



Discussion Paper – Background and Existing Conditions

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Prepared by



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Background and Existing Conditions

Background

The quality and availability of transportation assets and services has figured largely in the growth, development and livelihood of Troy Borough. Its locational advantage as a crossroads along present-day US 6 helped give rise to the area becoming a regional commercial center in western Bradford County. (For a time, the area was even considered as part of the creation of a new county, with Troy as its seat of government.) Troy incorporated as a borough in 1845, and the availability of such early forms of transportation such as the Williamsport and Elmira Railroad in 1854 contributed much to the area's economy. In the case of the railroad, it continued to serve the area until 1972, when the Penn Central Railroad closed the line after it sustained damage from Hurricane Agnes.

As has always been the case, communities must have access to good transportation facilities and services in order to thrive. In the case of Troy, highways such as US 6 and PA 14 continue to serve the borough in connecting it to jobs and a regional laborforce. The roadways of course are part of a broader transportation network that must serve the Troy area well if it is to continue to provide the level of mobility and accessibility that area residents have become accustomed to.

An important part of the study process includes developing a profile or baseline of the borough's existing transportation conditions. This profile is intended to be used as context from which to plan for the future. This section of the report summarizes the study area's existing socio-demographic conditions and transportation system, and offers a review of other planning documents and studies that have a bearing on the study's outcomes.

Summary

The following bullet points summarize the findings of this discussion paper:

- **Population** – The area's population (Troy Borough and Troy Township) has remained stable for the better part of 60 years, with minimal growth.
- **Dependent Population** – Nearly 40 percent of the borough's population is younger than 16 or older than age 65.
- **Journey to Work** – The borough is a net importer of labor, drawing from a labor shed that encompasses western Bradford and eastern Tioga Counties.
- **Roadway Network** - There are over 7 miles of roadway within Troy Borough. A majority of this (5.5 miles) is owned and maintained by the

borough. There are no roadway projects within the borough or surrounding township that have been programmed as part of the region's 2011 Transportation Improvement Program (TIP). However, a micro-surfacing project completed in 2009 on US 6 will help preserve the roadway surface until a resurfacing can be done in the 2014-15 timeframe.

- **Travel Demand** – After ten years of decline, travel demand has boomed since 2008, with trucks now consisting of approximately 20 to 25 percent of all traffic on state roadways.
- **Roadway Investments** – The borough receives approximately \$30,000 annually in liquid fuels payments from PennDOT. It has budgeted \$65,000 to address transportation-related needs for the upcoming fiscal year. Troy does not have any roadway in PennDOT's Roadway Turnback Program.
- **Roadway Safety** – In an average year, the borough experiences 13 reportable crashes, 60 percent of which are rear-end collisions or angle collisions. A majority of crashes occur during the noon hour and between three and four PM. Since 2009, the number of non-reportable crashes has increased dramatically, up 57 percent to a 2010 total of 55.
- **Bridge Inventory** – There are only four state-owned bridges greater than eight feet in length within the borough. Only one of these spans, PA 14's crossing of Fall Brook, is classified as structurally deficient.
- **Signing** – Many of the borough's signs are faded, obsolete, or out of date. The borough must have a plan in place by January 2012 for replacing these outdated signs (regulatory, warning, and guide signs) by January 2015, and street name and overhead guide signs by January 2018 for improved retro-reflectivity.
- **Traffic Signals** – The signalized intersection downtown has not been upgraded since April 2005. It is pre-timed, and not actuated for optimum performance. An all-pedestrian phase does not appear to be functional. Levels of service vary, with an LOS of "F" during the AM peak period. In Troy Township, the intersection of US 6 with PA 14 North operates at LOS "F" during the PM peak period.
- **Safety Audit** – Various safety deficiencies, such as missing sidewalks, crosswalks, guide rails with improper end treatments, access management issues, and open drainage have been documented and appear as part of the plan appendix.

Existing Socio-Demographic Conditions

Geographic Position

Troy Borough is located in Pennsylvania's northern tier region in western Bradford County (map). The borough is situated approximately 21 miles west of the county seat of Towanda, 17 miles east of the borough of Mansfield, and 11 miles north of the borough of Canton. It is located at the crossroads of US 6 and PA 14. The borough is entirely surrounded by Troy Township.



Stable Population Growth Trends

Troy Borough is a regional center for business and industry and is one of the largest communities in Bradford County. Together, Troy Borough and Troy Township have an estimated population of 3,100, a figure that has remained steady over the past three decades. As it has in most areas of Pennsylvania, population growth in the greater Troy region has been marked by losses within the borough which have been offset by small gains in adjoining Troy Township.

As Figure 1 shows, total population in Troy Borough and Troy Township has remained fairly constant over the past 40 years. The combined population of both municipalities has increased by only 200 persons, or just 7 percent since 1970. Like most rural areas of Pennsylvania during the 1970s, Troy Township experienced population increases before ultimately peaking at a total population of 1,797 in 1990. The township's population has declined by XX percent since then. After sustaining minor population losses during the 1980s, Troy Borough's total population rebounded to a current-day total of 1,445 – roughly the same as it was 40 years ago.³

³ Data from the 2010 Census is expected to be available on April 1, 2011

Figure 1: Population Change, 1970-2010

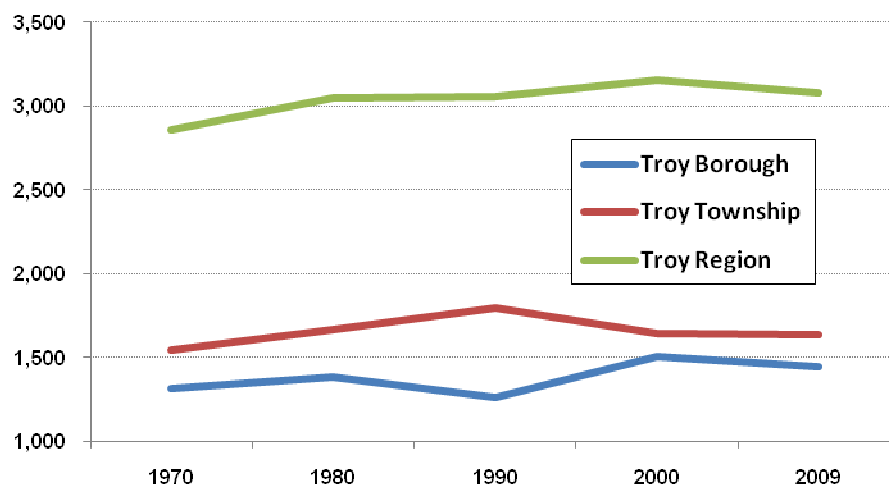


Table 2 below shows the study area's historical changes in total population dating back to 1950. The table demonstrates the stability of the area's demographics, however, it should be noted that the latest figures from the U.S. Census may not capture the recent influx of people related to the surge in employment from the Marcellus Shale natural gas extraction activity.

Table 2: Historical Population, 1950-2009

Municipality	1950	1960	1970	1980	1990	2000	2009 Est.
Troy Borough	1,371	1,478	1,315	1,381	1,262	1,508	1,445
Troy Township	1,334	1,393	1,545	1,666	1,797	1,645	1,635
Greater Troy	2,705	2,871	2,860	3,047	3,059	3,153	3,080
Bradford County	51,722	54,925	57,962	62,919	60,743	62,761	61,131
Region as Percent of County	5.2%	5.2%	4.9%	4.8%	5.0%	5.0%	5.0%

Source: U.S. Census

An Aging Population

Age is an important factor to consider when evaluating the community's transportation system. The oldest and youngest members of the population likely cannot or do not drive and their transportation needs must be accommodated in ways other than as a motorist. Additionally, as the population as a whole becomes older, the roadway system must be responsive to the needs of older drivers.

Pennsylvania has one of the nation’s highest numbers of seniors (those age 65+). Median age in Pennsylvania is now **XX**.0, an increase from 38 recorded during the 2000 Census. In Troy Borough, the median age is 40.6 - one of the highest such rates in Bradford County.

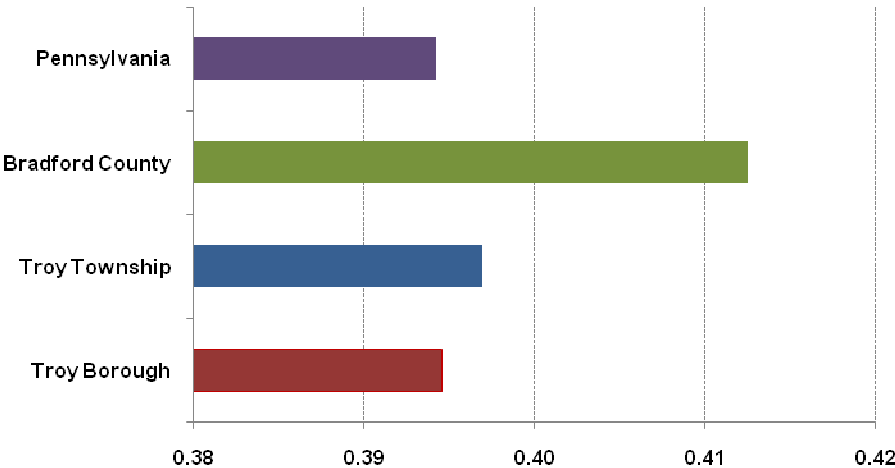
Table 3: Median Age, 2000

Municipality	Median Age	Change from 1990
Troy Borough	40.6	+ 3.5
Troy Township	41.1	+ 4.8
Bradford County	38.9	+ 4.3
Pennsylvania	38.0	+ 3.1

Source: U.S. Census

Figure 2 below shows that Troy Borough actually has a smaller share of dependent population in comparison to state and county rates. Dependent population in this case is defined as those under age 16 and those older than 65. The borough’s rate is only marginally lower than that of surrounding Troy Township. The rate of dependent population within the municipality underscores a need for transportation assets and services (e.g., pedestrian infrastructure, public transportation, etc.) that cater to this large segment of the overall population.

