2040 LONG RANGE TRANSPORTATION PLAN UPDATE

ADAMS COUNTY, PENNSYLVANIA

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ADAMS COUNTY, PENNSYLVANIA

Prepared by:

ADAMS COUNTY OFFICE OF PLANNING AND DEVELOPMENT

670 OLD HARRISBURG ROAD, SUITE 100

GETTYSBURG, PA 17325

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CHAPTER 1

INTRODUCTION TO THE LONG RANGE TRANSPORTATION PLAN

The Adams County 2017-2040 Long Range Transportation Plan (LRTP) identifies the county's long-term transportation needs and strategies for improving the transportation network relative to the challenges of community development and economic growth. In doing so, the LRTP fulfills the federal transportation planning requirements for Adams County and its Metropolitan Planning Organization, thus ensuring the county's continued eligibility for Federal transportation funding. The plan includes short-term (1-4 years), medium-term (5-12 years) and long-term (13-25 years) projects and strategies to advance steady progress toward short, medium and long-range system goals. The plan will be updated every four years to adapt to changing conditions and new county, regional and state priorities. Beginning with the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) bill and continuing with the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST), the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have instituted a frequency of updates to be undertaken every four years and this plan satisfies those requirements.

A. WHAT IS A TRANSPORTATION PLANNING ORGANIZATION

A transportation planning organization is a policy-making body made up of representatives of local and state government and transportation authorities. The Federal Aid Highway Act of 1962 requires the formation of a metropolitan planning organization (MPO) for any urbanized area with a population greater than 50,000 individuals. Each urbanized area listed by the U.S. Census Bureau must be represented by an MPO in order to carry out the metropolitan transportation planning process specified in Federal transportation regulations (23 USC 134 and 49 USC 5303).

The FHWA has identified six core functions of an MPO:

- ESTABLISH A SETTING: Establish and manage a fair and impartial setting for effective regional decision-making in the metropolitan area.
- EVALUATE ALTERNATIVES: Evaluate transportation alternatives, scaled to the size and complexity of the region, to the nature of its transportation issues, and to the realistically available options.
- MAINTAIN A LONG RANGE TRANSPORTATION PLAN (LRTP): Develop and update a long-range transportation plan for the metropolitan area covering a planning horizon of 20 or more years that fosters (1) mobility and access for people and goods, (2) efficient system performance and preservation, and (3) quality of life.
- DEVELOP A TRANSPORTATION IMPROVEMENT PROGRAM (TIP): Develop a program based on the long-range transportation plan and designed to serve the area's goals, using spending, regulating, operating, management, and financial tools.
- INVOLVE THE PUBLIC: Involve the public and all significantly affected sub-groups in the four essential functions listed above.

- DEVELOP A UNIFIED PLANNING WORK PROGRAM (UPWP): Receive federal and state funds through the UPWP to carry out the above tasks and other planning functions.

Additionally, the metropolitan planning organization for each urbanized area must maintain a continuing, cooperative and comprehensive (3C) transportation planning process that considers all modes through three mandated products, including 1) a Long Range Transportation Plan (LRTP); 2) a Transportation Improvement Program (TIP); and 3) a Unified Planning Work Program (UPWP).

B. PROFILE OF THE ADAMS COUNTY MPO

Formally initiated in 1999 as an RPO, the Adams County Transportation Planning Organization (ACTPO) is an independent transportation planning and budgeting agency. It serves as the primary "planning partner" with PennDOT regarding the development, prioritization and funding of future transportation projects in Adams County which seek to use state and federal funding. The 11-member board includes representatives from Adams County municipalities and organizations, the Adams County Commissioners, the Adams County Planning Commission, several county departments and organizations, the Adams County Transit Authority and PennDOT. The ACTPO is supported by the Adams County Office of Planning and Development in performing its role in transportation planning for Adams County.

ACTPO coordinates with the PennDOT in the development of the twelve year Transportation Improvement Program (commonly referred as the "TIP") and the LRTP in accordance with local and county priorities. The ACTPO provides PennDOT with information regarding the transportation needs for the county and recommendations regarding the prioritization of proposed transportation improvements. This information is provided through development of the Adams County LRTP and its accompanying TIP. The LRTP serves to document the status of the transportation system, identify long-term system needs, and recommend system improvements and services targeted to meet those future needs. The TIP establishes a unified transportation improvement strategy that includes a prioritized list of transportation improvements, applicable implementation schedules, and identification of funding needs and mechanisms. PennDOT makes final project development and funding decisions to implement the TIP for state and federally funded projects. However, ACTPO has input and oversight authority over how the funds are distributed within the county.

CHAPTER 2

OVERVIEW OF THE LONG RANGE TRANSPORTATION PLAN PROCESS

Federal transportation legislation designates funding opportunities for a variety of transportation categories, including bridges, highways, safety and operations, public transit, demonstration projects, and discretionary programs. Recognizing the unique transportation needs of communities across the country, federal transportation legislation includes a flexible transportation planning process which allows regions to make local decisions concerning the prioritization of federally-available transportation funds. The role of Adams County as an MPO is to ensure that existing and future expenditures for transportation programs and projects are based on a comprehensive, cooperative and continuing (3C) planning and programming process.

A. THE LONG RANGE TRANSPORTATION PLAN

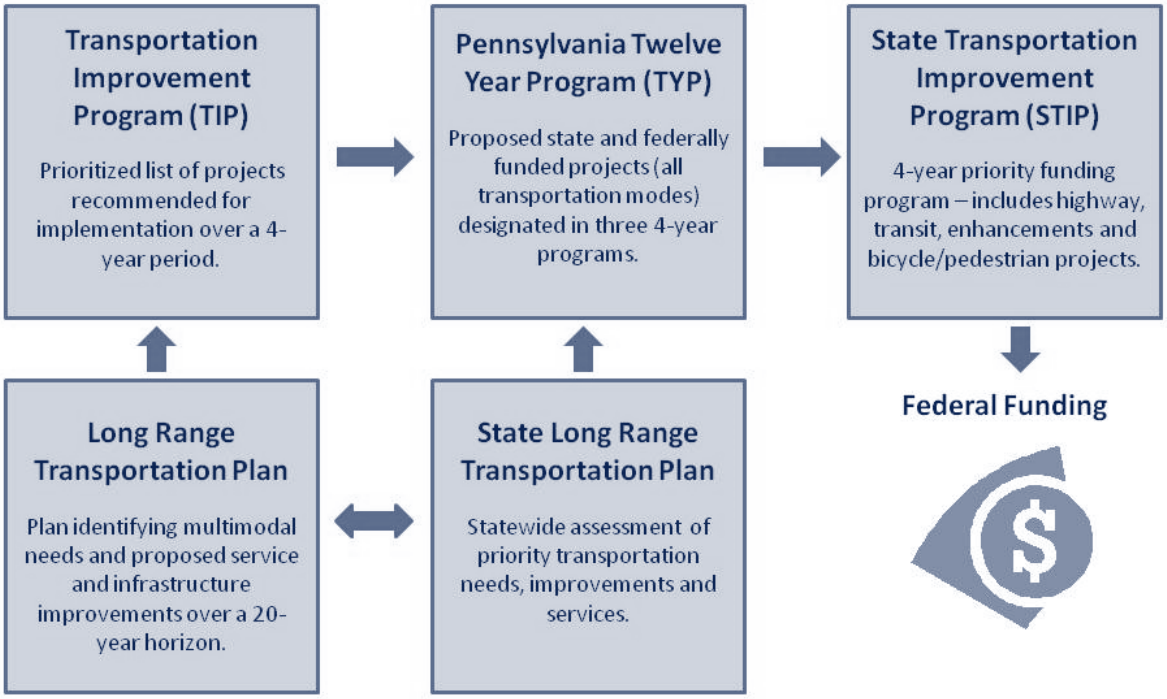
The primary means for developing local transportation needs and priorities is completion of an LRTP. An LRTP is generally a 20-year horizon plan addressing transportation needs, policy and recommended investments. These plans must address specific requirements related to financial constraint (the plan must match desired transportation improvements with anticipated funding – i.e. there must be adequate current and future funding available to complete transportation projects to ensure full implementation), social justice issues, and federal air quality standards. Additionally, an LRTP should be consistent with the State LRTP (Figure 1) to ensure transportation issues and priorities are fully considered. Federal transportation legislation requires the LRTP to:

- Be multimodal in scope;
- Envision a minimum 20-year planning horizon;
- Address ten key planning factors;
- Be fiscally and environmentally constrained;
- Identify short-range and long-range strategies and actions;
- Provide for public participation, and
- Be updated every four (4) years

The LRTP also recognizes the close relationship between transportation and land use issues. Although Pennsylvania law places the implementation of land use policies with local government, the Adams County LRTP attempts to integrate the implications of current and projected land use trends with the analysis of transportation system performance and needs.

On June 27, 2012, following a 28-month planning process, ACTPO adopted the 2013-2037 LRTP. The 2017 update addresses updated demographic data, new federal planning factors, additional non-motorized transportation data, an extended planning vision to 2040, and an updated project list including safety, congestion, and highway maintenance projects.

Figure 1: Summary of Federal & State Transportation Planning and Programming Process



B. STATE LONG RANGE TRANSPORTATION PLAN

At the State level, the Pennsylvania Department of Transportation (PennDOT) has developed its LRTP, called *PA On Track*, which sets State transportation direction through 2040. The plan is a product of collaboration between PennDOT, regional and local transportation agencies, the perspectives of Keystone State businesses, and input from all regions of the state. *PA On Track* sets forth goal areas that include system preservation, safety, personal and freight mobility, and stewardship over the next 25 years, while leaving project selection to local MPO's and RPO's.

C. TRANSPORTATION IMPROVEMENT PROGRAM

From the LRTP, a transportation improvement program (TIP) is developed in coordination with PennDOT. The TIP, updated every two (2) years, is an intermediate-range local planning document that reflects the transportation expenditures programmed over the forthcoming four years (Figure 1). Project details are provided in the TIP such as the general project description and cost, the funding source and funding year. The TIP contains budget data and other information on a wide array of transportation system components including aviation, bicycle facilities, planning studies, road improvements and transit, among others. Projects identified in the TIP must be derived from the LRTP to be eligible for federal funds.

D. STATE TWELVE YEAR TRANSPORTATION PROGRAM

The Twelve-Year Transportation Program (TYP) is Pennsylvania's official transportation program. It covers all transportation modes, both passenger and freight, and includes consideration of public and private transportation systems, facilities and operations. The TYP is used to guide the planning and decision-making process regarding implementation and funding of transportation improvements statewide (Figure 1).

The program is comprised of a schedule of agreed-upon priority projects that PennDOT, in coordination with its various planning partners across the state, will work to accomplish over a twelve-year period. The program is fiscally constrained to be consistent with expected funding levels (at both the state and federal level) and includes highways and bridges, transit, bike/pedestrian, rail freight and aviation projects. Regular review and adjustments to the TYP are made. Modifications, if necessary, are based on the ability to accomplish projects in a timely fashion, the costs for projects, and changing regional and local needs.

The first four-year period of the TYP coincides with the federally required State Transportation Improvement Program (STIP). Specific priority projects to be undertaken during the first four-year period are listed and described on the anticipated schedule and costs for each project phase are identified. The second and third periods of the program include future phases of priority project development, statewide line item programs, and other anticipated projects.

E. STATE TRANSPORTATION IMPROVEMENT PROGRAM

The Pennsylvania State Transportation Improvement Program (STIP) is the federally required program to guide the application of federal funding to priority projects throughout the state. The STIP generally coincides with the first four-year phase of the TYP, which provides a unified collection of transportation priorities from all of the local planning partners from across the state (Figure 1). Projects included in local TIPs must be included in the STIP to be eligible for state and federal funding. The STIP is used by the U.S. Department of Transportation in planning for the distribution of federal funding (via PennDOT) to priority transportation projects in the state.

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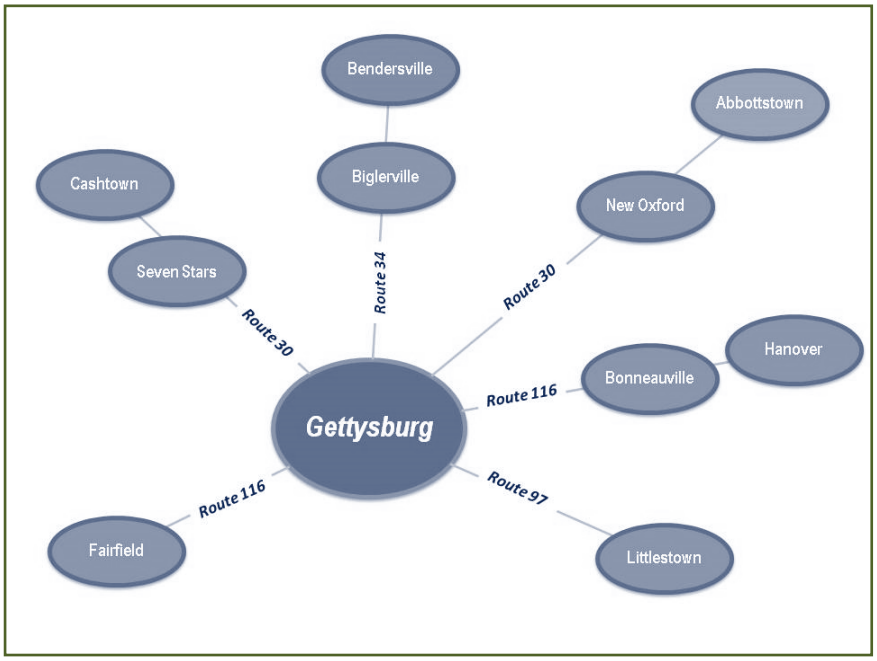
CHAPTER 3

HISTORY OF TRANSPORTATION IN ADAMS COUNTY

Several pre-Revolutionary War east-west travel paths extend through Adams County. Some early Indian pathways were upgraded to accommodate horse and wagon transportation modes. A number of these early 18th century roads still cross Adams County, although their original purpose was not related to serving the town of Gettysburg, which did not exist at that time. Some of these pathways remain as rural roads and do not accommodate regional traffic patterns. Others have been substantially upgraded and do serve this purpose.

As a result of a court action in January 1800, Adams County was jurisdictionally separated from York County. A site located within today's Borough of Gettysburg was selected as the County Seat for the newly formed Adams County. Town lots were laid out and sold, and a courthouse and jail were constructed. As the new town named Gettysburg grew, new roads were built to connect the town with the villages and agricultural areas surrounding it. Within a few decades, a new 19th century development pattern linked by a unique transportation system began to emerge, one which was superimposed over the 18th century east-west immigrant roads.

Soon, a road pattern consisting of thirteen roads radiated outward from Gettysburg. Each connected with farms and small villages. This pattern of "hubs and spokes" is still recognizable in the 21st century and represents one of the few examples of a settlement pattern associated with "central place theory" in Eastern North America. By 1863, a web of historic roads connected Gettysburg with two concentric sets of secondary towns. In addition, an early east-west railroad passed through the county seat. The outcomes of many events associated with the Civil War and Battle of Gettysburg were dramatically affected by the presence of this unique transportation network



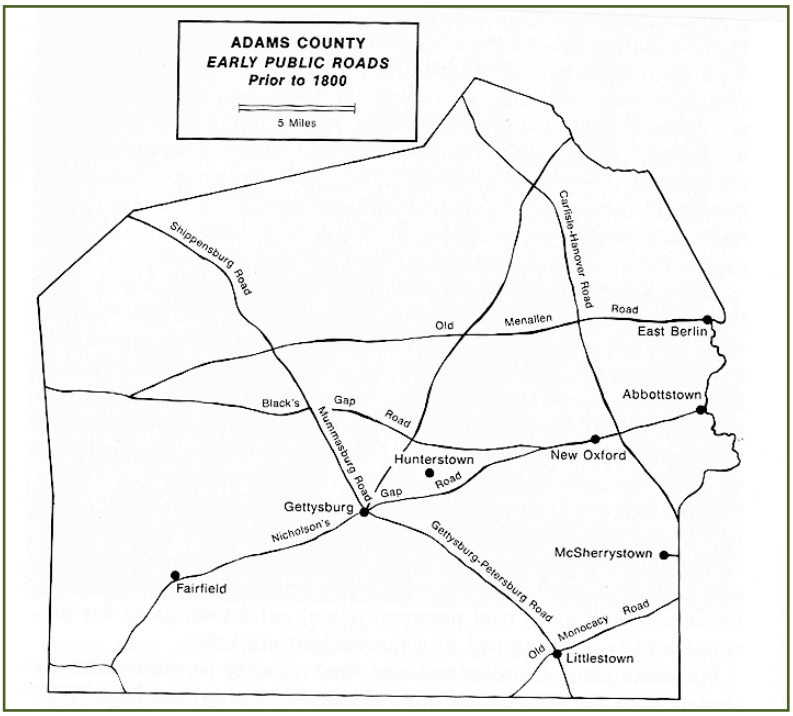
"HUBS AND SPOKES" DEVELOPMENT PATTERN OF ADAMS COUNTY

Today, this pattern provides relatively direct access from most locations within Adams County to the County Seat at Gettysburg. However, this pattern also seriously constrains options to improve traffic circulation at the center of Adams County. At the same time, the surviving collection of roads, towns, villages and intervening rural areas

offers a unique opportunity to plan for a sustainable pattern of future growth for the county which preserves and protects the unique character of Adams County.

A. EARLY ROADWAYS

The early settlers of Adams County used historic Indians paths for travel within the county and to regional areas. Narrow, unpaved paths were adequate for travel until the mid-18th century, when a number of settlers began to petition the county court (until 1749 the Lancaster County Court and after then and York County Court) for permission to construct and operate roads in the area. By 1800, a network of locally financed and constructed public roads was serving the residents of Adams County.



The first public road to cross Adams County territory was the "Monocacy Road", which extended from the Susquehanna River at Wrightsville, York County through York, Hanover, Littlestown, Taneytown, MD, and beyond Frederick, MD to the Potomac River. The Adams County portion was in place by 1740 and today is part of Route 194 in the southwestern corner of the county.

The Black's Gap Road connected Eastern Pennsylvania settlements to Fort Pitt, via the "Forbes Road". This road was used by George Washington to access Western Pennsylvania during the French and Indian War. The Black's Gap Road, dating from 1747, was the second important roadway in the county, running from York through Abbottstown and New Oxford closely following the path of current Route 30. West of New Oxford, the road turned northwest and passed through Hunterstown, Mummasburg and Hilltown. The road then extended through the South Mountain at Black's Gap (today the Cashtown Gap). This part of the original road follows portions of present-day Route 394, Goldenville Road, and Hilltown Road.

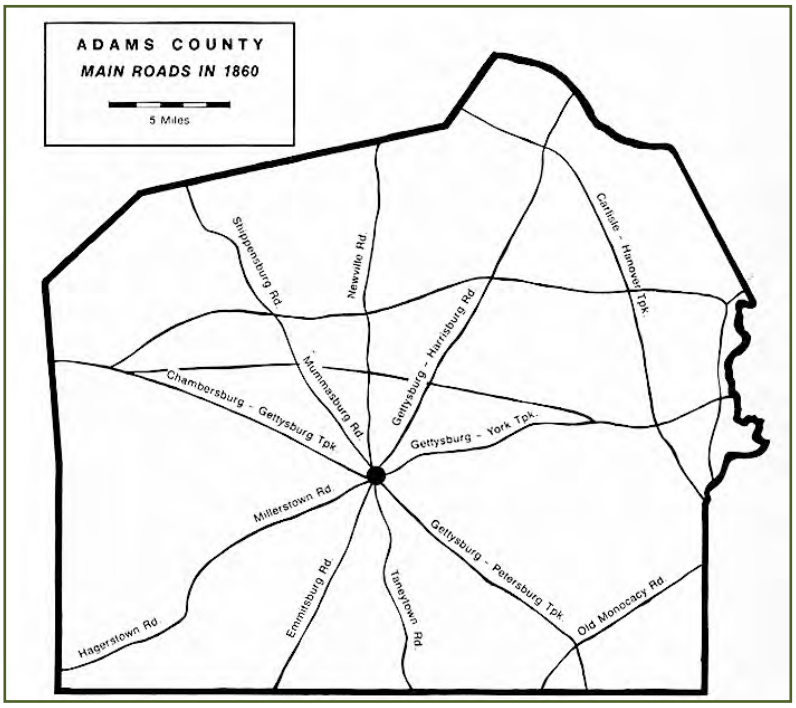
In 1748, another road, the Nicholson's Gap Road, was approved by the court. From Abbottstown it followed Black's Gap Road to west of New Oxford, where it turned southwest to pass through Gettysburg and Fairfield. Ultimately, it passed through the South Mountain at Nicholson's Gap west of Fairfield. After 1762, this road was known as the Hagerstown Road. Today, this path makes up Route 30 from west of New Oxford to Gettysburg, Route 116 from Gettysburg to Zora, and Route 16 from Zora to Waynesboro.

Around 1750, the "Old Menallen Road" was opened leading from York to the original site of the Menallen Meeting House area in northern Adams County. The road was later extended west, passing through what is now Heidlersburg, Biglerville, Arendtsville and on to Hilltown, where it connected with Black's Gap Road (Route 30). Today, the alignment of Route 234 generally follows the path of the Old Menallen Road.

The first major north-south road through the county was approved in 1753, providing a connection with the Baltimore markets. Prior to this, most trade in Adams County had occurred with the Philadelphia market and other smaller cities to the east. The road extended from Hanover to East Berlin, following the path of today's Route 194.

Another early north-south road was the Carlisle-Hanover Road, which was approved by the court in 1770. This route extended from the York Springs area south to Hanover, passing through the village of Hampton. This route is today known as Route 94. From Hanover, the road met with the Patapsco Road, providing another key access point into the Baltimore market and the Chesapeake Bay.

Also around 1770, the Gettysburg-Petersburg Road was in service, connecting Gettysburg and Littlestown with Maryland along a path which is known today as Route 97. A later extension of this road (the Mummasburg Road) extending to Arendtsville and another extension to the Shippensburg area were in place before 1800.



On April 23, 1829, the Pennsylvania General Assembly ordered the "laying of a state road from Gettysburg in Adams County to a point at or near the summit of Connocheague Hill in Perry County." The eventual road followed the same path as today's Route 34 between Gettysburg to just south of Bendersville. From there, the road passed northward through Bendersville into the Cumberland Valley.

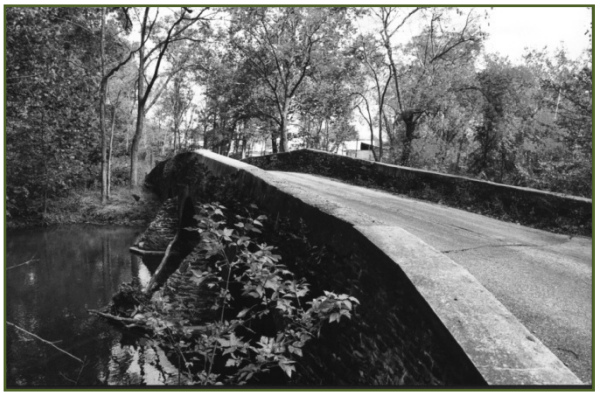
During the early 1800s, many roads were constructed in and around Adams County and operated as toll roads, or "turnpikes." By 1815, at least ten turnpike companies were operating in Adams County. By 1816, except for the northwest corner, a network of turnpikes crossed the county. This transportation network provided good connection to markets for county produce, and supported a variety of passenger and freight stagecoaches. In 1919, the state of Pennsylvania completed acquisition of all turnpikes in the county. Thereafter, in 1926, the state assumed responsibility for building, maintaining and marking roads.

Paving of Adams County roads began in the early 1900s to support growing interest and use in automobiles. Automobiles first appeared in Adams County in 1899 when a Philadelphia Inquirer sponsored an auto tour of the Gettysburg Battlefield. By November 1905, there were approximately fourteen automobiles registered in the county; by 1920 the number of registered autos in the county was estimated to be 500, beginning a rather rapid replacement of the horse-drawn wagon as the primary means of personal transportation. By 1922, paving was completed on the Lincoln Highway, the first coast-to-coast highway in the country which served to mark the beginning of the automobile age in America.

By 1930, the county had 1,168 miles of improved roadway. Route 30 across the county was reconstructed in the 1940s to serve a rapidly growing and modernizing automotive sector. By 1962, improved roadway mileage in the county had grown to 1,244 miles. Additional modern improvements continued on county roads, culminating with the opening of the limited access, four-lane US Route 15 highway around 1990.

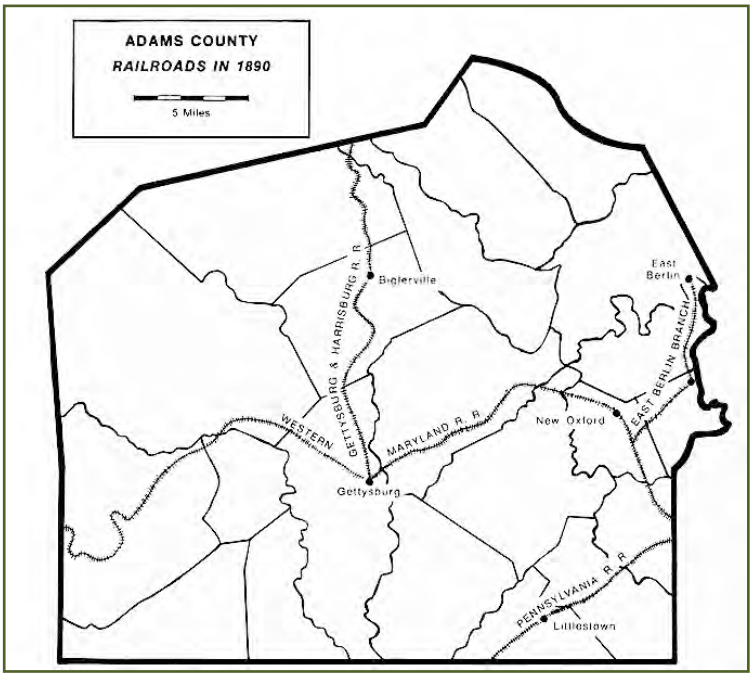
B. EARLY BRIDGES

Prior to 1825, the majority of bridges in the county were constructed of stone. Early stone bridges included the South Branch (Little) of the Conewago Creek just west of New Oxford (1798); Rock Creek east of Gettysburg (1807); the Shippensburg Road over Conewago Creek at Fehl's Mill in Menallen Township (1808); and one spanning Marsh Creek along the Gettysburg-Fairfield Road. Today, only two major stone bridges remain in the county – the Pondtown Bridge in Latimore Township (placed on the National Register of Historic Places in 1988) and the Johns Burnt Mill Bridge in Mount Pleasant Township, recently restored by Adams County. After 1825, wood replaced stone as the material of choice for bridge building primarily due to the reduced costs. The county's first wooden covered bridge was built in 1826, crossing the Conewago Creek at Geiselman's Mill near East Berlin. By 1860, there were 23 major wooden bridges across the county. By the turn of century, iron bridges were also common in the county. Beginning in 1906, concrete was used extensively for new and replacement bridges.



C. EARLY RAILROADS

Efforts to develop a railroad system in Adams County were initiated in the 1830's, only seven years after the completion of the first successful public railroad in the U.S., the Baltimore and Ohio line. One of these efforts was by Thaddeus Stevens, then a state senator and large landowner in Adams County, to build a branch railroad to serve his iron works in southern Adams and Franklin Counties. He proposed extending a new line from the Philadelphia and Columbia Railroad in Columbia, PA through York and Gettysburg into Maryland before connecting to the B and O Railroad. Opponents dubbed it the "Tapeworm Railroad" due to its long winding route from the Maria Furnace iron works in Fairfield and Caledonia Furnace iron works in Franklin County. However, in the late 1830's Stevens lost power and financial backing for this line and construction was stopped leaving partially built



embankments, cuts and fills and bridges behind. While the original line was never completed, remnants can still be seen in the Fairfield and Blue Ridge Summit area. Numerous failed endeavors were recorded until December 16, 1858, when the Hanover Junction, Hanover and Gettysburg Railroad, was formally opened and passenger service began two days later. The Carlisle Street railroad station in Gettysburg Borough was completed in 1859 and marked the western terminus of the line. A railroad line between Littlestown and Hanover was also in operation by 1858.

These two lines provided 25 miles of rail service; by 1890 railroad mileage in the county had more than tripled. In 1877, the East Berlin Railroad was completed from Berlin Junction southeast of New Oxford to East Berlin and remained in operation until 1940. Extensions of the Hanover Junction, Hanover and Gettysburg railroad (later the Baltimore and Harrisburg Railroad Company) took place over the last half of the 19th century, extending west near Orrtanna and ultimately reaching the Maryland line in 1889. Today, this line is part of the CSX railway network. In 1884, the Gettysburg and Harrisburg Railroad line was opened between Gettysburg and a spur of the Philadelphia and Reading Railroad line which ended just north of the Adams/Cumberland county line. The railroads continued as the major passenger and freight mode for the county until around 1947, when regular passenger rail service ceased. Today, the Gettysburg Railway carries local freight between the CSX line and connections with Norfolk Southern in Cumberland County.

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CHAPTER 4

ADAMS COUNTY DEMOGRAPHICS

To provide an understanding of the human context which the transportation network serves, the following transportation-related demographic information has been compiled to highlight significant data trends.

A. POPULATION AND HOUSING

The population of Adams County has exhibited a generally linear growth pattern. Between 1950 and 2010, the county's population grew at rates between 10 and 20 percent per decade. Table 1 on the following page identifies the decennial population through 2010, as well as projections to 2040 by municipality. In calculating Adams County population projections, ACOPD uses a combination of building permit data and population trends.

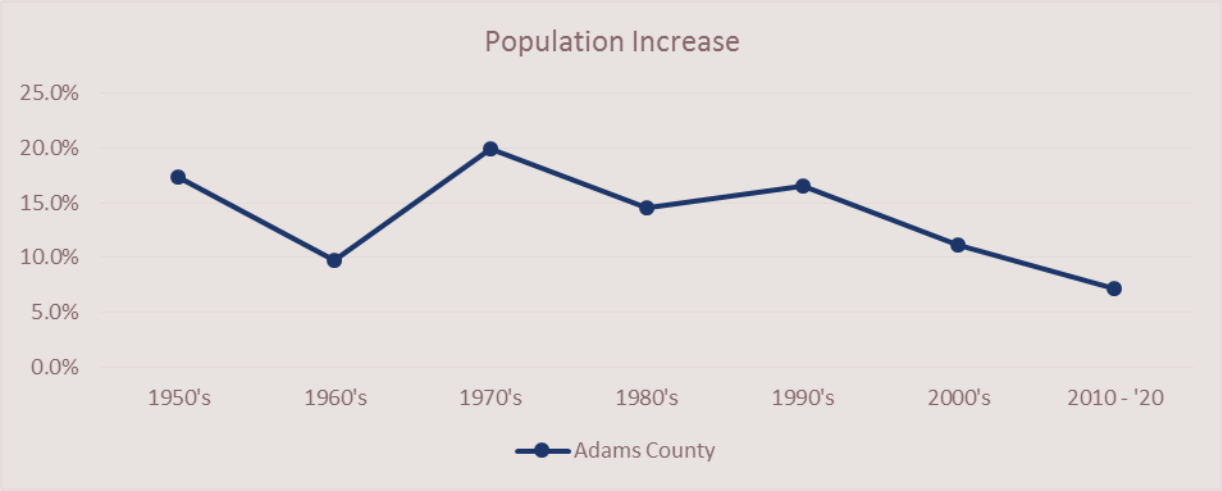

TABLE 1: POPULATION, 1990 – 2040

	Population				Projections				
	1990	2000	2010	2015 Est.	2020	2025	2030	2035	2040
Abbottstown	539	905	1,011	1,018	1,035	1,054	1,074	1,101	1,128
Arendtsville	693	848	952	952	962	984	1,007	1,032	1,057
Bendersville	560	576	641	651	662	694	726	744	762
Biglerville	993	1,101	1,200	1,207	1,231	1,254	1,277	1,309	1,341
Bonneauville	1,282	1,378	1,800	1,802	1,939	2,087	2,234	2,290	2,346
Carroll Valley	1,457	3,291	3,876	3,925	4,080	4,320	4,561	4,675	4,789
East Berlin	1,175	1,365	1,521	1,523	1,539	1,603	1,667	1,709	1,751
Fairfield	524	486	507	509	522	536	549	563	577
Gettysburg	7,025	7,490	7,620	7,680	7,770	7,817	7,865	8,062	8,258
Littlestown	2,974	3,947	4,434	4,565	4,657	4,850	5,043	5,169	5,295
McSherrystown	2,769	2,691	3,038	3,053	3,079	3,111	3,144	3,222	3,301
New Oxford	1,617	1,696	1,783	1,792	1,798	1,808	1,818	1,863	1,909
York Springs	547	574	833	833	848	858	867	889	911
TOTAL: Boros	*22,155*	*26,348*	*29,216*	*29,510*	*30,120*	*30,976*	*31,831*	*32,627*	*33,423*
Berwick	1,831	1,818	2,389	2,466	2,643	2,890	3,137	3,215	3,293
Butler	2,514	2,678	2,567	2,650	2,777	2,879	2,982	3,056	3,131
Conewago	4,532	5,709	7,085	7,369	7,813	8,436	9,058	9,285	9,511
Cumberland	5,431	5,718	6,162	6,779	7,400	7,978	8,556	8,770	8,984
Franklin	4,126	4,590	4,877	4,985	5,114	5,337	5,561	5,700	5,839
Freedom	692	844	831	846	869	899	929	952	975
Germany	1,949	2,269	2,700	2,833	2,943	3,180	3,417	3,503	3,588
Hamilton	1,760	2,044	2,530	2,630	2,843	3,073	3,303	3,386	3,468
Hamiltonban	1,872	2,216	2,372	2,403	2,510	2,618	2,726	2,794	2,862
Highland	815	825	943	968	1,029	1,101	1,173	1,202	1,232
Huntington	1,989	2,233	2,369	2,417	2,489	2,609	2,729	2,798	2,866
Latimore	2,209	2,528	2,580	2,644	2,702	2,829	2,956	3,030	3,104
Liberty	938	1,063	1,237	1,278	1,354	1,445	1,536	1,574	1,613
Menallen	2,700	2,974	3,515	3,728	3,918	4,165	4,411	4,522	4,632
Mount Joy	2,848	3,232	3,670	3,827	4,090	4,378	4,666	4,783	4,899
Mount Pleasant	4,076	4,420	4,693	4,938	5,133	5,429	5,724	5,867	6,010
Oxford	3,437	4,876	5,517	5,628	5,833	6,150	6,467	6,629	6,790
Reading	3,828	5,106	5,780	5,933	6,237	6,559	6,880	7,052	7,224
Straban	4,565	4,539	4,928	5,044	5,208	5,420	5,633	5,774	5,915
Tyrone	1,829	2,273	2,298	2,343	2,411	2,533	2,655	2,721	2,787
Union	2,178	2,989	3,148	3,180	3,285	3,421	3,556	3,645	3,734
TOTAL: Twps	*56,119*	*64,944*	*72,191*	*74,890*	*78,601*	83,328	*88,055*	*90,256*	*92,457*
Adams County	**78,274**	**91,292**	**101,407**	**104,400**	**108,721**	**114,304**	**119,886**	**122,883**	**125,880**

Source: U.S. Census Bureau, 1990, 2000, and 2010 Decennial US Census; ACOPD Projections, September 2016

Data on available housing units in the county mirrors population trends (Table 2). Between 1990 and 2000, growth in housing units closely followed the increase in population. The number of housing units from the 2010 Census reflects the reduction in population growth. In addition, average household size in Adams County has been slowly decreasing over the past two decades.

TABLE 2: HOUSING UNITS

Year	Housing units	% change	Average Household Size
1990	30,141	----	2.78
2000	35,831	19%	2.61
2010	38,013	14%	2.56

Source: U.S. Census Bureau, 1990, 2000, and 2010 Decennial US Census

B. AGE CHARACTERISTICS

Adams County is not only growing in population, but also in the composition of its residents (Table 3). These changes may affect the need and demand for certain transportation services, but also the design of facilities within the community. From 2000 to 2010 the bulk of Adams County's population growth occurred in those aged 45 and over. However, that same time frame saw a substantial decline in population of residents under age 14 and those aged 25 to 44. These changes indicate a substantial shift has occurred in the age composition of Adams County. In particular, an increasingly older population will have an impact on the transportation network and the need for public transit services.

