



Mansfield - Richmond - Covington Revitalization Strategy & Mobility Analysis

Connectivity Safety Town/Gown Aesthetics Water/Sewer Future

FINAL REPORT
September 2007



presented by
Gannett Fleming, Inc.
in association with
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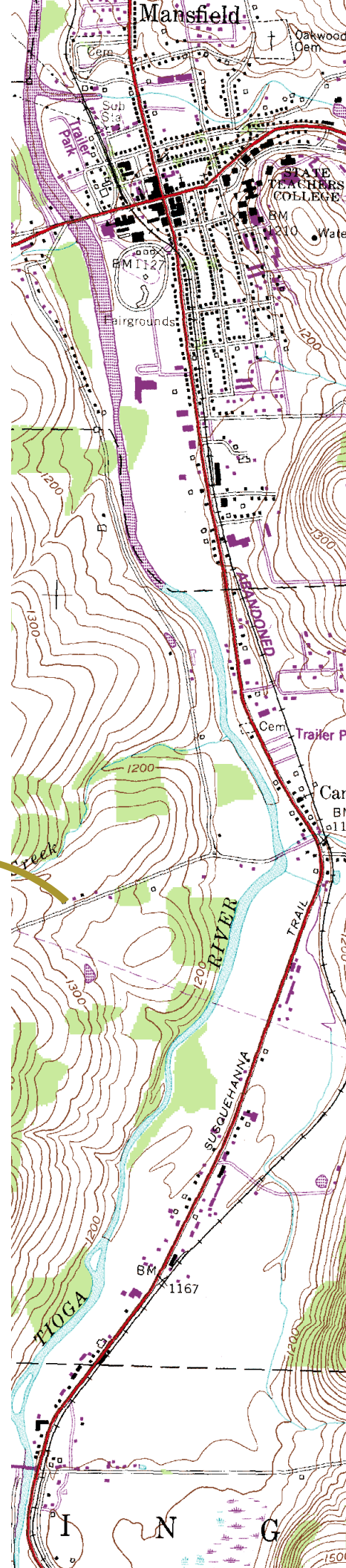
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Executive Summary



The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 1-A:



Fix flooding problems in the southern portion of the study area.

Recommendation 2-A:



Develop greenways from behind Greco's Market to Covington and from Greco's to Mansfield University.

Transportation – Land Use – Economic Development – It's all connected.

Why did we conduct this study?

We live in a great area—and we'd like to keep it that way. Of course, everything is continually changing, but with forethought and collaboration, we can help ensure that the changes we see over the coming decades are positive ones.

Many forces combine to influence a community. The stretch of Tioga County along Business Route 15 from Mansfield to Covington has seen tremendous growth in recent years, and the future promises continued investment in our area. Each type of development—from the completion of the four-lane US 15, to new businesses south of Mansfield, to the proposed industrial park at Routes 6 and 15—spurs other changes. Covington Township, Putnam Township, Richmond Township, and Mansfield Borough, in cooperation with Mansfield University and the Northern Tier Regional Planning and Development Commission, undertook this study to help shape that change.

Community leaders engaged a study team to analyze **transportation** (our roads, sidewalks, bikeways, public transit, and other facilities and services), **land use** (what type of development goes where) and **economic development** (from better jobs to new enterprises to expanded tourism).

The study Steering Committee established five primary objectives:

- Provide recommendations for amending the area's existing multi-municipal comprehensive plan.
- Foster inter-municipal planning and cooperation.
- Advance applicable best practices from other areas, and prevent the mistakes of other communities in community and transportation planning.
- Involve Mansfield University throughout the planning process.
- Advance recommendations to revitalize the Greater Mansfield area, with the commercial center of Mansfield as a strong community core.

The study is aimed at guiding the area's growth—encouraging enterprise while preserving the area's best qualities and making it an even better place to live, work, and play.

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 2-C:



Continue working with Mansfield University to match public transportation services with needs.

Recommendation 3-A:



Reactivate a Main Street Manager program.

What was studied, and how?

The Steering Committee (members listed on the back page) provided the overall direction for the study. The consultant team collected and analyzed data for the corridor related to:

People

- population patterns
- income
- employment and commutes

Transportation

- roadway network
- traffic levels
- accidents and safety concerns
- public transportation
- walking and bicycling

Land Use

- parcels and acreage devoted to agriculture, residences, commercial and industrial uses, etc.

In addition to the factual data generated, the team sought subjective input on the area's strengths, weaknesses, and opportunities from area leaders, residents, business owners, and students. Their input was collected through one-on-one interviews and mail and electronic surveys of property owners and Mansfield University students. The team also con-

ducted two public open houses during the course of the study to facilitate two-way communication with area residents, business owners, and officials.

Another phase of the study involved scenario development and analysis. The team used spreadsheet models to test the types and patterns of development that could occur under various scenarios given current zoning, and the impact it would have on the local transportation network.

Facts and opinions about the study area are highlighted on the following pages, and presented in full in the complete report.

Methodology:

- Steering Committee
- Data Collection
- Stakeholder Input
- Community and Student Surveys
- Public Open Houses
- Scenario Development and Analysis
- Final Report/Executive Summary

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 3-B:



Redevelop the armory for recreation purposes.

Recommendation 3-E:



Increase awareness of Mansfield University's Service Learning program.

Facts: Highlights of Corridor Data

- **Population:** The study area has a population density of 82 people per square mile, which is more than twice the county's rate. Nearly a third of the study area's population is younger than 20. During the 1980s and 1990s, population growth in the study area outpaced that of Tioga County overall, yet since 2000 it has remained flat.
- **Employment and income:** The dominant employment sector is education, health, and social services, which employs 28 percent of the study area's resident workers—most of whom enjoy relatively short commutes. Since 1989, per capita incomes have increased dramatically in Covington and Richmond Townships, yet they still lag state averages. In Mansfield Borough, incomes adjusted for inflation actually declined over the same period.
- **Transportation:** The area's roadway network is the backbone of its transportation system. The busiest intersection is Business 15 and Route 6 in Mansfield. Although the intersection is performing adequately, safety and performance could be enhanced through improvements such as new pedestrian signal heads ("walk" signals) and protected lefts (turn arrows).
- **Safety concerns:** Several locations in the study area present safety concerns. These include intersections with higher than average accident rates, missing or deteriorated sidewalks and crosswalks, stretches where motorists tend to speed, and locations where bicycling or walking is inconvenient and/or risky due to "missing links" and motor vehicle traffic.
- **Land use:** The study area covers approximately 5,870 acres, or 9.17 square miles. Nearly 50 percent of the study area is devoted to agricultural purposes. Industrial uses are focused on four parcels, all of which are in Mansfield Borough. Most of this land is located off Business 15 between US 15's interchanges with PA 660 and US 6.
- **Projected traffic:** If total "build-out" based on existing zoning ordinances were to occur, the study area could expect a 175 percent increase in traffic. If the 381 acres that are currently zoned as industrial were to be developed as such, trips from industrially-zoned parcels in the study area would be expected to increase by more than 3,000 percent.

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 3-F:



Explore a “retail incubator” in Mansfield in partnership with Mansfield University.

Recommendation 4-A:



Implement a “gateway” concept at the Canoe Camp interchange and other entrances to the area.

Opinions: What’s important to residents and students

Highlights of resident surveys and open houses:

- **Maintain the area’s quality of life and rural character.** This was the highest-scoring issue, with over two-thirds rating it as a high priority.
- **Bring jobs to the area and manage sprawl along Business 15.** The public rated these two topic areas as high priorities. They were the only two rated as high priorities by more than 50 percent of respondents.
- **Congestion is not a major issue at this time.** Nearly half of survey respondents said congestion is a “low priority.” Safety concerns also scored low (65 percent said there were minor to no safety issues), which is atypical for a study of this type.
- **Maintain a proper balance of development.** Town/gown issues, coupled with the development of needed recreation and cultural facilities and the preservation of agricultural and open space, all point to the need for a sustainable and planned development pattern.
- **Address flooding:** Although it was not a formal part of this study, flooding from the Tioga River and stormwater run-off were two of the most commonly cited issues.

Highlights of the MU student survey:

Needed transportation improvements

- Marked bicycle lanes on the main streets.
- Bicycle rentals, storage units, and racks.
- Expanded EMTA “Mountie” bus service.
- Shelter at the (inter-city) bus stop.
- Improved student parking.

Desired services and attractions

- Bicycle rentals.
- More retail such as book stores, hardware, individual storage sheds, quick copy places, etc.
- Entertainment: movie theatres, 24-hour restaurants, ice skating, roller skating, miniature golf, and updated bowling facilities.
- Chain restaurants such as Chili’s, Cracker Barrel, Olive Garden, Applebee’s, etc.

Aesthetics

- Remove above-ground power lines and improve the area’s entrances to enhance attractiveness. A general lack of streetscaping between Wal-Mart and downtown Mansfield was noted as detracting from the area.

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 4-B:



Make streetscape and other highway beautification improvements along Business 15.

Recommendation 5-B:



Accommodate pedestrians—make it safer and easier to walk.

What were the results of the study?

The study team developed 29 recommendations encompassing five broad themes:

- **Water & Sewer** - Addressing flooding issues and modernizing water supply and sewage facilities.
- **Connectivity** - Enhancing the links between areas and among transportation modes.
- **Town/Gown** - Strengthening the ties between the town and the college.
- **Aesthetics** - Preserving the area's natural beauty while improving the look of its man-made elements.
- **Future Development** - Shaping future investment by the private and public sectors.

Fourteen sample recommendations are listed in this summary. In the full report, more detail is provided on each recommendation—why it's important, who would be involved in implementation, what the expected results would be, and the timeframe. Certain recommendations could be implemented in the near future, while others would be longer-term initiatives.

The study recommendations lay the groundwork for more effective transportation infrastructure and services, a more vibrant and diverse economy, and future development that is aligned with our collective vision of our area.



An artist's rendering of how the Canoe Camp interchange might look if several recommendations were implemented (view from the US 15 overpass looking north on Business 15).

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 5-E:



Improve the area's two signalized intersections.

Recommendation 5-F:



Implement access management solutions and accommodate non-motorized modes.

What happens next?

For this study to produce results, its recommendations must be prioritized and implemented by a broad range of partners. The Steering Committee is leading the transition from study to implementation, but many local, regional, and state entities will have a role in implementation. These entities include:

- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- Mansfield University
- Betterment Organization of Mansfield
- Endless Mountains Transportation Authority
- Local businesses
- Mill Cove, Inc.
- Northern Tier Regional Planning and Development Commission
- Pennsylvania Association of Boroughs
- Pennsylvania Department of Community and Economic Development
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Transportation
- Pennsylvania Downtown Center

- Regional Recreational Authority (if formed)
- Southern Tioga School District
- Tioga County
- Tioga County Development Corporation
- U.S. Army Corps of Engineers

Are you interested in shaping the future of our area by becoming involved in implementation?

Please contact one of the steering committee members for further information:

Covington Township: Lisa Everett, 570-659-5439, covtwp@epix.net

Mansfield Borough: Ed Grala, 570-662-2315, mnsfield@ptd.net

Mansfield University: Dennis Miller, 570-662-4881, dmiller@mansfield.edu

Richmond Township: Verne Doud, 570-662-3380, richmondtpw@epix.net

The full report contains 29 recommendations. Fourteen are highlighted in this executive summary.

Recommendation 5-H:



Extend the school zone along Business 15 for Warren L. Miller Elementary School.

Recommendation 6-D:



Establish a Transportation Development District.

Transportation – Land Use – Economic Development – It's all connected.

Who led this study?

Steering Committee Members

- Rick Biery, Northern Tier Regional Planning and Development Commission
- Bob Blair, Tioga County Development Corporation
- Dick Colegrove, Mansfield Borough
- Verne Doud, Richmond Township
- Lisa Everett, Covington Township
- John Farrer, Mansfield Borough
- Shawn Forrest, Mansfield Borough
- Tom Freeman, Betterment Organization of Mansfield
- Ed Grala, Mansfield Borough
- Chris King, PennDOT District 3-0
- Dennis Miller, Mansfield University
- Bob Strohecker, Mansfield Borough
- Jim Weaver, Tioga County Planning Commission

Who paid for it?

Funding Partners

- Pennsylvania Department of Community and Economic Development
- Pennsylvania Department of Transportation/ Federal Highway Administration
- Betterment Organization of Mansfield
- Mansfield Borough Council
- Richmond Township Supervisors
- Covington Township Supervisors
- Mansfield University

Objectives and Methodology



Introduction/Study Objectives

Study Objective:
Determine the transportation projects needed to improve the area's mobility and economic competitiveness.

Proactive Community Planning

Mansfield Borough, Richmond Township, and Covington Township enjoy a history of collaboration around shared community goals. The municipalities recently adopted a joint comprehensive plan. Area leadership however, saw a need to move toward identifying more specific actions for improving the area's mobility and community revitalization efforts. This study was authorized to that end.

During its January 31, 2006, kick-off meeting, study steering committee members identified the following as study objectives:

- Provide recommendations for amending the area's existing multi-municipal comprehensive plan.
- Foster inter-municipal planning and cooperation.
- Advance applicable best practices from other areas, and prevent the mistakes of other communities in community and transportation planning.
- Involve Mansfield University throughout the planning process.
- Advance recommendations to revitalize the Greater Mansfield area, with the commercial center of Mansfield as a strong community core.

Methodology

Steering Committee

The study was guided by a 13-member steering committee comprised of individuals from the following organizations:

- Betterment Organization of Mansfield (BOOM)
- Covington Township
- Mansfield Borough
- Mansfield University
- Northern Tier Regional Planning and Development Commission
- PennDOT District 3-0
- Richmond Township
- Tioga County Development Corporation

Steering committee members actively participated in several review meetings and in the development of the final report.

Data Collection

Much of the study's data was collected from the U.S. Census Bureau and other sources, such as various PennDOT management systems. Census data was collected for a variety of indicators, a sample of which include:

- Total population
- Commuting patterns
- Mode split
- Travel time to work

University and Community Surveys

In addition to the hard data collected from national and state sources, the steering committee was also interested in the public perceptions of the area's land use and transportation conditions.

In May 2006, the study team administered an electronic survey of the students and faculty of Mansfield University. The purpose of the survey was to gain a better understanding of the perceptions students and faculty members had with respect to the area's transportation and land use. During the months of May and June, the team received 34 completed surveys.

The survey results pointed to a need for :

- improved student accommodation between the university and the surrounding community, and
- more cultural, recreational, and retail attractions in the area.

Summaries of the university survey appear beginning on page 48.

The study team also administered a survey to the community at large. With the assistance of the county's tax assessment office, the name and address of every study area property owner was identified. The resulting database included nearly 1,000 different property owners. The study team ultimately received 175 responses to the survey. The two surveys were helpful in understanding community priorities and were used in formulating the final study recommendations.

A copy of the survey instrument is included in Appendix B.

Methodology:

- Steering Committee
- Data Collection
- Stakeholder Input
- Community Survey
- Public Open Houses
- Scenario
- Development and Analysis
- Final Report/
Executive Summary

Stakeholder Input

The study team received stakeholder input through interviews with local officials and business leaders. The study team conducted interviews with representatives from each of the agencies represented in the steering committee (listed above), as well as:

- Endless Mountains Transportation Authority
- Mansfield Borough Police Department
- Mansfield University President
- PennDOT/Tioga County Maintenance Manager
- U.S. Army Corps of Engineers

Public Open Houses

Two major public participation events occurred at key milestones. The first, held October 12, 2006, at the Mansfield Fire Hall, completed the data collection phase. The meeting was designed to identify study issues. Participants viewed a PowerPoint presentation before moving to “stations” throughout the room related to land use and transportation. Members of the steering committee and study team answered questions and recorded comments and concerns. An exit survey was also made available at a third station.

The team hosted a second public open house (also at the fire hall) on June 19, 2007, to introduce the draft recommendations to the community for its reaction and comment. The team used a similar format, with a PowerPoint presentation complemented by boards of study information for participants to review. Both open houses were relatively well attended, drawing approximately 75 people each.



Public meetings in October 2006 and June 2007 were well attended.

Scenario Development and Analysis

A primary purpose of the study was to determine the appropriateness or suitability of the study area's land use management controls, or zoning. All three study area municipalities have zoning controls; these ordinances were evaluated to determine their future sustainability and effectiveness for the area. The study team used the following process in the creation and analysis of the development scenarios:

- The study area was organized into 19 traffic analysis zones, or TAZs. A total number of vehicle trips was generated for each, based on the underlying zoning district provisions.
- The number of vehicle trips was based on the data for each respective land use contained in the ITE Trip Generation manual.¹ Formulas and rates are provided for each land use based on square feet and dwelling units. These data were used to determine the number of vehicle trips occurring daily and during the peak hour.
- Local ordinances were reviewed to estimate the "building envelope" for each land use and provide the land coverage for a full build-out scenario. The projected vehicle trips by each TAZ were routed through the intersections within the study area in accordance with existing traffic patterns and volumes.
- Undevelopable land, such as steep slopes, floodplains, set-back areas, wetlands, etc., was removed from the calculations, leaving 2,470 acres of developable land in the study area.
- Zoning data from each TAZ was used to determine the total number of trips that would be generated if each TAZ were to experience a "full build-out" (or worst case traffic scenario) based on existing ordinance language.

The analysis revealed that if total build-out based on existing zoning ordinances were to occur, the study area could expect a dramatic increase in total traffic. Compared to the estimated current traffic, if the area were to be developed fully upon existing zoning, traffic would increase 175 percent over current volumes. Most of this projected growth would be associated with new industrial uses of land that is now zoned industrial but not currently used that way.

There are currently only 11.5 acres in the study area being used for industrial purposes. If the 381 acres currently zoned as industrial were to be developed as such, trips from industrially-zoned acreages in the study area would be expected to increase by more than 3,000 percent. Although trips would be expected to significantly increase, this does not imply that

1 Institute of Transportation Engineers, Sixth Edition

there would be a significant degradation of the highway network's performance. A majority of the area's industrially-zoned land is located adjacent to the interchanges of US 15, providing significant capacity for growth.

Final Report/Executive Summary

This report summarizes the study area's existing transportation conditions, trends and issues, as well as public comments and traffic analysis. Twenty-nine recommendations are included and found beginning on page 74. An Executive Summary geared toward a lay audience has also been prepared. It is included at the beginning of this report and is also available as a separately-bound booklet.

Background and Existing Conditions



Background/Historical Context

Transportation has played a significant role in the development of the Greater Mansfield area.¹ Since its formation in 1857, Mansfield has been served by various forms of transportation, from the Erie Railroad with its station along Elmira Street, to the construction of what is now known as Business Route 15 from Mansfield to Covington in 1905. Today, a modernized US 15 skirts the area's western perimeter, awaiting its eventual designation by the Federal Highway Administration as Interstate 99.

The area's leaders have long endeavored to improve its economy in response to community growth and changing forms of transportation. With the advent of the automobile, Mansfield's borough council in 1903 ordered the removal of hitching posts in the downtown area. Three years later, the borough acted to provide property owners with 25 percent of the cost of constructing cement sidewalks if built within specifications of the municipal ordinance. The entire area now faces a once-in-a-generation opportunity to take advantage of the benefits soon to be realized by a major new transportation investment—a new interstate.

The area's mobility and economic position require more than transportation infrastructure. Communities similar to Mansfield, Covington, and Richmond have sought to better manage land use as a way of directing development in sustainable ways, to support improved mobility and community revitalization.

As the study area greets the challenges of a new century, it does so with several favorable prospects:

- The designation of US 15 as I-99.
- The creation and development of the I-99 business park.
- A developing commercial area south of Mansfield in Richmond and Covington Townships.
- Civic engagement through such groups as the Betterment Organization of Mansfield (BOOM), Tioga County Development Corporation (TCDC), and Mansfield University (MU).
- Growing interest in strategically leveraging the asset of Mansfield University with its 3,360 students and 180 faculty and staff.

This study sought to build on the momentum of the areas mentioned above as well as the directions outlined by a recent (2004) multi-municipal comprehensive plan. The report recommendations emphasize



Together

***Mansfield Borough and
Mansfield University jointly
celebrated their 150th anniversaries
during 2007.***



***The future interstate designation of
US 15 has substantial implications
for land use, the volume and
pattern of traffic, and economic
development.***

¹ For the purposes of this study, all references to "Greater Mansfield area" unless otherwise indicated include the municipalities of Mansfield Borough, Covington Township, Putnam Township, and Richmond Township.

improving safety and mobility, strengthening the linkages between the civic and university communities, and providing considerations for the area's future development.

Existing Socio-Demographic Conditions

Before desired improvements can be defined for a community, it is important to understand the economic and demographic trends that shape the area. These factors play an important role in how changes in the area's transportation and land use patterns should be directed.

This section presents an economic and demographic profile of the study area across several community indicators. To summarize:

- **Relatively High Population Density** - The study area covers approximately 90 square miles with an estimated 2005 population of 7,362. It has a population density of 82 persons per square mile, which is more than twice the county's rate.
- **Flattening Population Growth Rates** - During the 1980s and 1990s, population growth in the study area outpaced that of Tioga County overall, yet since 2000 it has remained flat. Historically, Covington Township has led all study area municipalities in population growth rates, registering increases of 14 percent during the 1990s and an additional five percent between 2000 and 2005. The township has added 180 persons since 1990.
- **A Young Population** - The study area's population could be characterized as being very young. Nearly a third of the study area's population is younger than the age of 20.
- **Racially Homogeneous** - The study area is more racially diverse than the rest of Tioga County, yet is still overwhelmingly white (96 percent). Blacks and hispanics comprise the bulk of the minority population within the study area.
- **Disparities in Growth in Incomes** - Since 1989, per capita incomes have increased dramatically in Covington and Richmond Townships, yet still lag state averages. Real per capita incomes in Mansfield Borough actually declined over the same period.
- **Lagging Educational Attainment Rates** - The percentage of those earning high school diplomas in the study area is similar to state and national rates, yet the percentage of those with post secondary education lags far behind state and national averages.



Nearly a third of the study area's population is younger than 20.

- **Employment in Education and Health Care** - The dominant employment sector is education, health, and social services, which employs 28 percent of the study area's resident workers.
- **Short Trips to Work** - Study area workers generally have shorter commute times than their counterparts elsewhere in the county. A majority of study area workers (57 percent) are employed at destinations within the study area.

Total Population

Nearly one out of five Tioga County residents lives within the Greater Mansfield study area. The area has been a growth node within the county, with new residential and commercial development occurring adjacent to the modernized US 15 corridor. During the 1990s, more than half of the county's total population growth occurred in Covington Township. Population gains in both Covington and Richmond Townships have offset small population losses in Mansfield Borough and Putnam Township.

Population figures are a broad indicator of a community's vibrancy and economic performance. Census estimates from July 1, 2005, indicate that the study area's population growth slowed somewhat during the first half of the new decade, with only Covington Township reporting any appreciable gain. Many have moved to this rural township for the benefits of larger lots (two-acre minimum) and less expensive housing. Since 2000, Covington Township has led all study area municipalities with an annualized growth rate of one percent.

With regard to declines in Mansfield Borough’s total population, municipal officials have maintained that growth related to the university has not been reflected in the census’ numbers. There has been a substantial increase in the number of rental units and conversions in recent years, and MU requires both freshmen and sophomores to reside on campus. Nevertheless, the census estimates that the area’s population has remained constant at 7,362 since the official 2000 census numbers were posted.

Tables 1 and 2 provide more detail on population change among study area municipalities, Tioga County, and Pennsylvania from 1980 to 2005.

**Table 1: Total Population, 1980-2005
Greater Mansfield Study Area**

Municipality	1980	1990	2000	2005*
Covington Township	892	918	1,047	1,097
Mansfield Borough	3,322	3,538	3,411	3,354
Putnam Township	453	444	428	422
Richmond Township	2,157	2,305	2,475	2,489
Study Area Total	6,824	7,205	7,361	7,362
Tioga County	40,973	41,126	41,373	41,649
Pennsylvania	11,864,720	11,881,643	12,281,054	12,429,616
*Estimate from July 1, 2005				
Source: U.S. Census				

**Table 2: Population Rate of Change, 1980-2005
Greater Mansfield Study Area**

Municipality	Rate of Change			Numeric Change	
	1980s	1990s	2000-2005	1990s	2000-2005*
Covington Township	2.9	14.0	4.8	129	50
Mansfield Borough	6.5	-3.6	-1.7	-127	-57
Putnam Township	-2.0	-3.6	-1.4	-16	-6
Richmond Township	6.9	7.3	0.6	170	14
Study Area Total	5.6	2.2	0.0	156	1
Tioga County	0.4	0.6	0.7	247	276
Pennsylvania	0.1	3.4	1.2	399,411	148,562
*Estimate from July 1, 2005					
Source: U.S. Census					

Population Density

Population density refers to the area’s total population in relation to its total land area. The Greater Mansfield study area is nearly 90 square miles in size.² Richmond Township, as the largest study area municipality by land area, comprises nearly 51 square miles, or 57 percent of the study area.

The study area contains 18 percent of the county’s total population, but only 8 percent of its land area. This concentration of population (more than twice the county rate) makes the delivery of transportation services more efficient. This includes better bicycle/pedestrian accommodation, public transportation service, and shorter commutes.

Table 3 presents population density trends of the study area municipalities, Tioga County, and Pennsylvania from 1980 through 2005.

**Table 3: Population Density, 1980-2005
 Greater Mansfield Study Area**

Municipality	Land Area (Sq. Miles)	Persons Per Square Mile			
		1980	1990	2000	2005*
Covington Township	36.3	25	25	29	30
Mansfield Borough	1.9	1,748	1,862	1,795	1,765
Putnam Township	0.6	753	740	713	703
Richmond Township	50.8	42	45	49	49
Study Area Total	89.6	76	80	82	82
Tioga County	1,068.4	39	39	39	39
Pennsylvania	44,819.6	265	265	274	277
*estimate from July 1, 2005					
Source: U.S. Census					

2 The four municipalities involved in this study combined—Covington, Mansfield, Putnam, and Richmond—total 90 square miles. The actual study area is a subset of these municipalities consisting of only nine square miles. The reader should note that the census data shown in the report tables are for the entire municipality.

Age Group Distribution

In addition to total population trends, the distribution of a community's age groups is an important consideration and indicator with regard to community revitalization and mobility. The size of each age group affects the future growth and stability of the area's total population.

The population of the Greater Mansfield area is generally young. Its rate of school-age children (from elementary through college age) exceeds county and state levels. Conversely, its percentage of what could be termed "elderly frail" population (age 85+) is nearly half that of county and state rates.

At a municipal level, Covington Township has the study area's highest rates of elementary and preschool-age children. Both Covington and Richmond Townships have the area's highest rates of middle age population (35-64), an age group marked by stability and home buying, and an important source of tax revenue for various community services.

The elevated numbers for Mansfield Borough can be seen among the older school-age groups, with rates of 20- to 34-year-olds more than double the county rate. With such a disproportionate rate of young people, the Mansfield area in general needs to consider the recreational, cultural, and transportation needs of this demographic—a key focal point of this study. Table 4 provides more detail on the composition of the area's population.

**Table 4: Age Group Distribution (in percent), 2000
Greater Mansfield Study Area**

Municipality	Total	Age Group							
		< 5	5-9	10-19	20-34	35-54	55-64	65-84	85+
Covington Township	1,047	6.3	7.7	14.9	17.6	29.8	11.4	11.2	1.1
Mansfield Borough	3,411	3.4	6.9	24.5	36.6	14.5	5.1	7.6	1.4
Putnam Township	428	5.4	7.9	14.0	21.0	27.1	9.6	13.6	1.4
Richmond Township	2,475	5.7	6.6	17.0	16.2	30.7	11.2	12.0	0.6
Study Area	7,361	4.6	7.0	20.0	26.1	22.9	8.3	9.9	1.0
Tioga County	41,373	5.4	6.4	15.6	17.8	27.9	10.9	14.1	1.9
Pennsylvania	12 M	5.9	6.7	13.9	18.8	29.8	9.3	13.7	1.9

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Racial Composition

An analysis of the study area’s racial composition is important from the standpoint of environmental justice considerations. Federal law requires that the “benefits and burdens” of transportation projects on specific minority populations, as well as low income groups, be considered. This means that transportation programs and projects should not be advanced at one racial group’s (or low income group’s) expense. Another overarching tenant of the federal policy is that it should encourage the input of all user groups into the transportation planning and programming process for the benefit of the entire community.

In the Greater Mansfield area, a significant majority of residents are white, as shown in Table 5, below. Given the study area’s small percentages of minorities, estimated totals are shown. There are no Pacific Islanders residing in the study area.

Table 5: Racial Composition, 2000
Greater Mansfield Study Area

Municipality	Total	White	Black	Indian	Asian	Hispanic	Other
Covington Township	1,047	97.5	1	4	3	6	0
Mansfield Borough	3,411	93.3	142	11	26	34	13
Putnam Township	428	99.5	0	1	0	0	0
Richmond Township	2,475	97.6	11	9	13	17	6
Study Area Total	7,361	95.7	154	25	42	57	19
Tioga County	41,373	98.1	248	83	124	207	41

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Per Capita Income

Income reflects the relative affluence of an area’s population and its ability to support local public facilities and services. Table 6 presents the historic (1979 to 1990) per capita income trends for the study area municipalities. The per capita incomes presented here are from the 1990 and 2000 censuses. The U.S. Bureau of Labor Statistics’ Consumer Price Index (CPI) for the Northeastern United States was used to adjust the 1989 income levels for inflation to 1999 dollars. The CPI represents changes in prices of all goods and services purchased for consumption by households. Per capita income is significant because it serves as a barometer of consumers’ personal spending, which accounts for between one-half and two-thirds of the gross domestic product—an important indicator of an area’s economic health.

As shown in Table 6, the real growth in per capita income for Covington and Richmond Townships exceeded the growth rate enumerated for Tioga County and Pennsylvania. In Covington, per capita incomes grew by nearly 25 percent. This can generally be interpreted as a positive indicator of good jobs and economic performance. Per capita incomes in Putnam Township have actually declined since 1989, characterized by low incomes and wages that have been overtaken by inflation.

In Covington, per capita incomes grew by nearly 25 percent.

**Table 6: Adjusted Per Capita Income (in dollars), 1989, 1999
Greater Mansfield Study Area**

Municipality	1989 Per Capita Income (Unadjusted)	1989 Per Capita Income in 1999 Dollars	1999 Per Capita Income in 1999 Dollars	Real Growth in Per Capita Income (Percent)
Covington Township	10,081	13,543	16,802	24.1
Mansfield Borough	7,712	10,361	11,042	6.6
Putnam Township	10,916	14,666	14,349	-2.2
Richmond Township	11,343	15,239	17,650	15.8
Tioga County	10,290	13,825	15,549	12.5
Pennsylvania	14,068	18,901	20,880	10.5

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Workforce Characterization and Trends

Educational Attainment

Educational attainment levels are shown in Table 7 for the study area. They are a good indication of the resident population’s skill set. Many businesses look at this closely as they consider relocating or expanding.

High school graduation rates in the study area (74.3 percent) are generally on par with state (76.5) and national (74.5) rates. The percentage of those with post secondary education degrees such as graduate or professional degrees are nearly double the Tioga County rate, yet still significantly lower than state and national rates.

At a municipal level, Mansfield Borough has the area’s highest percentage of persons over 25 with at least a high school diploma, at 86 percent. Covington and Richmond posted similar rates.

**Table 7: Educational Attainment (in percent), 2000
 Greater Mansfield Study Area**

Municipality	Covington Township	Mansfield Borough	Putnam Township	Richmond Township	Study Area	Tioga County
Population, Age 25+	691	1,195	292	1,666	3,844	27,176
No high school diploma	14.7	14.5	16.4	14.9	14.9	19.6
High school graduate	49.5	27.7	49.0	38.7	38.0	44.6
Some college, no degree	18.1	17.9	18.2	17.3	17.7	15.3
Associate’s degree	6.9	5.1	6.8	9.1	7.3	6.3
Bachelor’s degree	6.9	16.4	7.2	10.2	11.3	8.5
Graduate or professional degree	3.8	18.4	2.4	9.8	10.8	5.7

Source: U.S. Census 2000 Summary File 3 Profile (Sample Data)

Among the study area employers, Mansfield University is the county’s second-largest, while Wal-Mart ranks 11th.



Resident Employment by Industry

Table 8 shows the percentage of employed residents working in various industries, regardless of occupation or municipality of employment. The dominant employment sector is education, health, and social services, which employs 28 percent of the study area’s resident workers. This is six percentage points higher than the state average, and eight percentage points higher than the national rate.

Manufacturing is also a key employment sector for the area, consisting of nearly one out of every six jobs, or 16 percent. Within the study area, approximately 545 people work in this industry sector.

At a municipal level, Covington Township leads all study area municipalities in employment in the agricultural (6 percent) and retail trade (16 percent) sectors. This is an indicator of that municipality’s growing evolution into a regional commercial center.

**Table 8: Resident Employment by Industry
Percent of Employed Population 16 Years and Older, 2000
Greater Mansfield Study Area**

Municipality	Covington Township	Mansfield Borough	Putnam Township	Richmond Township	Study Area	Tioga County
Total Workers	495	1,502	181	1,296	3,474	17,859
Agriculture, forestry, fishing	5.9	0.4	4.4	1.9	2.0	4.7
Construction	6.1	2.5	3.4	6.2	4.4	5.9
Manufacturing	24.4	6.7	27.1	21.1	15.6	24.0
Wholesale trade	2.2	1.3	1.0	3.3	2.2	2.0
Retail trade	16.0	10.2	10.8	15.4	13.0	12.2
Transportation & warehousing	8.7	3.1	4.4	6.7	5.3	5.5
Information	1.0	7.0	2.0	1.2	3.7	1.9
Finance, insurance, real estate	2.6	3.3	2.0	1.9	2.6	3.2
Professional, scientific	4.0	2.4	2.0	2.5	2.6	4.0
Education, health & social services	14.1	38.1	16.7	23.1	27.9	22.0
Arts, entertainment & recreation	7.1	16.8	15.3	7.6	11.0	6.8
Other services	5.5	3.1	10.3	5.4	4.7	4.1
Public administration	2.4	5.2	2.5	3.8	4.1	3.8

Source: U.S. Census 2000 Summary Wholesale Trade 3 (Sample Data)

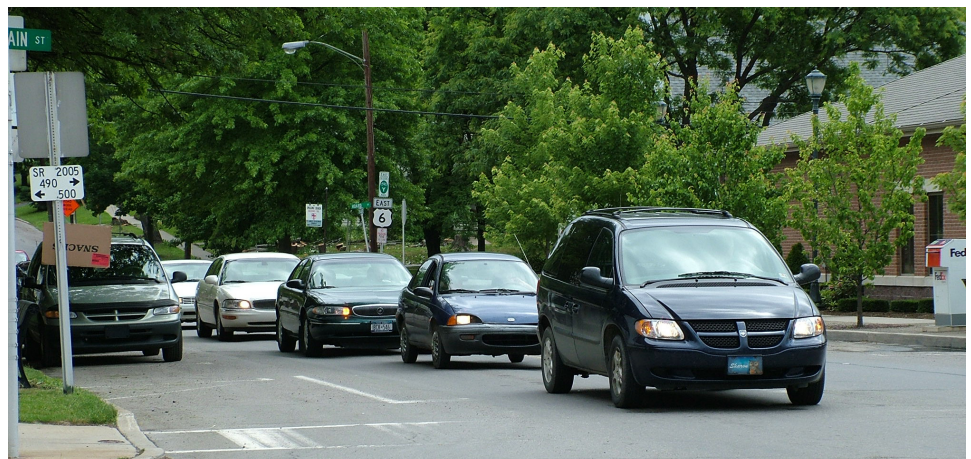
Resident Employment by Occupation

Employment by occupation refers to the type of job each resident performs. Table 9 indicates that occupation data is closely related to industry data, with the highest percentage of study area workers in jobs related to sales and office, and management, professional, and related occupations.

Table 9: Resident Employment by Occupation
Percent of Employed Population 16 Years and Older, 2000
Greater Mansfield Study Area

Municipality	Covington Township	Mansfield Borough	Putnam Township	Richmond Township	Study Area	Tioga County
Total Workers	495	1,502	181	1,296	3,474	17,859
Agriculture, forestry, fishing	5.9	0.4	4.4	1.9	2.0	4.7
Construction	6.1	2.5	3.4	6.2	4.4	5.9
Manufacturing	24.4	6.7	27.1	21.1	15.6	24.0
Wholesale trade	2.2	1.3	1.0	3.3	2.2	2.0
Retail trade	16.0	10.2	10.8	15.4	13.0	12.2
Transportation & warehousing	8.7	3.1	4.4	6.7	5.3	5.5
Information	1.0	7.0	2.0	1.2	3.7	1.9
Finance, Insurance, Real Estate	2.6	3.3	2.0	1.9	2.6	3.2
Professional, scientific	4.0	2.4	2.0	2.5	2.6	4.0
Education, health & social services	14.1	38.1	16.7	23.1	27.9	22.0
Arts, entertainment & recreation	7.1	16.8	15.3	7.6	11.0	6.8
Other services	5.5	3.1	10.3	5.4	4.7	4.1
Public administration	2.4	5.2	2.5	3.8	4.1	3.8

Source: U.S. Census 2000 Summary Wholesale Trade 3 (Sample Data)



Most area workers enjoy relatively short commutes.

Journey to Work Commutation Patterns

A slim majority of the study area’s resident workers are employed at destinations within the study area. This data provides a coarse indication of commuting, or “journey to work,” trip patterns, albeit more detailed than what is shown in Table 10, below.

Mansfield Borough is the only study area municipality that employs a majority of its resident workers, at 60 percent. Workers in Covington and Putnam Townships rely almost exclusively on other locales for employment opportunities. Covington Township is the only study area municipality that sends a majority of its workforce (61 percent) outside of the study area for employment.

Beyond the study area, the boroughs of Wellsboro and Blossburg are the two largest destinations of study area workers. Approximately 500 travel to Wellsboro; 350 travel to Blossburg. Nearly 150 work in New York State, while approximately 36 commute to Lycoming County. The Wardflex/ACP Manufacturing plant in Lawrence Township is also a fairly significant employment destination.

In Mansfield Borough, 60 percent of employed residents work in Mansfield. It is the only study area municipality to employ a majority of its resident workers.

**Table 10: Municipal Commuting Patterns (in percent), 2000*
Greater Mansfield Study Area**

Municipality	Covington Township	Mansfield Borough	Putnam Township	Richmond Township	Study Area
Total Resident Workers	482	1,372	187	1,188	3,229
Covington Township	11.8	1.8	12.8	1.6	3.8
Mansfield Borough	14.5	60.0	17.1	29.7	39.5
Putnam Township	0	0	9.0	0	0.5
Richmond Township	13.0	4.5	14.4	24.2	13.6
Work Inside Study Area	39.4	66.2	53.5	55.6	57.5
Wellsboro	22.0	10.2	18.7	18.7	15.6
Blossburg	22.6	4.7	19.3	12.0	10.9
New York State	2.7	5.5	3.7	4.0	4.5
Tioga Township	2.5	2.3	--	0.5	1.5
Lycoming County	1.2	1.1	--	1.2	1.1
Work Outside Study Area	60.6	33.8	46.5	44.4	42.5
*Does not include those working from home					
Source: U.S. Census 2000 Summary File 3 (Sample Data)					

**Table 11: Place of Work for Workers Age 16+ (by percent), 2000
 Greater Mansfield Study Area**

Municipality	Total	Worked in State	Worked in County	Worked Outside of County	Worked Out of State
Covington Township	493	97.2	91.5	5.7	2.8
Mansfield Borough	1,400	94.2	86.9	7.3	5.8
Putnam Township	196	95.4	90.8	4.6	4.6
Richmond Township	1,263	95.6	89.5	6.1	4.3
Study Area Total	3,352	95.3	88.8	6.4	4.7
Tioga County	17,859	85.7	90.7	9.3	14.2
Pennsylvania	5,556,311	95.4	77.1	22.9	4.6

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Over half of the study area's workers have a commute of 15 minutes or less, and nearly all have relatively short commutes.

Journey to Work Travel Time

Closely related to commutation patterns are commuter travel times. Workers in the Greater Mansfield area generally have shorter commute times than their counterparts elsewhere in Tioga County. Over half of the study area's workers arrive at their place of work in less than 15 minutes. Nearly 90 percent in Mansfield reported arriving at work within a half hour. This contrasts to the county rate of only 70 percent.

The relatively short commuter times—particularly in Mansfield Borough—once again speak to the need for appropriate accommodation of bicycle and pedestrian modes. Table 12 provides more detail on journey to work travel times for the study area municipalities.

**Table 12: Travel Time to Work (in minutes by percent), 2000*
 Greater Mansfield Study Area**

Municipality	Total	< 15	15-29	30-59	60-89	90+
Covington Township	482	38.2	43.2	13.1	3.5	2.1
Mansfield Borough	1,372	66.4	22.6	5.8	3.3	2.0
Putnam Township	187	49.7	35.2	10.2	2.7	2.1
Richmond Township	1,188	47.5	35.6	12.6	2.7	1.6
Study Area Total	3,352	52.3	30.0	9.3	3.0	1.8
Tioga County	17,544	37.6	31.8	24.3	3.8	2.4
Pennsylvania	5,390,000	30.3	36.1	25.9	4.7	1.9

*Does not include those working from home

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Journey to Work Mode Split

The Census Bureau also records workers’ means of journey to work. While this entails approximately 15 percent of all total trips, it is the most accurate information available in the absence of a regional travel demand model or other sophisticated analytical tool. It also indicates the importance of the various modes to the study area’s overall transportation system.

A majority of the study area’s journey to work trips are made by private automobile. Approximately three quarters of these trips are being made by single occupant vehicles (SOV), while an additional 13 percent carpool. Walking to work accounted for nearly six percent of all journey to work trips, with Mansfield Borough reporting the highest rate, at nearly 33 percent. This rate is over six times the county rate, underscoring the need for adequate sidewalks and other pedestrian facilities.

While public transportation services are available throughout the study area, there were no respondents indicating they used it as a means of journey to work.

With over five percent of its resident workers reportedly working from home, Tioga County as a whole has one of the highest such rates in Pennsylvania. Richmond Township has the area’s highest percentage of workers employed at home, at nearly six percent, or double the state rate.

Table 13 below provides more detail on the study area’s journey to work mode share characteristics.



Most people get to work by private automobile—13 percent of those carpool.

**Table 13: Journey to Work Mode Share, 2000
Greater Mansfield Study Area**

Municipality	Total	SOV	Carpool	Walk	Other	Work from Home	Mean Travel Time (minutes)
Covington Township	493	86.6	8.7	0.4	2.0	2.0	20
Mansfield Borough	1,400	55.5	8.4	32.7	1.3	2.0	14
Putnam Township	196	77.6	15.8	2.0	--	4.6	19
Richmond Township	1,263	79.5	13.2	0.4	0.9	5.9	19
Study Area Total	3,352	70.4	10.7	14.0	1.2	3.6	n/a
Tioga County	17,859	75.0	12.7	5.7	0.9	5.2	23.1
Pennsylvania	5,556,311	76.5	10.4	4.1	0.8	3.0	25.2

Source: U.S. Census 2000 Summary File 3 (Sample Data)

Existing Transportation Conditions

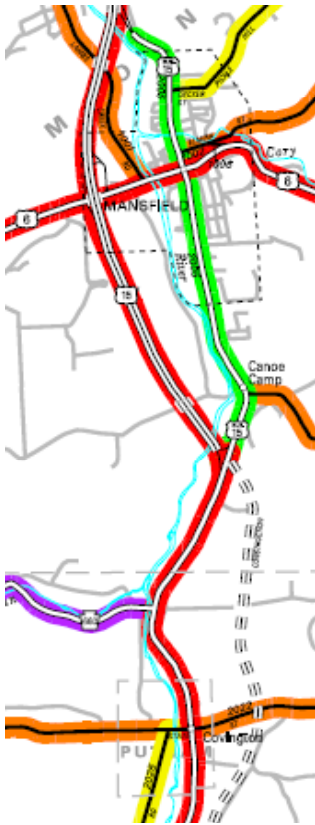
The study area is supported by a variety of transportation modes and services, discussed below.

Roadways

The area's roadway network is the backbone of its overall transportation system. The primary study roadways are US 15, Business 15 (also referred to as SR 2005), US 6, and PA 660.

Roadways vary widely in their characteristics and magnitude of service. In rural areas, there are four major roadway classifications: principal arterials, minor arterials, collector roads, and local roads. The region has inventoried its roadways and classified its major roadways as follows:

- **Rural Principal Arterials (US 6 and US 15)** – These are roadways that link cities and larger towns and form an integrated network providing interstate and inter-county service. US 6 and US 15 are also part of the National Highway System (NHS), a network identified by Congress in December 1995 as part of the nation's highest-order roadways.
- **Rural Minor Arterial (Business 15)** – These roadways provide service to corridors with trip lengths and travel densities greater than those predominantly served by rural collector or local roads. They should be designed to accommodate relatively high overall travel speeds, with minimum interference to through movement.
- **Rural Major Collector (PA 660)** – Rural collector routes such as PA 660 generally serve travel needs that are primarily intracounty rather than statewide in importance. Trips on these roadways are generally shorter in comparison, with slower speeds.
- **Rural Minor Collector (Decker Street/Pickle Hill Road [SR 1003] and Canada Road [SR 2025])** – These routes collect traffic from local roads and link locally important traffic generators with rural areas.



Source: PennDOT, 2004

Major roadways serving the study area

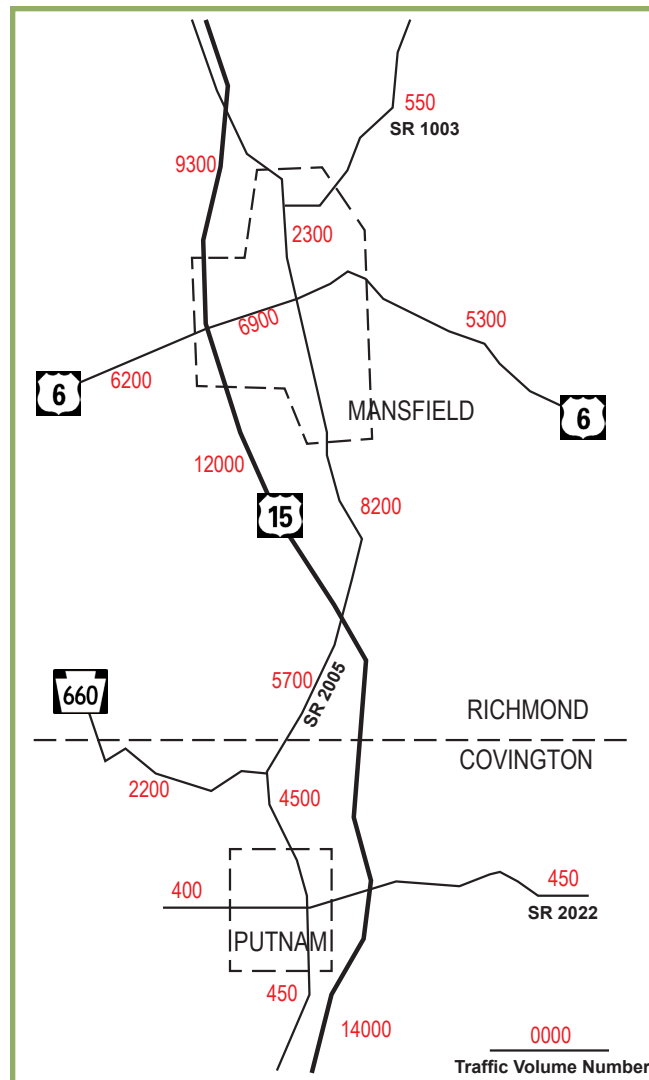
Annual Average Daily Traffic (AADT)

Transportation system data for the study area was collected through direct observation and analysis of existing databases and studies. The study team also conducted a manual turning movement count at the intersection of US 6 and Business 15 on Thursday, March 30, 2006.

