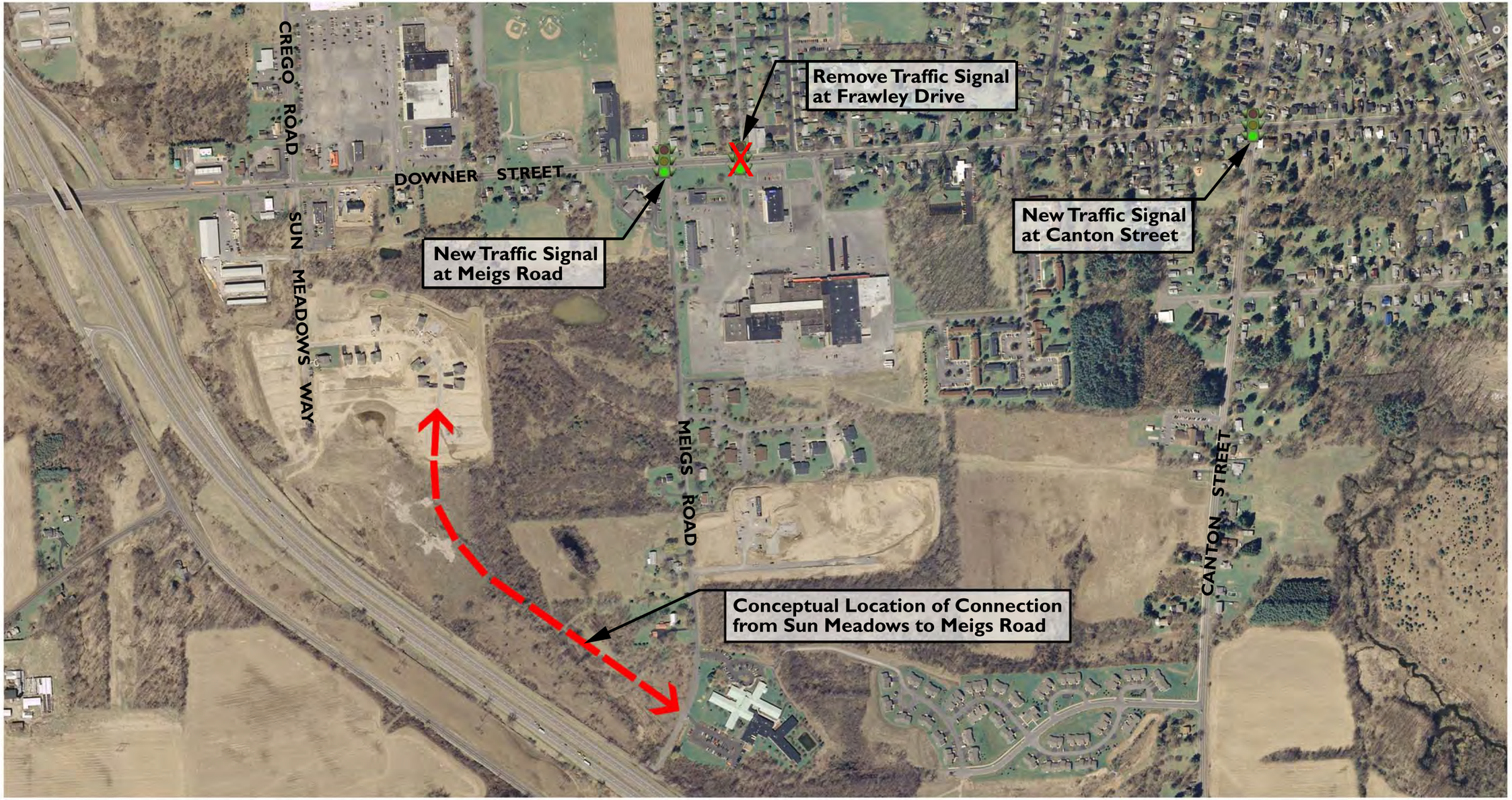

FIGURE 5.1

FIGURE 5.1

Potential Improvements Being Modeled for Traffic Implications