TABLE 3: AGE GROUPS

Age Group (year born)	1990 Population	2000 Population	2010 Population	% change 1990 – 2000	% change 2000-2010	% of Total Population 2010
Under 5 years (2006-10)	5,499	5,405	5,594	-1.7%	3.5%	5.5%
5 to 9 years (2001-05)	5,620	6,465	6,096	15.0%	-5.7%	6%
10 to 14 years (1996-2000)	5,335	6,952	6,512	30.3%	-6.3%	6.4%
15 to 19 years (1991-95)	5,918	6,810	7,507	15.0%	10.2%	7.4%
20 to 24 years (1986-90)	6,051	5,573	6,588	-7.9%	18.2%	6.5%
25 to 29 years (1981-85)	6,144	5,106	5,169	-16.9%	1.2%	5.1%
30 to 34 years (1976-80)	6,543	6,320	5,271	-3.4%	-16.6%	5.2%
35 to 39 years (1971-75)	6,231	7,511	6,130	20.5%	-18.4%	6%
40 to 44 years (1966-70)	5,387	7,490	7,237	39.0%	-3.4%	7.1%
45 to 49 years (1961-65)	4,396	6,750	8,028	53.5%	18.9%	7.9%
50 to 54 years (1956-60)	3,614	5,872	7,800	62.5%	32.8%	7.7%
55 to 59 years (1951-55)	3,446	4,620	7,208	34.1%	56.0%	7.1%
60 to 64 years (1946-50)	3,456	3,762	6,313	8.8%	67.8%	6.2%
65 to 69 years (1941-45)	3,381	3,453	4,896	2.1%	41.8%	4.8%
70 to 74 years (1936-40)	2,682	3,178	3,638	18.5%	14.5%	3.6%
75 to 79 years (1931-35)	2,012	2,717	2,954	35.0%	8.7%	2.9%
80 to 84 years (1926-30)	1,324	1,752	2,246	32.3%	28.2%	2.2%
85 years+ (pre-1925)	1,235	1,556	2,220	26.0%	42.7%	2.2%
Total	**78,274**	**91,292**	**101,407**			**100%**

Source: U.S. Census Bureau, 1990, 2000 and 2010 Decennial US Census

C. MINORITY POPULATIONS

Individuals from minority or ethnic groups or low-income households sometimes have greater difficulty getting to jobs, schools, recreation, and shopping than the population at large. Many persons of Hispanic or Latino descent have been attracted to Adams County by the large number of fruit and food processing jobs in the county. While, traditionally, many of these jobs were occupied by migrant workers, in recent years Hispanic and Latino workers have become permanent residents of the county. Between 2000 and 2010, the percentage of persons of Hispanic or Latino origin within the county increased from 3.6% to 6% (Table 4). The percentage of residents who identify themselves as non-white have increased between 2000 and 2010.

TABLE 4: PERCENTAGE OF POPULATION BY RACE, 2000 - 2010

Year	2000	2010
White alone	95.4%	93.7%
Black or African American alone	1.2%	1.5%
American Indian and Alaska Native alone	0.2%	0.2%
Asian alone	0.5%	0.7%
Native Hawaiian and Other Pacific Islander alone	<0.1%	<0.1%
Some other race alone	1.7%	2.5%
Two or more races:	1.0%	1.3%
Hispanic or Latino	3.6%	6.0%

Source: U.S. Census Bureau, 2000 and 2010 Decennial US Census

D. VEHICLE AND TRAVEL CHARACTERISTICS

Changes in household size, economic factors, and the composition of households (e.g. more multi-generational living arrangements) have also affected the vehicle ownership trends in the county (Table 5). While vehicle availability is growing and expected to continue to increase, the number of vehicles per household is likely to decrease, except for households with two or more non-elderly adults. These households often include multiple workers, or students who make trips for educational purposes.

TABLE 5: VEHICLES AVAILABLE BY HOUSEHOLD SIZE

Household type	Vehicle Availability Class	2005	2010	2014
1 person household	No vehicles	868	1,370	1,142
	1 vehicle	5,316	5,623	6,145
	2 vehicles	1,245	1,634	1,360
	3 or more vehicles	365	323	281
2 person household	No vehicles	312	127	211
	1 vehicle	2,577	2,394	2,103
	2 vehicles	7,626	7,948	8,457
	3 or more vehicles	3,248	2,727	3,468
3 person household	No vehicles	26	105	104
	1 vehicle	688	822	930
	2 vehicles	2,299	2,915	2,415
	3 or more vehicles	3,059	2,974	2,885
4 or more person household	No vehicles	80	134	156
	1 vehicle	1,103	728	829
	2 vehicles	3,585	3,424	3,395
	3 or more vehicles	4,301	4,436	4,075
TOTAL		**36,698**	**38,331**	**37,956**

Source: U.S. Census Bureau, American Community Survey, 2010 and 2014 5-Year Estimates

Travel mode choice in Adams County is also changing in response to evolving demographic characteristics and current economic realities (Table 6). While driving alone is still the predominant travel choice for workers, those who use public transit (via connection to park and ride lots served by neighboring public transit providers or the Freedom Transit system in Gettysburg) and those who work at home appear to be increasing. As the costs of the single occupancy vehicle option likely continue to increase, providing travel options will be an increasingly important issue for residents. The availability of alternative forms of travel, including walking and bicycling, may also affect our ability to attract new employers to the county.

TABLE 6: TRAVEL MODE CHOICE, 1990 – 2014

Year	Total Workers *	SOV**	Carpool	Public transit	Walked	Motor cycle	Bicycle	Other means	Work at home
1990	39,715	30,555 (77%)	5,269 (13%)	104 (0.3%)	2,011 (5%)	59 (0.1%)	63 (0.2%)	191 (0.5%)	1,463 (4%)
2000	45,475	36,794 (81%)	4,784 (11%)	83 (0.2%)	1,949 (4%)	18 (<1%)	46 (0.1%)	291 (0.6%)	1,510 (3%)
2010	50,770	41,541 (81%)	4,851 (10%)	170 (<1%)	1,972 (4%)	118 (<1%)	151 (<1%)	263 (<1%)	1,704 (3%)
2014	49,589	40,903 (82%)	4,118 (8%)	237 (<1%)	1,954 (4%)	76 (<1%)	114 (<1%)	371 (<1%)	1,816 (4%)

Year	Total Workers *	SOV**	Carpool	Public transit	Walked	Motor cycle	Bicycle	Other means	Work at home
1990 - 2000 % Change	15%	20%	-9%	-20%	-3%	-69%	-27%	52%	3%
2000 – 2010 % Change	12%	13%	1%	105%	1%	556%	228%	-10%	13%
2010 - 2014 % Change	-2%	-2%	-15%	39%	-1%	-36%	-25%	41%	7%

Source: U.S. Census Bureau and 2014 American Community Survey 5-Year Estimates

* Total workers= all employed persons 16 years of age and older, ** SOV=Single occupant vehicle (car, truck, or van)

Linked to travel mode choice, the destinations of residents leaving Adams County to jobs within regional employment centers vary substantially. Workers commuting out of the county (Table 7) must generally rely on their personal automobiles or ride sharing opportunities for access to work. Adams County residents are increasingly commuting to job opportunities in the Hanover / Greater York area (mainly retail and manufacturing jobs), the Baltimore-Columbia-Towson region, the Capitol region (Harrisburg), and the greater Washington D.C. metropolitan area (mainly professional services and governmental positions). It should be noted that although this chart denotes work destination, not all of these residents may be commuting on a daily basis. This data is focused more on workers and their employment location, rather than specific commuting patterns.

TABLE 7: WORK DESTINATION, 2005 – 2014

Metropolitan/ Micropolitan Area	2005	% of County Workforce	2010	% of County Workforce	2014	% of County Workforce
York - Hanover	9,548	21%	10,029	22%	10,285	22%
Baltimore-Columbia-Towson	3,655	8%	4,291	9%	4,398	9%
Harrisburg – Carlisle	3,850	8%	3,577	8%	3,903	8%
Washington DC Metro Area	3,306	7%	3,989	9%	3,676	8%
Philadelphia-Camden-Wilmington	1,139	3%	1,750	4%	1,723	4%
Chambersburg - Waynesboro	1,294	3%	1,485	3%	1,473	3%
Lancaster	578	1%	598	1%	683	2%
Hagerstown - Martinsburg	483	1%	672	1%	656	1%
Other Locations	2,669	6%	3,547	8%	3,588	8%
Total Out of County	**26,522**	**58%**	**29,938**	**65%**	**30,385**	**65%**
Within Adams County	**19,250**	**42%**	**10,029**	**35%**	**16,593**	**35%**

Source: U.S. Census Bureau, OnTheMap Application, LEHD Origin-Destination Employment Statistics

Between 2005 and 2014 the number of residents commuting to locations outside of Adams County increased from 58% to 65%. Although availability of jobs plays a role in this increase, it is also influenced by wage characteristics within Adams County which is a primary reason why the York-Hanover, Baltimore-D.C., and Harrisburg areas are the primary locations outside of Adams County (Table 7).

While household incomes in the county are typically at or above both state and national averages, the overall wages paid by Adams County businesses, while increasing steadily, remain below the statewide average (Table 8). This increases the demand on the transportation system to accommodate out-of-county commuters seeking higher wage or employment opportunities in Maryland, York County, Harrisburg, and the Chambersburg Area.

TABLE 8: WAGES AND INCOME, 2004 – 2014

	Average Annual Wage			Median Household Income	
Year	Adams County	Statewide	Rank in PA (67 counties)	Adams County	Statewide
2004	$29,536	$38,532		$48,439	$44,106
2006	$26,572	$34,996		$52,920	$48,477
2008	$33,384	$44,356	38th	$55,124	$50,272
2010	$34,476	$45,708	40th	$56,529	$50,398
2012	$36,504	$48,412	39th	$58,465	$52,267
2014	$37,700	$50,544	43rd	$60,068	$53,115
% Change (04-14)	39%	38%		24%	20%

Source: Wages - PA Department of Labor and Industry, Center for Workforce Information and Analysis; Income – PA DLI, US Census Bureau, ACS

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CHAPTER 5

TRANSPORTATION SYSTEM

Adams County's transportation system is comprised of a complex network of transportation infrastructure that includes highways of regional significance, roadways and bridges providing essential interconnections between small communities, agricultural production facilities and access to the regional system, rail service, public transportation, aviation and facilities for non-motorized transport. The extent and condition of the transportation network affects overall economic, social, environmental, and quality of life of Adams County. All system components must adequately meet the demand for travel placed upon them. Given the projected growth levels for Adams County, it is increasingly important to maintain the current system and to improve wherever feasible.

A. ROADS

The roadway network of Adams County forms the backbone of the overall transportation system. Residents, businesses, and visitors rely upon this network for the vast majority of travel both around and to and from the county. Thirteen historic roads converge on Gettysburg, many of which have remained similar in profile and appearance. This historic roadway pattern still impacts travel patterns today. Few new connections have been added to this historic network. The presence of the Gettysburg National Military Park, which surrounds many of the points of convergence, has made creating new connections difficult. In Eastern Adams County, early roads converged at Hanover. Today, county lines separate municipalities and counties while travel patterns remain unchanged. Except for modern Route 15 and modern Route 30 west of Gettysburg (essentially the “Cashtown Bypass”) most of the existing network reflects the historic, rural road system as it existed before the Civil War.

Although local municipalities maintain the most miles of roadways in Adams County, the overwhelming majority of travel demand is placed on PennDOT roadways (Table 9). Local roadways are also primarily covered with bituminous asphalt, while there are approximately fifty-five (55) miles of unimproved and gravel roads in Adams County Townships (Table 10).

TABLE 9: ADAMS COUNTY ROAD NETWORK BY JURISDICTION

Category	Roadway Mileage	Daily Vehicle Miles Traveled
PennDOT	543.7	2,123,174
Other Federal or State agency	31.55	80,295
Local	833.99	202,532
TOTAL	1,409.25	2,406,001

Source: Penn DOT Bureau of Planning and Research, Pennsylvania Highway Statistics, 2016

TABLE 10: MUNICIPAL ROADS BY PAVEMENT TYPE

Jurisdiction	Miles						
	Unimproved	Gravel	Sealcoat	Bituminous	Brick/Block	Concrete	Total
Boroughs	0	0.84	0	122.36	0	0	123.20
Townships	27.29	28.41	6.25	598.25	0	0	660.20
TOTAL	27.29	29.25	6.25	720.61	0	0	783.40

Source: Penn DOT Bureau of Municipal Services, 2016

(1) FUNCTIONAL CLASSIFICATION

"Functional classification" groups streets and highways into classes, or systems, according to the character and nature of service they are intended to provide (local access, regional, and intra-regional). A roadway's functional classification is based upon daily traffic volumes, purpose, design characteristics, and location. It should be used as a general guide for roadway design and access control, along with measured traffic volumes, speed, and engineering factors, not all roadways of the same designation will have the same design. Rapid population growth and traffic volume increases, along with land use changes, can influence the functionality of any roadway or intersection. The Functional Classification system within Adams County includes the following hierarchy of roads (Table 11):

- INTERSTATE HIGHWAYS: The Interstate System consists of all presently designated freeway routes meeting the Interstate geometric and construction standards for future traffic. The Interstate System is the highest classification of arterial roads and streets and provides the highest level of mobility, at the highest speed, connecting large population centers for a long uninterrupted distance. There are no Interstate Highways in Adams County.

- FREEWAYS/EXPRESSWAYS/OTHER PRINCIPAL ARTERIALS: This classification includes limited access freeways, multi-lane highways, and other important highways supplementing the Interstate System that connect, as directly as practicable, the nation's principal urbanized areas, cities, and industrial centers; serve the national defense; and connect at suitable border points with routes of continental importance.

- MINOR ARTERIALS: Minor arterials provide for a lower level of mobility than principal arterials while placing emphasis on access to land rather than to other arterial roadways. These roads typically provide links to a collector roadway and connect small population centers to the overall arterial system.

- RURAL MAJOR COLLECTORS: Major collector roadways provide land access and movement within residential neighborhoods, commercial and industrial areas, and agricultural areas. Major Collector roads provide service to specific areas and to and from other important traffic generators such as school and parks. They connect local roads and streets with arterials and provide less mobility than arterials at lower speeds and over a shorter distance.

- RURAL MINOR COLLECTORS: Minor collector roadways serve remaining, smaller rural and urban traffic generators. These roads connect residents, businesses and agricultural activities to major collector or arterial roads.

- LOCAL: The local roads and streets provide a direct access to individual properties and land uses. They are not intended to accommodate through traffic, and they are typically low volume roadways. Municipally owned and maintained roads and streets typically are included in this classification.

TABLE 11: ADAMS COUNTY FUNCTIONAL CLASSIFICATION MILEAGE

Category	Roadway Mileage	Daily Vehicle Miles Traveled
Interstate	0	0
Freeway	54.3	454,489
Other principal arterial	85.2	813,013
Minor arterial	72.2	441,108
Rural major collector	105.6	264,349
Rural minor collector	120.8	149,123
State owned local	149.7	66,873
TOTAL	587.8	2,188,955

Source: Penn DOT Bureau of Planning and Research, 2016

(2) MAJOR ROADWAYS IN ADAMS COUNTY

Roadway	Characteristics
	ROUTE 15 FUNCTIONAL CLASSIFICATION: OTHER FREEWAY/EXPRESSWAY US Route 15 is the only four-lane roadway facility in Adams County, consisting of dual two-lane roadways for northbound and southbound travelers separated by a grassed/landscaped median. This roadway was completed in 1990 and provided improved access to Harrisburg to the north and the central Maryland/northern Virginia region around Washington, D.C. Eight (8) of its interchanges are separated-grade and six (6) are at-grade. US Route 15 carries on average about 16,000 vehicles per day at the Maryland line, increasing and peaking at approximately 22,000 at the interchange with Route 30 east of Gettysburg, and averaging around 21,000 vehicles per day at the northern county boundary with York County. Recently, this roadway from the Maryland line to Gettysburg was designated as part of the National Scenic Byway (Journey Through Hallowed Ground). This special designation, stretching from Gettysburg to Monticello, VA for a distance of 179 miles, highlights important sites associated with the Revolutionary War, the Civil War and the Underground Railroad, and the homes of nine U.S. Presidents. In Pennsylvania, Route 15 connects the downtown historic district of Gettysburg to the Gettysburg National Battlefield Park, the site where Abraham Lincoln delivered his famous Gettysburg address and the Eisenhower Farm, where President Eisenhower retreated and entertained foreign dignitaries during and after his presidency.

Roadway	Characteristics
	ROUTE 30 FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL US Route 30, the famous "Lincoln Highway" is the major east-west roadway in the county. Traffic volumes using Route 30 range from a low of approximately 9,500 vehicles per day near Cashtown to approximately 10,000 vehicles per day at the Franklin County line, approximately 17,000 vehicles per day just west of Route 15 near Gettysburg, and approximately 18,000 vehicles per day at the York County line. Route 30 is in many ways the "Main Street of Adams County", traversing through important historical community cores in Abbottstown, New Oxford, and Gettysburg. Land use along the route east of Gettysburg also supports the largest concentration of commercial land uses in the county. East of Gettysburg, the roadway has two distinct sections, one section with two travel lanes and a center turning lane and another section with two travel lanes and no turning lane. This two-lane section also includes where it passes through New Oxford and Abbottstown Boroughs. The US Route 30 Passing Lanes project will, when complete, add a center turning lane and two sections of offset passing lanes from Centennial Road to the York County Line, excluding New Oxford and Abbottstown Boroughs. West from Gettysburg to just east of McKnightstown, the roadway is comprised of two travel lanes only. From this point to the Franklin County line, Route 30 again is a three-lane section.
	ROUTE 16 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL PA Route 16 is a two-lane facility which crosses the southwestern corner of the county, linking Waynesboro, PA in Franklin County with Emmitsburg, MD in Frederick County. This roadway has become increasingly important as a connector to the Route 15 corridor in Maryland. Between Emmitsburg and Carroll Valley, Route 16 carries approximately 8,800 vehicles per day. West of Carroll Valley, Route 16 carries between 5,400 and 7,100 vehicles.
	ROUTE 34 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL PA Route 34 provides a direct connection with Cumberland County, extending from Gettysburg north through Biglerville. Traffic volumes on this two-lane roadway range from approximately 6,000 vehicles per day between Gettysburg and Biglerville, 6,200 vehicles per day passing through Biglerville, and 3,500 to 5,500 vehicles per day between Biglerville and the Cumberland County line to the north. Route 34 is an important truck route, providing major fruit processing facilities in Biglerville, Aspers and Peach Glen with access to Interstate 81 in Cumberland County.
	ROUTE 94 FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL PA Route 94 is the major north-south route in the eastern half of the county, providing access between Cumberland County and the Hanover area in York County. North of Route 30, Route 94 crosses through a primarily rural area, carrying approximately 4,000 vehicles per day near the Adams/Cumberland County border to near 11,000 just north of Cross Keys. South of Route 30, this roadway carries up to 21,000 vehicles per day, making this section the one of the most heavily traveled in the county. Route 94 is comprised of a two-lane roadway section for most of its length through the county. The Route 94 North Widening project has been completed which added an additional travel lane in each direction and a center turning lane from the York County Line north to Appler Road.

Roadway	Characteristics
97	**ROUTE 97 FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL** PA Route 97 connects Littlestown and southeastern Adams County with the Gettysburg area. This two-lane roadway has recently become an even more important link in the transportation network as the primary access roadway to the new Gettysburg National Military Park Visitor's Center. Traffic volumes along this roadway generally range from 7,500 to 10,000 vehicles per day.
116	**ROUTE 116 FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL** PA Route 116 is the major east-west travel route in the southern section of the county, extending from York County (Hanover Borough) to its terminus at Route 16 just north of the Frederick County, MD border. Along its route, the two lane roadway passes through the core communities of McSherrystown, Bonneauville, Gettysburg, Fairfield and Carroll Valley and provides access to important rural/agricultural areas between those communities. Traffic volumes on the eastern portion of this roadway range from 6,300 vehicles per day near Bonneauville to approximately 15,000 in McSherrystown. Moving west from Gettysburg to Carroll Valley, traffic volumes generally decrease from approximately 9,000 to 4,500 vehicles per day, respectively.
134	**ROUTE 134 FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR** PA Route 134 is a two-lane roadway extending from Gettysburg south to the Carroll County, MD line. In addition to serving rural population areas, the roadway also provides access to the Gettysburg National Military Park. Average traffic volumes on Route 134 range from 1,800 to 2,800 vehicles per day.
194	**ROUTE 194 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL** PA Route 194 provides north-south mobility along the eastern boundary of Adams County, connecting with York County and Carroll County, MD. Within the county, the roadway is split into two distinct segments – a northern segment from north of East Berlin, through Abbottstown to the Hanover Area in York County and a southern segment extending from Hanover to Carroll County MD passing through Littlestown. For the northern segment, traffic volumes range from 4,700 vehicles in East Berlin to approximately 11,000 vehicles just north of Hanover Borough. In the southern segment, traffic volumes between Hanover and Littlestown are generally range from 13,000 vehicles south of Hanover to 9,300 vehicles entering Littlestown. West of Littlestown, traffic volumes on Route 194 are around 6,100 vehicles per day.
233	**ROUTE 233 FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR** PA Route 233 is a rural two-lane roadway which traverses the Michaux State Forest in the northwestern corner of the county. Traffic volumes are approximately 700 vehicles per day. This roadway provides access to regional attractions, including Pine Grove State Park in Cumberland County and Caledonia State Park, Mont Alto State Park and the Penn State-Mont Alto college campus in Franklin County.
234	**ROUTE 234 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (FROM YORK COUNTY LINE WEST TO ROUTE 34), RURAL COLLECTOR (ROUTE 34 WEST TO ROUTE 30)**

Roadway	Characteristics
	PA Route 234 is a rural two-lane east-west roadway across the northern tier of the county. East of Route 34, the roadway accommodates regional travel, including commercial truck traffic serving the fruit industry. West of Route 34, the roadway serves a more rural function, providing resident mobility and access to agricultural areas (both fruit and forestry) in the northwest area of the county. A wide range of traffic volumes are found along this corridor. East of Route 34, traffic along Route 234 ranges from 4,600 to 8,200 vehicles per day, with the highest volumes in and around East Berlin. West of Route 34, volumes range from approximately 600 to 3,900 vehicles per day, with the highest volumes near Arendtsville Borough.
394	ROUTE 394 FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR PA Route 394 is a two-lane rural roadway passing through the center of the county, extending from Route 94 at the village of Hampton to Route 234 in Biglerville Borough. Traffic volumes range from approximately 1,000 vehicles per day in Reading Township, to 3,100 vehicles per day in Straban Township, to 2,200 vehicles per day in Biglerville Borough.
Mummasburg Road	MUMMASBURG ROAD FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NORTHWEST OF GETTYSBURG BOROUGH TO JUST NORTH OF HERRS RIDGE ROAD), MAJOR COLLECTOR (FROM NORTH OF HERRS RIDGE ROAD TO ARENDTSVILLE BOROUGH) Mummasburg Road is an important travel link connecting Gettysburg Borough with rural areas to the northwest of the borough. The roadway also provides access to the West Fields area of the Gettysburg National Military Park. Traffic volumes along the extent of Mummasburg Road are approximately 1,600 vehicles per day.
Old Harrisburg Road	OLD HARRISBURG ROAD FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (GETTYSBURG BOROUGH TO SHEALER ROAD), MAJOR COLLECTOR – NORTHERN SECTION (SHEALER ROAD TO ROUTE 94 AT YORK SPRINGS BOROUGH) – SOUTHERN SECTION (GETTYSBURG TO EMMITSBURG ROAD), Old Harrisburg Road (Business Route 15) is the original Route 15 alignment through the county. Today, this roadway is generally used for local and commuter traffic in the northern section (Old Harrisburg Road), with additional tourism related traffic in the southern portion (Emmitsburg Road). Volumes in the northern section between York Springs and Gettysburg typically range from 1,400 to 6,900 vehicles per day. In the southern section, volumes range from 850 near the Maryland border to 6,000 vehicles per day just south of Gettysburg Borough.

Source: PennDOT Bureau of Planning and Research, Pennsylvania Highway Statistics, 2014 Highway Data, Publication 600 (9-08)

(3) TRAFFIC VOLUMES

Traffic volumes carried by the major roadways within the county have generally exhibited a steady increase throughout the county over time. Between the 1970s and 1990s, traffic volume growth reflected the predominant rural land uses of the county, with only Route 30 exhibiting significant traffic volumes. After the opening of the improved Route 15 and emerge of new residential and business development in the 1990s, traffic volumes in the county began to increase rapidly and by the year 2000 county roads were often carrying twice the traffic volume levels of the 1970-1990s. Since 2000, traffic volumes have continued to rise, albeit at a slower rate than previous decades, affected by some local development but more prominently by regional

growth in traffic and commerce. From 2007 to 2014, there were several fluctuations throughout Adams County. Increases in Average Annual Daily Traffic were most prominent at Route 94 south of Cross Keys, Route 30 west of Cashtown, and the Route 15/94 Interchange. Moderate decreases in traffic occurred predominately along Route 116 east of Route 15, Route 194 between Abbottstown and East Berlin, and route 394 west of Business Route 15 (Table 12).

TABLE 12: HISTORIC AVERAGE ANNUAL DAILY TRAFFIC

Roadway	1972	1990	2002	2007	2014	% Change 1972-2014	% Change 2007-2014
Route 30 east of Route 15	8,100	12,308	14,000	13,000	14,000	73%	7.7%
Route 116 east of Rt15	2,300	6,326	8,200	8,900	6,600	187%	-26%
Route 234 through Biglerville	2,000	2,829	4,600	4,200	4,200	110%	0%
Route 116 at Fairfield	3,000	5,213	7,600	7,900	7,400	146%	-6%
Route 15 at Maryland line	4,360	4,589	19,000	17,000	16,000	267%*	-6%
Route 97 north of Littlestown	2,800	6,728	8,300	8,600	8,900	218%	4%
Route 194 east of Littlestown	2,203	3,455	11,000	11,000	11,000	400%	0%
Route 94 south of Cross Keys	4,800	6,326	16,000	14,000	16,000	233%	14%
Route 30 west of Cashtown	4,400	5,370	7,600	7,700	9,500	206%	23%
Route 94 north of York Springs	1,400	2,401	3,900	3,800	3,500	150%	-8%
Route 194 between Abbottstown and East Berlin	1,409	5,736	5,800	6,800	6,100	333%	-10%
Route 15 at Route 30	2,300	5,120	18,000	23,000	22,000	856%*	-4%
Route 15 at Route 94	5,660	5,839	13,000	15,000	21,000	271%*	40%
Route 394 west of Bus Rt 15	3,000	3,274	2,400	2,600	2,300	-23%	-12%

Source: Adams County Comprehensive Plan (1991) and PennDOT Traffic Volume Maps for 2002. 2007, 2014; * - U.S. Route 15 upgraded from two to four lanes after 1990.

(4) FREIGHT AND GOODS MOVEMENT

The transportation system serving Adams County has been influenced by growth in the movement of goods and products, mostly by means of truck transport. In 2005, a truck origin-destination study was conducted to gauge truck traffic movements along the major roads through the county, including Route 30, Route 94, and Route 234. Results of this study were compared to a similar truck survey performed in Gettysburg in 1991.

Generally, *local truck trips* showed a reduction in the proportion of total truck traffic found in Adams County between 1991 (33%) and 2005 (25%). *Through truck* traffic trips in Gettysburg showed a significant decline from 59% of trips in 1991 to 35% of trips in 2005.

The biggest change in truck traffic in Adams County since 1991 has been the increase of *to/from external to local trips*. These trips are as truck trips which begin outside of the county, enter Adams County and make a delivery or pickup, and then proceed out of the county. These trips accounted for 7% of truck trips passing through Gettysburg in 1991. In 2005, those trips accounted for 40% of all truck trips passing through Gettysburg. The complete results of this study are available in Appendix G.

Definitions of Truck Trip Types

THROUGH: Trip originated from a location outside of the county and was destined to a location outside of the county, and had no local stops.

TO/FROM EXTERNAL TO LOCAL: Trip originated from a location outside of the county and was destined to a location within the county, or vice-versa.

LOCAL: Trip had both beginning and ending points within the county, did not leave the county, and had local stops.

(5) INTERNATIONAL ROUGHNESS INDEX (ROAD SMOOTHNESS)

The International Roughness Index (IRI) is a worldwide standard for the measurement of pavement smoothness. The index measures pavement roughness by the number of inches per mile that a laser mounted in a specialized vehicle jumps as it is driven across the road. Generally, the lower the IRI the smoother the road and subsequent ride will be.

Within Adams County, the roadways with the poorest IRI scores are generally local roads, primarily those in rural areas or in urban areas typically with lower travel demand and low speed limits. As the functional class of roadways increases in terms of the type and volume of traffic expected, IRI scores generally improve. IRI mileage in Table 13 may not add up to total road miles by Functional Classification. Several segments were not yet added to RMS data.

TABLE 13: INTERNATIONAL ROUGHNESS INDEX RATINGS

Category	Total Road Miles	Excellent Miles	% Excellent	Good Miles	% Good	Fair Miles	% Fair	Poor Miles	% Poor
Freeway	54.3*	27.7	51%	18.3	34%	0.5	1%	0	0%
Principal arterial	85.2	30.8	36%	38.8	46%	13.3	16%	2.8	3%
Minor arterial	72.2	33.5	46%	22.5	31%	10.3	14%	5.1	7%
Major collector	105.6*	19.3	18%	54.7	52%	13.3	13%	9	9%
Minor collector	120.8	17.4	14%	53.2	44%	38	31%	12.9	11%
State owned local	149.7	5.7	4%	37.3	25%	42.2	28%	65.1	43%
TOTAL	**587.8**	**134.4**	**23%**	**224.8**	**38%**	**117.6**	**20%**	**94.9**	**16%**

Source: Penn DOT Adams County Roadway Management System (RMS) database, November 2016

(6) TRAFFIC CONTROLS (INCLUDING INTELLIGENT TRANSPORTATION SYSTEMS)

Within Adams County, most of the 51 traffic signals are located in the central and eastern portions of the county, primarily within core communities along major roadway corridors (Table 14). Regardless of whether a traffic signal is located on a state or local road, the municipality has responsibility for the ownership, operation, and maintenance of those traffic signals that are within their municipality. PennDOT has oversight of all signals through the conditions of an issued traffic signal permit, which require completion of a signal warrant study to determine the necessity for control.

TABLE 14: TRAFFIC SIGNALS BY JURISDICTION

Municipality	# of traffic signals	Municipality	# of traffic signals
Biglerville Boro	2	Hamiltonban Twp	1
Carroll Valley Boro	1	Littlestown Boro	2
Conewago Twp	4	McSherrystown Boro	1
Cumberland Twp	3	Mount Joy Twp	4
East Berlin Boro	1	Oxford Twp	1
Gettysburg Boro	17	Reading Twp	1
Hamilton Twp	2	Straban Twp	11

Source: PennDOT, Engineering District 8-0, 2016

Additionally, a series of intelligent transportation system (ITS) improvements have been implemented in Gettysburg Borough and surrounding townships to improve mobility for resident, business and tourism traffic. These include:

- Upgraded phasing of traffic signals around Lincoln Square
- Changeable message boards on Route 15 and Route 30 to provide information on traffic conditions or incidents and direct travelers to alternate routes, as necessary
- Video detection and closed circuit television (CCTV) cameras at locations on Route 15, Route 30, and Baltimore Street to monitor incidents and other traffic situations in order to activate or adjust other ITS devices to manage congestion in the Gettysburg area.
- Improved wayfinding signage to better direct travelers to area attractions.
- Lighted crosswalks and countdown pedestrian crossing signals to increase the safety and visibility of pedestrians and decrease pedestrian/vehicle conflicts.

(7) US ROUTE 15 INTERCHANGES

In the early 1990s, U.S. Route 15 was expanded to its current limited-access form. It was the first "interstate" type facility in the county and greatly enhanced access to both the Harrisburg and Frederick/Washington D.C. metropolitan areas. The eight Route 15 interchanges in Adams County have become focal points of transportation and land use planning efforts and have been the identified as targeted areas for future economic development related activity. While many of these interchanges remain virtually unchanged since the expansion of Route 15, several have seen significant changes in surrounding land use and, as a result, have seen substantial change in form.

One interchange of note is the PA Route 97 interchange. The interchange was redesigned to provide access to the outlet shopping center, hotel and restaurant complex, as well as access to the Lake Heritage community. These improvements, which were previously identified as a need in the 1990 County Comprehensive Plan were privately funded and constructed by the outlet center developer.

TABLE 15: U.S. ROUTE 15 INTERCHANGES

Roadway	Municipality	Design	1991 County Comp Plan Adjacent Land Use Recommendation	Existing Adjacent Land Use Condition
Business Route 15 (Emmitsburg Road)	Freedom	Modified diamond	Village center/commercial	Limited commercial/rural
Route 134 (Taneytown Road)	Cumberland	Diamond	Open space/agriculture	Open space/agriculture
Route 97 (Baltimore Street)	Mount Joy	Diamond	Industrial business park	Commercial/residential
Route 116 (Hanover Street)	Straban	Diamond	Residential	Commercial/Residential
Route 30 (York Street)	Straban	Partial cloverleaf	Industrial business park	Commercial
Route 394 (Hunterstown Road)	Straban	Diamond	Industrial business park	Limited commercial/rural
Route 234 (East Berlin Road)	Tyrone	Diamond	Industrial business park	Limited Commercial/Rural/agriculture
Route 94 (York Springs)	Huntington/Latimore	Partial cloverleaf	Industrial-business park	Residential

Source: Adams County Comprehensive Plan, 1991; Adams County 2016 Existing Land Use Maps

B. BRIDGES

The bridge system in Pennsylvania has two classes, state-owned and maintained and municipal-owned and maintained. As of 2010, over 25,000 state-owned and over 6,400 municipal-owned bridges were located throughout Pennsylvania. Adams County has 448 bridges, 382 state-owned and 66 municipal-owned (Table 16). The majority of these bridges are constructed of concrete (either precast or poured in place), steel (typically using an I-beam design), or a pre-stressed box or slab design. Some alternative designs/ construction materials can be found on older, potentially historically significant bridges, including wood timbers, stone masonry and arch and truss designs. PennDOT regularly inspects state bridges over 8’ and local bridges over 20’. However, the number and condition of bridges below these lengths is unknown.

Of the 448 total bridges in Adams County, five are listed on the National Register of Historic Places. These include:

- Two stone arch bridges, Pondtown Mill Bridge in Latimore Township and John’s Burnt Mill Bridge in Mt. Pleasant and Oxford Townships;

- Two covered bridges, Jacks Mountain Covered Bridge in Hamiltonban Township, Heikes Covered Bridge in Tyrone and Huntington Townships; and
- Cunningham Road Bridge in Cumberland and Freedom Townships.

Nationwide concern over bridge safety has become elevated following several high-profile bridge collapses around the country. Of special concern are bridges classified as "structurally deficient". A structurally deficient bridge has suffered deterioration to one or more major components, such as its deck, superstructure, or substructure. While a structurally deficient bridge is capable of carrying traffic, it must be monitored and inspected on a continual basis.

A bridge may also be classified as functionally obsolete. A functionally obsolete bridge typically has an outdated design, which may have a lower weight bearing capacity, narrower lanes or shoulders, or less clearance underneath than bridges built to current standards. Currently, Adams County has twenty-two (22) bridges with posted weight limitations.

Bridge Structure Terminology

DECK: The top surface of the bridge that carries traffic.

SUPERSTRUCTURE: The underlying or supporting part of the bridge, for example steel members under the deck.

SUBSTRUCTURE: The part of the bridge that supports the superstructure such as piers and abutments.

