2017-2040 YORK AREA METROPOLITAN PLANNING ORGANIZATION LONG RANGE TRANSPORTATION PLAN

YORK COUNTY PLANNING COMMISSION
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Table of Contents

CHAPTER I – INTRODUCTION ........................................................................................................................................... 1
WHAT IS THE YORK AREA METROPOLITAN PLANNING ORGANIZATION (YAMPO) AND HOW DOES IT HELP YOU? ........................................... 1
OVERVIEW OF THE LRTP ............................................................................................................................................. 1
FEDERAL AND STATE REQUIREMENTS FOR THE LRTP ............................................................................................... 2
OVERVIEW OF PROCESS ............................................................................................................................................... 5
PUBLIC INVOLVEMENT .............................................................................................................................................. 5

CHAPTER II – FACTORS, GOALS, PRINCIPLES AND PLAN ............................................................................................... 7

CHAPTER III – INVENTORY .................................................................................................................................................... 11
YORK COUNTY POPULATION PROJECTIONS .................................................................................................................. 11
YORK COUNTY DEMOGRAPHICS ................................................................................................................................... 11
YORK COUNTY ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM ...................................................................................... 14
THE NATIONAL HIGHWAY SYSTEM ................................................................................................................................ 14
YORK COUNTY FREIGHT NETWORK AND TRUCK ROUTES ............................................................................................... 14
YORK COUNTY BRIDGES .................................................................................................................................................. 17
YORK COUNTY ROADS .................................................................................................................................................... 19
YORK COUNTY SAFETY .................................................................................................................................................. 21
YORK COUNTY TRANSIT .................................................................................................................................................. 22
YORK COUNTY PARK AND RIDE FACILITIES .................................................................................................................. 22
YORK COUNTY RAILROADS ........................................................................................................................................... 25
YORK COUNTY BICYCLE ROUTES .................................................................................................................................... 26
YORK COUNTY AIR TRANSPORTATION .................................................................................................................................. 28
ONGOING REGIONAL EFFORTS ......................................................................................................................................... 29

CHAPTER IV – IDENTIFIED NEEDS ...................................................................................................................................... 49
AIR QUALITY .............................................................................................................................................................................. 50
AVIATION ............................................................................................................................................................................... 51
BRIDGES ............................................................................................................................................................................... 52
CAPACITY (CONGESTION MANAGEMENT) .......................................................................................................................... 53
ENHANCEMENTS .................................................................................................................................................................... 54
MAINTENANCE ........................................................................................................................................................................ 55
RAIL ......................................................................................................................................................................................... 56
SECURITY .................................................................................................................................................................................. 57
SAFETY .................................................................................................................................................................................... 58
TRANSIT .................................................................................................................................................................................... 59

CHAPTER V – FUTURE FUNDING DECISION .......................................................................................................................... 61
PUBLIC PARTICIPATION ......................................................................................................................................................... 61
IDENTIFIED NEEDS .............................................................................................................................................................. 63
FUNDING PROJECTIONS ..................................................................................................................................................... 63
ALLOCATION OF FUTURE YAMPO FUNDING ...................................................................................................................... 64
PENNDOT TRANSPORTATION INVESTMENT PLAN ................................................................................................................ 65

CHAPTER VI – PROJECT SELECTION PROCESS .................................................................................................................. 67
THE SELECTION PROCESS ................................................................................................................................................... 67
AIR QUALITY SELECTION PROCESS (CMAQ PROJECT SELECTION PROCESS) ...................................................................................... 68
TAP CRITERIA ........................................................................................................................................................................... 69
BRIDGE CRITERIA ................................................................................................................................................................. 70
Chapter I – Introduction

What is the York Area Metropolitan Planning Organization (YAMPO) and How Does It Help You?

The Pennsylvania Department of Transportation (PennDOT) chartered the York Area Metropolitan Planning Organization (YAMPO) in 1964. The charter recognized the YAMPO as the federally designated and certified Metropolitan Planning Organization (MPO). The YAMPO is responsible for conducting a continuing, comprehensive and cooperative (3C) process for transportation planning, programming, and decision-making within York County.

The YAMPO is governed by a nine-member Coordinating Committee composed of state, county, City of York, transit, Hanover Urbanized Area, and state legislative representatives, as well as various participating, non-voting members and federal agency observers. In addition to the Coordinating Committee are the YAMPO Technical and Transit committees (Central Pennsylvania Transportation Authority Board). These two committees operate under the direction of and report directly to the YAMPO Coordinating Committee. The York County Planning Commission (YCPC), CPTA, and PennDOT District 8-0 are the primary staffs that conduct work on behalf of the YAMPO.

One of the main responsibilities of MPOs nationwide is the planning and programming of transportation needs for the long term. This is the primary purpose of developing a long-range transportation plan (LRTP).

Overview of the LRTP

Following a 32-month planning process, YAMPO adopted the 2009-2035 LRTP on June 25, 2009 and the York County Board of Commissioners adopted it on July 8, 2009. YCPC staff updated the plan’s demographic information in 2013, and YAMPO re-adopted the plan on April 25, 2013. YAMPO re-approved the plan on April 27, 2017. The 2017 update addresses the following changes: new data, an extended planning horizon to 2040, federal performance measurements, and new federal planning factors.

The purpose of a LRTP is to develop a coordinated effort to implement transportation improvements that attempt to achieve York County’s future goals. YAMPO developed these goals by public consensus of York County’s physical, social, economic, and institutional environments. The LRTP is also a requirement of the U.S. Department of Transportation (US DOT), which certifies MPO plans and programs.

This plan is the umbrella document that serves as the basis for the Transportation Improvement Program (TIP), a capital program of highway, bridge, bicycle, pedestrian and public transit projects. In addition to providing a basis for construction projects, YAMPO uses the LRTP to identify special projects to utilize planning funds.

YAMPO also uses this plan to develop the annual work plan for the YAMPO staff through the Unified Planning Work Program (UPWP). The UPWP identifies work tasks that will accomplish objectives and implement policies of this plan. In addition, this plan identifies other stakeholders that can help achieve the objectives and follow through with policies of the Plan.
YCPC uses this plan to evaluate the consistency of the transportation element of municipal and multi-
municipal comprehensive plans. Municipalities can also use the plan to identify where future
infrastructure improvements can or cannot support future development. Finally, the plan serves as an
educational guide and informational resource for the citizens, businesses, and institutions in York
County and the region.

This plan strives to be consistent, coordinated, and complimentary to plans prepared by York County,
municipal governments, and the policies of the statewide transportation plan and other relevant
statewide policies.

Federal and State Requirements for the LRTP

President Obama signed the Moving Ahead for Progress in the 21st Century Act, or MAP-21 into law on
July 6, 2012. The law expanded the National Highway System (NHS) and dedicated more than half of
highway funding to this set of roads. The law also introduced performance-based programming to direct
funding to national transportation goals and increase accountability and transparency.

On December 4, 2015, President Obama signed into law the Fixing America’s Surface Transportation Act
(FAST Act). The FAST Act provides funding and direction for fiscal years 2016-2020. The FAST Act
continues to refine the goals and objectives that were contained in MAP-21. New items addressed in the
legislation include a new National Multimodal Freight Policy and a dedicated funding source for National
Highway Freight Program and a competitive Freight and Highway Project.

Significant portions of these two laws address performance-based planning, including establishing
national performance goals for Federal-Aid Highway Programs. USDOT has released several final rules
that address the measurements used for these national performance targets. State DOTs will report
each of these measurements, but each MPO may select different targets to measure the program. The
following is a list of the performance measures for each topic area and the date that USDOT published
the final rule (the date does not reflect when the rule became effective). YAMPO has acknowledged
each measure and will follow any forthcoming targets set by PennDOT. After the first evaluation of the
targets, YAMPO will decide whether any new criteria need to be incorporated into its selection criteria
and whether its funding distribution needs to be modified to meet targets.

Pavement (Applicable to mainline highways on the National Highway System-Map 4) (January 18, 2017)

- percentage of pavements on the Interstate System in Good condition
- percentage of pavements on the Interstate System in Poor condition
- percentage of pavements on the NHS (excluding the Interstate System) in Good condition
- percentage of pavements on the NHS (excluding the Interstate System) in Poor condition
**Bridges** (Applicable to bridges carrying the NHS, which includes ramps) (January 18, 2017)

- percentage of NHS bridges in Good condition
- percentage of NHS bridges in Poor condition

**System Performance** (January 18, 2017)

- percentage of reliable person-miles traveled on the Interstate (Level of TTR)
- percentage of reliable person-miles traveled on the non-Interstate NHS (LOTTR)
- percent change in CO2 emissions from 2017, generated by on-road mobile sources on the NHS.

**Freight Reliability** (January 18, 2017)

- truck travel time reliability on the Interstate system (average truck reliability index or TTTR)

**Transit Reliability** (August 11, 2016)

- System reliability (mean distance between failures by mode)
  - Total vehicle miles operated divided by total failures for each mode of service operated, based on NTD definitions:
    - Major Mechanical System Failures: A mechanical system failure that prevents a vehicle from completing or starting a scheduled revenue trip because actual movement is limited or because of safety concerns. Examples include breakdowns of brakes, doors, engine cooling systems, steering, axles, and suspension.
    - Other Mechanical System Failures: A mechanical system failure that prevents a vehicle from completing or starting a scheduled revenue trip even though the vehicle is physically able to continue in revenue service without creating a safety concern. Examples include breakdowns of fare boxes, wheelchair lifts, heating, ventilation, and air conditioning systems

**Congestion Mitigation and Air Quality (CMAQ) Program** (January 18, 2017)

- total emission reductions for applicable criteria pollutants, for non-attainment and maintenance areas
- modal share; specifically, the percent of non-single occupancy vehicle travel, including travel avoided by telecommuting
- annual hours of peak hour excessive delay per capita – for urbanized areas with population over 1 million (This measure is not applicable in York County)

**Transit Assets** (July 26, 2016)

- Equipment: (non-revenue) service vehicles: the percentage of which have either met or exceeded their Useful Life Benchmarks (ULB)
- Rolling stock: percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB
- Infrastructure: rail fixed-guideway, track, signals, systems (Not present in York County)
- Facilities: percentage of facilities within an asset class rated below condition 3 on the TERM (Transit Economic Requirements Model) scale

**Safety** (Calculated as five-year rolling averages) (March 15, 2016)
- Number of Fatalities
- Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
- Number of Serious Injuries
- Rate of Serious Injuries per 100 million VMT
- Number of Non-motorized Fatalities and Non-motorized Serious Injuries

**Transit Safety** (Total number of reportable injuries and rate per total unlinked passenger trips by mode; customer, employee, and public) (August 11, 2016)
- Fatalities
  - Paratransit
  - Bus
  - Passenger Rail (Not present in York County)
  - Other modes (Not present in York County)
- Injuries
  - Paratransit
  - Bus
  - Passenger Rail (not present in York County)
  - Other modes (Not present in York County)
- Safety Events (total number of reportable events and rate per total vehicle miles by mode)
  - Derailments (Passenger rail not present in York County)
  - Collisions
  - Fires
  - Evacuations for life safety

Additionally, all MPOs are required to have a fiscally constrained LRTP that covers a minimum of 20 years. Finally, York County does not meet federal air quality standards for fine particle pollution. The Clean Air Act Amendments of 1990 require YAMPO to demonstrate that projects and programs in the LRTP do not cumulatively harm air quality.
Overview of Process

This plan process comprises five main steps of development, as follows:

- **Inventory and Need Identification**

  Ten topical subcommittees developed infrastructure needs without regard to implementation responsibility and available funding.