Run 1 Traffic Improvements

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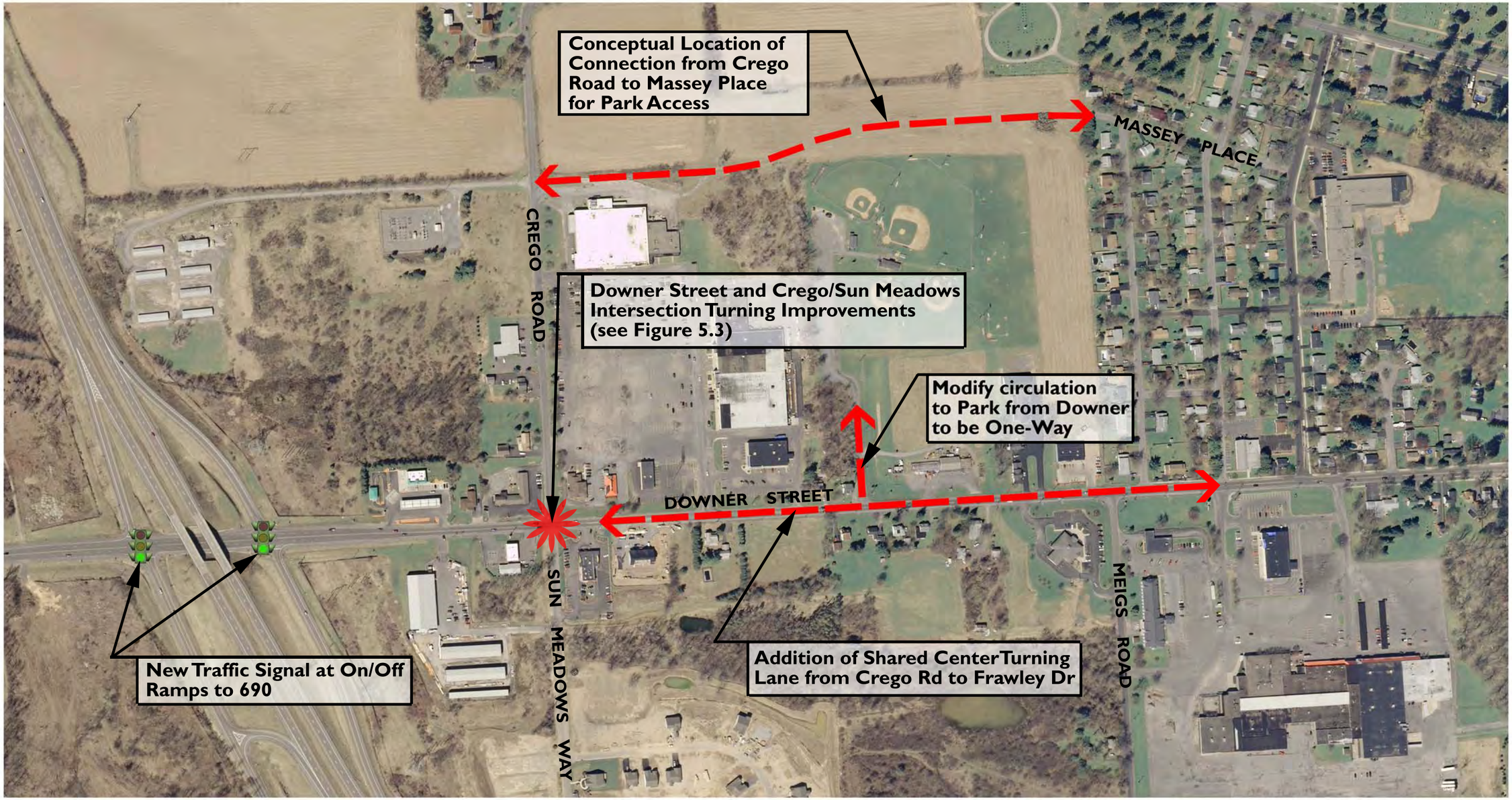