TABLE 16: ADAMS COUNTY BRIDGES

Roadway Functional Class	Total Bridges	Structurally Deficient (SD)	% SD	Functionally Obsolete (FO)	% FO	Posted Weight Limit
Freeway	27	0	0%	1	4%	
Other principal arterial	62	9	15%	13	21%	1
Minor arterial	55	8	15%	12	20%	0
Major collector	57	4	7%	11	20%	1
Minor collector	79	20	26%	6	6%	2
State owned local	100	18	18%	11	11%	1
Municipal	68	7	10%	13	19%	17
TOTAL	**448**	**66**	**15%**	**67**	**15%**	**22**

C. PUBLIC TRANSPORTATION

The York Adams Transit Authority (YATA) is the primary provider of transit services within Adams County. YATA operates an "on-demand" paratransit service which provides curb-to-curb trips for seniors and those with disabilities. The bulk of these trips are for seniors although many also serve persons with disabilities that work at the HART (Hanover Adams Rehabilitation/Training) Center in New Oxford, as well as others who need medical transportation, banking, shopping, and personnel services. Locally sponsored shared-ride operations provide door-to-door service under an advance reservation system. Shared-ride service ridership volumes in Adams County have been generally steady (Table 17).

TABLE 17: PARATRANSIT RIDERSHIP TRENDS

Timeframe	65+ Age Ridership
2000-2001	23,286
2001-2002	23,564
2002-2003	23,865
2003-2004	26,925
2004-2005	28,176
2005-2006	29,000
2006-2007	30,000
2007-2008	27,500
2008-2009	29,000
2009-2010	22,640
2010-2011	21,027
2011-2012	90,975 (Combined with York County)
2012-2013	72,103 (Combined with York County)
2013-2014	68,402 (Combined with York County)
2014-2015	78,152 (Combined with York County)

Source: PennDOT Bureau of Public Transportation, Public Passenger Transportation Performance Reports

(1). FREEDOM TRANSIT

In June 2009, a fixed route transit system, known as Freedom Transit, began operation in the Gettysburg area. This system provides residents and tourists access to local attractions, hotels, medical facilities, and shopping venues. The Freedom Transit system operates from a location just north of the Lincoln Train Station along Carlisle Street in Gettysburg borough. From this location, passengers can select one of three routes:

- LINCOLN LINE: The Lincoln Line provides transit service to historical attractions within and surrounding the borough. From the downtown transfer center, Lincoln Line service links passengers with the Wills House, the Adams County Courthouse, the National Cemetery, the Eisenhower Conference Center, the Outlet Shoppes at Gettysburg, and the Gettysburg National Military Park Visitors Center, using Baltimore Street, Steinwehr Avenue, Taneytown Road (Route 34), and Baltimore Pike (Route 97).

- GREY LINE: The Grey Line connects downtown Gettysburg and Gettysburg College with traffic generators and attractions along Route 30 east of the borough. The line terminates at the Gateway

Gettysburg complex and the Adams County Commerce center at the southeastern quadrant of the Route 15/Route 30 interchange. This route also provides transit service to the Harrisburg Area Community College (HACC) campus on Old Harrisburg Road northeast of the borough.

- BLUE LINE: The Blue Line provides service for transit riders from downtown Gettysburg with Gettysburg Hospital, the Lutheran Seminary, the Gettysburg Post Office, Deatrick Village, and Lincoln Estates. It extends northwest and southwest from the downtown along Route 30 and Route 116.
- GOLD LINE: The Gold Line circulates between parking areas and the Gettysburg National Military Museum & Visitor Center. The Gold Line is limited to operation during tourist season.

Adams County residents have limited access to transit service in adjacent counties. Commuter access to the Capital region is provided by the rabbitEXPRESS service between Gettysburg and Harrisburg. Transit service to York County via Rabbittransit is limited to stops in Hanover Borough and Penn Township just across the county line. No direct connection exists for commuters from Adams County heading south towards Baltimore, Frederick, MD, Washington D.C. and Northern Virginia. However, Frederick County TransIT offers an Emmitsburg/Thurmont Shuttle that connects to the Transit Center/MARC Station in downtown Frederick. From there, commuters can use fixed route transit to points within Frederick County and MARC and MTA lines to points further east and south.

(2). PARK AND RIDE LOTS

Adams County does not have any official park and ride lots for commuters and carpoolers. Two temporary park and ride lots have been established in support of the rabbittEXPRESS service between Gettysburg and Harrisburg, one at Gateway Gettysburg (Route 30) and another in Heidlersburg (Route 234). Several unofficial parking areas have cropped up over time, most in close proximity to US Route 15. Some of the larger retail sites near Route 15 also permit unofficial park and ride areas for commuters.

(3). PA COMMUTER SERVICES

Commuter Services of Pennsylvania is a non-profit organization, serving Adams, Berks, Carbon, Cumberland, Dauphin, Franklin, Lancaster, Lebanon, Monroe, Perry, Pike, Schuylkill, and York Counties, dedicated to reduce traffic congestion and improve air quality by helping commuters find alternative travel means to reach employment areas. Commuter Services arranges carpool and vanpool services for commuters, works with regional transit agencies to improve service, and assists employers in developing programs which can help reduce commuting travel for employees, such as telework and flexible scheduling programs and commuter education programs. The Commuter Services program is funded through the federal Congestion Mitigation and Air Quality (CMAQ) funds associated with federal transportation programming, as an alternative way to reduce roadway congestion through travel demand reduction and help improve the environment. Each participating MPO and RPO contributes CMAQ funds to this operation based on population.

D. RAIL

Adams County is served by two freight rail service providers. CSX Transportation provides rail freight service over the “Hanover Subdivision Line” which connects Baltimore, Maryland with Hagerstown, Maryland. The Pennsylvania portion of this line extends 54 miles from the Maryland state line in Franklin County, through Gettysburg and Hanover before crossing back into Maryland. The Adams County portion extends 35.2 miles from the Franklin County line north of Route 16 through Gettysburg and New Oxford before exiting just north of McSherrystown.

CSX carries approximately 4 million gross tons of freight, including consumer goods, coal, rock, and municipal and construction waste, over this line annually. As a fairly low volume rail corridor, the 2003 Pennsylvania State Rail Plan identified this corridor as an "at risk" corridor, meaning that due to the low use of the line, it is a potential candidate for sale or lease. However, recent upgrades on the CSX line from the Hanover area through Adams County to improve rail service through the local corridor, indicates that freight movement along this corridor may increase in the future, especially to new freight transfer facilities in Franklin County.

The Gettysburg Northern Railroad Company, formed by Pioneer Railcorp of Peoria, Illinois, operates primarily as a freight line, connecting to CSX Transportation and Norfolk Southern lines over its twenty-five (25) miles of track between Gettysburg and Mount Holly Springs (Cumberland County). Eight freight stations are located along this line, including Gettysburg, Biglerville, Aspers, Gardners, Peach Glen, Hunters Run, Upper Mill, and Mount Holly Springs.

The freight aspect of Gettysburg Northern's business primarily serves four major customers: Inland Container in Biglerville (mostly rolls of paper), Cadbury Schweppes (formerly Motts) food processing in Aspers (syrup/concentrate for juice products), Knouse food processors in Gardners (combination of processed and finished food products), and transport of soda ash (primarily bound to PPG) via a load transfer facility in Gardners. The freight operations transported approximately 2,300 rail cars in 2004. The local trend in freight transport demand has varied from relatively flat to a slight increase, while no major increase in freight demand is expected in the near future. Gettysburg Northern can be used for movement of "oversized" loads (last activity was transport of generators to Reliant Energy in Hunterstown), but this capability is not expected to be a major issue/demand in the future.

The 52 at-grade rail crossing sites over the two rail lines in Adams County are listed in Table 18.

TABLE 18: ADAMS COUNTY AT-GRADE RAIL CROSSINGS

Municipality	Cross-street	Railroad	Warning Type
Biglerville	East York Street	GB & Northern	Flashing lights
Biglerville	Hanover Street	GB & Northern	Flashing lights
Huntington	Peach Glen –Idaville Road	GB & Northern	Flashing lights
Tyrone	Gardners Station Road	GB & Northern	Flashing lights
Tyrone	Upper Bermudian Road	GB & Northern	Flashing lights
Menallen	Aspers North	GB & Northern	Flashing lights
Menallen	Nursery Road	GB & Northern	Cross bucks
Menallen	Center Mills Road	GB & Northern	Flashing lights
Menallen	Pond Road	GB & Northern	Flashing lights
Butler	Spankle Road	GB & Northern	Cross bucks
Butler	Guernsey Road	GB & Northern	Flashing lights
Butler	Rake Factory	GB & Northern	Flashing lights
Highland	Railroad Lane	CSX	Cross bucks
Franklin/Highland	Orrtanna	CSX	Flashing lights
Hamiltonban	Carrolls Tract Road	CSX	Flashing lights
Hamiltonban	Hickory Bridge Road	CSX	Stop signs

TABLE 18: ADAMS COUNTY AT-GRADE RAIL CROSSINGS

Municipality	Cross-street	Railroad	Warning Type
Hamiltonban	Cold Springs Road	CSX	Stop signs
Hamiltonban	Mount Hope Road	CSX	Flashing lights
Hamiltonban	Fairfield Station	CSX	Cross bucks
Hamiltonban	Fairfield Station	CSX	Flashing lights
Gettysburg	Fourth Street	CSX	Flashing lights
Gettysburg	Stratton Street	CSX	Flashing lights
Gettysburg	Carlisle Street	CSX	Gates
Gettysburg	Alley	CSX	None
Gettysburg	Washington Street	CSX	Flashing lights
Butler	Goldenville Road	GB & Northern	Flashing lights
Tyrone	Carlisle Road	GB & Northern	Flashing lights
Cumberland	Herrs Ridge Road	GB & Northern	Flashing lights
Cumberland	Mummasburg Road	GB & Northern	Flashing lights
Straban	Granite Station Road	CSX	Gates
Straban	Moose Road	CSX	Flashing lights
Straban	Flickinger Road	CSX	Flashing lights
Straban	Smith Road	CSX	Flashing lights
Straban	Shealer Road	CSX	Flashing lights
Straban	Hunterstown Road	CSX	Flashing lights
Cumberland	Herrs Ridge Road	CSX	Flashing lights
Franklin	Chambersburg Road (Rt 30)	CSX	Flashing lights
Franklin	Tillietown Road	CSX	Stop signs
Franklin/Highland	Silo Road	CSX	Cross bucks
Conewago	Kindig Lane	CSX	Gates
Conewago	Radio Road	CSX	Cross bucks
Oxford	Hanover Street	CSX	Flashing lights
New Oxford	College Avenue	CSX	Cross bucks
New Oxford	Hanover Street	CSX	Flashing lights
New Oxford	Lincoln Highway (Rt 30)	CSX	Flashing lights
New Oxford	Golden Lane	CSX	Stop signs
Oxford	Red Hill Road	CSX	Cross bucks
Oxford	Brickyard Road	CSX	Gates
Mount Pleasant	Fleshman Mill Road	CSX	Stop signs
Mount Pleasant	Brickcrafters Road	CSX	Flashing lights
Mount Pleasant	Swift Run Road	CSX	Stop signs
Straban	New Chester Road	CSX	Flashing lights
Hamiltonban	Iron Springs Road	CSX	Flashing lights

E. AVIATION

Adams County has three aviation facilities which provide general aviation air transport services. The largest aviation facility in the county, the Gettysburg Regional Airport is located in Cumberland Township just outside of Gettysburg Borough. The facility is classified as a general service airport with approximately 8,600 annual operations. The airport has one asphalt runway approximately 3,100 feet in length. Approximately 12-14 aircraft are based at the airport. Activities occurring at the airport include local pilot/aircraft operations, flight training, and aircraft maintenance and repair. Flight training services are provided by Cumberland Valley Aviation. The airport is used by air clubs throughout Pennsylvania, New York and New Jersey for weekend battlefield visits. Additionally, the airport is the home field for the Gettysburg Barnstormers, a recreational pilot group.

In 2006 the airport was purchased by the Susquehanna Area Regional Airport Authority (SARAA), which also owns and operates other regional airport facilities including the Harrisburg International Airport, Capital City Airport, and the Franklin County Regional Airport. To improve service, the airport completed a three-phase strategic plan to expand operations and improve existing facilities. Phase I involves the development of additional hangers and aircraft parking aprons. Phase II would provide a full parallel runway and small runway extension and widening to increase the runway to 3,317 feet by 75 feet and meet FAA standards. Additional hanger and apron improvements are forecast as part of Phase III.

The Mid-Atlantic Soaring Center Airport is classified as a general service airport with an asphalt runway approximately 2,700 feet in length. The airport is located in Liberty Township about two miles south of Fairfield. Operations at the airport are exclusively for private recreational flying.

The Southern Adams County Heliport, located in southern Cumberland Township, is classified as a general service airport with a concrete helicopter landing pad.

F. BICYCLE AND PEDESTRIAN TRAVEL

In 2001, Penn DOT designated and signed six cross-state bicycle routes, referred to as the “BicyclePA” system. The six BicyclePA routes use existing public roads and some rail trails to guide bicyclists through the state. These routes are designed for competent road bicyclists who may undertake a long distance cycle touring trip. Four interconnected routes traverse Adams County. Route 234 is designated as part of Pennsylvania Bicycle Route S, which runs from the West Virginia border east to the New Jersey border at the Delaware River in Washington Crossing, Bucks County, Pennsylvania. The route passes through the southern part of Pennsylvania, passing to the south of Pittsburgh through Adams, York and Lancaster Counties, and north of Philadelphia. BicyclePA Route S1 is a spur route which connects Route S in Arendtsville Borough, and runs southeast until it connects with BicyclePA Route J2 in Gettysburg Borough. Bike Route J2 is a spur route which connects to Route J in Harrisburg. It runs from the Mason Dixon Line north along SR 3001 (Old Harrisburg Road) through York Springs PA 94, SR 1004 (Latimore Road) and SR 1005 (Mountain Road) to the York/Adams County Line. The most recent addition to the PA Bike System in Adams County was BicyclePA Route JS. Established in 2013, JS is an east-west connector between Routes J and S. It runs from Arendtsville Borough to Hanover Junction in York County, where it connects with BicyclePA Route J on the York County Heritage Rail Trail.

Adams County has completed the first link in the North Gettysburg Area Trail System. This segment provides a walking and bicycling link between Gettysburg Borough and portions of Cumberland and Straban Townships. It links Gettysburg Borough with the Gettysburg Senior High School, the Gettysburg Campus of the Harrisburg Area

Community College, the Adams County Agricultural and Natural Resources Service Center, and surrounding residential neighborhoods. An extension of this route is currently being planned to complete the connection to the Gettysburg Area High School Campus, as well as provide safe access for nearby residents including SpiriTrust Lutheran Village. This project will also examine the potential of extending the existing bike lanes north to the intersection of Boyds School and Shealer Roads.

Beginning in 2007, the Gettysburg Borough Council voted unanimously to start identifying an inner loop bicycle trail for the Borough of Gettysburg. A multi-organizational cooperative worked to guide this project from its infancy to the development stages. As of 2017, the western portion of the Inner Loop will almost be completed with work beginning on the eastern portion of the trail shortly after.

TABLE 19: MEANS OF TRANSPORTATION TO WORK

	2010		2014	
Age Groups	Taxicab, Bicycle, Motorcycle, or Other Means	Walked	Taxicab, Bicycle, Motorcycle, or Other Means	Walked
16-19	51	353	43	236
20-24	28	475	60	776
25-44	227	370	238	378
45-54	128	329	92	225
55-59	61	198	55	152
60-64	14	126	18	74
65 and Over	23	121	55	113
Total	**532 *(151 Bicycle)***	**1,972**	**561 *(114 Bicycle)***	**1,954**

Source: United States Census Bureau; American Community Survey

Non-motorized means of transportation to work, specifically bicycle and pedestrian travel, have seen moderate declines amongst age groups 45-65 and over, while increases in pedestrian travel to work increased the highest for the 20-24 year age group. Bicycle transportation as a means of commuting to work decreased an estimated 24.5%, while pedestrian commuting decreased an estimated 1% from 2010-2014 (Table 19).

Other bicycle or pedestrian networks in and around Adams County include Michaux State Forest and Caledonia and Mont Alto State Parks on the county's western border (attractive to mountain bike enthusiasts), the Gettysburg National Military Park, and the York-Hanover Trolley trail, envisioned to connect Hanover Borough with West York Borough. On a local scale, Biglerville Borough extended a bicycle and pedestrian trail eastward connecting Oakside Park to the borough.

G. SPECIAL TRANSPORTATION MODES

In Adams County, the transportation system is also used extensively by the agricultural/orchard industry. Farmers must move equipment and agricultural products using the existing roadway network. Agricultural vehicles using the transportation system are predominantly experienced in the more rural areas of the county with the most frequent use found in the Fruitbelt on Northwest Adams County. However, equipment is often needs to be moved through some of the urban borough cores, such as Arendtsville, Biglerville, and East Berlin.

H. SAFETY

Based on historic data, crash statistics across Adams County have exhibited a rather consistent trend in terms of the number and character of crashes (Table 20). The number of crashes in the 2000s was slightly higher than the 1990s, which is attributable to increasing population and travel demand, with an accompanying slight increase in the average number of fatal crashes and traffic deaths. From 2013 to 2015 there was an inverse relationship between number of accidents and fatalities in Adams County. As the total number of accidents decreased, the number of fatalities increased. In comparison with the state as a whole, fatal and injury crash trends for Pennsylvania have also remained fairly consistent over the analysis period, however the average number of total crashes has decreased slightly (Table 21).

TABLE 20: ADAMS COUNTY CRASH STATISTICS 2005-2015

Category	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total crashes	1,025	974	1,061	1,034	1,158	1,007	1,076	995	1,063	1,026	990
Fatal crashes	25	16	17	21	21	14	12	13	5	6	14
Injury crashes	505	468	525	485	566	473	486	444	489	452	394
PDO crashes	495	490	519	528	571	520	578	538	569	568	582
Traffic deaths	27	19	17	22	22	16	16	14	5	6	14
Pedestrian deaths	0	0	2	1	3	0	0	0	1	1	0
Alcohol-related deaths	13	9	3	8	11	7	4	8	3	1	2
% of seatbelt use in crashes	78%	83%	85%	83%	87%	86%	86%	85%	87%	86%	86%

Note: PDO = Property Damage Only, Source: Penn DOT Annual Pennsylvania Crash Facts and Statistics

TABLE 21: PENNSYLVANIA CRASH STATISTICS 2005-2015

Category	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total crashes	132,829	128,342	130,675	125,327	121,242	121,312	125,395	124,092	124,149	121,317	127,127
Fatal crashes	1,497	1,409	1,393	1,358	1,143	1,208	1,191	1,211	1,117	1,107	1,102
Injury crashes	70,000	67,439	66,833	63,449	61,875	62,666	62,788	62,127	59,917	57,652	59,287
PDO crashes	61,332	59,494	62,449	60,520	58,224	57,438	61,416	60,754	63,115	62,558	66,738
Traffic deaths	1,616	1,525	1,491	1,468	1,256	1,324	1,286	1,310	1,200	1,195	1,200
Pedestrian deaths	162	170	155	142	136	148	149	168	151	166	153
Alcohol-related deaths	580	545	535	534	449	459	428	404	381	333	345

TABLE 21: PENNSYLVANIA CRASH STATISTICS 2005-2015

Category	Year										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
% of seatbelt use in crashes	73%	73%	75%	76%	77%	77%	78%	78%	78%	79%	80%

Note: PDO = Property Damage Only, Source: Penn DOT Annual Pennsylvania Crash Facts and Statistics

TABLE 22: BICYCLE AND PEDESTRIAN CRASHES

Mode of Transportation	Year											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg/ Yr
Bicycle Crashes	8	2	8	7	4	3	6	5	5	1	4	5.3
Pedestrian Accidents	15	12	15	13	17	11	19	11	12	11	15	15.1

Bicycle and pedestrian accidents have averaged 5.3 and 15.1 incidents per year, respectively from 2005 – 2015 (Table 22). Safety concerns remain a high priority for non-motorized transportation methods and there are several ways to combat the numbers. First, upgrade roadways and intersections to better accommodate bicyclists. Second, improve pedestrian crossing signage. Third, work with municipalities to identify problem areas and create solutions to reduce non-motorized accidents.

From a physical standpoint, safety concerns include roadways which exhibit a significant discrepancy between their designed function and the travel demands placed on them by surrounding land use and travel patterns. One example would be older rural roadways designed to provide access to farm properties that often become local "bypass" routes for commuters and residents as primary travel routes become congested. These rural roadways generally have reduced visibility in certain areas, poor lane markings and signage, and horizontal and vertical alignments which reduce the effective speed of travel.

Motorists on congested roadways can become impatient and take more risks when driving. These decisions increase the potential for rear-end collisions or side-swipe conditions were drivers making left turns strike a vehicle coming through an intersection. Other notable safety concerns that can cause unsafe traffic movements include, generational difference in travel speeds, increased use of motorcycles, presence of high truck volumes, poor sight distances on local roads and at some intersections, and long distance commuter travel versus local trip makers.

While there are numerous infrastructure conditions throughout the county which affect motorist and pedestrian safety, most accidents, especially those involving injuries or fatalities, appear to be most closely related to certain overriding factors. These include:

- Unsafe driving speeds
- Driver inattention/error

- Lack of seatbelt use

Other safety issues of significance countywide include:

- Increased instances of automobiles illegally passing stopped school buses.
- Drivers not properly yielding to emergency vehicles, ignore emergency personnel instructions or directions, and not following established detours
- Higher numbers of pedestrian and bicycle crossing conflicts, particularly in downtown settings.

CHAPTER 6

GOALS, OBJECTIVES, AND FEDERAL PLANNING FACTORS

In preparing this joint planning document, Adams County has sought to meet a number of transportation related goals that will provide an important context for the development of complementary elements of the transportation element of the Adams County Comprehensive Plan and the LRTP.

The specific goals of the plan are:

- Evaluate existing comprehensive plan data and recommendations pertaining to transportation planning and to identify an adequate policy framework for future update strategies.
- Assess the current transportation system in terms of accessibility, use, capacity, connectivity, energy efficiency, and safety especially with regard to the future fiscal health of Adams County community revitalization and sustainability and the demands of alternative future growth scenarios.
- Identify, through broad public participation and citizen involvement approaches, emerging social and economic issues which generate special needs upon the county's transportation system.
- Evaluate the future transportation demands on the county transportation system, in response to emerging land use and socioeconomic trends which will directly affect system capacity and performance.
- Identify the need and opportunity for enhanced public transit service in Adams County and to construct a policy decision-making framework to address this issue.
- Identify needs and opportunities for increased development of pedestrian and bicycle modes of transport within the county.

Current federal transportation law identifies ten federal planning factors that were considered to help guide the development of the comprehensive plan transportation component and the corresponding LRTP plans. Each planning factor relates to areas of importance across the breadth of national, state and local transportation concerns.

The federal planning factors integrated in development of this LRTP are:

- ECONOMIC VITALITY: Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.
- SAFETY: Increase the safety of the transportation system for motorized and non-motorized users.
- MOBILITY: Increase accessibility and mobility for people and for freight.
- PROTECT AND ENHANCE THE ENVIRONMENT: Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.

- INTEGRATION AND CONNECTIVITY: Enhance the integration and connectivity of the transportation system across and between modes, for people and freight.
- EFFICIENT SYSTEM MANAGEMENT AND OPERATION: Promote efficient system management and operation.
- SYSTEM PRESERVATION: Emphasize the preservation of the existing transportation system.
- SECURITY: Increase the security of the transportation system for motorized and non-motorized users.
- RESILIENCY: Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- ENHANCE TRAVEL AND TOURISM: Identify and enhance important tourism areas related to the location of the transportation system of Adams County.

Finally, the Pennsylvania Keystone Principles also guided the development of future transportation policies to help ensure sustainability for Adams County in its broadest nature.

The Keystone Principles considered in the development of this LRTP are:

- REDEVELOP FIRST
- PROVIDE EFFICIENT INFRASTRUCTURE
- CONCENTRATE DEVELOPMENT
- INCREASE JOB OPPORTUNITIES
- FOSTER SUSTAINABLE BUSINESSES
- RESTORE AND ENHANCE THE ENVIRONMENT
- ENHANCE RECREATIONAL AND HERITAGE RESOURCES
- EXPAND HOUSING OPPORTUNITIES
- PLAN REGIONALLY, IMPLEMENT LOCALLY
- BE FAIR

These factors and principles were influential in the development of the comprehensive plan transportation element and the LRTP. They were used to identify transportation needs, prepare transportation policies, develop selection criteria, and evaluate future funding levels. The goals and objectives, key community-wide planning factors and federal planning factors are discussed in depth, with recommendations, in Appendix A.

CHAPTER 7

PROJECTED TRANSPORTATION NETWORK NEEDS

An important first step in preparing an LRTP is a review of the existing condition of transportation network. A comprehensive overview of the status and performance of the network transportation system is provided in Chapter 5, Transportation System of the Adams County Comprehensive Plan Transportation Element. The second step is to identify future network needs and estimate their cost. For the purposes of this LRTP document, several guidelines were used during the process. These include:

- Needs were evaluated over a 24 year period (2017-2040).
- The needs were not constrained by available or projected revenues.
- Future costs were projected under three financial scenarios. First, a baseline cost was established in current dollars. Next, annual inflation rates of 5% and 10% were used to estimate future costs. Due to a projected 4% increase in Pennsylvania State Police (PSP) funding, as well as uncertainty related to future PSP funding allocations, the anticipated future maintenance costs vary greatly from the previous LRTP.
- Several funding categories have been excluded from this LRTP update including Enhancements, Bridge Bonds, Act 44, Rail Safety, and Discretionary Spending.
- Cost estimates for locally-owned road facilities were not included as the primary local funding source (i.e. Municipal Liquid Fuels funds) is outside the direct influence of ACTPO.
- Aviation, rail, and transit needs were not included in any cost estimates. Aviation and rail improvements are primarily funded by sources external to the TIP and, therefore, are outside of the normal scope of ACTPO. Transit needs, while ordinarily funded through the TIP, were not included due to the uncertainty surrounding future service funding availability.

A. HIGHWAY MAINTENANCE

When projecting anticipated costs for routine highway maintenance work, only state-owned roads were considered. Local roads were not included in the projections, as the primary funding source for local portions of the network (Municipal Liquid Fuels funds) is beyond ACTPO's direct control. Also not included were maintenance activities on traffic signals, road signs and snow removal. Bridges were calculated separately from roadway elements.

When preparing cost projections, state-owned roads were classified into three distinct categories: National Highway System (NHS) roads (i.e. U.S. Route 15, U.S. Route 30 and PA Route 94), other roads with greater than 2,000 Average Daily Traffic (ADT), and roads with less than 2,000 ADT. For each roadway category, an average baseline cost per mile (including resurfacing, pavement markings, drainage system repairs and other upgrades) and a typical maintenance cycle was assigned to calculate future maintenance costs (Table 23-25; Appendix B).

TABLE 23: HIGHWAY MAINTENANCE COST PROJECTION CRITERIA

Roadway	Average baseline construction cost per mile	Typical maintenance cycle
National Highway System roads	$700,000	15 years
Other roads with greater than 2,000 vehicles ADT	$500,000	15 years
Road with less than 2,000 vehicles ADT	$300,000	10 years

Source: Penn DOT

B. BRIDGES

Anticipated costs for bridge rehabilitations, replacements, and preservation activities were calculated for state bridges over 8 feet and local bridges over 20 feet in length. Culverts and bridges, either state or local under 8 feet or 20 feet respectively, were not counted.

For state and local bridges, three separate components were calculated. First, the existing square footage of structurally deficient bridge deck area was compiled using publically available bridge condition reports. This figure was then pro-rated over a 24 year period. An average baseline cost per square foot of $800 for state bridges and $500 cost per square foot for local bridges was then applied.

Second, a review of the bridge condition reports was done and all bridges with at least one structural component with a rating of 5 (out of 10) were identified. These bridges were deemed the most at risk of becoming structurally deficient.

Finally, an assumption was made that bridge preservation activities would be performed on all bridges at a rate of 4% of total bridge deck area per year. An average baseline cost per square foot of $250 for state bridge preservation activities and $70 per square foot for local bridges was then applied.

C. CONGESTION MANAGEMENT

Congestion management projects often have design and construction timelines that stretch well past a typical bridge or highway maintenance project or even the time horizon of an LRTP. Because of this, efforts to project estimated costs to deliver congestion management projects were completed only for projects currently at some stage of the project design process. These cost estimates were based on information provided by PennDOT. Two congestion management projects were used.

- US 15/30 Interchange - $30,000,000 (Final Design, Right-of-way, Utilities and Construction Phases)
- Eisenhower Parkway Extension - $17,625,000 (All Phases)

While project costs were not developed for projects still in the planning study or conceptual phases, an average of $10,000,000 per mile would be a reasonable starting point to estimate engineering, right-of-way, utility relocation, and construction costs for a new road connection.

D. INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) encompasses a broad range of technologies that help monitor and manage traffic flow, reduce congestion, and enhance safety. Examples include safety enhancements, integrated signal systems, traffic video/control technologies, variable message signs, etc. The installation cost of a new ITS network can range from $250,000 for a new multi-signal control system to over $1,000,000 for a larger system involving variable message signs. Yearly operational costs of an ITS system can range from $50,000 to $75,000 per year. Also included here are projects to retrofit existing traffic signals to increase operation efficiency (i.e. replacing incandescent bulbs with LED's). A cost estimate of $80,000 to retrofit an existing signal to LED's was assessed for each existing signal in Adams County. Finally, an assumption was made that, on average, one new traffic signal, at an estimated $150,000 each, would be installed every three years over the span of the LRTP. These new signals would be identified by Road Safety Audits or as part of new ITS network installations.

E. TRANSIT

Funding for public transit systems and non-motorized transportation are distributed by formula to MPO's/RPO's and transit providers by formula. At present, Freedom Transit system is operating as a pilot program with operational funds from the Adams County TIP. At such time that an allocation of transit funds is provided, those funds will be allocated for operating assistance, new vehicles and other transit facility related improvements. As such, specific projects and cost estimates were not identified.

F. NON-MOTORIZED

Adams County does not receive a direct allocation of funds for non-motorized improvements, as the Transportation Enhancements program has now become the Transportation Alternatives Grant program. Additionally, statewide competitive funds for Home Town Streets/Safe Routes to Schools and Multimodal Transportation Grants are available. Future non-motorized projects should be consistent with the ten federal planning factors identified in Appendix A. Since such projects are typically identified and completed by a local sponsor, specific projects and cost estimates were not identified.

G. AVIATION / RAIL FREIGHT

Funding for aviation and rail freight projects fall outside the TIP but are included in PennDOT's Statewide Twelve Year Program (TYP). Facilities in Adams County have received such funding in the past. However, since these funds are distributed on a competitive basis from a statewide pot of funds, no projects or cost estimates have been prepared. Should future funding sources for aviation and/or rail freight be allocated directly to the Adams County TIP, those funds shall be reserved for projects identified cooperatively with aviation and rail freight providers operating in the County.

H. FUTURE NETWORK COSTS

The LRTP has identified $1,002,702,024 in transportation improvements (in 2017 dollars) over the span of the plan. Adjusting for inflation and pre-construction related costs, this estimate rises to $3,633,701,229 over the LRTP time frame. Detailed cost projections for future Highway Maintenance, and State Bridge and Local Bridge Maintenance and Preservation. ITS costs have not been projected as of this draft. Projected costs are not shown for Transit due to the newness of the Freedom Transit system. Projected costs are not shown for Aviation, Rail Freight, and Non-Motorized modes as their funding is allocated outside of the Adams County TIP or by formula (Table 24).

TABLE 24: TRANSPORTATION NETWORK COST PROJECTIONS

Network Mode	Projected Costs	
	2017 ($)	2017 ($) + 10%
Highway Maintenance	$596,001,600	$2,197,689,514
State Bridge Maintenance	$60,137,472	$221,750,230
State Bridge Preservation	$291,522,192	$1,074,955,612
Local Bridge Maintenance	$3,806,880	$14,037,446
Local Bridge Preservation	$27,548,880	$101,583,427
Congestion Management	$23,685,000	$23,685,000
Transit	$0	$0
Aviation/Rail Freight/Non-motorized	$0	$0
TOTAL	**$1,002,702,024**	**$3,633,701,229**

Source: Projections based on information provided by Penn DOT. See Appendix A for details.

CHAPTER 8

FUTURE LONG RANGE TRANSPORTATION PLAN FUNDING

Based on federal law, the LRTP must be "financially constrained" and include a financial plan to demonstrate the amount of revenue expected over the life of the LRTP. Fiscal constraint of the LRTP means that the LRTP includes sufficient financial information for demonstrating that proposed projects can be implemented using committed, available or reasonably available revenue sources that existed in the base year of the LRTP.

A second purpose of the LRTP is to provide assurance that the federally supported transportation system is being adequately operated and maintained. This requirement applies to each program year of the LRTP for a planning horizon of not less than 20 years. The plan must estimate the level of funding that can reasonably be expected over that period, and it must show how planned projects can be accommodated within the period of financial constraint.

Adams County's LRTP time horizon spans 2017-2040. The LRTP revenue baseline was developed using historical PennDOT Transportation Financial Guidance as a base. The first four years of the LRTP projections reflect the 2017-2020 Transportation Improvement Program (TIP) adopted by ACTPO. Total revenues were projected to 2040. A 4-percent annual growth rate was assumed for all federal sources. State funds were based on the most recent estimates by PennDOT's Bureau of Fiscal Management.

While existing financial guidance and historical funding trends for Adams County were used to project available revenues for 2017-2040, several state and national issues of concern may potentially alter the composition of these future revenue sources. These include:

- Act 89- On Nov. 25, 2013, House Bill 1060 was signed into law, creating Pennsylvania's most comprehensive piece of state transportation legislation in decades. This legislation invests an additional $2.3 billion to $2.4 billion into transportation by the fifth year of the plan. Partial funding for the new transportation package is being derived from the elimination of the flat 12-cent gas tax and modernizing an outdated transportation financing structure through the uncapping of the wholesale, Oil Company Franchise Tax.

- MAP-21, the Moving Ahead for Progress in the 21st Century Act was signed into law by President Obama on July 6, 2012. Funding surface transportation programs at over $105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005. MAP-21 was a milestone for the U.S. economy and the Nation's surface transportation program. By transforming the policy and programmatic framework for investments to guide the system's growth and development, MAP-21 created a streamlined and performance-based surface transportation program and built on many of the highway, transit, bike, and pedestrian programs and policies established in 1991 from SAFETEA-LU..

- FAST Act- On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes $305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and

statistics programs. The FAST Act maintains a focus on safety, keeps intact the established structure of the various highway-related programs managed by the FHWA, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects. With the enactment of the FAST Act, states and local governments are now moving forward with critical transportation projects with the confidence that they will have a federal partner over the long term.

- The LRTP revenue projections also include funding levels based on the existing level of revenues generated from the state and federal gasoline tax. The amount generated has been decreasing steadily over the past few years as people drive less and new, more fuel efficient vehicles are produced. The dip in gas tax revenues affects both state and federal revenue sources. As of January 1, 2017, the Pa State Gas Tax rose 8 cents per gallon, totaling 58 cents per gallon, as a way to mitigate a lack of funding for road and bridge projects.

A. FUNDING PROJECTIONS

Given the historical trends, existing financial guidance and future issues of concern, one future revenue scenario was developed. This scenario represents anticipated revenues over the next 25 years with a 4% inflation rate for all Federal Funds. One scenario was considered after legislative action from the General Assembly capped expenditures from the Motor License Fund going toward the State Police budget. Beginning with the 2018-2019 budget and concluding with the 2027-2028 budget, the PSP allotted budget is $802 million as of 2018-2019 and will decrease 4% over the next 10 years until it is capped at $500 million. Over the next decade, an additional $2.1 billion will be accrued from these savings, of which $1 billion will be allocated towards county maintenance to support basic preservation needs. The other $1.1 billion will be directed toward highway and bridge capital projects with $500 million allocated to an Interstate preservation and reconstruction program, and the remaining $600 million going toward highway and bridge capital projects, with priority given to rehabilitation and reconstruction needs identified through PennDOT district and regional planning efforts.

B. FUTURE FUNDING ALLOCATION

After determining the future transportation funding scenario, the next step involves determining the best mixture of those transportation funds over the next 25 years. The mixture constitutes the recommendation for the best transportation system within limited financial resources. The identified amounts would not be a year-by-year guidance, but a total distribution over the next 25 years (Table 25).