Figure 1 shows 2006 24-hour traffic volumes for the major roadways within the study area. The highest volumes in the study area are on US 15 south of its interchange with PA 660 (14,000). Volumes on US 15 decrease as one moves northward, to approximately 9,000 north of the US 6 interchange. Traffic volumes on Business 15 through Mansfield average 8,200. These current volumes will be used as a baseline in estimating future travel demand in the study area, based on differing development scenarios.



**Figure 1: Annual Average Daily Traffic Volumes, 2006
 Greater Mansfield Study Area**



Volumes shown are 2006 Annual Average Daily Traffic based on the most current count information available.

Crash History

PennDOT crash data from 1999 through 2004³ indicate that there were 92 reportable crashes in the study area. None of the crashes involved fatalities. A description of crashes on each study area roadway follows:

- **US 6** - The majority of study area crashes (36) have occurred on this

³ Crash information for 2002 and 2005 was incomplete at the time of this study. As such, data for 2002 and 2005 are not included in this report.

roadway. Angle collisions were the most common crash types (14).

- **US 15** - For 2003 and 2004, there were nine reportable crashes on this new limited access roadway.
- **PA 660** - 14 crashes, with half involving minor injuries.
- **Business 15** - The number of crashes on this roadway has decreased every year since 1999, when 12 reportable crashes were recorded. There have been a total of 33 crashes since then. Nearly half of all crashes on Business 15 involved rear-end collisions.

Mansfield Borough also collects crash data for non-reportable incidents. A summary of key issues related to safety in the borough include:

Pedestrian signal heads – Originally there were signal heads on both sides of the street at the intersection of Business 15 and US 6. Today it is difficult for pedestrians to know when to cross when the signal changes. The intersection may benefit from pedestrian phases, particularly during morning and evening peak periods. Between 11:00 p.m. and 6:00 a.m., the signal reverts to an automatic flash (red east and west and caution north-south). The borough has been experiencing more late-night and early morning traffic and has been receiving complaints regarding the automatic flash as the borough encounters more “out-of-towners” who are not familiar with that scenario.

Parking - Diagonal parking is an issue on Business 15/Main Street. The angle parking and lack of turning lanes contribute to crashes, many of which are related to angle and rear-end collisions. Rear-end crashes occur from motorists attempting to turn at the intersection with others trying to pass.

Speeding - In the mid-1990s, borough police noticed an increase in speed-

Nearly half of all crashes on Business Route 15 involved rear-end collisions.



Angle parking on Main Street



Growth at Kingdom, Inc., contributes to traffic at the intersection of Route 6 and Lambs Creek Road.



Cut-through traffic behind Mansfield High School is a safety concern during school hours.

ing on US 6 West. Posted speeds used to be 25 mph from Business 15 to the Tioga River bridge before increasing to 35 mph. A PennDOT study revealed the average speed to be 33-34 mph. The borough is interested in possibly extending both speed zones (the 25 mph zone and 35 mph zone) farther west. Posted speeds are currently 35 mph on US 6 West past the school, and there is no restricted zone by the school.

Cut-through traffic – The borough initially approached the school district in the late 1990s regarding the increase in cut-through traffic on Besaneecy Drive. School administration has raised it as a safety concern. The circumstance is mainly an issue during school hours, not during evening hours or weekends.

School zones - The high school could also benefit from having school zone signs, similar to what exists for the elementary school on Business 15. The borough at one time considered marking a crosswalk across from the high school, although none presently exists. In the case of the elementary school zone, it could be lengthened so it is easier for officials to enforce.

Bicyclist safety – Borough officials report a fair amount of bicycle activity in the borough, with crashes occurring only on very rare occasions. Officers report bicyclists riding on the sidewalks as a recurring problem.

**Table 14: Non-reportable Accidents (1999-2004)
 Greater Mansfield Study Area**

Location	Total	2004	2003	2002	2001	2000	1999
North Main Street	26	1	1	8	5	3	8
South Main Street	38	4	11	6	8	6	3
Wellsboro Street/US 6 (W/Sq/E)	23/6/8	5/2/2	8/4/1	3/0/1	2/0/2	3/0/2	2/0/0
Totals	101	14	25	18	17	14	13

Source: Mansfield Borough police reports

Turning Movement Counts

The busiest intersection in the study area is Business 15 and US 6 in downtown Mansfield. A manual turning movement count was performed here during peak periods⁴ for two purposes: 1) the intersection represents a potential bottleneck for commuters and shippers in accessing higher-order roadways (namely US 15) of the regional highway network; 2) the turning movement counts were used as a baseline for various land development scenarios. Peak period turning movements are depicted in Figure 2. Pedestrian counts were also part of this evaluation, and are recorded and depicted in Figure 3.

**Figure 2: Peak Period Turning Movements
Business 15 and US 6**

		BUS 15 North			Legend		
					XXX	(XXX)	[XXX]
					XXX	(XXX)	[XXX]
					XXX	(XXX)	[XXX]
US 6 West	←	64	(64)	[65]	8	(47)	[57]
	↓	224	(183)	[217]	161	(147)	[148]
	↶	34	(37)	[26]	97	(101)	[135]
		BUS 15 South			US 6 East		
	↷	43	(50)	[68]	91	(88)	[111]
	↓	188	(107)	[126]	112	(189)	[222]
	↸	111	(121)	[116]	53	(80)	[101]

Based on the data presented in Figure 2, the intersection functions adequately. Of the total vehicular volume observed over the three peak periods (3,792), 105, or 2.8 percent, were trucks. The highest percentage of truck traffic occurred during the mid-day peak period, when trucks consisted of more than 7 percent of the total westbound traffic stream from US 6. Truck volumes in the intersection are relatively low, now that the

⁴ The morning peak period was from 7 a.m. to 9 a.m.; mid-day peak was from 11 a.m. to 1 p.m.; evening peak period was from 3 p.m. to 5 p.m.



The study area's busiest intersection is Business 15 and US 6 in downtown Mansfield.



At mid-day trucks account for seven percent of westbound traffic on Route 6 through Mansfield.

four-lane US 15 bypass exists just west of the borough. The intersection is still a critical one, especially for goods originating east of Mansfield using US 6 to gain access to US 15.

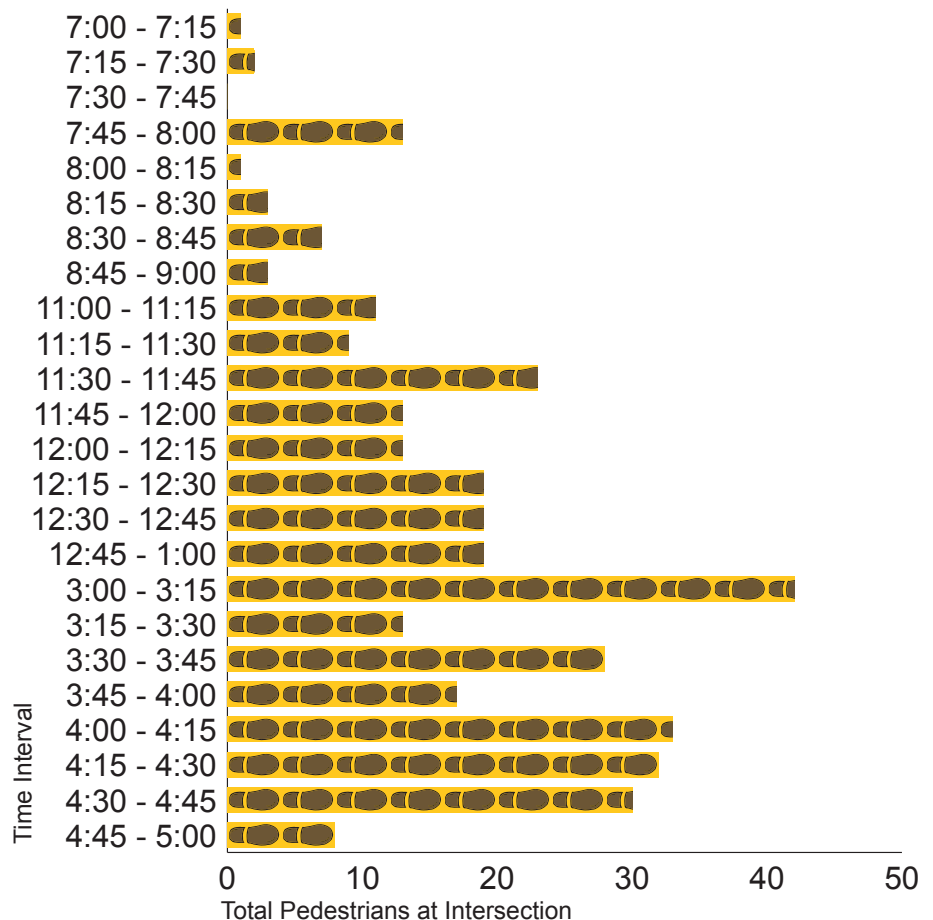
Pedestrian counts

Significant pedestrian activity was observed in downtown Mansfield, even on a cold winter day in March. A total of 360 pedestrians were observed crossing the intersection during the three peak count periods. The heaviest pedestrian activity by far occurred during the p.m. (3-5 p.m.) peak, when more than 200 pedestrians crossed the intersection. The peak hour of pedestrian activity occurred between 3:45 and 4:45, when 112 pedestrians were observed crossing the intersection, while the busiest 15-minute interval during the day was between 4:00 and 4:15, with 42 pedestrians. Figure 3 and Table 15 provide more detail on pedestrian activity during the three peak periods.



Pedestrian activity is greatest right after school.

Figure 3: Observed Pedestrian Crossings Business 15 and US 6



Source: Gannett Fleming Manual Turning Movement Count, March 30, 2006

**Table 15: Observed Pedestrian Movement
Intersection of Business 15 and US 6**

Period	Time	Direction			
		Southbound	Northbound	Eastbound	Westbound
AM Peak	7 - 9 a.m.	11	5	6	7
Mid-Day	11 - 1 p.m.	30	31	18	11
PM Peak	3 - 5 p.m.	54	84	41	19
Total		95	120	65	37

Source: Gannett Fleming Manual Turning Movement Count, March 30, 2006

Traffic Safety Audit

A traffic safety audit of the study area was performed along its primary roadways (US 6 and Business 15). The audit evaluated the condition of transportation facilities, including the presence of sidewalks and their condition, crosswalks, and other safety-related observations and ideas. The following safety concerns were observed:

- **Crosswalks** - There are faded markings of mid-block crosswalks on Business 15 north of US 6.
- **Missing Crosswalks** - There are no pedestrian crosswalks in front of the Video King on Business 15. A sidewalk on the north side of US 6 west of Business 15 abruptly ends in front of the high school; there is no crosswalk to guide pedestrians across the street (right).
- **Signal phasing at Business 15 and US 6** does not provide for a protected left (turn arrow) for those turning from US 6 westbound to Business 15 southbound, nor for motorists turning from Business 15 northbound to US 6 westbound.
- **The dog-leg intersection of Spencer Road with Business 15** near Wal-Mart has been an accident location.
- **Connectivity** - There is poor access and signage between Business 15 and the Army Corps bicycle trail behind Greco’s Market.
- **Discontinuous sidewalks** - From the intersection in Mansfield, sidewalks are discontinuous along Business 15 to a point near the post office.
- **Sidewalk conditions** - Along Business 15, sidewalks appear to be in poor condition in some places north of Decker Street in Mansfield Borough and in Putnam Township.



The sidewalk ends abruptly with no crosswalk in front of Mansfield High School.



EMTA ridership continues to increase.

Public Transportation

The Endless Mountains Transportation Authority (EMTA) is the area's primary provider of public transportation services. EMTA serves the Greater Mansfield study area with five different routes and services, described below:

- **Route 30** - Monday through Friday service from Blossburg to Wellsboro via Mansfield. The service runs four times each day.
- **Route 45** - Monday through Friday service from Mansfield to Lawrenceville and Elkland, one trip out and back each day.
- **Route 70** - Saturday service from Wellsboro and Mansfield to the Arnot Mall in Elmira, NY, with a three-hour layover.
- **Route 80** - EMTA's "Mountie Express" service provides 20-minute headways between Wal-Mart and various destinations within the campus of Mansfield University, including its satellite parking lots.
- **Route 80** - "Mountie Express Nights" runs from 9 p.m. to midnight on Sunday through Thursday, and from 9 p.m. to 2 a.m. on Fridays and Saturdays.

In response to increasing demand, EMTA on August 28, 2006, began a new route linking Mansfield with Towanda. The service runs twice daily and costs \$4 per round trip. The service is expected to provide transportation for commuters to employment destinations in Towanda, while providing a transportation alternative for students commuting from Bradford County to Mansfield. EMTA continues to experience increasing demands for its transportation services—ridership during the 2006 fiscal year exceeded 2005 levels by more than 30 percent.



Improving connections and signage to the Army Corps hiking trail behind Greco's would enhance its usability.

Walking and Bicycling

The "walkability" of the study area is an important community revitalization issue, as communities seek to improve their quality of life in part through improved accommodation of bicycle and pedestrian modes and overall traffic flow. Within the study area, more than 14 percent of workers walk to work. Only in Mansfield is walking such an important component of journey to work, with nearly one-third of survey respondents reporting that they walk to their place of employment. In addition to those walking to work, it is also important to accommodate pedestrians who are shopping, socializing, exercising, etc. Sidewalks are available throughout most of the study area and are discussed in greater detail in the safety audit section of this chapter.

The Army Corps of Engineers’ levee beside the Tioga River: Many pedestrians have been observed using this as an off-road connection between the high school in downtown Mansfield and Business 15 south. There are security concerns associated with formal permission of public access to the property, as well as issues with the erosion that would be caused by greenway use. These are concerns, although greenways have been done in similar areas such as Williamsport and Montoursville, and in Corning, New York.

The Army Corps also maintains a bicycle trail with a trailhead behind Greco’s Market and the borough maintenance shed in Mansfield. Bicycle and pedestrian access between the borough’s existing sidewalk network and the Army Corps trailhead is currently poor at best, and has been raised as a study area issue.



The entrance to the hiking/biking trail is hard to find behind Greco’s.

Land Use Characteristics

The study area covers approximately 5,870 acres or 9.17 square miles. Table 16 summarizes the study area’s various land uses. A map of study area land uses can be found in Appendix C.

**Table 16: Study Area Existing Land Use
Greater Mansfield Study Area**

Land Use	Parcels	Acreage	Percent of Total
Agriculture/Natural Resources	131	2,930.5	50.0
Residential (Single Family, Multi-Family)	806	952.4	16.2
Forest/Wooded	39	658.9	11.2
Open Space/Undeveloped Land	64	530.9	9.0
Commercial Retail/Mixed Use	182	439.6	7.5
University	20	194.1	3.3
Public, Cultural, Educational & Related	43	147.8	2.5
Industrial	4	14.7	0.3
Total	1,289	5,869.1	100.0

Source: NTRPDC GIS, Gannett Fleming

Highlighting a key area of focus for this study, nearly 50 percent of the study area is devoted to agricultural purposes. The areas surrounding the new US 15 comprise the majority of the undeveloped or agricultural land. The northern portion of the study area is characterized by forested tracts of land interspersed with residential development. Agricultural uses are dispersed throughout the study area away from the Business 15 corridor.



The levee along the Tioga River provides a natural off-road connection between the school and areas south of Mansfield.

The study area also has a fair amount of open space and undeveloped land, with 531 acres, or nine percent of the total study area (for study purposes, agriculture land uses were not considered as undeveloped). However, it should be noted that these parcels could develop as residential or nonresidential land uses if they are no longer actively farmed and/or are sold. This land would also have to be in a zoning district that permits such uses.

Arguably the most strategic land area within the study area is the Dorsett farm near US 15's interchange with US 6 in Mansfield Borough. Its strategic location and available utilities give this area significant potential for development. The Betterment Organization of Mansfield (BOOM) in fact received \$3.7 million in funding to develop this site through property acquisition, roadway construction, extension of utilities, excavation, and grading. The development of the 84-acre parcel (47 acres are developable) into 28 lots for new businesses (commercial and light industrial) must be closely coordinated with investment in the area's surrounding transportation infrastructure in order to maintain an efficient flow of people and goods. A proposed traffic signal at the intersection of US 15's northbound off-ramp with US 6 will help manage the capacity of the area's roadways.

Residential land uses (particularly in Putnam Township) constitute the most prevalent developed land use, comprising 16 percent of the study area. Most of the residential development consists of single family dwellings with public water or sewer. Expansion of the existing sewer and water infrastructure into unserved areas offers potential to increase residential development. Over 68 percent of land in Putnam Township is used for residential purposes; in Mansfield Borough, the rate is 28 percent.

A significant land use in Mansfield Borough (if not the rest of the study area) includes land devoted to public, cultural, and educational-related uses. This land use is comprised of schools and public buildings and represents 2.5 percent of the total study area. In Mansfield Borough, the university consumes approximately 126 acres, or 12 percent of all borough land area.

Commercial retail/mixed use such as retail shops, grocery stores, restaurants, second floor apartments above retail businesses, and others comprise approximately 7.5 percent of the land uses. Most of this land use is in downtown Mansfield and a growing commercial strip along Business 15 in Richmond Township. Commercial growth is slowly moving southward and into Covington Township, where 11 percent of the township's portion of the study area is devoted to commercial uses. In Richmond Township, the rate is 7.3 percent, while in Mansfield, the rate is 6.5 percent.

The Dorsett farm's strategic location and available utilities give this area significant potential for development.

Industrial land uses comprise less than one percent of the study area's land uses, or less than 15 acres. Industrial uses are focused on four parcels, all of which are in Mansfield Borough. Most of these land uses are located off Business 15 and are situated directly between US 15's interchanges with PA 660 and US 6.

Study Area Zoning

All three study area municipalities have adopted their own zoning ordinances. The ordinances permit a variety of land uses from agricultural to industrial.



Commercial development continues to move south along Business 15 between Mansfield and Covington.

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Public and Stakeholder Involvement



Public and Stakeholder Involvement

This section summarizes the results of efforts made at engaging both the public and various area stakeholders.

There were two major public involvement initiatives: online surveys of Mansfield University students and faculty, and two public open houses. Results of both efforts are highlighted below.

Mansfield University Student Survey

In addition to the hard data collected from national and state sources, the study team was also interested in the public perceptions of land use and transportation in the study area.

On May 24, 2006, the study team administered an electronic survey of the students and faculty of Mansfield University. The survey was performed to gain an assessment of some of the perceptions Mansfield University stakeholders have with respect to transportation and its role in mobility and community revitalization.

The team received 34 completed surveys between May 24 and June 26. The following highlights common themes expressed through the survey:

Important Qualities Mansfield is Lacking

- **Student Accommodation** - There is a perceived disconnect between the community and University. Survey respondents noted a lack of restaurants and entertainment geared toward college students. Flexible business hours, evening entertainment, and a greater variety of restaurants were listed as desirable, including a 24-hour diner and major chains such as Applebee's or Olive Garden. Respondents noted that the college and surrounding community need to function as one, instead of two disparate communities.
- **Physical Improvements** - Respondents noted a need to remove above-ground power lines and improve the area's gateways to improve the area's attractiveness. A general lack of streetscaping between Wal-Mart and downtown Mansfield was noted as a problem.

Positive Trends in the Mansfield area

- New storefronts and restaurants downtown with outdoor seating.
- Commercial growth south of Mansfield.
- Many cited the Fabulous 1890s Weekend as a plus, yet more events are needed.
- Survey respondents were nearly unanimous in their assessment that walking in the Mansfield area is safe and convenient. Bicycling, however, is limited by shoulder widths on US 6 and diagonal parking in downtown Mansfield.

Negative Trends

- Many MU students go home for the weekends with the perception that there is “nothing to do” in the area.
- An ongoing gap (the “town/gown” divide) between the university and the community.
- Very few shopping alternatives for MU students without having to drive long distances.

Primary Transportation Challenges

- On-campus students feel confined to campus if they do not have access to a car.
- Parking remains a serious issue (there are 565 rental units in Mansfield Borough; approximately 450-500 of these are college-related).
- EMTA Blue Buses need to run later in the evening.

Some Needed Transportation Improvements

- Marked bicycle lanes on the main streets.
- Greater provision of bicycle rental storage units, as most students currently have to store theirs in their dorm room.
- More bicycle racks on campus and at area businesses.
- Many students are unaware that EMTA’s “Mountie” bus service even exists. More bus service is needed in the evenings and on the weekends.
- The (inter-city) bus stop across from the Video King store should add a covered pavilion to shelter passengers from inclement weather.



Parking near MU can be a hassle, but students feel isolated on campus without a car.



Students waiting for inter-city buses in Mansfield— a covered pavilion would provide needed shelter and help identify the stop.

Land Development Concerns...desired services and attractions

Those named most frequently included:

- Bicycle rentals
- More retail opportunities other than crafts and antique stores. These include book stores, hardware, individual storage sheds, UPS, quick copy places, etc.
- Entertainment: movie theatres, 24-hour restaurants, ice skating, roller skating, miniature golf, and updated bowling facilities.
- Chain restaurants: Chili's, Cracker Barrel, Olive Garden, Applebee's... even Sheetz.

How can MU be better integrated in the community?

- There is a Service Learning program that many students may not be aware of.
- Bring back the theatre program and have advertised productions and musicals.
- Create more activities that bring the community onto campus where students provide the services or vice versa.

A copy of the survey instrument is included in Appendix B.



Open house participants examined maps of the area and discussed needed transportation improvements.

Public Open House #1

The project team hosted the study's first public open house, which was held on October 12, 2006, at the Mansfield Fire Hall. The team held the open house to introduce the study to the general public. The public's input on the existing and future land uses and transportation system issues affecting the study area was received.

All landowners in the study area received a personalized meeting invitation via U.S. Mail. A meeting advertisement was also placed in the Mansfield Pennysaver. Project team members held a public officials' briefing just prior to the start of the open house. The consultant team delivered a formal presentation, consisting of an overview of trends and issues influencing the study area. Before and after the presentation, meeting participants gathered in informal groups at work stations to discuss their ideas, concerns, and opinions regarding the area's existing and future development issues. The planning team facilitated and recorded comments at the work stations. An exit survey was also distributed to capture meeting attendee comments on study issues. Public input was subsequently used to develop study recommendations. A sample of the open house's exit survey instrument can also be found in Appendix B.

The public open house was a significant study milestone that effectively closed out the study’s data collection phase. The level of interest in completing an exit survey (175 responses received) and participation at the open house (nearly 80 attendees) attest to the level of community interest in this study topic.

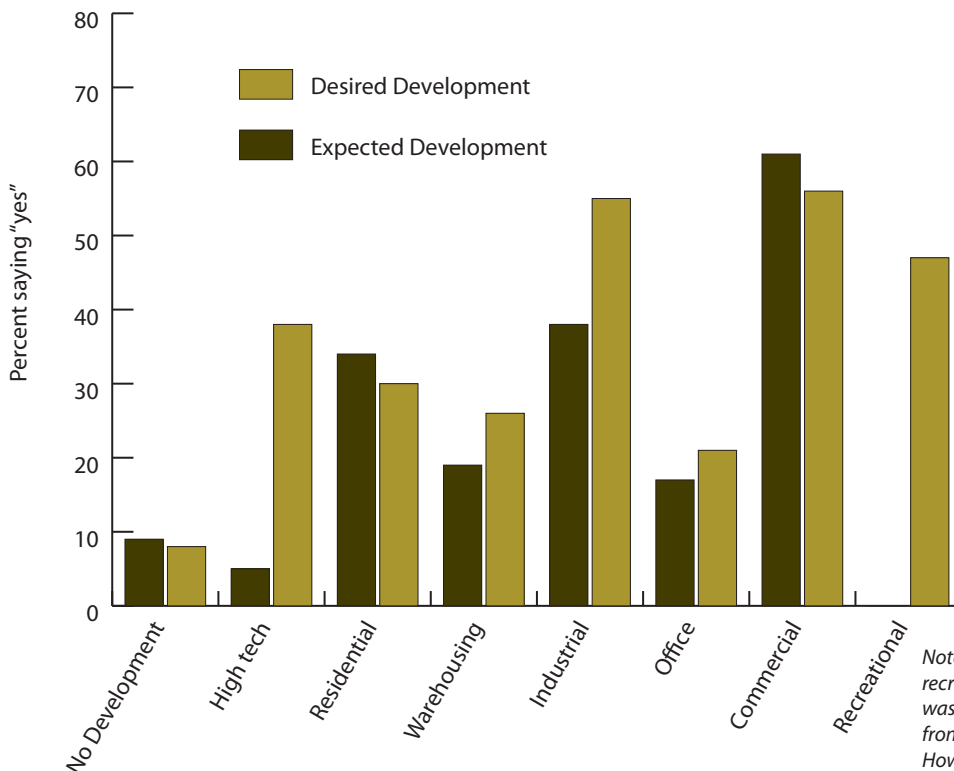
The study area participants are to be commended for their outstanding participation and wealth of good ideas and community spirit. Major themes from the meeting include:

- **Maintaining the area’s quality of life and rural character.** This was the highest-scoring issue, with over two-thirds rating it as a high priority.
- **Bringing jobs to the area and managing sprawl along Business 15.** The public rated these two discrete topic areas as high priorities. They were the only two to receive more than a 50 percent share of respondents recording it as a “high priority.”
- **Preferred development mirrors anticipated development.** The survey revealed little variance between what types of development the public prefers and what type is expected. A significant difference was that of “high tech” development, which had a variance of 33 percentage points (see Figure 4).



Participants discussed how to balance issues such as economic growth and preserving community character.

Figure 4: Future Development: Preferred vs. Anticipated



Note: Level of expected recreational development was inadvertently omitted from the survey instrument. However, it is generally expected to align with the level of desired recreational development.

- **Congestion is not a high priority at this time.** Nearly half of survey respondents said congestion is a “low priority.” Only three percent said traffic concerns pose an issue at all hours of the day. Safety concerns also scored low (65 percent said there were minor to no safety issues), which is atypical for a study of this type.
- **Maintaining a proper balance of development.** The town/gown debate, coupled with the development of needed recreation and cultural facilities and the preservation of agricultural and open space, all point to the need for a sustainable and planned development pattern.
- **Addressing hydric environmental concerns.** Flooding from the Tioga River and stormwater run-off were two of the most commonly cited issues.

Before and after a presentation of draft recommendations, participants discussed their ideas and concerns with the study team.



Public Open House #2

The study team provided direct mail invitations to all 991 property owners within the study area, alerting them of the open house opportunity on June 19, 2007. The mailing included a questionnaire to gauge reaction to 15 of the most significant recommendations.

The meeting format was similar to the first open house, with a formal presentation followed by opportunities for one-on-one dialogue with steering committee members and the study team around various “stations” related to land use/zoning and transportation/traffic. The team also provided an exit survey for those inclined. A summary of the survey results (in priority order) is shown in Table 17.



**Table 17: Survey Results
Public Open House #2**

Recommendation	High Priority	Medium Priority	Low Priority	Not Sure
Fix flooding problems in the southern portion of the study area.	54%	33%	7%	6%
Improve stormwater drainage problems.	42%	26%	13%	19%
Create a Main Street Manager program for marketing and attracting new businesses to the area.	46%	27%	24%	3%
Make streetscape improvements along Business Route 15, such as enhanced sidewalks, lighting, plantings, benches, etc.	44%	36%	17%	3%
Enhance the US 15 Canoe Camp interchange area (just south of Arby's) to establish the area's identity and create good first impressions for visitors.	43%	33%	22%	2%
Construct sidewalks and crosswalks where needed.	43%	36%	19%	2%
Make it easier and safer to ride a bicycle or walk along Business Route 15.	37%	35%	25%	3%
Redevelop the armory as a regional indoor recreation center.	30%	28%	33%	9%
Create a "retail incubator" to help area entrepreneurs and college students start new businesses in the area.	33%	31%	32%	4%
Improve safety along US 6, particularly at Lambs Creek Road.	31%	33%	32%	4%
Improve the area's public transportation services, such as EMTA's Mountie Express and other routes.	19%	46%	29%	6%
Develop a greenway (path for bicycling and walking away from roadways) along the Tioga River from behind Greco's Market to Covington.	29%	30%	38%	3%
Establish a Transportation Development District to provide an additional funding source (private) for transportation improvements.	18%	20%	46%	16%
Increase the number of college internships with area businesses.	20%	23%	50%	7%
Reduce the number of driveways and entrances onto Business Route 15.	10%	22%	56%	12%

The survey also provided opportunity for open-ended comments, as well as space to record any interest in supporting the implementation of the study's recommendations. A summary of both lists is included in Appendix B.

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Scenario Development and Analysis



Scenario Development and Analysis

The scenarios are not proposals, alternatives, recommendations, or options, but rather tests of the types and patterns of land uses that could occur, and the impact they would have on the local transportation network.

Community development changes can have significant transportation impacts. To evaluate land use development options for the study area, scenarios were tested to determine the varied impacts on the roadway network. This scenario testing allows decision makers to understand and anticipate the impacts of prospective development.

The following describes the rationale behind each of the scenarios and their impacts to the roadway network. The scenarios are not proposals, alternatives, recommendations, or options, but rather tests of the types and patterns of land uses that could occur, and the impact they would have on the local transportation network.

Background/Overview

Traffic impacts are a direct result of local land use decisions and regional growth patterns. Current land use patterns generate traffic throughout the study area based on the types and intensity of those land uses. For example, a Wal-Mart will generally produce a greater number of trips than a housing development of the same acreage.

Understanding and applying these principles allow planners to test various future land use impacts on the roadway system. This section presents the current conditions and the expected future impacts to the roadway system if the study area were to fully develop based on existing zoning provisions. The purpose of this exercise is to show which parcels are “over-zoned” for the adjacent roadway system or where the infrastructure will need to be improved to accommodate future traffic. The results can be used to revise the study area municipalities’ zoning ordinances as well as inform the regional transportation improvement program.

Method

Municipalities within the study area supplied both the land use and zoning data for this analysis. The information was summarized into 19 Traffic Analysis Zones (TAZs) and a number of vehicle trips was generated for each. The number of vehicle trips was based on the data for each respective land use contained in the ITE Trip Generation manual.¹ Formulas and rates are provided for each land use based on square feet and number of dwelling units. These data were used to determine the number of vehicle trips occurring daily and during the peak hour.

Local ordinances were reviewed to estimate the “building envelope” for each land use and provide the land coverage for a full build-out scenario.

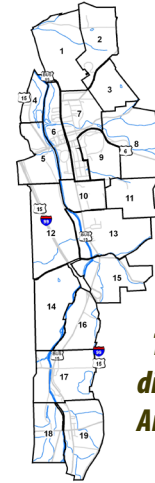
1 Institute of Transportation Engineers, Sixth Edition.

The projected vehicle trips by each TAZ were routed through the intersections within the study area in accordance with existing traffic patterns and volumes.

Scenario Analysis

Acreage for each TAZ was calculated by land use type. Removed from the calculations was undevelopable land, which includes slopes greater than 12 percent, setbacks, floodplains, and wetlands.

These calculations concluded there are approximately 2,470 acres of developable land within the study area, as shown in Table 18.



The study area was divided into 19 Traffic Analysis Zones (TAZs).

**Table 18: Current Land Use Acreage by TAZ
Greater Mansfield Study Area**

TAZ	Agriculture	Central Business District	Commercial	Highway Business	Industrial	Neighborhood Business	Public	Single Family	Two Family	Multi-Family	University	Vacant	Wooded	TOTAL
1	23.0	-	-	-	-	-	-	8.3	-	-	-	-	76.4	108
2	128.6	-	-	-	-	-	-	47.3	-	-	-	-	0.1	176
3	15.3	-	-	-	-	-	-	7.9	-	-	-	0.8	35.7	60
4	88.4	-	7.6	-	-	-	-	3.7	-	-	-	5.9	-	106
5	-	-	-	6.2	-	-	2.4	7.6	1.1	3.2	-	84.0	14.2	119
6	0.0	7.4	-	3.4	4.0	9.5	21.7	19.0	2.4	2.1	-	7.5	-	77
7	0.3	8.3	-	-	-	0.9	31.5	106.6	5.5	8.7	-	11.2	-	173
8	143.6	-	4.5	-	-	-	-	27.4	-	-	-	-	-	175
9	-	-	-	-	-	-	0.5	5.6	-	-	52.5	11.5	-	70
10	-	10.5	-	6.3	7.5	3.2	6.5	8.3	13.0	2.2	-	9.5	3.3	70
11	14.1	-	-	-	-	-	-	4.8	-	-	-	59.9	-	79
12	205.7	-	-	-	-	-	-	8.8	-	-	-	-	-	214
13	82.3	-	19.7	-	-	-	-	6.6	-	-	-	-	20.6	129
14	160.6	-	-	-	-	-	-	1.8	-	-	-	-	-	162
15	35.7	-	0.3	-	-	-	-	18.0	-	-	-	-	2.1	56
16	102.6	-	79.7	-	-	-	-	22.3	-	-	-	-	-	205
17	152.4	-	1.9	-	-	-	-	21.1	-	-	-	-	8.7	184
18	12.9	-	-	-	-	-	-	53.8	-	-	-	-	-	67
19	140.5	-	10.2	-	-	-	4.3	78.1	-	-	-	4.9	-	238
TOTAL	1,306.0	26.2	123.8	15.8	11.5	13.6	66.8	457.1	22.0	16.1	52.5	195.3	161.1	2,468

Source: Gannett Fleming, Inc.

The zoning of the study area was then summarized by zoning type given the same development constraints, resulting in the zoned acreage as shown in Table 19. Vacant and wooded land in the current land use table is included in one or more of the zoning categories.

**Table 19: Zoned Acreage by TAZ
 Greater Mansfield Study Area**

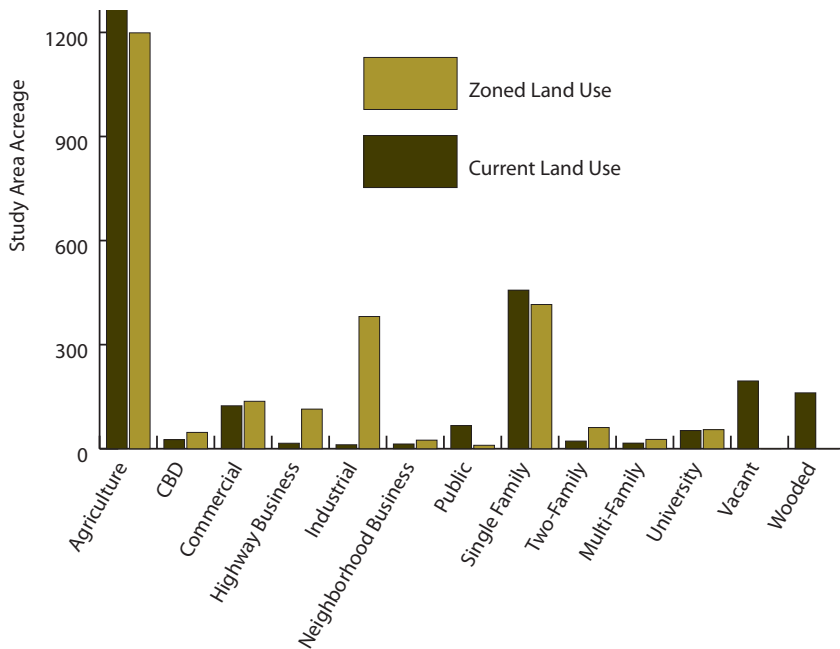
TAZ	Agriculture	Central Business District	Commercial	Highway Business	Industrial	Neighborhood Business	Public	Single Family	Two Family	Multi-Family	University	TOTAL
1	105.5	-	-	-	-	-	-	2.1	-	-	-	108
2	176.3	-	-	-	-	-	-	-	-	-	-	176
3	55.9	-	-	-	-	-	-	3.8	-	-	-	60
4	-	-	40.8	64.9	-	-	-	-	-	-	-	106
5	-	17.0	12.9	-	-	-	-	84.0	-	5.0	-	119
6	-	9.5	5.1	0.0	4.3	13.1	8.5	12.3	13.0	9.1	-	75
7	-	0.9	5.9	0.1	-	10.3	1.4	107.3	32.7	12.3	2.5	173
8	136.7	-	-	37.7	-	-	-	1.1	-	-	-	176
9	17.5	-	-	3.5	-	-	-	3.4	-	0.5	52.5	77
10	-	19.6	2.8	-	26.6	1.3	-	4.6	15.5	-	-	70
11	78.8	-	-	-	-	-	-	-	-	-	-	79
12	81.6	-	-	-	132.8	-	-	-	-	-	-	214
13	122.9	-	0.4	-	6.4	-	-	-	-	-	-	130
14	162.7	-	-	-	-	-	-	-	-	-	-	163
15	47.9	-	-	8.0	-	-	-	-	-	-	-	56
16	85.3	-	68.9	-	-	-	-	50.2	-	-	-	204
17	37.7	-	-	-	145.9	-	-	-	-	-	-	184
18	-	-	-	-	-	-	-	67.5	-	-	-	67
19	90.1	-	-	-	65.1	-	-	79.6	-	-	-	235
TOTAL	1,198.8	47.0	136.7	114.2	381.1	24.7	9.9	415.7	61.1	26.8	55.0	2,471

Source: Gannett Fleming, Inc.

The land use and zoning differs only slightly in most categories with a few notable exceptions. More than 100 acres of current agricultural land is zoned for other purposes, particularly at the northern end of the study area. There is also a large amount (approximately 360 acres) of industrial zoned land currently being used for other purposes primarily in the center of the study area. Other commercial and highway business zoned land is also currently being used for other purposes. There is little change in the housing (single family, multi-family) land use and zoning. Figure 5 compares the study area's existing land use against zoning classification.

The difference between the way land is currently used and the way it is zoned, could, over time, have a dramatic impact on traffic.

**Figure 5: Comparison of Current versus Zoned Land Use
Greater Mansfield Study Area**



Source: Gannett Fleming, Inc.

This difference between the current industrial, commercial, and residential composition of the study area and its related zoning could over time have a dramatic impact on the number of trips generated and the resulting impact on the roadway system. Analysis at this level is important for providing local decision-makers with information to consider the allowable uses within the zoning ordinances to reflect the development patterns the community would like to experience, with minimal impact on roadway safety and capacity.

Trip Generation

The total number of trips generated have been estimated for both current land use and zoning build-out. The zoning build-out is considered the “worst case” scenario. The total number of trips simulate the maximum traffic generation based on the zoned land and the land coverage as prescribed by the municipal ordinances. Table 20 shows the assumptions for each zoning land use.

Table 20: Zoning Assumptions

Zoned Land Use	Assumptions
Agriculture	Average lot size: 18,000 sq. ft. (0.413 acres) 1 dwelling unit per average lot
Central Business District	Average lot size: 12,500 sq. ft. (0.287 acres) Average unit size: 2,300 sq. ft. (0.052 acres) Maximum lot coverage: 70% 3-story structure
Commercial	Maximum lot coverage: 50% 3-story structure
Highway Business	Maximum lot coverage: 40% 1-story structure
Industrial	Maximum lot coverage: 50% 2 stories each structure
Neighborhood Business	Average lot size: 12,500 sq. ft. (0.287 acres) Average unit size: 2,800 sq. ft. (0.064 acres) 3.6 units per average lot
Public	Maximum coverage 25% of total land area
Single Family	Average lot size: 18,000 sq. ft. (0.413 acres) 1 dwelling unit per average lot
Two Family	Average lot size: 18,000 sq. ft. (0.413 acres) 2 dwelling units per average lot
Multi-Family	Average lot size: 23,780 sq. ft. (0.5 acres) 26 dwelling units per average lot
University	3,360 students 180 faculty/employees
<i>Source: Gannett Fleming, Inc.</i>	

As stated earlier, undevelopable land was removed from the land use trip generation equation. Trip generation rates/equations were applied to the resulting units and the number of daily and peak trips were estimated. The following tables show the generation rates/equations and resulting trips estimated for a full build-out of the study area, based on existing zoning provisions.

**Table 21: Trip Generation Assumptions
Greater Mansfield Study Area**

	Land Use	ITE Code	Units	Avg. Rate/Equation	Peak Rate/Equation	Peak % In	Peak % Out
Agriculture	Single Family Detached Housing	210	DU (dwelling units)	$\text{Ln}(T)=0.92\text{Ln}(X)+2.71$	$\text{Ln}(T)=0.90\text{Ln}(X)+0.53$	63%	37%
Central Business District	Hardware/Paint Store	816	1,000 sq. ft.	4.84	$T=3.31(x)+27.59$	47%	53%
Commercial	Shopping Center	820	1,000 sq. ft.	3.75	$\text{Ln}(T)=0.66\text{Ln}(x)+3.4$	48%	52%
Highway Business	New Car Sales	841	1,000 sq. ft.	2.64	$T=1.72(x)+29.61$	47%	53%
Industrial	Industrial Park	110	1,000 sq. ft.	$T=7.47(X)-101.92$	$T=1.43(x)-163.42$	12%	88%
Multi-Family	Apartment	220	DU	$T=6.01(X)+150.35$	$T=0.60(X)+17.52$	65%	35%
Neighborhood Business	Gasoline/Service Station	944	1,000 sq. ft.	4.84	$T=3.31(x)+27.59$	47%	53%
Public	Library	590	1,000 sq. ft.	7.09	$\text{Ln}(T)=0.87\text{Ln}(x)+2.27$	48%	52%
Single Family	Single Family Detached Housing	210	DU	$\text{Ln}(T)=0.92\text{Ln}(X)+2.71$	$\text{Ln}(T)=0.90\text{Ln}(X)+0.53$	63%	37%
Two Family	Luxury Condo/Townhouse	233	DU	$\text{Ln}(T)=0.85\text{Ln}(X)+2.55$	$\text{Ln}(T)=0.82\text{Ln}(X)+0.32$	67%	33%
University	Junior/Community College	540	Employees/Students*	$T=11.27(x)+3163.13$	$T=1.14(x)+259.59$	30%	70%

Source: Gannett Fleming, Inc.

**Table 22: Daily Trips – Zoning Build-out
 Greater Mansfield Study Area**

TAZ	Agriculture	Central Business District	Commercial	Highway Business	Industrial	Neighborhood Business	Public	Single Family	Two Family	Multi-Family	University	Total
1	248	-	-	-	-	-	-	66	-	-	-	314
2	398	-	-	-	-	-	-	-	-	-	-	398
3	31	-	-	-	-	-	-	115	-	-	-	146
4	-	-	9,987	2,984	-	-	-	-	-	-	-	12,971
5	-	7,540	3,156	-	-	-	-	1,998	-	1,343	-	14,036
6	-	4,188	1,255	1	1,281	2,770	655	340	432	2,345	-	13,268
7	-	385	1,446	5	-	2,161	109	2,502	948	3,095	3,254	13,905
8	315	-	-	1,735	-	-	-	37	-	-	-	2,088
9	47	-	-	160	-	-	-	47	-	261	5,101	5,616
10	-	8,687	681	-	8,554	274	-	137	503	-	-	18,836
11	190	-	-	-	-	-	-	-	-	-	-	190
12	196	-	-	-	43,127	-	-	-	-	-	-	43,323
13	286	-	91	-	1,977	-	-	-	-	-	-	2,354
14	370	-	-	-	-	-	-	-	-	-	-	370
15	120	-	-	370	-	-	-	-	-	-	-	490
16	204	-	16,882	-	-	-	-	1,244	-	-	-	18,331
17	96	-	-	-	47,373	-	-	-	-	-	-	47,469
18	-	-	-	-	-	-	-	1,633	-	-	-	1,633
19	215	-	-	-	21,091	-	-	1,901	-	-	-	23,207
Total	2,719	20,800	33,497	5,255	123,402	5,205	764	10,020	1,883	7,044	8,355	218,945

Source: Gannett Fleming, Inc.

**Table 23: Peak Period Trips – Zoning Build-out
Greater Mansfield Study Area**

TAZ	Agriculture	Central Business District	Commercial	Highway Business	Industrial	Neighborhood Business	Public	Single Family	Two Family	Multi-Family	University	Total
1	26	-	-	-	-	-	-	7	-	-	-	34
2	42	-	-	-	-	-	-	-	-	-	-	42
3	4	-	-	-	-	-	-	12	-	-	-	16
4	-	-	5,462	1,973	-	-	-	-	-	-	-	7,436
5	-	5,184	2,554	-	-	-	-	203	-	127	-	8,068
6	-	2,892	1,389	31	101	1,922	496	36	41	219	-	7,127
7	-	291	1,525	33	-	1,505	104	253	88	287	154	4,241
8	33	-	-	1,160	-	-	-	4	-	-	-	1,198
9	5	-	-	134	-	-	-	5	-	28	735	907
10	-	5,968	928	-	1,494	215	-	15	48	-	-	8,667
11	20	-	-	-	-	-	-	-	-	-	-	20
12	21	-	-	-	8,112	-	-	-	-	-	-	8,133
13	30	-	245	-	235	-	-	-	-	-	-	510
14	39	-	-	-	-	-	-	-	-	-	-	39
15	13	-	-	271	-	-	-	-	-	-	-	284
16	22	-	7,724	-	-	-	-	128	-	-	-	7,874
17	10	-	-	-	8,925	-	-	-	-	-	-	8,935
18	-	-	-	-	-	-	-	167	-	-	-	167
19	23	-	-	-	3,894	-	-	193	-	-	-	4,110
Total	289	14,335	19,828	3,601	22,760	3,643	601	1,024	176	660	889	67,806

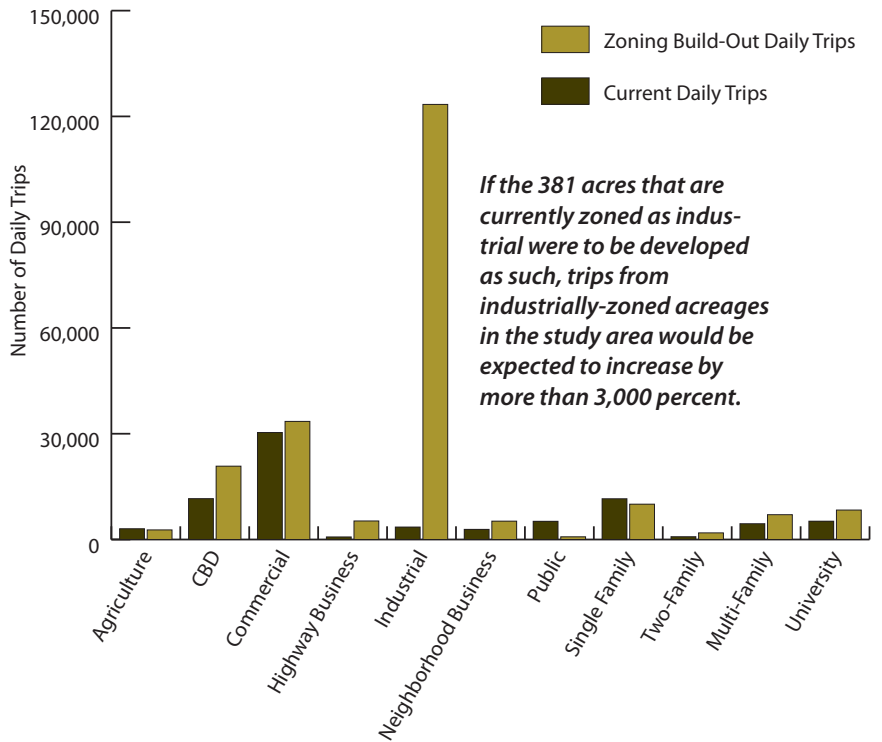
Source: Gannett Fleming, Inc.