FIGURE 5.2

FIGURE 5.2

Potential Improvements Being Modeled for Traffic Implications

Run 2 Traffic Improvements

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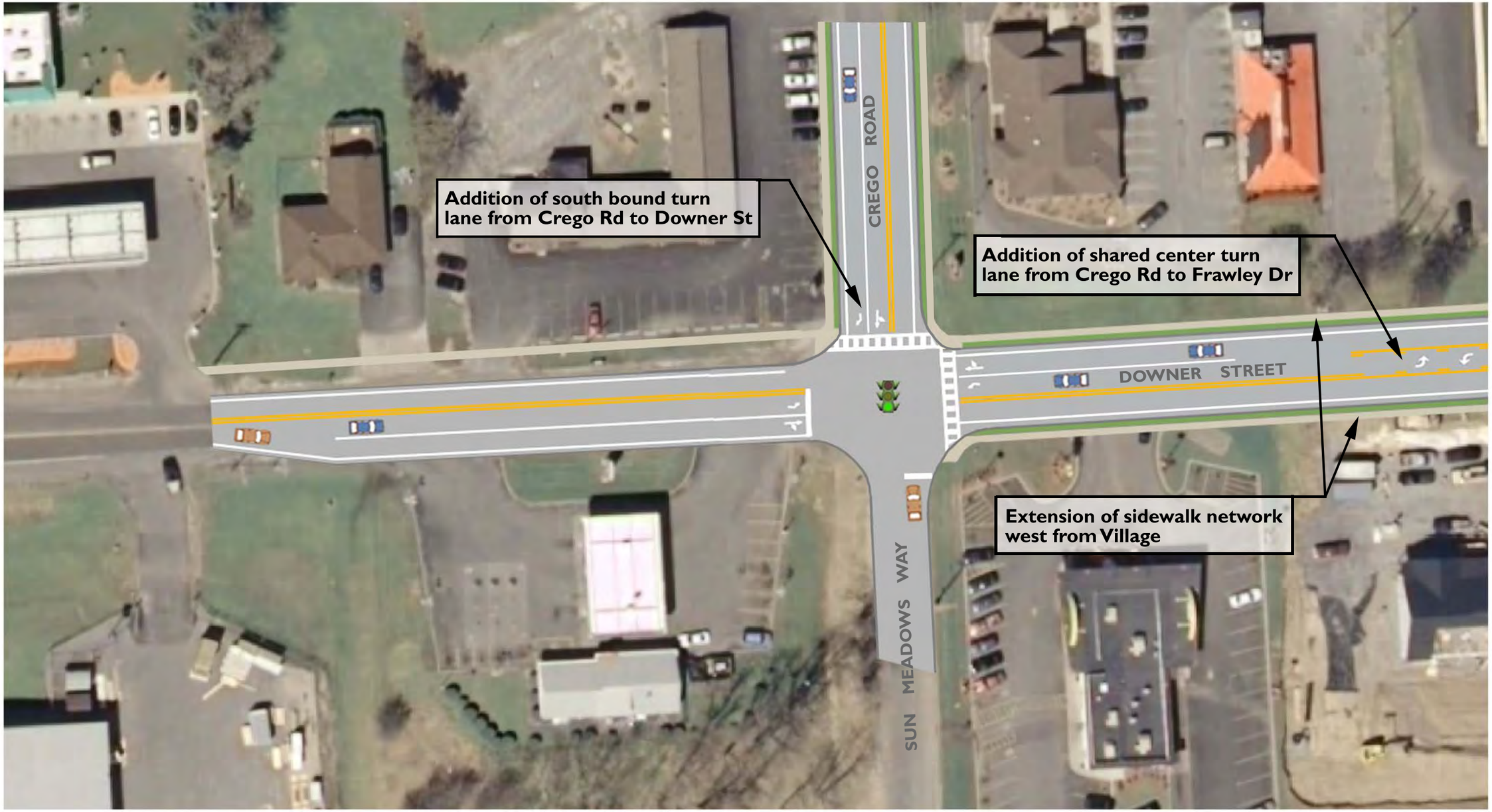