Figure 2: Percent Dependent Population, 2000



Source: U.S. Census

Troy: More Jobs than Workers

Census data indicate there were 1,567 jobs within Troy, yet there are only 578 resident workers to fill them. Less than half (47.4 percent) of Troy's residents who are employed work within the borough, while another 36.3 percent commute to other nearby communities such as Canton, Sayre and Towanda/Wysox in Bradford County, Mansfield in Tioga County, and Elmira in New York. Nearly 10 percent of the borough's workers are employed at out-of-state destinations.

Table 4 shows the top 10 destinations for the borough's workers in rank order.

Table 4: Destination of Troy Borough Resident Workers, 2000

Destination Municipality	Number of Workers
1. Troy Borough	274
2. West Burlington Township	47
3. Towanda Borough	31
4. Elmira, Chemung County NY	26
5. Canton Borough	23
6. Wysox Township	19
7. Horseheads town, Chemung County NY	17
8. Mansfield Borough, Tioga County PA	17
9. Canton Township	15
10. Sayre Borough	15

Source: U.S. Census

Transportation is an important supporter of the Troy area economy. The borough is a net importer of workers, with a defined "laborshed" that reaches across most of Bradford County and into neighboring Lycoming, Sullivan, Susquehanna, and Tioga, as well as into Bingham Township in Potter County and Tioga County, NY.

Table 5 shows the most significant origins of workers employed within Troy, demonstrating its importance as a major destination of workers residing in western Bradford County.

Nearly 89 percent of all Troy's workers reside in Bradford County.

Table 5: Origin of Workers in Troy Borough Jobs, 2000

Municipality of Origin	Workers Employed in Troy
1. Troy Borough	274
2. Troy Township	173
3. Columbia Township	120
4. Canton Township	109
5. Granville Township	95
6. Springfield Township	88
7. Canton Borough	54
8. Sullivan Township, Tioga County PA	40
9. Sylvania Borough	37
10. South Creek Township	35

Source: U.S. Census

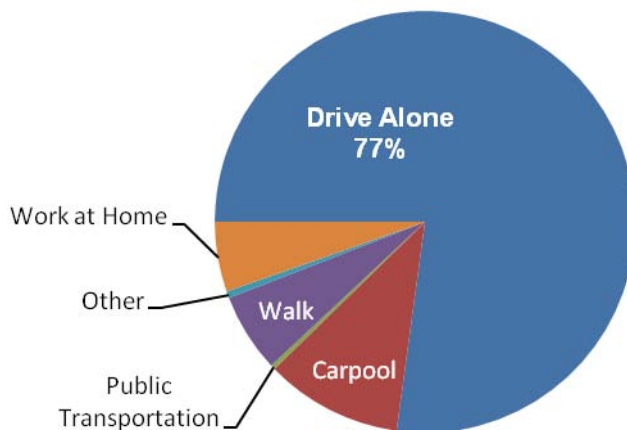
Table 6 **Error! Reference source not found.**and Figure 3 show that workers within Troy Borough are reliant on the private automobile as a means of their journey to work. Nearly 88 percent either drive alone or carpool. The 2000 Census revealed that the mean travel time to work for both municipalities was approximately 20 minutes – 20.6 in the borough, and 19.6 in the township. Estimates from the 2010 Census are expected to be higher.

Table 6: Mode of Transportation to Work, 2000

Mode	Workers 16+	Drive Alone	Carpool	Walk	Other	Work at Home
Troy Borough	578	446	61	35	5	31
Troy Township	810	636	90	30	7	47
Region	1,388	1,082	151	65	12	78

Source: U.S. Census

Figure 3: Means of Transportation to Work, Troy Borough, 2000



Source: U.S. Census

Household Access to a Vehicle

Shown another way, Census data also reveal a mix of households with varying degrees of access to an automobile. Given its more urbanized environment, Troy Borough households generally have diminished access to a vehicle in comparison to more rural areas of the county, as exhibited in Figure 4. There are approximately 13 percent of households within Troy Borough without access to a vehicle – a rate nearly twice the county average. This high-level planning indicator reveals a need for the borough’s transportation system to be able to facilitate the safe movement of bicyclists and pedestrians, as well as sustain effective public transportation services.

Figure 4: Household Access to a Vehicle, 2000

Mode	# of Vehicles				By Percent			
	None	1	2	3+	None	1	2	3+
Troy Borough	75	231	198	77	12.9	39.8	34.1	13.3
Troy Township	33	212	267	137	5.1	32.7	41.1	21.1
Region	108	443	465	214	8.8	36.0	37.8	17.4
Bradford Co.	1,707	8,083	10,344	4,319	7.0	33.1	42.3	17.7

Source: U.S. Census

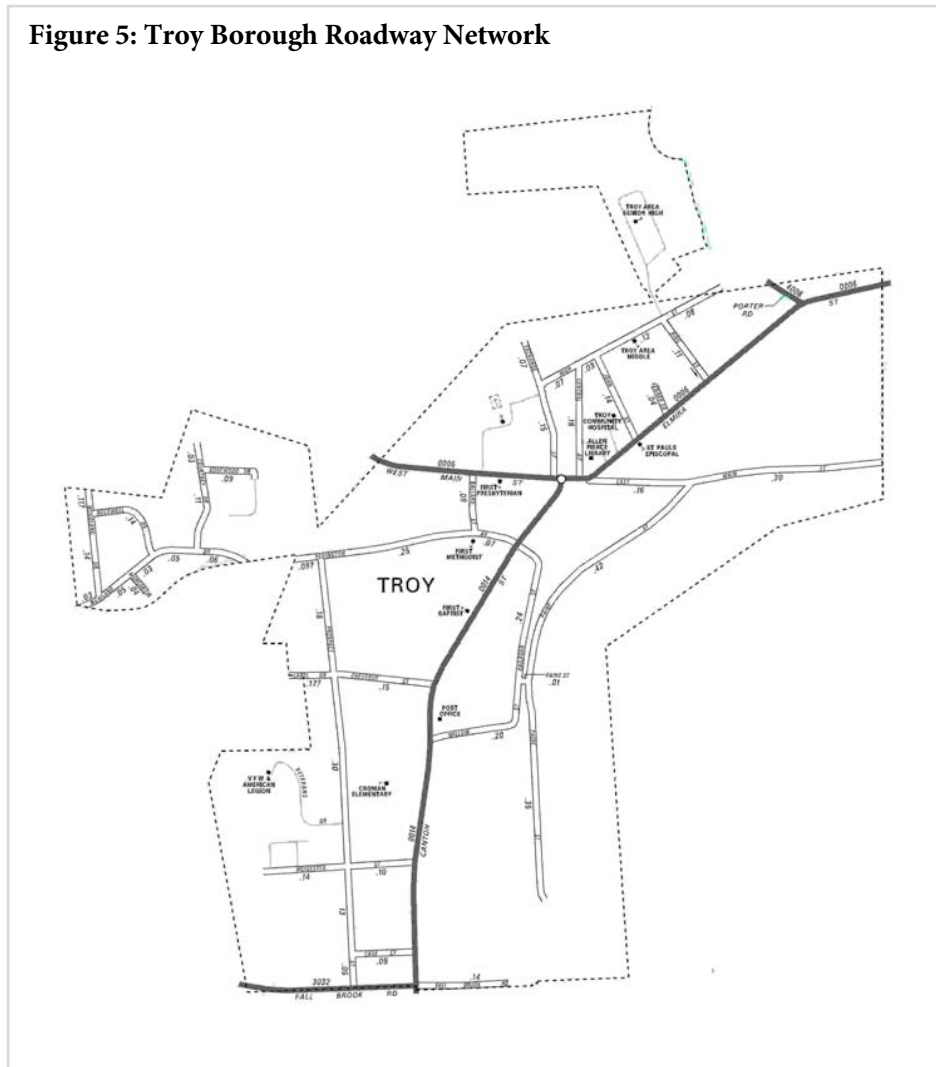
Troy has over 7 linear miles of roadway.

Existing Transportation System

Roadways

Troy Borough's transportation system is highlighted by its roadway network. This consists of both state and locally-owned roadway. Just over three-quarters of the borough's roadways are owned and maintained by the municipality (5.5 miles), while the rest (1.76 miles) are state-owned facilities. Several principal state traffic routes converge in Troy, including US 6, PA 14, and SR routes 3032 (Fall Brook Road) and 4008 (Porter Road). These and other major traffic routes of the borough are shown below in Figure 5.

Figure 5: Troy Borough Roadway Network



Source: PennDOT Type 5B map

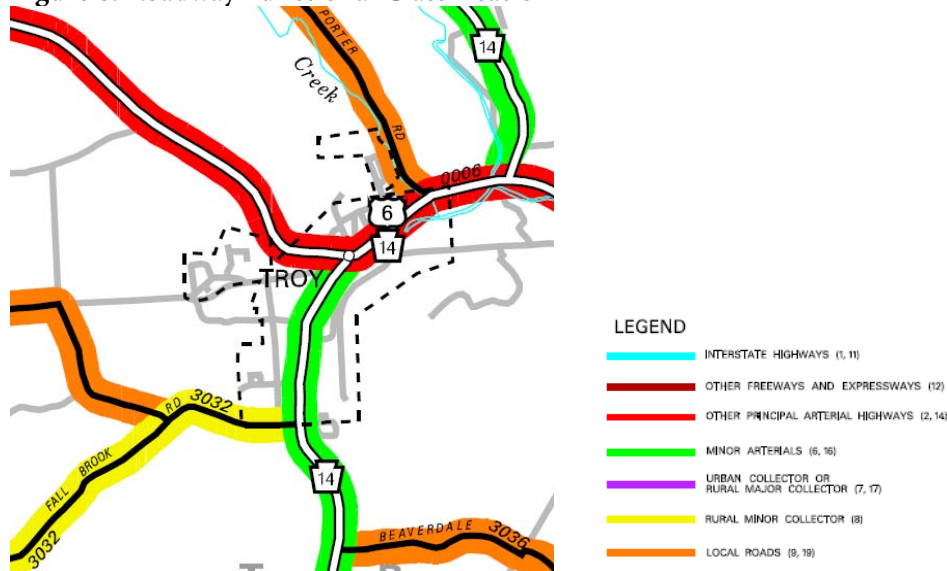
The borough's roadways vary in their characteristics and traffic carrying capacity and are assigned to one of five roadway classifications. These classifications are shown in Figure 6 and include:

- **Rural Principal Arterial** – These roadways link cities and larger towns and form an integrated network providing interstate and inter-county service. The only study area roadway in this classification is US 6, which is multiplexed with PA 14 north of the borough.
- **Rural Minor Arterial** – Roadways of this classification provide service to corridors with trip lengths and travel densities greater than those predominantly served by rural collector or local roads. They are generally designed to accommodate relatively high overall travel speeds with a focus on through movement. Within the study area, PA 14 is classified as a rural minor arterial.
- **Rural Major Collector** – These roads generally serve travel needs that are intra-county in nature with shorter trip lengths and slower speeds. There are no roadways within Troy Borough with this classification.
- **Rural Minor Collector** – These roads collect traffic from local roads and link locally important traffic generators with rural areas. Fall Brook Road (SR 3032) is a rural minor collector.
- **Local** – These roads are the lowest order of roadway with the slowest speeds and shortest travel distances. Many trips will begin and end on these roads that provide access to a wide range of areas. Local roads include Porter Road and Beaverdale, and all municipally owned roadways.