(1) 2017-2020 TIP ($54,976,486)

The first four years of the LRTP coincide with the adopted 2017-2020 TIP. This represents the only portion of LRTP with specific funding amounts allocated to specific projects. As such, the funding identified on the adopted TIP is reflected in the total projected LRTP transportation funding ($353,163,000). However, since these 2017-2020 funds are already tied to specific projects, they are not included below when allocating funds to specific improvement categories or when calculating percentages of total LRTP funding. A list of projects and funding amounts for the 2017-2020 TIP are listed in Appendix D.

(2) HIGHWAY MAINTENANCE ($182,339,000)

The $182,339,000 allocated for highway maintenance represents 54% of all projected transportation funds over the span of the LRTP. This provides an average of $7,597,458 per year towards maintaining the existing roadway system in Adams County.

(3) BRIDGES ($39,769,000)

A total of $39,769,000 has been allocated for bridge related improvements. This represents 11. % of all projected transportation funds over the span of the LRTP. This provides an average of $1,657,041 per year towards maintaining the state and local bridge networks in Adams County, split between minor bridge rehabilitations, major bridge rehabilitations, and full bridge replacements.

(4) CAPACITY ($57,369,000)

The $57,369,000 allocated towards capacity improvements represents 17.% of all projected transportation funds over the span of the LRTP. Of the candidate capacity projects identified, two reached a point in the programming and project design process where a cost estimate was prepared. The proposed allocation would be sufficient to entirely fund one of these projects. However, it should be noted that many maintenance and safety related improvements could address congestion issues through the normal project engineering and design process. Given ACTPO's allocation level in relation to other MPOs and RPOs, large scale capacity projects should be pursued through other funding avenues, including Public-Private Partnerships and legislative initiatives.

(5) SAFETY ($35,351,000)

The allocated amount for safety improvements is identified by formula. The LRTP does not identify specific cost for potential safety projects. This is partly due to the federal eligibility requirements for safety funds, focusing primarily on reducing fatalities, and partly to the close held nature of accident data. While these funds should be allocated to locations with higher than average injury and fatality rates, it is important to note that many crashes can be attributed to by factors other than the design or maintenance of the roadway. Efforts should be made to increase driver education programs, as well as to modify roadway design elements, which contribute to unsafe or inattentive driving behaviors.

(6) RAIL ($0)

Adams County does not receive a direct rail funding for operations or maintenance through ACTPO. Hence, no funding has been identified within the LRTP.

(7) TRANSIT ($0)

Adams County does not currently receive direct transit funding for operation assistance through ACTPO. Therefore, no funding for transit operations has been identified within the LRTP. However, should a fixed-route transit system qualify for operation assistance funding through the TIP/LRTP financial guidance, those funds will be allocated towards transit projects identified by ACTPO and the transit provider and added to the LRTP.

(8) AVIATION ($0)

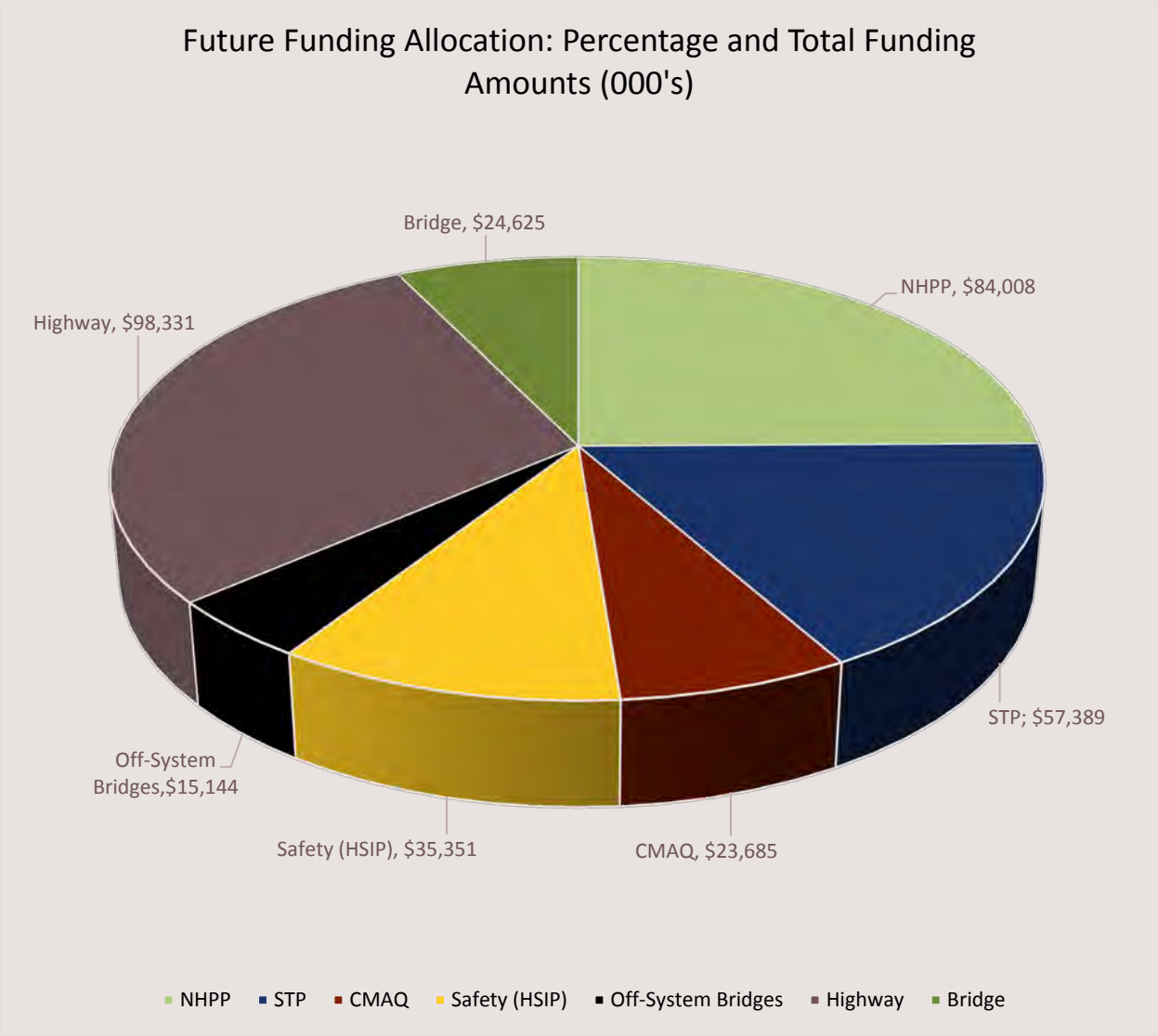
Aviation does not currently receive funding through ACTPO and no funding is identified for the future.

(9) AIR QUALITY ($23,685,000)

Many projects that are completed under categories other than Air Quality have pollution reducing or air quality benefits. Intersection safety upgrades, Intelligent Transportation Systems (ITS), and certain maintenance and capacity improvements all can improve air quality. Fiscal constraints being what they are, air quality benefits are often a secondary benefit rather than the primary purpose for pursuing a specific project. The impact of a potential project on Air Quality should be considered as an important component of future project selection.

TABLE 25: 2017-2040 FUNDING PROJECTIONS

	Federal Funds					State Funds		Total Funds
Year	NHPP	STP	CMAQ	Safety (HSIP)	Off-System Bridges	Highway	Bridge	MPO Funds
2017	2,182	1,570	633	961	631	4,811	1,452	12,240
2018	2,254	1,595	648	978	631	5,102	1,533	12,741
2019	2,334	1,615	633	995	631	4,208	934	11,350
2020	2,416	1,645	681	1,014	631	3,772	816	10,975
2021	2,513	1,711	708	1,055	631	3,814	846	11,277
2022	2,613	1,779	737	1,097	631	3,856	876	11,589
2023	2,718	1,850	766	1,141	631	3,898	906	11,910
2024	2,826	1,924	797	1,186	631	3,940	936	12,241
2025	2,939	2,001	829	1,234	631	3,982	966	12,582
2026	3,057	2,081	862	1,283	631	4,024	996	12,934
2027	3,179	2,165	896	1,334	631	4,066	1,026	13,298
2028	3,306	2,251	932	1,388	631	4,066	1,026	13,600
2029	3,439	2,341	969	1,443	631	4,066	1,026	13,916
2030	3,576	2,435	1,008	1,501	631	4,066	1,026	14,243
2031	3,719	2,532	1,048	1,561	631	4,066	1,026	14,584
2032	3,868	2,634	1,090	1,623	631	4,066	1,026	14,939
2033	4,023	2,739	1,134	1,688	631	4,066	1,026	15,307
2034	4,184	2,849	1,179	1,756	631	4,066	1,026	15,691
2035	4,351	2,963	1,226	1,826	631	4,066	1,026	16,089
2036	4,525	3,081	1,276	1,899	631	4,066	1,026	16,504
2037	4,706	3,204	1,327	1,975	631	4,066	1,026	16,935
2038	4,894	3,332	1,380	2,054	631	4,066	1,026	17,384
2039	5,090	3,466	1,435	2,136	631	4,066	1,026	17,850
2040	5,294	3,604	1,492	2,222	631	4,066	1,026	18,335
Totals	**$84,008**	**$57,369**	**$23,685**	**$35,351**	**$15,144**	**$98,331**	**$24,625**	**$338,513**
% of Total	**25%**	**17%**	**7%**	**10%**	**4%**	**29%**	**7%**	**100%**


Future Funding Allocation: Percentage and Total Funding Amounts (000's)
Bridge, $24,625
NHPP, $84,008
Highway, $98,331
STP; $57,389
Off-System Bridges,$15,144
Safety (HSIP), $35,351
CMAQ, $23,685
NHPP
STP
CMAQ
Safety (HSIP)
Off-System Bridges
Highway
Bridge

CHAPTER 9

REDUCING THE FUNDING GAP

The over $1 billion in future transportation system improvements identified in Chapter 7 is more than $2 billion higher than the $338 million in projected funding over the span of the LRTP. Due to the size of this funding shortfall, a range of alternative funding and policy methods are needed to close the gap between system needs and available funds. These methods range from policy recommendations to increased use of supplemental state, local and private funding sources. Some of these methods include:

A. MUNICIPAL LIQUID FUELS ALLOCATIONS

In Pennsylvania, townships, boroughs, and counties receive an annual allocation of funds from PennDOT through the Municipal Liquid Fuels Program and the County Liquid Fuels Program. Townships and boroughs use these funds to support equipment purchases and construction, reconstruction, maintenance, and repair of public roads and bridges. County Liquid Fuels funds are used to support construction, reconstruction, maintenance, and repair of county-owned roads and bridges. The exact allocation received is based on a municipality's population and miles of eligible roads. Roads must be a minimum of 16' wide, at least 250' in length and maintained to a condition that allows a vehicle to drive safely at 15 miles per hour. While most of these funds will be used for annual maintenance, these funds could play a role in reducing the gap in funding necessary to maintain the county's transportation network. For example, liquid fuels funds could be used as matching funds to leverage state and federal bridge funds to repair and/or replace a larger number of municipal bridges.

B. PUBLIC PRIVATE PARTNERSHIPS

Federal agencies, including the FHWA and the FTA, and PennDOT encourage the consideration of public-private partnerships (P3s) in the development of transportation improvements. Early involvement of the private sector can bring creativity, efficiency, and capital to address complex transportation problems facing state and local governments. Public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects. Public-private partnerships (P3s) can take many forms, but commonly are associated with congestion management and travel demand improvements, often involving toll facilities.

C. TRANSPORTATION IMPACT FEES

Traditionally, municipalities in Pennsylvania have relied on federal, state and, in some instances, county funding to provide major upgrades to their transportation system. An additional tool available to municipalities for funding transportation improvements involves the enactment of impact fees. Acts 203 and 209 of 1990 provide municipalities with the legal authority to assess impact fees on developers for transportation improvements. These laws authorize the use of impact fees for improvements that are included in a municipality's Transportation Capital Improvements Program.

The costs of enhancing the transportation network, which are attributable to development, including acquisition of lands and rights-of-way, legal costs, engineering and planning costs, debt service, and any other cost directly

related to road improvements within identified service areas may be paid for with these fees. In short, developers can be required to contribute to projects that may not lie directly adjacent to their site. These are costs that cannot be assessed without using the options listed in Pennsylvania's impact fee legislation. Although impact fees can be a powerful tool for raising funds needed to pay for transportation improvements, they are only occasionally used to implement comprehensive transportation improvement programs in Pennsylvania. This is most likely due to the lengthy and expensive process that must be adhered to before an impact fee ordinance can be adopted and before fees can be assessed. Some municipalities consider the up-front costs associated with implementing an impact fee assessment ordinance to be too costly. However, if a municipality expects to accommodate substantial new development in the future, these costs can usually be recouped through increased efficiency of the transportation system, enhanced mobility and lower fuel costs, and a more competitive environment for municipalities that desire additional jobs and tax base enhancements. The county should work with local municipalities to educate them on their ability to assess impact fees.

In Adams County, the townships of Cumberland, Franklin, Mount Joy and Straban currently have an established Transportation Impact Fee Ordinance and program. These are among the county's largest municipalities, and several are located along the U.S. Route 15 corridor, a location which is conducive to future investment and development. However, other municipalities which host major transportation network components or which are confronting growing congestion challenges have not established a program.

D. DEVELOPER CONTRIBUTIONS

Even without an impact fee ordinance, developers can be required to mitigate the effects of the traffic generated by new development on roadways directly bordering a project site. Municipalities should be encouraged to require appropriate traffic studies identifying effects of new development on the transportation network. Subsequent roadway and signal improvements should be required of the developer for each new development project. Municipal officials should also be hesitant in granting waivers or accepting fees in lieu of required transportation improvements.

Additionally, municipal officials should encourage developers working on adjacent sites to pool their resources to make necessary roadway upgrades. Subdivision and land development ordinances can provide oversight and control of new development, and they can help local officials to negotiate necessary roadway and other public improvements with developers. This can be an especially effective approach for encouraging economic development. An example of this approach was used in the planning, design and construction of the Route 97 interchange on Route 15 in Adams County. The developers of the Outlet Shoppes at Gettysburg agreed to design and construct necessary bridge and roadway improvements using private funds to support this large commercial development. This arrangement allowed the roadway improvement to be expedited by using only private funding and the benefits of the economic development to be more quickly put in place, a benefit for both the private side and Mount Joy Township/Adams County.

E. OTHER OPPORTUNITIES TO REDUCE THE FUNDING GAP

- Municipalities should produce and implement a five or ten year bridge plan to address preservation methods and preventative maintenance options to reduce expensive rehabilitation and replacement projects.
- Reduce the impacts of capacity-related issues through reducing the use of single-occupancy vehicles through Commuter Services of South Central Pennsylvania, expanded transit services, and ridesharing programs.

- Coordinate non-motorized transportation enhancements with grant programs such as Community Development Block Grant (CDBG), the Department of Conservation and Natural Resources (DCNR), as well as local non-profit organizations.
- Completion of the Adams County Bicycle and Pedestrian will provide implementation tools for municipalities to use relative to non-motorized transportation enhancements.
- Improve coordination with PennDOT, CDBG program, and other projects to reduce duplication of projects.

CHAPTER 10

CAPITAL IMPROVEMENTS PLAN

One of the primary components of the Adams County Long Range Transportation Plan (LRTP) is a Capital Improvements Plan (CIP) which identifies planned capital investments to the County's transportation network. To remain consistent with the FAST Act, as well as the precedents set forth by SAFETEA-LU and MAP- 21, the LRTP must cover a timeframe of at least twenty (20) years. This plan covers 2017-2040, a span of twenty-four (24) years. This ensures that the plan will remain consistent with the guidelines established in the FAST Act until the next update of the LRTP in 2020.

The first four years of the CIP corresponds to the 2017-2020 Adams County Transportation Improvement Program (TIP). The TIP allocates funding to project phases for bridges, highways, transit and other transportation system improvements. Since the TIP is routinely modified based on cost savings or increases in construction bids, project delays, and changes in projected funding or policy decisions, the projects it contains are included in this CIP. The CIP places the rest of the projected funding for the remaining 2021-2040 portion of the LRTP in general line items rather than allocating those funds to specific projects. The CIP Chart shown in this chapter provides the line item amounts broken down by category and timeframe. This was done because the fluid nature of federal and state transportation funding sources, as well as the complex nature of project delivery, makes linking a specific project starting point and overall funding amount to an as yet undefined project difficult. Instead, candidate highway, bridge, and congestion management projects have been placed into lists for future consideration. These lists are not intended to be comprehensive. Rather, they show projects already identified by a previous planning process. Additional projects will be added as identified by future studies and/or changing transportation system conditions. The selection criteria and processes identified in Chapter 8 will be used to select projects from those lists when appropriate.

A. HIGHWAY MAINTENANCE CANDIDATES

The following highway-related improvements have been identified as candidate projects for the Adams County LRTP Capital Improvements Plan. These projects are not yet programmed to be completed. They constitute a list of projects that have been identified through a previous planning process. The resurfacing projects listed in Table 26 have been taken from IRI and OPI data provided by PennDOT RMS data. This list of projects will be reviewed when financial capacity is available to implement new projects.

TABLE 26: ROAD RESURFACING CORRIDORS

Road Resurfacing Corridors		
Route #	Grouped SR Segments	Functional Class
30	200-273	Principal Arterial
34	170-280	Minor Arterial
94	50-90	Principal Arterial
94	250-340	Principal Arterial
97	110-190	Principal Arterial
194	10-70	Minor Arterial
194	250-330	Minor Arterial
234	10-120	Major Collector
234	300-390	Minor Arterial
394	50-110	Minor Collector
1003	10-60	Local
1004	10-80	Local
1005	140-170	Local
1008	10-80	Local
1013	10-60	Local
1014	20-120	Local
1015	2-250	Minor/Major Collector
1016	10-134	Local
1019	60-130	Major Collector
2001	50-130	Local
2003	10-60	Local
2005	10-60	Major Collector
2008	10-100	Local/Major Collector
2012	10-80	Local
2014	40-160	Minor Collector
2016	10-70	Local
2029	10-80	Local
2033	10-70	Local
3001	170-210	Minor Arterial
3004	20-90	Local
3007	20-120	Local
3010	10-100	Local
3014	10-110	Minor Collector
4001	10-100	Minor Collector
4005	10-60	Local
4006	10-160	Local
4008	10-90	Local
4012	10-100	Local

B. BRIDGE CANDIDATES

The following bridge improvements have been identified as candidate projects for the Adams County LRTP CIP. These projects are not yet programmed to be completed. They constitute a list of projects that have been identified through a previous planning process. This list of projects will be reviewed when financial capacity is available to implement new projects.

TABLE 27: BRIDGE CANDIDATE PROJECTS

Adams County Bridge Candidate Projects									
Bridge ID	Bridge Rank	MPMS #	Route #	Segment #	Begin_ Offset	Project Name	Municipality	Project Description	Project Origin
40	88	99781	30	30	1525	Chambersburg Road Bridge	Franklin	Bridge Replacement	2nd Four Years TYP
53	122	99830	30	420	723	York Road Bridge over Brush Run	Mt Pleasant	Bridge Replacement	2nd Four Years TYP
57	95	99784	30	530	0	York Road Bridge over Pine Run	Hamilton, Berwick	Bridge Replacement	2nd Four Years TYP
115	128	99812	116	460	3326	Plum Creek Bridge	McSherrystown, Conewago	Bridge Replacement	2nd Four Years TYP
176	222	90699	1005	300	271	Latimore Creek Bridge	Latimore	Bridge Replacement	2nd Four Years TYP
171	270	99662	1005	110	0	Lake Meade Road Bridge PM	Latimore	Bridge Maintenance	2nd Four Years TYP
178	217	99720	1007	90	1558	Braggtown Road Bridge PM	Latimore	Bridge Maintenance	2nd Four Years TYP
168	35	90698	394	240	1097	Conewago Creek Bridge	Straban	Bridge Replacement	2nd Four Years TYP
204	215	90702	1019	70	0	Pine Run Road Bridge	Hamilton	Bridge Replacement	2nd Four Years TYP
208	67	90707	1020	60	0	Bermudian Creek Bridge	Huntington	Bridge Replacement	2nd Four Years TYP
213	77	90727	1020	120	1094	Trib to Latimore Creek	Huntington	Bridge Replacement	2nd Four Years TYP
235	155	78651	2006	220	0	Plum Creek Brdg	Conewago	Bridge Preservation	2nd Four Years TYP
234	152	99743	2006	170	826	Centennial Road Bridge PM	Mt Pleasant, Conewago	Bridge Preservation	2nd Four Years TYP
246	168	90740	2014	60	704	Alloway Creek Bridge	Germany	Bridge Replacement	2nd Four Years TYP
249	213	99751	2015	40	0	Brickcrafters Road Bridge	Straban	Bridge Preservation	2nd Four Years TYP
250	79	99751	2015	40	1065	Brickcrafters Road Bridge	Mt. Pleasant	Bridge Preservation	2nd Four Years TYP
252	318	99752	2016	30	3308	Sells Station Road Bridge	Union	Bridge Preservation	2nd Four Years TYP
10	274	99761	2020	10	0	Sach's Road Bridge PM	Cumberland	Bridge Preservation	2nd Four Years TYP
253	310	99756	2027	50	1454	Bollinger Road Bridge PM	Union	Bridge Preservation	2nd Four Years TYP

Adams County Bridge Candidate Projects									
Bridge ID	Bridge Rank	MPMS #	Route #	Segment #	Begin_ Offset	Project Name	Municipality	Project Description	Project Origin
254	321	99756	2027	50	3283	Bollinger Road Bridge PM	Union	Bridge Preservation	2nd Four Years TYP
278	55	87432	3001	470	787	State St Bridge	York Springs	Bridge Replacement	2nd Four Years TYP
306	265	99862	3009	30	2088	Harbaugh Valley Road Bridge	Liberty, Hamiltonban	Bridge Preservation	2nd Four Years TYP
201	85	78642	1017	70	0	Conewago Creek Bridge 2	Straban	Bridge Replacement	3rd Four Years TYP
22	92	99666	1022	10	0	Woodside Road Bridge	Straban	Bridge Preservation	3rd Four Years TYP
159	N/A	87422	394	10	2266	West Hanover St Bridge	Biglerville	Bridge Replacement	3rd Four Years TYP
138	164	99679	234	160	0	Narrows Road Bridge	Menallen, Franklin	Bridge Preservation	3rd Four Years TYP
237	246	99749	2007	10	598	Edgegrove Road Bridge PM	Oxford, Mt Pleasant	Bridge Preservation	2nd Four Years TYP
122	121	99660	194	110	3807	Hanover Pike Bridge PM	Union	Bridge Preservation	3rd Four Years TYP
124	89	99675	194	140	0	Hanover Pike Bridge PM	Union	Bridge Preservation	3rd Four Years TYP
11	205	99727	15	131	2846	US 15 Bridge PM #2	Cumberland	Bridge Preservation	3rd Four Years TYP
84	52	90686	97	10	333	Piney Creek Bridge	Germany	Bridge Replacement	3rd Four Years TYP
86	115	99786	97	40	0	Piney Creek Bridge	Littlestown	Bridge Replacement	2nd Four Years TYP
247	183	90743	2014	120	1863	Piney Creek Bridge	Germany	Bridge Replacement	3rd Four Years TYP
267	71	99821	3001	200	979	Carlisle St. Bridge	Gettysburg	Bridge Replacement	3rd Four Years TYP
285	191	99835	3003	40	1108	Hunterstown Rd. Bridge	Straban	Bridge Preservation	3rd Four Years TYP
291	200	99836	3005	160	1071	Pumping Station Road	Cumberland, Freedom	Bridge Preservation	3rd Four Years TYP
194	105	78640	1015	170	1834	Conewago Creek	Straban	Bridge Replacement	3rd Four Years TYP
104	30	99776	116	240	482	W. Middle St	Gettysburg	Bridge Replacement	3rd Four Years TYP
119	162	99815	134	70	978	Taneytown Road Bridge	Cumberland	Bridge Replacement	3rd Four Years TYP

C. CONGESTION MANAGEMENT CANDIDATES

The following congestion management improvements have been identified as candidate projects for the Adams County LRTP CIP. These projects are not yet programmed to be completed. They constitute a list of projects that have been identified through a previous planning process. This list of projects will be reviewed when financial capacity is available to implement new projects.

TABLE 28: CONGESTION MANAGEMENT CANDIDATES

Project Location	Description	Status	Estimated Costs	Priority
Eisenhower Drive Extension	Connect Eisenhower Drive from High Street to Route 116	Preliminary Engineering programmed. Work halted in 2008.	$17,625,000	Mid-term
U.S. Route 15/U.S. Route 30 Interchange	Reconstruct U.S. Route 15/U.S. Route 30 interchange	Preliminary engineering complete.	$30,000,000	Long-term
US Route 15/US Route 94 Interchange	Reconstruct U.S. Route 15/U.S. Route 94 Interchange	U.S 15 Project- Preliminary engineering complete; will only remediate 1 entrance and 1 exit ramp	*	Long-Term
Camp Letterman Drive	Complete Camp Letterman Drive Connection	None	*	Long-Term
Gettysburg Borough and Route 30 in Straban Township	Implementation of a new Intelligent Transportation System	None	*	Long-Term
		TOTAL	**$47,625,000**	

D. SAFETY CANDIDATES

The following safety-related improvements have been identified as candidate projects for the Adams County LRTP CIP. These projects are not yet programmed to be completed. They constitute a list of projects that have been identified through a previous planning process. This list of projects will be reviewed when financial capacity is available to implement new projects.

TABLE 29: SAFETY PROJECT CANDIDATES

Project	Municipality(ies)	Project Description	Project Origin
SR 194 Bypass of Littlestown	Union, Germany	Preservation of r/w for a potential bypass. Upgrade SR 194 w/ limited new construction to facilitate travel south of Littlestown	SE Joint Comp Plan
Littlestown Road	Union	Widen shoulders, some reconstruction	SE Joint Comp Plan
SR 116 Reconstruct	Mt. Pleasant, Bonneauville, Union	widen shoulders to provide 12 ft lanes for safety and capacity	SE Joint Comp Plan
SR 194 Reconstruct	Germany	Safety and capacity improvements	SE Joint Comp Plan
cSR 97 Reconstruct	Germany	Design completed?	SE Joint Comp Plan
Whitehall Rd-Littlestown Rd to SR 97	Union, Littlestown	Road widening and minor geometric realignment	SE Joint Comp Plan
SR 97 to US 15 Improvements	Mt. Joy, Germany	Road reconstruction	SE Joint Comp Plan
SR 116 and Littlestown Road	Union	Signalization of intersection	SE Joint Comp Plan
SR 194 (King St.) and SR 97 (Queen St.)	Littlestown	Traffic signal, intersection improvements	SE Joint Comp Plan
SR 97 (Queen St) and Whitehall Road-Columbus Avenue	Littlestown	Traffic signalization and geometric improvements to align intersection	SE Joint Comp Plan
SR 194 and Mehring Road	Union, Littlestown	Left lane construction	SE Joint Comp Plan
SR 97 and Bollinger Road	Germany	Left lane construction	SE Joint Comp Plan
Littlestown Road and Whitehall Road	Germany, Union	Intersection realignment, creation of two offset "T" intersections.	SE Joint Comp Plan
US 15/30 Interchange	Straban	Interchange Improvements	2012 LRTP
US 15/Franklin Crossing Study	Latimore	Implement results of study	2012 LRTP
PA 234/High St/Cashtown	Arendtsville	Realign intersection to 4 way stop	NW Joint Comp Plan
Rampike Rd/Church St/Park St	Bendersville	Traffic controls, realign one or more legs of intersection	NW Joint Comp Plan
PA 34 and 234	Biglerville	Left turn lanes, modernize signals	NW Joint Comp Plan
PA 234 and 394	Butler	Traffic signal and turning lanes	NW Joint Comp Plan

Project	Municipality(ies)	Project Description	Project Origin
34 and Goldenville Rd	Butler	Traffic signal and turning lanes	NW Joint Comp Plan
30 and 234	Franklin	Traffic signal	NW Joint Comp Plan
30 and Short Cut Rd	Franklin	Signage	NW Joint Comp Plan
30 and Cashtown Rd	Franklin	Traffic signal	NW Joint Comp Plan
Fairview Fruit Rd/Hilltown Rd	Franklin	Sight distance improvements, vehicle size restriction, traffic control improvements	NW Joint Comp Plan
Mummasburg Rd/Blue Ribbon Rd	Franklin	sight distance and signage improvements	NW Joint Comp Plan
PA 34 and Aspers-Bendersville Rd	Menallen	Turning lanes, traffic signal, intersection realignment	NW Joint Comp Plan
PA 34 and Gablers Rd	Menallen	Signage, reduce truck traffic	NW Joint Comp Plan
PA 233 and Shippensburg Rd	Menallen	Signage, speed reduction techniques	NW Joint Comp Plan
Fairfield Road (SR 116) and Jacks Mountain Road	Carroll Valley	Intersection Improvements/Sight Distance Improvements	SW Joint Comp Plan
Fairfield Road (SR 116) & Iron Springs Rd	Hamiltonban	Intersection Improvements/Traffic Signal	SW Joint Comp Plan
Fairfield Road (SR 116) and Carrolls Tract Road	Fairfield/Hamiltonban	Intersection Improvements/Realignment	SW Joint Comp Plan
Fairfield Road (SR 116) and Waynesboro Pike (SR 16)	Liberty/Carroll Valley	Improve Lighting/Traffic Signal	SW Joint Comp Plan
Waynesboro Pike & Orchard Road	Liberty	Improve Lighting/Traffic Signal	SW Joint Comp Plan
Fairfield Rd (SR 116) & Bullfrog Rd	Hamitonban	Turning Improvements	SW Joint Comp Plan
Waynesboro Pike (SR 16) and Jacks Mountain Road	Liberty/Carroll Valley	Intersection Improvements/Traffic Signal/Improve Sight Distance	SW Joint Comp Plan
Orchard Road and Tract Road	Liberty	Sight Distance Improvements	SW Joint Comp Plan
Pumping Station Road and Bullfrog Road	Freedom	4-Way Stop/Improve Turning Capacity	SW Joint Comp Plan
SR 94 Corridor (Lake Meade Rd to Shank Road)	Oxford	Centerline and Rumble Strips, Improve Signage, 3 Lane Cross section with Center Left-Turn Lane	94 Road Safety Audit
SR 94 and Tropical Treat	Oxford	Restrict Access Points into Parking Lot	94 Road Safety Audit
SR 94 and Shank Road	Oxford	Right in/Right out; Construct concrete island	94 Road Safety Audit
PA 94 and Red Hill Road	Oxford	Signage Improvements; Right in/Right out; Mountable concrete Island	94 Road Safety Audit
Pa 94 and Berlin/Pine Run Roads	Oxford	Sight Distance Improvements; Center left turn lane between intersections; Signage Improvements; Corridor Realignment- 4-way intersection	94 Road Safety Audit
PA 94 and Gun Club Road	Oxford	Widen 94 for shoulder bypass lane	94 Road Safety Audit
Pa 94 and Lake Meade Road	Oxford	Signage and Sight Distance Improvements	94 Road Safety Audit
ITS Upgrade	Gettysburg/Straban	Upgrade ITS system for Gettysburg Boro and portion of Rt 30 in Straban Twp	N/A
New Oxford Town Revitalization	New Oxford	Signage and Sight Distance Improvements	N/A
PA 116 and Storm Store Road	Mount Pleasant	Skewed intersection, sight distance improvements	N/A

E. BICYCLE, PEDESTRIAN, AND NON-MOTORIZED CANDIDATES

The following bicycle, pedestrian, and non-motorized improvements have been identified as candidate projects for the Adams County LRTP CIP. These projects are not yet programmed to be completed. They constitute a list of projects that have been identified through a previous planning process. This list of projects will be reviewed when financial capacity is available to implement new projects.

TABLE 30: BICYCLE, PEDESTRIAN, AND NON-MOTORIZED CANDIDATES

Project Location	Description	Status	Estimated Costs	Priority
Gettysburg	Gettysburg Inner Loop Trail System	All Project Phases	$3,500,000	Mid-term
TOTAL			**$3,500,000**	

CHAPTER 11

PROJECT SELECTION PROCESS

Adams County's TIP and LRTP are not intended to be static, unchanging documents. The fluid nature of transportation funding sources, as well as the complex nature of project delivery, requires constant update to efficiently manage the transportation system. To do so, a selection process to consistently evaluate projects is necessary. The processes outlined in this chapter are intended to provide a means to perform that evaluation.

A. SETTING LOCAL PRIORITIES

The local priorities have been developed based upon the ten federal factors outlined in Chapter 3. These goals and objectives were used to create a broad selection framework and scoring system to use for evaluating candidate transportation projects. A summary of the selection framework is shown below and a sample scoring sheet is included in Appendix B.

This selection framework is designed to accommodate candidate projects from all transportation modes. However, the scoring system alone should not be relied upon as the sole input into the selection process. Rather, it should be considered as a decision making guide along with input from local decision makers, including, but not limited to, the County Planning Commission, municipal officials, emergency service providers, and a robust public involvement effort. The goal is to develop a process that helps guide decision makers to select projects that meet the identified goals of County and local plans. The final prioritization process should be driven be people and not by a mechanical, inflexible process that dictates results based on spreadsheets.

TABLE 31: CANDIDATE PROJECT EVALUATION FRAMEWORK

Planning Factor	Plan Integration	Evaluation Framework Considerations
Economic Vitality	Considered the importance of transportation to the local economy, and has identified key transportation considerations for future economic and employment development.	a. Does the project provide benefits for the agricultural industry in Adams County? b. Does the project improve the transport of goods through the county without adverse community effects? c. Does the project support a specific county or municipal economic development initiative?
Safety	Identified local safety issues and concerns based on available roadway crash data and citizen input through the public involvement process.	a. Does the project address a priority roadway, bridge or non-motorized safety deficiency? b. Would implementation of the project reduce the number or severity of crashes? c. Does the project improve an existing design or operational deficiency which contributes to safety concerns?
System Accessibility & Mobility	Identified existing and projected demand for improved operation and access between transportation modes and the need for alternative transportation options based on the changing demographics of the county.	a. Does the project enhance travel efficiency or provide additional travel choices for environmental justice, elderly, or disabled populations? b. Does the project enhance travel efficiency or provide additional travel choices to tourism venues? c. Does the project provide improved regional (intercounty) connectivity?
Protect & Enhance the Environment	Consideration of protection of important water resources, reduction in air pollution, conservation of historic and scenic resource and view sheds, and the social fabric of communities.	a. Can the project be designed to reduce direct and indirect impacts on important cultural resources and landscapes? b. How well does the project avoid and minimize adverse effects on important ecological resources? c. How well does the project avoid and minimize adverse effects to individual agricultural operations?
Integration and Connectivity	Identified key gaps in the existing transportation system which hinder connectivity between transport modes within the county and to external regions.	a. Could the project be designed to integrate intermodal connections with other non-highway transportation facilities and services? b. Does the project provide new or improved linkages between core communities or between existing/planned neighborhoods or communities? c. Does the project provide improved transport or connections to workforce locations (either intracounty or intercounty)?
Efficient System Management & Operation	Used up to date and reliable data and technology to identify management needs.	a. What roadway type is improved by the project? b. Does the project provide capacity or operational improvements to a priority congested corridor?

TABLE 31: CANDIDATE PROJECT EVALUATION FRAMEWORK

Planning Factor	Plan Integration	Evaluation Framework Considerations
System Preservation	Inventories and assesses existing modal conditions and highlights areas for potential maintenance and improvement.	a. Does the project address priority roadway maintenance issue (IRI score)? b. Does the project address a priority deficient bridge? (sufficiency rating) c. Does the project address a roadway which is an important truck route or segment? (Truck AADT %)
Security	Identifies potential security issues related to the transportation system of Adams County through an analysis of the general risk factors involved and geographic proximity to resources of concern.	a. Does the project enhance regional evacuation or strategic highway networks for military/security operations? b. Does the project enhance local or regional options for detours (construction or emergency events) by improving directional redundancy? c. Does the project improve response time or access for emergency services?
Resiliency	Identifies the resiliency and reliability of the transportation system, and reduces or mitigates stormwater impacts of surface transportation.	a. Is the project consistent with and supportive of associated major planning initiatives at the local, county or state level? b. Is the location and potential influence of the project consistent with future land use plans of Adams County and adjacent communities? c. Has the scope of the project considered other related actions which may be required in the future and are directly/indirectly related to the proposed improvement? d. Is the project located in a floodplain region?
Enhance Travel and Tourism	Identified important tourism areas related to the location of the transportation system of Adams County.	a. Does the project provide benefits for the tourism industry in Adams County? b.Does the project enhance accessibility for the tourism industry?