FIGURE 5.3

FIGURE 5.3

Potential Improvements Being Modeled for Traffic Implications

Downer Street and Crego Road/Sun Meadows Way Turning Improvements

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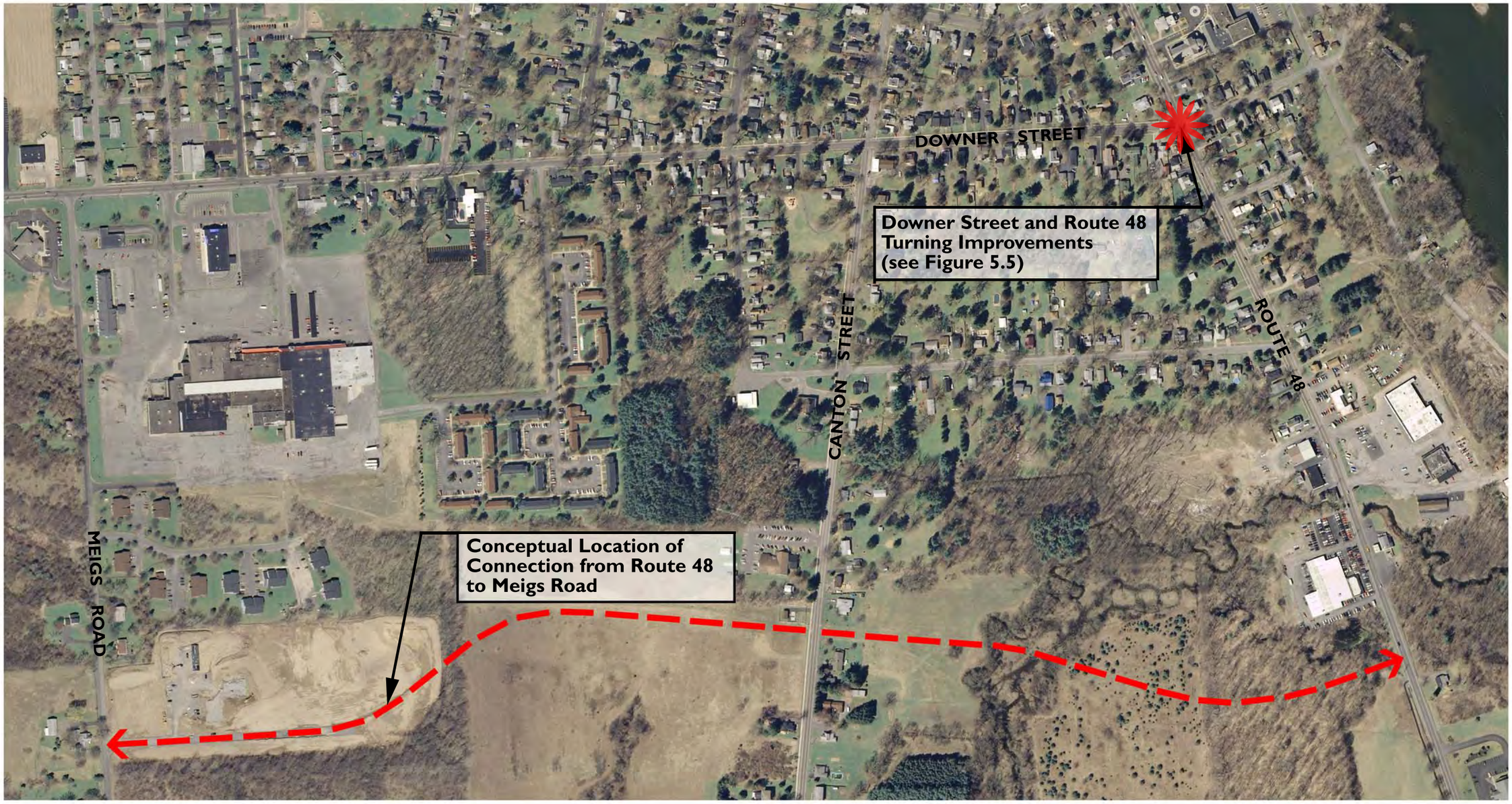