Porter Road (SR 4008), given its classification, could be considered by Troy as part of PennDOT's "Turnback" program. Through this program, PennDOT would provide the borough with an annual maintenance payment of \$4,000 per Turnback mile, in exchange of ownership. Porter Road is part of a 12,000-mile network statewide that was originally identified as functionally local program candidates. Roughly half of all municipalities in the state have participated in PennDOT's Highway Transfer Program.

Figure 6 graphically shows the functional classification of the roadways within the borough and immediate surrounding areas.

Figure 6: Roadway Functional Classification



Source: PennDOT Bureau of Planning and Research

There are other roadway classifications in addition to functional class. In December 1995, Congress designated a National Highway System (NHS) as the centerpiece of the nation's highway network. The NHS is important for commerce, mobility and defense purposes. Within Bradford County, US 6 has been designated as part of this network, as well as US 220 north of Towanda. Having this designation qualifies US 6 to receive "NHS" funding available through the NHS Program as administered by FHWA and through the Northern Tier Regional Planning and Development Commission.⁴

The NHS is anchored by the interstate highway system, yet is also composed of two-lane roadways such as US 6. In spite of the designation, it is unlikely that US 6 (or PA 14) would become limited or controlled access highways in the Troy area. Troy's comprehensive plan in fact urges that attention to these two roadways should be focused on keeping them as superior, two-lane multi-access roadway facilities.

⁴ Other federal-aid roadways not on the NHS (such as PA 14) can receive Surface Transportation Program, or "STP" funds.

Roadway Investments

The Northern Tier Regional Planning and Development Commission, in partnership with Bradford County and PennDOT, programs highway and bridge projects as part of its 2011 Transportation Improvement Program (TIP). A majority of the projects are oriented towards roadway resurfacings, bridge replacements, and other system preservation projects. As part of developing its 2011 program, PennDOT recommends that organizations such as the Northern Tier program at least 90 percent of its program resources to system preservation, and of that number, 85 percent of bridge improvement resources should be directed towards addressing structurally deficient bridges.

As it relates to the study area, there are no TIP projects formally programmed within either Troy Borough or Troy Township. The Commission does however have \$33 million reserved during the program's second four-year period (e.g., 2015-18) for *Betterment*⁵ projects. The region's 2011 TIP was approved by the State Transportation Commission (STC) on August 13, 2010 and took effect at the beginning of the new federal fiscal year that October 1.

PennDOT's Maintenance District 3-9, located in Towanda, performs maintenance projects programmed for state roads in the area. PennDOT's local maintenance forces did a micro-surfacing through the borough in 2009 that will help preserve the roadway surface for a few years until a resurfacing can be done in the 2014-15 timeframe. Micro-surfacing cannot address more serious structural deficiencies, but is designed more towards restoring and preserving pavements by improving skid resistance. PennDOT plans to hire a contractor for the future resurfacing project to address not only the resurfacing itself, but the ADA curb ramps at street intersections.

Area gas companies also make improvements to area roadways, but they typically do not provide PennDOT with much advance warning as to which roadways will be improved.

⁵ A *Betterment* consists of surface treatments/corrections to existing roadway [preferably within the Pennsylvania Department of Transportation's (PennDOT's) right-of-way] to maintain and bring the infrastructure to current design standards for that classification of highway. This may involve full depth base repair, shoulder widening, increased lane widths, correction of super-elevation, as well as, drainage improvements and guide rail updates.

Maintenance and improvements to Troy's locally-owned roadway system are largely accomplished using Liquid Fuels revenues that are disbursed by PennDOT's Bureau of Municipal Services. Troy's share of this funding is determined on a formula basis, expressly the borough's share of total population, as well as municipal roadway mileage. For fiscal year 2010, this total amounted to \$30,624.58, down nearly 4 percent from 2009's total of \$31,863. The only way this figure would increase appreciably would be if there were a legislative change in the funding formula or if there were a state gas tax increase. (Estimated payments for 2011 are roughly the same, at \$30,604.41.) The formula for this disbursement is steady and the amount typically increases from year to year, based on Daily Vehicle Miles of Travel (DVMT), which in turn generates the gas tax revenues that capitalize the liquid fuels amounts. Total municipal roadway mileage in Troy is 7.26 miles, while the 2010 census put its population at ####.

Troy Borough adopted its most recent budget on December 21, 2010 which included \$65,400 for transportation-related costs, including winter maintenance, operation and maintenance of traffic signals, and bridge repair. The projected year-end budget for 2010 had a surplus of approximately \$30,000. The borough generally does not plan for major projects within the annual budget, as projects of any significance are usually done with capital dollars. As such, the line items in the budget are generally for maintenance and repair. In addition to the \$30,000 available in the Liquid Fuels account, the borough anticipates approximately \$60,000 in revenue from its lease to the water department. Both of these can be used for capital improvements. As of November 2010, the borough's capital account was at \$300,000. A summary of some of the highlights of the borough's 2011 budget, as it relates to roadway and bridge spending, is shown in Table 7.

Table 7: Troy Borough Budget Line Items (selected), 2011

Line Item	Amount
Budgeted Revenues	\$294,600
Public Works	\$13,080
Snow and Ice	\$2,500
Signs and Markings	\$14,450
Highway	\$35,372

Source: Troy Borough, 2011

The borough does not have any miles of roadway registered as part of PennDOT's Turnback Program, where municipalities receive \$4,000 annually for

every mile of roadway that has been “turned back” from the State to the municipality.

Travel Demand and Traffic Volumes

Traffic volumes were collected for the Troy area from several sources. Some of the data was collected from PennDOT databases that contain current as well as historical information. Other data was collected in the field by the consultant by either direct observation or from traffic data recorders placed in the roadway.

Data from PennDOT’s Bureau of Planning and Research indicate that travel demand within the borough on state-owned roadways declined for the ten year period ending 2008, to a total of 10,962 vehicle miles of travel (VMT). Troy Township also registered a corresponding decline, to a 2008 total of 64,010 of VMT. (The amount of travel on local roads is not recorded by PennDOT, so numbers for those networks are not available.) Table 8 below compares changes in overall travel demand among Troy Borough, Troy Township, Bradford County, and Pennsylvania as a whole.

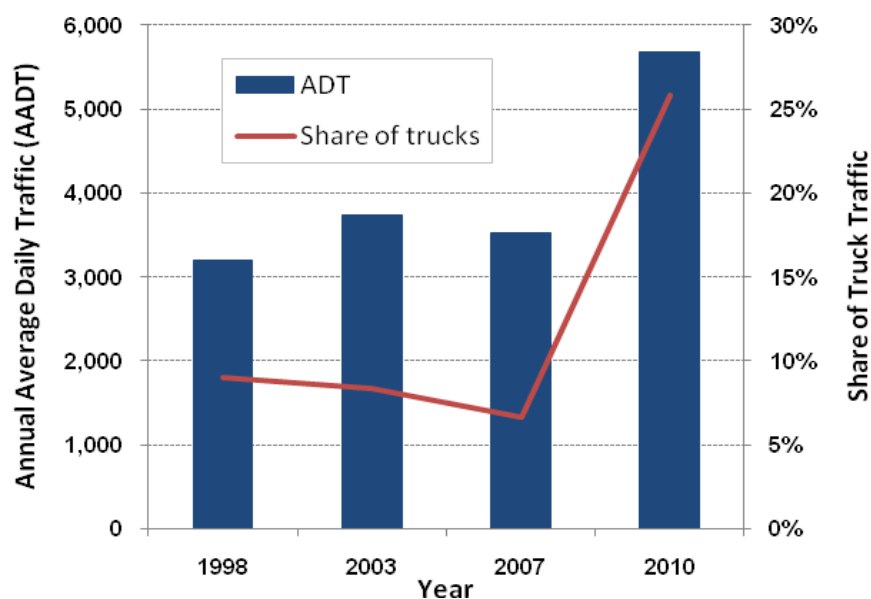
Table 8: Daily Vehicle Miles of Travel (000s), 1998, 2003, 2008

Municipality	1998	2003	2008
Troy Borough	17.4	14.1	10.9
Troy Township	89.9	70.3	64.0
Bradford County	1,428	1,405	1,320
Pennsylvania	274,951	290,725	293,153

Source: U.S. Census

The Northern Tier Regional Planning and Development Commission, in cooperation with PennDOT, has been conducting a study of Marcellus Shale gas extraction and the impact that activity is having on travel demand and the condition of the region’s roadways. Both PennDOT and the consulting team have been collecting traffic counts at various points throughout the region. The following chart is shown for illustrative purposes, showing the increases in volume on US 6 in West Burlington Township (just seven miles east of Troy). The growth in traffic volume points to significant increases in travel demand and the role Marcellus Shale is having on the share of truck traffic on the region’s roadways.