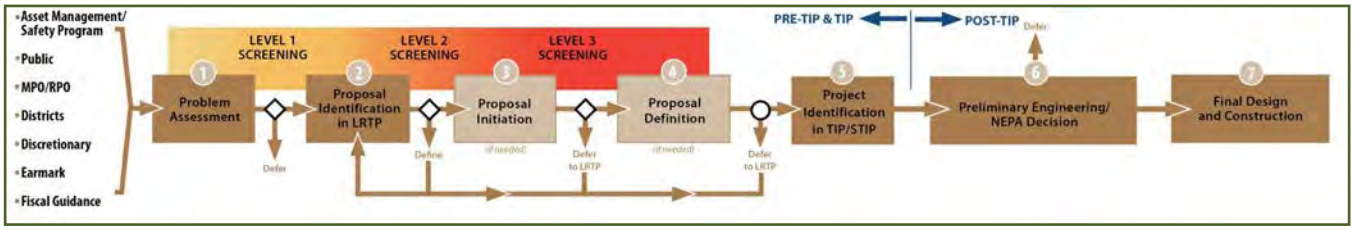
B. LINKING PLANNING AND NEPA

In addition to the selection framework and scoring system outlined above, MPO's and RPO's statewide have worked closely with PennDOT to streamline the transportation program development and project delivery process through an effort known as Linking Planning and NEPA. NEPA is an acronym for the National Environmental Policy Act, which requires an evaluation and consideration of the environmental effects of proposed actions prior to the commitment of Federal funds or regulatory approvals. The primary objectives of the Linking Planning and NEPA process are:

- Focus resources on the most appropriate transportation needs.
- Promote early public participation and public involvement.
- Develop more accurate project scopes.

- Improve cost estimating for potential projects.
- Increase accuracy in project scheduling.
- Improve predictability of project delivery.
- Accurately reflect national, state, and local goals in the project selection process.
- Enhance communication, coordination and cooperation between Penn DOT, MPOs/RPOs, and resource agencies.

To implement this effort, a seven-step process, outlined in the following graphic, was established to assist MPO/RPO staff, PennDOT and members of the public through the problem identification, data collection and project review stages prior to inclusion on the LRTP or TIP. Efforts are also underway to automate the initial project submission and data collection efforts. However, as with the evaluation frame and scoring system described above, the information collected through this Linking Planning and NEPA process should be use as an input to the decision making process. The final decision to add a project to the LRTP and/or TIP should be driven by a thorough review of all available data.



Source: Pennsylvania Department of Transportation, Design Manual 1 (DM-1), September 2010

C. PUBLIC INVOLVEMENT PLAN

Public involvement ensures that the general public, communities, businesses and various interest groups most affected by the LRTP and the TIP have the opportunity to provide input at all steps of the planning process. Community participation and "buy-in" are critical to building long-term support for maintaining Adams County's transportation system.

Several sources are used to notify the public of potential actions involving ACTPO meetings and the LRTP and TIP. These include:

- Placing meeting notices in the Gettysburg Times.
- Sending press releases to newspapers, radio and television stations of local circulation.
- Posting meeting times, dates and locations on the Adams County website.
- Distributing meeting times, dates and locations by email to municipal officials and other interested parties.

Additionally, compliance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898 of 1994 on Environmental Justice must be taken into consideration. Title VI states, "*No person in the United States shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.*" Executive Order 12898 mandates that recipients of federal funding make achieving environmental justice part of their mission by identifying as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low income populations. To comply with these regulations, demographic data is analyzed regularly to identify areas of Adams County with concentrations of environmental justice populations. Further, information on LRTP and TIP updates are regularly shared with local social service organizations whose constituents could be members of these environmental justice populations. Finally, six Native American Tribes and Nations were identified as having potential environmental justice concerns in Adams County. These Tribes and Nations now receive the same updates as the local social service organizations.

APPENDIX A

DETAILED GOALS AND OBJECTIVES

A. FEDERAL PLANNING FACTORS

Current federal transportation law also provides an important framework for transportation planning in Adams County. Over the past several decades, federal transportation planning policy has placed greater emphasis on transportation plans that satisfy key planning issues relative to transportation's role within the community and region, focusing on economic development/trade, quality of life, congestion reduction and other key concerns at a national level. As part of that emphasis, seven federal planning factors have been identified to guide the development of long range transportation plans. Each planning factor relates to areas of importance across the breadth of national, state and local transportation concerns.

Adams County endorses the importance of the federal planning factors and has incorporated them into development of this plan. For each factor, issues and concerns have been identified and considered and a series of action items have been identified for future transportation-related initiatives and endeavors.

(1) FEDERAL FACTOR #1 – ECONOMIC VITALITY

Transportation planning for Adams County must support the economic vitality of the area and region by enabling global competitiveness, productivity, and efficiency. Adams County contains a number of rural boroughs and villages that have high historic and architectural values. In addition to providing a diverse array of housing options, these areas serve as community focal points for commerce, employment, personal services, and entertainment needs. Many of these communities are also confronting major strategic changes. Retail has moved from general household purchasing to specialty shops. Some manufacturing uses no longer exist. While boroughs and villages provide housing options for older and disabled persons, it is also crucial that they remain attractive for younger people as a place of residence. Keeping the core areas of these boroughs and villages as inviting, sustainable places to live, work and do business is a fundamental principle of this plan.

However, continuing reliance upon the transportation network in Adams County creates significant challenges for these core areas. The presence of major east-west and north-south roadways, such as US Route 30, PA Route 234, US Route 15, and PA Route 94, as well as a classic "spokes on a wheel" pattern centering upon Gettysburg generates large pass-through volumes of truck and other vehicular traffic that has little choice but to pass through these core communities. Increasing traffic volumes, and in particular truck traffic, produces unacceptable noise and emissions that diminish the attractiveness and willingness of people to reside in, visit, or use these communities. Future investment strategies should focus on policies and network improvements that encourage the revitalization of these core communities as places to live, work, shop and visit rather than on maximizing the number of vehicular movements passing through these areas.

INTEGRATION: The plan has considered the importance of transportation to the local economy, especially to the tourism and agricultural sectors, and has identified key transportation considerations for future economic and employment development.

ACTION:

- ACTPO should continue to plan for economically-beneficial transportation projects through its Transportation Improvement Program (TIP) and actively pursue available funding through interaction with the State Transportation Commission and PennDOT.
- Adams County and county municipalities should increase their commitment to integrate respective planning and growth management efforts to further focus future investment, growth and redevelopment to core communities.
- Adams County and ACTPO should continue to support and participate in local and regional transportation initiatives, such as the Regional Goods Movement Study.
- Adams County and the Adams County Transit Authority should pursue additional opportunities to provide strategic transportation services for worker travel, including park and ride facilities and additional connections to surrounding transit systems. The county should also support telecommuting programs and the development of needed communications infrastructure to reduce local peak-period travel demand and expand employment opportunities for local citizens. The county should also support the development of bicycle and pedestrian connections to promote the use of alternate transportation modes.
- Adams County and the Adams County Transit Authority should pursue connections with nearby transit systems such as Frederick, Harrisburg, and York, to enhance tourism visitor access to the Gettysburg area. Special emphasis should be placed on making connections to Amtrak's "Keystone Service" rail station as well as commuter rail and metro service in Maryland.
- In addition to providing emergency response helicopter service, Adams County should seek opportunities to preserve the Gettysburg Airport as a vital air transportation facility to help sustain and expand Adams County as an important location for conferences, conventions, and meetings of statewide and national importance, and to provide business-customer linkages for existing and future employer's located in Adams County.
- Adams County should work with county and regional tourism organizations in south central Pennsylvania in establishing a tourism destination loop connecting Gettysburg, York, Lancaster, Hershey and Harrisburg by multiple transportation modes, including vehicular, bicycle, and regularly scheduled public transportation.
- Adams County, with the involvement and participation of the Gettysburg Convention and Visitors Bureau, the Gettysburg-Adams Chamber of Commerce, and other applicable stakeholders, should pursue an in-depth study of the heritage tourism industry to determine the "carrying capacity" of the county related to the necessary services, infrastructure, and support mechanisms to accommodate increased tourism while balancing the quality of life needs of its communities and citizens.

(2) FEDERAL FACTOR #2 - SAFETY

Transportation planning for Adams County must seek to increase the safety of the transportation system for motorized and non-motorized users.

INTEGRATION: The plan has identified local safety issues and concerns based on available roadway crash data and citizen input through the public involvement process.

ACTION:

- Adams County and ACTPO should ensure that existing components of the transportation system are maintained and rehabilitated as necessary (before a safety problem arises).
- Efforts shall be made to remover "intrusions" such as large rocks, tree growth, or inappropriately located poles within rights-of-way.
- Adams County and ACTPO should strive to support and promote the development of expanded transport and recreational opportunities for pedestrians and non-motorized transport through the development of sidewalks, parks, trails and greenways which link important community destinations. On-road improvements (shoulder improvements, dedicated lanes, etc.) should include proper signage and marking to promote safety for motorized and non-motorized vehicles.
- Adams County and ACTPO, in cooperation with local municipalities, should strive to identify private funding opportunities and promote the implementation of local funding mechanisms to address local safety issues.
- Adams County and ACTPO should strive to minimize truck traffic and maximize pedestrian safety in town and village centers. Dedicated crosswalks, crossing signals, lighting, and yield signage should be promoted at key pedestrian crossings within borough and other urbanized settings.
- Adams County, through the County Emergency Services Department and volunteer service provider organizations, should seek opportunities to fund additional equipment acquisition, training opportunities, and improved communication standards to advance the ability of professional and volunteer emergency services to provide timely and safe response.
- In cooperation with Adams County, local municipalities should address pedestrian connections and safety through an analysis of system deficiencies and the identification of necessary improvements and available funding sources.
- To ensure long range availability of emergency response helicopter service, Adams County should seek opportunities to preserve the Gettysburg Airport as a vital air transportation facility.
- Adams County should seek to improve driver education for young drivers by working with local school districts to develop and fund curricula and training services. The county should also expand its support for older driver safety programs currently being facilitated by the Adams County Office of Aging.

(3) FEDERAL FACTOR #3 – ACCESSIBILITY AND MOBILITY

The Adams County transportation system should be one that is balanced and coordinated with regard to serving the diverse transportation needs of county citizens, businesses and visitors while providing convenient and safe choices. Transportation planning activities should focus on implementation of new or enhanced transportation services or infrastructure to provide for efficient access and operations between modes. Additionally, integration of transportation modes can help improve the movement of goods within the county and help to alleviate conflicting travel demands on the county's roadway network. Finally, efforts should be taken to ensure that employers and citizens can reach work locations conveniently and efficiently using alternative transportation modes, including transit services, carpooling/vanpooling, bicycle/pedestrian options, and transit services.

INTEGRATION: The plan has identified both existing and projected future demand for improved operation and access between transportation modes and the need for alternative transportation options based on the changing demographics of the county. Potential environmental justice and disabled segments of the community have also been broadly identified to inform detailed planning activities. Furthermore, improved and increased mobility is a common theme highlighted throughout the development of this plan. Roadway, transit and non-motorized mobility improvements have been identified as key improvements necessary to keep Adams County competitive as a place for families, business, and tourism.

ACTION:

- Adams County should continue to be sensitive to and assess environmental justice issues and concerns of minority and low-income populations, in accordance with federal and state guidelines, to ensure the transportation system is developed, operated and maintained in a manner which does not disproportionately impact those individuals and communities.
- Adams County should strive to maintain an efficient multi-modal transportation system which accommodates the mobility of local residents while serving the diverse needs of business and industry, including tourism and agriculture, within the county.
- Adams County should continue and expand education to local governments in integrating transportation factors into land use planning and growth management initiatives.
- Adams County should strive to develop a transportation system which addresses the accessibility and mobility needs of disabled citizens.
- Adams County should strive to develop a transportation system which provides access for visitors to and from tourism venues in Adams County.
- Based on the results of future scenario modeling, Adams County should initiate planning for needed system improvements to alleviate identified future system congestion.
- Using results of this study and similar efforts, Adams County should investigate opportunities for reducing delay caused by conflicts between passenger and freight movements.

(4) FEDERAL FACTOR #4 – PROTECT AND ENHANCE THE ENVIRONMENT

An efficient transportation system must be planned, constructed and operated without significant impacts upon our natural, cultural and community environments. Protection of important water resources, reduction in air pollution, conservation of historic and scenic resource and view sheds, and the social fabric of our communities must be important considerations in Adams County transportation planning initiatives. These considerations should influence decision-making throughout the transportation development process, including the determination of the need, location, and scope of planned transportation improvements.

INTEGRATION: Lessons learned from the stakeholder and public involvement process has identified a number of conflicts between the transportation system and environmental and community resources.

ACTION:

- Adams County should implement an environmental screening and analysis process using available data and information from federal, state and county agencies to assess potential impacts associated with priority projects identified for inclusion on the county TIP. The county should coordinate with PennDOT and their “Linking Planning and NEPA” and other streamlining initiatives to establish a

process which can streamline project planning at the local level and project development at the state level.

- Adams County should revisit the existing Green Space Grant Program to expand the list of eligible projects and funding focus beyond land acquisition to include those which provide multiple direct benefits for core communities, the transportation network, and citizens in general through specific paths, trails and related amenities. These types of improvements can also provide for increased protection of green infrastructure components within our built environments, such as floodplains, stream corridors, and urban wildlife habitat, which relate to public and community health.
- The ACOPD, working in conjunction with the Adams County Conservation District and the county GIS department should continue to update and expand the county environment database and identify to more effectively incorporate GIS analysis in planning efforts and support to local municipalities.
- Through current and future planning processes, Adams County should document the values and importance of special ecological, natural, community and cultural resources and develop a priority measure to inform and educate the project development and National Environmental Policy Act processes in developing transportation alternatives, alignments, and mitigation strategies.
- Promote the preservation of the historic "spokes on wheel" settlement pattern as an important future part of Adams County's cultural heritage environment for historic preservation and interpretation of historic events that are important to visitors.
- Through education and planning and funding opportunities, Adams County should promote the use of transit, carpooling, vanpooling and other shared ride services and bicycle and pedestrian facilities to reduce local gasoline demand and provide positive influences on local air quality.

(5) FEDERAL FACTOR #5 – ENHANCE INTEGRATION AND CONNECTIVITY

Transportation planning activities and implementation of new or enhanced transportation services or infrastructure must promote the availability of alternative travel and transport mode options and provide key linkages between modes to fill transport system gaps.

INTEGRATION: This study has identified key gaps in the existing transportation system which hinder connectivity between transport modes internal to communities, connections between neighboring communities, and external connections to regional centers outside of Adams County.

ACTION:

- Adams County should continue to work with the Adams County Transit Authority and other regional transit service providers to develop strategic transit links with employment and service centers in Harrisburg, York and Frederick.
- Adams County should become active with the Susquehanna Regional Transportation Partnership and their Commuter Services of South Central Pennsylvania Program, with the mission to reduce congestion by encouraging alternatives to single occupancy commuting.
- Adams County, in cooperation with PennDOT and the Federal Aviation Administration, should actively pursue preservation of the Gettysburg Airport as a vital component of the county and regional transportation system.
- Based on strategies of the Adams County Greenways Plan, the county should work with the York Rail Trail Authority and other multi-regional efforts to establish links with existing and future non-motorized trails.

- Adams County should continue to encourage and assist rail entities in Adams County to tap PennDOT's Rail Freight Assistance Program (RFAP) for rail improvement projects to further encourage use of freight transport via rail.
- Adams County should identify potential roadway, pedestrian, and trail connections between existing developments and communities. The county should also work with municipalities to encourage mandatory establishment of applicable trail/path facilities which link to the local and/or countrywide network as part of the approval process for future development.
- Through its plan review process, Adams County should encourage newly proposed development to be connected into adjoining developments or parcels which could be developed in the future.
- Adams County should encourage the preservation of rights-of-way for future road alignments.

(6) FEDERAL FACTOR #6 – EFFICIENT SYSTEM MANAGEMENT AND OPERATION

To continually manage the transportation system for current and future demands, the planning process needs accurate, up to date and reliable data, access to the latest technology, and timely review and update of policies. As demand on the system increases in Adams County over the next decades, the county must have the necessary skills and information available to identify and respond to system needs. Effecting change, whether small or large, to the transportation network is a slow process requiring continuous attention. Developing a project of any significant size can take five, ten or even twenty years from kick-off until the first shovel is turned. Efforts to reduce that lead time should be evaluated and implemented. However, the planning process for this study, and others, must be conducted with an eye on creating a plan with enough flexibility to accommodate demographic, technological, financial and political trends that are certain to challenge commuters. Put another way, given the rapid rate of change that is confronting society, it is better to anticipate change and accommodate it than to "size" all concepts and ideas to meet current designs or constraints. A quick review of changes to the transportation network in the United States throughout history makes it clear that to assume current philosophical, financial or technological inclinations will continue ad infinitum is the best way to be left behind and unprepared for the future, something all plans, including this one, should strive to overcome. For example, what impacts would a shift from a nation economic structure based on bulk consumption of imported products to one based on less consumption and/ or more domestic manufacturing have on trucking routes and volumes. Short term circumstances should not be given precedent over appropriate long-term planning efforts.

INTEGRATION: Use of existing data has been the foundation of the development of this plan. This effort will help to provide a framework for future data development. The plan addresses transportation improvements and maintenance activities, prioritization concerning planning factors, and timing and funding issues.

ACTION:

- Adams County should continue to work with PennDOT, ACTPO, and regional transportation planning partners in acquiring and sharing system performance data and evaluations.
- Adams County should use, and continue to update, a project evaluation process which considers multiple factors and transportation needs in establishing prioritization of future improvements.
- Opportunities for increased integration of county and municipal planning regarding transportation and land use linkages should be identified and capitalized. A process for planning of projects which involve multiple municipalities should be developed and piloted to provide for long-range consideration of transportation and land use dynamics.

- Adams County and its municipalities must work with PennDOT to improve communication procedures and tools between these entities, especially related to congestion management, emergency routing, and maintenance and protection of traffic and detours during construction and maintenance operations.
- Adams County should continue to work with PennDOT, local municipalities and interested private sector organizations to develop and implement intelligent transportation systems (ITS) features to increase the efficiency and capability of the existing system to meet current and future demand.
- Adams County and its municipalities should work together to share resources and offer joint educational opportunities.

(7) FEDERAL FACTOR #7 – SYSTEM PRESERVATION

The preservation of the existing transportation system should continue to be supported through the development of the county transportation improvement program. Recognizing that limited resources are available, preservation through repair and rehabilitation of existing system infrastructure should continue as a major focus of transportation planning and prioritized needs. Along with safety issues, preventive maintenance strategies should continue as a high priority in the prioritization of needed transportation infrastructure improvements.

INTEGRATION: The plan supplies an inventory and assessment of existing modal conditions and highlights areas for potential improvement.

ACTION:

- ACTPO should continue to provide input to PennDOT on county maintenance and betterment needs.
- ACTPO should promote the maintenance of existing facilities, especially where reuse or rehabilitation at appropriate intervals provides a more efficient expenditure of transportation dollars than full reconstruction or renovation.
- ACTPO should promote targeted new capacity and system linkages where growth, system deficiencies, and/or special community needs dictate such improvements.
- Adams County should investigate the potential for implementation of a right-of-way/land preservation program, in coordination with county and local comprehensive planning efforts, to preserve alternative corridors for potential long-range transportation needs.

(8) FEDERAL FACTOR #8 - SECURITY

Since September 11, 2001, security issues related to our transportation system have been a revitalized area of concern. Security issues include potential direct physical attacks on portions or modes of the transportation system, the ability of the system to accommodate demands imposed by the disruption of a major linkage or mode, and the potential use of the transportation system in contributing to the vulnerability of other vital infrastructure, security installations, or other special targets. Sources of these issues could include acts of terrorism, natural disasters, and the unpredicted failure of system components. In Adams County, acknowledgement and consideration of each of these issues is necessary due to a unique mix of potential security targets, geographic proximity to major federal installations, and special “intrinsic” landmarks which represent common and shared cultural and historic bonds.

INTEGRATION: The plan identifies potential security issues related to the transportation system of Adams County through an analysis of the general risk factors involved and geographic proximity to resources of concern.

ACTION:

- Adams County should broaden its interaction and support with volunteer emergency services in the county to address issues related to emergency detours, funding of specialized shared/centralized equipment such as portable signs, and assistance in recruitment and retention of volunteers.
- ACOPD should develop a more formal working relationship with the Adams County Office of Emergency Services to assist in development of emergency/evacuation plans and hazard mitigation plans.

(9) FEDERAL FACTOR #9- RESILIENCY AND RELIABILITY

Effecting change, whether small or large, to the transportation network is a slow process requiring continuous attention. Furthermore, ensuring the network is able to be resilient and reliable in the face of growing demand is of utmost importance. Developing a project of any significant size can take five, ten or even twenty years from kick-off until the first shovel is turned. Efforts to reduce that lead time should be evaluated and implemented. However, the planning process for this study, and others, must be conducted with an eye on creating a plan with enough flexibility to accommodate demographic, technological, financial, and political trends that are certain to challenge commuters. Not only will these trends affect how people drive, but also how the transportation network will be affected by these trends. That is why being proactive in road maintenance, as well as preventative maintenance will be at the forefront of conversation for the foreseeable future, especially in light of future funding allocations and the increase of construction costs.

INTEGRATION: The plan addresses transportation improvements and maintenance activities, best stormwater management practices, prioritization concerning planning factors, and timing and funding issues.

ACTION:

- Adams County should use, and continue to update, a project evaluation process which considers multiple factors and transportation needs in establishing prioritization of future improvements.
- Opportunities for increased integration of county and municipal planning regarding transportation and land use linkages should be identified and capitalized. A process for the planning of projects which involve multiple municipalities should be developed and piloted to provide for long-range consideration of transportation and land use dynamics.
- New road construction technology, cost-benefit analyses, and transportation project alternatives should be thoroughly evaluated to ensure all new projects and preventative maintenance procedures provide the most reliable and efficient results.

(10) FEDERAL FACTOR #10- ENHANCE TRAVEL AND TOURISM

While there has been some standardization of development at some entrances to Adams County boroughs, the 19th century pattern of small towns located along historic roads and separated by farmland and open space still

defines Adams County. History and historical events play a large part in how both residents and visitors view Adams County. The presence of internationally significant historical sites (Gettysburg National Military Park, Eisenhower Farm National Historic Site, historical events (Battle of Gettysburg, Gettysburg Address) and nationally significant historical areas (Fruitbelt, Lincoln Highway Heritage Corridor) produces a very high sense of local pride and fosters a high sense of civic responsibility to maintain Adams County as a place of high quality to ensure that its special sense of place is not lost for visitors and that the quality of their visit and experiences around the county are preserved. While it is important to ensure that these scenic and historic values are sustained through proper architectural, landscaping and other visual standards, it is equally important to make certain that the transportation network does not diminish these values and experiences as well. Decisions on enhancements to the transportation network must be done with a focus on preserving a high quality of experience for visitor and residents rather than only on temporary fiscal constraints.

INTEGRATION: Providing positive environments and effective infrastructure is a key consideration in preserving and promoting communities as aesthetically pleasing and economically robust areas in which to live, visit and recreate. Adams County is fortunate to have many communities which draw people seeking to experience a traditional sense of place and special experience that is increasingly absent in our rapidly changing society. This plan has attempted to highlight these areas, identify key transportation issues which need to be addressed to improve these communities, and set in place policies which target county investment to help sustain them for future generations.

ACTION:

- Adams County, in association with other non-governmental organizations, should develop a united effort to promote and secure key funding at the local, state and national level, to address transportation issues which are vital to maintaining sense of place and quality in core communities. These improvements should focus on alternative routing of through-traffic which is adversely affecting core communities (such as Abbottstown, New Oxford, McSherrystown, and Gettysburg) and consider long-range viability.
- ACTPO, with ACPC and local communities, should encourage local municipalities to develop transportation enhancement efforts such as improved signage, lighting, landscaping, and non-motorized transportation facilities (sidewalks, bicycle paths, trails, etc.) and seek to prioritize funding and implementation of these projects to improve community sense of place in core areas, with appropriate consideration of other transportation needs in the county.

APPENDIX B

DETAILED COST AND FUTURE FUNDING PROJECTIONS

TABLE 1B: FUTURE PRESERVATION AND MAINTENANCE COSTS

Scenarios	Current SD Bridges	Bridges at Risk of SD Rating	Bridge Preser-vation	Current SD Local Bridges	Local Bridges at Risk of SD Rating
Base	$60,137,472	$146,675,712	$144,846,480	$3,806,880	$21,414,864
Base +5%	$111,509,905	$271,973,432	$268,581,579	$7,058,907	$39,708,511
Base +10%	$221,750,230	$540,850,351	$534,105,261	$14,037,446	$78,964,926

Scenarios	Local Bridge Preservation	NHS Roads	State Roads >2000 ADT	State Roads <2000 ADT	Projected Future Maintenance Costs
Base	$6,134,016	$156,318,400	$226,520,000	$213,163,200	$979,017,024
Base +5%	$11,373,999	$289,853,386	$420,024,699	$395,257,854	$1,815,342,272
Base +10%	$22,618,501	$576,406,688	$835,267,269	$786,015,557	$3,610,016,229

Table 2B: PROJECTED FUTURE NETWORK COSTS - LOCAL BRIDGES (IN 2017 $)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potental Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2018	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2019	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2020	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2021	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2022	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2023	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2024	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2025	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2026	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2027	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2028	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2029	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2030	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2031	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2032	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2033	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2034	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2035	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2036	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2037	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2038	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2039	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2040	$500	$158,620	$892,286	$1,050,906	$70	$255,584
Totals		**$3,806880**	**$21,414,744**	**$25,221,744**		**$6,134,016**

Table 3B: PROJECTED FUTURE NETWORK COSTS - LOCAL BRIDGES (5% ANNUAL INCREASE)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potental Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2018	$525	$166,551	$936,900	$1,103,451	$74	$268,363
2019	$551	$174,879	$983,745	$1,158,624	$77	$281,781
2020	$579	$183,622	$1,032,933	$1,216,555	$81	$295,870
2021	$608	$192,804	$1,084,579	$1,277,383	$85	$310,664
2022	$638	$202,444	$1,138,808	$1,341,252	$89	$326,197
2023	$670	$212,566	$1,195,749	$1,408,315	$94	$342,507
2024	$704	$223,194	$1,255,536	$1,478,730	$98	$359,632
2025	$739	$234,354	$1,318,313	$1,552,667	$103	$377,614
2026	$776	$246,072	$1,384,228	$1,630,300	$109	$396,495
2027	$814	$258,375	$1,453,440	$1,711,815	$114	$416,319
2028	$855	$271,294	$1,526,112	$1,797,406	$120	$437,135
2029	$898	$284,859	$1,602,417	$1,887,276	$126	$458,992
2030	$943	$299,102	$1,682,538	$1,981,640	$132	$481,942
2031	$990	$314,057	$1,766,665	$2,080,722	$139	$506,039
2032	$1,039	$329,760	$1,854,999	$2,184,758	$146	$531,341
2033	$1,091	$346,248	$1,947,748	$2,293,996	$153	$557,908
2034	$1,146	$363,560	$2,045,136	$2,408,696	$160	$585,803
2035	$1,203	$381,738	$2,147,393	$2,529,131	$168	$615,093
2036	$1,263	$400,825	$2,254,762	$2,655,587	$177	$645,848
2037	$1,327	$420,866	$2,367,500	$2,788,366	$186	$678,140
2038	$1,393	$441,909	$2,485,875	$2,927,785	$195	$712,047
2039	$1,463	$464,005	$2,610,169	$3,074,174	$205	$747,650
2040	$1,536	$487,205	$2,740,678	$3,227,883	$215	$785,032
Totals		**$7,058,907**	**$39,708,511**	**$46,767,418**		**$11,373,999**

Table 4B: PROJECTED FUTURE NETWORK COSTS - LOCAL BRIDGES (10% ANNUAL INCREASE)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potential Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$500	$158,620	$892,286	$1,050,906	$70	$255,584
2018	$550	$174,482	$981,515	$1,155,997	$77	$281,142
2019	$605	$191,930	$1,079,666	$1,271,596	$85	$309,257
2020	$666	$211,123	$1,187,633	$1,398,756	$93	$340,182
2021	$732	$232,236	$1,306,396	$1,538,631	$102	$374,201
2022	$805	$255,459	$1,437,036	$1,692,495	$113	$411,621
2023	$886	$281,005	$1,580,739	$1,861,744	$124	$452,783
2024	$974	$309,106	$1,738,813	$2,047,918	$136	$498,061
2025	$1,072	$340,016	$1,912,694	$2,252,710	$150	$547,867
2026	$1,179	$374,018	$2,103,964	$2,477,981	$165	$602,654
2027	$1,297	$411,419	$2,314,360	$2,725,780	$182	$662,919
2028	$1,427	$452,561	$2,545,796	$2,998,357	$200	$729,211
2029	$1,569	$497,818	$2,800,376	$3,298,193	$220	$802,132
2030	$1,726	$547,599	$3,080,413	$3,628,013	$242	$882,345
2031	$1,899	$602,359	$3,388,455	$3,990,814	$266	$970,580
2032	$2,089	$662,595	$3,727,300	$4,389,895	$292	$1,067,638
2033	$2,297	$728,855	$4,100,030	$4,828,885	$322	$1,174,402
2034	$2,527	$801,740	$4,510,033	$5,311,773	$354	$1,291,842
2035	$2,780	$881,914	$4,961,036	$5,842,950	$389	$1,421,026
2036	$3,058	$970,105	$5,457,140	$6,427,246	$428	$1,563,128
2037	$3,364	$1,067,116	$6,002,854	$7,069,970	$471	$1,719,441
2038	$3,700	$1,173,828	$6,603,139	$7,776,967	$518	$1,891,385
2039	$4,070	$1,291,210	$7,263,453	$8,554,664	$570	$2,080,524
2040	$4,477	$1,420,331	$7,989,799	$9,410,130	$627	$2,288,576
Totals		**$14,037,446**	**$78,964,926**	**$93,002,372**		**$22,618,501**

Table 5B: PROJECTED FUTURE NETWORK COSTS - STATE BRIDGES (IN 2017 $)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potental Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2018	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2019	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2020	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2021	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2022	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2023	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2024	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2025	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2026	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2027	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2028	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2029	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2030	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2031	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2032	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2033	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2034	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2035	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2036	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2037	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2038	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2039	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2040	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
Totals		**$60,137,472**	**$146,675,712**	**$206,813,184**		**$144,846,480**

Table 6B: PROJECTED FUTURE NETWORK COSTS - STATE BRIDGES (5% ANNUAL INCREASE)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potential Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2018	$840	$2,631,014	$6,417,062	$9,048,077	$263	$6,337,034
2019	$882	$2,762,565	$6,737,916	$9,500,481	$276	$6,653,885
2020	$926	$2,900,693	$7,074,811	$9,975,505	$289	$6,986,579
2021	$972	$3,045,728	$7,428,552	$10,474,280	$304	$7,335,908
2022	$1,021	$3,198,014	$7,799,979	$10,997,994	$319	$7,702,704
2023	$1,072	$3,357,915	$8,189,978	$11,547,894	$335	$8,087,839
2024	$1,126	$3,525,811	$8,599,477	$12,125,288	$352	$8,492,231
2025	$1,182	$3,702,101	$9,029,451	$12,731,553	$369	$8,916,843
2026	$1,241	$3,887,207	$9,480,924	$13,368,130	$388	$9,362,685
2027	$1,303	$4,081,567	$9,954,970	$14,036,537	$407	$9,830,819
2028	$1,368	$4,285,645	$10,452,718	$14,738,364	$428	$10,322,360
2029	$1,437	$4,499,927	$10,975,354	$15,475,282	$449	$10,838,478
2030	$1,509	$4,724,924	$11,524,122	$16,249,046	$471	$11,380,402
2031	$1,584	$4,961,170	$12,100,328	$17,061,498	$495	$11,949,422
2032	$1,663	$5,209,229	$12,705,345	$17,914,573	$520	$12,546,893
2033	$1,746	$5,469,690	$13,340,612	$18,810,302	$546	$13,174,238
2034	$1,834	$5,743,174	$14,007,642	$19,750,817	$573	$13,832,949
2035	$1,925	$6,030,333	$14,708,025	$20,738,358	$602	$14,524,597
2036	$2,022	$6,331,850	$15,443,426	$21,775,276	$632	$15,250,827
2037	$2,123	$6,648,442	$16,215,597	$22,864,039	$663	$16,013,368
2038	$2,229	$6,980,864	$17,026,377	$24,007,241	$696	$16,814,036
2039	$2,340	$7,329,908	$17,877,696	$25,207,603	$731	$17,654,738
2040	$2,457	$7,696,403	$18,771,581	$26,467,984	$768	$18,537,475
Totals		**$111,509,905**	**$271,973,432**	**$383,483,337**		**$268,581,579**

Table 7B: PROJECTED FUTURE NETWORK COSTS - STATE BRIDGES (10% ANNUAL INCREASE)

Year	SD Bridge Repair ($ per sf)	Current SD Bridge Repair Costs	Potential Future SD Bridge Repair Costs	Total SD Bridge Repair Costs	Bridge Preservation ($ per sf)	Total Bridge Preservation Costs
2017	$800	$2,505,728	$6,111,488	$8,617,216	$250	$6,035,270
2018	$880	$2,756,301	$6,722,637	$9,478,938	$275	$6,638,797
2019	$968	$3,031,931	$7,394,900	$10,426,831	$303	$7,302,677
2020	$1,065	$3,335,124	$8,134,391	$11,469,514	$333	$8,032,944
2021	$1,171	$3,668,636	$8,947,830	$12,616,466	$366	$8,836,239
2022	$1,288	$4,035,500	$9,842,613	$13,878,113	$403	$9,719,863
2023	$1,417	$4,439,050	$10,826,874	$15,265,924	$443	$10,691,849
2024	$1,559	$4,882,955	$11,909,561	$16,792,516	$487	$11,761,034
2025	$1,715	$5,371,251	$13,100,517	$18,471,768	$536	$12,937,137
2026	$1,886	$5,908,376	$14,410,569	$20,318,945	$589	$14,230,851
2027	$2,075	$6,499,213	$15,851,626	$22,350,839	$648	$15,653,936
2028	$2,282	$7,149,134	$17,436,789	$24,585,923	$713	$17,219,330
2029	$2,511	$7,864,048	$19,180,467	$27,044,515	$785	$18,941,263
2030	$2,762	$8,650,453	$21,098,514	$29,748,967	$863	$20,835,389
2031	$3,038	$9,515,498	$23,208,366	$32,723,863	$949	$22,918,928
2032	$3,342	$10,467,048	$25,529,202	$35,996,250	$1,044	$25,210,821
2033	$3,676	$11,513,752	$28,082,122	$39,595,875	$1,149	$27,731,903
2034	$4,044	$12,665,128	$30,890,334	$43,555,462	$1,264	$30,505,093
2035	$4,448	$13,931,640	$33,979,368	$47,911,008	$1,390	$33,555,602
2036	$4,893	$15,324,805	$37,377,305	$52,702,109	$1,529	$36,911,162
2037	$5,382	$16,857,285	$41,115,035	$57,972,320	$1,682	$40,602,279
2038	$5,920	$18,543,013	$45,226,539	$63,769,552	$1,850	$44,662,506
2039	$6,512	$20,397,315	$49,749,193	$70,146,507	$2,035	$49,128,757
2040	$7,163	$22,437,046	$54,724,112	$77,161,158	$2,239	$54,041,633
Totals		**$221,750,230**	**$540,850,351**	**$762,600,580**		**$534,105,261**

Table 8B: PROJECTED FUTURE NETWORK COSTS - STATE ROADS (IN 2017 $)

Year	NHS Roads ($ per mile)	Total NHS Road Costs	State Roads greater than 2000 ADT ($per mile)	Total State Roads greater than 2000 ADT Costs	State Roads less than 2000 ADT ($ per mile)	Total State Roads less than 2000 ADT Costs
2017	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2018	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2019	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2020	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2021	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2022	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2023	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2024	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2025	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2026	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2027	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2028	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2029	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2030	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2031	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2032	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2033	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2034	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2035	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2036	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2037	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2038	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2039	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2040	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
Totals		**$156,318,400**		**$226,520,000**		**$213,163,200**