- **Prioritization and Policy Statements**

  A task force assigned ranges of investment for each topic based on need and available funding. Additionally, YAMPO developed policies to reduce the need when YAMPO and York County funding sources were not available or appropriate.

- **Project Selection**

  YAMPO developed criteria to concentrate limited funding on the best projects based on the principles of the York County Comprehensive Plan, the Pennsylvania Mobility Plan, Keystone Principles, Smart Transportation and SAFETEA-LU.

- **Air Quality Conformity**

  YAMPO analyzed the impact future transportation projects will have on ozone and particulate matter 2.5 to ensure conditions would not deteriorate.

- **Implementation**

  YAMPO identified work tasks for its staff and other stakeholders

Public Involvement

There are no black and white decisions in planning for a community. Every professional opinion will have another professional opinion contrary to the first. The most important part of an effective planning process is the ability to reach the public and understand the vision that the residents have for the area and the price they are willing to pay for that vision. The 2017 re-adoption continues to use the public input developed with the 2009-2035 plan as a valid basis for re-adoption. The 2009-2035 LRTP process attempted to involve the public in decision making throughout the development of the Plan. The following are the public involvement opportunities within the development of the LRTP. A more detailed explanation and the results of each public involvement action is included in the appropriate chapter. Each opportunity was developed based on the **2006 YAMPO Public Involvement Plan (PIP)**.
2009-2035 Long Range Plan Public Involvement Process

- **Receive Feedback**

  Prior to making any decisions, YAMPO collected public opinion that identified which areas of the transportation system are the most important and should receive funding.

- **Receive Feedback**

  After each subcommittee identified project selection criteria and policies to reduce the need for capital funding, YAMPO collected public opinion about the proposed criteria.

- **Inform**

  After completion of the draft plan, the full document was available for review and comment by the public. Prior to adoption, YAMPO considered the comments received.

Additionally, the 2017 adoption process included the following outreach efforts to review the proposed changes to the 2009-2035 Plan. Those opportunities include the following.

2017 Update Public Involvement Process

Following the adoption of the 2017 LRTP Update, this section will summarize the public involvement process.
Chapter II – Factors, Goals, Principles and Plan

Instead of adopting goals and objectives just for this plan, YAMPO reviewed goals and objectives from other documents produced for York County and the United States. The factors, goals, principles and plans listed below help shape the direction of this plan.

**SAFETEA-LU** required that the YAMPO 2009 - 2035 LRTP include the following factors:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility options available to people and for freight.
5. Protect and enhance the environment, promote energy conservation and improved quality of life.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.

The **FAST Act** also added two new factors to address:

9. Improve transportation system resiliency and reliability.
10. Enhance travel and tourism.

In addition to the federal factors, the Commonwealth of Pennsylvania has developed three other visioning documents to guide Pennsylvania. The first is the **Keystone Principles for Growth, Investment and Resource Conservation**, which include goals and objectives for economic development and resource conservation agreed upon by the agencies and programs that participated in their development. In 2005, the Economic Development Cabinet adopted the **Keystone Principles** as follows:

1. Redevelop first
2. Provide efficient infrastructure
3. Concentrate development
4. Increase job opportunities
5. Foster sustainable businesses
6. Restore and enhance the environment
7. Enhance recreational and heritage resources
8. Expand housing opportunities
9. Plan regionally; implement locally
10. Be fair
The second document is the *Pennsylvania Mobility Plan*, adopted by PennDOT in 2007. The Mobility Plan deals directly with transportation and includes the following goals and objectives:

1. Move people and goods safely and securely
2. Improve quality of life by linking transportation, land use, economic development, and environmental stewardship
3. Develop and sustain quality transportation infrastructure
4. Provide mobility for people, goods, and commerce
5. Maximize the benefit of transportation investments

PennDOT recently morphed the *Pennsylvania Mobility Plan* into *PA On Track*. Adopted by the Department in August 2016, the *PA On Track* planning effort is actually two planning efforts in one. It is an update of Pennsylvania’s multimodal LRTP and the development of the Commonwealth’s first comprehensive freight movement plan. As stated in the LRTP introduction, this plan seeks to preserve and improve accessibility and connectivity to all transportation modes. The goals addressed in this plan, also known as *PA’s Vision*, are as follows:

1. **System Preservation** - Preserve transportation assets using sound asset management practices within the limitations of available resources;
2. **Safety** - Improve statewide safety for all modes and all users;
3. **Personal and Freight Mobility** - Expand and improve system mobility and integrate modal connections; and,
4. **Stewardship** - Increase efficiency through modernization of assets and streamlining of processes.

PennDOT and the New Jersey DOT jointly developed a fourth set of statewide guiding principles, commonly called *Smart Transportation*. This philosophy encourages planners to incorporate financial constraints, community needs and aspirations, land use, and environmental constraints during project development while finding the appropriate balance between regional and statewide traffic movements and local and community desires. PennDOT has developed the following ten interrelated Smart Transportation principles to keep the Commonwealth’s transportation network on a sustainable path.

1. Money counts
2. Choose projects with high value-to-price ratio
3. Enhance the local network
4. Look beyond level-of-service
5. Safety first, and maybe safety only
6. Accommodate all modes
7. Leverage and preserve existing investments
8. Build towns and not sprawl
9. Understand the context; plan and design within the context
10. Develop local governments as strong land use partners
The York County Comprehensive Plan also provided guidance and input into the future of the transportation system in York County. The elements of the York County Comprehensive Plan are:

1. Growth Trends
2. Growth Management Plan (2011)
3. Environmental Resource Inventory
4. Natural Areas Inventory
5. Open Space and Greenways Plan
7. Agricultural Land Protection Plan
8. Housing and Community Development Plan (2010)
9. Community Facilities

The County Commissioners adopted two additional plan components since 2009: the Housing and Community Development Plan and the Heritage Preservation Plan. The other four components with dates listed above are adopted amendments or updates to the existing documents since 2009.

All seven documents were instrumental in the development of this Plan. YAMPO used these documents to identify the transportation needs of York County, identify funding ranges by transportation category, prepare transportation policies, and develop project selection criteria.
Chapter III – Inventory

The following sections include information about people, facilities, assets, their movements, and their locations. The topical subcommittees used this information to develop the future transportation needs of our area as outlined in Chapter IV.

York County Population Projections

YCPC employs a bottom-up approach that uses historical population figures, recent census estimates, housing and building permit data, proposed new dwelling unit information from YCPC land development and subdivision plan reviews, and YCPC comprehensive plan data to estimate future populations by municipality. YCPC then aggregates the municipal projections to create a York County projection. YCPC updates these projections as new estimate figures, plan review information, and building permit data becomes available. The projections to the right are from the YCPC’s October 2011 population projections.

York County Demographics

Population

According to the 2015 American Community Survey, the population of York County was 442,867, an increase of 7,895 people from the 2010 Census. The county’s population is split almost evenly along gender lines with 49.4% identifying as male and 50.6% as female. In the 2015 ACS, 98% of York County respondents identified as being of one race. The graph to the right shows the racial distribution of the county’s population. Nearly 90% of people identify as white alone and six percent identify as black or African American.
Income

The median household income for York County, per the 2015 ACS, was $58,702. This puts York County just above the median household income for Pennsylvania, $55,702. The graph to the right compares York County’s median household income to neighboring counties, Pennsylvania, and Maryland. Except Dauphin County, all of York’s neighboring counties have a higher median household income.

Travel Time to Work

The graph to the left illustrates comparative travel time to work data for 2000, 2005, 2010, and 2015. In all four snapshots, most workers over the age of 16 travel between 15 and 30 minutes to work. Since 2000, the number of workers in York County increased by 24,684, a 13% increase. In the same time, the number of workers traveling more than 60 minutes more than doubled from about 7,500 to more than 15,000.

Journey to Work Flow

The Census Bureau also collects data related to the journey to work as part of the American Community Survey. Map 1 illustrates the flows between York County and adjacent counties.

According to the most recent ACS 5-year estimates (2009-2013), approximately 175,000 people over the age of 16 work in York County. About 143,400 of these workers are York County residents. In other words, York County “imports” more than 31,600 employees, mostly from other Pennsylvania counties and Maryland.

Around 65,000 York County residents leave the county to work. About 39,000 travel to other counties in Pennsylvania, and 25,000 travel to Maryland.
Means of Transportation to Work

Of the 217,810 workers over the age of 16, about 180,000 or 84% drove to work alone. About 10% of workers take a carpool to get to work. More workers work at home than walk to work, take public transportation, use a taxi or motorcycle, or bicycle to work.

Vehicles

The table to the right shows the number of registered vehicles by category as reported by PennDOT’s 2015 Report of Registrations. Passenger vehicles represent about 65% of the total registered vehicles.

An increasing population typically leads to more passenger vehicles on the road, as illustrated by the graph below. Over 15 years, the total population of York County increased by more than 61,000 people and the number of passenger vehicles increased by about 68,000. The number of vehicles per person has held between 0.6 and 0.7, or about two vehicles for every three people in the county.
York County Roadway Functional Classification System

Map 2 illustrates the different functional classifications of roads in York County. Table 2 shows the breakdown of York County roads by Functional Classification as reported in PennDOT’s *Pennsylvania Highway Statistics 2015*.