If total build-out based on existing zoning ordinances were to occur, the study area could expect a dramatic increase in total traffic. Compared to the estimated current traffic, if the regionally accepted zoning was to be developed fully, traffic would increase 175 percent over current volumes. Most of this growth is a factor of the industrial zoned land currently having uses other than industrial.

If total build-out based on existing zoning ordinances were to occur, the study area could expect a dramatic increase in total traffic.

There are currently only 11.5 acres in the study area being used for industrial purposes. If the 381 acres that are currently zoned as industrial were to be developed as such, trips from industrially-zoned acreages in the study area would be expected to increase by more than 3,000 percent, as demonstrated in Figure 6.

**Figure 6: Trip Generation Comparison
 Greater Mansfield Study Area**



Source: Gannett Fleming, Inc.

Although trips would be expected to significantly increase, this does not imply that there would be an imminent breakdown in the highway network's performance. Where the trips are generated and how the areas are accessed influence system performance as much as current study area traffic patterns and congestion. In addition, regional growth is not expected to be enough to induce full zoning build-out. Population and employment growth for Tioga County is expected to be approximately three percent between 2006 and 2020, which would not be expected to generate the maximum number of trips.²

2 Source: Woods & Poole

Traffic Analysis

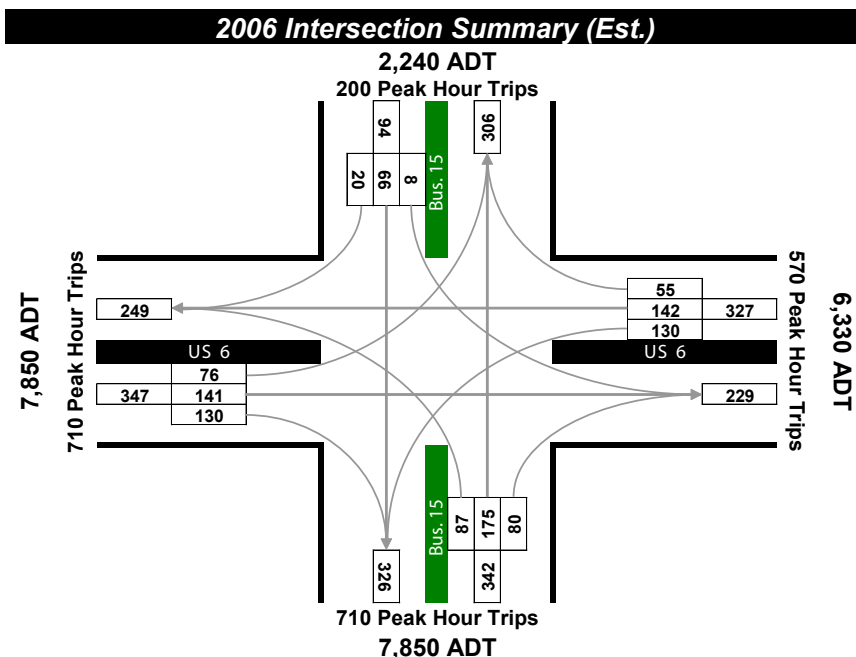
The impact of increased traffic generation on the study area's roadway network was subsequently analyzed. Turning movement counts at the intersection of US 6 and Business 15 were collected, with Annual Average Daily Traffic (AADT) volumes provided by PennDOT for US 15, US 6, Business 15, and PA 660. All other information has been estimated as part of this analysis including:

- Turning movements at the intersection of Business 15 and US 15
- Turning movements at the intersection of Main Street and PA 660
- Future volumes as a result of general traffic growth
- Future volumes as a result of increased trip generation

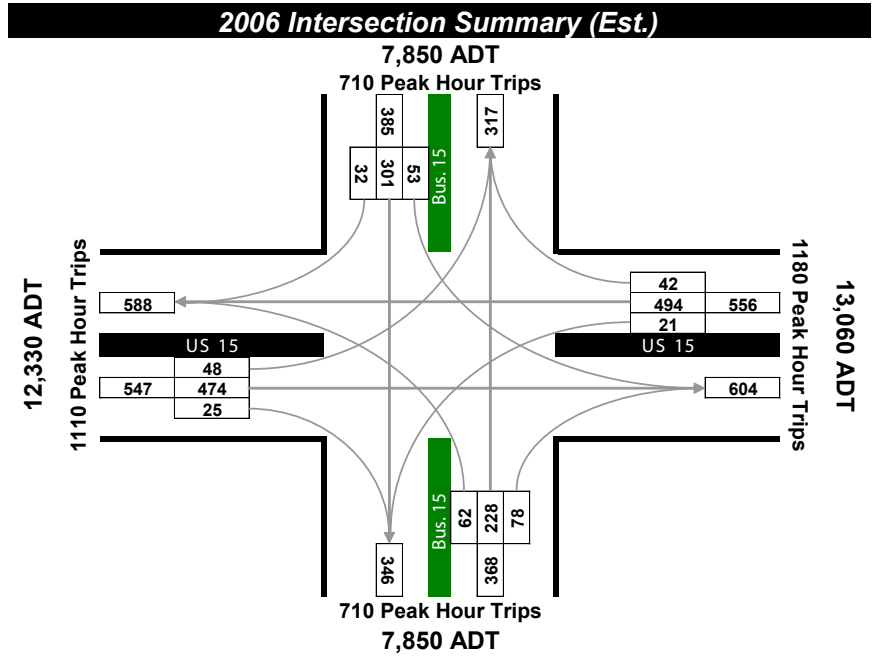
Existing Traffic Conditions

Currently there is little congestion in the study area, both at intersections and along connecting roadways. This was corroborated during the first public open house, when survey respondents noted that addressing traffic congestion should be "a low priority" for area decision-makers. Although during peak travel times the intersection of US 6 and Business 15 experiences an increase in traffic volumes, the intersection operates well. The figures below show the estimated peak vehicle turning movements for this intersection and the intersections of US 15 and Business 15, and Main Street and PA 660.

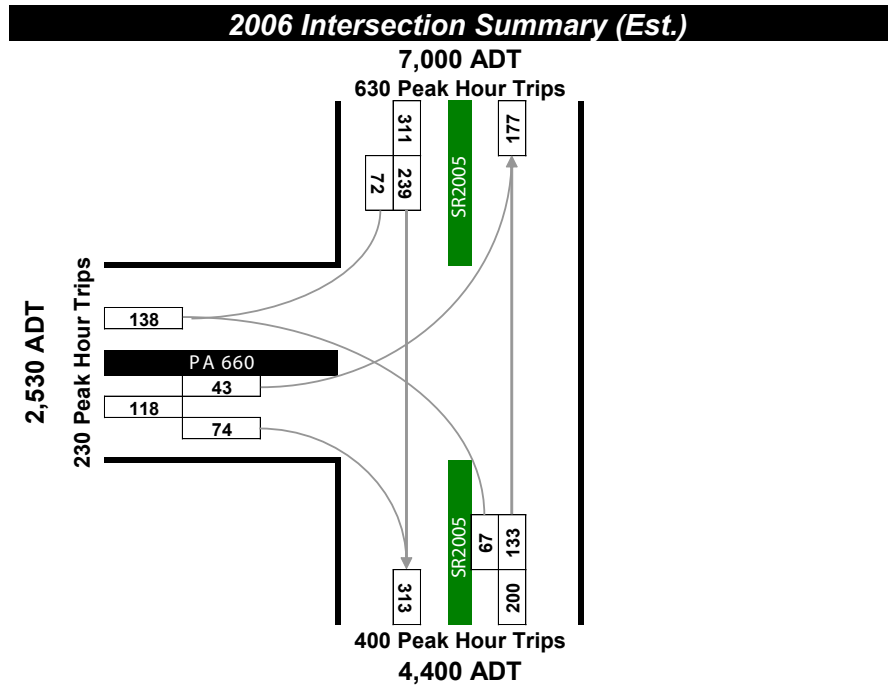
Intersection of Business 15 and US 6



Intersection of Business 15 and US 15



Intersection of Main Street and PA 660



The connecting segments also operate well. Table 24 provides a summary of traffic volume of these segments, all of which operate at a Level of Service (LOS) of "A" during peak periods.

**Table 24: Current Traffic Volume
Greater Mansfield Study Area**

Roadway Segment	Current	
	AADT	Peak LOS
Elk Run Road (PA 660) west of South Main Street	2,530	A
South Main Street between PA 660 and US 15	7,000	A
South Main Street north of US 15	6,290	A
US 15 south of Business 15	12,230	A
US 15 north of Business 15	12,230	A
Business 15 north of US 15	7,850	A
Business 15 south of US 6	7,850	A
Business 15 north of US 6	2,240	A
US 6 between US 15 and Business 15	7,850	A
US 6 east of Business 15	6,330	A

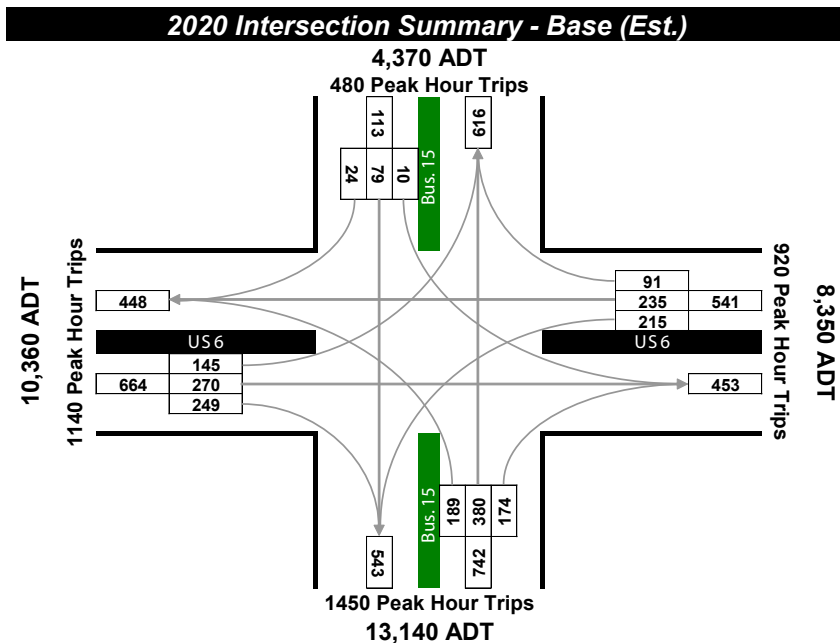
Source: Gannett Fleming, Inc.

“Level of service” is a description of traffic conditions ranging from A (free-flowing traffic) to F (severe congestion and delay).

Future Traffic Conditions—Current Land Use

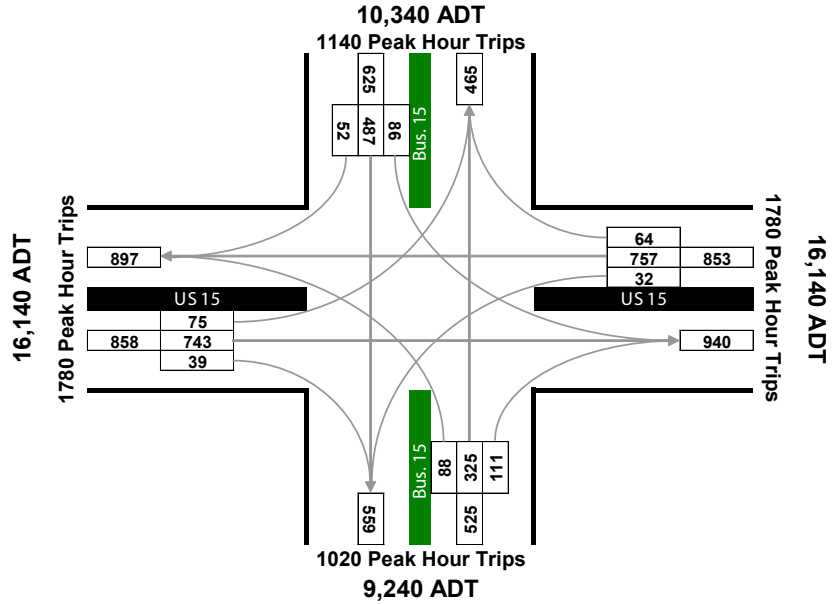
Future traffic growth is expected in the study area with an annual growth rate of two percent. At this rate of increase, the local roadways and intersections are expected to maintain good levels of service.

Intersection of Business 15 and US 6



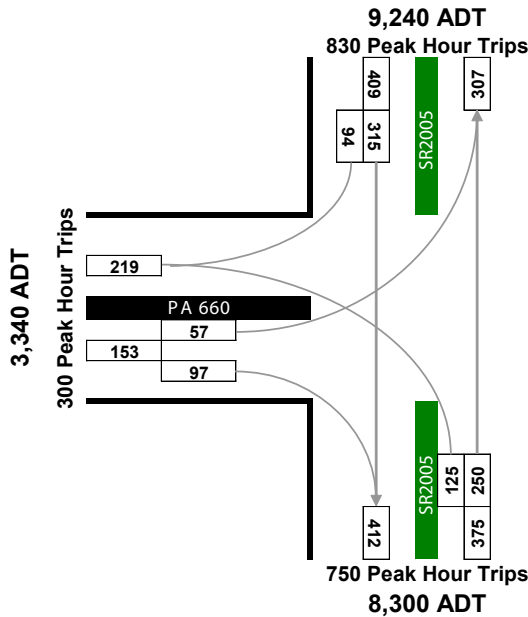
Intersection of Business 15 and US 15

2020 Intersection Summary - Base (Est.)



Intersection of Main Street and PA 660

2020 Intersection Summary (Est.)



**Table 25: 2020 Traffic Volume by No-Build Scenario
Greater Mansfield Study Area**

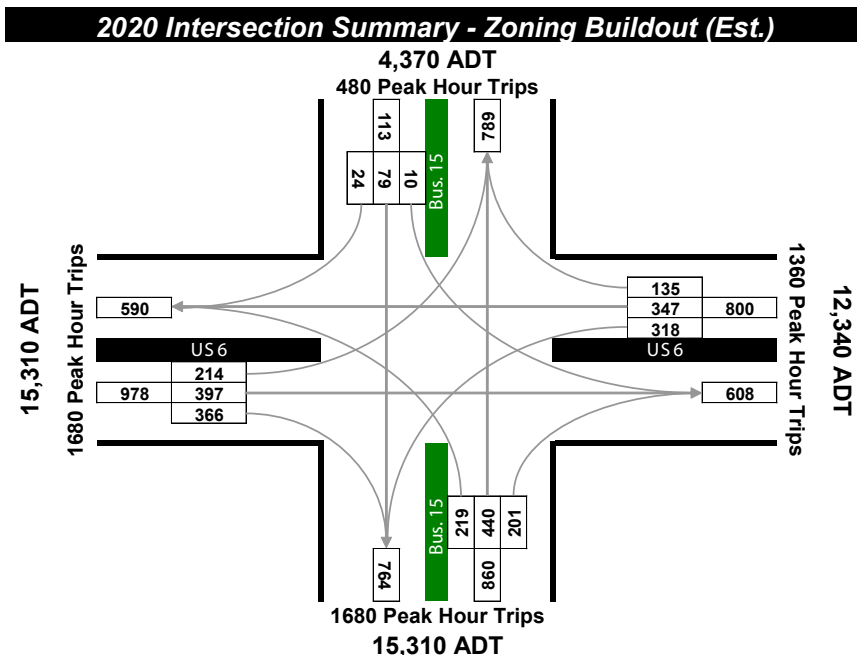
Roadway Segment	2020 No Build Scenario	
	AADT	Peak LOS
Elk Run Road (PA 660) west of S. Main St.	3,338	A
S. Main St. between PA 660 and US 15	9,236	A
S. Main St. north of US 15	8,300	A
US 15 south of Business 15	16,137	A
US 15 north of Business 15	16,137	A
Business 15 north of US 15	10,358	A
Business 15 south of US 6	10,358	A
Business 15 north of US 6	2,956	A
US 6 between US 15 and Business 15	10,358	A
US 6 east of Business 15	8,352	A

Source: Gannett Fleming, Inc.

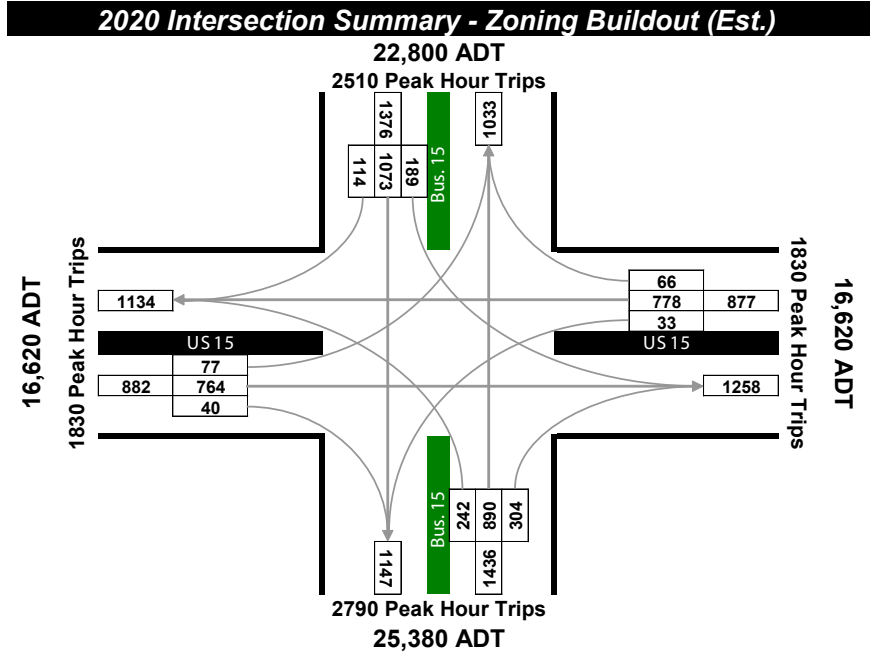
Future Traffic Conditions—Zoning Build-out

A build-out of the study area based on current zoning ordinance provisions would result in a dramatic impact to the study area’s roadways and intersections, particularly where the industrial zoning is concentrated. This occurs on South Main Street (Business 15) near the Canoe Camp interchange south of Mansfield Borough.

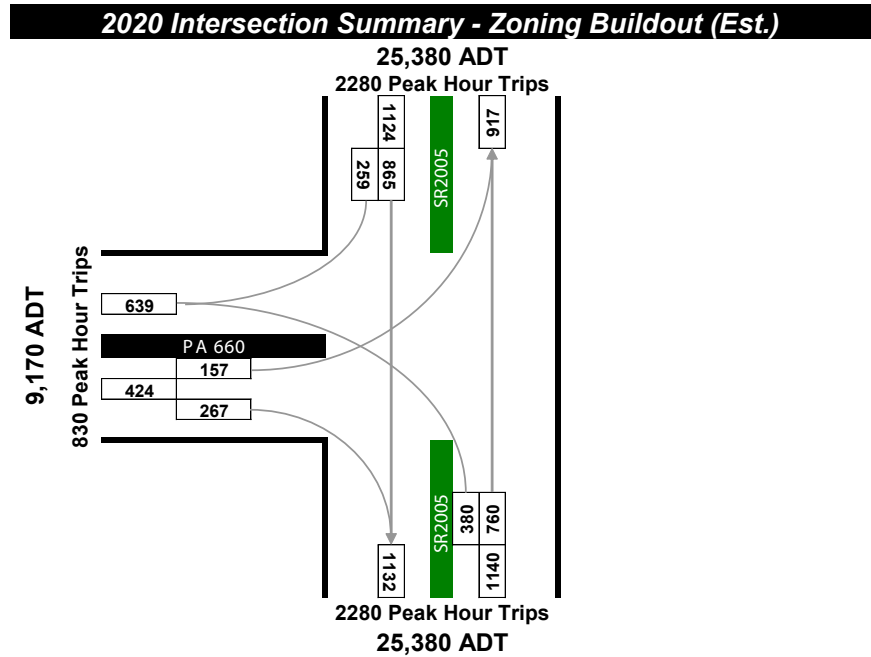
Intersection of Business 15 and US 6



Intersection of Business 15 and US 15



Intersection of Main Street and PA 660



As a result of the full zoning build-out, congestion would be expected on South Main Street between Covington and the Canoe Camp interchange, as shown in more detail in Table 26.

**Table 26: Traffic Volume by Zoning Build-out
Greater Mansfield Study Area**

Roadway Segment	Zoning Build-out	
	AADT	Peak LOS
Elk Run Road (PA 660) west of South Main Street	9,171	A
South Main Street between PA 660 and US 15	25,375	E
South Main Street north of US 15	22,802	D
US 15 south of Business 15	16,621	A
US 15 north of Business 15	16,621	A
Business 15 north of US 15	15,306	A
Business 15 south of US 6	15,306	A
Business 15 north of US 6	4,368	A
US 6 between US 15 and Business 15	15,306	A
US 6 east of Business 15	12,342	A
<i>Source: Gannett Fleming, Inc.</i>		

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Recommendations and Implementation Plan



Choices For Our Future

Important challenges and decisions are faced in the months and years ahead. An action plan will help Mansfield Borough, the townships, Mansfield University, BOOM, economic development leaders, and the county's elected officials and transportation planning officials in implementing new policies and programming transportation projects. Transportation plays a significant role in determining how communities grow and function, and should be considered an essential part of land use management initiatives. This study recognizes the dynamic that exists between transportation and land use management and offers recommendations geared toward improving safety, roadway capacity, intermodalism, community design, revitalization, and the coordination of transportation, land use planning, and economic development.

The following pages present the study recommendations in a matrix format to provide an at-a-glance overview and easier tracking of responsibilities and progress toward implementation. More detailed descriptions of the recommendations, steps to implement them, and expected results follow. The recommendations are grouped according to broad themes:

- **Water & Sewer** - Addressing flooding issues and modernizing water supply and sewage facilities.
- **Connectivity** - Enhancing the links between areas and among transportation modes.
- **Town/Gown** - Strengthening the ties between the town and the college.
- **Aesthetics** - Preserving the area's natural beauty while improving the look of its man-made elements.
- **Future Development** - Shaping future investment by the private and public sectors.

The planning team worked with all study area municipalities, MU, BOOM, and PennDOT in developing the recommendations.

IMPLEMENTATION TRACKER: Major Recommendations

Category	Recommendation	Covington Township	Putnam Township	Richmond Township	Mansfield Borough	Mansfield University	ACOE	BOOM	DCED	DEP	EMTA	Local businesses	Mill Cove, Inc.	NTRPDC	PennDOT	PA Downtown Center	PSAB	Regional Recreational Authority (new)	Southern Tioga School District	Tioga County	TCDC	Timing	Status/Next Steps	
Water & Sewer	1-A: Fix flooding problems in the southern portion of the study area.	○	○	○	○		●			○												Ongoing		
	1-B: Develop/update Act 167 Stormwater Management Plans.	●	●	●	●					○												Near-term		
	1-C: Update Covington Townships Sewage Facilities (Act 537) Plan.	●								○													Near-term	
	1-D: Extend public water service farther south into the Village of Covington.	○	○							○													Long-term	
Connectivity	2-A: Develop greenways from behind Greco's Market to Covington and from Greco's to Mansfield University.	●	●	●	●	○	○												○			Medium-term		
	2-B: Continue the Lambs Creek Trail through the Mill Creek area to the Welcome Center.						○		○				●	○								Medium-term		
	2-C: Continue working with Mansfield University to match public transportation services with needs.					○	○					●		○								Ongoing		

continued...

ACOE	Army Corps of Engineers
BOOM	Betterment Organization of Mansfield
DCED	Pennsylvania Department of Community and Economic Development
DEP	Pennsylvania Department of Environmental Protection
EMTA	Endless Mountains Transportation Authority
NTRPDC	Northern Tier Regional Planning and Development Commission
PennDOT	Pennsylvania Department of Transportation
PSAB	Pennsylvania State Association of Boroughs
TCDC	Tioga County Development Corporation

Approximate Implementation Timeframes

- Lead Role
- Support Role

- Near-term – 2007/2008
- Medium-term – 2009/2010
- Long-term – 2011 and beyond

Category	Recommendation	Covington Township	Putnam Township	Richmond Township	Mansfield Borough	Mansfield University	ACOE	BOOM	DCED	DEP	EMTA	Local businesses	Mill Cove, Inc.	NTRPDC	PennDOT	PA Downtown Center	PSAB	Regional Recreational Authority (new)	Southern Tioga School District	Tioga County	TCDC	Timing	Status/Next Steps
Town/Gown	3-A: Reactivate a Main Street Manager program.																					Near-term	
	3-B: Redevelop the armory for recreation purposes.																					Near-term	
	3-C: Strengthen the partnership between Mansfield Borough Council and Mansfield University.																					Ongoing	
	3-D: Advance public-private partnerships with Mansfield University for outdoor recreational uses.																					Ongoing	
	3-E: Increase awareness of Mansfield University's Service Learning program.																					Near-term	
	3-F: Explore a "retail incubator" in Mansfield in partnership with Mansfield University.																					Medium-term	
Aesthetics	3-G: Investigate expanding use of IMU meal card program to include local restaurants.																					Medium-term	
	4-A: Implement a "gateway" concept at the Canoe Camp interchange and other entrances to the area.																					Medium-term	
	4-B: Make streetscape and highway beautification improvements along Business 15.																					Medium-term	

continued...

Category	Recommendation	Covington Township	Putnam Township	Richmond Township	Mansfield Borough	Mansfield University	ACOE	BOOM	DCED	DEP	EMTA	Local businesses	Mill Cove, Inc.	NTRPDC	PennDOT	PA Downtown Center	PSAB	Regional Recreational Authority (new)	Southern Tioga School District	Tioga County	TCDC	Timing	Status/Next Steps		
Safety	5-A: Energize overhead lighting at the Canoe Camp interchange.																					Near-term			
	5-B: Accommodate pedestrians—make it safer and easier to walk.																						Medium-term		
	5-C: Identify technological means of addressing emergency response issues related to US 15.																						Medium-term		
	5-D: Adopt “traffic calming” measures at Smythe Park to discourage cut-through traffic.																						Medium-term		
	5-E: Improve the area’s two signalized intersections.																						Near-term		
	5-F: Implement access management solutions and accommodate non-motorized modes.																						Medium-term		
	5-G: Investigate reducing the speed limit along US 6 between Business 15 and US 15.																						Medium-term		
	5-H: Extend the school zone along Business 15 for Warren L. Miller Elementary School.																						Medium-term		
	6-A: Consider forming a permanent multi-municipal planning commission/committee.																							Near-term	
	6-B: Impose “fee-in-lieu” for recreational needs of new development.																							Medium-term	
Future Development	6-C: Minimize set-backs and encourage side and rear parking.																						Medium-term		
	6-D: Establish a Transportation Development District.																						Medium-term		
																							Medium-term		
																							Medium-term		

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Recommendations

Water and Sewer

Flooding problems in the study area encompass storm-water drainage issues and flooding from the Tioga River. This was a major concern raised at both the October 2006 and June 2007 public open houses and was cited as the greatest deterrent to development along the Business Route 15 corridor.

During the late 1970s and early 1980s, a focused effort was made to address flooding in the area with the creation of the Upper Tioga River Watershed Association. The former U.S. Soil Conservation Service studied the potential of small watershed dams on the Upper Tioga upstream from Blossburg or a dike system serving the Village of Covington and north to Mansfield Borough. These projects were eventually dropped because of inadequate cost/benefit ratios and the reluctance of several property owners to allow their riparian lands to be used for the construction of the dike system.

The current Mansfield Levee was constructed in conjunction with the Tioga-Hammond Reservoir Complex in 1975. It is designed to prevent flooding in Mansfield due to backup during flood events from the Tioga Dam.

Recommendation

1-A

Fix flooding problems in the southern portion of the study area.

Why?

If flooding issues are not addressed, most of the remaining recommendations will be meaningless.

How?

1. Establish a Watershed Association or Council of Governments (COG).
2. Meet with the U.S. Army Corps of Engineers and county and state emergency management officials to explore options and establish corrective actions.
3. Develop a Flood Hazard Mitigation Plan following FEMA guidelines.
4. Apply for FEMA/PEMA funding to implement the program.

When?

Ongoing

Who?

- Army Corps of Engineers
- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- DEP

It is recommended that Richmond, Covington, and Putnam Townships and Mansfield Borough either reactivate the Upper Tioga Watershed Association, or join with the Tioga County Concerned Citizens Committee (TCCCC), or establish a totally new Council of Governments (COG) which can then work with the U.S. Army Corps of Engineers and/or U.S. Department of Agriculture to explore flood protection and flood mitigation measures along the Tioga River.

In the interim, efforts should be made to limit development in the flood-prone areas of the corridor in cooperation with the municipal and county planning commissions. Flood mitigation projects such as flood-proofing, elevating, or property buy-outs are the primary mechanisms for reducing flood losses. A watershed association could provide an early warning system if coordinated with the Tioga County Emergency Management Agency and the flood-warning system established by the Susquehanna River Basin Commission.

Results

- » Reduced flood risk and flood losses.
- » Increased incentive for public and private investment in the study area.

Recommendation

1-B

Develop/update Act 167 Stormwater Management Plans.

Why?

To plan for and manage the increase in stormwater run-off associated with future development and land use changes within the study area.

How?

Document existing watershed characteristics as a baseline, prepare criteria and performance standards for managing run-off, and develop priorities for implementing stormwater management practices within the municipality.

When?

Near-term

Who?

- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- DEP

Results

- » Reduced and better managed stormwater run-off.

Recommendation

1-C

Update Covington Township's Sewage Facilities (Act 537) Plan.

Why?

To update wastewater practices, including public wastewater facilities and on-lot systems.

How?

Work with DEP to develop a plan of study and secure DEP approval and a funding commitment to update the plan.

When?

Near-term

Who?

- Covington Township
- DEP

Results

- » Better management and maintenance of wastewater for current homes and businesses, now and in the future.
- » Sewage disposal needs of future development accommodated.

Recommendation 1-D

Extend public water service farther south into the Village of Covington.

As development has occurred in the area, the municipal authority has extended water and sewer facilities farther south along the business corridor. Public sewer was extended in the early 1990s and serves the entire study corridor, including the Village of Covington. Public water, however, is currently available only as far south as the Canoe Camp interchange.

Why?

To improve public health and safety.

How?

1. Develop an estimate of current and future need/demand.
2. Conduct a feasibility study and an associated multi-year water system development plan.
3. Investigate funding sources and associated conditions to offset local costs.

Results

- » The southern area of the corridor made more marketable and attractive for commercial development.
- » Privately-owned contaminated wells no longer used.

When?

Long-term

Who?

- Covington Township
- Putnam Township
- BOOM
- DEP

Recommendations

Connectivity

Connectivity, including how smoothly transportation modes interact and how well transportation facilities connect their users to desired destinations, is an important consideration in any planning study. A major geographic feature in the study area includes a dike along the Tioga River, which provides a natural off-road connection between the high school and the commercial area anchored by Wal-Mart. Additional opportunities exist to improve the connectivity of various modes.

Recommendation

2-A

Develop greenways from behind Greco's Market to Covington and from Greco's to MU.

Why?

Existing flood control facilities, easements, and trail segments provide an excellent head start on linking destinations for walkers and bicyclists via routes that are separated from vehicular traffic.

How?

Launch a feasibility study of greenway development potential and funding sources.

When?

Medium-term

Who?

- ACOE
- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- Mansfield University
- Southern Tioga School District

While the accommodation of non-motorized modes along Business 15 is a primary concern, the development of an off-road trail system should be explored as a possibility for future implementation. State policy in recent years has expanded opportunities for local greenway development as PennDOT and DCNR have collaborated on a statewide greenways development plan. Tioga County itself will be developing a countywide greenways plan in 2008 or 2009.

There is a natural opportunity to develop a greenway connecting the Army Corps of Engineers' trailhead behind Greco's Market in Mansfield to Covington Township. This would include both roadway-based and non-roadway-based segments of the dike and Business 15. A complementary greenway would include the Corey Creek conduit between Mansfield University and the Army Corps trailhead.

Results

- » Expanded opportunities for public recreation, health, and fitness.
- » Safer connections from origins (e.g., the high school and college) to a developing commercial area.
- » Reduced dependence on the automobile.

Recommendation

2-B

Continue Lambs Creek Trail through the Mill Creek area to the Welcome Center.

Why?

To connect the trail to Pennsylvania Bicycle Route G and provide a circular route around Tioga County including the boroughs of Mansfield, Tioga, and Wellsboro.

How?

1. Assign a group to implement such a project—possibly Mill Cove, Inc., or a trail advisory committee made up of representatives from participating municipalities, including the Tioga area.
2. Coordinate with PennDOT and the Corps of Engineers to assure that right-of-way issues can be addressed.
3. Work with NTRPDC, PennDOT, ACOE, and DCNR to secure funding for the project.
4. Apply to DCNR for Keystone Recreation Funds and to PennDOT for Transportation Enhancement Funds.

When?

Medium-term

Who?

- Mill Cove, Inc.
- DCED
- NTRPDC
- PennDOT
- ACOE

The Lambs Creek Trail runs from behind Greco's Market, traversing the U.S. Army Corps of Engineers property to the Lambs Creek Recreation and Boat Launch area north of Mansfield.

It is a popular biking and hiking path. It is recommended that the trail be extended north through the Mill Cove Environmental Education Center area on the north shore of the Mill Creek Valley, and eventually be extended to the Route 15 Welcome Center and on to the Borough of Tioga.

Results

- » Major hiking and biking link developed from the Mansfield area to the Mill Cove Environmental Education Center, and eventually on to the Welcome Center and Tioga.
- » Enhanced outdoor recreation facilities provided.
- » Expanded recreational opportunities for area residents and Mansfield University students.
- » Another very scenic and varied venue for those seeking hiking and biking opportunities in the area (many out-of-area bicyclists are drawn to the Pine Creek Trail which traverses the Pennsylvania Grand Canyon).
- » Additional tourism opportunities.

Recommendation

2-C

Continue working with MU to match public transportation services with needs.

Why?

To help attract and retain students and give them transportation options other than the private automobile.

How?

1. During its region-wide route evaluation, EMTA should work closely with MU to evaluate the practicality of its routes and services to the student body.
2. EMTA should meet with students periodically to discuss their transportation needs and ways to improve EMTA service.
3. MU should form a student transportation task force to periodically provide input to EMTA and NTRPDC.

When?

Ongoing

Who?

- EMTA
- Mansfield University
- Mansfield Borough
- NTRPDC

For the Mansfield portion of the study area, the availability of public transportation services is an important consideration. The current lack of transportation service from Mansfield to such destinations as Wellsboro, Sayre, and Corning/Elmira, New York, are significant issues for the university. For example, many students desire access to recreational venues in Wellsboro (such as the Arcadia Theatre), and shopping destinations in Corning, Horseheads, and Elmira. In another example, the university has stationed at Robert Packer Hospital in Sayre approximately 200 nursing students, who are isolated if they do not have access to a car. MU officials state that the lack of adequate public transportation in the area hinders student recruitment.

In addition to expanded routes, EMTA could expand its service to include bicycle racks on buses and shelters at bus stops.

Results

- » Greater mobility for students.
- » Reduced need for students to have cars on campus.
- » More students attracted to MU.

Recommendations

Town/Gown

The need for improved integration of the Mansfield University community with the civic community is one that has been discussed for years. With a captive market of some 3,360 students, there is a tremendous opportunity for university and municipal officials to work together in improving the area's economic well-being. There is currently a Town/Gown council to discuss and promote ways of fostering positive relationships between the school and borough. PSAB's Higher Education Resource Committee is also a potential resource.

Recommendation

3-A

Reactivate a Main Street Manager program.

Why?

To attract new businesses—specifically student and university-oriented—and to facilitate a thriving Main Street.

How?

1. BOOM should work with borough officials in pursuing technical assistance from the Pennsylvania Downtown Center for a complete assessment and visioning process for the downtown area and desired directions.
2. Consider entering DCED's Main Street program, through which PDC's services are free.
3. This recommendation could also be accomplished through a "circuit rider," such as has been accomplished among the communities of Montoursville, Jersey Shore, Hughesville, and Muncy. A regional approach to this recommendation might attract DCED dollars more readily.

There is a need to get students "down off the hill" and get them integrated into the Mansfield area community. Students surveyed noted the lack of bookstores, 24-hour diners/chain restaurants, and various recreational and cultural activities such as miniature golf and community theatre.

University officials point to the need for hotel and conference facilities in the area. Mansfield is also strategically located between Williamsport and Corning, New York, along US 15 and would be a logical location for various traveler services.

Results

- » Existing downtown businesses retained, new businesses added, targeted uses found for unoccupied properties.
- » Private dollars leveraged for downtown revitalization.
- » Area's assets—such as historic buildings and good design—capitalized on.
- » Area business officials organized toward common goals for downtown revitalization.
- » Area's economy boosted.

When?

Near-term

Who?

- BOOM
- Mansfield Borough
- Mansfield University
- PA Downtown Center



Recommendation

3-B

Redevelop the armory for recreation purposes.

Why?

To provide public space for court games such as volleyball and basketball, exercise equipment, and other gymnasium-type activities; to accommodate other large gatherings for indoor and outdoor events.

How?

1. Complete the acquisition process through the State Legislature.
2. Involve the public to determine the recreational needs of various community groups, including the school district, MU, and surrounding townships.
3. Prepare a detailed Feasibility Study and Master Plan.
4. Apply for grants (Keystone Recreation Funds from DCNR, etc.).
5. Draw on the expertise of the Wellsboro Recreation Director (made available for consultation with other communities through Laurel Health).

When?

Near-term

Who?

- Mansfield Borough
- Southern Tioga School District

The Mansfield National Guard Armory, which is located behind the high school and adjacent to the new Mansfield Swimming Pool complex, was decommissioned by the Pennsylvania National Guard in 2000. A new armory was constructed by the Pennsylvania Department of General Services in Wellsboro. The existing building in Mansfield was declared as surplus property by the Commonwealth and put up for bid. In the interim, both the Borough of Mansfield and the Southern Tioga School District explored the feasibility of acquiring and using the structure.

At the present time, the borough has formally submitted a request to acquire the armory and is in the process of evaluating the building and converting it to an area-wide recreation center.

A building evaluation study has been conducted by the borough's engineering firm, and has determined that extensive work is required to bring it up to present day energy standards, including replacing windows and upgrading the heating and cooling system. The borough is currently awaiting formal action by the State Legislature to release the property.

The proposed Recreation Center is strategically located adjacent to Smythe Park, the borough swimming pool, and the high school. This recommendation is also consistent with the area's recent multi-municipal comprehensive plan.

Results

- » Development of a much-needed area-wide indoor recreational facility.

Recommendation

3-C

Strengthen the partnership between Mansfield Borough Council and Mansfield University.

Why?

To promote stronger integration, cooperation, and communication between the college and the town.

How?

1. MU should have a regular presence at Mansfield Borough Council meetings.
2. The two entities should use a local town/gown committee to handle community relations.
3. The membership of the Sesqui-centennial Committee could be a starting point.

When?

Ongoing

Who?

- Mansfield Borough
- Mansfield University

Results

- » Stronger relationship between Mansfield Borough and Mansfield University at a policy-making level.
- » Increased collaboration and communication, better advancing the interests of both entities.



Collaboration will benefit both the town and the college and will help get students “down off the hill.”

Recommendation

3-D

Advance public-private partnerships with MU for outdoor recreational uses.

Why?

To provide additional outlets for enjoying the area's natural resources and more varied recreation options for MU students, other area residents, and visitors.

How?

Private enterprise, along with the various public entities—including Mansfield University—should be encouraged to invest in various forms of recreation in the Mansfield area that would cater to the community at large as well as Mansfield University students.

When?

Ongoing

Who?

- Mansfield Borough
- Mansfield University
- Mill Cove, Inc.
- Regional Recreational Authority
- Local businesses

Mansfield University President Maravene Loeschke emphasized in an interview that: "Our students love outdoor activities." Many students in the study interview sessions and surveys reiterated the obvious: that outdoor activities in the Mansfield area are lacking.

Several suggestions emerged from the interview process and public open houses:

- **Mountain Bike Course** (possibly tied to the Trask Development proposal in Richmond Township)
- **Ice Skating Rink** (possibly developed jointly between MU and the Mansfield Recreation Authority implementing the Armory Project)
- **Miniature Golf Course** (private enterprise)
- **Ski trips to Denton Hill State Park, Ski Sawmill/Elk Mountain, or Swain Creek Trail**
- **Development of the Mill Cove Environmental Center** (outdoor hunting and fishing attraction)
- **Boat rental concession at the Lambs Creek Recreation Area** (private enterprise that could cater to MU students)
- **24-hour diner** in the Mansfield area
- **Movie theater** (private enterprise—not an outdoor activity, but another recreational outlet for students)

Results

- » Collaborative efforts among Mansfield Borough, Mansfield University, and the private sector encouraged.
- » Increased diversity of recreational opportunities for MU students and the public at large.
- » Business opportunities for new or existing commercial enterprises.

Recommendation

3-E

Increase awareness of Mansfield University's Service Learning program.

Why?

To provide more students with practical experience and to provide more businesses with cost-effective, flexible human resources, particularly in specialty areas such as web design and graphic arts.

How?

Provide opportunities for paid and unpaid internships with local businesses and other organizations.

When?

Near-term

Who?

- Mansfield University
- BOOM
- DCED
- Mansfield Borough
- Covington Township
- Putnam Township
- Richmond Township

The university aims to quadruple the number of internships involving initiatives as varied as helping businesses get started to developing business plans to assisting area businesses with public relations and advertising. The university began offering a new graphic arts major in Fall 2007 for students interested in web design, which could also be a resource for area businesses.

Further, the university and study area municipalities could work together in developing a package to orient new students to downtown Mansfield as part of student orientation.

Results

- » Students better integrated with the community and provided "real world" work experiences.
- » Entrepreneurship encouraged.
- » Cost-effective resources available to area businesses, especially in specialized areas of advertising, accounting, and business development.

Recommendation

3-F

Explore a “retail incubator” in Mansfield in partnership with Mansfield University.

Why?

To encourage young people to stay and become successful entrepreneurs, create jobs, and strengthen the local economy.

How?

1. BOOM should partner with Mansfield University in exploring the feasibility of the concept.
2. Area high schools and TCDC’s Youth Leadership Program should be linked to the incubator.

When?

Medium-term

Who?

- BOOM
- Mansfield University
- Mansfield Borough
- Southern Tioga School District (and others)
- DCED
- NTRPDC
- TCDC

According to the Small Business Administration, 47 percent of new enterprises go out of business within their first three years. However, businesses that begin in a small business incubator have an 80 percent chance of surviving. Tenants at an incubator typically have ready access to support encompassing administrative services, business development, and human resources, which reduces overhead costs.

While many incubators are operated by colleges and universities, others are operated by economic development organizations such as BOOM.

This recommendation is consistent with Pennsylvania’s initiative to “Stay and Invent the Future,” aimed at retaining the state’s young people.

Results

- » Entrepreneurs assisted in launching businesses with less pressure to be immediately profitable.
- » More “home grown” businesses.
- » More college students educated here stay here and contribute to the community.

Recommendation

3-G

Investigate expanding use of MU meal card program to include local restaurants.

Why?

To give students flexibility to enjoy meals off campus and another reason to go downtown.

How?

Meet with area merchants and restaurants to determine how to make this concept mutually beneficial and feasible for both the university and area restaurants.

When?

Medium-term

Who?

- Mansfield University
- Local businesses

Results

- » More students drawn downtown, increasing its vitality.
- » Added benefit to meal card program.
- » Increased market base for downtown eateries.

Recommendations

Aesthetics

The aesthetics of a community are an important quality of life issue. How a community looks communicates much about the area's vitality and attractiveness as a place to live and do business. As such, it should be an important component of any community's economic development and community revitalization efforts.

The area's communities already have ordinances in place regulating various types of land uses. However, short of introducing new land use codes, there are other ways and opportunities to enhance the appearance of the area, specifically the Business 15 corridor.

For the Greater Mansfield area, the new interchange of US 15 with what is now Business 15 has created a new entryway into the area from surrounding regions. This study offers several recommendations geared toward improving the area's visual impact to visitors and natives alike—conveying that the area is unique and offers a strong sense of community. These values are attractive to any community and also help attract outside interest and investment in the area.

Recommendation

4-A

Implement a “gateway” concept at the Canoe Camp interchange and other entrances to the area.

A few years ago, “Welcome to Mansfield” signs were installed along the US 6 and US 15 entrance points to Mansfield Borough through the efforts of several community service organizations (Lion’s Club, Kiwanas, etc.); however, these have fallen into disrepair and some have been removed.

With the completion of the US 15 interchanges (eventually to become I-99), the PA Wilds initiative, and with the Commonwealth promoting Route 6 as a Pennsylvania Heritage Highway, an effort should be made to enhance the entrance points into

the Greater Mansfield area. Specific attention should be given to the following locations:

- the Route 15/ Route 6 Interchange at the western end of the Borough,
- the Route 15 South/Canoe Camp Interchange south of the Borough in Richmond Township,
- the Route 15 North Interchange at the north end of the Borough, and
- the Route 6 entrance into Mansfield Borough from the east.