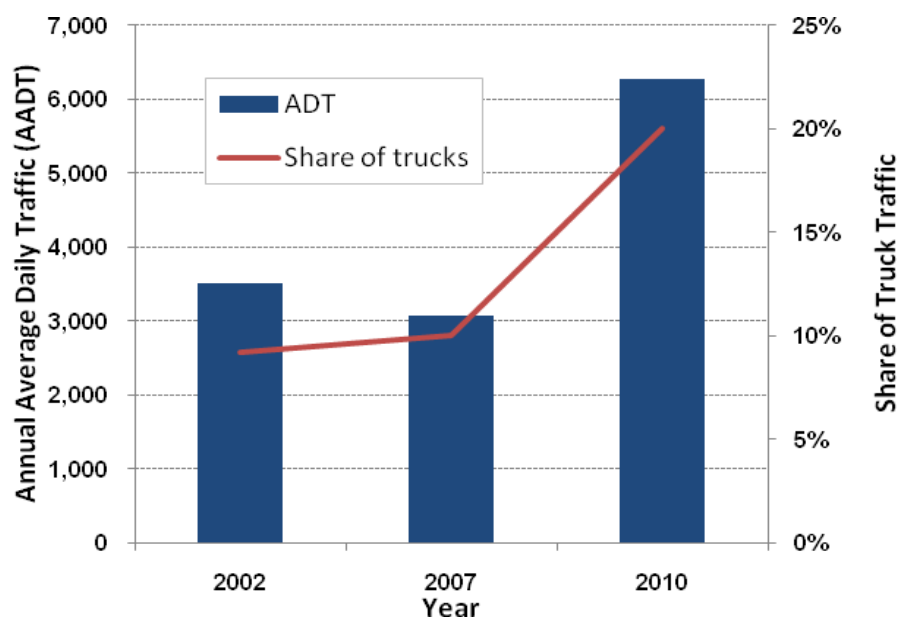
Figure 7: Traffic Counts and Share of Truck Traffic, US 6 in West Burlington Township, selected years



Source: PennDOT

For comparison purposes, Figure 8 shows the same variables, only for PA 14 South in Troy Township between Mud Creek Road and Beaverdale Road.

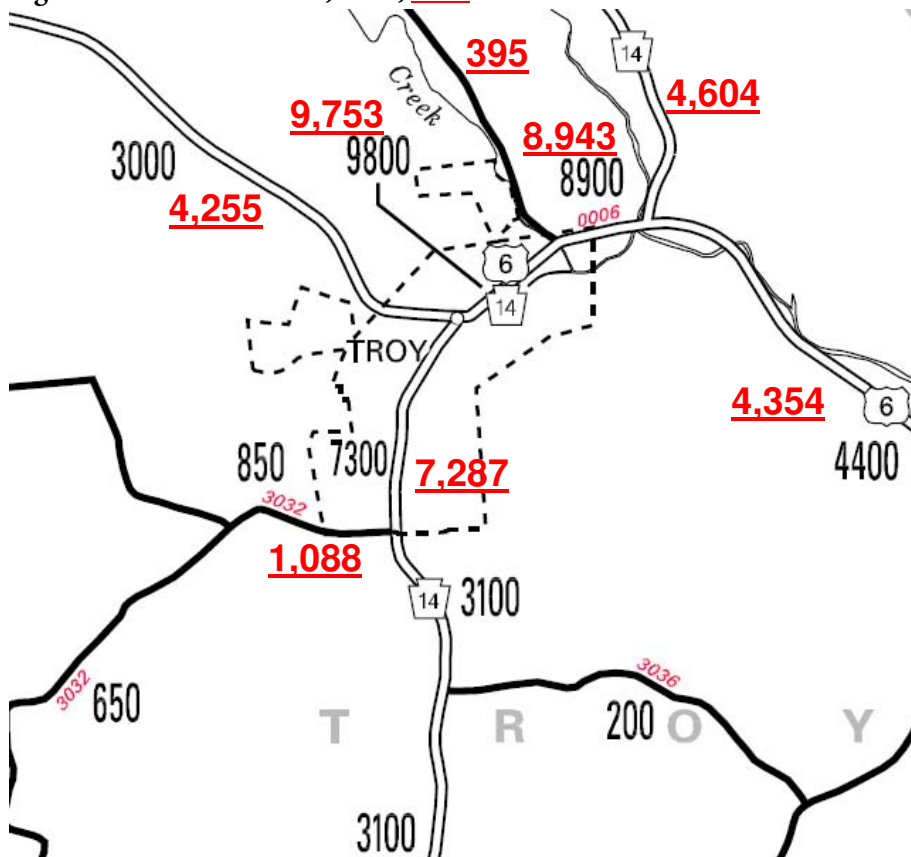
Figure 8: Traffic Counts and Share of Truck Traffic, PA 14 in Troy Township, selected years



Source: PennDOT

Figure 9 provides a comparison between historic (2006) and more recent (2010) traffic volumes. The roadway with the highest volume is the entire length of US 6/Elmira Street, with approximately 9,800 vehicles a day. A more detailed summary of volumes follows under the “Turning Movement Counts” subheading of this report, found on page 38.

Figure 9: Traffic Volumes, 2006, 2010



Source: PennDOT Bureau of Planning and Research

Another major development in the area of note during this time period has been the development of AES’ windfarm in nearby Armenia Township. Since AES completed the erection of its turbines in December 2009, it has had very limited travel demand on the area’s roadways. For example, there are only 10 full-time employees who drive vehicles no larger than a pick-up truck up the mountain every weekday. They typically do not employ many contractors now that construction is completed, and there are no deliveries of parts of turbine components since deliveries were completed in October 2009. (Parts deliveries arrive by FedEx or UPS in typical delivery trucks.)

On average, there are 13 reportable crashes each year in Troy.

Roadway Safety

As the borough's primary transportation asset, the safety of its roadway network is an important concern for this mobility analysis. In measuring safety, there are both "reportable" and "non-reportable" crashes. Reportable crashes are those where the vehicle cannot be driven from the scene of the crash. Non-reportable crashes are not inventoried at the state level. Over the 5-year period ending 2009, Troy Borough experienced an average of 13 crashes per year. While none of these crashes resulted in a fatality, the loss of personal property and productivity is a social cost that must be addressed as part of transportation planning. The following section examines some of the trends and factors that have contributed to these crashes.

The most significant crash types within the borough include rear end and angle collisions. Nearly 60 percent of all crashes within the borough involve one of these two crash types. Other causes of crashes include hitting fixed objects. Only two reportable crashes during the five-year period involved pedestrians. A majority of all reportable crashes (nearly 60 percent) occurred on US 6.

Figure 10 shows how crash trends in Troy Borough overall compare to county and state trends. In 2009, Pennsylvania registered the lowest number of highway fatalities since record-keeping began back in 1928. While there is much conjecture as to why this phenomenon occurred, the impact of the state's struggling economy has a direct impact on travel demand, and (by extension) crash totals and fatalities. Other factors include infrastructure improvements, such as edge-line/shoulder and center-line rumble strips, which together have reduced the number of run-off-the-road and head-on crashes, respectively.

While crash trends for Bradford County align closely with state trends, the smaller base numbers for crash totals in Troy Borough are reflected in the volatility of the trendline. Regardless, the trends show a significant increase of crash activity in Troy Borough in 2009. Interviews with area law enforcement officials indicate that, while official numbers for reportable crashes are not yet available, the number of observed crashes has increased at "astonishing" levels to 2010 from 2009. The trend appeared to begin in western Bradford County as a center of the Marcellus Shale natural gas extraction activity.

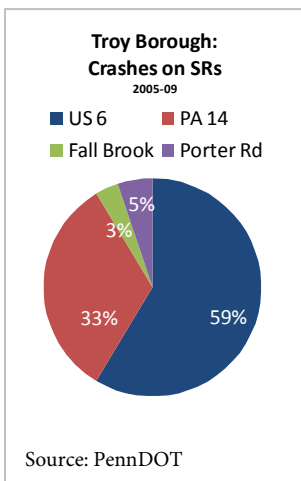
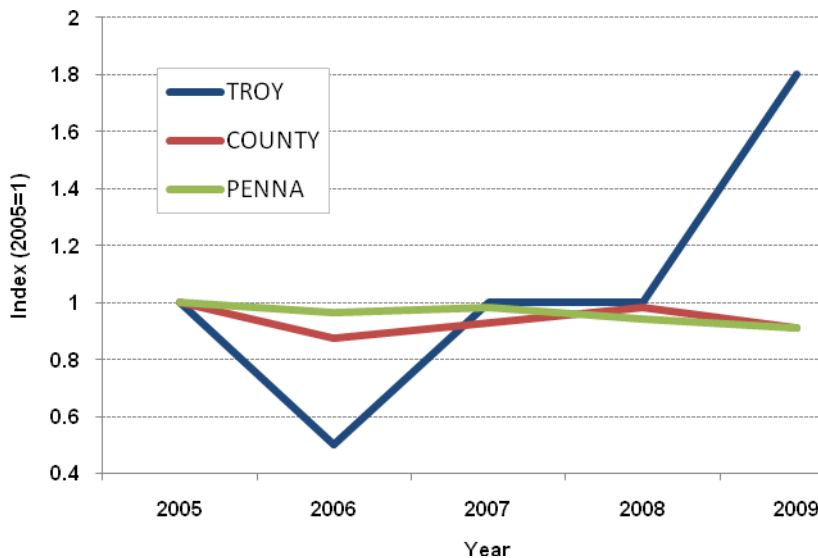


Figure 10: Total Crashes as a Percent of 2005 Values



Source: PennDOT Bureau of Highway Safety

In comparing when crashes occur in Troy Borough versus the state and county experience, the borough mirrors statewide rates with a few notable exceptions. Over the past five years, nearly one out of five crashes in Troy occurred on a Sunday, the most common day of the week for crash activity⁶. During the span of a given year, the most common month for crashes to occur was the month of June, with nearly 19 percent of all the borough’s crash activity.