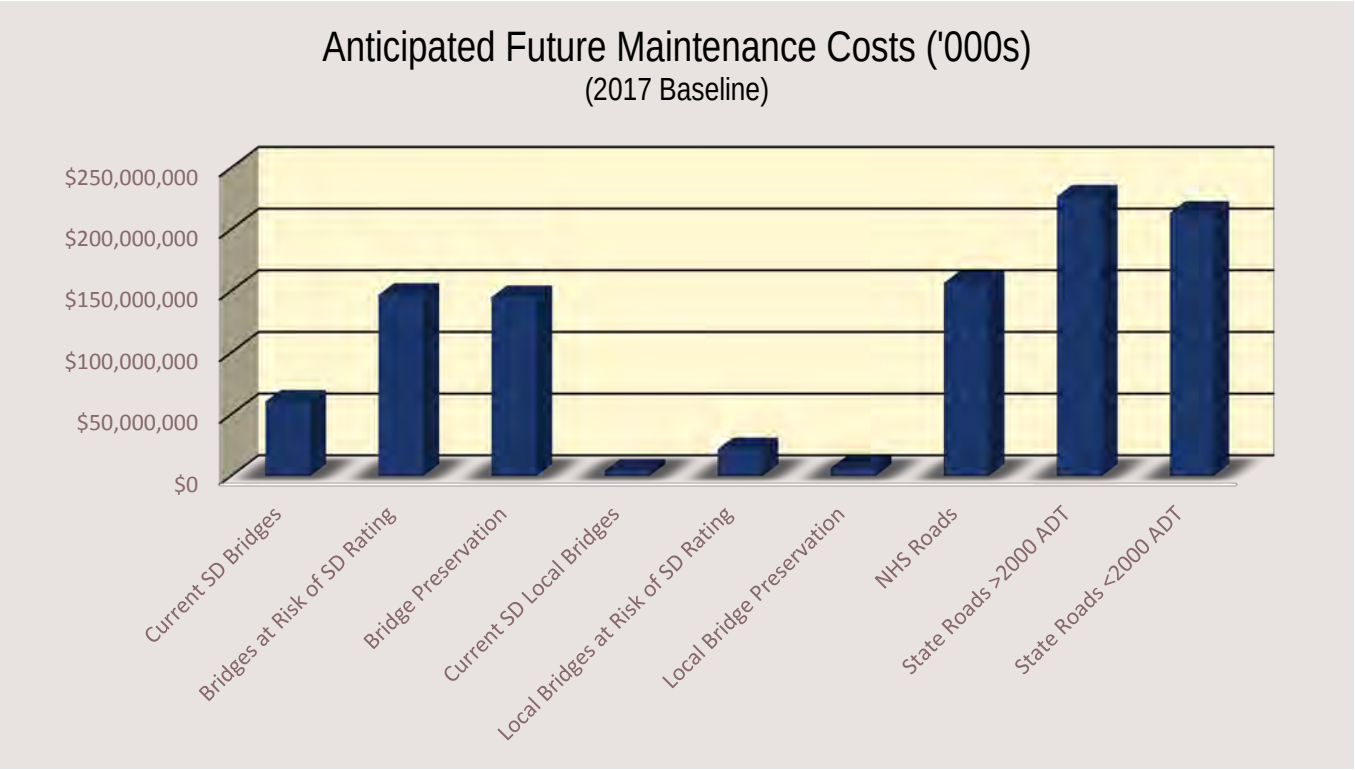
Table 9B: PROJECTED FUTURE NETWORK COSTS - STATE ROADS (5% ANNUAL INCREASE)

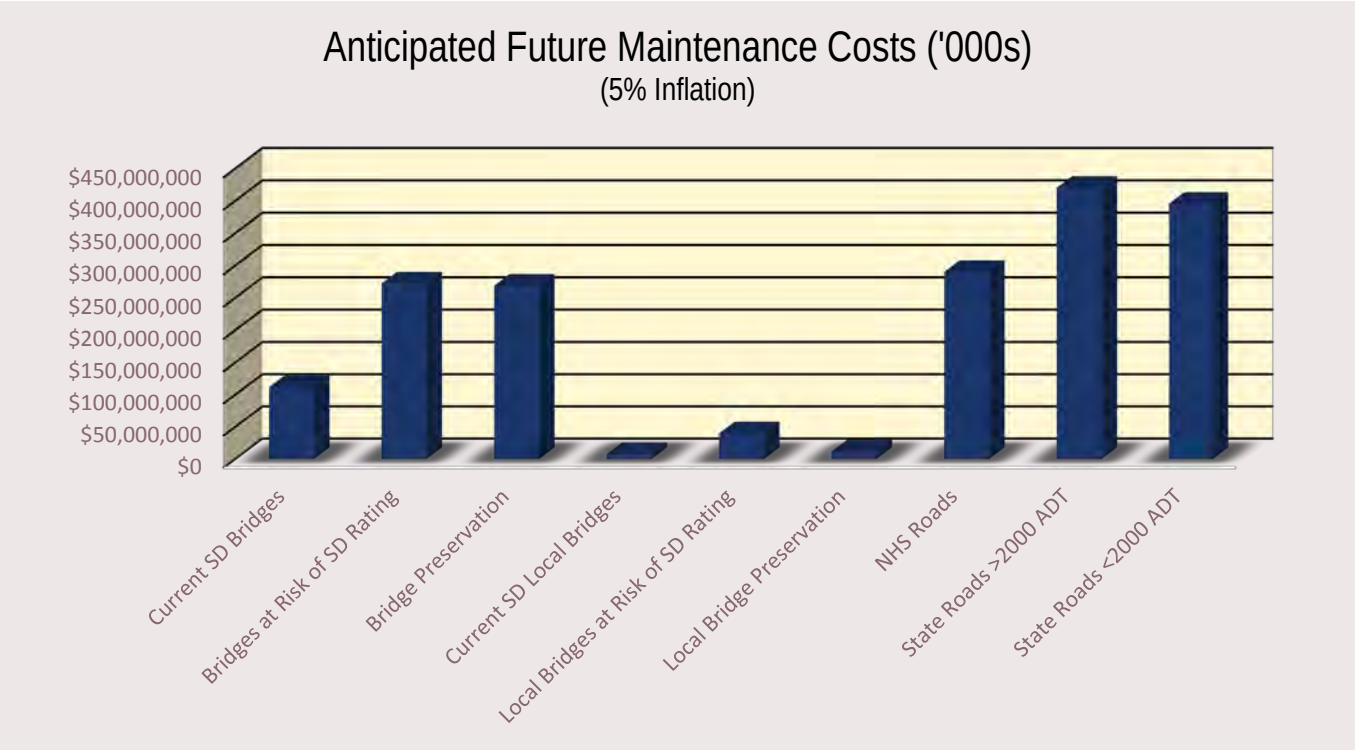
Year	NHS Roads ($ per mile)	Total NHS Road Costs	State Roads greater than 2000 ADT ($per mile)	Total State Roads greater than 2000 ADT Costs	State Roads less than 2000 ADT ($ per mile)	Total State Roads less than 2000 ADT Costs
2017	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2018	$735,000	$6,838,930	$525,000	$9,910,250	$315,000	$9,325,890
2019	$771,750	$7,180,877	$551,250	$10,405,763	$330,750	$9,792,185
2020	$810,338	$7,539,920	$578,813	$10,926,051	$347,288	$10,281,794
2021	$850,854	$7,916,916	$607,753	$11,472,353	$364,652	$10,795,883
2022	$893,397	$8,312,762	$638,141	$12,045,971	$382,884	$11,335,678
2023	$938,067	$8,728,400	$670,048	$12,648,269	$402,029	$11,902,461
2024	$984,970	$9,164,820	$703,550	$13,280,683	$422,130	$12,497,585
2025	$1,034,219	$9,623,061	$738,728	$13,944,717	$443,237	$13,122,464
2026	$1,085,930	$10,104,214	$775,664	$14,641,953	$465,398	$13,778,587
2027	$1,140,226	$10,609,425	$814,447	$15,374,050	$488,668	$14,467,516
2028	$1,197,238	$11,139,896	$855,170	$16,142,753	$513,102	$15,190,892
2029	$1,257,099	$11,696,891	$897,928	$16,949,891	$538,757	$15,950,437
2030	$1,319,954	$12,281,736	$942,825	$17,797,385	$565,695	$16,747,959
2031	$1,385,952	$12,895,822	$989,966	$18,687,254	$593,979	$17,585,356
2032	$1,455,250	$13,540,614	$1,039,464	$19,621,617	$623,678	$18,464,624
2033	$1,528,012	$14,217,644	$1,091,437	$20,602,698	$654,862	$19,387,856
2034	$1,604,413	$14,928,527	$1,146,009	$21,632,833	$687,605	$20,357,248
2035	$1,684,633	$15,674,953	$1,203,310	$22,714,475	$721,986	$21,375,111
2036	$1,768,865	$16,458,700	$1,263,475	$23,850,198	$758,085	$22,443,866
2037	$1,857,308	$17,281,635	$1,326,649	$25,042,708	$795,989	$23,566,060
2038	$1,950,174	$18,145,717	$1,392,981	$26,294,844	$835,789	$24,744,363
2039	$2,047,683	$19,053,003	$1,462,630	$27,609,586	$877,578	$25,981,581
2040	$2,150,067	$20,005,653	$1,535,762	$28,990,065	$921,457	$27,280,660
Totals		**$289,853,386**		**$420,024,699**		**$395,257,854**

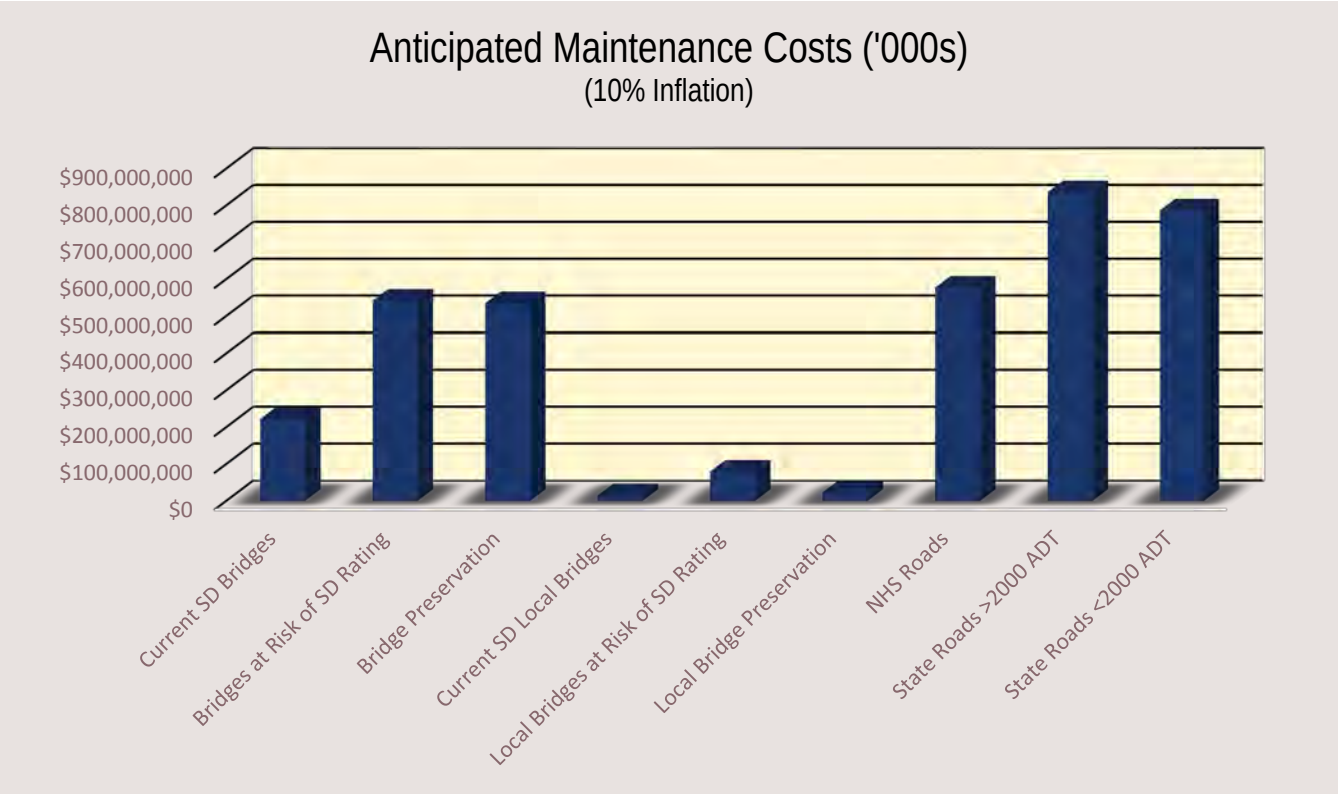
Table 10B: PROJECTED FUTURE NETWORK COSTS - STATE ROADS (10% ANNUAL INCREASE)

Year	NHS Roads ($ per mile)	Total NHS Road Costs	State Roads greater than 2000 ADT ($ per mile)	Total State Roads greater than 2000 ADT Costs	State Roads less than 2000 ADT ($ per mile)	Total State Roads less than 2000 ADT Costs
2017	$700,000	$6,513,267	$500,000	$9,438,333	$300,000	$8,881,800
2018	$770,000	$7,164,593	$550,000	$10,382,167	$330,000	$9,769,980
2019	$847,000	$7,881,053	$605,000	$11,420,383	$363,000	$10,746,978
2020	$931,700	$8,669,158	$665,500	$12,562,422	$399,300	$11,821,676
2021	$1,024,870	$9,536,074	$732,050	$13,818,664	$439,230	$13,003,843
2022	$1,127,357	$10,489,681	$805,255	$15,200,530	$483,153	$14,304,228
2023	$1,240,093	$11,538,649	$885,781	$16,720,583	$531,468	$15,734,650
2024	$1,364,102	$12,692,514	$974,359	$18,392,642	$584,615	$17,308,116
2025	$1,500,512	$13,961,766	$1,071,794	$20,231,906	$643,077	$19,038,927
2026	$1,650,563	$15,357,942	$1,178,974	$22,255,096	$707,384	$20,942,820
2027	$1,815,620	$16,893,736	$1,296,871	$24,480,606	$778,123	$23,037,102
2028	$1,997,182	$18,583,110	$1,426,558	$26,928,667	$855,935	$25,340,812
2029	$2,196,900	$20,441,421	$1,569,214	$29,621,533	$941,529	$27,874,893
2030	$2,416,590	$22,485,563	$1,726,136	$32,583,686	$1,035,681	$30,662,382
2031	$2,658,249	$24,734,119	$1,898,749	$35,842,055	$1,139,250	$33,728,621
2032	$2,924,074	$27,207,531	$2,088,624	$39,426,261	$1,253,174	$37,101,483
2033	$3,216,481	$29,928,284	$2,297,486	$43,368,887	$1,378,492	$40,811,631
2034	$3,538,129	$32,921,113	$2,527,235	$47,705,775	$1,516,341	$44,892,794
2035	$3,891,942	$36,213,224	$2,779,959	$52,476,353	$1,667,975	$49,382,074
2036	$4,281,136	$39,834,547	$3,057,955	$57,723,988	$1,834,773	$54,320,281
2037	$4,709,250	$43,818,001	$3,363,750	$63,496,387	$2,018,250	$59,752,309
2038	$5,180,175	$48,199,801	$3,700,125	$69,846,026	$2,220,075	$65,727,540
2039	$5,698,192	$53,019,781	$4,070,137	$76,830,628	$2,442,082	$72,300,294
2040	$6,268,012	$58,321,760	$4,477,151	$84,513,691	$2,686,291	$79,530,323
Totals		**$576,406,688**		**$835,267,269**		**$786,015,557**

FIGURE 1B: ANTICIPATED FUTURE MAINTENANCE COSTS






Anticipated Maintenance Costs ('000s)
(10% Inflation)
$900,000,000
$800,000,000
$700,000,000
$600,000,000
$500,000,000
$400,000,000
$300,000,000
$200,000,000
$100,000,000
$0
Current SD Bridges
Bridges at Risk of SD Rating
Bridge Preservation
Current SD Local Bridges
Local Bridges at Risk of SD Rating
Local Bridge Preservation
NHS Roads
State Roads >2000 ADT
State Roads <2000 ADT

APPENDIX C

ENVIRONMENTAL RESOURCES OVERVIEW

As part of the LRTP development process, existing plans concerning natural resources, such as water, agriculture and open space/greenways, cultural and/or historic resources, and other key environmental resources were evaluated in context with potential transportation improvements. Two main plans were used to analyze potential environmental impacts, the 1996 Adams County Natural Areas Inventory and the 2010 Adams County Greenways Plan. The LRTP and potential environmental impacts were presented to the federal and state resource agencies at the Agency Coordination Meeting (ACM) on April 25, 2012. A summary of the contents of each plan and the analysis presented to the ACM are provided below.

A. ADAMS COUNTY NATURAL AREAS INVENTORY

The Adams County Natural Areas Inventory (NAI) was prepared in 1996 (and subsequently updated in 2002) in conjunction with the Adams County Parks, Recreation and Open Space Study. The NAI contains information on the locations of rare, threatened, and endangered species and of the highest quality natural areas in the county. Each site identified in the NAI is accompanied by management recommendations to help ensure the protection and continued existence of the rare plants, animals, and natural communities.

B. ADAMS COUNTY GREENWAYS PLAN

The Adams County Greenways Plan was adopted in February 2010 as an amendment to the Adams County Comprehensive Plan. The primary goal of the Plan is *"to enhance existing and future communities in Adams County by preserving and, where appropriate, developing various types of greenways."* Environmental resources identified and evaluated by the Greenways plan include significant regional settings, cultural and historic sites, scenic resources, natural features, man-made corridors, parks and recreation sites, and open spaces.

C. LRTP ENVIRONMENTAL SCREENING RESULTS

Through the Linking Planning and NEPA process and following an evaluation of existing environmental resources the following resources were identified as having the most potential impacts:

- Act 167 Watersheds
- Agriculture
  - Prime Farmland Soils
  - Agricultural Easements
- Historic Properties or Archeological Resources
  - Potential for Historic Properties
- Wetlands
  - Hydric Soils
- Resources Protected under Section 4(f)
- Hazardous / Residual Waste Sites

SUMMARY OF LINKING PLANNING & NEPA ENVIRONMENTAL SCREENING RESULTS

Environmental Screening Categories	Screening Hits	Percentage
Wild or Stocked Trout Streams	2	6%
High Quality/EV Streams	2	6%
Wetlands	34	97%
Potential Impacts to T/E Species	0	0%
Historic Properties or Archaeological Resources	35	100%
Potential Public Controversy	0	0%
Resources Protected Under Section 4(f)	34	97%
Water Trail	0	0%
Hazardous/Residual Waste Site	33	94%
Regulated Floodplain	13	37%
Agriculture	35	100%
Navigable Watercourses	0	0%
Properties Under Section 6(f) of the LWCF Act	1	3%

Linking Planning & NEPA Detailed Environmental Screening Results		
Detailed Environmental Screening Categories	Screening Hits	Percentage
Class A Wild Trout Streams	0	0%
Streams Supporting Wild Trout Production	2	6%
Wilderness Trout Streams	0	0%
Ch. 93 Existing Use wild or stocked Trout Streams	0	0%
Ch. 93 Designated Use	2	6%
Ch. 93 High Quality/EV Streams	0	0%
Hydric Soils	33	94%
National Wetland Inventory	33	94%
Potential for effects to Archaeological Resources	12	34%
High Probability of archeological site within 100 feet of proposal	31	89%
Medium probability of archeological site within 100 feet of proposal	35	100%
Potential for effects to Historic Properties	35	100%
Boundaries of State Parks	0	0%
DCNR- State Forest Lands	0	0%
Protected Lands Inventory- Federal	1	3%
State Game Lands	0	0%
Statewide Trails- DCNR	0	0%
PA Water Trails	0	0%
Captive Hazardous Waste Operations	1	3%
Commercial Hazardous Waste Operations	0	0%
EPA GeoSpatial Data	32	91%
Land Recycling Cleanup Locations	11	31%
Municipal Waste Operations	1	3%
Storage Tank Locations	6	17%
Bridge Projects with a floodplain within 100 yards	0	0%
100 year Floodplain	13	37%
Agricultural Easements	17	48%
Prime Farmland	35	100%
Navigable Waters	0	0%
Property boundaries for lands acquired with LWCF money	0	0%
Projects that use LWCF money	1	3%
FEMA/PEMA Unified Hazard Mitigation Assistance Program Properties	0	0%
Act 167 Watershed	25	71%

APPENDIX D

2017 – 2020 TRANSPORTATION IMPROVEMENT PROGRAM

							FFY 2017 Costs						FFY 2018 Costs						FFY 2019 Costs						FFY 2020 Costs						
County	S.R.	Sec.	Project	Project Title	Ph	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	^Milestones
Adams			102142	DF Box Culvert Line Item Ada	C	BRDG									581	225,000		225,000													
Adams			102142	DF Box Culvert Line Item Ada	C	BRDG															581	225,000		225,000							
Adams			102142	DF Box Culvert Line Item Ada	C	BRDG																					581	225,000		225,000	
Adams			106555	Road Safety Audit Line Item	C	SAMI			581	30,000		30,000																			
Adams			106555	Road Safety Audit Line Item	C	SAMI															581	30,000		30,000							
Adams			87792	Bridge Reserve	C	BRDG			185	50,751		50,751																			
Adams			87792	Bridge Reserve	C	BRDG									185	21,394		21,394													
Adams			87792	Bridge Reserve	C	BRDG																					185	266,000		266,000	
Adams			87793	Highway Reserve	C	BRDG			581	36,000		36,000																			
Adams			87793	Highway Reserve	C	HRST													STP	878,000				878,000							
Adams			87793	Highway Reserve	C	HRST																			NHPP	1,893,999	581	180,027		2,074,026	
Adams			87793	Highway Reserve	C	HRST																			STP	196,000				196,000	
Adams			87794	CMAQ Line Item	C	AIR													CAQ	234,578				234,578							
Adams			87794	CMAQ Line Item	C	AIR																			CAQ	619,960				619,960	
Adams			87807	Delivery / Consult Assist	P	PRA			581	400,000		400,000																			
Adams			87807	Delivery / Consult Assist	P	PRA									581	400,000		400,000													
Adams			87807	Delivery / Consult Assist	P	PRA															581	400,000		400,000							
Adams			87807	Delivery / Consult Assist	P	PRA																					581	400,000		400,000	
Adams			87807	Delivery / Consult Assist	C	PRA			581	200,000		200,000																			
Adams			87807	Delivery / Consult Assist	C	PRA									581	200,000		200,000													
Adams			87807	Delivery / Consult Assist	C	PRA															581	200,000		200,000							
Adams			87807	Delivery / Consult Assist	C	PRA																					581	200,000		200,000	
Adams			87811	HSIP Line Item	C	SAMI													HSIP	65,000				65,000							
Adams			87811	HSIP Line Item	C	SAMI																			HSIP	1,014,000				1,014,000	
Adams			95724	Gettysburg Inner Loop TRL	+C	TENH	CAQ	573,755				573,755																			02/09/2017 E
Adams			95724	Gettysburg Inner Loop TRL	+C	TENH							CAQ	588,163				588,163													02/09/2017 E
Adams			95724	Gettysburg Inner Loop TRL	+C	TENH													CAQ	38,082				38,082							02/09/2017 E
Adams		RSP	82372	SRTP Rideshare Program	P	IMOD	CAQ	59,245				59,245																			
Adams		RSP	82372	SRTP Rideshare Program	P	IMOD							CAQ	59,837				59,837													
Adams		RSP	82372	SRTP Rideshare Program	P	IMOD													CAQ	60,435				60,435							
Adams		RSP	82372	SRTP Rideshare Program	P	IMOD																			CAQ	61,040				61,040	
Adams		RWY	58137	Eisenhower Blvd Extension	F	HCON															581	1,250,000		1,250,000							
Adams		RWY	58137	Eisenhower Blvd Extension	F	HCON																					581	750,000		750,000	
Adams		RWY	58137	Eisenhower Blvd Extension	U	HCON																					581	500,000		500,000	
Adams		RWY	58137	Eisenhower Blvd Extension	R	HCON																					581	451,973		451,973	
Adams		TAP	104301	GIL Segments A1 and A2	C	TENH							TAP	334,236				334,236													05/24/2018 E
Adams	15	0	106447	US 15/PA 94 Study	S	HCON			581	300,000		300,000																			
Adams	15	038	102333	US-15 Jughandles - Adams	+C	SAMI	sNHPP	2,000,000				2,000,000																			06/08/2017 E
Adams	15	039	58136	US-15/US-30 Interchange	+F	HCON							NHPP	250,001				250,001													
Adams	15	039	58136	US-15/US-30 Interchange	+F	HCON													NHPP	542,000				542,000							
Adams	15	039	58136	US-15/US-30 Interchange	+F	HCON													STP	208,000				208,000							

d Discretionary e Economic Development f Flex fd Flexed s Spike + Indicates phase qualifies for TOLL funds * Includes Conversion Amount On Obligation Plan Obligations have occurred ^PE-NEPA, FD-PSE CO, UTL-FnL UTL Clr, ROW-Cond ROW, CON-Let

							FFY 2017 Costs						FFY 2018 Costs						FFY 2019 Costs						FFY 2020 Costs						
County	S.R.	Sec.	Project	Project Title	Ph	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	^Milestones
Adams	15	039	58136	US-15/US-30 Interchange	+U	HCON													NHPP	477,999				477,999							
Adams	15	039	58136	US-15/US-30 Interchange	+U	HCON																			NHPP	522,001				522,001	
Adams	15	039	58136	US-15/US-30 Interchange	+R	HCON													NHPP	500,000				500,000							
Adams	15	040	99724	US 15 Bridge PM	C	BRDG			581	270,000		270,000																			02/09/2017 E
Adams	15	042	99736	US 15 Brdg over PA 116 PM	C	BRDG			581	200,000		200,000																			02/09/2017 E
Adams	15	043	99739	US 15 Bridge over CSX RR B	C	BRDG			581	250,000		250,000																			02/09/2017 E
Adams	15	045	99734	US 15 Bridge over Rock Cr	C	BRDG			581	500,000		500,000																			02/09/2017 E
Adams	15	046	104606	US 15 over Marsh Creek Br PN	C	BRDG			581	550,000		550,000																			02/09/2017 E
Adams	15	048	105071	US-15 Resurfacing - Adams	C	HRST									581	1,195,630		1,195,630													
Adams	15	048	105071	US-15 Resurfacing - Adams	C	HRST															581	783,250		783,250							
Adams	30	115	101480	US 30 Resurfacing #4	+C	HRST	NHPP	2,182,000				2,182,000																			03/09/2017 E
Adams	30	115	101480	US 30 Resurfacing #4	+C	HRST							NHPP	318,000				318,000													03/09/2017 E
Adams	34	0	96289	Carlisle Road Resurface	C	HRST			409	2,600,000		2,600,000																			05/18/2017 E
Adams	94	0	105331	Carlisle Pike Resurface	+C	HRST							NHPP	1,685,999				1,685,999													
Adams	94	0	105331	Carlisle Pike Resurface	+C	HRST													NHPP	814,001				814,001							
Adams	94	025	94894	94 & 394 Intersection Imp	C	SAMI							HSIP	750,000				750,000													01/11/2018 E
Adams	94	025	94894	94 & 394 Intersection Imp	C	SAMI													HSIP	930,000				930,000							01/11/2018 E
Adams	94	026	94897	94 & 234 Intersection Imp	+C	SAMI	STP	896,001				896,001																			01/12/2017 E
Adams	94	026	94897	94 & 234 Intersection Imp	+C	SAMI							STP	734,094				734,094													01/12/2017 E
Adams	94	026	94897	94 & 234 Intersection Imp	+C	SAMI													CAQ	329,905				329,905							01/12/2017 E
Adams	97	009	96245	Baltimore Pike Resurface	C	HRST									409	2,645,000		2,645,000													09/14/2017 E
Adams	116	0	106448	PA 116 Road Safety Audit	S	SAMI			581	75,000		75,000																			
Adams	116	032	18147	Fairfield Road Bridge 2	C	BRDG									185	1,138,630		1,138,630													01/01/2018 E
Adams	116	032	18147	Fairfield Road Bridge 2	C	BRDG									581	361,370		361,370													01/01/2018 E
Adams	134	005	99672	Taneytown Road Bridge PM	F	BRDG			581	100,000		100,000																			
Adams	134	005	99672	Taneytown Road Bridge PM	C	BRDG			581	250,000		250,000																			02/09/2017 E
Adams	194	0	105328	Abbottstown Pike Rsf	C	HRST									581	650,000		650,000													
Adams	234	0	96288	Arendtsville Rd Resurface	C	HRST			581	1,100,000		1,100,000																			
Adams	234	020	73602	234 & 3001 Improvements	C	SAMI	HSIP	961,000				961,000																			08/10/2017 E
Adams	234	020	73602	234 & 3001 Improvements	C	SAMI							HSIP	228,000				228,000													08/10/2017 E
Adams	234	022	87426	Heildersburg Bridge-C	P	BRDG			581	250,000		250,000																			
Adams	234	022	87426	Heildersburg Bridge-C	F	BRDG									581	150,000		150,000													
Adams	234	022	87426	Heildersburg Bridge-C	U	BRDG									581	10,000		10,000													
Adams	234	022	87426	Heildersburg Bridge-C	R	BRDG									581	45,000		45,000													
Adams	234	022	87426	Heildersburg Bridge-C	C	BRDG															581	550,000		550,000							01/09/2020 E
Adams	234	023	90693	PA 234 Bridge-C	P	BRDG			185	250,000		250,000																			
Adams	234	023	90693	PA 234 Bridge-C	F	BRDG									581	175,000		175,000													
Adams	234	023	90693	PA 234 Bridge-C	U	BRDG									581	30,000		30,000													

d Discretionary e Economic Development f Flex fd Flexed s Spike + Indicates phase qualifies for TOLL funds * Includes Conversion Amount On Obligation Plan Obligations have occurred ^PE-NEPA, FD-PSE CO, UTL-FnL UTL Clr, ROW-Cond ROW, CON-Let

							FFY 2017 Costs						FFY 2018 Costs						FFY 2019 Costs						FFY 2020 Costs						
County	S.R.	Sec.	Project	Project Title	Ph	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	^Milestones
Adams	234	023	90693	PA 234 Bridge-C	R	BRDG									581	50,000		50,000													
Adams	234	023	90693	PA 234 Bridge-C	C	BRDG															185	785,250		785,250							01/09/2020 E
Adams	234	023	90693	PA 234 Bridge-C	C	BRDG															581	214,750		214,750							01/09/2020 E
Adams	394	0	87672	Shrivers Corner Bridge	P	BRDG									581	150,000		150,000													
Adams	394	0	87672	Shrivers Corner Bridge	F	BRDG																					581	100,000		100,000	
Adams	394	0	87672	Shrivers Corner Bridge	R	BRDG																					581	15,000		15,000	
Adams	1005	009	73854	Latimore Valley Road Brg-C	P	BRDG			185	200,000		200,000																			
Adams	1005	009	73854	Latimore Valley Road Brg-C	F	BRDG									581	350,000		350,000													
Adams	1005	009	73854	Latimore Valley Road Brg-C	R	BRDG									581	50,000		50,000													
Adams	1005	009	73854	Latimore Valley Road Brg-C	+C	BRDG													BOF	631,000				631,000							01/24/2019 E
Adams	1005	009	73854	Latimore Valley Road Brg-C	+C	BRDG													STP	269,000				269,000							01/24/2019 E
Adams	1007	016	78638	Mud Run Bridge-C	P	BRDG			185	150,000		150,000																			
Adams	1007	016	78638	Mud Run Bridge-C	F	BRDG									581	75,000		75,000													
Adams	1007	016	78638	Mud Run Bridge-C	U	BRDG									581	10,000		10,000													
Adams	1007	016	78638	Mud Run Bridge-C	C	BRDG									581	600,000		600,000													01/24/2019 E
Adams	1009	0	87431	Wierman Mill Bridge	P	BRDG									581	75,000		75,000													
Adams	1009	0	87431	Wierman Mill Bridge	F	BRDG																					581	50,000		50,000	
Adams	1009	0	87431	Wierman Mill Bridge	U	BRDG																					581	15,000		15,000	
Adams	1009	0	87431	Wierman Mill Bridge	R	BRDG																					581	10,000		10,000	
Adams	3002	0	99832	Rock Creek Bridge	P	BRDG			581	200,000		200,000																			
Adams	3002	0	99832	Rock Creek Bridge	F	BRDG															581	125,000		125,000							
Adams	3002	0	99832	Rock Creek Bridge	U	BRDG															185	25,000		25,000							
Adams	3002	0	99832	Rock Creek Bridge	R	BRDG															185	15,000		15,000							
Adams	3002	0	99832	Rock Creek Bridge	C	BRDG																			BOF	631,000	185	340,000		971,000	
Adams	3002	0	99832	Rock Creek Bridge	C	BRDG																			STP	729,000				729,000	
Adams	3005	0	78662	Millerstown Road Bridge	P	BRDG			581	100,000		100,000																			
Adams	3005	0	78662	Millerstown Road Bridge	F	BRDG															185	60,000		60,000							
Adams	3005	0	78662	Millerstown Road Bridge	U	BRDG															581	15,000		15,000							
Adams	3005	0	78662	Millerstown Road Bridge	R	BRDG															581	15,000		15,000							
Adams	3005	0	78662	Millerstown Road Bridge	C	BRDG																					581	875,000		875,000	
Adams	3005	0	90752	Trib to Marsh Creek	C	BRDG			185	225,000		225,000																			
Adams	3010	011	87430	Water Street Bridge-C	P	BRDG			185	250,000		250,000																			
Adams	3010	011	87430	Water Street Bridge-C	F	BRDG									581	150,000		150,000													
Adams	3010	011	87430	Water Street Bridge-C	U	BRDG									581	35,000		35,000													
Adams	3010	011	87430	Water Street Bridge-C	R	BRDG									581	40,000		40,000													
Adams	3010	011	87430	Water Street Bridge-C	C	BRDG															581	400,000		400,000							01/09/2020 E
Adams	3017	0	87435	Mummasburg Road Bridge	P	BRDG									581	75,000		75,000													
Adams	3017	0	87435	Mummasburg Road Bridge	F	BRDG																					185	50,000		50,000	

d Discretionary e Economic Development f Flex fd Flexed s Spike + Indicates phase qualifies for TOLL funds * Includes Conversion Amount On Obligation Plan Obligations have occurred ^PE-NEPA, FD-PSE CO, UTL-FnL UTL Clr, ROW-Cond ROW, CON-Let

							FFY 2017 Costs						FFY 2018 Costs						FFY 2019 Costs						FFY 2020 Costs						
County	S.R.	Sec.	Project	Project Title	Ph	Area	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	Fed.	Federal	St.	State	Local	Total	^Milestones
Adams	3017	0	87435	Mummasburg Road Bridge	U	BRDG																					185	15,000		15,000	
Adams	3017	0	87435	Mummasburg Road Bridge	R	BRDG																					185	10,000		10,000	
Adams	4001	012	18148	Old Carlisle Rd Bridge	C	BRDG	STP	306,295	185	76,573		382,868																			07/13/2017 E
Adams	4001	012	18148	Old Carlisle Rd Bridge	C	BRDG							BOF	631,000	185	372,976		1,003,976													07/13/2017 E
Adams	4001	012	18148	Old Carlisle Rd Bridge	C	BRDG							STP	860,906				860,906													07/13/2017 E
Adams	4010	011	74952	Shippensburg Road Bridge	C	BRDG	BOF	631,000	185	249,676		880,676																			08/24/2017 E
Adams	4010	011	74952	Shippensburg Road Bridge	C	BRDG	STP	367,704				367,704																			08/24/2017 E
Adams	7207	BRG	18049	Mengus Mill Rd Bridge	F	BRDG													STP	160,000	183	30,000	10,000	200,000							
Adams	7207	BRG	18049	Mengus Mill Rd Bridge	U	BRDG													STP	40,000	183	7,500	2,500	50,000							
Adams	7207	BRG	18049	Mengus Mill Rd Bridge	R	BRDG													STP	60,000	183	11,250	3,750	75,000							
Adams	7207	BRG	18049	Mengus Mill Rd Bridge	C	BRDG																			STP	720,000	183	135,000	45,000	900,000	02/06/2020 E
Totals for: Adams								7,977,000		8,863,000		16,840,000		6,440,236		9,280,000		15,720,236		6,238,000		5,142,000	16,250	11,396,250		6,387,000		4,588,000	45,000	11,020,000	54,976,486
Overall Totals:								7,977,000		8,863,000		16,840,000		6,440,236		9,280,000		15,720,236		6,238,000		5,142,000	16,250	11,396,250		6,387,000		4,588,000	45,000	11,020,000	54,976,486

d Discretionary **e Economic Development** **f Flex** **fd Flexed** **s Spike** **+ Indicates phase qualifies for TOLL funds** *** Includes Conversion Amount** **On Obligation Plan** **Obligations have occurred** **^PE-NEPA, FD-PSE CO, UTL-FnL UTL Clr, ROW-Cond ROW, CON-Let**

APPENDIX E

LONG LIST OF FUTURE PROJECTS

A. FUTURE PROJECTS

During the development of the LRTP, projects identified by previous county and regional Comprehensive Plans, targeted transportation plans, and municipal traffic studies were reviewed and considered for inclusion in the CIP. Projects that did not rise to the level of inclusion in Capital Improvements Plan (CIP) are listed below. These projects should be considered for further analysis and study through regional or targeted corridor studies before being added to the CIP of the LRTP, and ultimately the TIP, when financial capacity is available to implement new projects and/or a source of matching funds is identified by a local sponsor. Furthermore, any project or improvement identified in a future Comprehensive Plan, Official Map, Act 209 Ordinance, Traffic Study, or other transportation-related planning effort shall automatically be considered as a Future Candidate Project in the LRTP.