Safety enhancement, aesthetics, information, and directional signage all need to be considered when looking at upgrading the entrances to the community. This is especially important now that US 15 bypasses the borough’s central business district and the growing business area south of the borough in Richmond and Covington townships. Travelers exiting the four-lane facility will be looking for goods and services, or the University, or specific landmarks such as the Corps of Engineers Lambs Creek Recreation Area. An attractive entrance to the community from the highway with adequate lighting at night would make the area more inviting to travelers.



An artist's rendering of how the Canoe Camp interchange might look if several recommendations were implemented (view from the US 15 overpass looking north on Business 15).

Accurate informational signage is very important for visitors. An overall improvement project that will provide easy access to the business areas, the University, and other area attractions, with improved intersections, landscaping, streetscape enhancements, informational kiosks, and directional signs placed at strategic locations, is proposed. It is imperative that the improvements be designed to minimize conflict between pedestrians and drivers, while considering both user's needs.

The "gateway" projects should feature several aesthetic enhancements aimed at beautifying the area and making it more attractive to businesses, shoppers, students, and the traveling public. Amenities such as landscaped welcome walls with community or University logos would make the traveler feel welcome to the community. Use of stamped concrete or paver walkways, benches, and modest easily-maintained landscaping, or even a small pocket park, would be helpful as a welcoming mechanism. The Memorial Park recently completed at the western entrance to the borough along US 6 is an excellent example of such a welcoming place. Additional green space and adjacent municipal parking would enhance the area while not detracting from its original purpose. An informational kiosk, a business directory with a map to the downtown business district and the University, and a calendar of community events or community bulletin board would greatly benefit the area.

With the development of the Tioga County I-99 Business Park which is being implemented by BOOM, the enhanced gateway area will help to encourage investment and redevelopment in the adjacent downtown areas. Mansfield has excellent examples of these partnership efforts with the restoration of the T. W. Judge building on Main Street by the Strohecker Vision Care Center and the opening of the Wren's Nest restaurant.

Why?

To create a strong identity for the area and make it welcoming to visitors, and ultimately encourage investment in the area.

How?

1. Organize a Greater Mansfield Area Gateway Enhancement Project Implementation Group.
2. Initiate a public/stakeholder meeting to develop a vision for the gateway project.
3. Verify gateway sites.
4. Explore funding sources.
5. Coordinate with NTRPDC and with the Transportation Enhancements Coordinator at PennDOT District 3-0 in Montoursville.
6. Consider early acquisition of areas to place the signs/gateways. This goes a long way toward gaining favor with grant applications.
7. Prepare a Transportation Enhancement or Hometown Streets Application (a reimbursement program with an 80-20 matching requirement).

When?

Medium-term

Who?

- BOOM
- PennDOT
- Mansfield Borough
- Richmond Township
- Covington Township
- TCDC
- Tioga County

Results

- » Enhanced aesthetics, first impressions, and community pride and investment.
- » MU and central business district linked with entrance points to the area.
- » Property values increased.

Recommendation

4-B

Make streetscape and highway beautification improvements along Business 15.

Why?

To enhance the area for residents and create good first impressions for travelers, prospective students, and business people.

How?

1. Coordinate with PennDOT District 3-0's Roadside Management Unit on efforts to improve the appearance of the corridor.
2. Work with PennDOT District 3-0's Roadside Specialist to advance local highway beautification efforts. PennDOT's "Adopt and Beautify" program also enlists area volunteers to assist in maintaining a roadway's appearance.

When?

Medium-term

Who?

- BOOM
- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- PennDOT
- NTRPDC

Results

- » A corridor that creates good first impressions and reflects the area's vitality and character.

Recommendations

Safety

The provision of public safety is one of the most important—if not the most important—public service that government can provide. The Revitalization Strategy & Mobility Analysis advances more recommendations involving safety than any other type of community improvement.

Throughout the study process, many indicators pointed to the need for improved safety throughout the study area. From the 77 percent of survey respondents who said that “improving roadway safety” should be a medium to high priority, to the 70 percent who noted that bicycle and pedestrian modes need to be better accommodated, safety received high recognition from the public.

Information from state and local police records and even the U.S. Census corroborate the need for a safer transportation system. Elements of this recommendation area include improved lighting, sidewalks and crosswalks, pedestrian signals, and access management.

Recommendation

5-A

Energize overhead lighting at the Canoe Camp interchange.

Why?

To reduce crashes and improve night-time visibility in the area.

How?

PennDOT plans to let the project in May 2008.

When?

Near-term

Who?

- PennDOT
- Tioga County
- Richmond Township
- Mansfield Borough

Results

» Fewer accidents.

Recommendation

5-B

Accommodate pedestrians—make it safer and easier to walk.

Why?

There is a high percentage of pedestrian traffic in Mansfield Borough. In many locations, sidewalks and crosswalks are in poor condition or missing altogether. For example, crosswalk markings are missing at Academy Street, Hoard Street, St. James Street, the Wal-Mart intersection, and on US 6 in front of the high school.

How?

PennDOT's annual Betterment Program is developed using public and legislative input, as well as the Department's Pavement Management System. Participation in sidewalk construction typically involves local matches and also an agreement to commit to ongoing maintenance. Any proposed project would also have to meet criteria established in PennDOT's Curb and Sidewalk policy.

When?

Medium-term

Who?

- Mansfield Borough
- Richmond Township
- PennDOT
- NTRPDC
- Covington Township
- Putnam Township

Results

- » Walking encouraged.
- » Pedestrian safety improved.

Recommendation

5-C

Identify technological means of addressing emergency response issues related to US 15.

Why?

Due to bifurcation, crossovers are not possible on US 15 between Blossburg and the Canoe Camp interchange. This issue was evaluated during the construction of US 15 and was dismissed as being too cost-prohibitive to address from an infrastructure standpoint.

How?

Emergency Responders, along with municipal officials and County Emergency Management personnel, should meet with both PennDOT County Maintenance and District Engineering staff to explore ways to shorten response time. Area emergency responders should look for technological opportunities such as GPS and other navigation technology to pinpoint emergencies prior to calling out manpower and resources.

When?

Medium-term

Who?

- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- NTRPDC
- PennDOT

Several emergency responders attended the October 2006 open house at the Mansfield Fire Hall and expressed concern that there are few, if any, emergency crossover points between the northbound and southbound lanes of the new four-lane, limited access US 15. This makes it extremely difficult for emergency vehicles to access accidents and/or other emergencies along the new highway—they must travel seven or eight miles before they can access the opposite lane.

Usually the Tioga County 911 Center dispatches two fire companies (i.e., both Blossburg and Mansfield) if an accident is reported, so that emergency crews are approaching an accident scene from both directions. However, this involves excess manpower and costs for these volunteer organizations.

Results

- » Response times reduced.
- » Volunteer emergency responder resources conserved.

Recommendation

5-D

Adopt “traffic calming” measures at Smythe Park to discourage cut-through traffic.

Why?

Traffic on Besaneecy Drive is a concern during school hours.

How?

The school district should work with PennDOT District 3-0 and the borough engineer in examining the potential of traffic calming measures on Besaneecy Drive. Resources available for this recommendation include PennDOT’s Traffic Calming Handbook (Publication #383), available at <ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%20383.pdf>

When?

Medium-term

Who?

- Southern Tioga School District
- PennDOT
- Mansfield Borough

Results

» Traffic volume and speed controlled without eliminating access.

Recommendation

5-E

Improve the area’s two signalized intersections.

Why?

Business Route 15’s intersections with US 6 and the Wal-Mart entrance are two major “decision points” for motorists, pedestrians, and bicyclists. The operation of these intersections should be such that safety and capacity are effectively balanced. Currently, pedestrians are legally not permitted to cross the street at Wal-Mart, and the lack of pedestrian signal heads and “protected lefts” (turn arrows) for motorists compromises the full use of the intersection at US 6. It should be noted that a loss of 8 to 10 parking spaces may be necessary to accommodate new left turn lanes.

How?

The signal equipment is owned and maintained by the respective municipalities. The borough (and Richmond Township) should continue to coordinate with PennDOT on issues related to these two signalized intersections.

When?

Near-term

Who?

- Mansfield Borough
- NTRPDC
- PennDOT
- Richmond Township
- Wal-Mart

Results

» Walking and bicycling encouraged.
» Safety improved for pedestrians and motorists.

Recommendation

5-F

Implement access management solutions and accommodate non-motorized modes.

Why?

To improve safety and minimize congestion by reducing the number of driveways connecting to Business 15, and making it more feasible to ride a bicycle for transportation.

How?

1. Richmond Township should work with individual property owners and businesses to encourage them to create driveway connections and joint parking between their properties.
2. Owners of new development should be encouraged to allow for joint use and access, with a maintenance agreement outlining responsibilities.
3. Municipalities are responsible for sweeping curbed sections of roadway. Mansfield Borough and Richmond Township should coordinate on areas of reciprocity where the township could take advantage of the borough's street sweeper equipment in return for comparable services.

When?

Medium-term

Who?

- Richmond Township
- PennDOT
- Mansfield Borough
- Covington Township
- Putnam Township
- NTRPDC
- Tioga County

Traffic is expected to increase—the Greater Mansfield area has been evolving into a regional destination for goods and services and significant development is expected in the near future.

Access management enables a corridor's existing roadways to more safely and efficiently handle increasing traffic. Access management can include driveway and signal spacing, turning lanes, and median treatments.

Currently, many areas along Business 15 provide unrestricted access and substandard driveway spacing. Over time, the township should attempt to obtain an average spacing of 250 feet between access drives.

PennDOT has created an Access Management Handbook as a tool for municipalities to better accommodate growing traffic demands while preserving community character. It is available at <ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%20574.pdf>.

Results

- » Fewer traffic conflict points.
- » Increased roadway capacity.
- » More alternatives to driving.

Recommendation

5-G

Investigate reducing the speed limit along US 6 between Business 15 and US 15.

Why?

The greatest number of accidents in the study area occurs in this location. No school speed zone exists in front of the high school.

How?

Mansfield Borough should submit a written request to the PennDOT District Executive requesting a speed study be performed, in coordination with a new signal planned at US 6 and the off-ramp of US 15 as part of the I-99 Business Park entrance.

When?

Medium-term

Who?

- Mansfield Borough
- PennDOT

Results

» Perception and reaction time for motorists increased, ultimately reducing crashes.

Recommendation

5-H

Extend the school zone along Business 15 for Warren L. Miller Elementary School.

Why?

The current school zone is so short it is difficult for police officers to enforce.

How?

The school district should petition the borough to submit a written request to PennDOT to examine the issue in more detail.

When?

Medium-term

Who?

- Mansfield Borough
- PennDOT
- Southern Tioga School District

Results

» Improved safety for pedestrians, many of whom are children.

Recommendations

Future Development

This final subsection of the study recommendations offers ways to shape the area through organization and management of future development.

The state Municipalities Planning Code (MPC) is the enabling legislation that provides municipalities the authority to manage and regulate land use and future development. The MPC contains many provisions for municipalities to work cooperatively with one another, as well as with private developers, in shaping the future direction of their land development patterns.

The recommendations provided in this subsection touch on ways of formalizing the steering committee's existing relationship for study implementation purposes, as well as ways of working with private developers in creating a desired land use model. These deal primarily with such things as lot geometry (how and where buildings are placed on lots), leveraging private sector investment for additional outdoor recreation facilities, and establishing Transportation Development Districts, or TDDs, for the future funding of large public transportation investments made necessary by new development.

Recommendation

6-A

Consider forming a permanent multi-municipal planning commission/committee.

Why?

To encourage a regional approach and consistent, collaborative implementation of study recommendations and future planning efforts.

How?

Hold a meeting of the appropriate municipal representatives and DCED to further assess and advance this idea.

When?

Near-term

Who?

- Covington Township
- Putnam Township
- DCED
- Richmond Township
- NTRPDC
- Mansfield Borough
- Tioga County

A multi-municipal planning commission or planning committee would be instrumental in monitoring study implementation and progress and leading future planning efforts. This approach has been successfully followed by other Tioga County and Northern Tier communities, forming such entities as the Lower Tioga Planning Committee and the Eastern Susquehanna County Partnership.

The PA Municipalities Planning Code allows municipalities to enter into cooperative planning and implementation agreements. Article XI, Section 1101 of the Pennsylvania Municipalities Planning Code describes the provisions of Intergovernmental Cooperative Planning and Implementation Agreements in more detail.

Results

- » Better aligned implementation efforts producing more tangible results.

Recommendation

6-B

Impose “fee-in-lieu” for recreational needs of new development.

Why?

To fund area outdoor recreation improvements, which would see increased demand with future development.

How?

Study area municipalities should amend their subdivision and land development ordinances. A regional recreation committee could also be formed with representation from the three municipalities in order to provide public sector oversight and management of new recreation facilities.

When?

Medium-term

Who?

- Richmond Township
- Covington Township
- Putnam Township
- Mansfield Borough

Under the PA Municipalities Planning Code (MPC), Article V, municipalities are empowered with the authority to require recreational facilities for major new residential land development plans. With a “fee-in-lieu” requirement, developers would have the option of either providing the recreational facilities or paying the municipality a fee. With a fee-in-lieu provision, the township supervisors establish a fee per total number of housing units proposed. Developers of property can then pay a fee or donate property as set forth in the PA Municipalities Planning Code.

Results

- » New outdoor recreation facilities funded by the private sector (developers).

Recommendation

6-C

Minimize set-backs and encourage side and rear parking.

Why?

To orient commercial buildings to the street and make alternative forms of transportation such as walking, bicycling, and public transportation more efficient.

How?

Revise the township zoning ordinance to establish a maximum building set-back for the commercial parcels abutting Business 15.

When?

Medium-term

Who?

- Covington Township
- Putnam Township
- Richmond Township
- Mansfield Borough
- Tioga County



Example of maximum set-back ordinance to better orient buildings to the street and better define the intersection.

Richmond Township's zoning ordinance does provide for commercial parking, although it does not regulate where on the lot the parking can occur in relation to the primary building. Developing commercial areas such as the Business 15 corridor in Richmond Township benefit from a maximum set-back requirement. Richmond Township's zoning ordinance currently requires a *minimum* set-back of 50 feet for new commercial buildings. In establishing a maximum set-back distance, new commercial buildings would be oriented closer to the street, making alternative forms of transportation such as walking, bicycling, and public transportation more efficient.

Results

- » Development that is more attractive and more efficient for customers using various modes of transportation.
- » New development better aligned with the area's small town and historic character.

Recommendation

6-D

Establish a Transportation Development District.

Why?

To fund future transportation improvements made necessary by new development.

How?

Meet with PennDOT's Program Center staff to learn more about TDD formation.

When?

Medium-term

Richmond Township, together with TCDC, should explore the feasibility of establishing a Transportation Development District (TDD), which is an element of the Transportation Partnership Act, Act 47.

Area officials have targeted the area immediately south of the former Dorsett farm for light industrial development. BOOM is currently marketing properties adjacent to the US 15 interchange (the former Dorsett farm) for a mix of light industrial and commercial uses. As currently planned, there is only one point of ingress and egress to the planned development. As the parcels eventually develop, a second point of access will be required. This second point of access will ultimately impact the intersection of Spencer Road and Business 15 between the industrial park and the Canoe Camp interchange.

In order to develop in a TDD, a developer must pay an agreed-upon price to the municipality reflecting the impact of the specific development upon surrounding transportation infrastructure. The funds then go into escrow in order to pay for a future transportation improvement.


Results

» Municipalities able to assess specific fees on property owners within the TDD for related transportation improvements.

Who?

- BOOM
- PennDOT
- Richmond Township
- Mansfield Borough
- Covington Township
- Putnam Township

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Implementation *from Study to Plan*

The difference between a study and a plan is that the former makes recommendations while the latter is a defined course of action. This was a study. However, its recommendations are many and varied. The consultant team has strived to package this overall study in a manner that facilitates a relatively easy transition to establishing a plan of action.

That plan of action now entails decisions by the community leaders on which recommendations they will advance, who will lead each, and who will fulfill support roles. The recommendations should also be considered in terms of available resources and priorities. Above all else, leadership must be careful to not allow this report to sit on the shelf. It is always difficult to regain traction and momentum. It will be better to pick a handful of the recommendations and make modest step-by-step progress for each, than to do nothing.

During their May 23, 2007, meeting, the steering committee reviewed and prioritized the draft study recommendations. Items identified as top priorities were:

- Establish a multi-municipal planning committee (8 votes).
- Redevelop the armory for recreational purposes (7 votes).
- Strengthen the institutional relationship between Mansfield Borough Council and Mansfield University (5 votes).
- Consider starting a Main Street Manager program (5 votes).
- Work with PennDOT in addressing stormwater drainage issues associated with US 15 (5 votes).
- Advance streetscape improvements along Business 15 (3 votes).

The following next steps are recommended to move to implementation:

1. Read the report.
2. Establish a small forum of public and private leaders from each community to select those recommendations that it chooses to advance.
3. Use the Implementation Tracker (recommendation matrix) at the beginning of this section as a resource for selecting and prioritizing recommendations.
4. The consultant team will be available through February 2008 to assist in this transition from study to progress. This can be useful in terms of process facilitation and guidance for a basic structure and approach for moving forward.

Keys to Successful Implementation

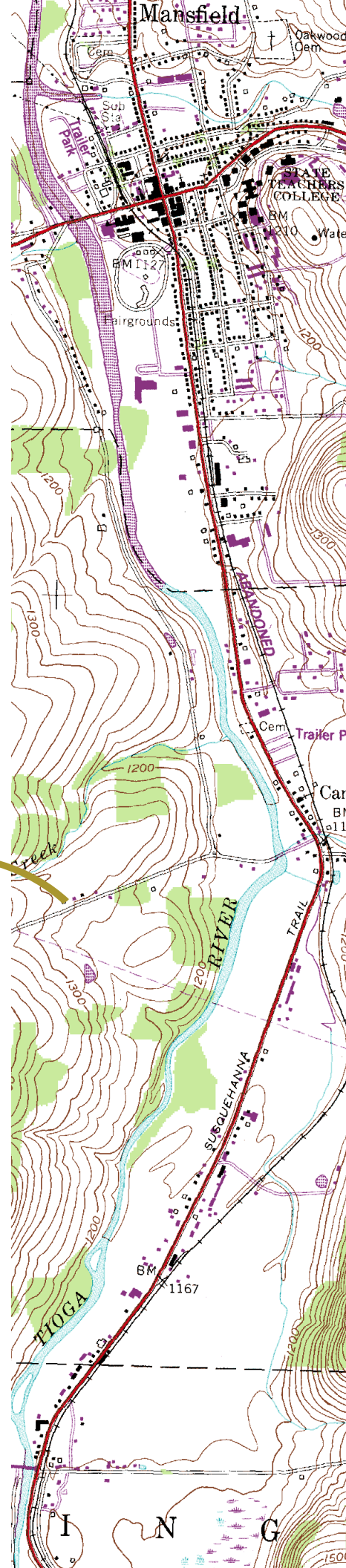
In implementing the recommendations of the Revitalization Strategy & Mobility Analysis, the members of the steering committee and various partnering agencies will need to consider several implementation principles. Leadership must give early attention to moving accepted recommendations forward and maintaining the momentum of the efforts to date. Keys to success will include:

- **Collaboration** – The study recommends the advancement of 29 recommendations. Obviously, not all of these can be shouldered by the steering committee alone. Implementation will require the commitment not only of the steering committee, but of various local, state, and even federal partners. The steering committee will have a leadership role on many of them, but will play an advocacy and/or supporting role on others.
- **Prioritization** – We operate in an era of financial constraint. Because it would be cost prohibitive to implement all the recommendations simultaneously, the study steering committee members have already given some initial thought as to the most salient recommendations to be acted upon first. This initial prioritization process begins with the steering committee’s desire to formalize their mutual partnership through a memorandum of agreement (MOA) for joint implementation of the recommendations. From there, the area will need to establish a formal timetable for implementing a prioritized action plan. This will enable steady progress to be made over time according to available resources.
- **Communication** – The Revitalization Strategy & Mobility Analysis garnered a fair share of community interest, as measured by the number of community surveys that were completed, as well as participation during the two open houses. Moreover, many indicated their interest in supporting the steering committee as they begin implementing the study recommendations. Even though the formal planning process has ended, the need remains to have a continuous communications approach with implementation partners and the public. This can be accomplished through periodic press releases and use of a “report card,” as described in the next bullet. PennDOT’s District Community Relations Coordinator could also serve as a resource for the many recommendations that involve communication and collaboration with PennDOT.
- **Monitoring and Reporting** – Over time, it will be important for the steering committee (or its successor) to monitor and report on the implementation of the study recommendations. An annual or bi-

annual “report card” of progress can be one way of measuring study actions that relate to various achievements, and can also address performance—i.e., was the recommendation achieved? Did things get better, worse, or stay the same over time? This report card can also be used in communicating implementation progress as well as the need for any “mid-course corrections” to community leaders, implementation partners, and the public.

- **Informing Future Plans** – The Revitalization Strategy & Mobility Analysis should be seen as more of a process than a study. It represents an ongoing approach by the municipalities to further shape their collective future. In recent years the study area municipalities have joined forces to develop a multi-municipal comprehensive plan, which in fact set the stage for the current Revitalization Strategy & Mobility Analysis. The results of today’s planning no doubt will set the stage for tomorrow’s planning efforts and feasibility studies, not to mention future updates to county and local plans.

Appendices



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Appendix A
*Steering Committee
Meeting Summaries*

**Greater Mansfield
Revitalization Strategy & Mobility Analysis
Kick-off Meeting Summary &
Action Plan**

Tuesday, January 31, 2006 | 1:30 PM

Background & Overview

The kick-off meeting for the Greater Mansfield Revitalization Strategy and Mobility Analysis was held in the Mansfield Borough council chambers at the date and time noted above. The purpose of the meeting was to introduce the study process to state and municipal officials and communicate their respective roles and responsibilities. Members received a project note book containing a meeting agenda, project scope and schedule, and a working draft outline of the study final report. A worksheet for identifying various data sources and study contacts was also included.

The meeting's major decisions and directions, along with an accompanying action plan, are summarized below.

Meeting Directions

- Steering Committee members indicated that the study should accomplish the following:
 - Provide recommendations for amending the area's existing multi-municipal comprehensive plan.
 - Foster inter-municipal planning and cooperation.
 - Advance applicable best practices from other areas, and prevent the mistakes of other communities in community and transportation planning.



- Involve Mansfield University in the planning process.
- Advance recommendations to revitalize the greater Mansfield area, with the commercial center of Mansfield as a strong community core.
- Rick Biery noted that one study outcome may include illustrative renderings from each of the three municipalities graphically showing the study recommendations. Potential sites could include downtown Mansfield and the commercial strip on Business 15 in Covington Township.
- Brian Funkhouser noted that, in addition to the two planned public outreach events, the consultant team will also involve students from the junior and senior high school in Mansfield as to their perspectives on area transportation and general community development issues. It was noted that elementary students from Covington Township attend school in Blossburg.
- Steering Committee members agreed to electronic distribution of meeting materials. Members present updated their contact information.
- It was noted that the study schedule seemed "too aggressive" for a 12-month process. Brian noted that the study will entail a more in depth examination of study area issues in comparison to a comprehensive plan. The study process will entail much interaction, requiring additional meetings with municipal officials and steering committee membership during the development and testing of community scenarios (Task 6). As such, there will be flexibility in the schedule. Rick Biery noted that a planning study in Athens Township, Bradford County was originally scoped as a 4-month study but has continued for over a year as officials weigh study findings and public preferences.
- It was also noted that this study is "not about façade improvements", but in identifying recommendations geared toward improving community revitalization and mobility.

Meeting Decisions

- Covington Township agreed to contact Putnam Township as a possible study participant.
- The PennySaver will be added as a potential advertiser for the study's public meetings.
- A date for the committee's next meeting was not set, but will occur sometime in early April after the consulting team has completed a draft Trends & Issues Report.
- Agenda items for the next meeting will include a review and comment on this background report, as well as a review of a suggested approach for the study's first public meeting (to be held before the Spring semester at Mansfield University concludes).
- The consulting team will revise the project base map to show the study area at a larger scale. Study area limits tentatively include the area focused on the Business 15 corridor between the northern border of Mansfield and the southern border of Putnam

Township. The Steering Committee will revisit the issue of study area limits during its April meeting. Revised mapping, showing the area's undeveloped parcels will be used in finalizing this.

Data Collection Efforts

Near-term study action items (and particularly those related to the development of the Trends & Issues background report) are listed below by agency responsible. Completed items shown (check-marked) are as of February 7.

Gannett Fleming (GF)

- ✓ Begin review of existing data sources (beginning with the area's multi-municipal comprehensive plan and other data sources) in compiling the Trends & Issues report (underway).
- Contact with Mansfield University for internship opportunities through the study. Dr. Russ Dodson of the Geography Department is the point of contact for this.
- Set up interviews with representatives from Capitol Bus and the Army Corps of Engineers

Northern Tier Regional Planning & Development Commission

- ✓ Provide mapping from the area's multi-municipal comprehensive plan to GF (completed)

PennDOT 3-0

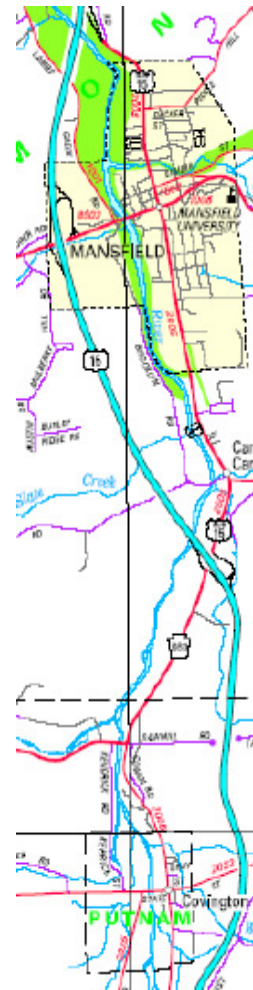
- ✓ Provide traffic count information for major study area roadways (US 6, US 15 and PA 660) to GF (completed)
- Provide area crash information to GF

Mansfield Borough

- ✓ Provide copies of the borough's zoning, subdivision and land development ordinance to GF (completed)
- Provide copies of any recent traffic impact studies performed for major land developments to GF

Covington Township

- Provide copies of the township's zoning, subdivision and land development ordinance to GF



Greater Mansfield Revitalization Strategy & Mobility Analysis



-
- Provide copies of any recent traffic impact studies performed for major land developments to GF
 - Contact Putnam Township for their potential involvement in the study process

Richmond Township

- Provide copies of the township's zoning, subdivision and land development ordinance to GF
- Provide copies of any recent traffic impact studies performed for major land developments to GF

Leaders establish the vision for the future and set the strategy for getting there; they cause change. They motivate and inspire others to go in the right direction and they, along with everyone else, sacrifice to get there. - John Kotter

*Greater Mansfield
Revitalization Strategy & Mobility Analysis*



Steering Committee Directory/Sign-In Sheet

Name	Address	Phone	E-Mail Address	Sign In (4)
Richard Biery Northern Tier RP&DC	312 Main Street Towanda, PA 18848	888-868-8800	biery@northerntier.org	XX
Richard Colegrove Mansfield Borough	163 Clinton Street Mansfield, PA 16933	570-662-2266	adcopy@mansfieldpennysaver.com	XX
Vern Doud Richmond Township	563 Valley Rd Mansfield, PA 16933	570-662-3380	richtwp@ptd.net	XX
Lisa Everett Covington Township	114 East Hill Road Covington, PA 16917	570-659-5439	covtwp@epix.net	XX
John Farrer Mansfield Borough	41 N Hill Terrace Mansfield, PA 16933	570-662-2225	jfarrer@ptd.net	
Shawn Forrest Mansfield Borough	19 E Wellsboro St Mansfield, PA 16933	570-662-2315	codesman@ptd.net	XX
Tom Freeman BOOM	46 N Academy Street Mansfield, PA 16933	570-662-2935	tfreeman@ptd.net	XX
Brian Funkhouser Gannett Fleming*	PO Box 67100 Harrisburg, PA 17106-7100	717-763-7212	bfunkhouser@gfnet.com panater@gfnet.com	XX
Ed Grala Mansfield Borough	19 E Wellsboro Street Mansfield, PA 16933	570-662-2315	mnsfield@ptd.net	XX
Charee Grover Mansfield student rep	120 Pine Crest Mansfield, PA 16933	570-662-4952	cgrover@mnsfld.edu	XX
Julia Johnson* Wordsworth Communications	60 West Avenue Wellsboro, PA 16901	570-724-5774	jljohnson@WordsworthCommunications.com	
Chris King PennDOT 3-0	P.O. Box 218 Montoursville, PA 17754	570-368-4222	chriking@state.pa.us	XX
Fred LaVancher* Larson Design Group	P.O. Box 485 Tioga, PA 16946	570-835-5425	cflavan@epix.net	XX

Greater Mansfield Revitalization Strategy & Mobility Analysis



Name	Address	Phone	E-Mail Address	Sign In (4)
Dennis Miller Mansfield University	Mansfield University Mansfield, PA 16933	570-662-4881	dmiller@mansfield.edu	XX
Lillian Smith TCDC	114 Main Street Wellsboro, PA 16901	570-723-8232	tcdc1@ptd.net	XX
Robert Strohecker Mansfield Borough	64 Prospect Street Mansfield, PA 16933	570-662-7892 607-426-3605 (cell)	strohs@epix.net	XX
Jim Weaver Tioga County Planner	116-118 Main Street Wellsboro, PA 16901	570-723-8251	jaweaver@epix.net	

* consultant team member

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**Greater Mansfield
Revitalization Strategy & Mobility Analysis
Steering Committee Meeting
Summary & Action Plan
Thursday, August 31, 2006 | 10:30 AM**

MEETING PURPOSE: To review and refine the Trends & Issues document, and to prepare for the study's upcoming public meeting.

Participants

- Rick Biery, NTRPDC
- Lisa Everett, Covington Township
- John Farrer, Mansfield Borough
- Shawn Forrest, Mansfield Borough
- Brian Funkhouser, Gannett Fleming
- Ed Grala, Mansfield Borough
- Julie Johnson, Wordsworth Communications
- Chris King, PennDOT District 3-0
- Fred LaVancher, Larson Design Group
- Jim Weaver, Tioga County Planning

Meeting Directions

Documents

- **Census figures** - the committee noted that counts in the area have been problematic in the past. The borough's population may not be accurately represented in the census data.
- **Land Development Calculations** - The committee recommended that in calculating the total land available for development, the Team should "back into" the number by considering various development limitations such as: wetlands, floodplain, cultural/historic resources, severe slope, etc. The county's GIS could be used to identify wetlands areas (turn NWI layer on, examine hydric soils).

Public Meeting/Open House

- **Venue** - The committee recommended holding this in the Mansfield Fire Hall on a Thursday evening in late September or early October.
- **Public Officials Briefing** - The meeting will be preceded by a public officials briefing to be held at 5 p.m., with the public meeting to begin at 6 p.m. The Team should ensure that each municipality is represented and involved in the pre-meeting briefing as well as in welcoming participants. Since the public meeting will deal primarily with issue identification, the committee recommended waiting on involving legislators Matt Baker and Joe Scarnati until there are actual study recommendations.
- **Mayoral Introduction** - It was suggested the borough mayor could be contacted to perform the meeting introduction before turning it over to Gannett Fleming.
- **Local Contact Information** - The Team was directed to use names of local representatives from each municipality (Steering Committee members) as contacts on the meeting PowerPoint and study fact sheet.
- **Invitees** - Other invitees should include: Cindy Campbell of DCED, Scott Hercik of the Appalachian Regional Commission, and Matt Smoker of FHWA. The Team will work with MU's Dennis Miller in getting electronic invitations out to the student body and faculty.
- **Meeting Mailing** - Use the county GIS or EMS data to narrow county data to study area, tie to tax rolls, and generate addresses for mailing public meeting announcements. The Team will review addresses with Covington Township to ensure they are updated with 911 renumbering.
- **Public Charge** - "Reportable crashes" do not include fender benders or close calls. Have the public point out dangerous areas throughout the study area. The use of the Army Corps's levy and Corey Creek conduit as potential greenways should remain as a study area issues.
- **Naming Conventions** - The Team will avoid use of the term "Greater Mansfield" in describing the study to public audiences.

Document Revisions & Follow-up Items

Follow-up actions

- Gannett Fleming (GF) to call Karen Graber regarding the availability of EMTA ridership data by route.
- Shawn Forrest to provide Gannett Fleming with contact information for reserving the Mansfield Fire Hall.
- GF to check with Mansfield High School to try to avoid scheduling the public meeting during major sporting events.

Greater Mansfield Revitalization Strategy & Mobility Analysis

- GF to send address list for meeting invitation to Lisa Everett for corrections.
- GF to coordinate e-mail invitation to college students with Dennis Miller.
- GF/Julie Johnson to develop press release for Mansfield Gazette.
- GF to place meeting ad in Pennysaver.
- GF to check on reportable crash data available from Mansfield Borough.
- Steering Committee members to fax or e-mail Brian Funkhouser any other ideas or revisions to the Trends & Issues report or Public Meeting #1 materials.
- Gannett Fleming's contract currently expires on March 31, 2007. NTRPDC will investigate if a no-cost extension could be provided to June 30, 2007.

Trends & Issues revisions

- p. 5, re-order columns for "Other" and "Hispanic."
- p. 5, last sentence under income, consider adding another explanation for lower per capita income as the large percentage of retirees in the study area.
- p. 12, spell out "SOV" to avoid confusion.
- p. 13, provide a footnote under the functional classification map.
- p.22 Move "good place to walk" to correct place in list.

Public Meeting PowerPoint revisions

- Slide 3 should include BOOM, MU, and DCED as stakeholders.
- Remove the NTRPDC logo from public materials, insert local contact info.



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**Greater Mansfield
Revitalization Strategy & Mobility Analysis**

Steering Committee

Meeting Summary

Friday, November 17, 2006 | 10:00 AM

MEETING PURPOSE: To review and affirm the results of the October 12 open house, and to begin initial work on developing scenarios.

Participants

- Vern Doud, Richmond Township
- Lisa Everett, Covington Township
- John Farrer, Mansfield Borough
- Tom Freeman, BOOM
- Brian Funkhouser, Gannett Fleming
- Ed Grala, Mansfield Borough
- Chris King, PennDOT 3-0
- Fred LaVancher, Larson Design Group
- Mara Skoczynski, PennDOT 3-0
- Bob Strohecker, Mansfield Borough

Meeting Directions

Steering committee members were asked to provide their perspectives on the comments received from the October 12 open house. The following is a summary.

- **Aquatic Environmental Concerns** - Committee members agreed that the issue of flooding from the Tioga River and stormwater run-off from the modernized US 15 were two of the more commonly cited issues outside of the study survey. While 2006 has been an unusually wet year, flooding has been an issue since the early 1960s. Mansfield and Richmond both have stormwater management ordinances in place, while Covington goes by the County ordinance. Richmond Township has problems with water on many of its roadways. PennDOT's Chris King will relay some of these concerns to the District's Maintenance Unit.
- **Traffic Congestion** - Even though the public survey would seem to indicate that policies aimed at congestion reduction should not be a priority, the study should make recommendations that maintain the area's relatively good traffic flow. Many people did comment specifically regarding problems at the intersection of US 15 and US 6.

Greater Mansfield Revitalization Strategy & Mobility Analysis



- **Lighting of the Canoe Camp interchange** - Steering committee members noted that this issue is currently being handled by Northern Tier in conjunction with the Tioga County commissioners. This is an ongoing discussion issue that will need to be worked out between Tioga County and local government until FHWA officially designates US 15 as I-99.
- **"High End" Housing** - Committee members agreed that the market will address any need for higher end housing in the study area. The borough has some properties yet on Pickle Hill available for residential development.
- **Junkyards** - These land uses were mentioned by the public as detrimental to tourism promotion and overall area aesthetics. Covington Township has a two-year old junkyard ordinance and is looking at greater enforcement. DEP is working with Matthews on clean-up of its site.
- **Development impacts on PA 660** - There was a new sewer line from Putnam to the Richmond Township line installed in February 2006. There is no service on PA 660 West.
- **Westgate Road** - There was some discussion on the future of Westgate Road in Richmond Township. While some residents have complained about the dust, others have voiced concern with getting it paved. Motorists from the Roseville area and other points east of Mansfield use the roadway as a short-cut to Wal-Mart and points south on US 15.
- **US 15 Access** - Committee members agreed with public comments regarding limited EMS access from one lane of US 15 to another...both north and south of the borough.
- **Intersection of US 15 and US 6** - It was noted that right turn on red (RTOR) is not permitted due to the timing of the intersection. The signal controller is approximately 5 years old.
- **Development Wildcards** - The committee provided general comments on several large parcels slated for development, including the Trask and Avery properties, the armory, and the Tioga County/I-99 Business Park.

Next Steps

Brian noted that the consultant team will be developing planning scenarios based on existing ordinance language and comments received during the open house. The team will be meeting with each municipality individually during the January/February '07 time frame to review the results of the scenarios and to discuss draft study recommendations.

Adjournment

There being no further business, Brian thanked everyone for attending and declared the meeting adjourned at 11:50.

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Appendix B
*Survey Instruments
and Summaries*

University Survey

1. What are the most important qualities a town the size of Mansfield needs to have in order to be a great place to live, work, and go to school?
2. What are some positive trends you have seen occurring in the community over the past 3-5 years?
3. What have been some of the negative trends?
4. What are the primary transportation challenges facing MU students (commuters from out of town, on-campus residents, off-campus residents)?
5. How convenient and safe is it to walk in the Mansfield area?
6. How convenient and safe is it to travel by bicycle in the Mansfield area and/or to ride a bike for fun?
7. What bicycle/pedestrian improvement projects might make it more appealing to walk or ride a bike?
8. Are there any issues with existing bus service (inter-city and fixed route) in the area?
9. What concerns or ideas do you have regarding land development within the study area?
10. What services/attractions would you like to see in downtown Mansfield?
11. How can MU be better integrated with the community?

Mansfield University Online Survey Results

May 24, 2006

Q1: What are the most important qualities a town the size of Mansfield needs to have in order to be a great place to live, work, and go to school?

- It would be nice local entertainment establishments around this area in order for Mansfield to be a great place to live, work, and school. More homes need to be established as well as restaurants, a shopping mall or at least a shopping plaza and other entertaining venues that can allow tourists to come and visit the borough.
- Revitalization of the depressed areas of these communities will make them a better place to live. To see even the slightest clean-up project or beautification project will lift spirits in all areas of life. Other qualities include safety, appearance of buildings, and encouragement of the community to get involved with each other outside of their own personal lives-- college students included.
- Variety of businesses. Something to attract people to shop in Mansfield. Businesses besides antique stores and pizza places.
- More activities to do on and off campus that would include everyone.
- Sense of community via planned activities, recreational programs, community identity perhaps represented by banners or similar displays that enliven the environment. The 150 yr MU celebration with community involvement is perhaps a step in this direction.
- I personally feel that Mansfield has the important qualities that make it a great place to live, work, and go to school because I grew up in the Pittsburgh area and the "small town feel" of Mansfield is what I have wanted all of my life.
- Needs to be safe, friendly and willing to help a new person to area find a job and a way to live here.
- There needs to be businesses which are open later than those currently in Mansfield. The only places which are currently open at the times most accessible to students are some of the restaurants, Dunkin Donuts, and Wal-Mart.
- Everything is in walking distance.

Greater Mansfield Revitalization Strategy & Mobility Analysis

- Various activities nearby such as skiing/snowboarding, parks, lakes. Some shopping and business areas easily accessible by walking. An open and cultured community offering different activities or shows often. A regular public transportation system that's easy to use.
- Places to eat, places of entertainment geared toward college age students, community that is supportive of the university
- Something to do! We don't have movies, we don't have a mall and we don't have any restaurants! If we could get even like an Applebee's or Olive Garden our town would improve 100000%!!!!
- Jobs, shops and evening entertainment like restaurants with vocalists or sports bar type areas and maybe outdoor cafe seating. Cultural activities etc.
- Great people and places to see and do. especially being a major college town.
- Parks and recreation areas, quality shopping areas and restaurants.
- This area needs jobs which pay a living wage.
- A town the size of Mansfield needs to have numerous job opportunities for townspeople and students. It should have restaurants, shopping, and places that provide entertainment.
- Well, I believe that in Mansfield there needs to be more out of school offerings and flexible business hours for college students. Sometimes we just cannot get downtown for something by 5 in the afternoon, and the weekends are pretty much out of the question. I'm not sure if this is achievable, but who knows. Also, this town needs more unity. As a student, I feel very separated from the community members, and it just feels segregated.
- Friendliness, cooperation, caring, compassion, understanding, and responsibility.
- The most important qualities at a town the size of Mansfield needs to have in order to be a great place to live, work and go to school is versatility and variety. There are many different ages of people from elderly, to college age to grade school students. Being that Mansfield is such a small town, I think that this is an important quality to make everyone happy especially since all of these different generations do not always agree on everything.
- Mansfield is an ugly town. Yet the people are mostly friendly and there is little traffic congestion. The following would really help improve Mansfield: 1) Place the above ground power and telephone lines underground, 2) Pave the pothole filled roads, 3) Add bike lanes everywhere, 4) Clean up some of the ugly

businesses as you drive from Wal-Mart to downtown and add some landscaping along the way, 5) Fix the uneven and broken sidewalks, 6) Promote and create some new housing developments in or near town, and 7) Bring in some new quality restaurants and student oriented businesses.

- Community Involvement within the community itself and with MU.
- Good schools, attractiveness, community involvement, basics such as medical, grocery store, restaurants, affordable housing, the arts.
- Quality roads, sewers and gutters. Quality schools. Crime-free
- Recreation such as the parks and outdoor facilities. The mountie bus is great and takes us a lot of places.
- More places to hang out I.E. Night club, shopping center, bars and similar places.
- 1) Publication of EMTA's BUS Schedule
- 2) Expansion of EMTA's services
- 3) More knowledge about CRR, PIP, and other human service agencies
- 4) Free in-town summer camps for southern Tioga students
- Entertainment, inexpensive places to eat, but nice ones as well for family dining, shopping centers
- Entertainment is much needed so that we do not have to travel to Wellsboro or Williamsport for entertainment. There also needs to be just more jobs that are for college students, the fast food restaurants do not always hire college students or they would like you to work the 3rd shift. Wal-Mart will not give students the time off over breaks and that is just not fair so if there were for jobs for college students it would be very nice!

Q2: What are some positive trends you have seen occurring in the community over the past 3-5 years?

- Every year around October Mansfield celebrates 1890's week which is a football reenactment of the first football game ever.
- Growth in the outskirts of Mansfield, especially south.
- The ice cream store on main st. in Mansfield. It has made main st. a place where families come to sit and enjoy the town, more so than ever before. Main st.

should continue to include places where people can enjoy the history of the town.

- Off-campus: some different business's have come and gone, on-campus: paving roads, fixing certain buildings, hopefully getting some new buildings, (South Hall)
- Store fronts continue to be utilized and new retail businesses are willing to open. The coffee shop, ice cream shop and Italian restaurant with outside seating are a plus. The Strohecker Building and First Citizens Bank Plaza send a message of success. The Library improvements also send a message of success.
- I have seen new businesses coming into town, which I believe is positive because it is keeping the storefronts full and shows that the community is growing.
- I have seen that its is friendly and a safe place to raise a family in the sense it is not a big city.
- The involvement of community members in both the town community and the university community.
- The addition of small business (Night and Day, Main Twist, etc.)
- It has been nice to see a few new businesses open up such as the Night And Day coffee shop and the new ice cream shops that seem to want to attract students. I hope that continues.
- There has been somewhat of a positive trend of more places to eat, but it needs to continue.
- Well I haven't been there even 2 years but from what I've heard things around town have started picking up since we got an ice cream shop right there in town on main street.
- Coffee and ice cream shops next to pizza parlor with outdoor seating in town bringing people out in the evening and the 1890's weeks.
- More things geared toward the younger generations....1890's weekend and coal festival are only fun once...
- Beans and Greens natural foods and Night and Day coffee shop-- more businesses like these are definitely needed.
- The community has positively been supporting campus events and activities, such as music performances and sporting events.

- Well, I must say, my new favorite would have to be the Main Twist next to Night and Day and Papa V's, that corner is the best corner in town! Also, I like how the university has services and performances open to the public, I believe it shows them that the college students are not out to get them.
- A sense of one. Not separating the community and the college as two different worlds, but as one complete community. Also, the community getting involved in some of the college activities. I also like the fact that there are trails to walk on and places for kids to be active at.
- The University Club and Wren's Nest restaurants were improvements. Strohecker Vision center did some really nice renovations.
- Beautification of the university, some joint community - university events, although this is an area for improvement also.
- People who care.
- I've only been in the area for 1 semester so I don't really know.
- 1) Fine Arts forum
- 2) More businesses that are geared towards the college-age crowd and families (such as Night and Day, Sunset, and Main Twist)
- 3) Expansion of services offered by human service agencies
- 4) More college students are going downtown
- New businesses
- Nothing (2)

Q3: What have been some of the negative trends?

- Mansfield University is located in Mansfield and on the weekends a majority of students go home and do not stay on campus because they feel that there is "nothing to do". That is a negative trend that does not seem to go away.
- Still no growth in different types of businesses that would attract Mansfield people as well as travelers to shop in downtown Mansfield.
- PARKING-That really stinks. On-Campus food, sometimes doesn't taste the best.
- Retail businesses tend to be marginal.

Greater Mansfield Revitalization Strategy & Mobility Analysis

- The towns people are not willing to help people find jobs that are better than five dollars an hour which I find insane because how is a person suppose to live on less than minimum wage pay. My brother graduated from Mansfield University and is trying to find a job in this area but he can not find any other that part time jobs. What is he suppose to do for health care and car payments The town needs to realize that farming and sitting on your butt all day at Wal-Mart is not the thing to do. The town needs to re-build it self and bring more jobs for the local people than McDonalds or Wal-Mart.
- Unwillingness of the students to involve themselves in both the town and the university communities
- Nothing is really open late except Dunkin' Doughnuts. It would be great if there was a 24/7 Diner in town.
- Not much change in the community. It also seems there is a gap between the community and the university.
- There is still not much to do. What I mean is if I am looking for something to do, I have to go to at least Wellsboro...even
- I have witnessed a lot of resentment towards minorities by adults that is absorbed by the younger people. Poor examples being set.
- I'm sure the older generations are sad and think we can't enjoy the "nature of things" but we can. but we're ARE young....
- The Walmartization of Mansfield-- there are very few alternatives for students and residents without driving long distances-- downtown Mansfield should be home to everything one needs so no one is forced to go to Wal-Mart--- home of cheap plastic junk and poor labor conditions.
- The governor insists that tourism is what's best for this area. Tourism will benefit only a small handful of residents. The rest will be offered more low wage/no benefit jobs. And the presence of more people in the area only serves to destroy it.
- I would just have to say once again, being separate from the community, we spend a long time in the town, I think people need to have more open minds.
- The college and community not being more united then they are now. The fact that there is very little to do on the weekends or at least in the community. I noticed that their is a bowling alley, that doesn't have computers to keep score,

because I don't know how to keep score so I don't go, but other than that what does Mansfield have to do?