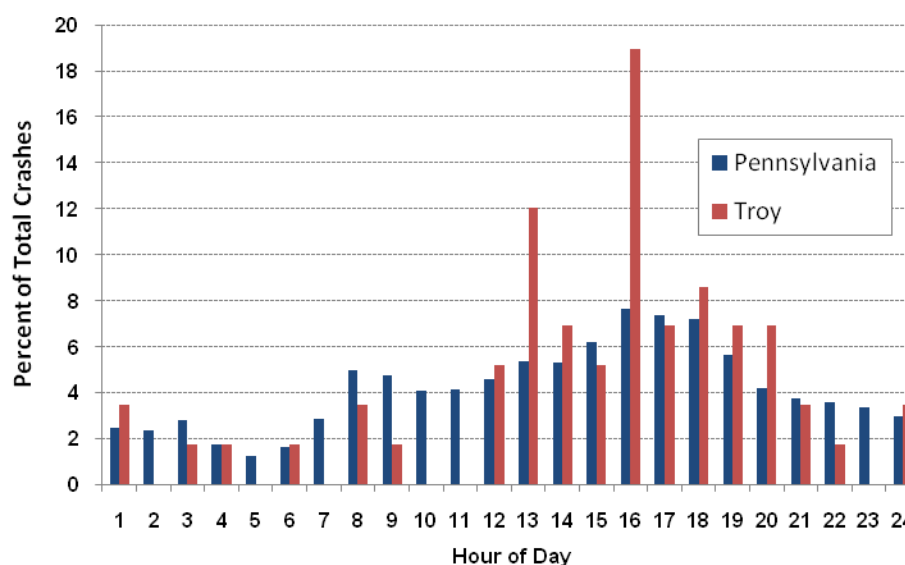
Perhaps most striking is a comparison of crashes in Troy against state rates by time of day. Figure 11 below shows that nearly one of out five crashes in the borough occurs between the hours of 3:00 and 4:00 p.m. The slope of the state’s curve is obviously more gentle, given its larger population base. Crash patterns in Troy however demonstrate far more variation, with peaks during the noon hour, and again during the 3:00 hour, during school dismissal.

“The dump trucks and water trucks that descend Route 6 from the west go through town at an amazing clip if the light is green.” –

*from the internet,
1/7/11*

⁶ It is unclear why there is a spike on Sundays, although the phenomenon could be the function of DUIs occurring on Saturday night, but not being reported until Sunday.

Figure 11: Crashes by Hour of Day, 2005-09



Source: PennDOT Bureau of Highway Safety

There are a variety of crash types within the borough, led by rear-end and angle collisions. Rates of these crash types are much higher in Troy than there are compared to Pennsylvania statewide. Area law enforcement officials have observed as a common problem being inattentive driving and motorists following too closely. Poor means of managing access to state roadways is a contributing factor to these types of crashes. Some examples include the area of US 6 between the Edgewood Restaurant and the Dandi Mart. Motorists have been observed using the center turning lane as a merging lane. Motorists have also been observed using Porter Road as a bypass.

There are also areas of the borough that appear to be prone to have speeding motorists, such as the segment of US 6 west of downtown. The borough has recognized this and has stepped up enforcement of this area adjacent to Martha Lloyd Community Services.

Table 9 below compares crash types in Troy Borough against Pennsylvania statewide.

Table 9: Comparison of Crash Type Rates, Troy and Pennsylvania, 2005-09

Crash Type	Troy		Pennsylvania
	#	Percent	Percent
Non-collision	n/a	n/a	3.6%
Rear-end	25	45.5%	21.2%
Head-on	1	1.8%	4.1%
Backing Up	n/a	n/a	0.1%
Angle	17	30.9%	25.6%
Sideswipe	3	5.4%	5.5%
Hit Fixed Object	7	12.7%	33.5%
Hit Pedestrian	2	3.6%	3.2%
Other	n/a	n/a	3.1%

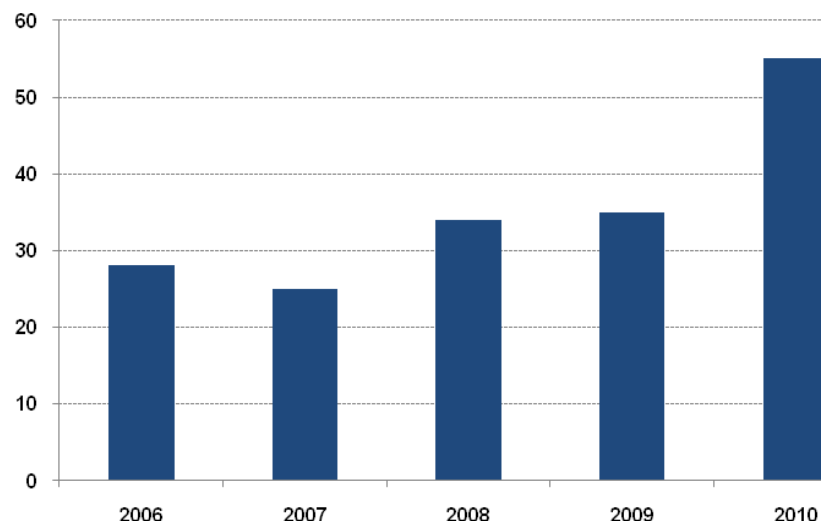
Source: PennDOT Bureau of Highway Safety; 2009 Crash Facts & Statistics

Non-reportable Crashes

Borough police forces respond to all “non-reportable” crashes. After some incidences, affected motorists exchange information and drive away, yet with the increase in traffic and crashes overall, the borough has begun making more of an effort to track these non-reportable crashes. Much of the non-reportable crash activity occurs downtown, where there are many “hit and run” type incidents. Other areas include along Canton Street and West Main Street. The area in front of the Pump and Pantry service station/convenience store is also an affected area, with motorists attempting to pass on the right. Incidences of non-reportable crash activity are more sporadic on the borough’s local street network.

Figure 12 shows how the frequency of such “non-reportable” crashes in the borough has generally increased since 2006. This trend appears to be in line with officers’ anecdotal assessment regarding an increase in crash activity overall (both reportable and non-reportable). From 2009 to 2010, the total number of non-reportable crashes in the borough increased by 20, or 57 percent.

Figure 12: Troy Borough Non-reportable Crashes, 2006-10



Source: Troy Police Department

The Borough has also participated in the Buckle Up program since the end of November 2010. Non-use of driver seat belts is still a secondary offense (except for children). Borough police work with “Survival 101” and driver’s education teachers from the school district to impress upon young motorists the importance of wearing a seat belt while driving. Most high school-age drivers have been observed not wearing a seat belt. “Survival 101” is an intense program that has been updated with relatively new material.

There is also the “The Back is Where It’s At” program, which is targeted towards grade school students. Since its inception in 1999, the elementary seat belt program provides law enforcement officers with tools to educate children about the importance of proper seat belt use. The curriculum was created for Buckle Up Pennsylvania and uses existing community resources.

Although there have not been any recorded fatalities involving pedestrians, the borough in recent years has tried using “sandwich boards” as a way of alerting motorists to the presence of pedestrians and crosswalks. The devices did not work however, and had to be removed, due to the width of the roadway. Law enforcement officials have indicated too that enforcement of crosswalks is challenging, with violators accusing the law of entrapment.

Traffic signing is also an important component of the borough’s transportation system, and directly relates to safety, wayfinding, and congestion. There are numerous signing issues within the borough, including signs that are outdated, missing, or too numerous. The lack of adequate signing contributes to unsafe conditions, such as motorists traveling the wrong way down one-way streets, such as frequently observed on Fenner Street.

It should be noted that, in December 2007, the Federal Highway Administration adopted minimum values for most types of signs and incorporated them into the Manual on Uniform Traffic Control devices, or MUTCD. The MUTCD requires entities such as Troy to implement a program to maintain minimum levels of retro-reflectivity by January 2012. Further, the compliance date for most regulatory, warning, and guide signs is January 2015, except the compliance date for street name signs and overhead guide signs is January 2018.⁷

⁷ FHWA’s minimum retro-reflectivity values are contained in Table 2A-3 of the 2003

Bridges

There are four state-owned bridges in Troy Borough that are greater than 8 feet in length. US 6 crosses Sugar Creek at the northern end of the borough (the John Burgess bridge), while PA 14 crosses two of its tributaries: the West Branch of Sugar Creek near Redington Avenue, and Fall Brook. Finally, SR 3032 (Fall Brook Road) crosses its namesake near the borough's southern boundary. PennDOT has classified PA 14's span across Fall Brook as being structurally deficient. Two of the state-owned bridges within the borough are more than 70 years old.

Table 10 provides more detail on state-owned bridges within the borough.

Table 10: State-owned Bridges Greater than 8 Feet

Carried	Feature Crossed	Length (in feet)	Deck Area (ft ²)	Year Built	SR	ADT
US 6	Sugar Creek	48	2,222	1940	82.3	9,753
PA 14	Fall Brook	32	1,376	1933	47	7,287
PA 14	W. Br. Sugar Cr.	34	1,666	2004	83.3	7,287
SR 3032	Fall Brook	19	798	1989	92	839

Source: PennDOT Bureau of Design, as of 9/30/10

The bridges within the borough that are locally owned are less than 20 feet in length, and thus not inventoried as part of PennDOT's bridge management system. There are however an estimated eight such structures within the borough at the following locations:

- Prospect Street over Fall Brook
- Willow Street over Sugar Creek
- Redington Avenue over West Branch, Sugar Creek (2)
- Newland Drive over West Branch, Sugar Creek
- Ballard Street over West Branch, Sugar Creek

edition of the MUTCD (the current accepted version by PennDOT).