(1) PREVIOUSLY FUNDED PROJECTS. The following projects were previous recipients of funding through the TIP process or as an Earmark in Federal legislation.

- East-West Adams County Mobility Study

(2) CONGESTION MANAGEMENT PROJECTS. The following area or corridors were identified by the Travel Demand Model (TDM) as area of concern for future congestion issues.

- Gettysburg, including:
  - US Route 30,
  - PA Route 116,
  - PA Route 234, and
  - PA Route 394.

- New Oxford, including:
  - US Route 30,
  - Hanover Street (SR 1015), and
  - Oxford Road (SR 1015).

- Abbottstown, including:
  - US Route 30, and
  - PA Route 194.
- PA Route 194 between Hanover and Littlestown.

- High Street Connection between Eisenhower Drive and Hanover Street (SR 1015).

(3) US ROUTE 15 INTERCHANGE PROJECTS. The following interchange and at-grade crossing points along the US Route 15 Corridor should be further evaluated for safety and congestion management related issues.

- Business Route 15 (Emmitsburg Road)
- PA Route 134 (Taneytown Road)
- PA Route 97 (Baltimore Street)
- PA Route 116 (Hanover Street)
- PA Route 394 (Hunterstown Road)
- PA Route 234 (Biglerville Road)

(4) NATIONAL HIGHWAY SYSTEM (NHS) IMPROVEMENTS.

Adams County has three road corridors designated as components of the National Highway System (NHS), Route 15, Route 30 and Route 94 from the US 15/94 Interchange to the York/Adams County Line. These roads connect Adams County to larger regional commercial and employment centers and carry the highest traffic volumes of all roads in the County. Improvements to specific intersections, bridges and/or road segments along these routes should receive a higher degree of priority for roadway and bridge maintenance as well as for safety improvements, for both vehicles and bicycles and pedestrians, and mobility improvements related to goods movement and transit due to their importance in providing access for Adams County residents and workers to regional commercial and employment centers.

(5). SAFETY IMPROVEMENT PROJECTS. Due to the sensitive nature of accident cluster reports and the continually changing database for evaluating the number and severity of accident locations, no specific projects have been identified in this section. However, all intersection locations within Adams County identified on the Statewide and Countywide Accident lists prepared by PennDOT are hereby included.

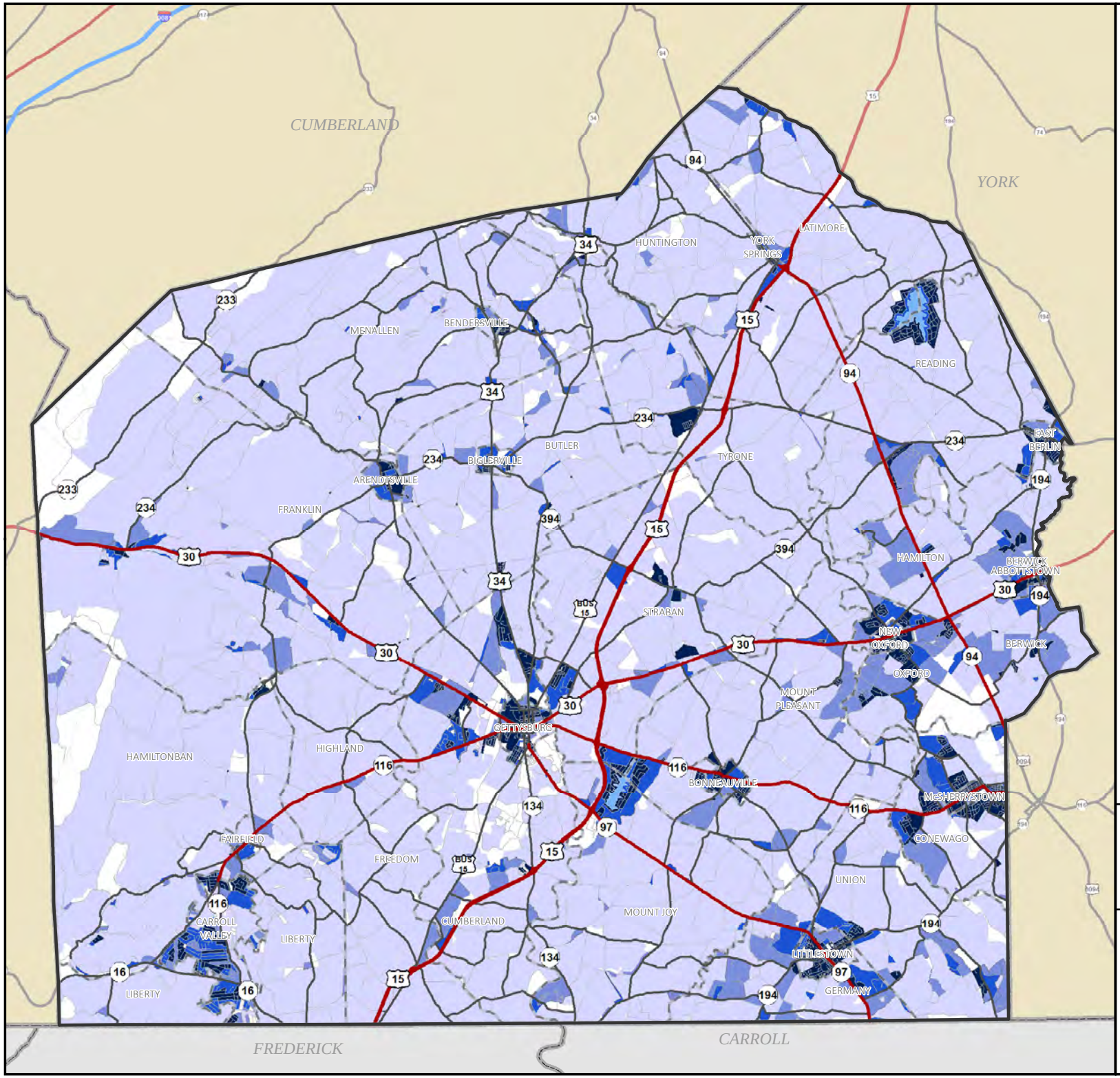
(6). BRIDGE PROJECTS. As of the effective date of this plan, all current Structurally Deficient (SD) bridges, as well as all bridges subsequently classified as SD through the bridge inspection process are hereby included for future consideration.

(7). BICYCLE, PEDESTRIAN, AND NON-MOTORIZED PROJECTS. The following projects have been identified as future candidates under this category:

- New Oxford Center Square Improvements
- New Oxford Bicycle and Pedestrian Path
- September 11 Trail
- Hanover to Gettysburg Bicycle Trail
- Baltimore Street Improvements
- Gettysburg to Emmitsburg Bicycle Trail
- North Gettysburg Trail
- Journey Through Hallowed Ground / Scenic Byways Implementation
- Grand History Trail
- Hamiltonban Township, Fairfield Borough, and Carroll Valley Borough Proposed Trail Corridor

APPENDIX F

MAPS



Map 1
POPULATION DENSITY

Legend

- Interstate
- National Highway System
- State Route
- Local or Private Road

Population Density*

- 0
- Less than 250
- 250 - 500
- 501 - 1,000
- Greater than 1,000
- Municipal Boundary
- County Boundary

* Population Density is shown per square mile of a Census Block.

Miles

0 1.25 2.5 5

N W E S

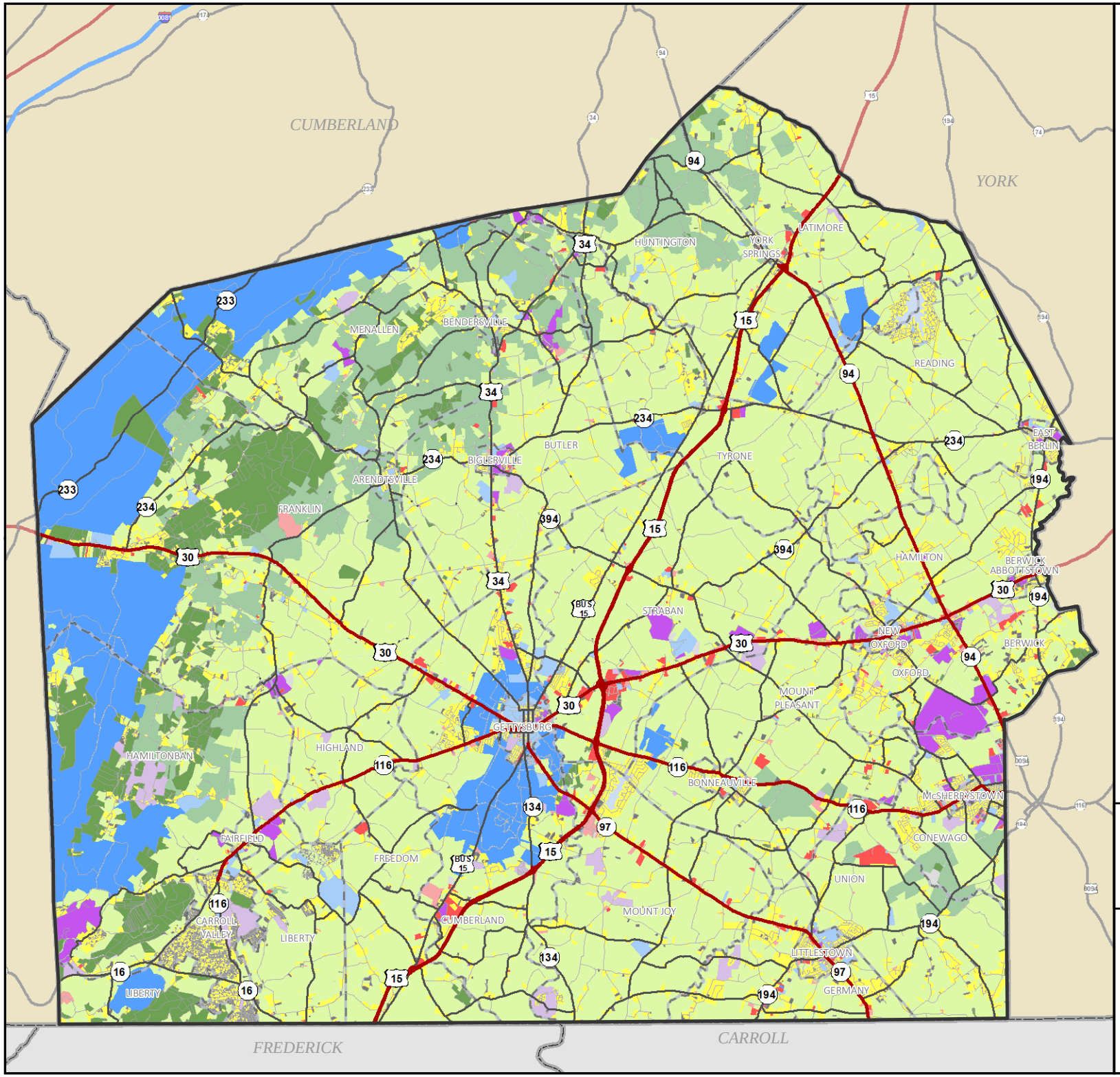
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 26, 2016



MAP 2
EXISTING LAND USE

Legend

- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

Existing Land Use

- Woodland
- Specialized Agriculture
- Agriculture - Open Space - Large Lot Residential
- Industrial - Quarry
- Commercial
- Institutional
- Residential
- Mixed Use
- State - Federal
- Undeveloped (<10 ac.)
- Infrastructure
- Outdoor Recreation
- Water

Miles

0 1.25 2.5 5

N W E S

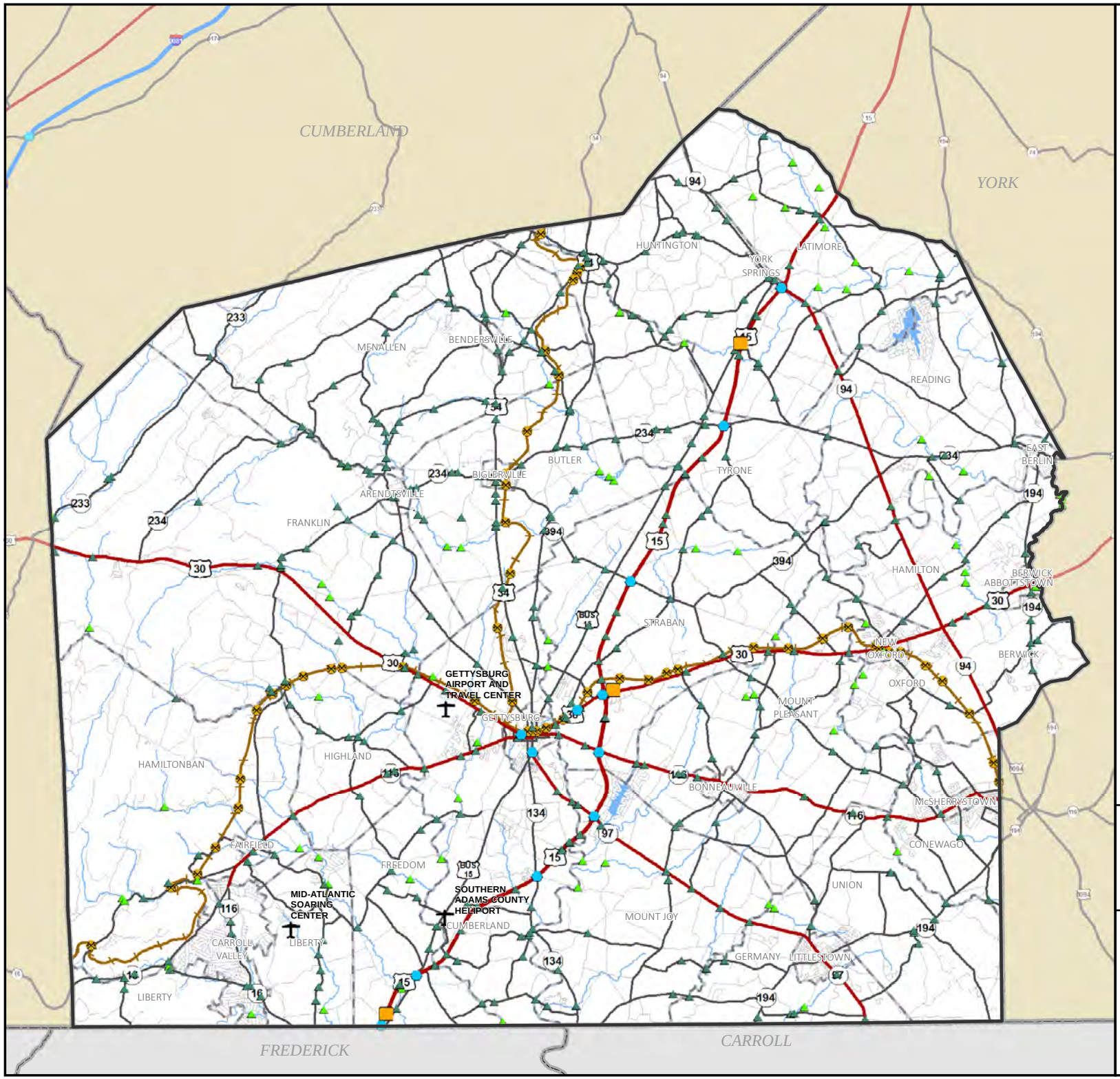
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division

January 10, 2017



Map 3
TRANSPORTATION NETWORK

Legend

- Airports
- At-Grade Railroad Crossing
- ITS - Cameras
- ITS - Dynamic Message Sign
- State Bridge
- Local Bridge
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Railroad
- Stream
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

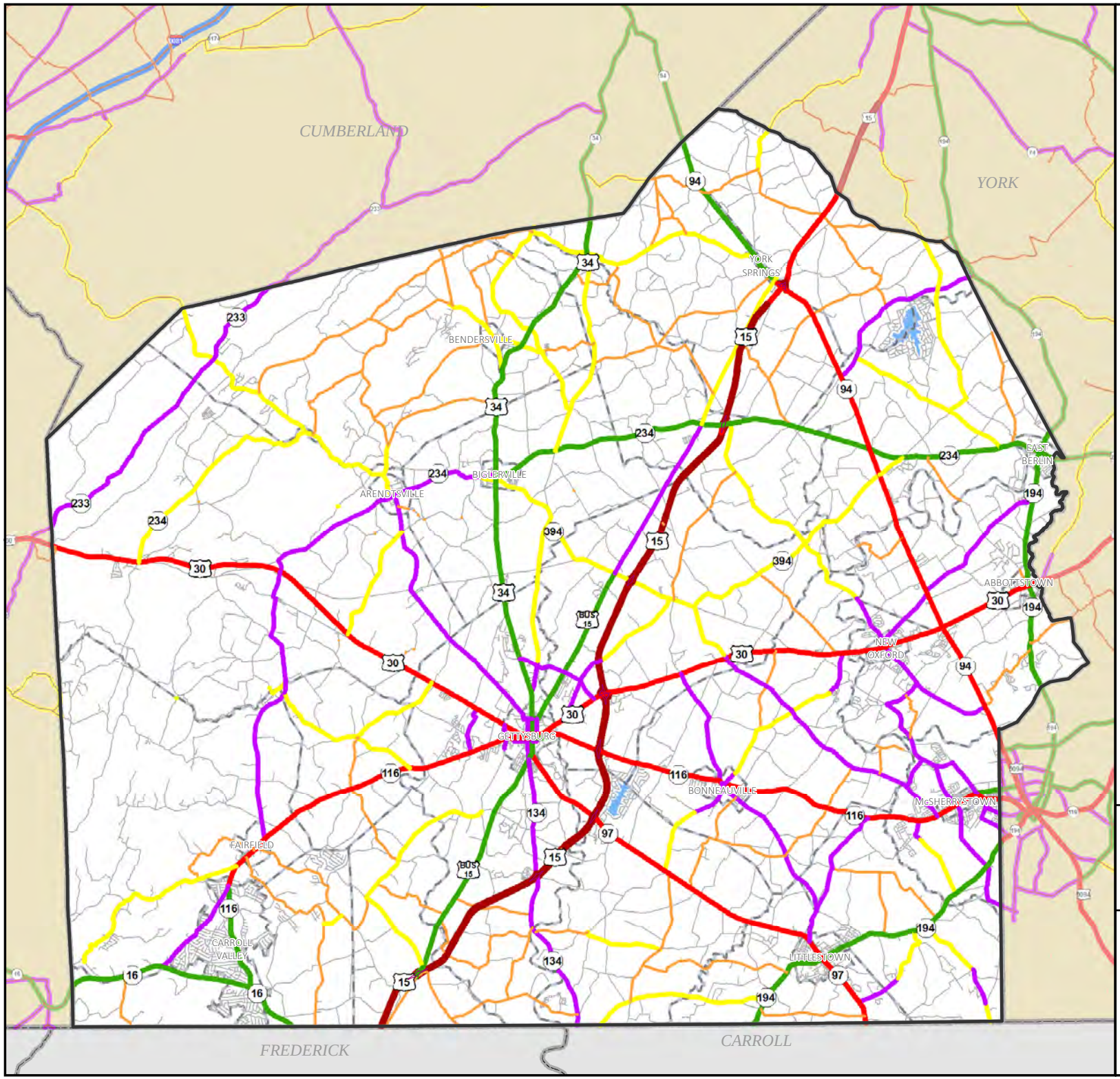
N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 13, 2016



Map 4
FUNCTIONAL CLASSIFICATION OF ROADWAYS

Legend

- Freeway
- Other Principal Arterial
- Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- State Owned Local Road
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

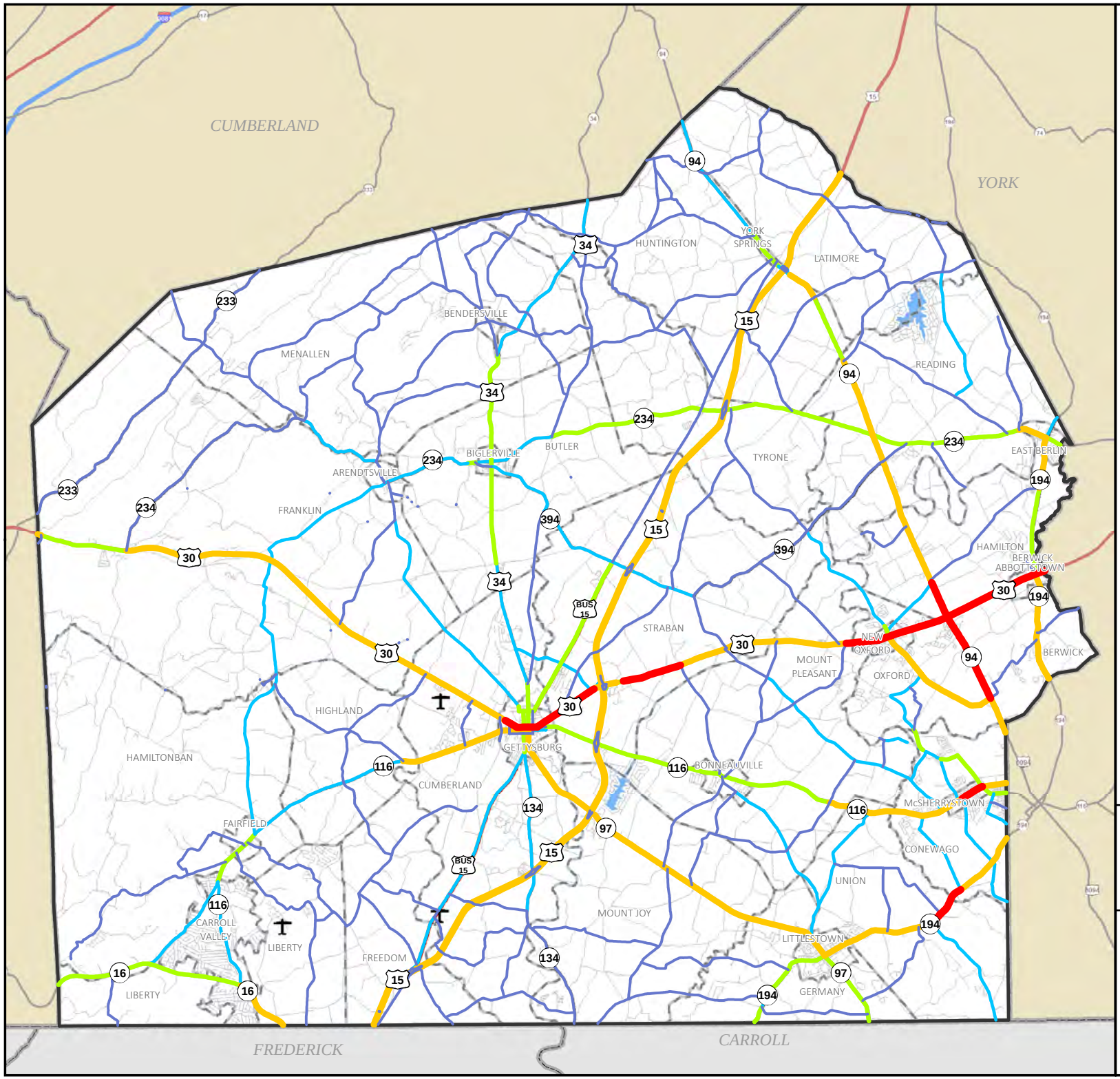
N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

November 1, 2016



Map 5
AVERAGE DAILY TRAFFIC

Legend

Current Average Annual Daily Traffic

- 67 - 2,000
- 2,001 - 5,000
- 5,001 - 8,000
- 8,001 - 13,000
- 13,001 - 18,343
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N W E S

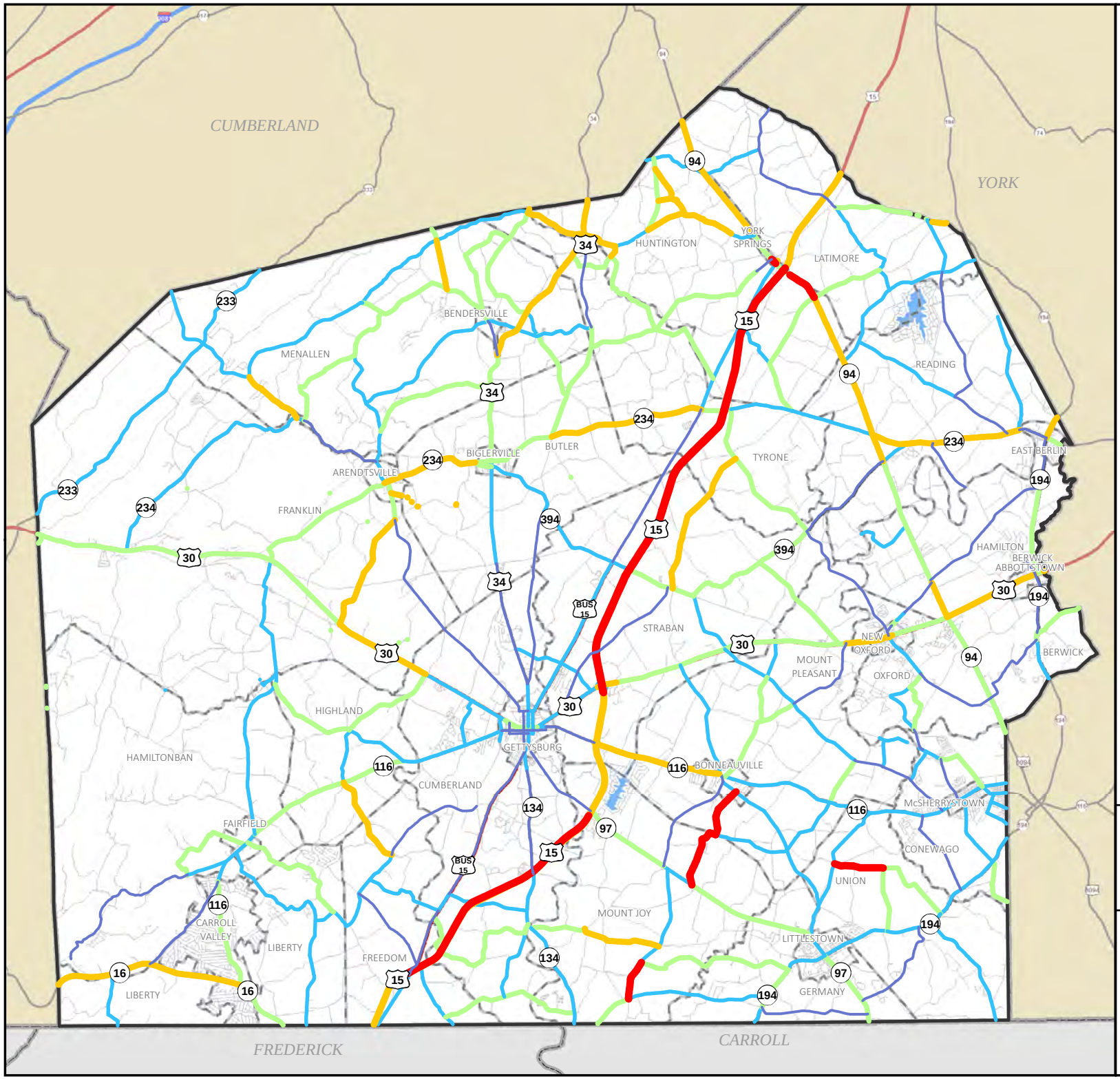
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 20, 2016



Map 6
PERCENTAGE OF TRUCK TRAFFIC

Legend

Percentage of Trucks on Roadways

- 1% - 3%
- 4% - 7%
- 8% - 10%
- 11% - 15%
- 16% - 22%
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

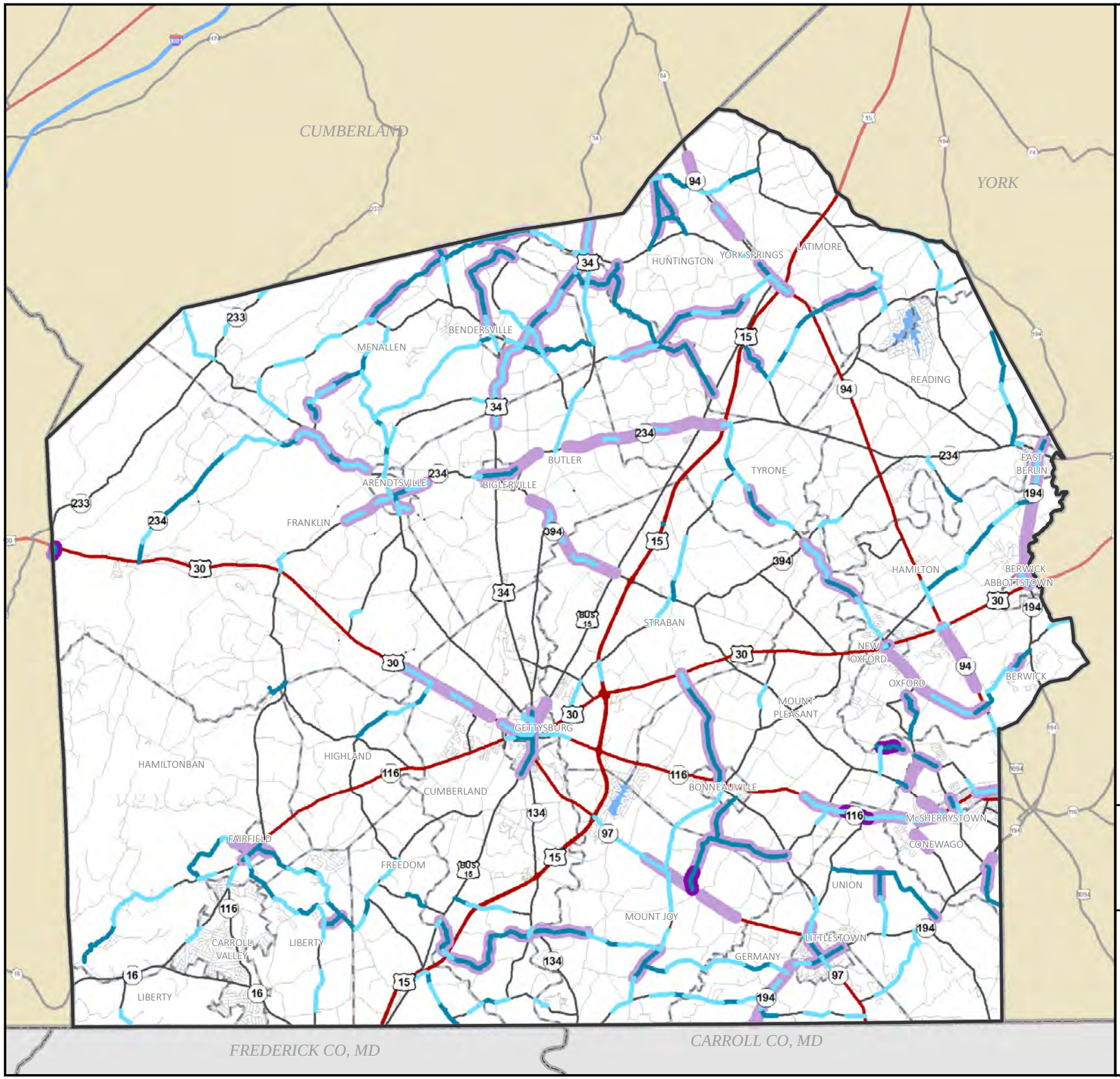
N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 20, 2016



Map 7
PAVEMENT CONDITION

Legend

- Fair IRI
- Poor IRI
- Fair OPI
- Poor OPI
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

IRI - International Roughness Index
OPI - Overall Pavement Index

Miles
0 1.25 2.5 5

N W E S

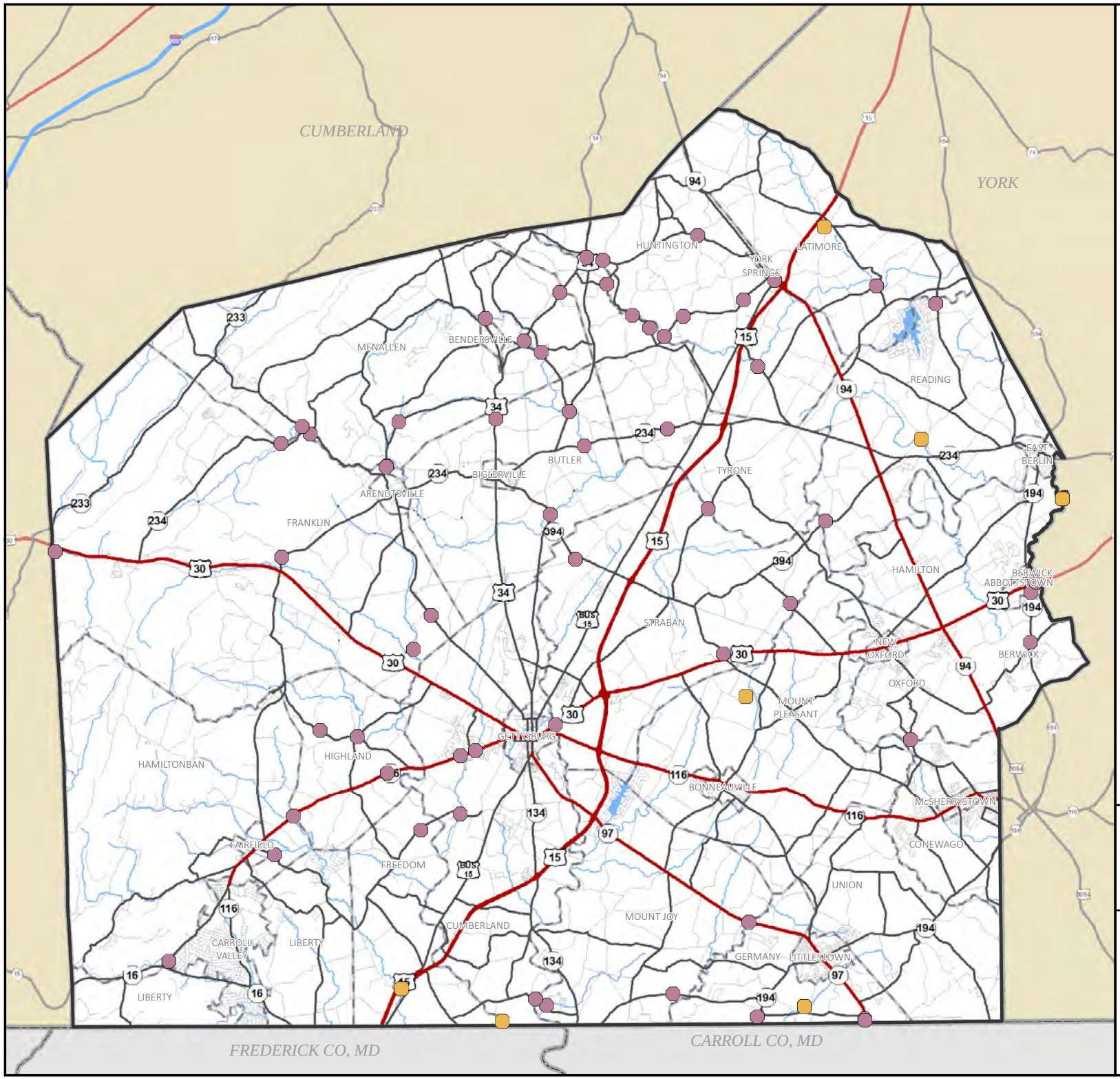
LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 14, 2016