FIGURE 5.4

FIGURE 5.4

Potential Improvements Being Modeled for Traffic Implications

Run 3 Traffic Improvements

Downer Street Corridor Study

SMTC
100 Clinton Square
126 North Salina St. Suite 100
Syracuse, NY 13202
(315) 422-5716
Fax: (315 422-7753
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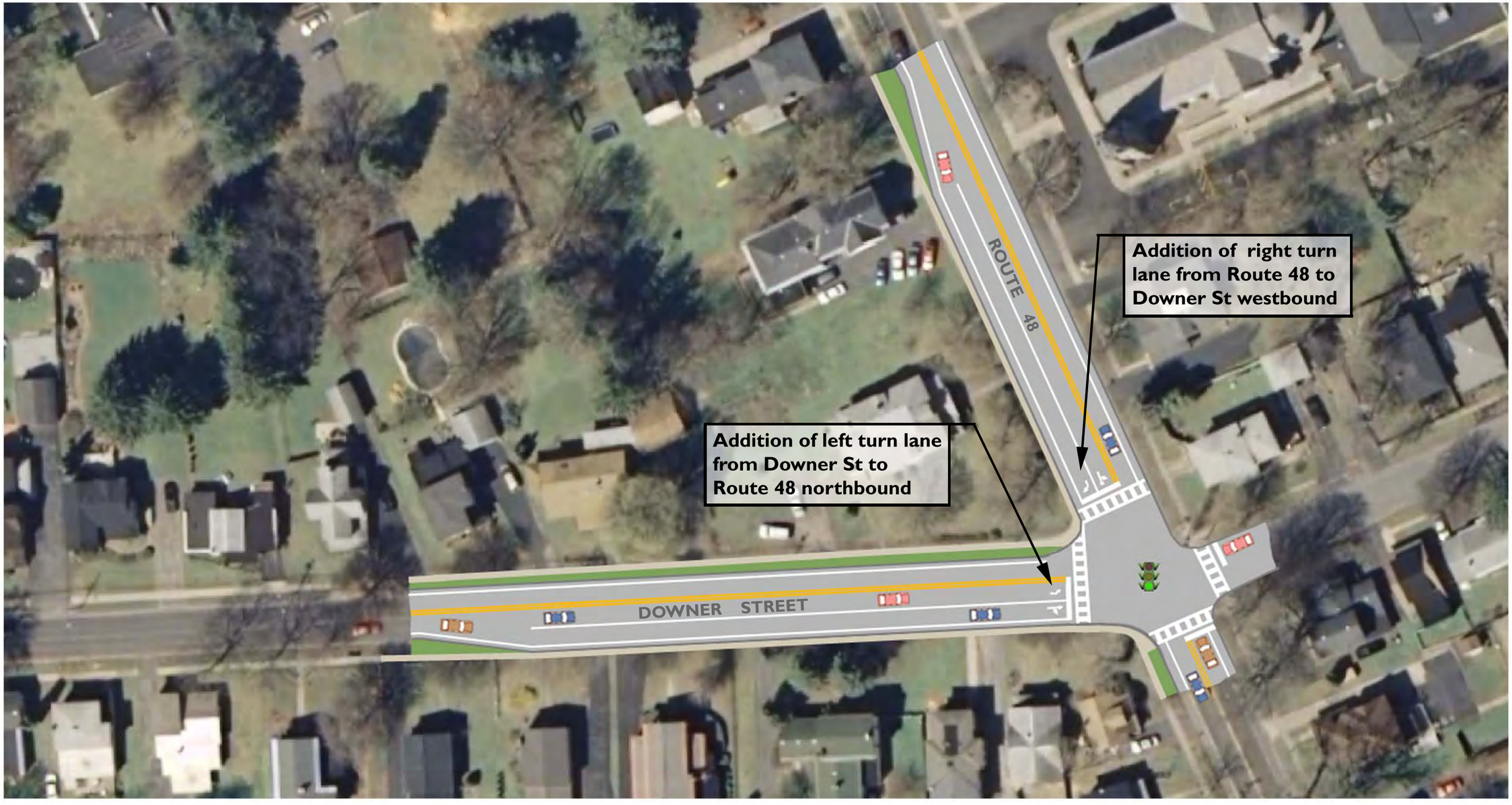