- A majority of the college students think that there is nothing to do in Mansfield, especially later in the evening so many turn to alcohol and drugs and make other bad decisions.
- The roads seem to be getting worse. There does not seem to be much going on in the way of improvements. The town business area does not seem very student oriented. Where is a lot in Mansfield to build a new house on?
- Still a town - grown divide to some extent.
- Low tax base - thus roads sewers and gutters are embarrassing
- Q3: 1) Empty store fronts
- 2) The town is divided into the college students and the individuals who live in town
- 3) Not many activities, besides drinking, to do at night
- Q3: Theft, vandalism, underage drinking, illegal drug use
- Nothing to do (2)
- I don't know (3)

Q4: What are the primary transportation challenges facing MU students (commuters from out of town, on-campus residents, off-campus residents)?

- None that I'm aware of. They walk to most locations.
- The transportation challenges are that there is not enough transportation. On-campus Students are very basically confined to the Mansfield area if they do not have access to a car. The Mountie only runs to places in the Mansfield area and in the evenings, including weekends. There is other transportation to Wellsboro or Arnot Mall occasionally, but it is not made known to students.
- Everything on campus is up hill. Weather, mainly in the winter time, is A problem. I'm a commuter and i have never missed a day of classes. it just makes me mad that I can find a way to get to classes during these times and those who live on campus don't come to class because of the snow when all they have to do is walk. Sometimes I think the university needs to shut down because conditions are so bad but they don't. They tell us to use our best judgment, but to me

education is too valuable and I would rather risk it than spending the rest of the weekend trying to catch up with one days missed class.

- Parking...but relative to other locations the challenges are really not all that bad. The cost of gasoline is a major issue in combination with limited public transportation.
- I live on campus during the school year and in Covington during the summers and before I had a car I had to wait for my parents to come and get me if I had a free weekend and wanted to go home. I would have taken the bus but the trip to a town near my hometown would have taken more than 3 times as long as someone coming to get me (18 hours instead of 4 or 5). This is due largely to the fact that I would have to travel to Philadelphia and have a 6 hour layover.
- Parking is a big problem and than the police who need money as bad as I do are always ticketing people because that is their income for this week.
- It is hard to get anywhere outside of town. I did an internship for the Betterment Organization of Mansfield last semester in which I surveyed 450 students. This was one of my questions and the results reflected that 98% of students were unaware as to the existence of any sort of transportation options other than the Mountie, which only runs to places within Mansfield. Most students felt that without a car, they were limited to Mansfield. For more information on this survey and final report, please email me at alderfeb@mansfield.edu
- Not being allowed to park on the streets between the hours of 3am-6am.
- Not knowing what services are available or the schedules of the services offered. Not many transportation services offered to for out of town trips.
- The roads are terrible. There isn't enough parking for the amount of students.
- As an on-campus resident, parking is a serious issue. The parking lots designated for upper-classmen aren't even half full but underclassmen can't park there to fill it up instead of parking over the hill far away from campus and our destinations.
- Commuters and off campus-Parking everything close by is designated for faculty and staff. Although they should have preference it is really inconvenient for students.
- The mountie schedule is long...20 minutes to wait for him...20 minutes to shop and 20 minutes to get back...that's an hour. most college kids don't have an hour to waste at Wal-Mart or wherever...The blue bus only runs till early evening. I

get out of work at 7-8:00pm...I have to travel from Wellsboro...gas is expensive. Maybe blue bus running later??

- Route 6 and Route 15-- even though you can bypass Mansfield now on rt 15, there is still an inordinate amount of noisy traffic and large trucks-- sitting outside on Main street to enjoy an ice cream or cup of coffee is almost unbearable because of the roar and exhaust of semis on 6 and 15.
- 1. Parking
- 2. Parking
- 3. Parking
- Commuters from out-of-town sometimes have difficulty finding parking spaces close to their classes on campus. On-campus residents have trouble finding transportation to locations around town and to surrounding areas. The mountie bus does not run all hours and only travels to select locations (many students wish it would make more stops at the outer parking lots after it is dark out, for safety reasons). Off-campus residents sometimes have trouble finding ample parking spaces.
- Well, I really do not drive, so as a passenger I really don't see much wrong with transportation, and having the mountie is a nice thing when living on campus.
- Not enough parking around the dorms for on-campus residents.
- The primary transportation challenges are the times that the Mountie runs. The Mountie only runs after 4pm, so students must wait. This means that if they have work or appointments that are not within walking distance they need to find another way to get there.
- Having transportation to places besides that of which is right in Mansfield such as Wal-mart and fast-food places. It would be nice to have transportation to places in Wellsboro, and New York such as the mall.
- High cost of gas is a major issue for students, parking at MU
- The parking is pretty horrible. I understand commuters should have the parking spots they do, but come winter and when it rains, or even just to do things in general we have to wait for the mountie to come at 4 in the afternoon or we have to walk a large hill to get our cars.
- Only one bus
- Parking
- Rising gas prices

- Plowing is not done correctly or done at all and commuters still have to travel because the campus is plowed to an extent. The mountie is good during the week but on the weekends when Kevin is not working it is horrible, it does not run according to the schedule and we have to wait outside in the rain snow and cold waiting for the driver to arrive whenever we want too. They also do not wait at Walmart for when people are waiting in the line and about to come out, he leaves and has to wait for the next trip around.
- I don't know (2)

Q5: How convenient and safe is it to walk in the Mansfield area?

- Very safe and convenient (9)
- Very safe where there are sidewalks. Need more sidewalks. (2)
- Fairly. Certain parts of town are usually avoided, such as the "slums" on the Mansfield campus.
- Its convenient and its pretty safe. at night we have the Mountie Bus Shuttle which goes on and off campus, just as long as you are a college student you can ride it. it takes you around to all the business stops in Mansfield and takes you back on campus.
- The streets are now well maintained or planned in terms of well marked cross walks or traffic lights at places such as the critical corner where Academy and Route 6 cross. The town would be much friendlier with markers that ask motorists to stop at crosswalks. Many New England small towns seem to do this and it makes a much friendlier community that is safer for pedestrians. Not all walking pavements are well maintained
- It is very convenient and safe for me but I am a 25 year old male. My girl friend on the other hand is 20 and walks to see me and she is concerned about other males from the college and what they might do to her. I think the town needs to be more concerned about police watching the Parties going on at night from the University.
- I feel it is safe to walk in the area its just not all that convenient if you go anywhere outside of the downtown area. The area from the Pump and Pantry to McDonald's Papa V's isn't bad to walk at all. After that though things really become spread out. I do think there could be better marked crosswalks around town and a walk signal at the light.

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- We need more sidewalks on the way to the parking lots since there are none. Also, people don't care that there are pedestrians in the cross walk. They continue to fly thru even though there are signs that say yield to pedestrians.
- Eh...it's ok. Main street is the best. A lot of attempted rapes on dark side streets. I know Mans. Has good police patrol but maybe more through side streets at night (after 8pm)
- It is safe, but would be more convenient if Main street was developed a bit more with shops and restaurants.
- Most stores of any use you need a car to get to. As for safety, if I forget to lock my car, I don't worry about anything being taken from it. And a 3 am stroll across campus is perfectly safe.
- Overall I feel it is very convenient and safe to walk in the Mansfield area. The only place I do not feel safe walking alone (especially at night) is the back path (known to students as the "turkey path") that goes by The Hut to the music building on campus.
- It is very convenient walking in Mansfield, mostly because everything is located in a matter of a mile, but at night I think there needs to be more lighting around the house area between campus and town, only because there are very dark spots, and I know many of us do not feel safe considering past events in Mansfield with safety.
- It seems to be very safe to walk around the Mansfield area night or day, but some back alleys are pitch black and can lead to crime and drug hot spots.
- I personally feel safe walking in the Mansfield area. I also feel that most everything downtown is within a fair walking distance. I have even walked to Wal-Mart on nice days, although this is not something that I would do often since it is quite a long walk.
- 1) It is fairly safe for a woman, such as me, to walk on the streets at night
- 2) On Thursdays, Fridays, and Saturdays, I do not do this
- 3) I refuse to walk on the bike trail and the dyke at night
- It is convenient, but the side walks are dangerous. One street, the walks are all uneven and it is hard to see at night.
- Very! (Except for a few select back roads at night that is.) There are people who totally do NOT yield to pedestrians though!
- Very safe kinda hilly
- Very convenient and relatively safe. Lighting could be better.

- I don't know.

Q6: How convenient and safe is it to travel by bicycle in the Mansfield area and/or to ride a bike for fun?

- Pretty good except for traffic in town.
- Very convenient, they have a bike rest thing too that you can chain your bike to.
- Not particularly safe. The parking arrangement downtown is a problem for bikes.
- Though I don't ride a bike, I believe that it is convenient and safe because most of the traffic is on 15 rather than on Main Street
- Not very. traffic tends to be dangerous in the downtown areas.
- It is very safe and convenient to do in the summer time or spring.
- I've always felt safe biking in Mansfield on the trails. The bike trail is very nice to bike or run/walk on. A biking lane on the bigger roads would be nice because it can be intimidating to ride on the side of the main roads with all the traffic.
- No clue.
- Easy, safe wise however, the streets are uneven and Mansfield University is uneven as well. your tires hit the stone and you go flying off.....and the street is the only option.
- The bike path behind Grecos is good safe and convenient-- but not the main streets
- It's not. The streets are not built for cyclists. Nor is route 6. The locals here are notoriously in active, so if you're suggesting that more bicycle trails are needed around here, who are you building them for?
- It is fairly convenient and safe to travel by bicycle in the Mansfield area and to ride a bike for fun.
- I haven't explored town that much yet, nor do I have a bike here, but I would guess it is alright.
- I don't ride my bike in Mansfield but I feel like it would be quicker and more convenient than walking as long as there are bike racks.
- It is very dangerous on downtown Main Street. If you stay on the sidewalks it is safe. However, it is posted downtown that you cannot ride on the sidewalks. With the diagonal parking areas downtown it is not safe to ride on the road as

cars cannot see you as they back out. However, the BiLo/Grecko's bike trail is nice. And it seems fairly safe to ride on many side streets if cars are not parked there. However, even some side streets are dangerous due to uneven storm drains that drop way below the level of the regular pavement.

- Not convenient! Not enough places to ride.
- I know many people who enjoy biking
- There are trails that are pretty nice.
- Very safe and convenient. (5)
- I don't know. (4)

Q7: What bicycle/pedestrian improvement projects might make it more appealing to walk or ride a bike?

- A bicycle lane on the main streets.
- More places to ride, such as the path behind the shopping strip mall!
- Engineering of bike routes that are marked, particularly running north and south, say from Wal-Mart to the north end of town would be nice.
- There should be more hiking/biking trails with more gardening down, for my self I would do more if I knew I was not going to get lost or poison Ivy again.
- I believe that there should be a program through which students can rent bicycles. It is extremely inconvenient to keep a bike in your dorm room so most students don't bring one. If there was a rental program in place, it would encourage students to utilize bicycles. It would also be a great business opportunity.
- More crosswalks or mark the ones there already better. A walk light at the route 6 stoplight. Biking lanes on some of the bigger roads or a bike/hike trail that takes you to areas other than the boat launch. Maybe one that will take you to Wal-Mart or the other shopping plaza.
- Possible bicycle lanes and keep up with sidewalk maintenance- Close to where campus borders town a lot of the rental properties have poor sidewalks if any.
- Wider sidewalks, defined bike lanes on main streets.
- The people here don't need more places to ride a bicycle! They need jobs that pay a decent wage. Go build a bike trail around the governor's mansion.
- If some of the sidewalks were fixed or a path for bikes was added to some of the major roads, it would be more appealing to walk or ride a bike.

- I find no improvements need to be made. There are enough cross walks, lights, signals for bicycles and pedestrians.
- I would like to see a fitness walking / jogging trail with exercise stations every little bit. That has been popular in other communities I have lived in. How about giving easier access to the river bed or some other areas where we can run our dogs off leash. I would like to see bike lanes and careful attention to storm drains running from the boat dock at the North end of Mansfield all the way to Covington.
- I'm not totally sure on that answer. Sometimes it doesn't feel too safe walking onto the streets because students and people in general speed in their cars and don't obey speed signs (that is if they even exist in the first place).
- The bike trail does not really go into the country. It would be nice if it went into the woods like it used to.
- Better roads that are paved and not filled with pot holes. I know people that have fallen in pot holes and sprained an ankle due to pot holes.
- Having more bike racks on campus.
- Sidewalks. larger signs about yielding to pedestrians.
- More patrol later at night...
- Maybe make it more known that there are bike paths or scenic walking areas.
- Maybe adding a bike lane/walking lane on the sides of the roads and bike racks around town. (3)
- More sidewalks on back roads and more lights for at night. (2)
- More off-road trails for hiking and biking (2)
- Better sidewalks and landscaping (3)
- Not sure (2)

Q8: Are there any issues with existing bus service (inter-city and fixed route) in the area?

- We have to mountie bus shuttle which takes you where ya need to go as long as its in the route.
- Yeah what bus only shows up when they feel like it.
- I'm not sure that it's available to members of the community as opposed to only college students.

- Again, in the survey which I completed last semester, most students are unaware of the existence of any bus service. Advertising would be a great idea. For a copy of this survey, please email me at alderfeb@mansfield.edu
- I haven't used much of the bus service but I haven't noticed any clearly marked bus stops or a schedule posted at all. Maybe if I knew the routes, times, rates, and where the stops were I would have used it more.
- The schedules are not clearly posted so people actually know when they are running, how much they cost, where they go, etc.
- The bus only goes up to New York once a week and only twice a day to Wellsboro.
- Needs to be advertised more with easy to find schedules and fares.
- The mountie is awesome!
- There is a lack of busing in the community on the weekends which is when most students want to travel to the malls etc.
- Longer shifts and I have been here 3 years and rarely see the blue bus...is it reliable? I don't see it much.
- I wasn't aware there was bus service-- so perhaps visibility and regularity are issues with it.
- Bus service in rural areas is highly inefficient. They don't call it the "EMPTY Bus" for nothing. The population is too sparse to make bus use viable. Tell the governor that we'd gladly take a break on tuition instead of bus service. Oh, but then grandma won't have an EMPTY Bus to take her to her next doctor's appointment. There are 18 seat busses driving around with one or two old people in them. Why not get a Ford Focus and save some money.
- The mountie bus service could be improved by extending the hours that it runs and having it travel to more locations. A bus route that ran to Wellsboro would be a great idea. The existing bus service does not make frequent stops at the outer parking lots on campus. Many students who are returning at night would like to have the bus bring them back to the residence halls rather than walking by themselves down to the lower campus at night.
- The mountie driver on the weekends is not nice, we like Kevin. :)
- The bus doesn't come around until about 4, and that's somewhat late I believe. Also it doesn't run to the lower parking lot until 9 I think. It would be extremely helpful if there was a communication service to get a ride from the parking lot at night as well. Like for example I could push a button and wait for the bus instead

of waiting around wondering if I'm going to have to walk or wait another hour for the bus to come.

- 1) We need more routes, and publication of services offered to individuals who live in towns
- 2) The bus station should have a pavilion under it. It is cold to just wait on a park bench for a greyhound bus.
- I've never used the bus services, but they are available
- I do not take the bus.
- None that I know of. (5)
- The only bus service that I know of is the Mountie. (2)
- I don't know. (3)

Q9: What concerns or ideas do you have regarding land development within the study area?

- Seems to be little planning re land development. South Main Street might be an opportunity for new residential development or perhaps well designed condos. Reasonably priced housing in good condition is hard to come by.
- I am concerned that the noise level would detract from students ability to study when they need quiet and can't find any. I also feel that the noise level may affect students trying to sleep which in turn would lead to illness and/or poor studying abilities.
- More industry study on where and how to bring jobs to Mansfield.
- I have many ideas regarding land development in the area. I am a member of the Board of Directors of the Betterment Organization of Mansfield and am involved in economic development within Mansfield. As part of this involvement, I wrote and distributed a survey which was aimed at obtaining the students' opinion of land development in and around Mansfield. Many students were eager to give their opinions on this question and I received a lot of great ideas, such as a restaurant which is open late at night, a movie theater, an activity center, etc. Please contact me at alderfeb@mansfield.edu for a copy of this report.
- Having more places for students to hang out, esp. late at night.
- I haven't seen all that much land development in the area aside from Northern Tier Sports moving to a new building.

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- A small movie theatre (similar to the one in Wellsboro) or a small department store like Dunham's would do well.
- We could use more trees and flowers.
- Need an art facility and a parking garage.
- I think certain areas should be preserved by that never can develop law" (sorry :-P) but some (there IS a lot) should be use to better the community. A chain restaurant other than fast food. College kids like to go out. and 2 coffee shops kills me. I don't like that...to much politics over a damn cup of coffee...just drink your coffee...but moving on...something like a cafe...mostly chain restaurants!
- Land development should be done intelligently and with green building techniques and sense of respect for the environment.
- Over the last 5 or so years, many people have purchased property around the area for use as vacation property. Because of poor paying jobs, the locals can't outbid people from down state. That's why so many homes in the county are mobile homes. Trailer parks-Housing projects for hillbillies.
- I know there is a park, but it just doesn't seem much like a park to me, maybe there is a need for an area with picnic tables, grills, something family and friend oriented where people can relax on a weekend.
- More recreational area. More activities for the community and college to participate in geared toward kids.
- I would love to see some new housing developments in or near Mansfield.
- More activities to do for all age groups...shopping...coffee shops, bagel shops, ice skating, movies, club/dancing so forth
- To keep the beauty of our area and have planned growth.
- Need to try and bring in some white collar jobs.
- I would absolutely love it, if Mansfield could put some money and time into the basketball court in the park behind the fitness center. The basketball hoops are worn out and appear to be past their life expectancy. The concrete is cracked and broken and the ledges right under the basketball hoops cause a lot of sprained and twisted ankles. It would be nice to see the ledges pushed back beyond the hoop itself so I wouldn't have to worry about coming down on it. It would also be nice to see two new hoops and a court in general as well. There isn't even lines painted down there and despite it being so nice out this spring I was forced to play indoors at the fitness center where the heat is on and its scorching in there.
- Don't let the town lose its small town charm

- 1) Community fitness center, such as YMCA
- 2) A local park that has concerts outside in the summer time
- 3) Nature programs for students
- It would be nice to have a nice place to eat, like a Cracker Barrel.
- I have no concerns or ideas. (2)

Q10: What services/attractions would you like to see in downtown Mansfield?

- Perhaps bike, etc. Rentals
- Game hall or something like that. but make it just for college students. or some type of dancing place that is open at night where you can dance or drink but have to be 18 and older. if your 18-20 you don't get a wrist band if your 21+ you get a wrist band that way bar tenders know whose allowed to drink and whose not.
- Moderately priced restaurants or pubs that people find more attractive that what now exists.
- I would like to see another store such as Target or K-mart move into town because although Wal-Mart has a lot of merchandise it doesn't always have everything. Also, for students, a club or something to get students who don't have cars and want to get off campus.
- More jobs and shopping other than crafts or junk shops.
- Restaurant, movie theater, etc.
- A diner open all the time.
- A MOVIE THEATER would be nice. I think a bookstore would also be a good thing. Mansfield has a lot of places to eat, maybe too many fast food places, but some different restaurants like the Timeless Destination or the Diner in Wellsboro would be a good thing. How about some things for younger people to do such as a skate park, mini golf, batting cages, a sports complex. There are a few playgrounds but not much for any high school or college age people to do so we have to go other places.
- A diner!!!! That's open later at night for students/people in the town to hang out in.
- -movie theatre would be awesome

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- Food! A chain restaurant that's not fast food (Mc Donald's etc) would be amazing. Maybe something besides Wal-Mart like a Wegmans/Giant, Target, even a Kauffmans/Boscovs would be great.
- Community theatre. Continue the 1890's and parades. Restaurant festival that people purchase tickets for in the park to sample the local cuisine. I lived in Florida and it was very popular. Arts/Jazz/bluegrass festival could be a great option as well.
- A chili's or Ruby Tuesday's...something. There is not a chain restaurant for 40 miles in any direction. the Mall is over 100 miles away and over an hour. Plus, it's NY. Tax Heaven. We need more attractions. I tell people I'm in Mansfield and they're like 'ugh sucks to be you' which is true. I come from the Lake Wallenpaupack Area and yeah we're a small town but there is a ton to do. I turned down a summer job here in Wellsboro because I couldn't stand to be here for all summer. Its so lame. There is NOTHING to do. No sense buying anything at Wal-Mart because you can't use it anywhere. We need something-anything. the ice cream place is a start....just some fun stuff for the college kids. Specifically geared towards them! the bowling alley isn't even computerized. I saw that and walked out. C'mon. Mansfield needs to keep their traditions but realize they're missing out on the new trends and excitement. Get with the times. You're living in a popular state college town. Plus, many kids give up the opportunity to come here and experience a great 4 years because there is nothing to do. It's true. I've talked to kids that have grown up here and even they say...if you are not a trailer park seller or used car dealer you're screwed. C'mon...SOMETHING. ANYTHING. Ice skating, roller skating (which would be EXTREMELY POPULAR I KNOW PPL THAT DRIVE OVER AN HOUR TOO), mini golf (A REAL ONE NOT A FLIMSY 3 HOLE MAN MADE PIECE OF GARBAGE), dance club, movie theatre that's not 300 years old.....
- Hardware store, clothing store, restaurants, bookstore, copy shop, UPS,
- We need a couple more ice cream shops. Also, maybe a few more antique/knickknack shops. That's where the money is. And there are paved streets where there isn't a single coffee shop. Honestly, though, I think that a bar with reasonably priced drinks wouldn't be asking too much.
- I would like to see a movie theater in downtown Mansfield.
- Mansfield as a town needs to appeal to students more, only because I have met many people who will not go to school here because the town has hardly anything to offer. I would say, keep some places open (especially pizza and Chinese) open until 1 or so in the morning only on weekends, trust me, we will

order the food, unless of course it hurts business. I think the bowling alley needs some updating, because a lot of us will not go there based on the fact that we don't know how to keep score manually.. There needs to be a social area, somewhere that the students can relax, maybe it can have something like a club type environment on the weekends, but the main point being, the only couple places we really go is Dunkin Donuts, Wal-Mart, and maybe a random pizza place.

- A movie theatre, maybe have the bowling alley do a Rock and Bowl, where you bowl one night and have disc jockey lights playing and teen music is being played while you bowl, and maybe more food stores to compete with Wal-Mart.
- Q10: I think that more of the businesses should be open 24 hours since it is pretty much a college town and they could do a lot of business if they were open later than 9 or 10 pm. I also think there should be a bigger variety of restaurants such as Denny's, Olive Garden, Dairy Queen, etc. Also, a Sheetz or other such convenience store would be highly convenient. Individual storage sheds would be VERY nice, considering that many college students live several hours away and have furniture and other such things that are a hassle to take home and that they do not need at home.
- More quality restaurants, student-oriented businesses, a theater, a bookstore, new roads, bike lanes, and new housing lots to build on.
- Movie theater.
- Clothing stores if possible
- A little movie theater would be really cool to have. That would be in walking distance and we wouldn't have to drive to Wellsboro.
- More cafes
- 1) Fine-dining restaurants, like Timeless Destinations
- 2) Book stores
- 3) CD/Record stores
- 4) Youth center
- A movie theater or a putt putt golf course
- Movie Theater, Ice Rink, Mini Golf, Laser Tag, Mini Mall i.e. Clothing stores Grocery Store, Wing Zone, Book Store, Deli, Community Center. This are just suggestions, would make college students have more to do than drink and party (which is a problem).

- Mansfield is a college town. A movie theatre would be great and restaurants need to be open later.

Q11: How can MU be better integrated with the community?

- Some of the stuffy older people downtown need to realize how much the students mean to the businesses and well-being of Mansfield. Most complain about the students. I've worked at MU for 32 years and for the most part the students are pretty good kids with the exception of those few who give a bad name to all of them.
- Encourage students and organizations into beautification projects, clean-up projects... in general, get them off campus and into the community!
- Plan activities that center around both college and community, but make them fun.
- Shared planning based on a vision for the shared future of the university and community. Our fortunes will rise (or fall) together. What can we envision together that will build a stronger, more attractive community?
- MU can be better integrated with the community by having a sort of meeting place in town where all kinds of people can sit and chat. I also feel that students would become more integrated if they took initiative on their half to go and do things in the community.
- The University needs to work more on providing jobs and any other projects or work they can do for the community such as working with the local government in getting grants or development.
- There needs to be more options for students which welcome them into the town. Also, the university needs to offer more programs which draw the town into the university.
- Have more activities with the community.
- More activities that bring the community on campus where students provide the services or vice versa.
- Have programs that would bring more of the community onto campus and vice versus to bring students into the town....perhaps something similar in the spring to 1890s weekend.
- Should bring back the theatre program and have advertised productions and musicals like they did when I was a kid. They used to pack Straughn. Having dreary depressing small stage productions is not going to attract a crowd or

bring in revenue. Need to keep the Saturday art program- my friends and I loved that as kids as well as the community swim night and swim lessons. I think having a community night once a month or so at the observatory would be cool as well.

- There is a 'work study community service program' that I believe not enough students know about. This program needs to be awarded to the "right" students. Not just handed out to any student who just wants to make a buck but to a student who deserves the buck and who will give a good impression of what a Mansfield University student is. Plus, this student should hold an interest in that service, maybe they want to teach...they could help coach a t-ball team for Mansfield Little League or a student in Business could help the 5th graders at Warren L Miller plan a fundraiser car wash and help them hit their projected goal. there are a million things that tie this University with the community.
- This program seems to be a secret on campus...I just happen to stumble across it. If that program were run well it would make a impact on the community, give it a feeling of MU being involved and not a separate "thing" that sits on the hill.
- I am a tour guide and admissions ambassador...I tell people when asked, its mostly on-campus activities, which leads us to divide ourselves from the community. We would have to integrate ourselves if there was more to do in the actual community. Please. Something. I'm dying here. College is suppose to be the best time of your life. And my friends all go out and do things. Where am I? University club and Wal-Mart. Good times....good times....please help. P.S. thanks for actually taking the time to care!!!!!!
- If the community provided services and products that the students and staff need, there will naturally be more integration.
- You can start by getting rid of a number of your notions: that people here want bike paths; that people would ride the bus if they just ran a better schedule; that the area needs more development. Instead of a few PhDs deciding what the town needs, you need to pay more attention to what the rest of the population is telling you. If a member of your community revitalization committee told you that the area needs more bike paths, I would wager that it's because that member wants more places to ride their bike. If they say that we need better bus service, then they're probably from an urban area where bus service is the norm. You are developing policies which benefit very few and cost the rest money.
- There could be more involvement of community members in campus activities.
- U know we do functions together such as 1890's weekend and all that, have an activity(s) that involves both groups and be specific. Promote on campus, try to

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bring the students to you, because if it's appealing enough, we will go. There has to be more than just a poster, set up a table, give free stuff, that's what we are all about... lol. There needs to be more reach out, it feels like there is none of that right now.

- Make there be more activities at Mansfield and the community open to the public so we can become one and not two worlds in the same town.
- Mansfield University could hold more activities such as Free Family Fun Fairs where MU students can volunteer their services for games and crafts and face painting and community families can come and enjoy all the activities for free.
- I think Mansfield University does a pretty good job. It shares all sorts of events with the community--music, sports, etc. It is the community itself that is lacking. If Mansfield were a pretty town and if there were nice housing developments then maybe more professors would live in Mansfield instead of Wellsboro, Corning, ... More professors would help the tax base and support additional restaurants and so on. Mansfield could go from ugly to beautiful small town with some work.
- More activities involving the community or that are set up by the community for the students or vice versa
- Invite community to the university more, have cooperative student community ventures. Students need to do their part by being more courteous and considerate of local residents.
- Traffic patterns; improve entrances both in access and aesthetics. Have more community use of facilities. (i.e. swimming in Decker)
- I think it's pretty well integrated already due to its overall size being so small. Everyone is supportive of the University and the colors are seen all over.
- More activities for students to get involved in the community
- 1) Have freshman students go into the town for a scavenger hunt for their names. Each store is given a student's name. Students then have to find their name in a store, and when they enter stores they receive a token (coupon or candy). The owner crosses off on the list that students were there.
- 2) Student flex dollars can be used at local restaurants.
- It already is nice that businesses give discounts for students.

**Greater Mansfield
Revitalization Strategy & Mobility Analysis
Open House Summary
Mansfield Fire Hall | Thursday, October 12, 2006**

Background/Overview

The Northern Tier Regional Planning & Development Commission, along with Covington Township, Richmond Township, Mansfield Borough, the Pennsylvania Department of Community and Economic Development (DCED) and the Pennsylvania Department of Transportation (PennDOT) are developing a transportation and land use plan for the study area.

As part of the study's first public meeting, the Commission administered an exit survey designed to collect additional input on public preferences regarding a variety of transportation and land development issues in the study area.

The following is a summary of public output received at the conclusion of the study's first public open house. The results shown here are from three sources, including:

- Written comments received at the public open house (pg.3);
- Summary results of the exit surveys (pg.6) ; and
- Summary results of the open-ended questions posed by the survey (pg.8).

Analysis and Implications

The public open house was a significant study milestone that effectively closed out the study's data collection phase. The level of interest in completing an exit survey (175 responses received) and participation at the open house (nearly 80 attendees) attest to level of community interest in this study topic.

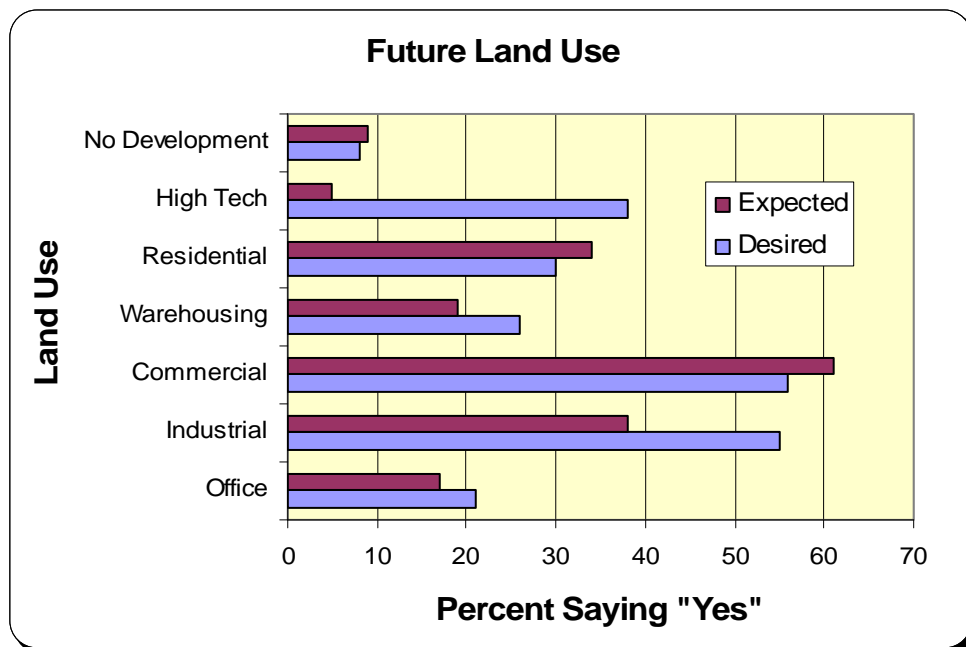
Major themes coming out of the meeting include:

- **Maintaining the area's quality of life and rural character.** This was the highest-scoring issue, with over two-thirds rating it as a high priority.
- **Bringing jobs to the area and managing sprawl along BUS 15.** The public rated these two discrete topic areas as high priorities. They were the only two to receive more than a 50% share of respondents recording it as a "high priority".
- **Preferred development is in line with anticipated development.** The survey revealed little variance between what kinds of development the public prefers, compared to what

is expected. A significant difference was that of "high tech" development, which had a variance of 33 percentage points (see Figure 1).

- **Maintaining a proper balance of development.** The town/gown debate, coupled with the development of needed recreation and cultural facilities, and the preservation of agricultural and open space all point to the need for a sustainable and planned development pattern.
- **Addressing hydric environmental concerns.** Flooding from the Tioga River and stormwater run-off from the modernized US 15 were two of the most commonly cited issues outside of the study survey.
- **Focusing on congestion should not be a high priority for area officials.** Nearly half of survey respondents said it should be a "low priority". Only 3% said traffic concerns posed as an issue at all hours of the day. Safety concerns also scored low (65% said there were minor to no safety issues), which is atypical for a study of this type.

Figure 1: Future Development: Preferred vs. Anticipated



Significant questions to be addressed in the study's succeeding phases include:

- **What kind of development will occur relative to the following variables?**
 - The Dorsett farm
 - The Avery property
 - The Trask property
 - The armory
 - The completion of US 15 as I-99

- Others?
- **What will the transportation impacts be of the growth that's expected?**
- **How should the area's most significant, undeveloped parcels be managed for future growth?**

A summary of the open house follows.

Written Comments Received at the Open House

Land Use

- I think the biggest concern and unifying idea was to address flood control issues on US 15 South. When building the dyke, connect the hike and bike Trail from behind Greco's and put that trail on the dyke (paved) all the way to Covington. It would be great for going to Wal-Mart, to both elementary and high schools, recreation needs, etc. It brings the whole project together. The control of flooding should, of course, come first. (Marianne Bozzo, Boro Council of Mansfield)
- A theater is needed...2 or 3 screen facility (*LDG is working with a private developer on this*)
- More high-end housing is needed in the Mansfield area for faculty members. Many now live in points as distant as Wellsboro, Corning and Williamsport.
- BOOM project is a great concept (Dorsett Farm).
- Potential use of former Erie RR right-of-way as hiking trail/pedestrian walkway.
- The area south of town is in need of more retail (restaurants, other business)
- There are significant problems with soils in Tioga County for development purposes
- The area needs to regulate signs to preserve scenic vistas.
- Junkyards hamper tourism promotion (there are 3 btw Mansfield and Blossburg)
- No boating/fishing, mine related pollution
- Commercial vacancies within the borough is an issue
- High schoolers lack recreation venues
- The armory is adjacent to the high school and is a potential recreation area (it's currently unused).
- There is a lack of residential development potential within the borough
- The attraction of retail outlets could draw more people to the area from places as distant as Williamsport and Corning with the reduction in travel time.
- Hotel owners collaborate with economic developers.
- Trout Unlimited:
 - TRCC - 9.6 million grant to clean up river from Blossburg

- The study should consider the development impacts of future water and sewer along the PA 660 corridor.
- Consider the development impacts I-99 will bring to the area.
- The community swimming pool authority could adjust their rates in line with the broader idea of community.
- A KIZ zone is being developed between Mansfield University, Tioga and Bradford Counties.
- The Avery property is currently idle and undeveloped. Possible purchase by the university or joint partnership. One concept includes a park with observation platform. There are wetlands in the lower portion. Wildflowers; butterflies; nature areas... possibly a trail. Could be billed as a "go to" attraction.

Transportation

- The area needs to look at a bypass of US 6 South - going over from Township Route 549 to Canoe Camp. The roadway would alleviate congestion in downtown Mansfield. A half mile of this is currently not paved.
- US 15 access from one lane to another is an issue for EMS responders...detouring is substantial.
- Left turn lanes are needed at the intersection of BUS 15 & US 6
- Add a bicycle lane along BUS 15
- Improved transportation could negatively impact small business
- Bicycle trails in Covington
 - Tie into existing trail behind Greco's grocery store
- Make infrastructure improvements in advance of development (Richmond Township)
- University/town connections needed, with places to go, things to do, etc.
- Drawing visitors and tourists year-round
- Market the area as a "base of operations" with the Grand Canyon and other points of interest (e.g., Pine Creek, Corning Glass, etc.) nearby. Look for things not only indigenous to the area.
- Intersection of PA 660 with BUS 15 affected by traffic from Wellsboro.
- No right turn lane at Wal-Mart causes queuing.
- Lighting of the interchange at Canoe Camp.

Eleanor Trask Property

- 164 TRASK property north of Wal-Mart
 - Two projects planned
 - 75 housing units, some condos, some SFD's

- 40-50 acres are buildable, one-third of property is wetlands
- significant impact on roadways if built; access/egress is an issue/concern
- Indoor mountain bike facility (a \$7-8 million project)
 - 50,000 - 70,000 square foot concrete dome, 75-100' high, 300' in diameter, visible from I-99
 - looking for user groups to help design it
 - trying to acquire property for an outdoor course as well
 - looking for certified green facility for both the residential and commercial development
 - working with Larson Design Group on it

Denise Drabick - Mansfield Jr. Sr. High School Principal

- Smythe Park (owned by the school district) is frequently used as a bypass. This needs addressed.
- School-related congestion in town is a concern
- More recreation is needed for the area's children: more recreation; soccer fields; the bicycle park floods, and you can't ride or walk in the mud.
- Consider a skateboard park.

Exit Survey Results (n=175)

1. Where do you live? (circle one)

- a. Covington Township (8%)
- b. Mansfield Borough (45%)
- c. Putnam Township (13%)
- d. Richmond Township (27%)
- e. Mansfield University campus (1%)
- f. None of the above, but a resident of Tioga County (4%)
- g. Study area landowner living outside Tioga County (3%)

2. What types of development would you like to see occur in the study area? (circle one or more)

- a. Commercial retail (e.g., shopping, restaurants) (56%)
- b. Office (21%)
- c. Industrial (i.e. light manufacturing) (55%)
- d. Warehousing distribution (26%)
- e. Residential (30%)
- f. High tech (i.e. research and development) (38%)
- g. Recreational (e.g., miniature golf, skating, etc.) (47%)
- h. None, no development desired. (8%)

3. What types of development do you think will occur? (circle one or more)

- a. Commercial retail (e.g., shopping, restaurants) (61%)
- b. Office (17%)
- c. Industrial (i.e. light manufacturing) (38%)
- d. Warehousing distribution (19%)
- e. Residential (34%)
- f. High tech (i.e. research and development) (5%)
- g. None, no development (9%)

4. How would you describe study area roadways in terms of traffic congestion?

- a. No delays (22%)
- b. Minor delays (39%)
- c. Delays during "rush hours" (32%)
- d. Delays at all hours of the day (3%)

5. How would you describe study area roadways in terms of safety?

- a. Safe (19%)
- b. Minor safety issues (44%)
- c. Safety issues during rush hour (18%)
- d. There are safety issues at all hours of the day (17%)

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6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future.

7. Please check off the following issues as high, medium or low importance to you in the Covington - Mansfield - Richmond study area.

Issue	High	Medium	Low
a. Reducing traffic congestion	15%	35%	45%
b. Improving roadway safety	34%	43%	19%
c. Improving public transportation facilities and services	23%	38%	35%
d. Accommodating bicyclists and pedestrians	29%	41%	25%
e. Maintaining agricultural and open space	44%	35%	19%
f. Creating more residential development	21%	40%	35%
g. Developing Mansfield as the area's commercial center	44%	29%	23%
h. Maintaining the area's quality of life and rural character	67%	24%	7%
i. Managing commercial sprawl on BUS 15	51%	34%	13%
j. Developing recreational and cultural activities	48%	37%	12%
k. Integrating the University with the community	46%	32%	18%
l. Leveraging improvements to US 15 in bringing jobs to the area	64%	24%	10%

8. What are your greatest concerns about the future related to development and/or transportation?

Exit Survey: Open Ended Question Summary

Covington Township

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
- Downtown Mansfield – at times traffic is backed up and getting out from Side Street or to a side street is difficult. Left turns at the traffic light take too long to make due to oncoming traffic. A right turn only land is also needed at the traffic light in town.
 - Traffic light at Route 660 and Business Route 15.
 - Route 6 and Business Route 15 intersection
 - Designated & Signed bike lanes
 - Need left turn lands through Covington.
 - No lighting at Exit of South ramp. It was lighted before.
 - South Main Street and Route 660
 - Teach the county residents to use the turning lane between new 15 and Route 660!!! Do something about Stagers & Costip Junk Yard trash along the road!
 - Business 15 and Route 99 intersection near AJs lighting is a problem.
 - Jct. of Business Route 15 and Route 660. Difficulty crossing Route 15 from Sawmill Road to 660 because of offset at intersection.
 - East Hill Road, Canoe Camp Creek Road, Old State Road.
8. What are your greatest concerns or ideas about the future related to development and/or transportation?
- Managing the balance between providing jobs that pay a reasonable wage and housing needs as jobs are brought in. If housing needs outpace jobs, the cost to consumers increases making it hard to make ends meet on the wages provided by the jobs!
 - If the water run off of Route 15 is not dealt with along the undeveloped areas, no one will be able to build a home or a commercial business without having water problems (flooding, etc.) and possible issues with well water contamination in cases of accidents/spills on Route 15.

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- More concerns about our graduating high school students and less on MU students. Kids raised here are not working and helping develop the area. The river is a main concern before any more expansion should be done.
- Tioga River is a very big problem if we do not stop the flooding problem in the area there will be no commercial businesses that will want to locate on Business 15 south of Mansfield. We need to bring businesses in for the youth in the area such as movies, skating, and community center. I have a 15 & 17 year old daughter and they say they will not be staying in the area because there is nothing to keep them here.
- Avoiding a piecemeal approach.
- Flood plain area – local law enforcements – common use areas without tow preferences.
- Need to get more people involved. Which is hard to do.
- None at present.
- Manage growth and usage.
- Diversity – housing, restaurants, job opportunities, projects that help those who live here already.
- We need to do something about the Tioga River from Blass to Richmond Twps before we get industries to want to come and do anything. They don't want to rebuild and clean up floodwaters every year.
- Flooding – need river clean out first – water runoff – drainage – ditching.
- Use tax monies for nonessential services.

Mansfield Borough

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
 - The cross of Main Street & Route 6. Also, there has been a lot of construction on Route 6 around the area.
 - As someone who walks and bikes to many locations in the area, there are several safety concerns. Poor road shoulder maintenance is a serious issue for bikes. The lack of pedestrian crossing lights in downtown is also an issue. Finally, speeding in residential areas needs to be controlled.
 - Red light in Mansfield's lack of turning lanes.
 - Just around school areas.

- Many small secondary roads become shortcuts for traffic. One example is Brooklyn Street, which has become a short cut for people traveling to Wal-Mart. Traffic on Route 6 in front of the Mansfield HS is also a concern, especially when a traffic light is installed at the proposed industrial park entrance. This traffic will be difficult for students leaving and for buses trying to turn onto route 6. This area is also a concern with Kingdom's employees leave the Lambs Creek area for the evening.
- There needs to be a safe pedestrian crosswalk (with signs) on Main Street near the Northwest Savings Bank in Mansfield. Need a stop light at the town library on N. Main Street.
- In the borough, where Dunkin Donuts and Marks Brothers are located, there needs to be some sort of speed restrictors in place. Not sure what will work here. Also speeding between Pump & Pantry in Mansfield Borough and the bowling alley. Running stop signed is becoming a problem as well. The main traffic light needs to be better coordinated with the end of the elementary/high school day to reduce some of the traffic. Need a few additional qualified members of law enforcement.
- Main street – especially at route 6 intersection and (outside the borough) at Wal-Mart entrance.
- Traffic light at 6 & 15
- Currently – turning lanes needed at Route 6 & Route 15 light. No jake breaking in borough!! Turning lanes are needed now!!!
- 1. Crossing by college & Methodist Church. 2. “Rush Hours” “8 – 12, 3 – 4” 3. Anxious (speeding) drivers. 4. Lax Law Enforcement for speed, wrong turns. 5. Many children walking to and from school thru town. 6. Big trucks in town – abusing roads when they should use 6 and 15. Roadway has rumbles.
- Mansfield – Main Street, East and West Wellsboro Street; Richmond Twp – South Main Street (esp. down to US 15 interchange)
- The traffic light in the center of town during “rush hour” and the area in front of MHS.
- Route 6 in front of high school, Route 15 business at entrance to dark.
- Mansfield Boro, visibility and failure to observe current law.
- Route 6/Lambs Creek Road intersection. Main Street/Elmira Street
- Chiefly in the business area particularly during peak times of University and school traffic.

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- The pedestrian crossing at Academy and Route 6 at MU. Downtown intersection at 15 and 6 – need pedestrian crossing signs. In the future it may get worse at street across from bowling alley, entering 15 south.
- Center of town – Smythe Park Entrance (Pump -n- Pantry); Miller Elementary – Bescanceney Drive Route 6.
- At the red light at 6 & 15. Cars passing on right to get through green light. Parking so close to light backing out into traffic.
- Vehicles speeding – particularly on Brooklyn St & Route 15 in Mansfield.
- Main – Wellsboro Street traffic light. Large trucks, school buses. Pedestrian Crossing after school.
- Main Street. Businesses with parking lots – very hard to see oncoming traffic if large vehicles parked on Main Street.
- Business Route 15 South of Mansfield
- Light in borough – needs a left (or right) turn arrow.
- Downtown Mansfield – turning across street into parking spots; congestion @ red light (seldom)
- Wal-Mart intersection. Business 15 & Route 6 – Mansfield Boro
- Downtown Mansfield @ 4:30 to 5:30
- Intersection Route 6 & 15. Business Route 15 South to by-pass interchange. Brooklyn Street to Specer Road the unpaved road from Route 6 of Mansfield exit at Wal-Mart.
- Around Mansfield HS and Route 6/Bus 15
- Construction Zones – 65 MPH is too fast southbound from visitor center.
- At the schools in AM and PM
- Route 6/Route 15 intersection; excessive traffic on south Main Street intersection to Wal-Mart
- Exits & Entrances onto bypass
- Mansfield – East Main and Park entrance
- Route 15 & 6 at Main Street – often long waits. Trying to enter Route 15 from any street from the east. At Elliot (Campus) – turning on Route 6. Especially Friday!!!
- Main Street in the borough

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- Main Street or Business Route 15 and Route 6 @ Rush hour.
 - Intersection of Route 6 & Academy Street (Next to MU). Where Wal-Mart and exits to 15N and between Wal-Mart on Old Business 15 to downtown Mansfield.
 - East Main Intersection - Library
 - There are safety issues with Route 15 from Tioga to Lawrenceville, PA.
 - Mansfield has only 2 through streets. Much more development will cause greater congestion and make South Main lose its residential character - i.e. become slum lords housing for students.
 - Route 6 traffic also Brooklyn Street
 - At the intersection in Mansfield if you are at it people pass you when you are waiting for a turn.
 - East Main, South Main & Street from park intersection
 - Spencer Road, Business 15, Canoe Camp Road
 - Route 15 & Route 6 when school is out.
 - Route 15 & Wal-Mart, Route 15 & 6 intersection
 - Route 15/6 intersection needs work. Is dangerous for children and elderly. No crossing lights
 - Local 15 & 6 Brooklyn/River Road & 6
 - All of Main Street, Mansfield; Canoe Camp area, Route 549
 - Canoe Camp intersection and Spencer Road area with Business Route 15.
 - Route 15 Intersection in Richmond Twp needs to be lighted - safety issue for all motorists.
 - Light at Route 6 & Business Route 15 in Mansfield
 - Pump & Pantry Street - South Main - Mansfield
 - Business 15 between IGA Plaza & Mansfield Post Office
8. What are your greatest concerns or ideas about the future related to development and/or transportation?