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>Interstate Highways</th>
<th>Other Freeways &amp; Expressways</th>
<th>Other Principal Arterial Highways</th>
<th>Minor Arterials</th>
<th>Urban Collectors/Rural Major Collectors</th>
<th>Rural Minor Collectors</th>
<th>Local Roads</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Miles</td>
<td>46.0</td>
<td>16.6</td>
<td>72.8</td>
<td>215.6</td>
<td>417.2</td>
<td>190.1</td>
<td>2,854.0</td>
<td>3,812.3</td>
</tr>
</tbody>
</table>

According to FHWA, “functional classification is the process by which streets and roads are grouped into classes, or systems, according to the character of traffic service they are intended to provide.” The matrix shown in Table 2 shows the seven major functional classification categories and the characteristics of each. Transportation planners use this matrix to classify the roadways in York County. YCPC did a comprehensive review of all roadway functional classifications in 2015 and submitted an extensive list of change requests to PennDOT for approval. Map 4 shows these change requests; their approval is pending FHWA review.

The National Highway System

The NHS is a network of strategic highways within the United States, including the Interstate Highway System and other roads serving major airports, ports, rail or truck terminals, railway stations, pipeline terminals and other strategic transport facilities important to the nation’s economy, defense, and mobility. Map 6 shows the York County portion of the NHS.

*MAP-21* established the National Highway Performance Program (NHPP), which provides funding support for the condition and performance of the NHS and for the construction of new facilities on the NHS. The NHPP also ensures that MPOs direct investments of Federal-Aid Funds in highway construction to support progress toward the achievement of performance targets established in a state’s asset management plan for the NHS.

As part of the comprehensive functional classification review process, YAMPO approved changes to the NHS that would result in an addition of 0.46 miles and the removal of 23.32 miles of roadway on the York County NHS system. Map 6 shows these changes and their approval is pending FHWA review.

York County Freight Network and Truck Routes

*MAP-21* and *FAST Act* tasked the FHWA Administrator to establish a National Highway Freight Network (NHFN) to strategically direct federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system. Map 5 shows the NHFN in York County.
### Functional Classification Matrix

<table>
<thead>
<tr>
<th>Classification Factors</th>
<th>Federal Aid System</th>
<th>Non-Federal Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility and Land Access</td>
<td>LEAST</td>
<td>MOST</td>
</tr>
<tr>
<td>Total Trip Length</td>
<td>LONGER</td>
<td>in between</td>
</tr>
<tr>
<td>Efficiency of Travel (non-peak hour)</td>
<td>MOST</td>
<td>LEAST</td>
</tr>
<tr>
<td>Divided/ Undivided</td>
<td>Divided</td>
<td>Both</td>
</tr>
<tr>
<td>Access Points</td>
<td>Fully Controlled</td>
<td>Both</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FHWA Usage - AADT (urban)</th>
<th>FHWA Usage - AADT (rural)</th>
<th>YC Usage - AADT (urban)</th>
<th>YC Usage - AADT (rural)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHWA Usage - AADT (urban)</td>
<td>FHWA Usage - AADT (rural)</td>
<td>YC Usage - AADT (urban)</td>
<td>YC Usage - AADT (rural)</td>
</tr>
</tbody>
</table>

### Qualitative (urban)
- Serve major activity centers, highest traffic volume corridors, longest trip demands.
- Carry high portion of total urban travel on minimum of mileage.
- Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area.
- Serve demand for intra-area travel between the central business district and outlying residential areas.

### Qualitative (rural)
- Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel.
- Serve all or nearly all urbanized areas and a large majority of urban clusters areas with 25,000 and over population.
- Provide an integrated network of continuous routes without dead connections (dead ends).

### Significance
- National-Statewide-Regional
- Regional-Countywide-Municipal
- Municipal-Community
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The NHF has four parts:

1. **Primary Highway Freight System (PHFS)** – a network of highways identified as the most critical highway portions for U.S. freight transportation determined by measurable and objective national data
2. **Other Interstate portions not of the PHFS**
3. **Critical Urban Freight Corridors (CUFC)** – are public roads in an urbanized area that provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities
4. **Critical Rural Freight Corridors (CRFC)** – are public roads not in an urbanized area that provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities

CUFC and CRFC designations are still in development. Map 5 reflects the candidate roadways that YAMPO approved and submitted to PennDOT for review at the end of 2016. As the mileage allowed for each MPO area is very limited, PennDOT will not approve all of the CUFC mileage submitted.

Due to the typical size of many commercial truck vehicles, only certain roads in York County are able to meet the weight and size demands of carrying this kind of traffic safely. Map 7 details the approved travel routes for various types of commercial truck vehicles by width and length. This map also shows the one-mile and half-mile pick-up, delivery, fueling and lodging networks.

**York County Bridges**

Bridge Map – Map 8 identifies the location, ownership, prioritization, and current structurally deficient bridges in York County.

The bridges of York County range from brand new bridges to bridges built more than a century ago. Within the county, the state, the county, or a municipality owns each bridge. “Locally owned” refers to bridges owned by either the county or a municipality. In total, over 900 bridges in York County are in PennDOT's Bridge Management System (BMS). In order for bridges to be eligible for the BMS, State-owned bridges must be 8 or more feet in length, and County- and municipal-owned bridges must be more than 20 feet in length.

In 2013, YAMPO prioritized the BMS bridges into four groups by their importance to the county roadway network, regardless of ownership, as listed below.

- **Group A** – These bridges are critical to the transportation network in York County. The roadways included are the NHS, I-83 designated detour routes, and truck routes.
- **Group B** – These bridges are important to the transportation network in York County. The roadways included are 2- or 3-digit state routes, arterials, and collectors.
- **Group C** – These bridges are low priority to the transportation network in York County. This is the remaining roads in York County.
- **Group D** – These bridges are unnecessary to any roadway network. Removal of these bridges would have limited impact to residents.
The York County Board of Commissioners adopted a *County Bridge Plan* in 2010. The plan is consistent with the *YAMPO Prioritization Plan*. In addition to the prioritization, the plan includes bridges with less-than-optimal roadway alignments, bridges in the *Hazard Mitigation Plan*, bridges with special plans, and the process for evaluating the need of bridge.

YAMPO tracks the condition of both state-owned and locally owned bridges in the *Annual Pavement and Bridge Condition Report*. Engineers inspect bridges in the BMS on a regular, rotating basis. These inspections result in condition ratings for the structural parts of a bridge, namely the deck, substructure, and superstructure. If any of these three has a condition rating of four or less, engineers deem the bridge structurally deficient (SD). If the bridge is a culvert, then the inspectors give the one structural piece a condition rating. Again, a rating of four or less indicates a SD bridge. YAMPO labels non-SD bridges and culverts with a condition rating of five for any of the structural parts as Pre-SD, and labels bridges and culverts with condition ratings above five as Good.

The 2016 report lists the condition of York County bridges as follows:

- **State Bridges**
  
  More than 650 state-owned bridges are in York County. These bridges are located on municipal roads, state routes, US routes, and interstate highways, and play an important role in the transportation system of York County. Of these, 97 are structurally deficient and 178 bridges are Pre-SD.

- **Local Bridges**
  
  Between the County of York and municipalities, 203 locally owned bridges in York County are in BMS. Of these, 24 County and 10 municipal bridges are structurally deficient and 49 County and 33 municipal bridges are Pre-SD.

The following charts show York County bridges by condition group for the years 2010 to 2015.
YAMPO tracks the condition of roads in the RMS database in the Annual Pavement and Bridge Condition Report. The International Roughness Index (IRI) is the most common index used to evaluate pavement condition. IRI is a global standard, generally defined as an expression of irregularities in the pavement.
surface that adversely affect the ride quality of a vehicle (and thus its passengers). Roughness is an important pavement characteristic because it affects not only the ride quality but also vehicle delay costs, fuel consumption and maintenance costs. IRI is expressed in terms of inches per mile (lower numbers mean smoother pavement). Each road segment’s IRI rating falls into one of four categories: Excellent, Good, Fair and Poor. Map 8 shows the current IRI for all the RMS roads in York County.

The *Annual Pavement and Bridge Condition Report* shows the IRI of these roads by owner group and by priority network as determined by the FHWA. Roads on the NHS are of higher national and regional priority than non-NHS roads.

The 2016 annual report details the condition of York County roadways as follows:

- **NHS roads**
  Of the 204.7 segment miles of NHS roads, 150.4 segment miles, or almost 75%, are in Excellent or Good condition; 33.6 segment miles are Fair and 20.3 segment miles are Poor.

- **Non-NHS roads**
  Of the 1089.4 segment miles of non-NHS roads, 616.3 segments miles, or just over half, are in Excellent or Good condition; 214.1 segment miles are Fair and 254.1 segment miles are Poor.

The following charts show these roads by IRI for the years 2010 to 2015.
York County Safety

FHWA has established five performance measures to achieve a significant reduction in fatalities and serious injuries on all public roads. PennDOT’s *Highway Safety Guidance Report* for York County presents trends on a five year rolling average for fatalities, serious injury, fatalities per 100 million VMT, serious injuries per 100 million VMT and non-motorized crashes. The graphs below show the five-year average from 2006-2014 for these crashes.

### 5-Year Average, All Crashes

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2010</td>
<td>48</td>
<td>127</td>
<td>175</td>
</tr>
<tr>
<td>2007-2011</td>
<td>46</td>
<td>123</td>
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<tr>
<td>2008-2012</td>
<td>40</td>
<td>115</td>
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<tr>
<td>2009-2013</td>
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<td>108</td>
<td>147</td>
</tr>
<tr>
<td>2010-2014</td>
<td>39</td>
<td>105</td>
<td>144</td>
</tr>
</tbody>
</table>

### 5-Year Average Per 100 Million VMT

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2010</td>
<td>1.44</td>
<td>3.77</td>
<td>5.21</td>
</tr>
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<td>2007-2011</td>
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<td>2008-2012</td>
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<tr>
<td>2009-2013</td>
<td>1.19</td>
<td>3.3</td>
<td>4.48</td>
</tr>
<tr>
<td>2010-2014</td>
<td>1.21</td>
<td>3.23</td>
<td>4.44</td>
</tr>
</tbody>
</table>

### 5-Year Average, Non-Motorized

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2009-2013</td>
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<td>17</td>
</tr>
<tr>
<td>2010-2014</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>
York County Transit

Transit/bus routes map – Map 10 shows the fixed routes offered in York County by rabbittransit.

Central Pennsylvania Transportation Authority

CPTA is the primary provider of public transportation services for York County. CPTA, operating under the name rabbittransit, provides a wide range of transportation services to the south-central Pennsylvania region.

In 2015-2016, rabbittransit’s fixed route service provided more than 1.6 million trips. In other words, over 4,000 people depended on this service every day for transportation to and from work, medical facilities, school, and other activities. In addition to the public bus service, that operates 15 routes in York and 3 routes in Hanover, CPTA offers shared ride programs for senior citizens, park and ride lots, employer-subsidized shuttles, and paratransit service. CPTA runs shared ride programs for ten counties throughout the region. York County residents took 258,033 shared ride trips in 2016.