FIGURE 5.5

FIGURE 5.5

Potential Improvements Being Modeled for Traffic Implications

Downer Street and Route 48 Turning Improvements

Downer Street Corridor Study

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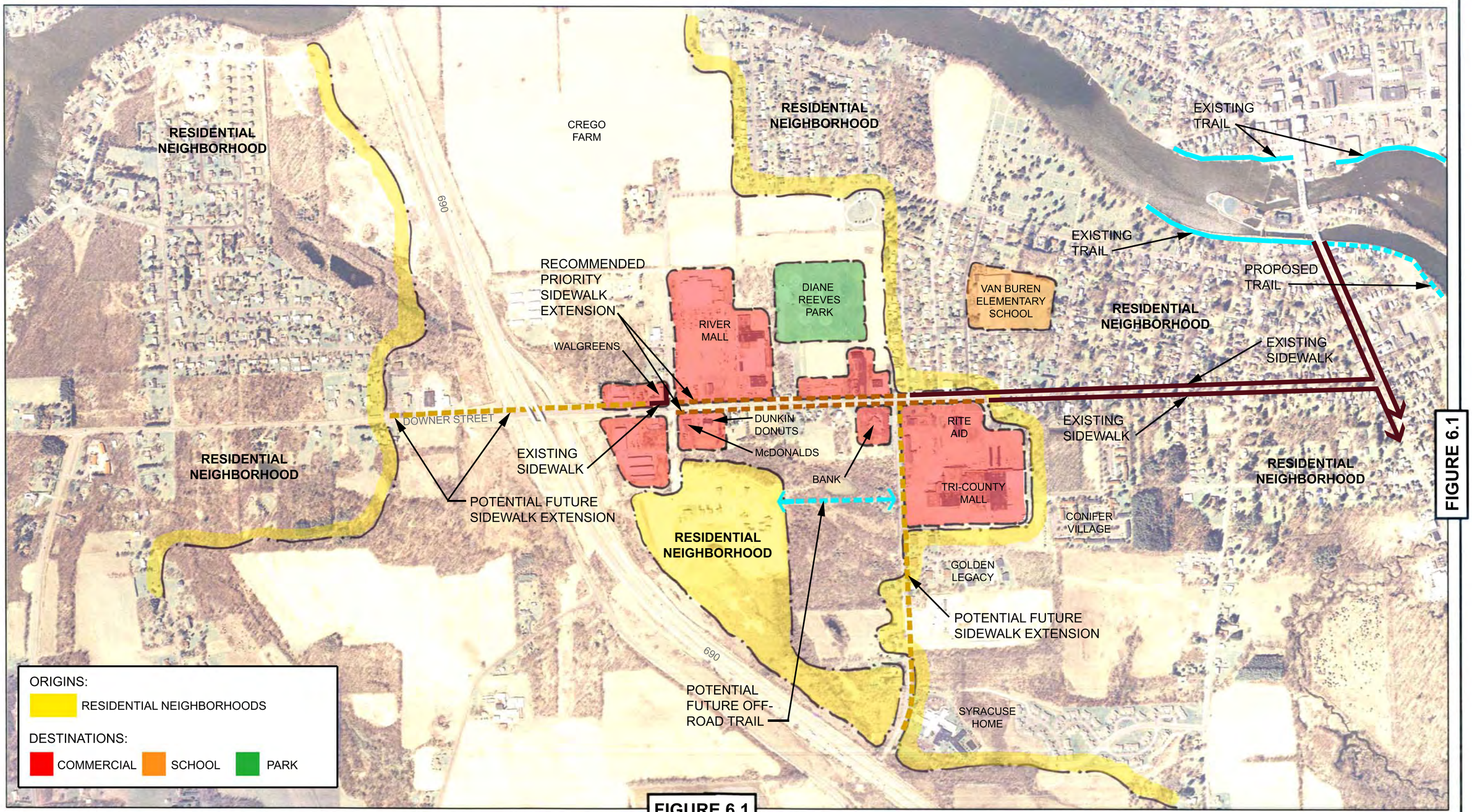

FIGURE 6.1

Potential Non-Motorized Improvements

Downer Street Corridor Study

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0 312.5 625 1,250 Feet

Data Sources: SOCPA, 2007
Basemap by SMTC, 10/2007

FIGURE 6.1