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- I worry that Mansfield may not remain a rural community. I enjoy Mansfield being the business center and having Wal-Mart. I believe that more businesses would do the town good, but I wouldn't want to turn it into a city.
- I am most concerned that increased traffic, particularly trucks, will make bike/ped transportation less safe and desirable and make the area noisier as trucks often are extremely loud when stopping.
- The community may not progress with the development and stifle possible job growth and economic diversity and stability.
- Putting a light without a study to justify them; considering need for turn lanes.
- Many people live in this area because of it's character and open, sprawling space, therefore, I hope that due consideration is given for those of us who have made this area home. The road infrastructure is not sufficient to handle a boom, without a major overall. As a resident, I do not want to become a roadside rest/stop. I think a common theme of buildings, signage, lighting is of the utmost importance to this development. Lastly, I welcome any development that can provide jobs/salary for people to have a career, not transient jobs.
- Need more youth activities. Need adult classes a the high school.
- Developing needs to spread beyond Wal-Mart - not nearer to it. Down further on Route 15 South. We are sorely in need of quality restaurants - and transportation from town to get to them. (Such as from the senior housing and from the University)
- Finally! Thank you for doing this. We need additional things for kids. Please take a look at the facility used by Montgomery HS just south of S. Williamsport, PA. This type of facility can be placed near the Harley Dealership and could be utilized by all students in the district. We need some sort of chain restaurant, i.e. Applebees, Firdays, Houlihans, and Starbucks. A clothing store would produce fantastic business since there currently is none and you need to go to the mall for clothes and shoes. Sheetz would be a great addition where the Farmer in the Dell is located on Route 6. There really needs to be additional liquor licenses to offer another social atmosphere besides Marks Brothers. We need businesses that will bring more diversity to the area. This should be rather large businesses to attract more people and REALLY revitalize this area. Transportation that is more affordable and comes more frequently than the current provider. A taxi service would be welcomed as well. This area is prime and ready for development. Thank you again for doing this. The University needs this as much as the town does for survival. I truly hope that this development of the area occurs! Thanks again. If you need input or anything, I can be emailed at lbostic@mansfield.edu. Lee
- Not enough jobs will be created for those that were lost in Tioga County.

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- An alternate Route (such as Brooklyn Street) may be needed to move traffic to and from Wal-Mart. More public (bus) transportation may be needed.
- All efforts to encourage development of competition with Wal-Mart as main shopping center should be encouraged. The new Greco's Market is a good example of expansion.
- No eyesores in residential areas, keep it beautiful by design and containing any warehousing/light industrial development in tightly controlled areas.
- Richmond Twp is only realistic development land area. If industrial park makes it then expansion not competition should flow. Two communities are at odds!
- Bringing in light mfg. will greatly aid in job development regionally and improving overall lifestyle. This will result in increased need for commercial retail development - more jobs, w/o destroying the rural character of the region. Win-Win!
- Lack of local governments' willingness to invest in any commercial or business development. They want the state and developers to do everything with local government being beneficiary.
- Losing our rural identity while bringing in employment opportunities. We need quality employment as opposed.
- Up scale housing to accommodate University administrators, faculty and employees.
- That we will sacrifice our rural character & quality of life for jobs in land, polluting industry. I'm not against industry, just don't want harmful industry.
- Jobs that may be created given to illegal immigrants. If development adding more law enforcement to cover the roads. Safety for pedestrians getting to and from services being offered.
- I hope this project will bring in quality businesses that will be successful to help our area grow - such as an "Olive Garden" and a "Home Depot" or "Lowe's" and clothing stores like "Target". We must make sure the business fits the area so it succeeds.
- That, in our haste to raise the tax base and develop real estate, we lose sight of what is truly attractive about our small town community. If we destroy that, no one will want to either work here, visit here or live here.
- That it is not well thought out.
- Get Mansfield University & Mansfield Boro to work together (why do they hate each other??) It's obvious driving thru town. Consider real College towns, like

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- Kutztown, East Stroudsburg, Clarion, etc. They don't hate each other and the towns obviously prosper 100 times better than ugly Mansfield.
- Future traffic congestion.
 - Losing the small town, rural atmosphere.
 - We need more elderly housing = retirement homes & therefore, public transportation for them.
 - Encourage light industrial growth to create more local jobs for our workforce.
 - That growth will occur in a haphazard manner with minimal cooperation between government organizations.
 - Loss of vitality to the downtown of Mansfield.
 - I think the Mansfield Borough should really focus on buying more commercial retail to the area – we need more stores, restaurants, etc. A lot of people drive out of town to go to clothing stores, home improvement stores, various restaurants & even watch movies you need to focus on bringing more people to Mansfield.
 - Planning correctly is my biggest concern.
 - By pass noisy. More pollution – More population – More traffic from travelers = More crime. Eminent Domain is Theft. Stop grants that are tools of bribe and threat.
 - Affordable one level housing for “seniors” and transportation for a fee would be nice to the airports in Elmira and Williamsport.
 - Must adhere to zoning laws; added public transportation; development of assisted living facility for senior citizens (not low income).
 - Need more for community youth to do – recreation/entertainment. Irritating traffic delays in spots (stoplight; exiting from campus)
 - We need more development to secure more jobs for the area.
 - Pollution control, crime, drugs, and alcohol. Need more police force. Also population increase could impact quality education (K-12) and class sizes. Need recreational facilities to keep kids busy.
 - Creating jobs will pay high enough to maintain a “middle income” life style.
 - Need for good employment no workers do no need to go out of state for jobs.
 - Overall, I'm very pleased with the job PennDOT does.
 - How to solve Mansfield's traffic problem. I don't know what can be done, but temporary measures could be 1) making two lanes at the 6 & 15 traffic light on the

- south side – since the bank has sprawled. There is little needed for parking on the east side of the south main business block. 2) Put signs directing traffic to 15 away from downtown at tourist places – Wal-Mart, Wendy’s, etc. 3) Patrolling South Main and actually ticketing speedsters – particularly truckers.
- Making a path for people to walk dogs not up Brooklyn Street. Also cleaning up after them. Which most do not!
 - Congestion in Mansfield – South Main will continue to get worse
 - If we had recreational jobs – College and HS students can have jobs, and also recreational things to do.
 - We need to remember who we are and keep our rural character & quality of life! Promote recreation “PA wilds” & expand hike and bike path and clean up the river.
 - Understanding of Long Range impact of any program.
 - Sprawl; light and noise pollution; not enough green space, trees & farms; traffic safety & congestion; low-paying retail jobs, “box” stores, water/sewer issues, air/water pollution. We need strict zoning laws that will protect rural & small town atmosphere, and protect against light, noise, air, water pollution. Yet allow for high wage/high skill jobs.
 - There will be too much individual – personal concerns pushing for control, rather than good concern for a better planning.
 - That there be planned development rather than a hodge-podge of changes.
 - Reducing delays in traffic off Route 15 improving economic development to offer more employment.
 - If we have to include the MU population we would like some control of their behavior & ability to pay bills! Rec property on from extension St. to Tioga river to connect bike path.

Putnam Township

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
 - Mansfield – especially from 2 – 4 P.M
 - Center of Mansfield & Business 15
 - Turn lanes would be needed

- Most secondary roads are congested – cars and truck too fast – many farm machinery don't have a chance.
- People think between Covington & Mansfield is only 35 MPH
- Boro of Mansfield should eliminate four way stop intersections in southern area. (2 stops plus 2 yields would suffice – wastes time and fuel)
- Mansfield Business district
- There are not good sidewalks (if, any) in our township and no appropriate places for kids to wait for the bus.
- People use the turning lanes on old 15 for passing a lot of cars & also do not know who to use them to turn.
- Route 15S

8. What are your greatest concerns or ideas about the future related to development and/or transportation?

- Get the strip development south of Mansfield under control
- Need flood control from Mansfield to Blossburg
- We may need to develop, but my major concern is that we loose our country atmosphere. I like the area with its open spaces & farms. We need to keep this.
- I think this area leans toward all kinds of good opportunities.
- Too many farms already being broke-up for housing – slow vehicles down – need more police patrols.
- Putnam Township is residential and needs more patrollers. Reducing futher, heavy commercial traffic and motorcycles from Route 15. It has become a drag strip for the younger generation
- Need recreation things for kids to do like Ice Hockey. More jobs in the area. More places to shop other than Wal-Mart
- The depletion of agricultural & open space for residential/population growth which inevitably equals additional problems and crime!
- Losing the small town country atmosphere
- Fix rider banks

- Start with fixing river from South Rte. 15 in Covington Twp. To North Rte. 15 in Richmond Twp.

Richmond Township

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
 - Spencer Road, Richmond Twp. used as a short cut to Wal-Mart on mostly dirt roads that is in poor condition most of the year.
 - Wal-Mart Area
 - Route 6 East from Mansfield Borough for one mile distance
 - Business Route 15
 - Route 6 East traffic light Mansfield Borough for first mile
 - Wal-Mart area. Intersection on Route 6 by High school
 - Excessive speeding on Newton Hill Road
 - Shoulders on Newtown hill Road are in poor shape need repair
 - Need left turn arrow at Main and Wellsboro Streets
 - At Lambs Creek Road & Route 6
 - Should be right turn on red at Wal-Mart and maybe even Route 6 & Route 15
 - At intersection after 6 & 15 - left turn signals and pedestrian signals
 - West Gate Road & Spencer Road - Richmond Township; Business 15 South more lights needed
 - There needs to be a red light at the intersection of North Main & East/West Elmira Street in Mansfield. It's a very dangerous intersection.
 - Current problems in Mansfield Boro, W. Wellsboro St., Besanceney Drive, Railroad Ave. intersection. Also at W. Wellsboro , Ross St., Lambs Creek Road intersection
 - Intersection of Old Route 15 in Mansfield with restricted right and left turn opportunity.
 - Around the schools
 - Downtown Mansfield Borough - trying to turn at intersection with no lights

- The Corner of Fourth Street and South Main Street in Mansfield due to car dealers cars obstructing view of North bound traffic
 - Rte. 6 by the high school, red light intersection of 6 & 15. Corner of Route 6 and Academy Street by University
 - Route 15 between Tioga & NY border
 - Old Route 15/Route 6/High School/Route 6
 - Entrance to Smythe Park and gas station - difficult to go North
 - Wal-Mart intersection
 - Near Wal-Mart in Richmond Twp.
 - Base of Mulberry Hill on US - left turn on Mulberry Hill Road traffic going west on US 6 will pass car turning left without passing zone.
 - Business Route 15 in Mansfield Boro. Wal-Mart traffic light area
 - Route 6 & 15 at traffic light
 - Wal-Mart/Grandma's Kitchen/Citizens & Northern Bank
 - Near Wal-Mart; Lambs Creek Road when Kingdom Taps workers go home; School busses on rural roads
 - Mansfield 15/6
 - Why no left turn on red at Traffic lights
 - Newtown Hill Road - High traffic due to a big shortcut from Mansfield to Route 549
 - Bus. 15 - South of Wal-Mart
8. What are your greatest concerns or ideas about the future related to development and/or transportation?
- Retail business competition with Wal-Mart, same with area gas stations. Mansfield has lost 4 gas stations in the past 2-3 years
 - Richmond Twp. supervisors spend too much of the tax money for fancy offices and equipment and do very little to care for roads heavily used by Wal-Mart traffic
 - Having business development suffer of move elsewhere due to non-flexible zoning boards. There are reasons for special exceptions. Common sense should be a consideration.

Greater Mansfield Revitalization Strategy & Mobility Analysis

- Extension of Route 6 West sewer coverage
- Residential development dependent on sewer development on Route 6 West
- The flood plain on Bus. 15 – dyke work needs attention
- Make Jobs!
- Flooding on Tioga River south of the dyke must be fixed
- Making sure the young are able to stay in the area after education
- More people – higher property taxes & crime
- Richmond Twp. supervisors have the planning – forward looking of 200 million year old fossils. Local government leaders don't want to work together. We should be promoting this area as a retirement region for retired teachers/university faculty.
- Mansfield needs more high technology businesses to attract the highly educated younger generation. Employment opportunities and wages in our area are way behind other areas in the nation.
- 15 South of Bavolin flooding problems – this area now has runoff issues of greater impact due to construction of New Rte 15 /I99 and has filled river with yard and gravel bars thus causing flooding problems in most high investments which were worse than the 75 and 79 flood. Federal money should be spent to fix problem to make development possible and protect current businesses in this corridor as it's the major growth area for the Greater Mansfield area.
- Creating real jobs besides retail
- Local police protection and law enforcement. Speed limits should be lowered from boro line to 35 mph. I am concerned about any tax rate increase.
- Don't want to see area become over populated
- We need to encourage commercial & light industry to increase employment opportunity in the study area. Facility development for expected increases in traffic as I99 nears completion
- Our greatest concern is poor planning and lack of vision. We would love more family friendly recreation such as parks, extended walking trails, a community center, and a skating rink for our long winters. Also, an indoor facility (such as the old armory) that could have recreation available to families like indoor soccer.
- If we are to have expansion and development, I'd like to see a working and organized plan that best suits the residents. I believe that is the purpose of this study

Greater Mansfield Revitalization Strategy & Mobility Analysis

- Land development that is planned. Retention of quality of life and rural character, parking in Mansfield.
- Greatest concern that good development will be lost due to lack of cooperation between local municipal governments. Also lack of direct tax support for libraries and other facilities that attract residents to a community.
- Limited jobs
- Development is good for the area as long as agricultural and open spaces are maintained.
- I feel we need to bring in a sit down family restaurant chain to our area.
- Development - we need vocational education classes and /or schools in Tioga County to help keep our young people here.
- Develop all areas with the youth in mind - ways to make them want to stay in the area
- Geological adversities from "Quickclay" which is unique to Tioga County and the impact on development.
- They dyke needs to be addressed in the flood plain. In Richmond & Covington and Putnam Twps.
- Grow too big too fast.
- Concerned about auxiliary roads like Brooklyn Street and Mulberry Hill Road being able to access 4-5-6. When Dorsett farm is developed.
- Infrastructure - roads, intersections, river, parking uncontrolled development - we need more jobs, but on a controlled development manner. Development projects between existing commercial/light industrial in conjunction with a mall.
- Increased traffic w/no improvements to roads
- There should be no development in Richmond Twp (anywhere) - until there is a plan to upgrade the roads. If you don't address this with the township - FORGET IT!!!

Mansfield University

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?

- Route 6 by heating plant of the college. Speed once Route 6 is paved will definitely be a safety problem.
8. What are your greatest concerns or ideas about the future related to development and/or transportation?
- Mansfield Borough speed should be reduced to 25 MPH. This would resolve many safety problems for a great many people.
 - Losing the small town and rural setting.

Resident of Tioga County but not in the Study area

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
- Blossburg exit ramp across from Red Apple (QuickFill)
 - Route 15
 - River Road at Route 6
 - Unsafe entrance of East/West Karate
 - Install sidewalks from town to Wal-Mart
 - Expand middle turning lane from south of Mansfield up to Bowling Alley and 15.
8. What are your greatest concerns or ideas about the future related to development and/or transportation?
- Job opportunities other than retail are most welcome to the area. Bringing in large box stores put small business out and we loose unique character to our community
 - The people will continue to “move in” from more populated areas and by up all real estate (farm land, wooded areas) and turn area into one big town/city.
 - Careful planning would be critical to any push for area growth. The most important task is developing an acceptable sewer system.
 - I would like this area to remain an agricultural area. I think there should be more recreational activities for the youth.
 - Once industrial park is built – getting good businesses in quickly
 - Parking on Main Street

Landowner in Study area, but living outside of Tioga County

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future?
 - Main Street in Mansfield, Wellsboro St. in Mansfield

8. What are your greatest concerns or ideas about the future related to development and/or transportation?
 - Poor drainage of ground/poor storm drain system in southern end of Mansfield boro.
 - That we will not have a plan for this area (i.e., Old Route 15 between Covington and Mansfield). I feel this area needs to be commercial.

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Covington - Mansfield - Richmond
Revitalization Strategy & Mobility Analysis
Public Meeting Exit Survey
October 12, 2006

The Northern Tier Regional Planning & Development Commission, along with Covington Township, Richmond Township, Mansfield Borough and the Pennsylvania Department of Transportation (PennDOT) are developing a transportation and land use plan for the study area.

Your input is the crucial part of this study. Without your views, we cannot accurately inform the area's decision-makers what course of action citizens believe needs to be taken. The survey should take only five minutes. Please return your responses in the drop-off box provided. Thank you!

1. Where do you live? (circle one)

- | | | | |
|----|-----------------------------|----|---|
| a. | Covington Township | f. | None of the above, but a resident of Tioga County |
| b. | Mansfield Borough | g. | Study area landowner living outside Tioga County |
| c. | Putnam Township | | |
| d. | Richmond Township | | |
| e. | Mansfield University campus | | |

2. What types of development would you like to see occur in the study area? (circle one or more)

- | | | | |
|----|---|----|--|
| a. | Commercial retail (e.g., shopping, restaurants) | e. | Residential |
| b. | Office | f. | High tech (i.e. research and development) |
| c. | Industrial (i.e. light manufacturing) | g. | Recreational (e.g., miniature golf, skating, etc.) |
| d. | Warehousing distribution | h. | None, no development desired. |

3. What types of development do you think will occur? (circle one or more)

- | | | | |
|----|---|----|---|
| a. | Commercial retail (e.g., shopping, restaurants) | e. | Residential |
| b. | Office | f. | High tech (i.e. research and development) |
| c. | Industrial (i.e. light manufacturing) | g. | None, no development |
| d. | Warehousing distribution | | |

4. How would you describe study area roadways in terms of traffic congestion?

- | | | | |
|----|--------------|----|--------------------------------|
| a. | No delays | c. | Delays during "rush hours" |
| b. | Minor delays | d. | Delays at all hours of the day |

5. How would you describe study area roadways in terms of safety?

- a. Safe
- b. Minor safety issues
- c. Safety issues during rush hour
- d. There are safety issues at all hours of the day

6. List any specific locations in the study area where traffic congestion or safety is currently a problem or may be a problem in the future.

7. Please check off the following issues as high, medium or low importance to you in the Covington - Mansfield - Richmond study area.

Issue	High	Medium	Low
a. Reducing traffic congestion	1	2	3
b. Improving roadway safety	1	2	3
c. Improving public transportation facilities and services	1	2	3
d. Accommodating bicyclists and pedestrians	1	2	3
e. Maintaining agricultural and open space	1	2	3
f. Creating more residential development	1	2	3
g. Developing Mansfield as the area's commercial center	1	2	3
h. Maintaining the area's quality of life and rural character	1	2	3
i. Managing commercial sprawl on BUS 15	1	2	3
j. Developing recreational and cultural activities	1	2	3
k. Integrating the University with the community	1	2	3
l. Leveraging improvements to US 15 in bringing jobs to the area	1	2	3

8. What are your greatest concerns about the future related to development and/or transportation?

***On behalf of the 7,300 people who live, work and play in the study area...
Thank You!***

Public Open House #2 Survey Comments

Aesthetics

The best way to “enhance” tourists having a reason to come to Mansfield and to see what could be offered, would be to remove the 3 junk/salvage yards that are visible from the multi-million dollar 4 lane and well and having to drive by them on bus. 15 to Blossburg – What a “turn-off” and land cry of poverty – The same is true for the mess on Rt. 6 before the Y people like to see clean, neat county side.

I am totally ____ in the enhancement of the Mansfield Community aesthetically and economically. I am now inclined toward the progressive approach rather than the reactive approach.

The junk areas south of Rt.15 Canoe Camp look awful and give bad impressions. The junky areas by Orr’s flooring are a 2nd very bad impression; don’t we have any coding that prevents our business district from being used as someone’s personal junkyard?

Cut the weeds both sides of roads by Sluce Pipe North of Monroe Tires. Change Boro Stagnant Leadership! Self-important leaders? Where are the Boro street improvement plans? Drive on 4th street (if you can). Why no turn lanes at 6 & 15? Why speed limit by school not lower? Cost of patrons to swimming pool excessive! Hour’s operation/opening ridiculous. Why doesn’t the recreation committee run pool? Or school district? Clean out the debris out of the river – open up the channel and use the gravel on area roads – save the resources by using them and saving townships road improvement money.

Flooding

Flooding problems that are corrected will encourage more development. There is a great need for an assisted living complex; we have lost a lot of Sr. Citizens to other areas that offer such an arrangement.

Have flooded numerous times. Cannot sell business as potential buyers are aware of flooding.

River dikes need to be taken care of before (any) new development

should be added...

Mr. Butters bought land in southern end in a flood plane and wants someone to build him a levee around it. Another private agenda. Gannett Fleming spent one day in Mansfield, riding around. I don't think they did a true study. Your listening to a couple of the public that have their own private agenda and would profit from changes. Mr. Butters does not want levees here for it would defiantly hurt his business. Need competition and jobs.

Town/Gown

Prevent "brain drain."

Armory for indoor recreational center – should be created as a private enterprise – not borough project – or perhaps a YMCA. The bowling Alley is a good private enterprise without need for borough intervention.

Future Land Use/Development

Move boro office to Armory. Tear down old _____ and present boro office.

Wal-Mart has put the "Main Street" businesses out of business. Please focus on making Main Street enticing to prospective business owners and to customers. Current shops close at 5:00 p.m., unlike Wellsboro shops that have later closing times.

Attract one new business that brings higher wage positions to the community.

The "aims" are to guide growth. I personally do not desire the area to become a "metropolitan area". Keep the area "rural" that is the best attribute to this area.

More and more sensitive zoning needs to be in place to present urban sprawl where one business ___ the next in on endless junky mess. Let's not let 15 become like Rt. 13 in Ithaca. Use Portland, OR as a model. Good, sensitive design. No wind farms. Solar is the "green" answer, not wind.

Please no more fast food restaurants.

After reviewing this survey, it seems as though you want to put the wagons before the horses. We must first have the businesses in place before wasting grants and taxpayers' money on curbs, sidewalk, new public transportation and safety issues on Rt. 6 and Lambs Creek. We need to know the type and locations of these new businesses before any money is spent on improvement in any given area.

I am interested in seeing a growth in high tech industry to create more jobs and drive revenue into Mansfield.

A good mid-range restaurant is badly needed here in town. A Chili's or Applebee's type would be great, but efforts for better parking are important. This would be very popular across all demographics.

As a parent I'm concerned about the lack of recreation our area has to offer kids. I think the bike trail being extended is an excellent idea. I would also love to see it go to Tioga and over the Ives Run Recreation Park. That bike trail is a wonderful thing to have and having it extended to Covington is a great idea.

Tax rebates for Lowes and other new businesses are important to the development of area.

Traffic Safety

Eliminate parking across street from borough office – it is difficult to exit from behind back with all of the police vehicles, etc. Need left turn light on business 15 at intersection of 15 & 6. Most of the traffic turns left and holds up straight traffic and right turns. Can be involved .

The Brooklyn Street Lambs Creek, Rt. 6 area defiantly needs work. Seeing toward town as exciting L.C. is a problem itself because of the guardrailing the line of sight, the exit driveway from Mansfield Village is an additional hazard. Maybe a light such as Wal-Mart exit is needed. One that is activated by traffic on L.C. road.

Unhealthy to live on Spencer Road now. Traffic is terrible and road is dirt – dust in air all over houses and cars. Hard to breathe – all the grating/road work done does not last and expensive – save money/

health problems – pave road.

Red light in town needs a turn arrow.

Miscellaneous

I would be interested in helping with members 3, 8 & 5. I am especially interested in 3 & 8.

I think you've done a great job in writing this report and I wish us all parts of luck in following through with the action plans.

Many of the 15 points mentioned are not necessarily revitalization oriented. Of course, I realize that this subject to individual interpretation, but thought needs to be given to; Transportation costs – ever increasing- which could seriously limit business growth. Mansfield Borough is land locked as are some other areas, Mansfield University needs to be more involved in community activities and become more “user” friendly and responsive to community needs; Parking is a problem all throughout the area (Diagonal parking is no longer realistic in Mansfield Borough), and last, but not least is a real concern for many groups.

As a 60 year old resident of Mansfield, I am concerned about the deteriorating conditions of the community largely due to the increase in rental properties that are allowed fall into disrepair because most of these properties are rental to college students. One of the reasons I have decided to move is because I see property values decreasing and a lack of community.

The best way to revitalize our area is a much needed improvement to our school system – Vo Tech, etc. We need different leadership, our school board and our school administrators need to be replaced.

Need to get rid of our current Top Supervisor. He is stuck in the 1800's in his thinking. Things will not go forward here until we have people with up to date thinking. Our future is here, we need to grab it.

Bottom line is that populations with free cash support businesses. Mansfield Area must develop nice places for people to live, especially those with an above average income. The housing in Mansfield is largely substandard old and undesirable to those with higher income.

The demand and need for this has been demonstrated by the success with the nicer homes in the Cherry Ridge development (excluding the single “bolt-together” home.)

Implementation Support

The survey included space for respondents to record their interest in working with the study steering committee and other implementation partners in supporting in the implementation of the study’s recommended actions. Others were merely interested in remaining appraised of the study’s ongoing progress.

Tioga County Commissioners Briefing

Friday, January 11, 2008 | 11:00 a.m.

BACKGROUND: The study began in January 2006 as a collaborative effort, including:

- Mansfield Borough
- Richmond Township
- Covington Township
- Mansfield University
- PennDOT
- Tioga County Development Corporation (TCDC)
- The Betterment Organization of Mansfield (BOOM), and
- Northern Tier Regional Planning and Development Commission.



The study began shortly after the municipalities completed a multi-municipal comprehensive plan.

PURPOSE: Identify a preferred direction for the area, specifically how transportation projects or programs could improve the area's mobility and revitalization.

PUBLIC PARTICIPATION: Direct mail invitations were sent to all property owners within the study area (nearly 1,000). The study team hosted two public open houses, which were well attended (approx. 70 each). University and community surveys were also accomplished with the public and staff and students of Mansfield University. The team also conducted interviews with EMTA, ACoE, PennDOT, and the Mansfield Borough Police Department, among others.

RECOMMENDATIONS: The study process resulted in 29 implementation recommendations in five major categories:

- Water and Sewer
- Connectivity
- Town/Gown Issues
- Aesthetics
- Future Development.

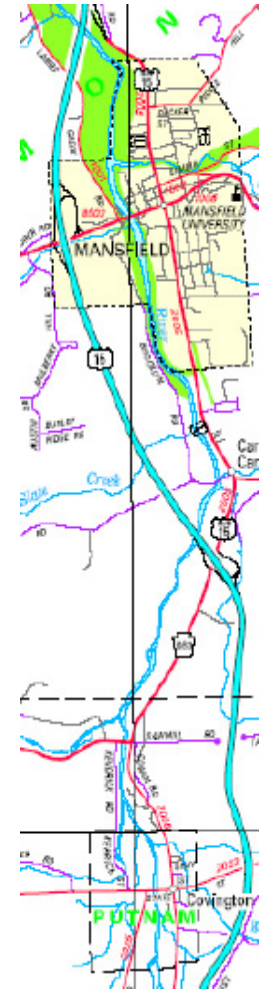
Greater Mansfield Revitalization Strategy & Mobility Analysis

Tioga County has an important role in supporting several of the study's implementation plan recommendations:

- 4-A: Implement a gateway concept at the Canoe Camp interchange and other entrances to the area
- 5-A: Energize overhead lighting at the Canoe Camp interchange
- 5-F: Implement access management solutions and accommodate non-motorized modes (TCPC)
- 6-A: Consider forming a permanent multi-municipal planning commission/committee (TCPC)
- 6-C: Minimize set-backs and encourage side and rear parking (TCPC).

OTHER COUNTY CONSIDERATIONS:

- We understand that the Commissioners have initiated a flood study with the Army Corps of Engineers. The Commissioners should include the Conservation District and the Planning Commission in this study process and encourage the development of a COG to implement it locally.
- Development of a retail incubator in partnership with Mansfield University.
- Continue working with the Appalachian Thruway Association (ATA) and Route 15 Coalition to achieve designation as I-99. Interchange lighting costs would then be borne by PennDOT with interstate status.
- Support the Lambs Creek trail extension to the Welcome Center through the development of the countywide greenway plan this year.
- Address the cross-over access issue for emergency vehicles on US 15 with the county emergency management dispatch center.
- Appoint representatives to the EMTA Board who can effectively speak for MU and the area's public transportation needs.
- Coordinate with TCDC, PennDOT and the County Planning Commission on the development of a Transportation Development District (TDD) for the I-99 business park.



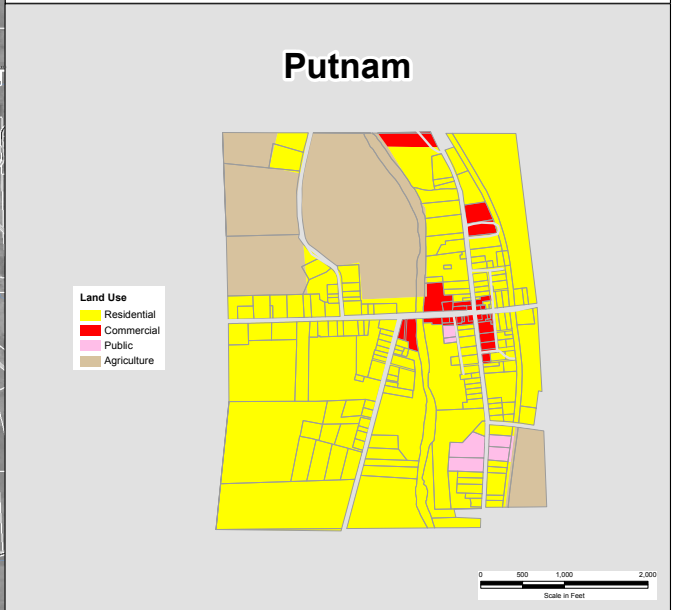
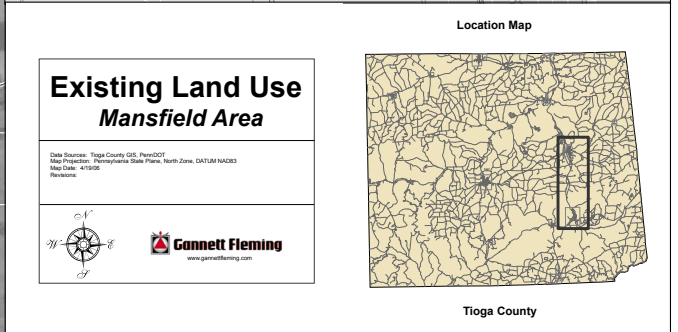
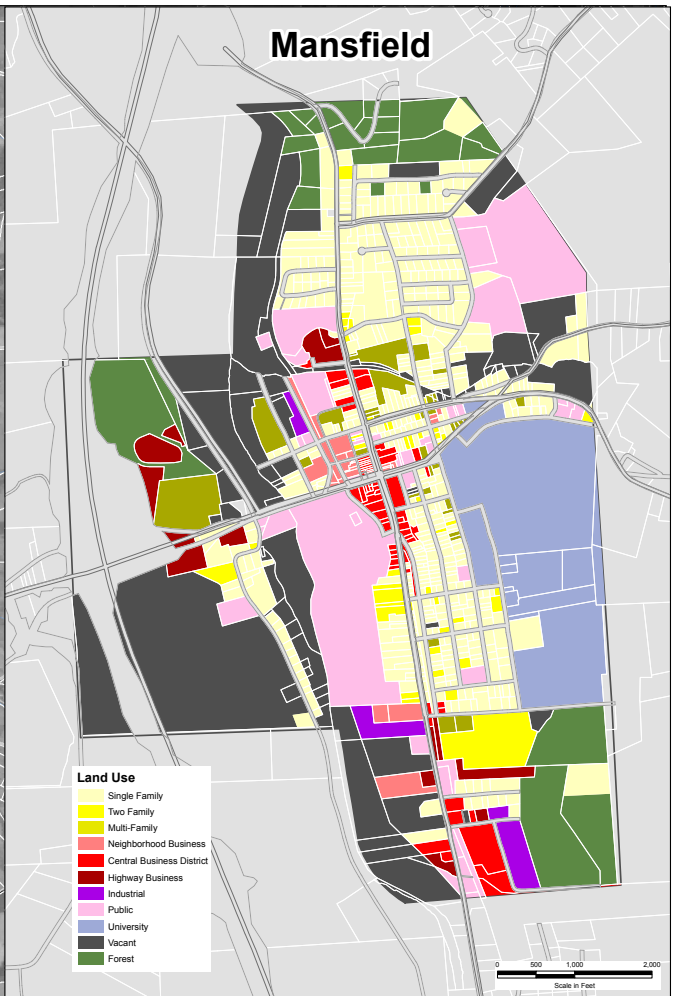
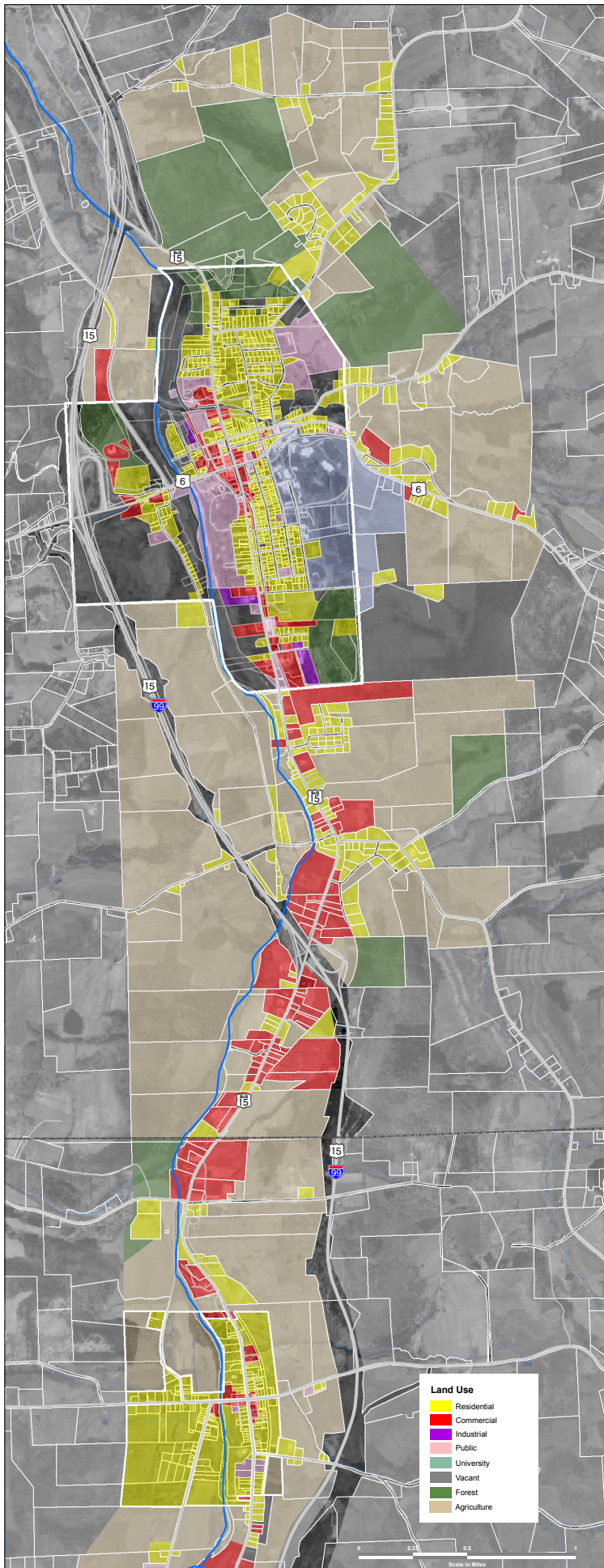
FOR MORE INFORMATION: Contact Brian Funkhouser at (800) 233-1055 x2083 or e-mail bfunkhouser@gfnet.com.

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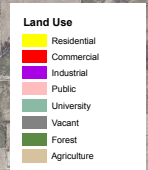
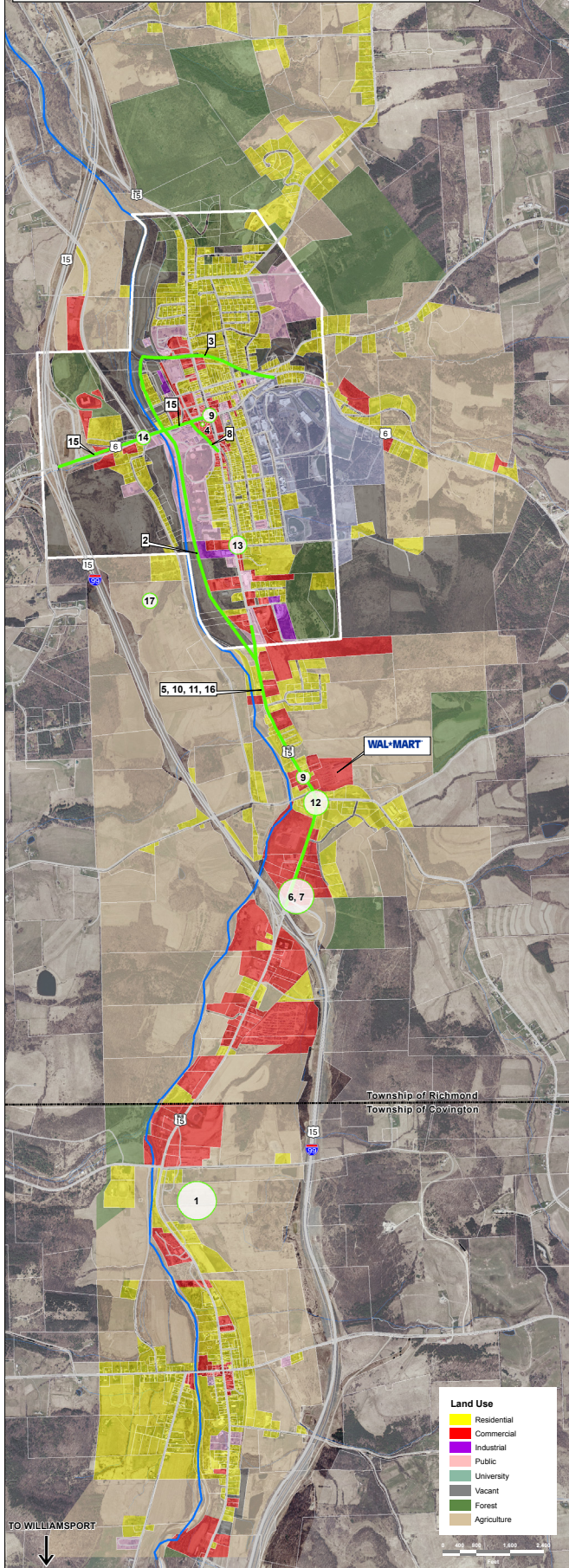
Appendix C

Maps



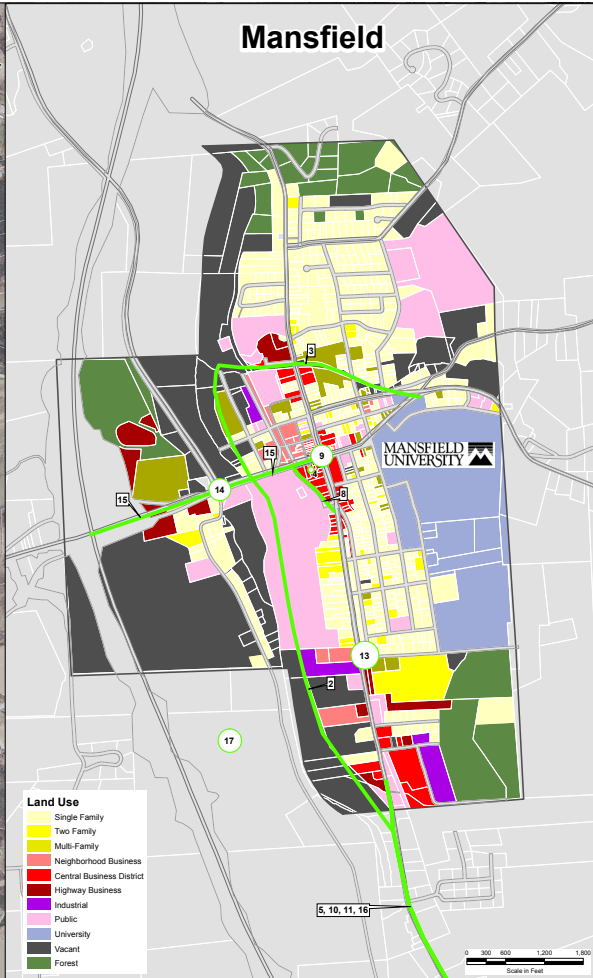
Choices for Our Future

↑
TO CORNING, NY



↓
TO WILLIAMSPORT

Mansfield



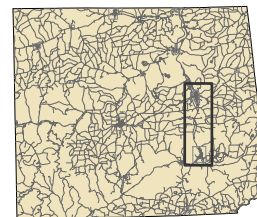
Study Recommendations:

- 1.) Address flooding problems in the southern portion of the study area.
- 2.) Develop a greenway from behind Greco's Market in Mansfield to Covington.
- 3.) Develop a greenway along the Corey Creek conduit from Mansfield University to Greco's.
- 4.) Re-develop the armory for recreation purposes.
- 5.) Make streetscape improvements along Business Route 15.
- 6.) Develop an attractive gateway to Mansfield at the Canoe Camp interchange by adding a welcome sign and making streetscape improvements.
- 7.) Install overhead lighting at the Canoe Camp interchange to improve safety.
- 8.) Encourage the school district to reduce cut-thru traffic at Smythe Park by introducing traffic calming measures such as speed bumps and speed tables.
- 9.) Install pedestrian signal heads at US 6/Business Route 15 and at the Wal-Mart intersection.
- 10.) Improve shoulder maintenance on Business Route 15 for bicycle traffic.
- 11.) Adopt access management ordinances that consolidate driveways and parking areas along Business Route 15.
- 12.) Address the dog-leg intersection of Business Route 15 and Spencer Road near Wal-Mart.
- 13.) Extend the length of school zone along Business Route 15 for the elementary school.
- 14.) Examine need for safety treatments at the intersection of US 6 and Lambs Creek Road.
- 15.) Lower speed limits along US 6 between downtown Mansfield and US 15.
- 16.) Adjust setbacks, encourage side and rear parking for properties along Business Route 15.
- 17.) Explore the feasibility of identifying a Transportation Development District (TDD) to leverage private funding for transportation improvement projects in a targeted area.

Other Recommendations:

- A.) Develop/update Act 167 Stormwater Management Plans
- B.) Update Covington Township's Act 537 Plan, which is a sewage disposal plan that must be updated every five years and approved by PADEP before the township can receive state funding for any major sanitary sewer project.
- C.) BOOM should consider funding and administering a Main Street manager program for Mansfield Borough.
- D.) Increase awareness and promotion of Mansfield University's "Work Study Community Service Program."
- E.) BOOM should explore the potential of opening a retail incubator in Mansfield in partnership with Mansfield University.
- F.) Mansfield University should investigate the expansion of its Meal Card program.
- G.) Consider forming a permanent multi-municipal planning commission/committee for planning and monitoring study implementation and progress.
- H.) Municipalities should consider establishing a "Fee-in-lieu" program in which local developers are required to pay a public fee that will be used for recreational needs and services.

Location Map



Tioga County

Study Recommendations

Data Source: Tioga County GIS, Parcel/OT
Map Projection: North/South State Plane, North Zone, DATUM NAD83
Map Date: 4/12/22
Revisions:



Gannett Fleming

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Appendix D
*Access Management
Model Ordinance*



Model Ordinances

The model ordinances are presented in three tiers to allow your municipality to customize and apply the techniques that are most appropriate for your situation. The model ordinances are written in a form that can be incorporated into your existing subdivision and land development ordinance and comprehensive plan. Commentary is included to provide context and a better understanding of each access management technique and its implementation.

The practices presented in the model ordinances are commonly used in developing an effective access management program. However, these practices should not be viewed as the only solutions. Many other access management practices exist that may be used to address unique situations or meet specific goals and objectives of the municipality. Additional resources, provided at the end of this handbook, contain many more access management practices that may be applicable to your community.

It is important to establish a cooperative relationship with your district PennDOT office as you adopt access management ordinances to ensure local and state-level consistency and awareness. The following model ordinances, as written, complement PennDOT's regulations.

Note that local access management practices are most effective when they include both strong planning and supporting regulations. Communities may consider developing a policy framework that supports access management in the local comprehensive plan, preparing corridor or access management plans for specific problem areas, and encouraging good site planning through regulatory requirements. Access management plans and regulatory requirements should support the future land use plan of the municipality reflected in the comprehensive plan.



Model Ordinance Tiers

The access management practices in this handbook have been categorized into three tiers of model ordinance language based on ease of implementation; timeline to achieve desired outcomes; and the level of coordination required between the municipality, property owners, affected stakeholders, and PennDOT.

Tier 1

Tier 1 practices relate to the number and location of driveways and basic design elements that should be evaluated for every access. These practices should be implemented during the land development approval process and require coordination between the municipality, property owner, and possibly PennDOT. Additional practices such as shared driveways and internal access to outparcels attempt to consolidate access points among adjacent property owners. The practices included in this tier are generally the easiest to implement because they cost the least, take the least time to implement, and require the least amount of coordination between the property owner, municipality, and PennDOT.

Tier 2

Tier 2 practices involve more complex design elements for individual driveways, such as left turn lanes and deceleration lanes. Other practices, such as driveway and signalized intersection spacing, involve multiple driveways or off-site intersections. The practices in this tier can be implemented during the land development approval process, but they could require a higher level of coordination among the municipality, multiple property owners, and PennDOT. Some of the practices could require implementation through multiple land development approvals or a comprehensive project involving several properties. The practices in this tier can be more costly and require a longer period of time to implement than the practices in Tier 1 due to the participation of multiple property owners.