Capital Area Transit (CAT)

CAT is the public transit authority for the greater Harrisburg area. In York County, CAT provides weekday service to and from Capital City Airport on Route A. This route operates between Capital City, New Cumberland, and Harrisburg.

York County Park and Ride Facilities

Park and Ride Map - Map 11 shows the location of park and ride lots throughout York County. New locations will be added over time as the need increases for transit and ride sharing.

Park and Ride Facilities

Park and ride lots are locations where people can leave their vehicles in order to use public transportation or participate in carpoools or vanpools. Lots are typically located in convenient locations throughout the county.

In York County, there are eight official park and ride locations. Six general use lots are located off I-83: two in Shrewsbury Township, and one in York Township, Springettsbury Township, Manchester Township, and Newberry Township. An official park and ride is located off US 15 in Carroll Township. Only rabbittransit Express riders may use this lot. Another official park and ride is located off I-83 in New Cumberland for CAT riders.

Several non-official park and ride lots are located throughout York County, with the majority of the facilities located along I-83 and US 30. Some of the locations are gravel areas adjacent to the road and others are shopping center parking lots. None of the locations has signs designating it as a park and ride lot. While not officially designated, these locations still provide parking options for commuters and play a significant role in reducing the number of vehicles on the roadway.
York County Railroads

Railroad Map - Map 13 illustrates the location of the rail lines, the ownership of the line and the status of the rail line. The map also includes the location of rail and trucking facilities to give an overall picture of how goods are moved in and through York County.

Rail Freight

In York County, several rail freight providers are responsible for the movement of goods and services in and out of the county. These rail freight providers play an important role in York County’s transportation system by reducing the number of trucks on the roadways and by connecting local companies with suppliers and retailers across Pennsylvania and the United States.

York Railway Company (YRC) is a leading owner and operator of short line and regional freight railroads serving more than 800 customers on nearly 10,000 miles of track in five different countries. YRC, a subsidiary of Genesee & Wyoming Inc., operates 42 miles of track through the center of York County. YRC operates mainline track that links the City of York with the Hanover Area.

YRC serves companies that produce paper goods, agricultural goods, building products as well as companies that specialize in distribution. In York County, YRC’s primary goods are coal, limestone, food grade oils, petroleum products, food products, paper, and agricultural products.

YRC also operates or provides transload service to the Lincoln Yard facility located in West Manchester Township, which is a terminal that transfers bulk goods and products from rail to truck. This operation also provides rail-to-truck transfer service of grocery products to the ES3 warehouse located along Loucks Mill Road in Spring Garden Township.

Norfolk Southern Corporation is a Virginia-based holding company that owns the Norfolk Southern Railway Company. This railroad system’s lines include more than 31,300 miles of track in 25 states. In York County, Norfolk Southern has approximately 30 miles of track and links with other rail lines and inter-modal facilities.

At the southern end of the Norfolk Southern (N/S) line in York County is the Windsor Yard. This facility serves as a classification yard, as well as an inter-modal transfer station, for products ranging from construction materials to automotive products. The Windsor Yard also connects to Poorhouse Yard, which serves as an area where Norfolk Southern Railway and York Railway Companies transfer freight cars. The Norfolk Southern line runs north towards Harrisburg and eventually connects to the Enola Yard and destinations across the Southern and Midwestern United States, as well as parts of Canada.

CSX Corporation, based in Richmond, Virginia, is an international transportation company offering a variety of rail, container-shipping, inter-modal, and trucking. CSX provides services over 32,000 miles of track in 23 states in the Eastern and Southern U.S. and in Canada. In York County, CSX operates on approximately 15 miles of track and links with the York Railway operated lines. The CSX line operates in the southwestern corner of York County.

CSX provides rail service to Hanover Terminal Incorporated, located just outside of Hanover Borough in Penn Township. Hanover Terminal Incorporated is a distribution and storage center for grocery products serving national markets. This terminal is capable of simultaneously serving both rail freight and trucks.
In 2011, East Penn, LLC (ESPN), based in Kennett Square, Pennsylvania, entered into a lease agreement with N/S to operate rail freight service in York County. ESPN provides service on the N/S line along its York Industrial Track, which extends from York City to the village of Stony Brook in Springettsbury Township. ESPN is a subsidiary of Regional Rail, LLC, which owns rail assets in Delaware and southeastern Pennsylvania.

York County Bicycle Routes

Bicycle routes map – Map 14 shows the location of state bicycle routes and county bikeway corridors.

Bikeways, Greenways, and Trails

Numerous trails, greenways, and bicycle routes are throughout the county. These corridors are important not only as alternative modes of transportation, but also to preserve open space, environmentally sensitive areas, and historic locations.

State Bicycle Routes

Bicycle PA Route S runs across the state from Pittsburgh to Philadelphia. In York County, the route follows PA 234 from the Adams County boundary into West Manchester Township. At the intersection with PA 462, the route turns to follow PA 462 to the Susquehanna River and Lancaster County.

Bicycle PA Route J runs from the border with Maryland in York County to the New York border in Bradford County. In York County, the southern end of the route follows the Heritage Rail Trail County Park from the border with Maryland into the City of York. There, the route picks up PA 462 to North George Street to Manchester and Mount Wolf Boroughs. Route J continues north towards the Susquehanna River onto Brunner Island and into York Haven Borough. The route zigzags its way through the northeastern portion of the county until it reaches Goldsboro Borough. There, the route uses PA 382 until it exits York County into New Cumberland near the Capital City Airport.

County Bicycle Routes

A 2001 study completed for York County identified County bicycle routes and resulted in the Comprehensive Bikeway Plan and Implementation Strategy. That effort’s goal was to encourage the development of a countywide system of bikeways connecting the places people live with centers of employment, education, and commerce. As a result, the study classified corridors as recreational, commuter, or both. Most of the identified corridors follow the many state highways found throughout the county. The rest of the bikeway corridors follow lesser-classified roadways and established trail corridors.

Recreational Trails and Greenways

Several recreational trails and greenways are in York County. The county received funding to develop a trail plan by the York County Rail Trail Authority (YCRTA). The York County Comprehensive Plan’s Open Space and Greenways Plan component provides detailed information about these areas throughout the county.
Heritage Rail Trail County Park

This trail starts in the City of York and follows the former North Central railroad line south to the Maryland border where it becomes the NCR Trail. The York County Parks Department and Recreation Rangers operates, maintains, and polices the trail. The trail provides connections to Seven Valleys, Glen Rock, Railroad, and New Freedom Boroughs, and Hanover Junction and New Freedom Train Station historic sites.

The Heritage Rail Trail also provides a link to public transit by connecting with rabbittransit’s downtown transfer center. Lockers are available to bicyclists for safe storage of their bicycles at the transfer center.

In 2015, the YCRTA completed the northern extension of the trail from John Rudy County Park in East Manchester Township to US 30 at the Codorus Creek. Its remaining links from US Route 30 to the City of York will be complete by the end of the decade. Efforts of the YCRTA are underway to construct a trail extension from its existing terminus at the US Route 30 bridge (over the Codorus Creek) to the North George Street/Hamilton Street intersection, next to the former National Guard Armory.

The final link of this extension is located between North Pershing Avenue and North George Street in York City an area known as the “Northwest Triangle”. The pedestrian trail planned for construction linking the northern terminus of the City’s Codorus Riverwalk (now owned by the Rail Trail Authority) with the intersection of North George and Arch Streets. The City of York has proposed bicycle sharrows along the east side of North George Street from Arch Street to Hamilton Street, by that providing a connection to the remainder of the Rail Trail’s Northern Extension.

Once completed, the northern extension, as well as the entire County rail trail system, will provide a viable alternative to motorized transportation for key destinations, such as the Santander Bank Baseball Stadium, John Rudy Park, Harley Davidson Motor Company, York College and downtown York City.

Moreover, YCTRA continues its effort to provide a link between York City and Hanover Borough along the former York-Hanover Trolley line. In 2008, the Authority completed the first phase of this project, opening two phases of the trail to the public. The first phase of the project included a one-mile stretch of the trail from the Jackson Township Sewer Authority to a parking area near Hosiery Alley in Spring Grove Borough and a one-and-half-mile stretch from Moul Avenue in Hanover Borough to Cherry Tree Court near the boundary between Penn and Heidelberg Townships. The next step in this project is a study to investigate the development of additional sections along this historic line. The trail will provide an alternative to motorized transportation for key destinations such as BAE Systems, Glatfelter Co., Moul Borough Park, and the Hanover School District campus.

Other Off-road Pedestrian Trail Facilities

Two other off-road trail facilities are either completed or under design in the county, as follows:

MA and PA Community Greenway

Red Lion Borough is sponsoring a pedestrian trail to extend the existing “Red Lion Mile” trail from the Borough line utilizing the old MA and PA Railroad bed through York Township to the Locust Street/Springwood Road intersection. The trail alignment will cross the Gichner industrial property before to reaches Locust Street. This ¾-mile long trail project, selected in 2014 for YAMPO LRTP
Transportation Alternatives Program (TAP) funding, is currently under design. The borough plans to bid the project for construction in the fall of 2017.

Hollow Creek Greenway

The Hollow Creek Greenway is a 1.5-mile recreational trail located south of York City. The greenway connects Valley Road in Springfield Township with Reynolds Mill Road (PA 214)/Water Street intersection in Loganville Borough. The trail then extends eastward along Reynolds Mill Road. YAMPO previously selected the project for Transportation Enhancement funding. The project’s joint sponsors, Springfield Township and Loganville Borough, opened the greenway to the public in the fall of 2008. Springfield Township plans to extend the trail to the east side of Interstate 83 along North Street in the future.

York County Air Transportation

Airport Map - Map 8 shows the location of the public use airports located in York County. Map 8 also contains the location of airports in neighboring counties that help service the aviation needs of York County.

Air Transportation

The aviation needs of York County are diverse and as such, there are many options to fulfill those needs. York County is the home to several recreational and private air facilities, as well as facilities that service more interests that are commercial. Existing airports serving York County include such facilities as Capital City Airport (CXY), Harrisburg International Airport (MDT), York Airport (THV) near Thomasville in Jackson Township, as well as Philadelphia International (PHL), and Baltimore-Washington International (BWI).