- Fall Brook Road over South Fork, Sugar Creek
- East Main Street over Sugar Creek

During 2011, PennDOT will be working with Northern Tier and its counterparts to develop a more accurate inventory of the location and condition of locally-owned bridges, state-wide.

Turning Movement Counts

In an effort to evaluate the performance of the borough's main intersections, the study team conducted manual turning movement counts. The team conducted the counts on Tuesday, November 16, 2010 at the following locations:

1. US 6 at PA 14 in downtown Troy
2. US 6/Elmira Street at East Main Street (in front of C&N Bank)
3. US 6 at King Street⁸
4. US 6 at PA 14 North in Troy Township.

Intersection evaluations included performing turning movement counts at the study intersections during morning (6:00-9:00), midday (11:00-1:00), and evening (3:00-6:00) peak periods; using this data to perform a Synchro capacity analysis of the four intersections to determine their respective Levels of Service; and collecting and compiling field notes and photographs of existing conditions.

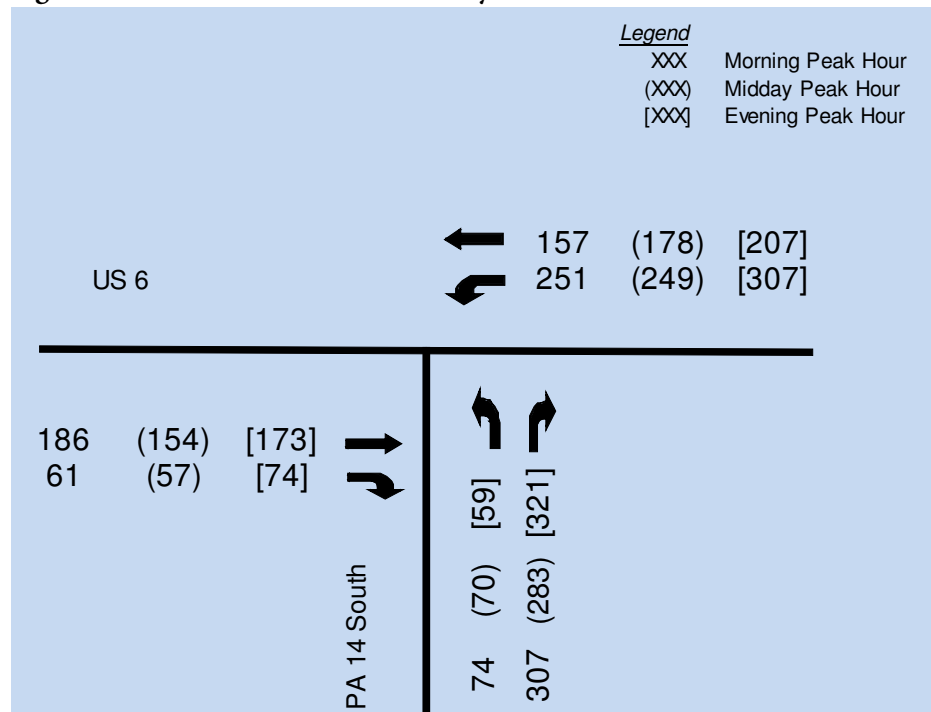
Intersection of US 6 with PA 14

The intersection of US 6 and PA 14 in downtown Troy is the only signalized intersection in Troy Borough. It is a T-intersection, with US 6 running east-west and PA 14 intersecting northbound. The signal itself was originally installed in 1986 and was last upgraded in April 2005. It is a pre-timed, three-phase operation with an eastbound/westbound phase, permitted/protected westbound left phase and a northbound phase. There is also a northbound overlap phase. The traffic signal permit obtained from PennDOT District 3-0 indicates that there is an all-pedestrian phase, however this did not appear to be functional.

The peak hour and levels of service for this intersection is shown in Figure 14, below:

⁸ Intersections 2 and 3 were performed on December 15-16, 2010

Figure 14: US 6/PA 14 Count Summary



Source: Gannett Fleming

From these data, the following levels of service (LOS) were determined, as shown in Figure 15.

Figure 15: Existing Levels of Service (LOS): US 6 and PA 14

			Existing		
Intersection	Approach	Mvt.	Peak Period		
			AM	MID	PM
# 1 US 6 and PA 14 South	US 6 Eastbound	T	D	B	C
		R			
	US 6 Westbound	L	F	B	D
		T	B	A	B
	PA 14 South Northbound	L	B	C	B
		R	A	A	A
	Overall		D	A	C

Source: Gannett Fleming

There was significant queuing observed at this intersection. The northbound and westbound approaches both queued. When observed, the queuing tended to be of shorter durations by different directions. There was not an extensive standing queue by approach; one direction would queue and later in the peak period another direction would queue.

There was wasted green time noted during the peak period. After all traffic demand traveled through the intersection for an approach, there was unused green time remaining for that approach while other approaches were queued.

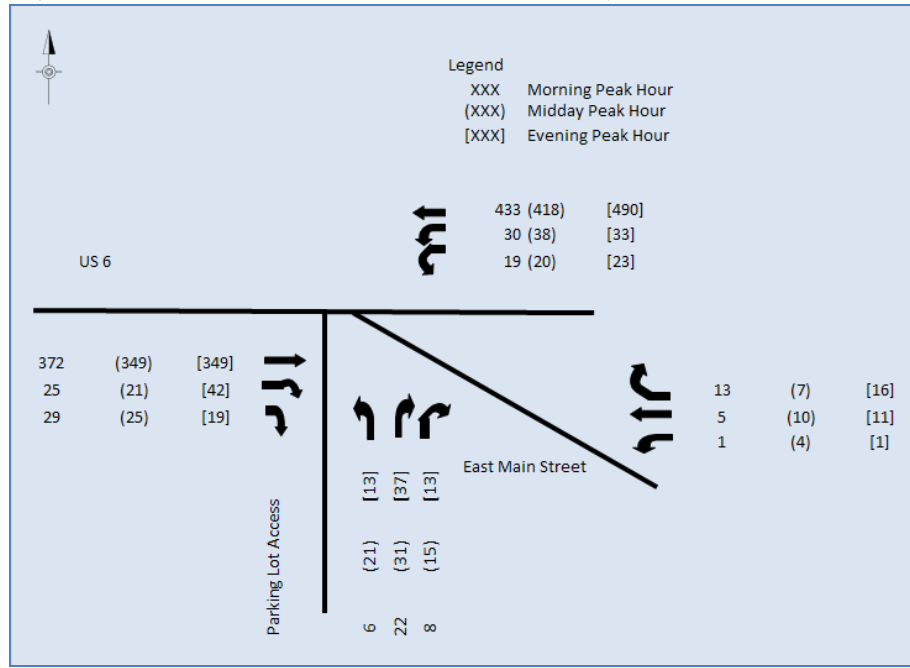
Both of these observations are characteristic of a pre-timed traffic signal. Pre-timed signals do not change the time given to a phase based on traffic demand, whereas actuated signals do. An actuated signal would be more efficient and improve intersection performance, and is actually a PennDOT District preference.

Intersection of US 6 with East Main Street

The intersection of US 6 with East Main Street is unsignalized. It is a three-leg intersection. US 6 changes direction through the intersection. West of the intersection, it runs east-west and east of the intersection, it runs northeast-southwest. East Main Street intersects westbound. Due to the proximity of the Dollar General parking lot to this intersection, traffic was also counted as a fourth leg of the intersection.

The peak hour volumes and existing level of service for this intersection are shown below in Figure 16.

Figure 16: US 6/East Main Street Count Summary



Pedestrian traffic was observed to be rather light; however, it was noted that most pedestrians crossing East Main Street would not use the existing crosswalk, perhaps due to the fact that it is not perpendicular to the approach. Pedestrians generally crossed approximately twenty feet further up the road perpendicularly. The other two crosswalks were generally used. The signalized intersection of US 6 and PA 14 South (Intersection 1), when red on US 6, would quickly queue through the intersection with East Main Street.

The following figure shows levels of service at this intersection.

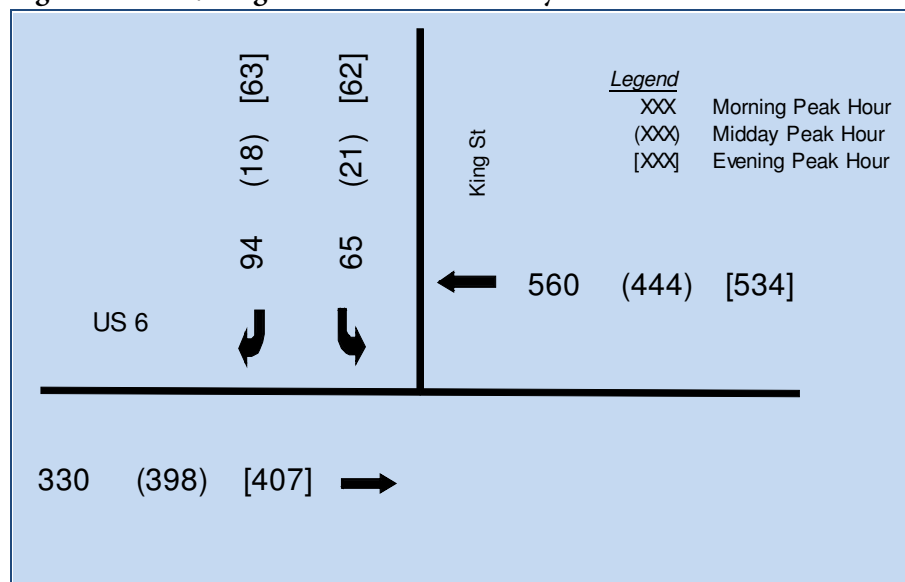
Figure 17: Existing Levels of Service (LOS): US 6 and East Main Street

Intersection	Approach	Mvt.	Existing		
			Peak Period		
			AM	MID	PM
# 2 US 6 and East Main Street	US 6 Eastbound	L			
		T	A	A	A
		R			
	US 6 Westbound	L			
		T	A	A	A
		R			
	Parking Lot Access Northbound	L			
		T	B	C	B
		R			
	East Main Street Westbound	L			
		T	B	C	C
		R			

Source: Gannett Fleming

Intersection of US 6 with King Street

This intersection is presently unsignalized. It is a three leg intersection with US 6 running east-west and King Street intersecting southbound. King Street is one-way southbound and is the primary exit for school buses coming from the schools on High and King Streets. The peak hour volumes and existing level of service for this intersection are shown below.