Tier 3

Tier 3 includes roadway design and planning practices such as medians, two-way center left turn lanes, setbacks, frontage roads involving multiple driveways, intersections, and properties. These practices cover a much larger corridor or area and typically require the highest degree of coordination among property owners, the municipality, and PennDOT. In addition, this tier contains planning and regulatory tools such as the official map and zoning overlay districts to implement these types of practices. In most situations, these practices would require capital funding for implementation. These types of practices could require years to fully implement. These practices are more expensive, require much higher levels of coordination between stakeholders, and much more time to implement than Tier 1 and Tier 2 practices.

Access Management Practices

- Number of Driveways
- Corner Clearance
- Safe Sight Distance
- Driveway Channelization
- Joint and Cross Access
- Access to Outparcels
- Driveway Throat Length
- Driveway Throat Width
- Driveway Radius
- Driveway Profile

- Auxiliary Lanes
- Left Turn Lane
- Acceleration Lane
- Driveway Spacing
- Signalized Intersection Spacing
- Driveway Clearance from Interchange Ramps

- Overlay Districts
- Official Map
- Two-way Left Turn Lanes
- Frontage/Service Roads
- Non-traversable Medians
- Setbacks
- Bonuses and Incentives
- Pre-existing Access

Purpose

"The purpose of this ordinance is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system. Access management encompasses the careful planning of the location, design and operation of driveways, median openings, interchanges, and street connections. If access systems are not properly designed, the primary transportation network, including arterials and highways, will be unable to accommodate the access needs of development and retain their primary transportation function.

This ordinance is intended to promote safe and efficient travel within (municipality, county) by limiting the number of conflict points, providing safe spacing standards between driveways, encouraging shared access between abutting properties, and ensuring safe access by emergency vehicles."

Applicability

"This ordinance shall apply to all arterials and selected collectors within (municipality/county), as identified in (either the comprehensive plan or other functional classification table), and to all properties which abut these roadways."

Conformance with Plans, Regulations, and Statutes

"This ordinance is generally consistent with (cite specific policies) of the comprehensive plan for (municipality). This ordinance also conforms with the requirements of the Pennsylvania Municipalities Planning Code and meets or exceeds the standards contained in Title 67, Chapter 441 of the Pennsylvania Code titled, Access To And Occupancy Of Highways By Driveways And Local Roads."

Definitions

85th Percentile Speed – The speed, in miles per hour, which is exceeded by only 15 percent of the drivers traveling on a section of highway.

95th Percentile Queue Length – The queue exceeded at some point during 5 percent of the signal cycles.

Access – A driveway, street, or other means of passage of vehicles between the highway and abutting property, including acceleration and deceleration lanes and such drainage structures as may be necessary for proper construction and maintenance thereof. [67 PA Code Chapter 441]

Auxiliary Lane – The portion of the roadway adjoining the through lane that is used for speed change, turning, storage for turning, deceleration, acceleration, weaving, and other purposes supplementary to through traffic movement.

Average Daily Traffic (ADT) – The total volume of traffic during a number of whole days (more than one day) and less than one year divided by the number of days in that period.

Design Speed – The maximum safe speed that can be maintained over a section of roadway when conditions are so favorable that the design features of the road govern.

Driveway – Every entrance or exit used by vehicular traffic to or from properties abutting a highway. The term includes proposed streets, lanes, alleys, courts, and ways. [67 PA Code Chapter 441]

Egress – The exit of vehicular traffic from abutting properties to a street.

Functional Area – The area beyond the physical intersection of two controlled access facilities that comprises decision and maneuver distance, and the required vehicle storage lengths.

High Volume Driveway – A driveway used or expected to be used by more than 1,500 vehicles per day. [67 PA Code Chapter 441]

Highways, Roads, or Streets – any highways, roads, or streets identified on the legally adopted municipal street or highway plan or the official map that carry vehicular traffic, together with all necessary appurtenances, including bridges, rights-of-way and traffic control improvements. The term shall not include the Interstate Highway System.

Ingress – The entrance of vehicular traffic to abutting properties from a street.

Interchange – A grade-separated system of access to and from highways that includes directional ramps for access to and from the crossroads.

Internal Trips – Site-generated trips that occur between two or more land uses on the subject site without exiting onto the intersecting street.

Level of Service (LOS) – A qualitative measure describing the operational conditions within a section of roadway or at an intersection that includes factors such as speed, travel time, ability to maneuver, traffic interruptions, delay, and driver comfort. Level of service is described as a letter grade system (similar to a school grading system) where delay (in seconds) is equivalent to a certain letter grade from A through F.

Local Road – Every public highway other than a state highway. The term includes existing streets, lanes, alleys, courts, and ways. [67 PA Code Chapter 441]

Low Volume Driveway – A driveway used or expected to be used by more than 25 but less than 750 vehicles per day. [67 PA Code Chapter 441]

Medium Volume Driveway – A driveway used or expected to be used by more than 750 but less than 1,500 vehicles per day. [67 PA Code Chapter 441]

Minimum Use Driveway – A residential or other driveway that is used or expected to be used by not more than 25 vehicles per day. [67 PA Code Chapter 441]

Offsite Improvements – Those public capital improvements that are not onsite improvements and that serve the needs of more than one development.

Onsite Improvements – All improvements constructed on the applicant's property, or the improvements constructed on the property abutting the applicant's property necessary for ingress and egress to the applicant's property, and required to be constructed by the applicant pursuant to any municipal ordinance, including, but not limited to, the municipal code, subdivision and land development ordinance, planned residential development regulations, and zoning ordinance.

Outparcel – A lot that is adjacent to the roadway that interrupts the frontage of another lot.

Pre-Existing Driveway – Permitted driveways in place at the time of the adoption of this ordinance that do not conform to the standards herein.

Right-of-Way – An area of land, measured from the centerline of the cartway that can be used by the public for travel and the location of utilities.

Right-of-Way Preservation – The acquisition of an area of land, through dedication or easement, needed to accommodate the future widening of the roadway.

Road Improvement – The construction, enlargement, expansion, or improvement of public highways, roads, or streets.

Setbacks – The minimum distance from the street right-of-way line to the lot line that establishes the area within which no structure can be erected.

Signal Progression – The timing of a series of traffic signals to provide a progressive movement of traffic at a planned rate of speed through the signalized intersections without stopping.

Stopping Sight Distance – The distance required by a driver traveling at a given speed to stop the vehicle after an object on the roadway becomes visible to the driver.

Street – Includes street, avenue, boulevard, road, highway, freeway, parkway, lane, alley, viaduct, and any other ways used or intended to be used by vehicular traffic or pedestrians, whether private or public.

Storage Length – Lane footage needed for a right or left turn lane to store the maximum number of vehicles likely to accumulate during a peak period of travel.

Taper – The widening of the roadway to allow the redirection or transition of vehicles into or around an auxiliary lane.

Trip – A one-directional vehicular trip to or from a site.

Trip Generation – The total number of vehicular trips going to and from a particular land use on a specific site during a specific time period.

Ultimate Right-of-Way – An area of land beyond the legal or dedicated right-of-way needed to accommodate future widening of the roadway, measured from the centerline.

Tier 1 - Access Management Techniques for Individual Parcels

I.A.1. Commentary

According to PennDOT's regulations, *67 PA Code CH. 441*, "the number of driveway locations to be permitted to serve a property will be based on preserving the flow of traffic and highway safety, considering the amount and type of traffic the driveway is expected to serve, the location, type, and density of the development, the type and character of the roadway which it accesses, interior traffic patterns, frontage and other criteria consistent with the AASHTO publication entitled *A Policy on Geometric Design of Highways and Streets*."

The applicant should be given the opportunity to provide capacity and circulation analyses to demonstrate whether an additional driveway will be needed to accommodate traffic generated by the development. PennDOT considers a level of service C to be acceptable in rural conditions, and a level of service D to be acceptable in urban conditions. Safety is always a concern when there are sight distance constraints. The municipality may require access to be served by an internal collector roadway separated from the main roadway when driveway spacing requirements cannot be achieved or when outparcels are part of a commercial development.

In many instances it may be desirable to restrict access for a parcel that abuts two or more intersecting roadways to the one of lower functional classification. However, there may be some instances when access to the higher classification road or both roads is desirable for capacity or safety reasons.

A. Driveways

1) Number of Driveways

- a) Only one access shall be permitted for a property.
- b) An additional access or accesses shall be permitted if the applicant demonstrates that an additional access or additional accesses are necessary to accommodate traffic to and from the site and it can be achieved in a safe and efficient manner.
- c) The municipality shall restrict access to right turn only ingress and egress or to another state maintained road or local road if safe and efficient movements cannot be accommodated.
- d) For a property that abuts two or more roadways, the municipality may restrict access to only that roadway that can more safely and efficiently accommodate traffic.
- e) If the municipality anticipates that a property may be subdivided and that the subdivision may result in an unacceptable number or arrangement of driveways, or both, the municipality shall require the property owner to enter into an access covenant to restrict future access.

2) Corner Clearance

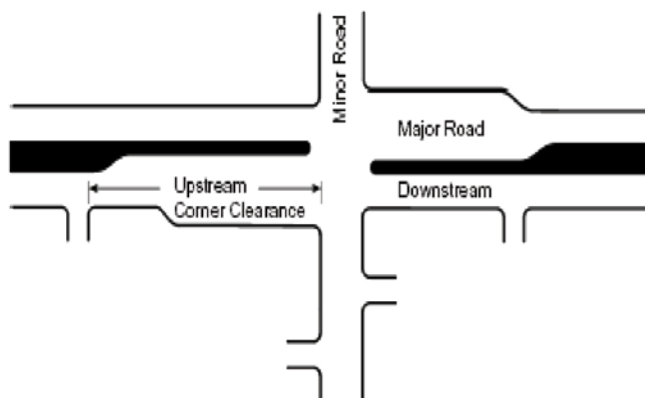
- a) Corner clearance shall meet the following driveway spacing standards that are desirable for arterial and major collector roads:
 - i) Principal arterial: 600 feet
 - ii) Minor arterial: 400 feet
 - iii) Major collector: 200 feet
- b) Access shall be provided to the roadway where corner clearance requirements can be achieved.
- c) If the minimum driveway spacing standards cannot be achieved due to constraints, the following shall apply in all cases:
 - i) There shall be a minimum 10-foot tangent distance between the end of the intersecting roadway radius and the beginning radius of a permitted driveway.
 - ii) The distance from the nearest edge of cartway of an intersecting roadway to the beginning radius of a permitted driveway shall be a minimum of 30 feet.
- d) If no other reasonable access to the property is available, and no reasonable alternative is identified, the driveway shall be located the farthest possible distance from the intersecting roadway. In such cases, directional connections (i.e., right in/right out only, right in only or right out only) may be required.
- e) The municipality shall require restrictions at the driveway if the municipal engineer determines that the location of the driveway and particular ingress or egress movements will create safety or operational problems.

I.A.2. Commentary

Corner clearance minimizes driveway-intersection conflicts and provides a greater distance for vehicles to merge into through traffic. Corner clearance, at a minimum, should be equal to or greater than driveway spacing standards. On high volume or high-speed roadways, a longer corner clearance may be needed to avoid conflicts. It is undesirable for driveways to be located within the functional area of an intersection. The functional area includes all areas where auxiliary lanes, such as right and left turn lanes, exist. Preferably, driveways for a corner property should be located on the roadway with the lower functional classification or as close to the property line farthest from the intersection as is possible.

New driveways should not be permitted within the functional area of an intersection unless no other reasonable access to the property is available and the municipal engineer determines that there is no reasonable alternative. In such cases the municipal engineer should determine the appropriate location of the driveway and whether restrictions should be placed on certain turning movements, usually left turn movements.

Upstream Corner Clearance



Source: TRB Access Management Manual, 2003.

Tier 1 - Access Management Techniques for Individual Parcels

I.A.3. Commentary

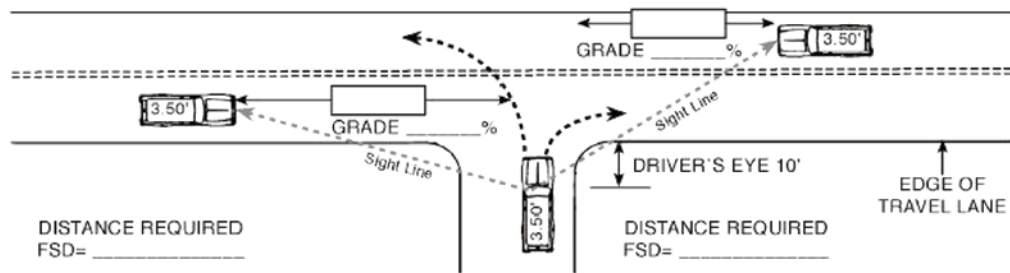
PennDOT sight distance requirements are consistent with AASHTO design criteria. Adequate sight distance ensures that drivers can safely enter or exit a driveway or intersecting roadway. It is critical that safe sight distance requirements are met for the safe operation of vehicles at driveways or access road intersections.

The cost of constructing some driveways can be expensive when the parcel has limited frontage and topographic constraints. If improvements are needed on adjacent properties to achieve minimum sight distance standards, easements are typically needed from the adjacent property owners.

3) Safe Sight Distance

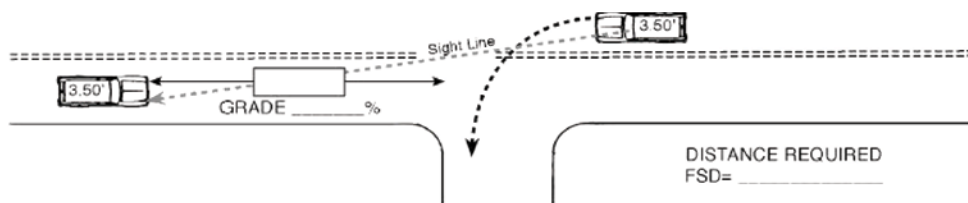
- Safe sight distance shall be available for all permitted turning movements at all driveway intersections.
- PennDOT's Pub. 441 and Pub. 282 for driveways or Pub. 70 for local roads shall be referenced to determine minimum driveway and roadway intersection safe sight distance requirements.
- All driveways and intersecting roadways shall be designed and located so that the sight distance is optimized to the degree possible without jeopardizing other requirements such as intersection spacing, and at least minimum sight distance requirements are met.

Sight Distances to the Left & Right of the Driveway



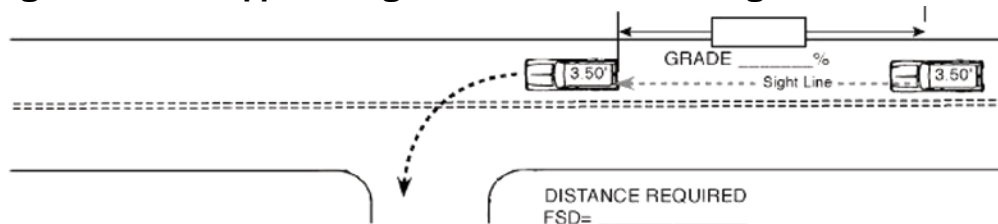
THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER AT A DRIVEWAY LOCATION CAN CONTINUOUSLY SEE ANOTHER VEHICLE APPROACHING ON THE ROADWAY.

Sight Distance to an Approaching Vehicle from a Vehicle Turning Left into the Driveway



THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER OF A VEHICLE INTENDING TO MAKE A LEFT TURN INTO A DRIVEWAY CAN CONTINUOUSLY SEE A VEHICLE APPROACHING FROM THE OPPOSITE DIRECTION.

Sight Distances Approaching the Rear of a Left Turning Vehicle



THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER ON THE ROADWAY CAN CONTINUOUSLY SEE THE REAR OF A VEHICLE WHICH IS LOCATED IN THE DRIVER'S TRAVEL LANE AND WHICH IS POSITIONED TO MAKE A LEFT TURN INTO A DRIVEWAY.

Source: TRB Access Management Manual, 2003.

4) Driveway Channelization

- a) For high and medium volume driveways, channelization islands and medians shall be used to separate conflicting traffic movements into specified lanes to facilitate orderly movements for vehicles and pedestrians.
- b) Where it is found to be necessary to restrict particular turning movements at a driveway, due to the potential disruption to the orderly flow of traffic or a result of sight distance constraints, the municipality may require a raised channelization island.
- c) Raised channelization islands shall be designed with criteria consistent with the latest AASHTO publication entitled *A Policy on Geometric Design of Highways and Streets*.

I.A.4. Commentary

The restriction of left turns into or out of a driveway reduces interruptions to through traffic on roadways. Turn restrictions are an effective measure for corner lots at intersections, because they eliminate left turning movements within the functional area of the intersection. Turn restrictions may also be implemented if the improvements that would be required at a driveway to achieve acceptable levels of service cannot be provided due to constraints or there is a history of high crash rates caused by left turning vehicles. Islands also provide a refuge area for pedestrians crossing high volume driveways.

Channelizing islands can be controversial when recommended for commercial uses because they place a restriction on a direct access movement into the business. However, channelization islands are a less controversial access management practice to restrict turns at high volume driveways than the installation of medians on the intersecting roadway.

According to the Pennsylvania Code, Title 67, Transportation, Chapter 441, if sight distance requirements cannot be met, PennDOT may prohibit left turns by entering or exiting vehicles. A raised concrete island may be required to implement left turn restrictions at driveways where limited sight distance would otherwise pose a potential hazard.

Tier 1 - Access Management Techniques for Individual Parcels

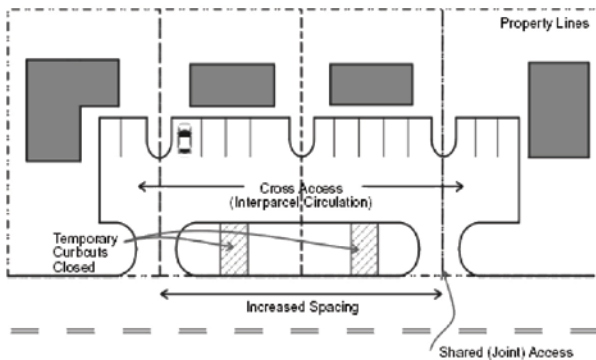
I.A.5 Commentary

Joint and cross access driveways reduce the number of driveways accessing the roadway, thus reducing the number of conflict areas along the roadway. They are a safe and more efficient way to provide access to two or more adjacent land uses because motorists do not have to exit one driveway, merge into traffic on the intersecting roadway, and then enter another driveway. These types of driveways allow the municipality to maintain driveway spacing standards along corridors that have several parcels with limited roadway frontage. For undeveloped parcels, the easements for joint and cross access should be implemented during the land development approval process.

5) Joint and Cross Access

- a) The municipality may require a joint driveway in order to achieve the following driveway spacing standards that are desirable for arterial and major collector roads:
 - i) Principal arterial: 600 feet
 - ii) Minor arterial: 400 feet
 - iii) Major collector: 200 feet
- b) Adjacent non-residential properties shall provide a joint or cross access driveway to allow circulation between sites wherever feasible along roadways classified as major collectors or arterials in accordance with the functional classification contained in the municipal comprehensive plan. The following shall apply to joint and cross access driveways:
 - i) The driveway shall have a design speed of 10 mph and have sufficient width to accommodate two-way traffic including the largest vehicle expected to frequently access the properties.
 - ii) A circulation plan that may include coordinated or shared parking shall be required.
 - iii) Features shall be included in the design to make it visually obvious that abutting properties shall be tied in to provide cross access.
- c) The property owners along a joint or cross access driveway shall:
 - i) Record an easement with the deed allowing cross access to and from other properties served by the driveway.
 - ii) Record an agreement with the municipality so that future access rights along the driveway shall be granted at the discretion of the municipality and the design shall be approved by the municipal engineer.
 - iii) Record a joint agreement with the deed defining the maintenance responsibilities of each of the property owners located along the driveway.

Joint Driveways and Cross Access



Source: TRB Access Management Manual, 2003.

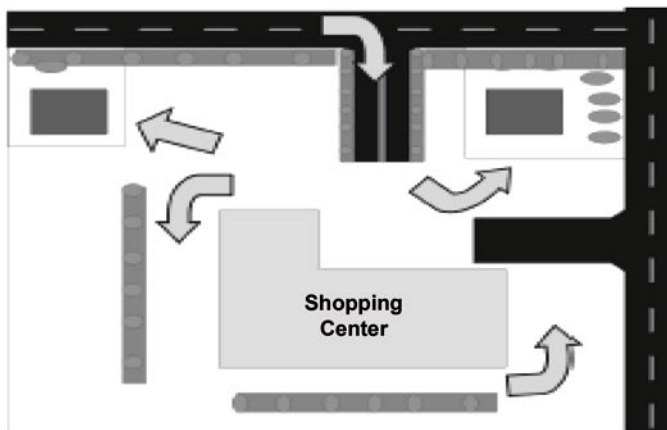
6) Access to Outparcels

- a) For commercial and office developments under the same ownership and consolidated for the purposes of development or phased developments comprised of more than one building site, the municipality shall require that the development be served by an internal road that is separated from the main roadway.
- b) All access to outparcels shall be internalized using the internal roadway.
- c) The driveways for outparcels shall be designed to allow safe and efficient ingress and egress movements from the internal road.
- d) The internal circulation roads shall be designed to avoid excessive queuing across parking aisles.
- e) The design of the internal road shall be in accordance with all other sections of this ordinance.
- f) All necessary easements and agreements required under Section A.6.c shall be met.
- g) A municipality may require an access covenant to restrict an outparcel to internal access only.

I.A.6 Commentary

Internal access reduces the number of direct access locations on major roadways in commercial districts and employment areas, thus reducing the number of conflict locations. The reduction in the number of driveways along the property frontage also creates more areas for landscaping to improve the aesthetics of a corridor. For collectors and arterials, the internalization of access to outparcels is critical in order to meet the spacing criteria found in Tier II.

Internal Access to Outparcels



Source: TRB Access Management Manual, 2003.

Tier 1 - Access Management Techniques for Individual Parcels

I.B.1 Commentary

Traffic volumes, type of vehicles, and vehicle queues are the primary considerations for determining driveway throat lengths. Adequate throat length for a driveway permits vehicles to enter the driveway without immediately encountering conflicts created by an internal intersection. Immediate conflicts can cause successive entering vehicles to queue onto the intersecting roadway. Adequate throat length also provides sufficient space for queuing of exiting vehicles, particularly at signalized driveways.

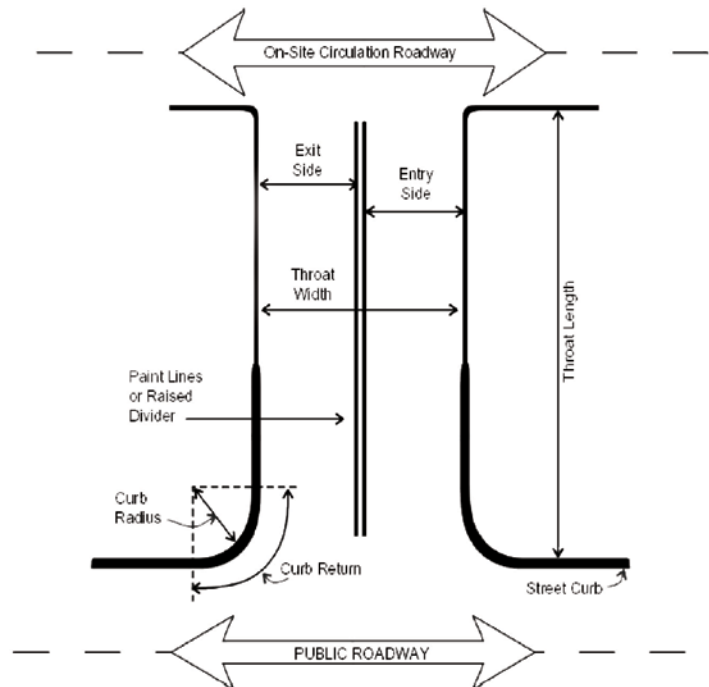
Although site conditions may not allow strict adherence to the guidelines in this ordinance, every effort should be made to design and construct the safest and most efficient access onto the municipal or state roadway. Exceptions to the design requirements in the ordinance should be reviewed by the municipal engineer on municipal roadways and PennDOT on state maintained roadways.

B. Driveway Design Elements

1) Driveway Throat Length

- a) For minimum use driveways, the throat length shall be a minimum of 25 feet.
- b) For low volume driveways, the throat length shall be a minimum of 50 feet or as determined by queuing analysis.
- c) For medium volume driveways, the throat length shall be a minimum of 120 feet or as determined by a queuing analysis.
- d) For high volume driveways, the throat length shall be a minimum of 150 feet or as determined by a queuing analysis.

Diagram Displaying Driveway Throat Length, Width, and Radius



Source: TRB Access Management Manual, 2003.

2) Driveway Throat Width

- a) For driveways without curb:
 - i) A minimum use driveway shall have a minimum width of 10 feet.
 - ii) Low and medium volume driveways shall have a minimum width of 10 feet for one-way operation and a minimum width of 20 feet for two-way operation.
 - iii) The design of high volume driveways shall be based on analyses to determine the number of required lanes.
- b) For driveways with curb, two feet should be added to the widths contained in Section a.i and a.ii.
- c) The municipality may require additional driveway width to provide turning lanes for adequate traffic flow and safety.
- d) The municipality may require that the driveway design include a median to control turning movements. Where medians are required or permitted, the minimum width of the median shall be four feet to provide adequate clearance for signs.

I.B.2 Commentary

When the proper turning radii cannot be provided due to site constraints, wider driveways may be needed to facilitate turning movements. However, if driveways have excessive width, a driver may become confused on where to position the vehicle for ingress and egress movements. Also, pedestrians and bicyclists have a greater distance to cross the driveway, exposing them longer to potential vehicular conflicts.

The width requirements presented here are based on common design practices. The width of driveways must consider the volume and type of vehicles that are anticipated to use the driveway and the volume of bicycle and pedestrian traffic crossing the driveway. Trucks and buses require more width than passenger vehicles. Although site conditions may not allow strict adherence to the requirements in the ordinance, every effort should be made to design and construct the safest and most efficient access onto the municipal or state roadway. Exceptions to the design requirements contained in this ordinance must be reviewed by the municipal engineer.

Tier 1 - Access Management Techniques for Individual Parcels

I.B.3. Commentary

A small radius may make entering a driveway more difficult and cause entering vehicles to slow down or almost stop upon entering. Thus, improperly designed radii can affect the speed and capacity of through traffic on the intersecting roadway. Large trucks need adequate radii to complete their turning movements without encroaching into opposing lanes of traffic on the driveway or main road. Large turning radii allow for easier ingress and egress maneuvers. Very large turning radii can be used to increase entry speeds where deceleration lanes are not feasible, however consideration of bicycle and pedestrian volumes is necessary.

3) Driveway Radius

- a) The following criteria shall apply to driveway radii:
 - i) For minimum use driveways, the radii shall be a minimum of 15 feet.
 - ii) For low volume driveways, the radii shall be a minimum of 15 feet uncurbed and 25 feet curbed.
 - iii) For medium volume driveways, the radii shall be a minimum of 15 feet uncurbed and 25 feet curbed.
 - iv) For high volume driveways, the design should be reviewed by the municipal engineer on municipal roadways and PennDOT on state maintained roadways.
- b) For all driveways, the radii shall be designed to accommodate the largest vehicle expected to frequently use the driveway.
- c) Except for joint driveways, no portion of a driveway radius may be located on or along the frontage of an adjacent property.

4) Driveway Profile

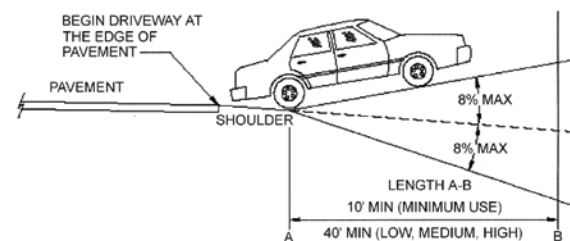
- a) Driveway grade requirements where curb is not present on the intersecting street:
 - i) Shoulder slopes vary from four percent to six percent. When shoulders are present, the existing shoulder slope shall be maintained across the full shoulder width.
 - ii) The change in grade between the cross slope of the connecting roadway or shoulder and the driveway shall not exceed eight percent.
 - iii) The driveway grade shall not exceed eight percent within 10 feet of the edge of travel lane for minimum use driveways and within 40 feet for low, medium, and high volume driveways.
 - iv) A 40-foot minimum vertical curve should be used for a high volume driveway.
- b) Driveway grade requirements where curbs and sidewalks are present:
 - i) The difference between the cross slope of the roadway and the grade of the driveway apron may not exceed eight percent.
 - ii) The driveway grade shall not exceed eight percent within 10 feet of the edge of travel lane for minimum use driveways and within 40 feet for low, medium, and high volume driveways.
 - iii) If a planted area exists between the sidewalk and curb, the following shall apply:
 - (1) The grade of the planted area shall not exceed eight percent.
 - (2) If the driveway grade would exceed eight percent in the area between the curb and the sidewalk, the outer edge (street side) of the sidewalk may be depressed to enable the driveway grade to stay within eight percent. A maximum sidewalk cross slope of eight percent must be maintained.
 - (3) If the sidewalk cross slope exceeds two percent, the entire sidewalk may be depressed. The longitudinal grade of the sidewalk may not exceed six percent.
- c) Although site conditions may not allow strict adherence to these guidelines in this ordinance, every effort should be made to design and construct the safest and most efficient access onto the municipal or state roadway.

I.B.4. Commentary

A properly designed driveway profile allows for more efficient and safe turning movements into and out of driveways and streets. It allows vehicles to complete a smooth 90-degree turning maneuver without a "bottoming out" of the vehicle against the pavement. The profile must be designed to accommodate the largest vehicle that will frequently use the driveway to allow for efficient movements. In areas where steep slopes are unavoidable, the driveway approach profile should be checked with an appropriate design vehicle template. The requirements of the model ordinance are consistent with PennDOT regulations. If a municipality already has more stringent design criteria, they should not be revised unless they are proven to be problematic.

Although site conditions may not allow strict adherence to these requirements, every effort should be made to design and construct the safest and most efficient access onto the municipal or state roadway. Exceptions to the design requirements in the ordinance should be reviewed by the municipal engineer on municipal roadways and PennDOT on state maintained roadways.

Driveway Profile



Source: TRB Access Management Manual, 2003.

II.A. Commentary

PennDOT's regulations, *67 PA Code Chapter 441*, establish the need for a turn lane as follows: "The permit may require the installation of a left turn lane, a two-way left turn lane, or a right turn lane to separate and protect turning vehicles from through traffic if failure to do so would result in unacceptable levels of service or undue hazard for the traveling public, as determined by a traffic study approved by the Department." The website address for the PennDOT traffic impact study guidelines can be found on the references/resources page of the Access Management Model Ordinances for Pennsylvania Municipalities handbook.

A. Auxiliary Lanes

Auxiliary lanes separate turning vehicles from through traffic, thus they increase capacity and improve operations at intersections. They reduce the potential for rear-end crashes and interference or disruption of the flow of through traffic.

1) Right Turn Lane/Deceleration Lane

a) Unsignalized intersections:

i) A right turn lane shall be considered on the major road (not stop controlled) at an unsignalized intersection when any one or a combination of the following conditions exists:

- (1) Forty or more right turns in the peak hour.
- (2) Three percent or more downgrade with 20 or more right turns in the peak hour.
- (3) Speed in excess of 40 mph.
- (4) High average daily traffic on the through road (5,000 vehicles per day or more).

ii) A right turn lane shall be required on the minor road or driveway (stop controlled) approach if a capacity analysis shows an unacceptable LOS for the approach, and the installation of a right turn lane will improve operations.

b) Signalized intersections:

i) A right turn lane shall be required when a capacity analysis shows unacceptable LOS, and the operation of the intersection can be improved by the installation of one or more right turn lanes. Levels of service E and F should be considered unacceptable in rural areas and a level of service F should be considered unacceptable in urban areas.

ii) Capacity analysis methodology shall follow criteria [either established elsewhere in the Subdivision and Land Development Ordinance or the applicable PennDOT criteria for conducting traffic impact studies.]

c) Design Criteria

- i) The desirable width for a right turn lane is 14 feet with curb and 12 feet without curb. The minimum width of right turn lanes shall be 13 feet with curb and 11 feet without curb. If not curbed, shoulders shall be designed in accordance with PennDOT 3R criteria found in *PennDOT Publication 13M: Design Manual Part II*.
- ii) The required lengths of right turn lanes shall consider the following components as may be applicable:
 - (1) Storage bay length:
 - (a) Shall accommodate the 95th percentile queue length for signalized intersections.
 - (b) The stop controlled approach of an unsignalized intersection shall accommodate the number of turning vehicles likely to arrive in an average two-minute period during the peak hour.
 - (2) Deceleration distance in accordance with AASHTO publication *A Policy on Geometric Design of Highways and Streets*.
 - (3) Taper length in accordance with AASHTO publication *A Policy on Geometric Design of Highways and Streets*.
 - (4) The right turn or deceleration lane shall be designed based on an analysis that projects traffic volumes for a ten-year period from the anticipated opening of the proposed development.
 - (5) The 85th percentile speed shall be used for the retrofit of existing deceleration or right turn lanes. The design speed of the roadway shall be used for the design of auxiliary lanes for new roads.

II.A.1 Commentary

Right turn and/or deceleration lanes separate vehicles slowing to make a right turn from through traffic. They allow the right turns to be completed without impeding the travel speed of through traffic. These lanes can also reduce rear end crashes and increase capacity at an intersection or driveway. Other factors such as sight distance limitations and crash history can also be used in determining the need for a right turn or deceleration lane.

Unacceptable levels of service can be defined differently by agencies and municipalities. The municipality should include criteria for unacceptable levels of service that meet their traffic operation objectives.

PennDOT is currently developing uniform statewide criteria for right turn and deceleration lane warrants and design criteria. The municipality should amend its ordinance when the warrants and criteria are adopted so that it is consistent with PennDOT regulations.

Right turn lanes are relatively easy to install because they do not require widening on the opposite side of an intersection to shadow or direct through traffic around turning vehicles as is needed for left turn lanes when there is an opposing approach to the intersection. The design of right turn and deceleration lanes generally consist of a taper, deceleration length, and storage length depending on the class of roadway and whether or not the approach to the intersection is uncontrolled, stop controlled, or controlled by a traffic signal. Generally, long tapers enhance the function of a deceleration or right turn lane.

Right turn lanes on stop controlled approaches of two-way stop intersections should carefully consider sight distance limitations that could be created. These lanes can be difficult to retrofit due to physical constraints and the potential need to acquire additional right-of-way. Continuous right turn lanes should be avoided because they can be confused for an additional through lane.

Tier 2 - Access Management Techniques for Roadways

II.A.2 Commentary

Left turn lanes are usually provided for either a high left turn volume into a driveway or side street, or when a combination of left turn volumes and high through volumes causes long delays. They can also be used in locations with high rates of rear end crashes. A left turn lane allows turn movements to be removed from the through lanes, reducing disruption and delay for the through traffic.

Unacceptable levels of service can be defined differently by agencies and municipalities. The municipality should include criteria for unacceptable levels of service that meet their traffic operation objectives.

PennDOT is currently developing uniform statewide criteria for left turn lane warrants and design criteria. The municipality should amend its ordinance when the warrants and criteria are adopted so that it is consistent with PennDOT regulations.

AASHTO publication *A Policy on Geometric Design of Highways and Streets* provides criteria based on HRR 211 methodologies to determine the storage length of left turn lanes. For unsignalized intersections, HRR 211 takes the following variables into account in determining the need for a left turn lane:

VA = advancing volume (through, left-turning, and right-turning, vehicles per hour)

VL = left-turning volume (vehicles per hour)

L = VL/VA = proportion of left turns in the total advancing traffic stream

VO = opposing volume (opposing through and right-turning, vehicles per hour)

v = operating speed (mph)

HRR 211 provides nomographs based on these criteria to establish warrants for the installation of left turn lanes. ITE recommends that at high speed rural intersections, left turn lanes should be provided for safety reasons, whether or not warrants are satisfied.

The Highway Capacity Manual (HCM) states that for signalized intersections, the need for left turn lanes should be investigated when the volume of left turns approaches one hundred vehicles per hour. As the volume of left turns approaches three hundred vehicles during the peak hour, the need for dual left turn lanes should be investigated.

Left turn lanes are sometimes difficult to implement in a retrofit situation because they usually require widening on both sides of the road as well as on the opposing approach, and right-of-way acquisition can be difficult and expensive. Limits of work must include sufficient length to provide for lane transition tapers that are necessary to guide through traffic around the left turn lanes.

2) Left Turn Lane

a) Unsignalized Intersections:

- i) For the major street, Highway Research Record 211 (HRR 211) provides warrants for requiring a left turn lane.
- ii) A left turn lane shall be required when the appropriate HRR 211 nomograph indicates that the warrant for a 100-foot-long left turn lane is met for the anticipated completion date of the development.
- iii) A left turn lane shall be required if the visibility to the rear of a vehicle stopped to turn left into the proposed access does not meet minimum sight distance requirements and no alternative is available.

b) Signalized Intersections:

- i) A left turn lane shall be required when a capacity analysis indicates that the operation of an intersection, approach, or movement will operate at unacceptable levels of service and the operation of the intersection, approach, or movement can be improved with the installation of one or more left turn lanes. Levels of service E and F should be considered unacceptable in rural areas and a level of service F should be considered unacceptable in urban areas.

c) Design Criteria

- i) The desirable width for left turn lanes is 12 feet. The minimum width shall be 10 feet, unless the percent of trucks will exceed five percent, then 11 feet shall be the minimum width.
- ii) The length of a left turn lane shall consider the following components as applicable:
 - (1) Storage bay length.
 - (a) Shall accommodate the 95th percentile queue length for signalized intersections.
 - (b) Shall be determined from the appropriate nomograph in HRR 211 for the uncontrolled approach of an unsignalized intersection.
 - (2) Deceleration length in accordance with AASHTO publication *A Policy on Geometric Design of Highways and Streets*.
 - (3) Taper length in accordance with AASHTO publication *A Policy on Geometric Design of Highways and Streets*.

3) Acceleration Lane

- a) May be required on arterial highways where operating speeds are in excess of 40 mph and where access points are located a sufficient distance apart to permit the installation of acceleration lanes.
- b) The design length and width shall follow criteria found in the latest edition of *A Policy on Geometric Design of Highways and Streets* and shall conform to PennDOT requirements on state maintained highways.

II.A.3 Commentary

Acceleration lanes allow vehicles entering a highway from a driveway or side road to merge with through traffic at or near the same speed as the through traffic. For limited access highways and some principal arterials, acceleration lanes are critical to maintain smooth traffic flow, and to minimize disruption caused by entering traffic.

Acceleration lanes are generally not effective in facilitating egress from driveways or side roads that intersect the lower classification roads. Motorists tend to wait for a large enough gap in through traffic to enter directly into the flow of traffic.

B. Driveway Spacing Requirements

1) Driveway Spacing

- a) Driveway spacing is measured from the end of one driveway radius to the beginning of the next driveway radius.
- b) The following driveway spacing standards are desirable for arterial highways and major collector roads:
 - i) Principal arterial: 600 feet
 - ii) Minor arterial: 400 feet
 - iii) Major collector: 200 feet
- c) Driveways shall be aligned with other driveways and roadways on the opposite side of the intersecting roadway on arterials and major collector roads in order to meet spacing requirements.
- d) If these driveway spacing standards cannot be met, a system of joint or cross access driveways, frontage roads, or service roads may be required.

II.B.1 Commentary

Driveway spacing standards should be intended for arterial and major collector roads. Adequate driveway spacing allows greater speeds for through traffic, reduces the number of potential conflict points that must be monitored by motorists, and helps preserve the capacity of the roadway. Spacing standards may be developed based on the posted speed limit of the intersecting roadway and/or its functional classification. Driveway spacing requirements are difficult to implement in areas that are already developed, such as in commercial areas or corridors, and when there are no supporting land use regulations governing lot frontage or dimensions.

II.B.2 Commentary

Adequate separation distance between signalized intersections is necessary to prevent queues from one intersection extending into or otherwise influencing operations at the next upstream or downstream intersection. Furthermore, uniform spacing of traffic signals provides better traffic flow progression. Limiting the number of traffic signals in a corridor also reduces the number of locations where queuing of vehicles may obstruct turning movements from driveways or side streets.

Coordinated traffic signal systems with long and uniform signal spacing achieve efficient traffic progression at desired speeds. In a simultaneous coordinated traffic signal system, all signals along the corridor operate with the same cycle length and display the green indication at the same time. In an alternating coordinated system, each successive traffic signal or group of signals shows opposite (or alternating) green indications to that of the next signal or group.

Traffic signal spacing standards are a function of the cycle length of the traffic signal and the desired travel speed. Progression speeds increase as traffic signal spacing increases. Speeds also tend to increase as the cycle lengths increase for the signals along the corridor. Traffic signal spacing can be difficult to implement in established commercial areas. Midblock high volume driveways may require a signal for efficient ingress and egress movements. These driveways often break the uniform spacing.

2) Signalized Intersection Spacing

- a) Uncoordinated traffic signals shall be located a minimum of 1,000 feet from adjacent signalized intersections.
- b) Optimal signal spacing for coordinated systems may be determined by the following equations:
 - For simultaneous coordinated signal systems:
$$S = VC / 0.681$$
 - For alternating coordinated signal systems:
$$S = VC / 1.362$$
 - S = Signal spacing in feet
 - C = Cycle length in seconds
 - V = Progression speed in miles per hour
- b) The progression speed shall be determined by the municipal engineer and PennDOT.
- c) Warrants for the signalization of an intersection must be met and may be found in the Manual on Uniform Traffic Control Devices (MUTCD).
- d) If a driveway or local road requires signalization and will be located within an existing coordinated traffic signal system, the traffic signal must be incorporated in the system.

3) Driveway Clearance From Interchange Ramps

- a) A driveway shall not be permitted on or within an interchange ramp.
- b) A driveway shall not be permitted within 100 feet in areas classified as urban by PennDOT or 300 feet in areas classified as rural by PennDOT from either the end of a ramp radius or the intersecting edge of the pavement of the ramp speed change lane to the beginning of the access radius.

II.B.3 Commentary

Proper interchange area management reduces the conflicts between merging traffic from interchange ramps and traffic entering or exiting from driveways. Minimum distance requirements provide adequate distance for traffic merging from ramps to avoid traffic queues from the nearest intersection and to enter left turn lanes. The minimum spacing standards can be maintained in some instances through the acquisition and preservation of limited access right-of-way.

PennDOT's proposed regulations, *67 PA Code Chapter 441*, do not permit driveways within 50 feet of an interchange ramp. NCHRP Report 420 recommends that an unsignalized access be located at least 750 feet from an interchange ramp, and that a signalized access be located one half mile or greater from the terminus of an interchange ramp.

Tier 3 - Comprehensive Traffic Planning Practices



Introduction

Tier III contains access management techniques that can be implemented through the various planning options available to municipalities, such as overlay districts and the official map. This tier contains techniques that are more comprehensive and are typically used to control access to arterials and major collector roads. Tier III techniques used in conjunction with those from Tiers I and II are the best techniques for maintaining efficient traffic flow and high safety levels in areas experiencing intense land development pressures.

Tier III techniques apply to existing arterial highways and some major collector roads that are experiencing or can be anticipated to experience pressure for new development. Since the great majority of arterial highways and many major collectors are under the jurisdiction of PennDOT, the implementation of these techniques may require PennDOT approval and permission (Highway Occupancy Permits). The cooperation and input of PennDOT should also be sought for those corridors identified by the municipality for the implementation of access management practices.

The techniques, such as non-traversable medians, two-way-left-turn lanes (TWLTL), and frontage roads, often require right-of-way acquisition, utility relocation, and roadway widening. They require significant funding, and therefore are often implemented through a capital project administered by PennDOT.

A. Access Management Overlay District

The municipality may establish an Access Management Overlay District. Access management overlay districts add special requirements to existing zoning districts. They may be established for a corridor, intersection, or interchange area. All or some of the access management requirements from Tiers 1 through Tier 3 can be applied. Overlay districts can be developed to fit the unique characteristics of a particular area or corridor to address concerns regarding safety, access, and traffic flow problems that could be experienced as a result of intense pressures from development. Overlay districts can also contain land use requirements regarding the permitted uses along arterials and major collector roads or near interchanges in order to regulate the location of large volume generators such as shopping centers or office/industrial parks.

The zoning regulations of the underlying district, such as permitted uses and conditional uses, are retained. However, the overlay district may have more restrictive regulations regarding uses, setbacks, location and number of driveways, joint or cross access, and internal circulation. Overlay districts may also contain regulations regarding signing and landscaping to preserve the community character and natural features of the area. The regulations of the overlay district will generally prevail over the underlying district.

A planning study should be completed before the enactment of an overlay district. The study may be conducted in conjunction with the municipal comprehensive plan or municipal transportation plan, or a separate corridor study may be conducted. Its purpose is to establish the need for additional regulations due to existing and/or projected traffic problems. The planning or corridor study should address the following issues:

- Purpose of the overlay district;
- Analysis of existing traffic conditions;
- Analysis of future traffic conditions based on projected land development patterns;
- Recommended access improvements and management practices; and,
- Establishment of the boundary for the overlay district.

The need for an overlay district may exist on a regional basis for arterial corridors and interchange areas located near municipal boundaries. In these instances, a multi-municipal transportation plan or corridor study should be completed prior to enactment. If overlay districts are not developed properly, they can lead to complex regulations and significant administrative costs.

After the completion of a transportation plan or study that establishes the need for an overlay district, ordinance revisions are required for its enactment. The municipal zoning ordinance should be revised to show the boundary of the overlay district and include regulations for proper development. The subdivision and land development ordinance must also be updated to include required design standards. The municipality should consider the adoption of an official map in order to preserve right-of-way to implement recommended access improvements from the study, such as corridor or intersection widening, interchange re-configuration, new collector roads, service roads, and frontage roads.



B. Official Map

The official map is an effective planning tool to reserve right-of-way for new road alignments and interchanges. In addition, it can be used to reserve right-of-way along existing roadways for turning lanes at intersections, additional through lanes along corridors, and Tier 3 access management techniques such as two-way left turn lanes and non-traversable medians.

The Pennsylvania Municipalities Planning Code (MPC) provides that a municipality may adopt an official map covering the entire municipality, or a portion thereof, to show elements of the comprehensive plan pertaining to public lands and facilities. An official map identifies areas of public interest and need for the purpose of reserving lands for public use. It can be used to implement the transportation network and other community facilities. Section 401(a) of the MPC permits the municipality to represent the following transportation facilities on the official map:

1. Existing and proposed public streets including widening, narrowing, extensions, diminutions, openings, or closings.
2. Pedestrian facilities and easements.
3. Railroad and transit rights-of-way and easements.

The adoption of any street or street lines as part of the official map does not constitute the opening or establishment of any street, the taking of any land, nor does it obligate the municipality to improve or maintain any such street. The adoption of the official map does not constitute the taking or acceptance of any land by the municipality.