Capital City Airport

Located in the northeast corner of York County, this 273-acre facility serves the business communities of Dauphin, Cumberland, and York counties. CXY is owned and operated by the Susquehanna Area Regional Airport Authority (SARAA) and is the designated alternate for Harrisburg International Airport (MDT). CXY averages more than 57,000 corporate, charter, and private aircraft operations every year. In addition, a study conducted by PennDOT in 2000 concluded that CXY-related activities generate nearly $24 million dollars a year in total economic output into the regional economy. CXY is a full-service, fixed-base operation, and offers training in the form of a flight school, piston and turbine aircraft maintenance and avionics.

Harrisburg International Airport

Located in Dauphin County, this aviation facility serves the commercial interest of the residents and businesses of Dauphin, Cumberland and York Counties. Harrisburg International Airport is a multi-modal transportation center. The facility links with cargo shipping (FedEx, UPS, and DHL), bus and taxi service, as well as provides approximately 2,500 public parking spaces for air travelers.
York Airport

This privately owned airport is located approximately seven miles southwest of the City of York, in Thomasville, Jackson Township along U.S. Route 30. This 66-acre facility is a business service airport by the PennDOT Bureau of Aviation and is home to nearly 100 aircraft. For a 12-month period ending in August 2008, the York Airport experienced 139 daily aircraft operations. The facility is also home to a restaurant and a fixed-base operation. The fixed-base operation provides fueling, maintenance service, and hangar rentals to customers of the airport.

Other Aviation Facilities in York County

The Lazy B Ranch Airport in Dover Township comprises a 2600-foot single lane runway, constructed of concrete and asphalt. The facility designated for public use in 2012 caters primarily to recreational aviation. Baublitz Airport in Brogue and Bermudian Valley Airpark in Kralltown are single turf runways approximately one-half mile in length and exclusively serve recreational aircraft. Kampel Airport in Wellsville is a 2,400-foot turf runway used for recreational aircraft. Shoestring Aviation Airport located in Stewartstown is an airport designated for ultralight aircraft only.

Ongoing Regional Efforts

Commuter Services of Pennsylvania

Commuter Services of Pennsylvania is a travel demand management program of the Susquehanna Regional Transportation Partnership (SRTP) that works to reduce traffic congestion by helping commuters find alternatives to driving alone to and from work, and by reaching out to employers so they can help their workforce find those options. Using alternatives, such as carpooling, transit, vanpooling, bicycling, and walking, saves commuters money and helps improve air quality. Fewer cars in rush hour can mean safer highways, too.

The SRTP Board is composed of MPO, transit authority and chamber of commerce membership of the 13 Pennsylvania counties shown in orange on the previous map. YAMPO, CPTA and the York Economic Alliance (YCEA) play active roles on the SRTP Board.

As of January 2017, Commuter Services reached 28,862 commuters registered in their online ride-matching database with nearly 6,000 of those commuters either living or working in York County. About 60 York County employers and 25 York County community organizations collaborate with Commuter Services to provide information, education and connections to the alternatives to driving alone to work. Their Emergency Ride Home program provides reimbursement to registered commuters who use an alternative mode of transportation for their commute and experience an emergency need for transportation.
FHWA and PennDOT fund this program in partnership with the participating MPOs with Congestion Mitigation and Air Quality (CMAQ) funds. The influence of Commuter Services has taken millions of miles of commuting traffic off Pennsylvania roads and highways and prevented tons of vehicle-related air pollution every year.

Completed Studies

**Country Club/Rathton Road Corridor Study (2009)**

YCPC, on behalf of YAMPO with the help of its consultant Transportation Resource Group, worked with the City of York, Spring Garden Township, York Hospital, and York College of Pennsylvania, Pennsylvania State University of York and the neighborhood association along the corridor to complete a study to identify improvements along the Country Club/Rathton Corridor.

**Northern York County Region Comprehensive Plan Transportation Amendment (2010)**

The purpose of the *NYCRCPT* was to improve transportation safety and mobility, to complement planned development by reducing or relieving congestion, and to accommodate all modes of transportation while sustaining the quality of life in the Route 15 corridor.

**I-83 Park-n-Ride Study (2011)**

The purpose of this study was to pinpoint strategic locations for park-and-ride lots to facilitate the use of rabbittransit’s express bus service to Maryland and to complement the alternative transportation advocacy efforts of Commuter Services of Pennsylvania.

**Coordinated Plan (2012)**

The *Coordinated Public Transit – Human Services Transportation Plan* identifies the needs of individuals with disabilities, older adults, and people with low incomes. It provides strategies for meeting these needs and prioritizes transportation services for funding and implementation.

**West York Borough Complete Streetscape Study (2012)**

The purpose of the *Complete Streetscape Study* was to develop a plan and financing strategy for the improvement of the existing streetscape within West York Borough’s central business district. The study examined not only transportation and pedestrian issues, but economic development issues as well.

**YAMPO Bridge Prioritization (2013)**

The purpose of this study was to prioritize all York County bridges in PennDOT’s BMS. YAMPO uses this document during the project selection process.
York County Bridge Plan (2014)

YCPC prepared the 2014 *York County Bridge Plan* for the York County Board of Commissioners. Stakeholders use this plan as a guiding document for the maintenance and replacement of the 95 county bridges.

York and Lancaster Transit Study (2014)

In 2011, the *Regional Transit Coordination Study* (RTCS) for south-central Pennsylvania, as commissioned by the SRTP, identified this corridor as a top-tier corridor with high potential and ease of implementation. The study examined the feasibility of an express commuter bus service between the City of York and the City of Lancaster.

US 30 Safety Study (2016)

The purpose of the study was to conduct a corridor safety study along US 30 from the York/Adams County Line to SR 116 in York County. The consulting engineer identified potential safety upgrades as well.

Road Safety Audits

A Road Safety Audit (RSA) is the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements for all road users. PennDOT and its sub-consultants completed RSAs for numerous roads in the county. Only SR 116 and SR 94 have outstanding improvements or recommendations.

Transit Development Plan (2017)

The 2017 *Transit Development Plan* (TDP) makes recommendations for rabbittransit. The TDP emphasizes large-scale priorities for the system in the near future, focusing on increasing ridership and providing a better transit experience.

The plan includes a brief overview of the rabbittransit system and changes since the previous TDP in 2011. It includes eight core recommendations and brief route-specific recommendations based on a SWOT analysis follow. The appendices include maps and notes from stakeholder meetings. Concurrently, YCPC revised rabbittransit’s design and service standards, which are in a standalone document but set goals for the system.

York County Trail Plan (2011)

The primary purpose in creating a *York County Trail Plan* is to aid in determining which of these trail ideas are worthy of investment, hold the promise of enriching our communities, provide viable connections, enhance our natural environment, and offer compatible land uses.
Harrisburg International Airport (HIA) & Capital City Airport (CXY) 2035 Master Plans (2016)

SARAA undertook the development of HIA and CXY Master Plans 2035. The purpose of developing a Master Plan for the Airport is to provide guidance for the continued improvement of HIA and CXY through 2035 and beyond. The YCPC Transportation Department served on the Master Plan Advisory Committee during the development of the plan. The planning process followed the following phases:

- Inventory of exiting airport facilities,
- Forecast of aviation demand through 2035,
- Analysis of airport facility capacity and demand through 2035,
- Development and evaluation of alternatives, including financial impacts; and
- Development of a recommended plan for FAA approval.

Rabbittransit Bus Stop Inventory (2016)

This inventory collected data about the accessibility of each of rabbittransit’s bus stops in York County including the adequacy of ADA landing areas, shelters, sidewalks, seating, landscaping, lighting, trash receptacles, traffic safety, and signage.

Recurring Reports

Report on Congestion (ROC)

The ROC is a periodic review of the York County transportation system. YAMPO measures congestion by utilizing performance measures outlined in the Congestion Management Process (CMP).

Safety Project Evaluations

This document shows crash history for five years before and five years after construction of a safety improvement. The purpose of the evaluations is to determine if the project was successful, and at what cost for the type of investment.

I-83 Traffic and Conditions (TAC) Report

The TAC Report for Interstate 83 was borne out of YAMPO’s CMP. YAMPO publishes this report annually. The TAC Report covers various traffic characteristics of the Interstate from the Maryland State line and the Cumberland County line. Data are from a variety of sources including PennDOT and York County Planning Commission (YCPC). Data collected for this report include, but are not limited to, physical inventory ramp delay, traffic crashes, pavement condition, and road closures.

YAMPO expands this report regularly to include additional data attributes of the corridor. The ultimate goal of this report is to provide an information resource upon which consultant teams can conduct comprehensive traffic analysis without the initial burden of data collection.

Annual Pavement and Bridge Condition Report

The report details the conditions of the roads and bridges on the Federal Aid System to help guide investment decisions to keep York County’s roads and bridges in a state of good repair, according to PennDOT’s established targets.
Annual Report of Transit Statistics

The Annual Report of Transit Statistics (ARTS) includes ridership, schedule adherence and financial data for rabbittransit’s fixed route system.

Planning Efforts in Progress

CPTA 3P Initiative

CPTA’s 3P (More People, More Places, More Possibilities) efforts are borne out of a Federal Transit Planning For All grant to develop an inclusive coordinated transportation system in which people with disabilities and older adults actively participate in both advisory and decision-making capacities.

PennDOT Extreme Weather Vulnerability Assessment

This plan uses historic and future climate impacts and vulnerabilities with a focus on flooding risks to identify potential strategies to improve transportation resiliency.

YAMPO Flooded Roadway Study

This study will identify roadways that flood when waterways flood and which of these roadways YAMPO should address.

Road Safety Audits

A RSA is the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. It qualitatively estimates and reports on potential road safety issues and identifies opportunities for improvements for all road users. The 2017-2020 TIP has three programmed RSAs. They are as follows: George Street located in Manchester Township, North York Borough, West Manchester Township, and the City of York. Richland Ave/Country Club Road located in Spring Garden Township, West Manchester Township, and the City of York. Roosevelt Avenue (Grantley Road, Penn Street, and Roosevelt Avenue) located in City of York.
**Operation and Maintenance of Adaptive Signal Technology (OMAST)**

OMAST is a subcommittee formed by YAMPO to investigate the technical support issues, along with the maintenance and operational costs of adaptive signal technology. The subcommittee will make a recommendation to the YAMPO Coordinating Committee to address the long-term maintenance and operation of these systems.