Figure 18: US 6/King Street Count Summary


It was noted that buses exiting King Street in either direction would line up single-file despite the two-lane approach of King Street to the intersection. Pedestrian traffic was rather limited; however, from 3:20-3:30 PM a crossing guard was present to aid about a dozen school children in crossing US 6.

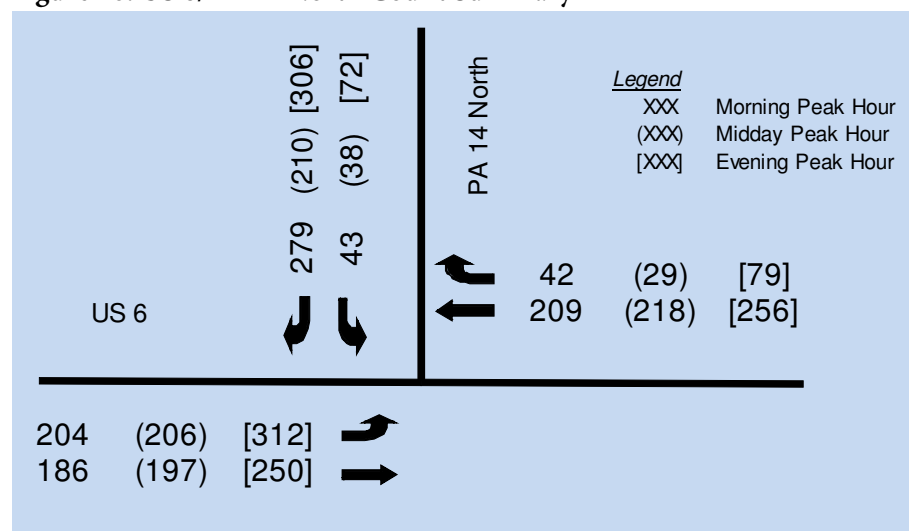
The following figure shows levels of service at this intersection.

Figure 19: Existing Levels of Service (LOS): US 6 and King Street

			Existing		
Intersection	Approach	Mvt.	Peak Period		
			AM	MID	PM
# 3 King Street and US 6	King Street Southbound	L	C	C	C
		R	B	B	B
	US 6 Eastbound	T	A	A	A
	US 6 Westbound	T	A	A	A

Intersection of US 6 with PA 14 North

This intersection is unsignalized. It is a T-intersection with US 6 running east-west and PA 14 intersecting southbound. The peak hour volumes and existing levels of service for this intersection are shown in Figure 20.

Figure 20: US 6/PA 14 North Count Summary


Source: Gannett Fleming

Figure 21: Existing Levels of Service (LOS): US 6 and PA 14 North

			Existing		
Intersection	Approach	Mvt.	Peak Period		
			AM	MID	PM
# 4 US 6 and PA 14 North	US 6 Eastbound	L	A	A	A
		T	A	A	A
	US 6 Westbound	L	A	A	A
		T			
	PA 14 North Southbound	L			
		R	E	D	F

Source: Gannett Fleming

Intersection of US 6 with Martha Lloyd

This is a pedestrian-actuated intersection intended to serve residents of the Martha Lloyd Community Services Campus. There is also a signal phase for a driveway for this campus where it intersects US 6. For the purposes of this study, the traffic signal permit for this intersection was obtained. No traffic data was obtained at this location. The intersection appears to function well. The side street (driveway) approach appears to have low traffic volumes, and few

pedestrians were observed crossing. Therefore, most of the green time goes to US 6.

Intersection capacity is an important consideration for this study, as it affects the traffic flow and levels of congestion through the borough. Congestion in the borough also affects emergency responders, who must take local streets in responding to calls. In many instances, accessing US 6 or PA 14 from local streets is difficult for them.

Traffic Safety Audit

A safety audit was performed for the following roadway segments within the Borough of Troy:

- US 6
- PA 14 South
- East Main Street
- Exchange Street
- Fallbrook Street
- High Street
- King Street
- John Street
- Paine Street
- Prospect Street
- Railroad/Willow Streets
- Redington Avenue.

Particular attention was paid to pedestrian-related issues. It should be noted that this safety audit represents the study team's best effort at identifying common existing deficiencies. It is not necessarily an exhaustive listing of all existing deficiencies. Common deficiencies noted throughout the borough include:

- Sidewalks in poor condition or missing altogether
- Crosswalks with faded markings or missing altogether
- Curb cuts that were not ADA compliant
- Access management issues along large segments of US 6 and PA 14
- Guide rails with improper end treatments
- Improper roadway markings
- Functionally obsolete bridges
- Directional signing that is faded, obsolete or otherwise not in compliance with the MUTCD.

A summary of the safety audit results is provided in the plan appendix.

Public Transportation

The Endless Mountain Transportation Authority (EMTA) offers 14 different fixed bus routes across the Northern Tier region and serves as the area's primary provider of public transportation services. EMTA serves Troy Borough with two distinct fixed bus routes, including:

- **Route 20**, which makes two runs daily on weekdays, connecting Troy to Canton, Towanda and Monroeton. The morning loop makes stops in Troy Hospital at approximately 6:20 and 8:00 a.m., while the evening loop stops there at 3:35 and again at 5:05 p.m.
- **Route 90** makes two runs daily on weekdays and connects Troy to Mansfield and Towanda. There is a posted stop at the Troy Dandy Mart, however riders can make a flag stop at any point along the route where it is safe to board and exit the bus. The eastbound bus stops at the Dandy Mart at 7:00 a.m. and again at 5:00 p.m. while the westbound bus stops there at 8:25 a.m. and 5:00 p.m.

EMTA also operates door-to-door transportation services for certain people within specialized programs, which are funded by the commonwealth. Those programs include:

- **Senior Shared Ride** – For residents age 65 or older
- **Persons With Disabilities** – For persons with a disability without access to other transportation
- **Medical Assistance** – For transportation to medical appointments
- **Access to Work** – For welfare to work participants
- **Human Service** – For transportation to human service providers

BicyclePA

In addition to its designation as an NHS route, US 6 has also been designated by PennDOT as "BicyclePA Route Y." The corridor serves as part of a broader statewide initiative in creating a network of cross-state bicycle touring routes to guide long-distance bicycle tourists through Pennsylvania.

Review of Other Planning Documents

There have been a variety of other planning studies completed prior to this mobility analysis. The study team has reviewed these documents for their relevance to the current study and from the standpoint of how they can inform existing conditions, trends, and issues. The studies and corresponding documents were recommended for review by the Project Advisory Committee and include:

- Community Comprehensive Plan for Troy Borough and Troy Township, July 2005
- Troy Borough Business District Conceptual Plan, July 2004
- Bradford County Comprehensive Plan, 2004
- PAWilds Design Guide, and
- Troy Borough Subdivision and Land Development Ordinance, 1978.
- Troy Borough Zoning Ordinance, 1957.

Community Comprehensive Plan

The community adopted a joint comprehensive plan (in collaboration with Troy Township) in July 2005. The community's comprehensive plan outlines its long-term goals and objectives and provides direction for decision-making across a variety of community issues, including transportation.

As part of the plan's development, a Troy Community Planning Commission administered a community survey that asked respondents to weigh in on a variety of community planning topics, including public facilities, utilities and services. Those that registered an average or low rating included public transportation, state highways, street maintenance, and downtown landscaping and benches. Issues such as sidewalks and curbing received a negative rating. Overall, the plan concluded that, "Overall, there is much positive feeling about the area and its quality of life, although certain needs, *especially economic ones*, require attention, according to the public" (emphasis added). The CBD was also viewed as not being pedestrian-friendly, especially for those attempting to cross US 6 and PA 14 at cross walks.

The plan offers several objectives and recommendations directly related to transportation, including:

- To discourage future strip or linear development along major highways, especially US 6, and encourage in-fill development within or directly adjacent to existing built-up areas...
- Formally request shoulder widening, surface improvements, pedestrian crossing and intersection improvements along the major

state highways in the Troy area.

- Formally request an analysis of the level of service of the intersection of US 6 and PA 14 east of the borough, to ascertain if any type of signalization may be warranted.
- Continue to encourage the timely bridge replacement on PA 14 over Sugar Creek that is presently programmed for 2003-04.
- Ascertain the condition of and seek assistance for improvements to the Ballard Street bridge.
- Create a more pedestrian friendly environment on US 6 in Troy Borough...through traffic calming techniques.
- Develop a sidewalk/trail interface between the Troy Business District and Alparon Park, focusing on a continuous sidewalk/trail between the business district and the BiLo/Family Dollar Plaza. This could be done via sidewalks along Elmira Street or old railroad right-of-way and cemetery bridge.
- Request that PennDOT analyze the possibility of a left turn lane from West Main Street (US 6) onto Center Street.
- Encourage the Endless Mountains Transportation Authority to carry out service improvements for the Troy area in the form of more frequent service and improved marketing of service.

The Joint Community Comprehensive Plan contains the following points relevant to this mobility analysis:

- Transportation Needs and Problem Areas include:
 - Troy Heights Area – Poor roadway condition and inadequate stormwater drainage.
 - Reddington Avenue and Prospect Street – Steep sided open ditches should be replaced with inlets and complete stormwater system.
 - Railroad Street – Drainage problems requiring inlets and curbing around the Penn Troy Factory.
 - US 6 and Center Street – Left turn lane needed for traffic turning from eastbound US 6 to Center Street.
 - Vehicle traffic volumes and turning movements create obstacles to safe and efficient pedestrian crossings in the CBD.