Map 8
STRUCTURALLY DEFICIENT BRIDGES



Legend

- Sturcturally Deficient State Bridges (59)
- Structurally Deficient Local Bridges (7)
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Stream
- Municipal Boundary
- County Boundary

Miles

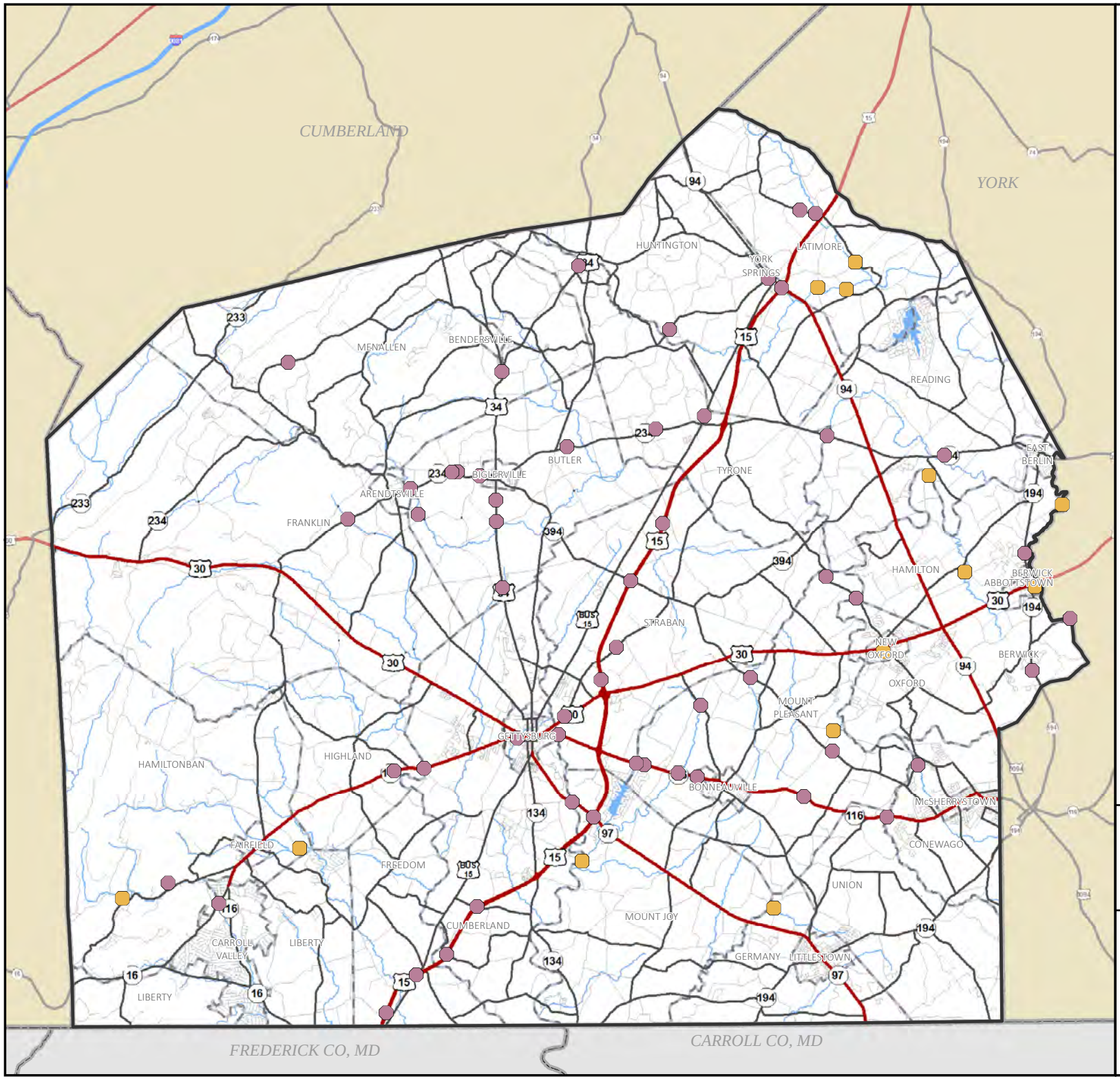
0 1.25 2.5 5

N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT MPMS October 14, 2016



Map 9
FUNCTIONALLY OBOSOLETE BRIDGES

Legend

- Functionally Obosolete State Bridge (54)
- Functionally Obsolete Local Bridge (13)
- Interstate
- National Highway System
- State Road
- Local or Private Road
- Stream
- Municipal Boundary
- County Boundary

Miles

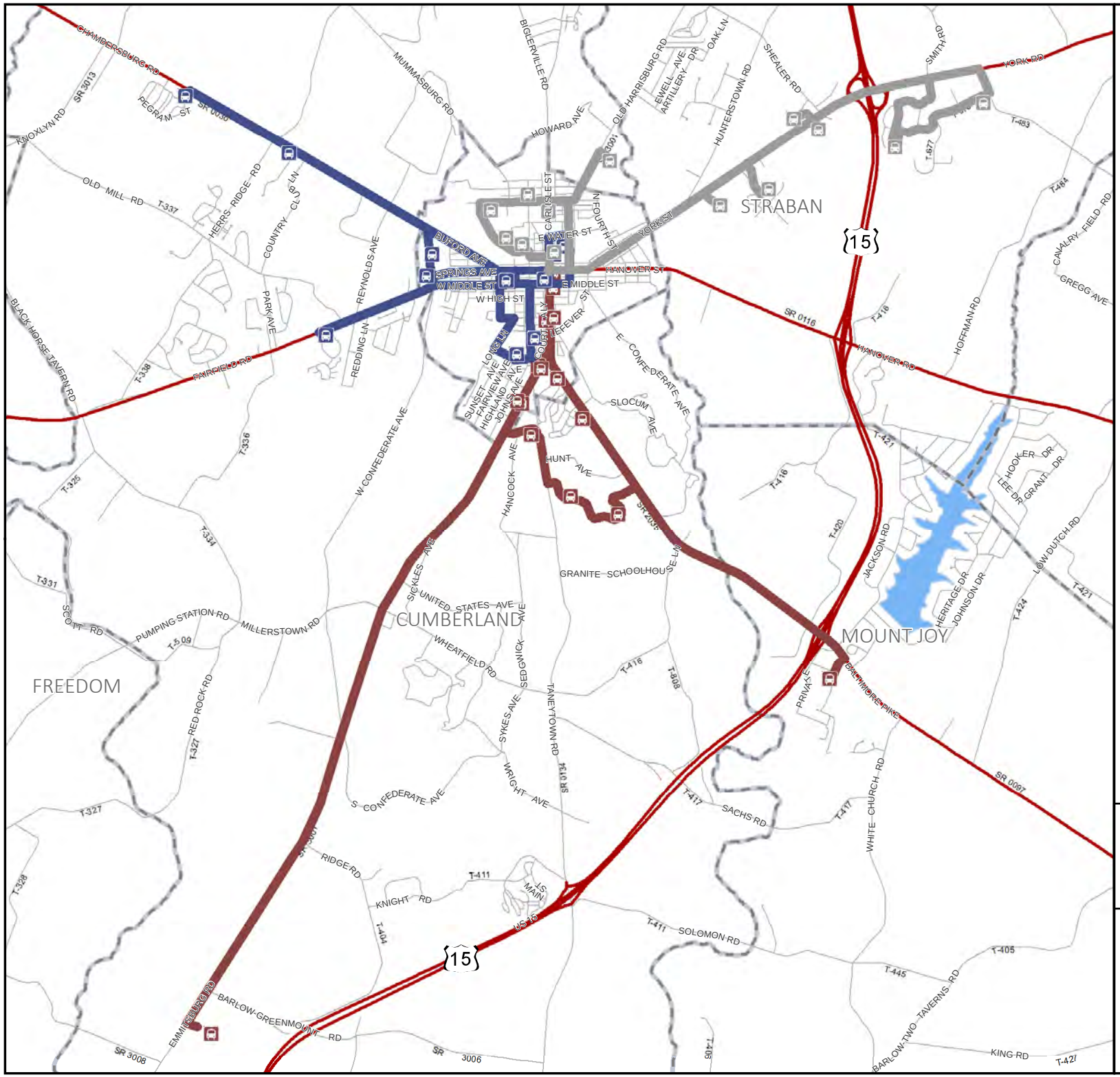
0 1.25 2.5 5

N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT MPMS November 17, 2016



Map 10
FREEDOM TRANSIT ROUTES

Legend

- Gray Line
- Gray Line Stops
- Blue Line
- Blue Line Stops
- Lincoln (Red) Line
- Lincoln Line Stops
- National Highway System
- Local or Private Road
- Municipal Boundary

Miles

0 0.275 0.55 1.1

N W E S

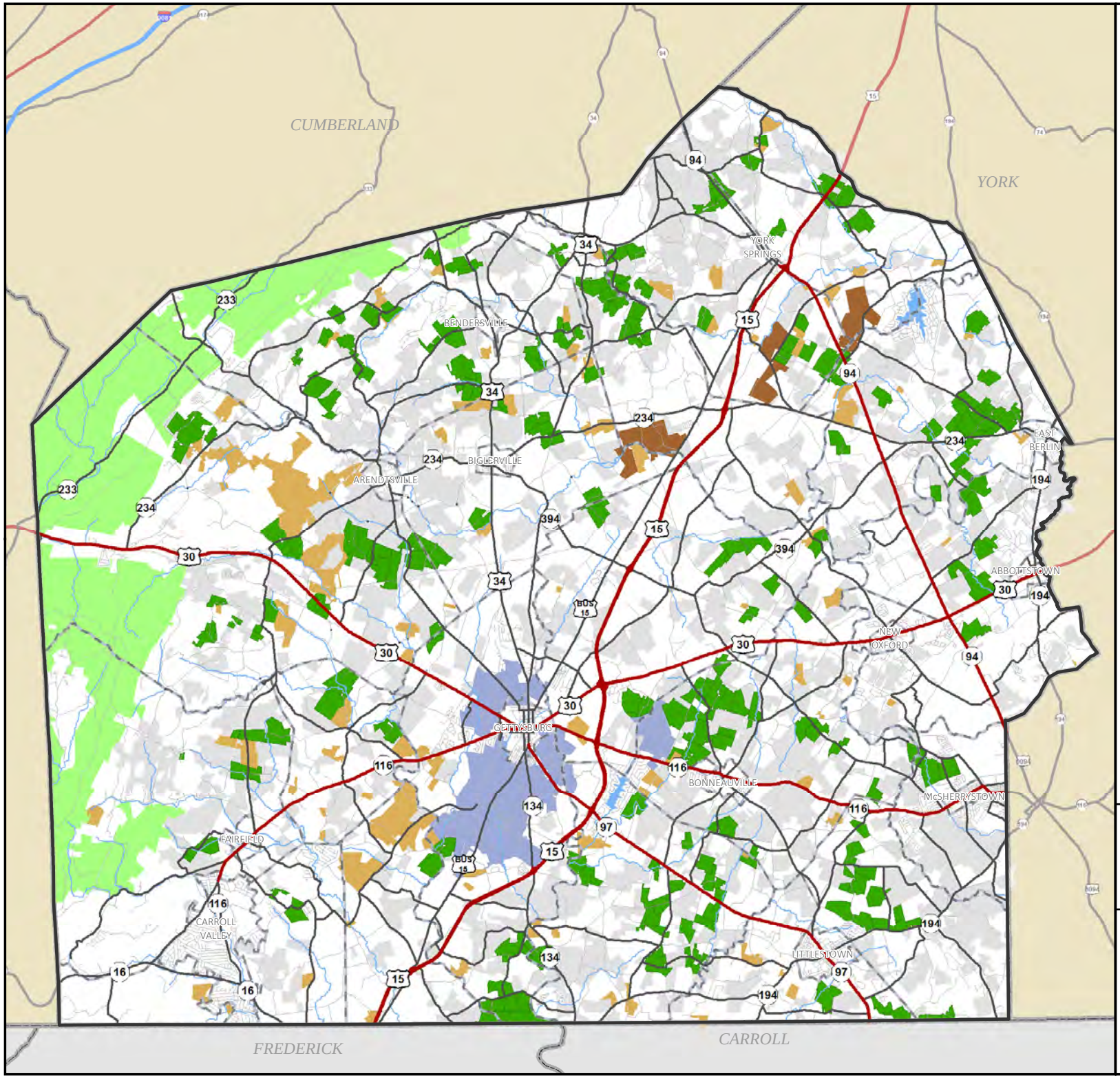
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT, Rabbittransit

November 3, 2016



Map 11
PROTECTED LANDS

Legend

- Interstate
- National Highway System
- State Route
- Local or Private Road
- Stream
- Preserved Farm
- Land Conservnacy of Adams County Easement
- Ag Security Area
- Gettysburg National Military Park
- State Game Lands
- Michaux State Forest
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

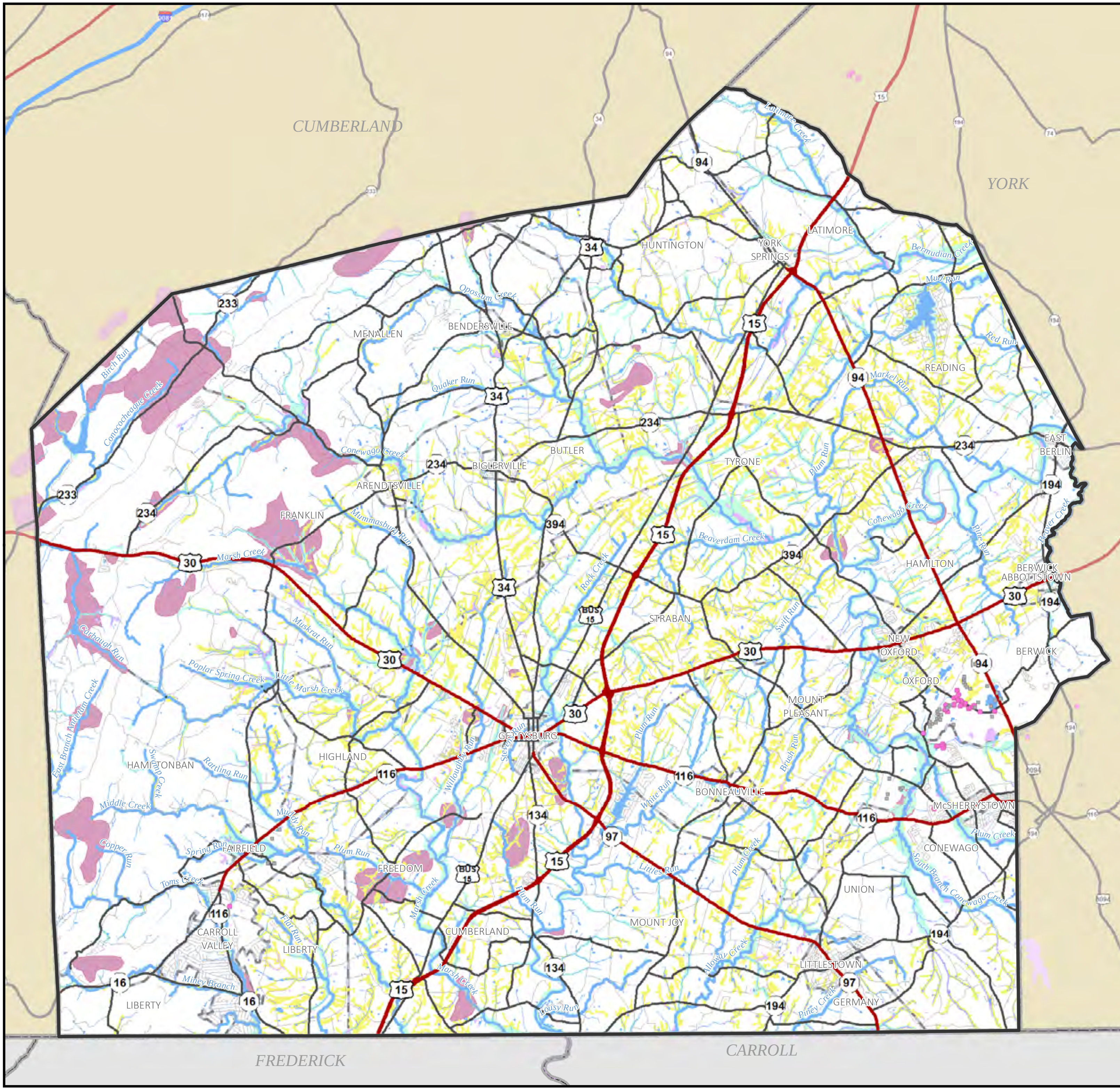
N W E S

LONG RANGE TRANSPORTATION PLAN
ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

October 13, 2016



Map 12
ENVIRONMENTAL CONSTRAINTS

Legend

Karst Features

- sinkhole
- surface mine
- Stream
- Tributary
- FEMA Flood Hazard Zone
- Natural Areas Inventory Site
- Wetland (NWI)
- Hydric Soil
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N S E W

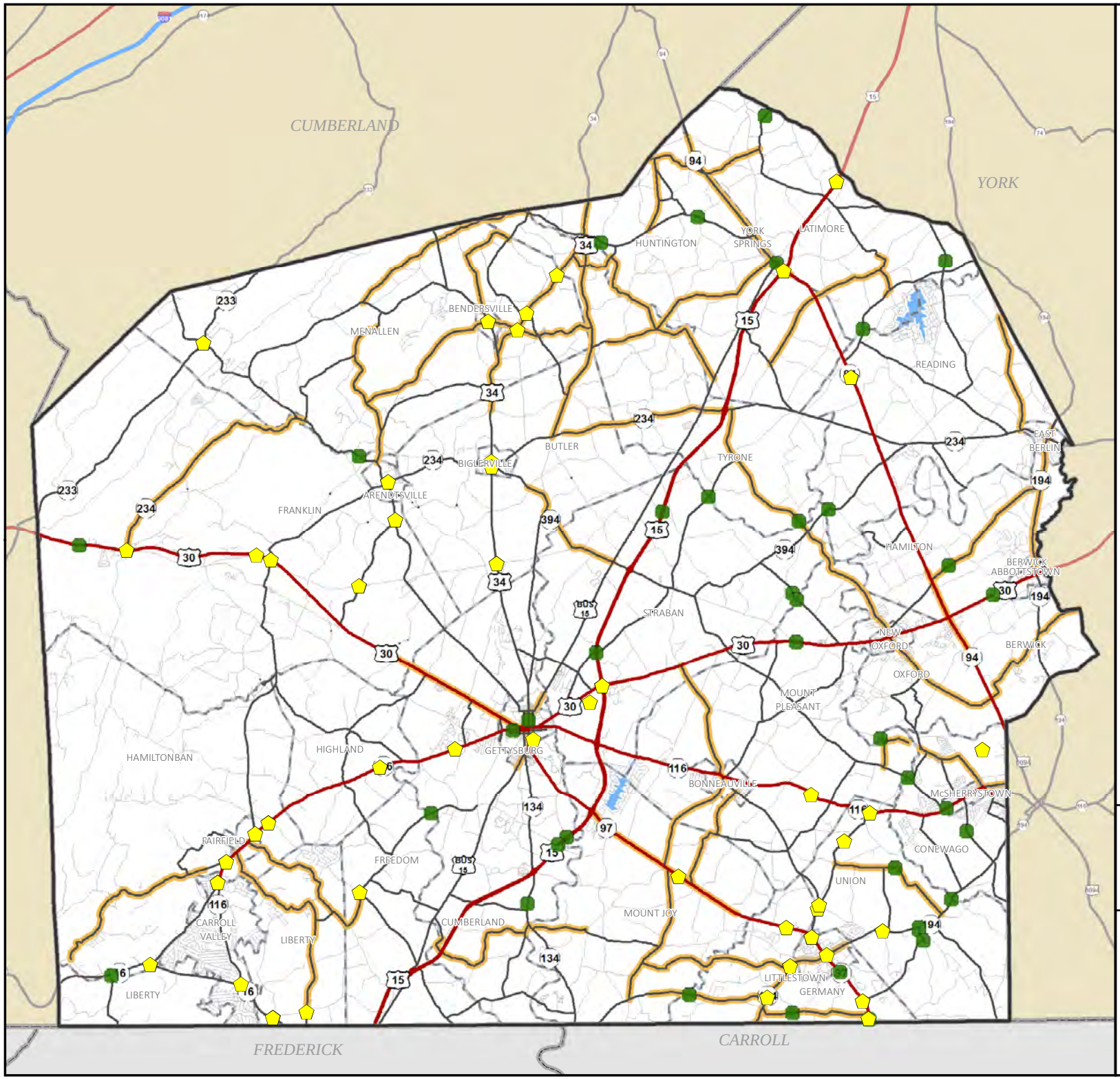
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT,
FEMA, NRCS, US FIsh & Wildlife, PA DEP November 3, 2016

Map 13
RECOMMENDED TRANSPORTATION PROJECTS



Legend

- Recommended Project Location
- Recommended Bridge Project
- Road Resurfacing Corridor
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N W E S

LONG RANGE TRANSPORTATION PLAN

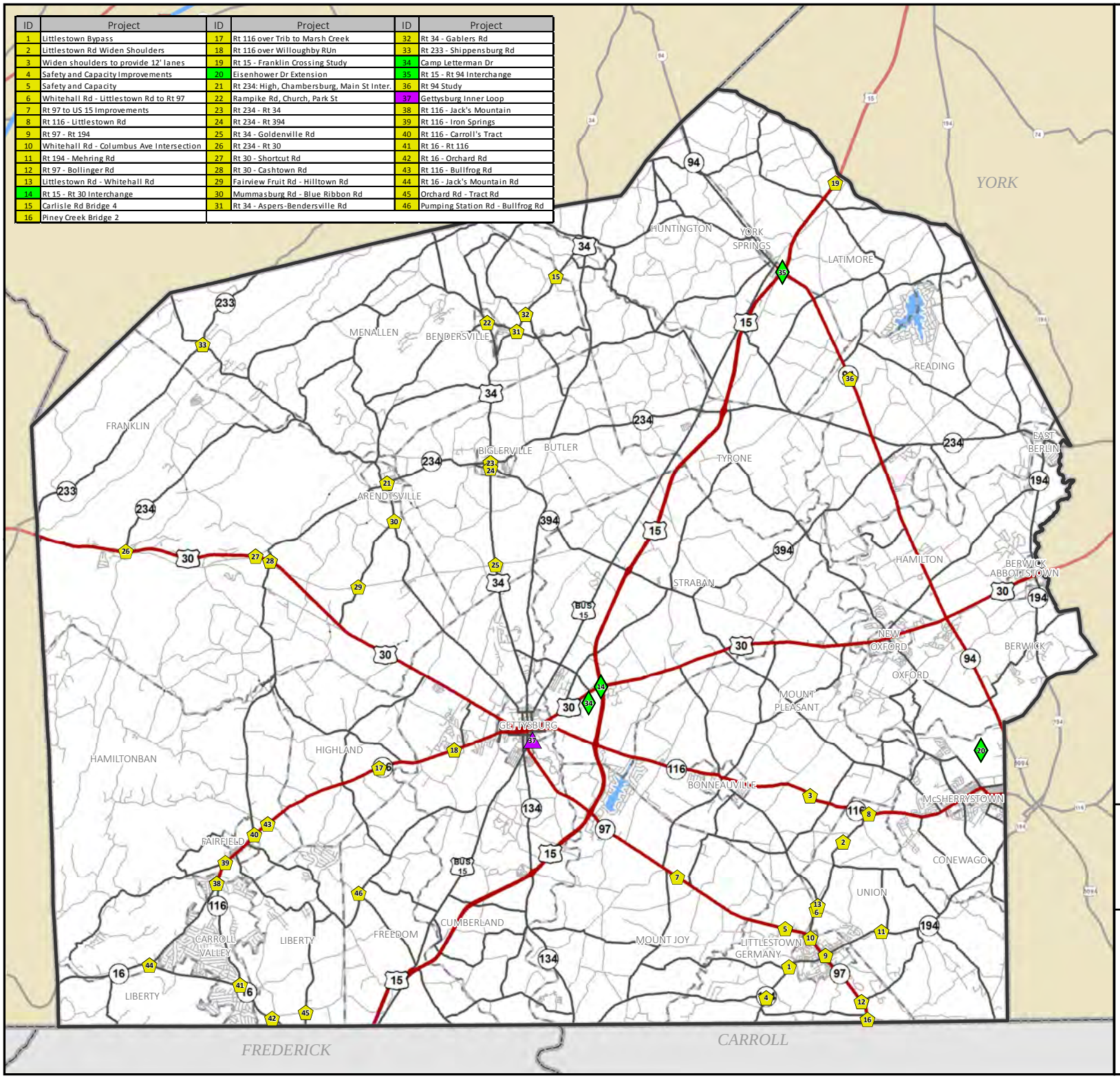
ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

January 23, 2017

ID	Project	ID	Project	ID	Project
1	Littlestown Bypass	17	Rt 116 over Trib to Marsh Creek	32	Rt 34 - Gablers Rd
2	Littlestown Rd Widen Shoulders	18	Rt 116 over Willoughby RUn	33	Rt 233 - Shippensburg Rd
3	Widen shoulders to provide 12' lanes	19	Rt 15 - Franklin Crossing Study	34	Camp Letterman Dr
4	Safety and Capacity Improvements	20	Eisenhower Dr Extension	35	Rt 15 - Rt 94 Interchange
5	Safety and Capacity	21	Rt 234: High, Chambersburg, Main St Inter.	36	Rt 94 Study
6	Whitehall Rd - Littlestown Rd to Rt 97	22	Rampike Rd, Church, Park St	37	Gettysburg Inner Loop
7	Rt 97 to US 15 Improvements	23	Rt 234 - Rt 34	38	Rt 116 - Jack's Mountain
8	Rt 116 - Littlestown Rd	24	Rt 234 - Rt 394	39	Rt 116 - Iron Springs
9	Rt 97 - Rt 194	25	Rt 34 - Goldenville Rd	40	Rt 116 - Carroll's Tract
10	Whitehall Rd - Columbus Ave Intersection	26	Rt 234 - Rt 30	41	Rt 16 - Rt 116
11	Rt 194 - Mehring Rd	27	Rt 30 - Shortcut Rd	42	Rt 16 - Orchard Rd
12	Rt 97 - Bollinger Rd	28	Rt 30 - Cashtown Rd	43	Rt 116 - Bullfrog Rd
13	Littlestown Rd - Whitehall Rd	29	Fairview Fruit Rd - Hilltown Rd	44	Rt 16 - Jack's Mountain Rd
14	Rt 15 - Rt 30 Interchange	30	Mummasburg Rd - Blue Ribbon Rd	45	Orchard Rd - Tract Rd
15	Carlisle Rd Bridge 4	31	Rt 34 - Aspers-Bendersville Rd	46	Pumping Station Rd - Bullfrog Rd
16	Piney Creek Bridge 2				



Map 14
RECOMMENDED PROJECTS

Legend

Recommended Project Location

Project Type

- Safety
- Congestion Management
- Bike-Ped, Non-Motorized
- Local or Private Road
- Interstate
- National Highway System
- State Route
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N W E S

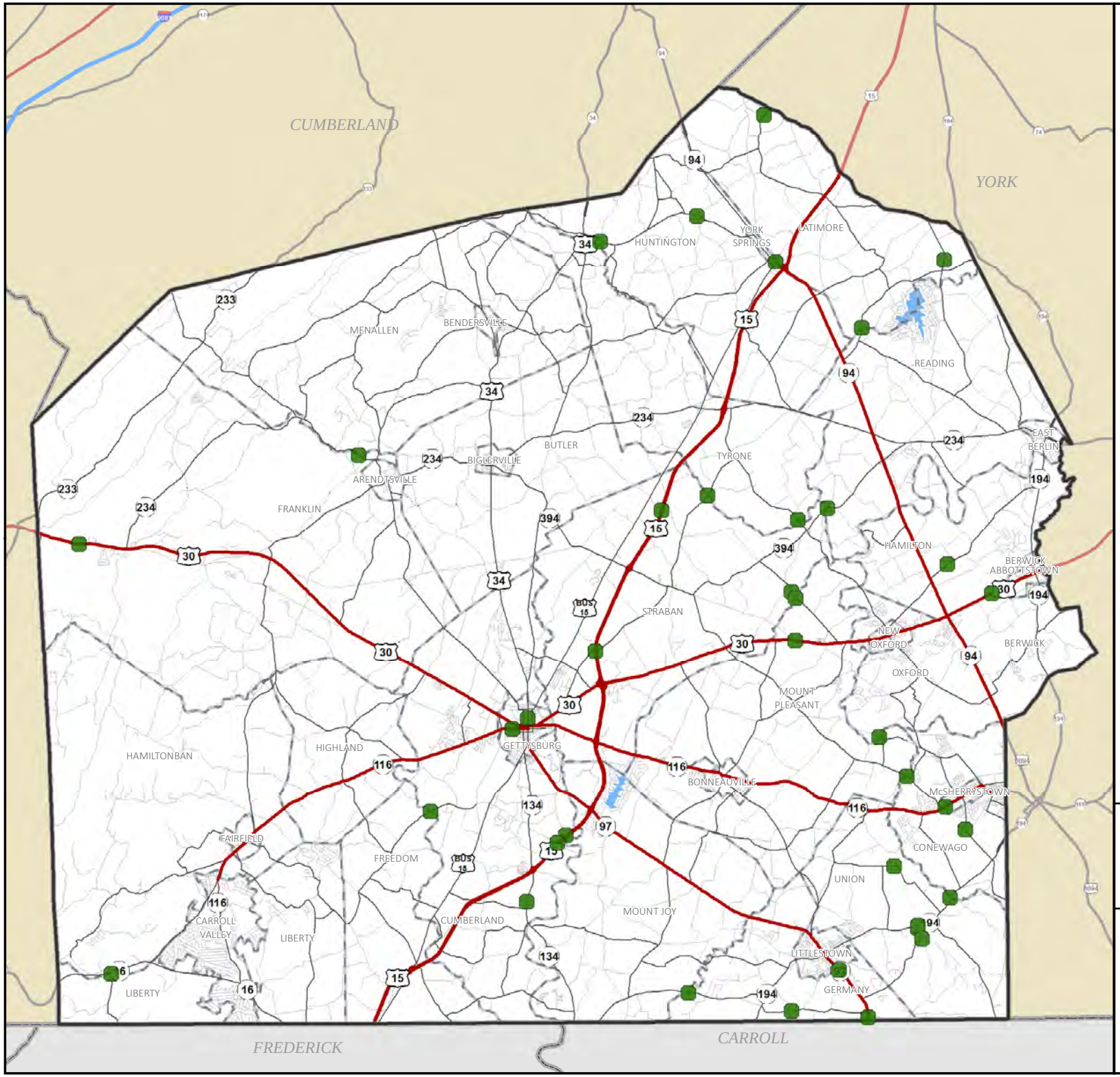
LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

ADAMS COUNTY Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

January 23, 2017



Map 15
RECOMMENDED BRIDGE PROJECTS

Legend

- Recommended Bridge Projects
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N W E S

LONG RANGE TRANSPORTATION PLAN

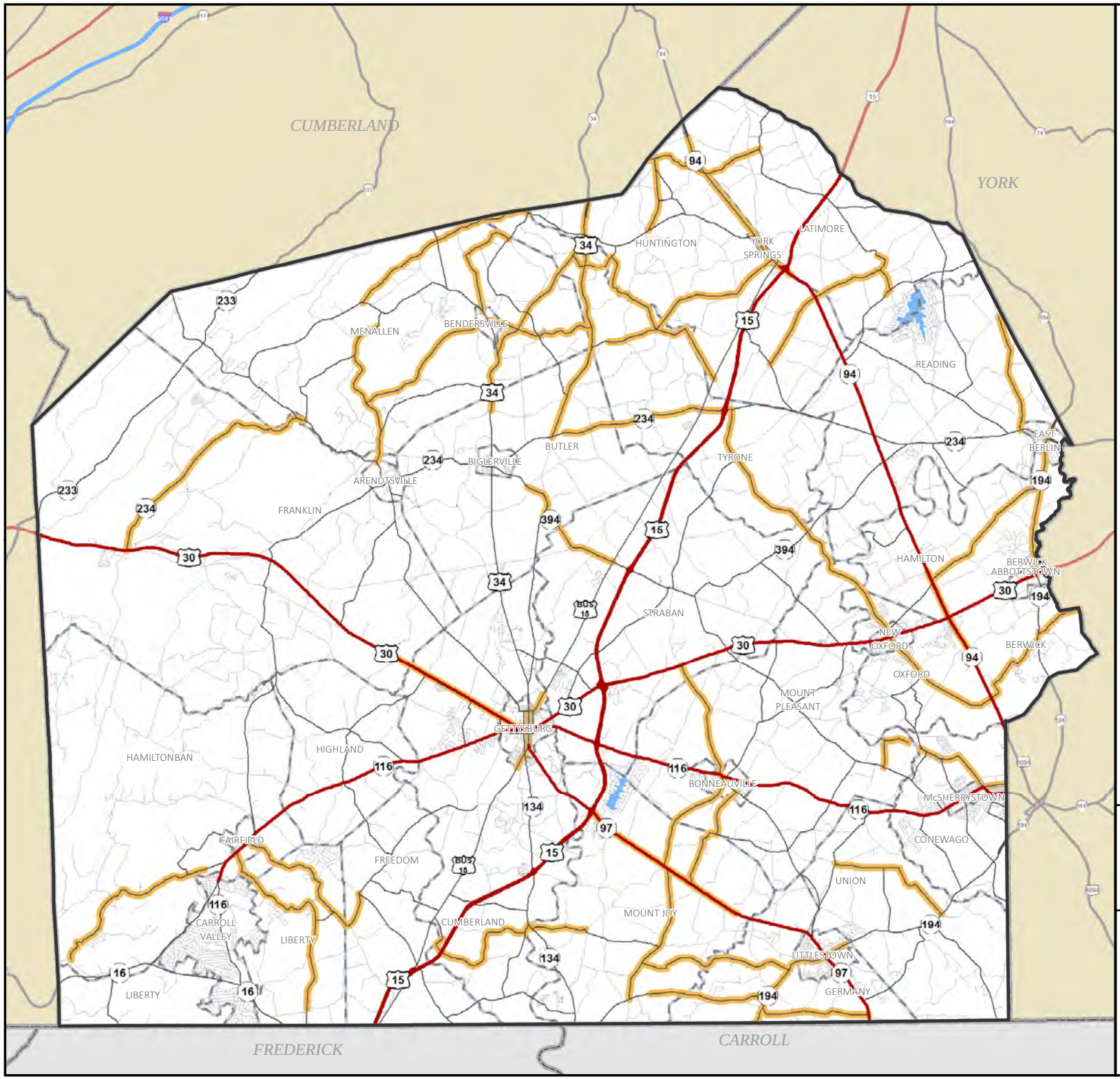
ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

January 6, 2017

Map 16
RECOMMENDED ROAD RESURFACING CORRIDORS



Legend

- Road Resurfacing Corridor
- Interstate
- National Highway System
- State Route
- Local or Private Road
- Municipal Boundary
- County Boundary

Miles

0 1.25 2.5 5

N W E S

LONG RANGE TRANSPORTATION PLAN

ADAMS COUNTY, PA

Office of PLANNING and DEVELOPMENT

Data Source:
ACOPD - GIS Division, PennDOT

January 19, 2017