**Environmental Justice Study**

This study will analyze the environmental justice benefit and burdens for MPOs. This planning effort is coordinated between all District 8-0 MPOs. The outcome for this study is to be a pilot for MPOs across the state.
143,433 reside and work in York County

Legend
- Neighboring Counties
- York County
- Resident of other county working in York County
- Resident of York County working outside of the county

Source: U.S. Census Bureau, American Community Survey 2009-2013 Five-year Estimates

Disclaimer:
The York County Planning Commission provides this Geographic Information System map and/or data (collectively the "Data") as a public information service. The Data is not a legally recorded plan, survey, official tax map, or engineering schematic and should be used for only general information. Reasonable effort has been made to ensure that the Data is correct; however the Commission does not guarantee its accuracy, completeness, or timeliness. The Commission shall not be liable for any damages that may arise from the use of the Data.

Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

Date Saved: 1/25/2017 11:59:30 AM

www.ycpc.org
York County, Pennsylvania Location Map

York County Planning Commission
Transportation Long Range Plan

Legend
- Roads
- Lakes and Susquehanna River
- Municipal Boundary

Transit Routes
- Radial
- Hanover
- Express
- Core
- CAT Route A - New Cumberland

MAP INSET #1: YORK CITY AREA

MAP INSET #2: HANOVER AREA

Units: Foot US
Standard Parallel 2: 40.9667
False Northing: 0.0000
False Easting: 1,968,500.0000
Datum: North American 1983
Projection: Lambert Conformal Conic

however the Commission does not guarantee its accuracy, map, or engineering schematic and should be used for only general information.

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York County Planning Commission shall not be liable for any damages that have been made to errors of the Data's content.

Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 2103 Feet
Projected: Lambert Conformal Conic
Datum: North American 1983
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False Northing: 0.0000
Standard Parallel 1: 40.6667
Standard Parallel 2: 40.9667
Units: Feet US

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Date Saved: 1/25/2017 10:49:23 AM

1 inch=19,500 feet

0 0.05 1 2 3 4
Miles
Disclaimer:
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Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

Legend:
- Airports
- Lakes and Susquehanna River
- Municipal Boundary

Date Saved: 1/19/2017 9:24:35 AM

1 inch=19,500 feet

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Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

1 inch=19,500 feet

Date Saved: 1/19/2017 11:24:56 AM

Legend

RAILROAD_OWNER

CSX
Norfolk Southern
York Railway
East Penn LLC
Lakes and Susquehanna River
Municipal Boundary

http://www.ycpc.org
Chapter IV – Identified Needs

When planning into the future, the first step is identifying where you are now. Chapter III – Inventory completed that step. The second step is to identify what the needs will be in the future and to estimate their cost. This chapter reviews the process used to identify future needs and the results of the process. This chapter documents the process used during the 2009-2035 Long Range Plan development process and includes notes on the needs identified through a 2017 review. The 2017 update removed the cost estimates associated with the needs identified in 2009.

Identifying the needs was one task that involved the public. YAMPO organized subcommittees to represent each area of the transportation system. This was the first opportunity for the YAMPO to involve individuals and organizations that traditionally have not been involved in the planning process. Altogether, fifty-two people outside the staff of the YCPC, PennDOT, and rabbittransit were involved. This chapter lists the members of each subcommittee and a summary of the subcommittee’s findings.

Each of the ten subcommittees operated independently. However, each subcommittee adhered to the following guidelines:

- Subcommittees evaluated the needs between the years of 2009-2035 (27 years).
- Subcommittees did not constrain the needs to YAMPO and County of York responsibilities
- Subcommittees did not constrain the needs by available or projected financial resources
- Subcommittees identified needs as either quantitative or qualitative and emphasized quantitative needs with supporting data

In addition to involving the public in developing the needs, each subcommittee developed an Assessment of Need that a representative presented to the YAMPO Technical Committee at three advertised meetings. These presentations also included any comments from the public. Comments from the public meetings are in Appendix A – 2009 Public Participation Plan.

Because each subcommittee operated independently, their work produced four specific needs that multiple subcommittees identified. YAMPO identified five core subcommittees – Bridge, Maintenance, Safety, Capacity, and Transit – where overlapped needs should be included. In other words, needs identified by multiple subcommittees are only shown in the core subcommittee’s summary on the following pages.
Air Quality

Chairperson - Jennifer Gunnet, Windsor Township/YAMPO, Members: Kevin Stewart, American Lung Association; Michael Baker, PennDOT Central Office; Randy Beck, YCPC; Beth Nidam, YCPC

Air Quality is not a part of moving people or goods; however, it is an important consideration when planning for vehicles, which produce pollutants. York County exceeds the U.S. Environmental Protection Agency (EPA) allowed amount of pollutants for the 8-Hour Ozone and the Particulate Matter (PM) 2.5 parts per million. Due to the higher than allowed levels, York County is designated a Non-Attainment area by the US EPA. This designation compels York County to complete air quality conformity analysis.

Subcommittee Needs

- Conversion of unofficial park and rides into marketable protected locations
- Re-timing of the traffic signal system along the most congested corridors in York County as identified in the Congestion Management Plan (CMP) on a three-year cycle (this is also noted in the Capacity Subcommittee recommendation)
- Coordination of all other traffic signals on a five-year cycle

2017 Update

York County is currently included in the York, PA maintenance area under the 1997 annual PM$_{2.5}$ National Ambient Air Quality standard (NAAQS) and the Harrisburg-Lebanon-Carlisle-York, PA maintenance area under the 2006 24-Hour PM$_{2.5}$ NAAQS. The county is in attainment for the 2012 annual PM$_{2.5}$ and 2008 8-hour ozone NAAQS. Thus, York County is still required to perform transportation conformity analysis to ensure that no future transportation projects will prevent the county from reaching its air quality attainment goals.

In 2016, YAMPO adopted selection criteria for Congestion Mitigation and Air Quality (CMAQ) funding. During the 2017 TIP update process, YAMPO committed to fund the following efforts for the six years 2017 through 2022:

- SRTP and the Commuter Services of Pennsylvania TDM program
- CMP Signal Timing that will address signal timing optimization for traffic signals identified through the Congestion Management Process
- Rabbittransit bus replacements
Aviation

Chairperson - Donald Bubb P.E., YCPC/YAMPO, Members: Dave Spaulding, Susquehanna Regional Airport Authority; Tim Tate, York Airport; Robert Donato, Bermudian Valley Airpark; Kenetha Hansen, York County Economic Development Corporation, and Air Transportation Authority of York County; Tom Tomczyk, PennDOT Bureau of Aviation; Greg Vaughn, PennDOT District 8-0; Jeph Rebert, YCPC

YAMPO tasked the Aviation Subcommittee with identifying the needs for scheduled, business and recreational public use airports that serve residents of York County. Map 8 shows the locations of these airports. The Subcommittee process identified the following needs and associated cost.

Subcommittee Needs

- Land development plan review within a three-mile radius of airports where municipal Airport Hazard Zoning is not in place.
- Completing a transportation access study for Harrisburg International Airport (HIA).
- Completing a transportation access study for York Airport (THV).
- Installation of directional wayfinding signs to HIA, Capital City Airport (CXY), and (THV).
- Capital improvements through the PennDOT Airport Capital Improvement Program (ACIP) within the airport boundaries of CXY and THV.

2017 Update

CXY Master Plan, 2035

SARAA undertook the development of the *CXY Master Plan for 2035*. The purpose of developing a Master Plan for the Airport is to provide guidance for the continued improvement of CXY through 2035 and beyond. The YCPC Transportation Department served on the Master Plan Advisory Committee during the development of the plan. The planning process followed the following phases:

- Inventory of existing airport facilities,
- Forecast of aviation demand through 2035,
- Analysis of airport facility capacity and demand through 2035,
- Development and evaluation of alternatives, including financial impacts, and
- Development of a recommended plan for FAA approval.

York Airport Runway Improvements Phases 1, 2 and 3

THV received a block grant from the Federal Aviation Administration (FAA) to rehabilitate its runway and eliminate obstructions around the facility. The County of York is administering the grant on behalf of the Airport. PennDOT plans to bid all phases of the project for construction 2017 spring with construction completed that fall.
Bridges

Chairperson - Pat Schaub, Hopewell Township/YAMPO, Members: Steve Malesker P.E., C.S. Davidson Inc.; Donnie McCauslin, Hopewell Township; Harivadan Parikh P.E., PennDOT District 8-0; Dennis Sloand, PennDOT District 8-0; Roy Livergood, YCPC; Heather Bitner, YCPC

The Bridge Subcommittee was responsible for identifying the need for replacement, rehabilitation, and preservation of existing bridges. This included looking at all state bridges over eight feet in length, local bridges over 20 feet in length, and all county bridges.

Subcommittee Needs

- Minor repair of 448 bridges that will turn 25 or 75 years old through the life of this Plan.
- Major repair of 262 bridges that will turn 50 years old through the life of this Plan.
- Total Replacement of 197 bridges that will turn 100 years old through the life of this Plan.

2017 Update

- Minor repair of 415 bridges that will turn 25 or 75 years old through the life of this Plan.
- Major repair of 278 bridges that will turn 50 years old through the life of this Plan.
- Total Replacement of 194 bridges that will turn 100 years old through the life of this Plan.
Capacity (Congestion Management)

Chairperson - Kelly Palmer, West Manchester Township/YAMPO, Members: Tim Kinsley, Kinsley Properties; Earl Shuckman, Shrewsbury Township; Sam Snyder, Yoe Borough; Brian Hare P.E., PennDOT Central Office; Glenn Longstreth, Pennsylvania Motor Trucking Association; Tom Austin, Transportation Resource Group, Inc.; Richard McCoy, US Fish and Wildlife; Dennis Sloand, PennDOT Planning and Programming; Will Clark, YCPC

The Capacity Subcommittee identified projects that would reduce 2035-projected congestion on the roadway by providing additional capacity to the network.

Subcommittee Needs

- Completing projects programmed on the 2007 TIP
- Completing projects programmed in the 2003-2023 LRTP
- Re-timing of the 179 traffic signal lights located less than 1,000 feet from another traffic signal light on a three-year cycle
- Implement a coordinated traffic signal system for the eight signalized intersections that are not currently coordinated and are less than 1,000 feet from another signal
- Widening of 80.92 miles of roadway projected to have a high 2035 volume to capacity ratio
- Major increases to capacity at ten intersections
- Modifications to five interchange locations
- Completing projects submitted by municipalities since 1999
- Completing projects included in the Pennsylvania Turnpike Commission Ten-Year Capital Investment Plan

2017 Update:

- The latest Report on Congestion (2015) identifies 628 number of road segments as congested (experiencing a travel time index of 1.5 or greater during either the AM or the PM peak period). From the report, YAMPO selected 13 intersection locations to begin the Level 2 LPN process for possible inclusion in a future LRTP/TIP update.
- Country Club/Rathton Road Corridor Study identified improvements to improve capacity along the corridor.
- The 2007 TIP has been replaced by the 2017-2020 TIP
- The implementation of the 2003-2023 LRTP is now the 2015-2035 Capital Improvements Plan.
- Re-timing of 179 traffic signals and coordination of traffic signals less than 100’ are no longer applicable. The CMP generates signal-timing priorities.
Enhancements

Chairperson - Jim Gross, York City/YAMPO, Members: Joe Stafford, Bicycle Access Council; Robin Ricketts, PANA; Barbara Kovacs, York City Health Bureau; John Sanford, Dallastown Area School District; Gwen Loose, York County Rail Trail Authority; Jonathon Pinkerton, Lancaster/York Heritage Region; Stewart Graybill, Red Lion Borough; Kevin Alvernez, WellSpan Health; Dave Holcombe, PennDOT District 8-0; Anne Walko, YCPC; Will Clark, YCPC

The Enhancement Subcommittee was responsible for planning for non-traditional transportation projects. This category includes bicycles, pedestrians, viewsheds, downtown streetscapes, historic preservation, archaeological planning, and environmental protection.