Pennsylvania Wilds Initiative

The Pennsylvania Wilds initiative is a collaborative state and local program that concentrates on creating a clear vision for the future of a 12-county region of Northern Pennsylvania and the types of improvements that must be made to establish the area as a premier tourist destination. While Bradford County is not included in the region, but is immediately adjacent to it. Bradford shares a common history, heritage, and landscape with the region, making the Pennsylvania Wilds initiative a worthy source of ideas and inspiration.



Pennsylvania Wilds Design Guide

The Pennsylvania Wilds Design Guide was developed by T&B Planning as a part of the Pennsylvania Wilds Initiative. The goal of the design guide is to present a comprehensive and consistent set of design guidelines that can be applied to the Pennsylvania Wilds region to assist communities in reaping the benefits of change and growth while protecting their uniqueness and character. It shows, in graphical format, how to preserve and enhance the communities of the region while also promoting the aspects that are common to and knit together the larger Pennsylvania Wilds 12-county territory.

All sections of the design guide have some relevance to and can inform the ongoing improvement of Troy Borough by its residents and officials. Three sections of the design guide, however, are particularly relevant to this mobility plan. These sections include:

- Section 3.D – Residential Neighborhoods Best Practices
- Section 3.E – Town Centers Best Practices
- Section 3.G – Roadway Corridors Best Practices

Troy Borough Zoning Ordinance

The zoning ordinance controls the location of various land uses throughout the borough as well as the area and bulk of improvements that may be built. The current ordinance was enacted in 1957. The zoning ordinance contains the following four zoning districts:

- R-a Residence District
- R-b Residence District
- C Business District
- I Manufacturing and Industrial District

In contrast to the zoning ordinance, the borough's zoning map, dated June, 25, 1959, depicts a total of nine zoning districts. These districts include four residential, three commercial, and two industrial zoning districts. This

inconsistency makes it difficult to understand and interpret the how to apply the zoning ordinance's regulations to various parcels throughout the borough.

The ordinance regulations appear to be generally reflective of the existing lot configurations and the locations of buildings upon those lots. It is interesting to note that the ordinance does not provide any minimum lot size regulations. While minimum lot sizes are not a requirement for a zoning ordinance, they are often used to establish the desired density of development, especially in residential zoning districts.

A more complete review of the ordinance would involve verifying whether the lots and buildings that exist today could be constructed using the regulations in the zoning ordinance. The zoning ordinance of a municipality that is largely developed, such as Troy, should contain regulations that would allow future development to generally align with existing development.

The sign provisions of the Zoning Ordinance are only applicable to the residential zoning districts. As such, there are no regulations governing the placement, size, or number of signs on properties within the C or I districts. This has the potential to allow signs to become visual obstructions to vehicular traffic, impede pedestrians, or cause other degradations to the transportation system and the borough's aesthetics.

The Zoning Ordinance does not contain any parking requirements. While this may have a positive influence by not requiring excessive parking to be constructed, it may also create some uncertainty for future development.

It is also relevant to note that because the ordinance has not been updated since its initial adoption over four decades ago, several of its provisions are outdated and the ordinance does not address any of the more recent requirements of the Pennsylvania Municipalities Planning Code.

Troy Borough Subdivision and Land Development Ordinance

A Subdivision and Land Development Ordinance (SALDO) is used to define the process by which land can be subdivided and developed. The SALDO states what information must be shown on subdivision and land development plans, provides design standards for features such as roadways, storm water management facilities, and water and sewer utilities, and lays out the

administrative process for reviewing and approving plans. Troy has a SALDO in place, which was adopted in 1978.

Troy's SALDO appears to be fairly comprehensive, but because it is rather old, some of its provisions are outdated or do not meet the current standards prescribed by the MPC. In addition, some of the ordinance's design standards contain requirements that are out of character with the borough's existing "village" form of development. A review of the SALDO revealed the following:

- **Section 427.6 – Driveways.** This section requires driveways to be at least 75 feet from intersections. This requirement may be difficult to meet on a smaller residential lot.
- **Section 432 – Sidewalks** In a town setting, such as Troy, sidewalks should be required in almost all situations. The current wording only requires sidewalks in some situations.
- **Section 432 – Curbing** Similar to sidewalks, the ordinance only requires curbing in some situations. A continuation of the town setting requires curbing in most instances.
- **Section 436.3 – Street Intersections** The required intersection spacing of 1,000 feet along arterial roads and 400 feet along collectors is too large and would not allow portions of Troy to be built in its current form.
- **Section 436.4 – Intersection Curb Radii** The curb radii specified are too large for Troy's town setting.
- **Parking Lot Layout** The SALDO does not contain any requirements for the layout and design of parking lots

Bradford County Comprehensive Plan

The Bradford County Comprehensive Plan was completed in March 2004 and was designed to function as a policy guide for the future development of Bradford County communities. The plan examined existing conditions within the county, projected future growth trends and then proposed goals, policies, and actions designed to accommodate expected growth while protecting the county's resources and quality of life. The following sections highlight the goals, policies, and actions from the plan that are most relevant to this current planning effort for Troy Borough.

Future Land Use Plan

The future land use plan divides the county into four general land use categories: Town Growth Areas, Village Growth Areas, Rural Resource Production Areas, and Resource Preservation Areas. Troy Borough is included in the Town Growth Area designation. The purpose of the Town Growth Areas is:

To accommodate and permit growth an development of intensive

land uses (residential, commercial, industrial and institutional) at overall densities of one unit per acre or less and where public infrastructure services (water, sewer, and telecommunications) are provided or planned.

Goal: Continue Sound Land Use planning efforts that are consistent with town, village, and countryside settings.

Policy: Support municipal and multi-municipal planning throughout the county.

Policy: Coordinate regulations, incentives and service areas to make specific areas attractive for development.

- Encourage higher density development potential through mixed-use, clustered, and Traditional Neighborhood Development and transit-oriented development techniques.

Economic Plan

Goal: Support small business merchants, especially in downtown business districts.

Policy: Assist the merchant community in developing, maintaining, and marketing viable sales and service operations.

Transportation Plan

Goal: Develop, maintain and improve travel routes that interconnect communities and provide access to regional highways and interstates

Policy: Coordinate state, regional, county, and local efforts and funding streams for efficient transportation system improvements.

- Provide testimony to present before the State Transportation Commission hearings on a biennial basis on needed capital projects within the county.
- Work toward the goals established by NTRPDC for the region's major highway corridors: US Routes 6 and 220, PA Routes 14, 187, 328, 414, and 706.
- Use of fuel tax revenues to jointly purchase road maintenance equipment and materials.
- Explore the creation of a County program to provide local matching monies for road and bridge improvements.
- Encourage the establishment of a regional position for contract administration of local bridge projects.

- Encourage municipalities to include access management practices in their subdivision and land development policies.

Goal: Provide transportation alternatives between communities as well as to natural and cultural assets.

Policy: Assist in implementation of strategic plans to achieve regional goals for multi-modal transportation.

- Continue financial assistance to Endless Mountains Transportation Authority
- Implement the strategies outlined in the Northern Tier's Bicycle/Pedestrian Plan for Bradford County.
- Explore the possibility of bus, min-bus, and trolley or taxi service between community centers or events.

Goal: Continue to support the presence and expansion of a multi-modal transportation network.

Policy: Pursue policies, acquisition, and funding in support of multi-modal and inter-modal transportation.

Community Facilities and Services Plan

Goal: Support councils of government, watershed organizations and other inter-municipal initiatives that coordinate community development, protection, and facilities and services.

Goal: Provide for recreational and cultural programming opportunities that encourage social interaction among all age groups and income levels

Policy: Expand and integrate recreational and cultural facilities and services.

- Review and revise downtown ordinances to require development to provide pocket parks or donate fees-in-lieu.
- Improve transportation services and alternatives (pedestrian/bicycle routes) between communities, community facilities, and special events.
- Coordinate public access to school athletic facilities, e.g., for adult sports programs.

Natural and Cultural Resources Plan

Goal: Support the preservation of historic architecture and architectural styles through both public and private funding.

Policy: Promote historic resource preservation and conservation, as

appropriate.

- Assist municipalities in developing detailed ordinances and development guidance/standards for site and architectural features, including signage, and streetscapes.
- Interconnect historical sites with local and county greenways and bicycle and pedestrian routes.

Troy Borough Business District Conceptual Plan

This 2004 document was designed to show a conceptual plan for revitalizing the Troy Central Business District through three groups of recommendations:

1. **Physical Improvements** such as storefront renovation, streetscape enhancement, and traffic calming improvements.
2. **Management Improvements** such as parking management, marketing, coordination, recruitment, and the Main Street Approach.
3. **Branding the area as a Destination** by using its agricultural heritage or its location on US Route 6

The report includes three sections that have direct relation to this study. Those sections are: Parking - Occupancy and Turnover, Pedestrian and Vehicular Traffic, and Streetscape Enhancements. The principal recommendations from each section are summarized below.

Parking - Occupancy and Turnover

This section concluded with four recommendations for making better use of the downtown's parking supply:

1. Strict enforcement of existing two-hour parking restrictions for on-street parking after a new off-street lot is developed for long term parking.
2. Location, marking, and enforcement of ½ hour convenience parking spaces at strategic locations.
3. Continued monitoring of the effect of increases customers and tourist on the parking supply
4. Consideration of the reinstallation of parking meters, with revenue devoted to downtown activities.

Pedestrian and Vehicular Traffic

This section described the need to address pedestrian accommodation and safety and discussed various traffic calming measures. Recommendations included textured crosswalks at the following locations:

1. Intersection of Route 6 and Route 14
2. Intersection of Center Street and Main Street/Elmira Street
3. Between the borough building and the Citizens and Northern Bank
4. On Route 6 West near Martha Lloyd
5. Mid block on Canton Street

Streetscape Enhancements

This section describes methods to enhance the streetscape and visual character of the Troy CBD. It ends with recommendations for over \$400,000 in streetscape enhancements that include:

- Benches
- Landscaping
- Bicycle racks
- Trash receptacles
- Ornamental light standards
- Sidewalk reconstruction