The construction of any building is not permitted within the lines of any street that is shown on the official map. The municipality may fix the time for which streets on the official map shall be deemed reserved for future taking or acquisition for public use. However, the reservation of public lands lapses and becomes void one year after an owner of such lands has submitted a written notice to the municipality announcing their intentions to build, subdivide, or otherwise develop the land reserved for public use, or has made a formal application for an official permit to build a structure for private use.

The municipality may use property records, aerial photography, photogrammatic mapping, geographic information systems (GIS), or other methods for the identification, description, and publication of elements of the official map. An ordinance must accompany the official map that describes the lands identified for future public use. The ordinance may be placed directly on the map. The municipality does not need to survey designated lands prior to the adoption of the official map and ordinance. At the time of land acquisition or easements, boundary descriptions by metes and bounds must be provided by a licensed surveyor.

Prior to the adoption by the municipality, the official map and ordinance must be reviewed by the county planning commission. The county planning commission must provide its recommendations to the municipality within 45 days, or an extension to the time for review may be agreed to by the municipality. The proposed official map and ordinance may also be reviewed by adjacent municipalities, other local authorities, and similar public bodies during the same review period. If the review parties do not provide recommendations within 45 days or the agreed to extension period, the municipality may proceed without the county planning commission and other recommendations.

Prior to the enactment of the official map and ordinance, the governing body must hold a public hearing pursuant to public notice. Following the adoption of the official map and ordinance, a copy must be submitted to the county recorder of deeds within 60 days of the effective date.

For more information on the official map including procedures for adoption and implementation, please refer to Article IV Sections 401 – 408 of the Municipalities Planning Code.

III.C.1 Commentary

TWLTs separate left turning vehicles from through traffic. They are generally safer than undivided highways because they reduce rear-end collisions. They also increase capacity and reduce travel time for through traffic.

The potential for conflicts between left turning vehicles from opposing travel streams is one potential problem with TWLTs. Also, they do not provide a safe refuge area for pedestrians as raised medians do. TWLTs can encourage commercial strip development along arterial corridors, particularly if there are no driveway spacing requirements.

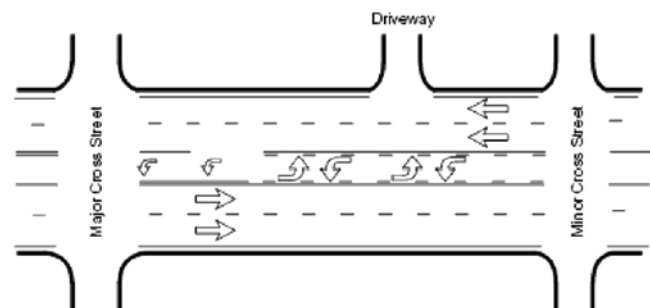
The use of TWLTs requires careful consideration of driveway locations. In some cases, TWLTs can be rather easily retrofitted on corridors that consist of multiple travel lanes. For corridors consisting of only two travel lanes, TWLTs can be much more difficult to retrofit due to right-of-way constraints and potential impacts to existing structures and properties.

C. Roadway Design Practices

1) Two-way Left Turn Lanes

- a) The municipality may identify certain roadway corridors for the retrofit of a two-way left turn lane (TWLTL) where the following conditions exist:
 - i) Speeds are less than 50 mph or as permitted by PennDOT.
 - ii) There are no locations of heavy concentrations of left turning vehicles that cannot be accommodated with exclusive left turn lanes.
- b) At cross streets or locations with a heavy concentration of left turning vehicles, the municipality may require the modification of pavement markings for a center left turn lane to provide an exclusive left turn lane based on the requirements for unsignalized and signalized left turn lanes.
- c) The pavement markings for a TWLTL shall be in accordance with the guidelines and criteria contained in the most recent edition of the Manual on Uniform Traffic Control Devices (MUTCD).

Two-way Left Turn Lane

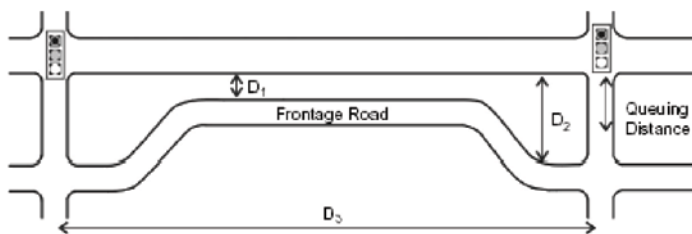


Source: TRB Access Management Manual, 2003.

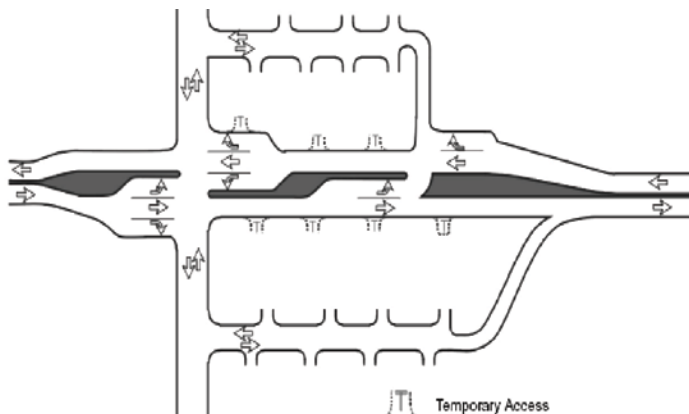
2) Frontage/Service Roads

- a) The municipality may require the construction of a frontage or service road to provide more favorable access for multiple commercial and residential developments to preserve the safety and capacity of the adjacent roadway.
- b) The municipality may require the construction of a frontage or service road to maintain the driveway and traffic signal spacing requirements and corner clearance requirements contained in this ordinance.
- c) New developments that abut an existing service or frontage road must take access to the service or frontage road. Access to the arterial or collector road will be permitted only if driveway and intersection spacing requirements are met and a traffic study shows that it is necessary to maintain levels of service, and safety is not compromised. The traffic study shall be conducted in accord with PennDOT's applicable guidelines and requirements.
- d) Frontage roads and service roads shall be designed in accordance with the most recent editions of *PennDOT Publication 13M, Design Manual Part II* and *A Policy on Geometric Design of Highways and Streets, AASHTO*.

Typical Frontage Road



Typical Service Road



Source: TRB Access Management Manual, 2003.

III.C.2 Commentary

Frontage roads provide direct access for individual parcels, thus minimizing the number of access points on an arterial. They separate local traffic from high speed through traffic. In commercial areas, businesses are still visible from the major roadway. Frontage roads are an effective access management tool in undeveloped areas experiencing development pressures.

Service roads allow the development of small parcels along a major roadway without providing access to each parcel from the major roadway. These roads can provide access to properties on either side. Service roads are often less costly than frontage roads and are easier to retrofit in developed areas. If a service road will be constructed in phases, temporary driveways may be needed to access the intersecting arterial or collector road. The temporary driveways should be removed after the completion of the service road.

Frontage roads can involve significant donation of right-of-way by multiple property owners. Short spacing between the intersections of the connector roads and the major roadway can cause problems with vehicle queues that extend through the intersections. These intersections have low capacity and the traffic volumes generated by a commercial development could result in congestion. Frontage roads tend to encourage commercial strip development rather than compact activity centers. They are very difficult to retrofit in fully developed areas.

Tier 3 - Comprehensive Traffic Planning Practices

III.C.3 Commentary

Medians can be used to reduce conflict areas by restricting turn movements into and out of driveways and minor side roads that are located on an undivided highway (generally four or more lanes). A detailed traffic study must be conducted in order to determine the degree of improvement to through traffic that can be realized by installing a non-traversable median. Also, appropriate locations for breaks in the median for side roads and major roadways must be determined along with the impact on existing properties. The ability and accommodation of traffic to reverse direction must also be investigated and provisions must be included in the design.

Approval for the alteration of an existing median for access to a property must be approved by PennDOT on state maintained roadways. The National Cooperative Highway Research Program (NCHRP) is currently developing guidelines and warrants for the installation of median barriers and establishing the type of barrier to be used in certain situations. The municipality should consider updating its access management ordinance once these warrants become available.

Medians are designed to physically prevent left turns into a driveway or onto a side street and left and through movements from driveways or side streets. They also reduce angle and rear-end crashes involving left turning vehicles from the inside through lanes.

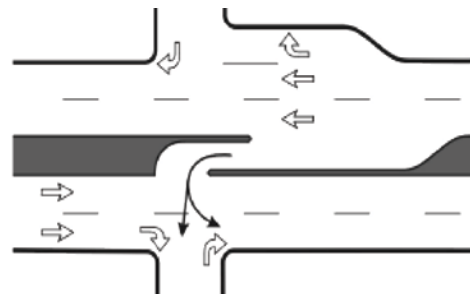
Directional medians contain breaks at key locations to provide access to a particular land use or side street. A separate ingress lane is typically used at a break in the median for left turns into the driveway and for U-turns. An egress lane, sometimes referred to as a median acceleration lane, may be used in some circumstances for exiting movements from a driveway when significant delay would occur because of infrequent simultaneous gaps in both directions of travel on the intersecting roadway. Jughandles may be used at median breaks as an alternative to left turn ingress lanes, because they eliminate left turn movements from the major roadway (intersecting roadway with the higher traffic volumes). As a result, delay is decreased at the intersection and levels of service are improved.

Crash data for study purposes can be obtained from the PennDOT Bureau of Highway Safety and Traffic Engineering.

3) Non-Traversable Medians

- a) The municipality, and in conjunction with PennDOT on state maintained roadways, may establish the need for the installation of a median barrier along an arterial or major collector roadway. General criteria involves a history of high crash rates caused by conflicting turning movements, a high average daily traffic volume, and unacceptable LOS along the corridor and at intersections.
- b) The placement, type, and design of median barriers must be in accordance with the most recent additions of *PennDOT Publication 13M, Design Manual Part II* and the AASHTO publications *A Policy on Geometric Design of Highways and Streets* and *Roadside Design Guide*.
- c) The municipality, in conjunction with PennDOT on state maintained roadways, shall consider the appropriateness of breaks in median barriers based on safety and capacity factors related to the proposed driveway. The removal or alteration of a portion of a median along a divided highway to provide access will not be permitted unless it is determined that the operating characteristics of the highway system will be improved by the action.
- d) The spacing of median breaks shall be in accordance with the minimum driveway spacing, traffic signal spacing and corner clearance requirements contained in this ordinance.
- e) A left turn ingress lane shall be required at a median break for a driveway. The length of the ingress lane shall be based on a capacity and queuing analysis conducted in accord with PennDOT's applicable guidelines and criteria.
- f) A left turn egress lane (median acceleration lane) may be required at a median break for exiting left turn movements from a proposed driveway. Its design must be based on the appropriate AASHTO criteria.

Median Break with Left Turn Lane



Source: TRB Access Management Manual, 2003.

D. Planning Practices

1) Setbacks

- a) The following setback distances shall be required between the legal right-of-way line and any proposed buildings or structures :

Minimum Setback Distance (Feet)

	Urban				Suburban/Rural			
	R	C	I	O	R	C	I	O
Arterial	15	15	10	15	150	150	125	150
Collector	15	15	10	15	100	100	50	100
Local	10	10	10	10	25	25	50	50

R - Residential

C - Commercial

I - Industrial

O - Office

III.D.1 Commentary

Setbacks are the minimum distance from the legal right-of-way line that establishes the area where no structures can be erected. Setbacks are not the dedication of right-of-way by the applicant, but preservation for future acquisition by the municipality. If the current municipal ordinance does not contain setbacks, the table included in the model ordinance language is from the *Chester County Circulation Handbook*, and can be used as a guide. In addition to the need for future roadway improvements, the municipality should consider other community design objectives when establishing or revising existing setback requirements.

The preservation of right-of-way well in advance of needed improvements can help reduce overall project costs and can help prevent development from precluding implementation of needed roadway improvements. The preservation of right-of-way can be done much more efficiently by the municipality than the state. The preservation of right-of-way for future roadway improvement projects must be completed on a property by property basis, which can take a considerable amount of time.

Applicants may be required to dedicate right-of-way to the municipality for the construction of on-site roadway improvements needed to provide ingress or egress to the property according to the driveway design requirements of the SLDO. The municipality cannot require off-site improvements according to the provisions of the MPC.

The official map may be used to preserve right-of-way for intersection improvements, corridor widening, or interchange reconstruction. The following table contains guidelines that may be used to preserve the ultimate right-of-way:

Minimum Right-of-Way Guidelines

	Urban	Suburban	Rural
Principal Arterial	100	150	150
Minor Arterial	80	100	100
Major Collector	80	80	80
Minor Collector	80	80	80
Local (>100 ADT)	50	50	50
Local (<100 ADT)	33	33	33

These widths are presented as a guide by the *Chester County Circulation Handbook* and *Landscapes Community Planning Handbook, Volume 2: A Toolbox for Managing Change in Chester County*. AASHTO has standards of 40-60 feet for collector roads and 50-66 feet for local roads in urban areas. Standards for other roadway classifications and area types should not be less than the area required for all of the elements of the design cross section, utility accommodation, and appropriate border areas.

III.D.2 Commentary

Bonuses and incentives provide the municipality with a negotiating tool to implement access management practices such as shared driveways, frontage roads, internal access to outparcels, and off-site roadway improvements. Careful consideration must be given to the decision to grant bonuses and incentives. Bonuses and incentives must be drafted in the ordinance in a way that does not relax other access management requirements.

2. Bonuses and Incentives

- a) The municipality may grant adjustments to the requirements of the subdivision and land development ordinance when the applicant elects to implement one or more of the following access management techniques over and above the required minimums:
 - i) Off-site roadway and intersection improvements to improve or maintain acceptable operating levels of service on existing roadways in the vicinity of the proposed development,
 - ii) Reduction in the number of existing driveways onto a public roadway,
 - iii) Reduction in the number of driveways that would be normally permitted,
 - iv) Shared driveways,
 - v) Cross access,
 - vi) Frontage or service roads,
 - vii) Internal circulation systems, or
 - viii) Interconnected or shared parking areas.
- b) The municipality shall determine, at its discretion, the adequacy and appropriateness of the access management techniques elected to be implemented and the corresponding adjustment to be granted to the applicant.

3) *Pre-existing Access*

- a) Permitted driveways in place at the time of the adoption of this ordinance that do not conform to the standards herein shall be designated as pre-existing driveways. They shall be brought into compliance with the applicable standards contained herein under the following conditions:
 - i) New driveway permits are requested,
 - ii) Modifications to an existing driveway permit are requested,
 - iii) The property owner or applicant applies for a change in property use and will generate more vehicle trips than the existing use, or
 - iv) An expansion of the existing use will result in an increase in trip generation.

III.D.3 Commentary

Many pre-existing land uses will have driveways that are inconsistent with the design requirements contained in the model ordinance. It is unreasonable to assume that a municipality can impose immediate and in some cases very expensive retrofit designs. Designating these driveways as pre-existing access allows the municipality to work with the property owner or developer to implement access management requirements in a more reasonable fashion.

PennDOT's highway occupancy permit regulations provide that in granting a driveway permit, the Department does not waive its authority to require future change in operation, removal, relocation, or proper maintenance of any access to a state road.

Opportunities presented by the requirements for pre-existing access to bring driveways into compliance allow the cost to be amortized in business loans or mortgages, thereby reducing the financial hardship to the property owner or developer.

References

AASHTO, *A Policy on Geometric Design of Highways and Streets*

AASHTO, *Roadside Design Guide*

Chester County, *Chester County Circulation Handbook and Landscapes Community Planning Handbook, Volume 2: A Toolbox for Managing Change in Chester County*

FHWA, *Safety Effectiveness of Highway Design Features: Volume I, Access Control*, 1992.

National Highway Institute, S&K Transportation Consultants, Inc. *Access Management Location and Design*. Participant notebook for NHI Course 133078. April 1998, revised April 2000.

PennDOT, *Publication 13M, Design Manual Part II*

PA Code, Chapter 441: *Access To and Occupancy of Highways by Driveways and Local Roads*
www.pacode.com/secure/data/067/chapter441/chap441toc.html

Transportation Research Board, *Access Management Manual*, 2003.

Transportation Research Board, *NCHRP Report 420: Impacts of Access Management Techniques*, 1999.

Additional Resources

Federal Resources

Access Management TRB Committee ADA70
www.accessmanagement.gov

Federal Highway Administration
www.Ops.fhwa.dot.gov/access_mgmt

PennDOT Resources

Center for Program Development:
Linking Land Use and Transportation
www.dot.state.pa.us/Internet/Bureaus/CPDM.nsf/LandUseHomepage?OpenFrameset

PennDOT Publication 282:
<ftp://ftp.dot.state.pa.us/public/Bureaus/BOMO/MC/Publication282.pdf>

PennDOT HOP Project Scoping Meeting Checklist
<ftp://ftp.dot.state.pa.us/public/Bureaus/BOMO/MC/282 B1 Scoping Mtg Checklist1.pdf>

PennDOT Recommended HOP Application Process
<ftp://ftp.dot.state.pa.us/public/Bureaus/BOMO/MC/282 B Recommended Process.pdf>

PennDOT Traffic Impact Study Guidelines
<ftp://ftp.dot.state.pa.us/public/Bureaus/BOMO/MC/GuidelinesTrafficImpactStudy.pdf>

Other Resources

Pennsylvania Planning Association website
www.planningpa.org

Florida
www.dot.state.fl.us/planning/systems/sm/accman

Kentucky
www.transportation.ky.gov/Multimodal/Access.asp

New Jersey
www.state.nj.us/transportation/eng/documents/NJHAMC

Turner-Fairbank Highway Research Center
www.tfhrc.gov/safety/intersect.htm

Center for Urban Transportation Research (CUTR)
Planning & Corridor Management Program
www.cutr.usf.edu/research/access_m/intro.htm



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Walt Knerr
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Glenn Rowe
Jim Smedley
Angela Watson
James Weakland

Trans Associates
Mark Magalotti

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angwatson@state.pa.us

Visit PennDOT website
www.dot.state.pa.us and search "access management"

Visit LTAP website
<https://www.dot7.state.pa.us/LTAP>

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Appendix E

Glossary

Glossary of Terms

A	
Access	The ability of a traveler to obtain entrance to or exit from a specific place using the available transportation system.
Access management	A strategy to improve safety, increase mobility, and organize traffic operations along a roadway by various methods, including combining driveways, adding median crossovers, and improving existing at-grade intersections.
Adaptive re-use	The development of a new use for an existing building or for a building originally designed for a special or specific purpose.
Agricultural use	The production, keeping, or maintenance, for sale, lease, or personal use of plants and animals useful to man including but not limited to forages and sod crops, grains and seed crops; dairy animals and dairy products, poultry and poultry products; livestock including beef cattle, sheep, swine, horses, ponies, mules, or goats or any mutations or hybrids thereof, including the breeding and grazing of any or all of such animals; bees and apiary products, fur animals; trees and forest products; fruits of all kind, including grapes, nuts, and berries; vegetables; nursery, floral, ornamental, and greenhouse products; or lands devoted to a soil conservation or forestry management program.
Americans with Disabilities Act	A 1990 federal law designed to bring disabled Americans into the economic mainstream by providing them equal access to jobs, transportation, public facilities, and services.
Annual average daily traffic (AADT)	The total traffic for a year divided by 365. AADT may be obtained by multiplying ADT by a traffic factor, which is derived based on yearlong traffic volumes that are collected on similar roadways.
Aquifer	A geologic formation that contains a usable supply of water.
Aquifer recharge area	The outcropping part of the aquifer through which water enters.
Area	Refers to the total area taken on a horizontal plane at the level of the ground surrounding the main building and all necessary buildings, exclusive of uncovered porches, terraces, and steps.
Arterial roadway	Major roadways that are intended to provide improved mobility between areas.
Average daily traffic (ADT)	The total traffic volume during a given continuous 24-hour period. ADT includes traffic in both directions, unless specified otherwise.
B	
Best Management Practices (BMPs)	The methods, measures, or practices to prevent or reduce the amount of pollution of waterways from point or non-point sources, including structural controls, non-structural controls, and operation and maintenance procedures.
BOOM	The Betterment Organization of Mansfield
Brownfields	Abandoned industrial site left unused or underused, often because of the presence of environmental contaminants. These abandoned properties, once remediated, can provide viable spaces for sustainable industries, commercial uses, and even parkland or open spaces.
Build-out analysis	Illustrates the form and pattern that development can be expected to take under a continuation of current trends and the manner and degree to which this form and pattern are contrary to planning goals. A description and illustrations of the consequences of a continuation of current trends help to identify the kinds of action that are needed and build public support for these measures.
Build-out map	Shows the probable location of new roads and houses that could legally be constructed on the vacant and buildable land remaining within the municipality (or a portion of the municipality).
Business District Authority Act (Act 41 of 1980)	Act legislated in 1980 for the establishment of Business District Authorities in Pennsylvania (entities created for implementation of business improvement activities).

C	
Capacity	The maximum rate of traffic flow, which can be expected to pass a certain point during a given period; usually expressed in vehicles per hour.
Capital Improvements Plan	A list or schedule of public projects that a municipality intends to undertake over a period of time, usually one year, but sometimes up to five years. Projects are prioritized, costs are estimated, and methods of financing are outlined. The Capital Improvements Plan should be consistent with policies in the comprehensive plan and should be updated annually. Not to be confused with a Transportation Capital Improvements Plan or Program, which is one of the mandated prerequisites a municipality must develop if it intends to adopt transportation impact fees under Article V-A of the Municipalities Planning Code.
Central Business District (CBD)	The largest, most intensively developed, mixed-use area within a city, usually containing, in addition to major retail uses, governmental offices; service uses; professional, cultural, recreational, and entertainment establishments and uses; residences, hotels, and motels; appropriate industrial activities; and transportation facilities.
Channelization	The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movement of both vehicles and pedestrians.
Cluster development	A form of development that permits a reduction in lot area and bulk requirements, provided there is no increase in the number of lots permitted under a conventional subdivision or increase in the overall density of development, and the remaining land area is devoted to open space, active recreation, preservation of environmentally sensitive areas, or agriculture.
Collector roadway	Significant roadways that serve the dual purposes of mobility and access within an area. PA 660 is such an example within the study area.
Commercial land use	Land use in which merchandise or goods are sold to the general public for personal or household consumption and rendering services incidental to the sale of such goods.
Comprehensive plan	A community's official guide to future growth, development, land use, and community character. Facilitates a community's thinking about land use and transportation relationships. Governed by Article III of the MPC.
Concurrency	A principle of land use planning asserting that adequate public facilities are available when the impacts of development occur.
Conditional use	As defined in Section 603 of the Municipalities Planning Code, conditional uses may be allowed or denied by a governing body subject to express standards and criteria set forth in the zoning ordinance.
Congestion Management System (CMS)	A study that identifies locations of traffic congestion and provides methods to monitor it. Methods mitigating negative impacts are recommended.
Conservation easement	Legal agreement between a landowner and government agency or non-profit organization (such as a land trust). The agreement limits the landowner's ability to develop land, often in exchange for cash and/or reduced property taxes. Easements can have effect for a limited time or in perpetuity.
Consistency	A policy or standard that either encourages or requires comprehensive plans and other planning documents of neighboring municipalities or different levels of government to be compatible with one another. The Municipalities Planning Code has been amended to require state agency review of permit applications to determine whether the proposed use of the affected land is consistent with local municipal zoning ordinances.
Controlled access	Partial access restriction that gives preference to through traffic. Also provides for connections to selected public routes and to certain other adjacent locations where vehicles can enter or leave a roadway safely without interfering with through traffic.

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Control of access	A condition in which public authority fully or partially controls the right of abutting property owners to have access in connection with a highway. Common terms defining types of access control are free access and limited access.
County comprehensive plan	A land use and growth management plan prepared by the county planning commission and adopted by the county commissioners which establishes broad goals and criteria for municipalities to use preparing their comprehensive plan and land use regulations.
Cross access	A service drive providing vehicular access between two or more contiguous sites so the driver need not enter the public street system.
D	
Density	Proportion of people or residences to a given amount of space, such as the number of residences per acre. Maximum or minimum density of development is often specified in zoning codes. In most rural areas, "medium density" is typically one unit per acre. Some local governments link allowable densities to other important public benefits like affordable housing or the protection of open space.
Development fees	Fees that local governments charge for new developments. They support public services (fire and police protection or water and sewage treatment) or construction of new facilities (schools, roads or parks). These fees can be a one-time charge collected from developers or a longer-term fee collected from residents of a new development.
Development right	The nature and the extent to which land, including the air space above, may be improved under a development regulation.
Down Zone	A zoning practice that decreases the intensity of use or densities or reduces the types of uses that were previously permitted by the zoning ordinance.
E	
Easement	A grant of one or more of the property rights by the property owner to and/or for use by the public, a corporation, or another person or entity.
Eminent domain	The power of government to acquire private property for public use without the owner's consent, when the proposed use of the property promotes a public purpose. Just Compensation must be paid to the property owner. It is usually determined by appraisals that establish the market value of the lands.
EMTA	Endless Mountains Transportation Authority, the area's primary provider of public transportation services.
Enabling acts	Legislation granting specific powers to municipalities and authorizing the powers and duties they can perform.
Enterprise Zones	Special districts created by local taxing bodies (county, municipality, and school district) where property taxes are abated for a specific period of time to encourage economic development.
Environmental Protection Agency (EPA)	A federal agency with the mission to protect human health and safeguard the natural environment, i.e., air, water, and land, upon which life depends.
Equivalent Dwelling Unit (EDU) calculations	One EDU equals the assumed sewage flow from a single-family home, 400 gallons per day (gpd). The expected daily sewage flow from a proposed development is divided by 400 to derive the number of EDUs.
Escrow	A deposit of money or acceptable security provided to a municipality by a developer to guarantee that sufficient monies are available to construct required improvements.
F	
Floodplains	A low-lying area near a river or stream that can be expected to flood following heavy rains and snowmelt.

Floodways	The channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot. Floodways are only delineated in communities where detailed hydraulic analysis has been completed.
Four-year program	A prioritized listing adopted by PennDOT and the State Transportation Commission, of those improvements identified for development and/or implementation during the initial four years of the overall twelve-year program of transportation improvements. Projects listed in the first four years have priority over those listed in the second or third four-year periods. The four-year program may be updated every two years.
Free access	Type of access to a road or highway which has at-grade intersections and virtually no restrictions on the number of driveways with direct access to the road or highway.
Frontage road	A public or private drive that generally parallels a public street between the right-of-way and the front building setback line. The frontage road provides access to private properties while separating them from the arterial street. See also Service Road.
Functional area (intersection)	That area beyond the physical intersection of two controlled access facilities that comprises decision and maneuver distance, plus any required vehicle storage length, and is protected through corner clearance standards and driveway connection spacing standards.
Functional classification	A system used to group public roadways into classes according to their purpose in moving vehicles and providing access.
G	
Geographic Information System (GIS)	A computerized system of compiling, presenting, and analyzing spatial or geographic-based data.
Green infrastructure	Natural areas such as parks and greenways. As opposed to other infrastructure that may include roads, transit lines, and sewers.
Greenway	A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridge line, or over land along a railroad right-of-way converted to recreational use. An open space connector linking parks, natural reserves, cultural features, or historic sites with each other and with populated areas.
Gross building area	Refers to the actual amount of land that may be built upon in a given lot. The gross building area is the lot size minus setback and open space requirements.
Groundwater recharge	A process by which precipitation or surface water flow enters the subsurface of the soil and supplements or adds to the existing groundwater.
Growing Greener	Former Governor Ridge's legislative initiative (December 15, 1999) to invest nearly \$650 million to preserve open space and support farmland preservation in the Commonwealth. Also refers to an initiative of the Department of Conservation and Natural Resources, Natural Lands Trust, and others, to promulgate conservation design strategies, which allow a community to shape growth around special natural and cultural features found in each community.
H	
Highway occupancy permit (HOP)	An official document that must be filed with PennDOT whenever work is proposed within the right-of-way of a Pennsylvania State Route. An HOP may also be required whenever the proposed work impacts the right-of-way of a Pennsylvania State Route.
I	
Impact fee	A one-time charge on new development, which is designed to ensure that new development contributes a fair share to the cost of capital improvements required to serve growth.
Impervious coverage	Refers to the percent of the lot area that does not absorb water. Impervious coverage can be determined by dividing the impervious area of the lot by the total lot area.

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Industrial use	This land use generally includes: (1) establishments engaged in transforming raw materials into new products, usually for distribution to other regions and not sold on-site, and (2) establishments engaged in wholesale trade, storage, or distribution with little or no retail trade or service. Because of their shipping, storage, and processes that create noise, smoke, smells, or light pollution, industrial uses should not be located in close proximity to residential areas.
Infill development	The development of new housing or other buildings on scattered vacant sites in a built-up area.
Institutional use	For purposes of this study, institutional use refers to schools. Other common uses of institutional land include personal care centers, hospitals, places of worship, educational institutions, and government facilities.
Intergovernmental Cooperation Act	Also known as Act 180 of 1972, it permits two or more municipalities to cooperate jointly in the exercise of any governmental function and allows municipalities to delegate powers to other local units. See also Council of Governments (COG).
Inter-jurisdictional	An action or activity that involves the cooperative interaction between two or more political jurisdictions. It may include, but is not limited to, interacting among various political jurisdictions within a level of government, or among several levels of government.
Intermodal or multi-modal transportation	A transportation system that includes several types (modes) of conveyances such as automobile, rail, bus, pedestrian, and bicycle.
J	
Joint access (or shared access)	A driveway connecting two or more contiguous sites to the public street system.
Joint Municipal Zoning Ordinance	A zoning ordinance shared between two or more municipalities based on an adopted joint municipal comprehensive plan.
Just Compensation	Payment made to a property owner by a municipality or other entity with the power of eminent domain when the private property is taken for a public use.
L	
Land development	The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose.
Land trusts	Private, non-profit conservation organization, intended to exist indefinitely, whose principal purpose is to protect land under its stewardship.
Land use planning	Local government activity that lays out policies and standards governing the future physical development of a city or county. The general plan (or comprehensive plan) is an overall blueprint for development based on the community's goals. Often the general plan of the city or county is supplemented by more specific community or municipal plans. Plans are updated periodically.
Level of service (LOS)	A description of traffic conditions along a given roadway or at a particular intersection. Levels of service range from "A" (best) to "F" (worst). A roadway's level of service is measured by comparing the volume of traffic against the capacity of the roadway. An intersection's level of service is measured by total control delay per vehicle at the intersection.
Light Industrial use	Manufacturing or storage uses that are characterized by uses of large sites, attractive buildings, and inoffensive processes, and can be compatible with neighboring residential uses. Differs from industrial by not having processes that have byproducts such as smell, noise, or light. Typically has larger lot sizes that allow screening techniques to be used between residential areas.
Limited access	A type of road or highway access which provides full access control with only grade-separated interchanges and no driveway connections of any kind on the mainline or ramps.
Local roadway	A minor street that serves primarily as an access route.

Lot	A designated parcel, tract, or area of land established by a plat or otherwise as permitted by law and to be used, developed, or built upon as a unit, which is recognized as a separate legal entity for purposes of transfer of title, has frontage upon a public or private street, and complies with designated dimensional requirements.
Lot, nonconforming	A lot, the area or dimension of which was lawful prior to the adoption or amendment of a zoning ordinance, but which fails to conform to the requirements of the zoning district in which it is located by reasons of such adoption or amendment.
Lot, through (also called double frontage lot)	A lot that fronts upon two parallel streets or that fronts upon two streets that do not intersect at the boundaries of the lot.
M	
Market value	The price a willing buyer will pay a willing seller for a piece of property. Estimated market value is used in determining the sales price in condemnation proceedings and in establishing property tax assessment roles.
Memorandum of Understanding (MOU)	Consensus agreement between two or more parties. In terms of planning, there is an emphasis on coordination between parties and advanced planning to reduce conflicts and reach mutually agreed upon goals and their implementation.
Minor subdivision	A subdivision of land into not more than two lots where there are no roadways, drainage, or other required improvements.
Mixed use development	Comprehensively planned and designed development that contains at least three different but interdependent uses, including residential use unless otherwise specified. Mixed use development integrates its physical and functional components, is pedestrian oriented within its development, is connected to its surroundings by pedestrian or public transportation access, and is compatible in density, layout, and character with adjacent development.
Mobility	The ability of a traveler to move quickly and efficiently between two places using the available transportation system.
Mode split	The process that represents a trip-maker's behavior in selecting a travel mode.
Moratorium	A concept established in Section 609.2 of the Municipalities Planning Code to permit a municipality to formally declare its zoning ordinance (or portions thereof) invalid and to prepare a curative amendment to overcome the invalidity. Municipalities generally have 180 days to cure the invalid portion of their zoning ordinance. Also, a temporary freeze on new sanitary sewer connections imposed by the Department of Environmental Protection until additional sewer capacity is created.
Multimodal or intermodal transportation	A transportation system that includes several types (modes) of conveyances such as automobile, rail, bus, pedestrian, and bicycle
Municipal comprehensive plan	A general policy guide for the physical development of a municipality.
Municipalities Planning Code (MPC)	Also known as Act 247 of 1968, as amended, the MPC is the state law which governs zoning, subdivision, and land development, and other aspects of land use planning in all jurisdictions of the Commonwealth, with the exceptions of Philadelphia and Pittsburgh.

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N	
National Environmental Policy Act (NEPA)	The law that requires a federal agency to: <ol style="list-style-type: none"> 1. consider every significant aspect of the environmental impact of a proposed action; 2. involve the public in its decision-making process when considering environmental concerns; 3. use a systematic, interdisciplinary approach to decision-making; and 4. consider a reasonable range of alternatives in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment.
National Highway System (NHS)	A federally-designated system of approximately 161,000 miles of interstate and other major roadways that are critical to the commerce, mobility, and defense of the United States of America; the 1995 bill that established the NHS freed a substantial amount of federal funding for these roadways.
Nonconforming use	As defined in Section 107 of the Municipalities Planning Code, a use of land or a structure which does not comply with the applicable use provisions in a zoning ordinance, but which existed prior to adoption of the current ordinance. Nonconforming uses are permitted to continue, subject to reasonable conditions imposed in the zoning ordinance.
NTRPDC	The Northern Tier Regional Planning and Development Commission
O	
Office use	A land use that involves administrative, clerical, financial, governmental, medical, or professional operations.
Open space	Any parcel or area of land set aside, dedicated, or reserved for public or private use or enjoyment or for the use and enjoyment of owners and occupants of land adjoining or neighboring such open space. Developers may be required to meet an open space requirement that ensures that a certain percentage of the lot area will remain as open space.
Ordinance	A law enacted by a municipality at a public meeting, after proper advertisement. A land use ordinance, such as a zoning or subdivision and land development ordinance, or a Planned Residential Development provision, is subject to special provisions in the Municipalities Planning Code, Articles IV, V, VI, and VII.
Overlay zoning district	A special purpose zoning district that is superimposed over existing zoning jurisdictions. It is designated to provide additional standards and regulations for specific areas based on special conditions such as environmental factors, historical features, or neighborhood preservation.
P	
Paratransit	Forms of passenger transportation that are available to the public, are distinct from conventional transit, and can operate over the highway and street system. Examples of paratransit include shared-ride taxis, carpools, rental cars, and subscription bus clubs.
Parcel	A division of land comprised of one or more lots in contiguous ownership.
Peak period	Traffic engineering term that refers to the time period when a certain roadway carries the most vehicles. Peak periods usually occur in the morning, 6 a.m. - 9 a.m., and in the evening, 3 p.m. - 6 p.m. The peaking characteristics of a roadway coincide with the time when the roadway sees the highest use, usually but not limited to the morning and evening rush hours. Roadways and the associated facilities should be designed to satisfactorily handle the peak period.
Performance standards	Criteria that must be met by development to limit a particular defined impact.
Permitted uses or uses by right	Those uses that are allowed in a zoning ordinance without any further approvals, as opposed to conditional uses, special exceptions, or variances.

Pervious pavement	A thin layer of cement treated permeable material (CTPM) or asphalt treated permeable material (ATPM) on top of a deep-base filled with large-size crushed stone aggregate to serve as a reservoir to detain stormwater. Pervious pavements cannot be used for road surfaces, but can be used in special cases for parking lots, emergency access drives, and other low-traffic uses.
Planned Residential Development (PRD)	As defined in Section 107 of the Municipalities Planning Code, a PRD is an area of land, controlled by a landowner, to be developed as a single entity for a number of dwelling units, or combination of residential and nonresidential uses, the development plan for which does not correspond in lot size, bulk, type of dwelling, or use, density, or intensity, lot coverage and required open space to the regulations established in any one district created from time to time, under the provisions of a municipal zoning ordinance.
Planned Unit Development (PUD)	A concept very similar to PRD, which is sometimes interchanged with PRD.
Plat	The map or plan of a subdivision or land development, whether preliminary or final.
Police power	The power of a government to pass and enforce laws to protect the health, welfare, safety, convenience, and comfort of the whole community. Land use regulations are expressions of the exercise of the police power. They are lawful only to the extent that they are consistent with and serve the purpose of protecting the public health, safety, and welfare. Land use restrictions are a derogation of the common law; they must be reasonable and neither capricious, confiscatory, nor arbitrary. They must also be strictly construed.
Public facilities	Public facilities are streets, utility and service corridors, utility lines, sites for schools, parks, parking garages, sidewalks, pedestrianways, community facilities, public highways, storm drainage systems, water systems, street lighting systems, off-street parking facilities, sanitary sewerage systems, etc.
Public open space	An open space area conveyed or otherwise dedicated to a municipality, municipal agency, board of education, state or county agency, or other public body for recreational or conservation uses.
Public road	A road under the jurisdiction of a public body that provides the principal means of access to an abutting property.
Purchase of Development Rights (PDRs)	The acquisition of the specific right to develop a property while still permitting allowable uses, such as farming. The ownership or possession of the land is not affected.
R	
Rails to Trails Act	1990 Act established to facilitate the conversion of abandoned railroads into public recreational trails. The Act requires the Department of Conservation and Natural Resources to maintain an inventory of the railroad abandonments in Pennsylvania and make the inventory available to the public.
Receiving zone	A part of a municipality that has been officially designated as an area in which developers can exceed the standard housing density, but only if they purchase development rights from a vacant land owner in a sending zone.
Recreational open space	Open space, whether publicly or privately owned, improved or unimproved, set aside, dedicated, designated, or reserved for recreational use and enjoyment.
Retention basin	A pond, pool, or basin used for the permanent storage of water runoff.
Rezoning	The zoning classification for a tract of land is changed by the governing body.
Right-of-way	<ol style="list-style-type: none"> 1. A strip of land acquired by reservation, dedication, forced dedication, prescription, or condemnation and intended to be occupied by a road, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary storm sewer, or alley, walkway, or other public purpose. 2. Generally, the right of one to pass over the property of another.

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Riparian buffers	An area or band of vegetation on or near the shore of a body of water. Because vegetation uses water and nutrients, puts down roots, and provides cover, it functions to slow down surface water, catch and hold sediments, absorb nutrients, and help regulate the temperature of water. Additionally, riparian vegetation can serve as important habitat to plants and wildlife.
S	
Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU)	Federal legislation that authorizes Federal highway, highway safety, transit, and other surface transportation programs. SAFETEA-LU is the successor legislation to TEA-21 and the Intermodal Surface Transportation Efficiency Act (ISTEA), and builds on the initiatives established by those two pieces of legislation.
Sending zone	A part of a municipality that has been officially designated as an area in which landowners are permitted to sell their development rights, but only to landholders within a receiving zone.
Service road	A public or private street or road, auxiliary to and normally located parallel to a controlled access facility, that maintains local road continuity and provides access to parcels adjacent to the controlled access facility.
Setback	A minimum distance required by zoning to be maintained between two structures or between a structure and property lines.
Sight-distance	The length of roadway a driver can see ahead at any particular time.
Special exception	Use is permitted within a zoning district through approval of the zoning hearing board.
Spot zoning	Rezoning a small parcel of property to a classification that is incompatible with the comprehensive plan and the zoning of surrounding property.
Sprawl	Low-density development at the edges of cities and towns that spreads out into previously undeveloped land. Sprawl often consists of “strips” of commercial development along major roadways and highway interchanges, and spread-out residential developments, usually of detached single family homes. In rural areas, residential sprawl may have little relation to a town center.
SR	State Route.
Street	Any alley, avenue, boulevard, road, parkway, viaduct, drive, or other roadway and its associated right-of-way, whether existing or planned, and whether publicly or privately owned.
Streetscape	A design term referring to all the elements that constitute the physical makeup of a street and that, as a group, define its character, including building frontage, street paving, street furniture, landscaping—including trees and other plantings—awnings and marquees, signs, and lighting.
Strip development	A mixed commercial/retail zone, usually only one lot deep that occurs along one or both sides of a main street or road.
Subdivision	1. The division or re-division of a lot, tract, or other parcel of land into two or more lots, tracts, or parcels. The term includes changes in existing lot lines. 2. A municipal ordinance that regulates how this may occur, including, but not limited to, the provision of public streets, parks, utilities, and storm water management.
Sustainable development	Development that satisfies current needs without compromising the ability of future generations to satisfy their own needs and aspirations. Advocates of sustainability are concerned with social equity, and economic and environmental health.
T	
Taking	A government action that results in the public acquisition of property, or a severe decline in the value of the property. A taking typically results when land use regulations are so severe that they substantially or entirely eliminate a property owner’s profit, use, and enjoyment of his land.

Traditional neighborhood development (TND)	A neighborhood and community design strategy inspired by the early 20th Century small town. Design elements include mixed-land uses, interconnected street systems, walkable scales, and interdispersed “open” space.
Traffic analysis zone (TAZ)	A bounded area delineated for the purpose of collecting or assigning traffic-related data. When producing a traffic model, it is necessary to divide the study area into TAZs, which may range in size from a fraction of an acre to multiple square miles.
Traffic assignment	The process that assigns trips to a specific route on the roadway network.
Traffic-calming	Techniques intended to slow traffic by altering the street design to encourage safer driving speeds in residential or commercial neighborhoods.
Traffic impact study (TIS)	A formal analysis of the roadway network meant to establish the ability of the roadways to safely and efficiently conduct traffic. A TIS is commonly requested by a municipality when a parcel of land within the municipality’s governance is either newly developed or redeveloped.
Transferable Development Rights (TDRs) or Transfer of Development Rights	A zoning option that allows conservation and development to coexist within a municipality, by shifting development rights away from agricultural lands or sensitive natural areas. A landowner in a sending zone can sell the development rights to his or her land to a landowner who owns land in a receiving zone.
Transit-oriented development (TOD)	A neighborhood and community design strategy specifically designed for implementation along established and proposed transit corridors. TOD designs attempt to maximize the usefulness and transportation efficiency of the transit network. Design elements are similar to those of traditional neighborhood design, and include mixed land uses, interconnected street systems, walkable scales, and interdispersed open space.
Transportation Capital Improvements Plan or Program	A Transportation Capital Improvements Plan or Program is one of the mandated prerequisites a municipality must develop if it intends to adopt transportation impact fees under Article V-A of the Municipalities Planning Code.
Transportation demand management (TDM)	A set of actions aimed at influencing people’s travel behavior in such a way that alternative mobility options are presented and/or congestion is reduced.
Transportation Development District (TDD)	A method of funding transportation improvements in growing areas. In order to develop in a TDD, a developer must pay an agreed-upon price to the municipality reflecting the impact of the specific development upon the surrounding transportation infrastructure. The funds go into escrow and are used to pay for a future transportation improvement. TDDs are established by municipalities.
Transportation Improvement Program (TIP)	A long-range transportation plan established by the metropolitan planning organizations in each urbanized area that consists of a prioritized list of projects or project segments to be carried out within the next three years after adoption of the TIP.
Transportation system management (TSM)	A set of actions, new construction, or modifications that attempt to use the existing transportation system more efficiently.
Trip distribution	The process that attempts to determine the origin and destination of generated trips associated with each land use or traffic analysis zone.
Trip generation	The process that estimates the total number of trips produced and attracted by a specific land use parcel or traffic analysis zone (TAZ).
Twelve-year program (PennDOT)	The official prioritized listing, as adopted by PennDOT and the State Transportation Commission, of those transportation improvements identified for development and implementation in Pennsylvania during the upcoming 12 years. The plan, together with any additions or changes, is subject to review and re-adoption biannually.

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U	
Units	In land planning, “units” usually refer to residential structures that contain one household. A detached house would contain one unit, while a building with 50 apartments would contain 50 units.
Use by right	Use of a property is specifically authorized by the zoning ordinance.
V	
Vacant Land	This land use type includes lands that are not presently developed, such as wooded areas, unimproved areas not used for agriculture or recreation, and improved areas or buildings that are not occupied.
Variance	Permission granted by a Board of Adjustment or Zoning Hearing Board after a public hearing which lawfully authorizes a use or structure that violates the specific terms of the zoning ordinance. Variances may be granted only upon proof that the terms of the ordinance create a unique hardship to the property owner that prevents a reasonable use of the property and the variances are granted to provide relief in such instances.
Vehicle mile of travel (VMT)	A unit to measure vehicle travel made by a private vehicle, such as an automobile, van, pickup truck, or motorcycle. Each mile traveled is counted as one vehicle mile regardless of the number of persons in the vehicle.
Viewshed	The area that is visible from a specific location, e.g., a ridge top or building location, considering obstructions to sight caused by terrain and other physical features. Viewshed or visible area analysis is useful for planning locations of unsightly facilities such as smokestacks, or surveillance facilities such as fire towers, or transmission facilities.
W	
Warehousing	A point in bulk freight movement characterized by large storage buildings with convenient access to transportation facilities.
Watershed	Land area from which water drains toward a common watercourse in a natural basin.
Wetland	The land transition between water and land systems where the water table is usually at or near the surface or the land is covered by shallow water, including swamps, marshes, bogs, riparian areas, salt flats, and vernal pools.
Z	
Zoning	The delineation of districts and the establishment of regulations governing the use, placement, spacing, and size of land and buildings.
Zoning hearing board	A quasi-judicial board appointed by the municipal elected officials to conduct hearings and make decisions on challenges and appeals from land use ordinances under the Municipalities Planning Code.
Zoning ordinance	Municipal regulations that may permit, prohibit, regulate, restrict and determine: -Use of land, water courses, and other bodies of water. -Size, height, bulk, location, construction, repair, maintenance, alteration, razing, removal, and use of structures. -Areas and dimensions of land and bodies of water to be occupied by uses and structures, as well as areas, courts, yards, and other open spaces and distances to be left unoccupied by uses and structures. -Density of population and intensity of fundamental rights provided for citizens in the Constitution which should be protected at all costs. -Protection and preservation of natural resources and agricultural land and activities.

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Connectivity Safety Town/Gown Aesthetics Water/Sewer **Future**