Subcommittee Needs

- Install missing sidewalks within one and a half miles of all elementary and middle schools and two miles around all high schools.
- Construct a multi-use trail along all rail corridors.
- Implement streetscapes within commercial or mixed-use areas within Boroughs and York City.
- Complete inventory and identification of need for the other areas of the enhancement category.

2017 Update

Unfunded YAMPO TAP Projects as of 2017

- Trolley Line Trail, York Township
  
The project would provide a pedestrian/bicycle connection between the York Township Municipal Complex and the York Township Community Park.

- North George Street – Codorus Creek Bridge Road Diet - Separate Shared Use Path, City of York
  
The project would provide a separated use path and bike lanes on North George Street across the Codorus Creek through implementation of a road diet (i.e., lane reduction) and traffic calming improvements from North Street to Parkway Boulevard.
Maintenance

Chairperson - Mike Fleming, Fairview Township/YAMPO. Members: Representative Ron Miller, PA House of Representatives; Missy Werner, Ron Miller’s Office; Dan Shaw, Red Lion Borough; Rick LeVan, PennDOT District 8-0; Dennis Sloand, PennDOT District 8-0; Richard Roman P.E., PennDOT District 8-0; Don Bubb P.E., YCPC; Beth Nidam, YCPC

The Maintenance Subcommittee was responsible for determining the future need of maintaining all routine work needed to keep the highway system (i.e., state and local) in satisfactory condition. This included pavement maintenance, roadway drainage system maintenance, pavement markings, signage, roadside vegetation/mowing, and traffic signal maintenance. Two routine tasks not included are snow removal and routine maintenance on bridges.

Subcommittee Needs

- Pavement management of 1,342 miles of state-owned or federally eligible roads, which would include resurfacing, pavement markings, drainage system repairs or other upgrades.
- Based on 2006 data, pavement management of 2,469 miles of local roads included resurfacing, pavement markings, drainage system repairs or other upgrades.
- Repair or replacement of signs outside of a pavement management project.
- Maintenance of the 294 traffic signals in operation, as of 2007.

2017 Update

To convert the 2006 data to linear miles and update to 2017, there are 768.2 linear miles of federally eligible roads, 3,044 linear miles of non-federal aid roads, and 260 traffic signals in York County.
Rail

Chairperson - Felicia Dell, YCPC/YAMPO, Members: Tom Baron, CSX; Ron Bender, Pennsylvania Public Utility Commission; Dan Brady, Hanover Area Chamber of Commerce; Michael Bull, Federal Railroad Administration; Rick Crawford, Norfolk Southern Railway Corp.; Kristen Gessner McCaughlin, PennDOT Central Office; Dave Hart, Pennsylvania Public Utility Commission; Kevin Hodge, Rock Commercial Real Estate; Don Kress, Codorus Creek Railway; Don Masemer, Hanover Terminal Inc.; Dennis Mead, ES3, LLC; Representative Ron Miller, PA House of Representatives; Blanda Nace, York County Economic Development Corp.; Michael Smeltzer, Manufacture’s Association of South Central PA; Kim Smith, Genesee and Wyoming, Inc.; Greg Vaughn P.E., PennDOT District 8-0; Jeph Rebert, YCPC; Joseph Marczyk, YCPC

The Rail Subcommittee looked at the movement of freight along rail corridors. They identified the long-term maintenance cost for the current system identified on Map 6 in Chapter III, as well as future expansion opportunities.

Subcommittee Needs

- Required Maintenance Costs for Class II railroads.
- Activation of existing unused rail sidings.
- Construction of new rail sidings.
Security

Chairperson - Robert Reilly, Congressman Todd Platts’ Office/YAMPO, Members: George Giangi, South Central PA Counter Terrorism Task Force; Kay Carman, York County Office of Emergency Management; Gloria Shipley, rabbittransit; Michael Shanabrook, York City Office of Emergency Management; Michael Fetrow, York County Office of Emergency Management; Scott Nazar, P.E. PennDOT District 8-0 Office; Robert Medina, York County Human Services Department; Michael Hampton, West Manheim Township, Office of Emergency Management; Barry Staub, PA State Police - Loganville Barracks; Roy Livergood, YCPC; Jeph Rebert, YCPC

The Security Subcommittee addressed and evaluated security and incident management needs for the County’s entire transportation system, rather than individual transportation modes. Topics included risk assessment, evacuation transportation, critical facilities, Intelligent Transportation Systems (ITS), and Emergency Planning Zones (EPZs) for nuclear plant facilities.

Subcommittee Needs

- Increase the height clearance for bridges over I-83.
- Increase the height clearance for bridges over US 30.
- Install the ITS infrastructure identified in the PennDOT ITS architecture plan.
- Model of transportation constraints within EPZs.

2017 Update

- Two overpasses along I-83 do not meet the PennDOT minimum clearance standard of 16 feet, six inches.
- Five underpasses along the interstate do not meet the PennDOT clearance standard.
- PennDOT has completed its ITS architecture plan for York County.
- YAMPO and PennDOT will develop a new ITS architecture plan.
Safety

Chairperson - Ron Orndorf P.E., Hanover Borough/YAMPO, Members: Gregory M. Bean, Southwestern Regional Police; Wayne Harper, York County Center for Traffic Safety; Ed Janeshefskie, PennDOT District 8-0; Dave Mallin, PennDOT District 8-0; Joe Stafford, Bicycle Access Council; Heather Bitner, YCPC

The Safety Subcommittee identified the need to reduce crashes by using Education, Engineering, and Enforcement, the three E’s.

Subcommittee Needs

- Completion of general safety studies.
- Complete access management study on select corridors.
- Complete traffic and engineering study at intersections to determine if proper sight distance is present.
- Complete sign inventory to ensure “stop ahead” signs are present at appropriate locations.
- Complete traffic and engineering study at various locations to identify specific improvements at various locations.
- Install fencing along all limited access roads to reduce vehicle and deer crashes.
- Maintain safe operating condition of the roads through proper maintenance. Included in the Maintenance Subcommittee recommendation).
- Install edge-line and centerline rumble strips on arterial highways.
- Police investment.
  - Add an additional officer for each police force.
  - Provide additional training on crash reports for police.
- Provide driver education in the form of a class for all registered drivers in York County (as of December 31, 2016 Registered Drivers = 330,226).

2017 Update

In addition to the need to reduce crashes, a new federal initiative titled Towards Zero Deaths is also part of the overall need. As mentioned in Chapter III, PennDOT has completed two RSAs, but has not fully implemented the recommendations. The current 2017-2020 TIP has three RSAs slated to begin. PennDOT completed a corridor safety study for a portion of US 30 with outstanding potential safety improvements.
Transit

Chairperson - Richard Farr, CM rabbittransit/YAMPO, Members: Bob Jensenius, York County Chamber of Commerce; John Ward, Capital Area Transit and Modern Transit Partnership; Brandy Heilman, South Central PA Commuter Services; Lou Diehl, Center for Independent Living Opportunities; Jenna Reedy, rabbittransit; Melissa Hess, The Performance Group; Joshua Bennet, Capital Trailways; Mike Wagner, York County Area Agency on Aging; Dr. Judith Basset, York County Human Services Department; Greg Vaughan, PennDOT District 8-0; Jeph Rebert, YCPC

The Transit Subcommittee addressed the need of the public transit system as well as other transportation alternatives (e.g. including car pooling and vanpooling).

Subcommittee Needs

- Maintenance of existing system in terms of capital and operation funding
- Demand management
  - A coordinator with Commuter Services of Pennsylvania who focuses on York County
  - Establishment of ten subsidized vanpools
- Commuter Transit Services
  - Expansion of the Harrisburg express bus service and routine bus replacements
  - Begin new express service into Maryland and routine bus replacements
  - Lancaster and Adams express bus service and routine bus replacements
  - Intra-County express bus service
- Signal light prioritization along congested corridors.
- Expansion of the existing transit transfer center
- Purchasing hybrid buses as replacements for the core routes (eight buses)
- Paratransit service expansion to address gaps in the YAMPO Transit/Human Service Coordinated Plan

2017 Update

- The York County Bicycle and Pedestrian Connectivity and Safety Inventory identified twelve focus areas surrounding rabbittransit bus stops for bicycle and pedestrian improvements.
- The 2017 rabbittransit Transit Development Plan recommended bus stop consolidation and enhancements (shelters, sidewalks, lighting, etc.) at the remaining bus stops.
- In 2016, rabbittransit completed an accessibility inventory of all of its York County bus stops that recommended improvements to bus stops to meet requirements of the Americans with Disabilities Act.
Chapter V – Future Funding Decision

As mentioned in the introduction, this plan is updating many of the decisions made during the development of the 2009-2035 LRTP effort. This chapter uses the 2009 recommendations on category allocations and presents them based on 2017 funding allocations. These allocations remained the same because PennDOT has not set many of the federally required performance targets to date. Once the targets are set and reviewed, the YAMPO will examine the possibility of reallocating resources.

On December 6 2007, the YAMPO Technical Committee held a work session to discuss different future funding splits to determine the best mix of transportation funding over the next 27 years. The Task Force based their recommendation on public participation, the identified need, funding projections, and historic funding based on project type.

Public Participation

In order to gauge the transportation priorities of York County, YAMPO asked residents to complete a Transportation Madness survey, as seen below. YAMPO designed the survey to indicate a priority level among the transportation categories that corresponded with the following Subcommittees: Bridges, Capacity, Enhancements, Maintenance, Rail Freight, Safety, Security, and Transit. Refer to Appendix A - Public Participation for a full-page version of Transportation Madness.
Using the 308 survey responses, YCPC compiled a weighted priority list by assigning a point for each time a respondent chose a category. The figure below shows the categories in order of most points received with the total number of points listed in parentheses beside the category title. This figure also details the frequency that a category “won” first/second, third/fourth, fifth/six, or seventh/eighth place.

Figure 19 - Transportation Madness Results
Weighted Responses

Clearly, public opinion identified Maintenance, Capacity, and Safety as the top three transportation priorities. However, to ensure that these decisions were based on a foundation of facts, a focus group session was conducted to provide information to a sample set of residents. YAMPO provided the focus group with the information that each of the ten subcommittees produced.

The focus group identified one clear difference. Bridges were more important than the Transportation Madness results identified. However, YAMPO conducted the Transportation Madness survey prior to the Minneapolis bridge collapse in August 2007 and conducted the focus group afterward. Since that time, there has been a large amount of public education through the media concerning the status of bridges throughout Pennsylvania and the nation. When faced with severe financial limitations, the focus group collectively chose to fund bridges, safety engineering solutions, I-83 interchange upgrades, completion of projects currently on the TIP and LRTP, signal coordination, and transit’s maintenance of existing
services. Overall, the focus group was not interested in funding enhancement projects, security projects, air quality stand-alone projects, or transit projects other than maintenance and use of alternative fuels.

Identified Needs

The identified need for each of the ten subcommittees is included in Chapter IV beginning on page 39.

Funding Projections

Based on existing funding, YAMPO projected transportation-related funding for York County from 2017 to 2040. Since the 2009 LRTP, both the Pennsylvania legislature and Congress have adopted new transportation funding packages as described below:

- **Federal: MAP-21**
  
  In addition to being a two-year funding authorization, MAP-21 altered the composition of federal transportation funding and introduced performance-based planning

- **Federal: FAST Act**
  
  The FAST Act is a six-year transportation funding authorization that did not make significant changes to the composition of federal funding

- **State: Act 44 of 2007**
  
  Act 44 created dedicated and sustainable state funding source for transportation projects linked to need and performance

- **State: Act 89 of 2013**
  
  Act 89 is a state transportation funding authorization that changed the source increased funding by $2.3 billion per year by 2018

- **County: Fee for local use**
  
  Act 89 enabled counties to enact an additional five-dollar registration fee for transportation projects. York County approved this fee in 2016.

As seen in the figure to the right, three decision-making bodies – YAMPO, PennDOT, and the County Commissioners, oversee 24 different funding programs included in these projections totaling more than $2.1 billion.

A detailed analysis of the projections is in Appendix B.
Allocation of Future YAMPO Funding

Using the previously identified data, the YAMPO Technical Committee reviewed five different future funding wheels based on:

- accommodating public input
- accomplishing PennDOT’s goals
- fulfilling the needs identified by the subcommittee
- maintaining the spending on projects over the last three years

The recommendations reflect the task force’s determination for the best transportation system with limited financial resources. The ranges identified by the task force are not year-by-year guidance, but a recommendation for total distribution of resources over the course of the LRTP. Importantly, the minimum recommended percentages total only 90% of total funding. This would leave 10% of the funding to YAMPO’s discretion. Funding all categories at their maximum percentages is not possible; the maximum recommended ranges total 120% of funding.

Combining the maintenance and bridge categories, the task force recommended allocating 52 to 62 percent of funding to maintaining the existing transportation network.

The figure above applies the task force’s recommended percentages to the $2 billion projected to flow through YAMPO\(^1\) over the course of the LRTP to illustrate recommended dollar amounts.

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\(^1\) In addition to the approximately $1.2 billion in formula-driven funding that YAMPO administers directly, this projection includes state and federal transit operating assistance funds, York County’s contribution to the P3 bridge program, county maintenance (409) funds, and funds currently programmed on the Interstate Management TYP.
<table>
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<th>Category</th>
<th>Low</th>
<th>High</th>
<th>Pre-allocated</th>
<th>Minimum</th>
<th>Maximum</th>
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<td>$203,988,071</td>
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<td>$681,166,817</td>
<td>$1,172,742,942</td>
<td>$1,782,758,066</td>
</tr>
</tbody>
</table>

The table above shows the exact low and high amounts for each project category as recommended by the task force. About 33% of YAMPO’s total funding is dedicated to a specific type of project. For example, YAMPO must allocate HSIP funding to safety projects. This dedicated funding is aggregated into the appropriate project category and shown in the column labeled Pre-allocated. The remaining funding – more than $1.3 billion – is flexible; YAMPO can allocate these dollars to any type of project. The last two columns show the amount of flexible funding that YAMPO must allocate to the category to meet the minimum and maximum recommended amounts. Blank values show areas in which the dedicated funding exceeds the recommended amount. In order to meet the task force’s minimum funding recommendations, YAMPO must allocate $1,172,742,942 of its $1,372,103,919 in flexible funding as shown in the Minimum Flexible column. This leaves a balance of $199,360,976, or 9.7% of total funding, for YAMPO to allocate above the minimum recommended amounts.

**PennDOT Transportation Investment Plan**

PennDOT created this transportation investment plan during the development of the 2017 transportation improvement program. The transportation investment plan guides broad categorical investment the same way the LRTP identifies ranges for allocation of future YAMPO funding. However, the transportation investment plan uses a performance measure strategy to dictate the investment levels or limit investment areas. If an MPO does not meet the performance measures below, PennDOT requires scaled investment based on the deficiency.

- Percentage of Structural Deficient Deck Area of National Highway System (Non-Interstate) Bridges
- Percentage of National Highway System (Non-Interstate) Roads with a poor International Roughness Index (IRI) or Overall Pavement Index (OPI)
- Percentage of National Highway System (Non-Interstate) Roads with a poor OPI and out of cycle
Chapter VI – Project Selection Process

One of the goals of this Plan is to develop a process that helps guide decision makers to select projects that meet the identified goals. Chapter II identifies the goals included in SAFETEA-LU, MAP-21, FAST-Act, Keystone Principles, PennDOT Mobility Plan, PennDOT On Track, Smart Transportation Principles, and the other elements of the York County Comprehensive Plan.

The Selection Process

This process assists in selecting transportation projects, but YAMPO does not intend for it to be a “black box” to select the final project. PennDOT’s Mobility Plan states, “Project development decisions must always be made by people, not spreadsheets, weighing a range of criteria that is often subjective, not easily quantified, and adjusted for unique situations. Project prioritization is not a mechanical process. It cannot and should not be overly prescriptive or inflexible.”

The project selection criteria set forth in this Chapter are under each appropriate subcommittee and the same criterion can be included in one or more subcommittee processes.

Some subcommittees have several levels of criteria. The first level is an absolute, or the first criteria against which YAMPO evaluates a project. The project only moves forward if the answer to each question is “yes.” The second step is weighted criteria. Some weighted data is not currently available. YAMPO will consider these criteria in the future when it is available. Additionally, after YAMPO selects a project, it may identify tasks that the sponsor or municipality needs to complete before receiving funding.

The 2009 LRTP approved selection criteria for Capacity, Enhancements, Rail, Maintenance, Bridges, Safety and Transit. Since that adoption, YAMPO approved new criteria on December 5, 2013 for Bridge, Maintenance, Safety and TAP (replacing Enhancements).

Unique to the area of Air Quality are the CMAQ funds that YAMPO must program to reduce congestion or improve air quality. FHWA published guidance for the use of these funds, and in 2016, YAMPO developed and approved project selection criteria. The US Environmental Protection Agency (EPA) had previously designated York County as a non-attainment area for both ozone and particulate matter. Recent reviews indicate that York County is now meeting the ozone standard and is a designated maintenance area for particulate matter.

YAMPO did not develop selection criteria for Aviation or Security since those subcommittees did not identify funding sources.
Air Quality Selection Process (CMAQ Project Selection Process)

YAMPO wishes to commit to specific on-going CMAQ-eligible programs and prioritize those efforts for CMAQ funding. During the development of the Transportation Improvement Program (TIP), the YAMPO may designate a specific on-going program as a CMAQ funding priority and allocate CMAQ funding for that program for a period of up to six years. YAMPO may extend the six-year funding commitment with each TIP cycle indefinitely or not, as it chooses.

During the TIP update cycle, after the total of all on-going program commitments is deducted from the YAMPO CMAQ funding allocation, YAMPO will award any remaining CMAQ funds to the CMAQ-eligible, LPN Level 2 approved project with the lowest dollar cost per total kg of pollution reduction calculated as a benefit on a typical summer day.

Outside of the TIP update cycle, should CMAQ funds become available, YAMPO may allocate these funds to currently programmed CMAQ-eligible projects.

During the development of any LPN Level 2 form, YAMPO should determine whether project alternatives could be eligible for CMAQ funding according to the current FHWA CMAQ guidance. If YAMPO chooses a project alternative when it approves the LPN Level 2 form to the LRTP/TIP, YAMPO should complete an estimation of air quality pollution reduction benefit using the current software, such as PAQOne. YAMPO will divide the total estimate costs for the project by the benefit or total pollution reduction for a Typical Summer Day, reported in kg/day. This is the measurement, ranked lowest to highest, by which YAMPO may fund projects with any CMAQ funds remaining after funding the priority programs.

The above criteria are subject to change if the YAMPO does not meet FHWA-required PennDOT targets. PennDOT will set targets that may affect YAMPO CMAQ criteria based on the following FWHA performance measures.

- Percent change in CO2 emissions from 2017, generated by on-road mobile sources on the NHS.
- Total emission reductions for applicable criteria pollutants, for non-attainment and maintenance areas.
- Mode share, specifically the percent of non-single occupancy vehicle travel, including travel avoided by telecommuting.
### Transportation Alternatives Program Criteria

**Unlike maintenance, bridge, and safety candidates, which are grouped, filtered, and scored through data-driven processes, TAP projects are evaluated on a more subjective basis through a competitive process including the checklist below and an interview with the project sponsor.**

#### Planning, Support, and Coordination

- Is the project identified:
  - in the York County Long Range Plan?
  - in a municipal Comprehensive Plan?
  - as a solution in a transportation study?
  - in a Linking Planning and NEPA form?

- Is the project or will the project be coordinated with a project on the current YAMPO TIP?

- Is the project or will the project be coordinated with a current municipal project or will be part of a larger community project?

- Does the project have public support in the community in which it will be constructed?

#### Project Funding

- **Pre-construction:**
  - Funds are needed
  - Matching funds applied for
  - Costs known and funds secured
  - Costs have been paid

- **Maintenance:**
  - Costs have been identified; funding not secured
  - Costs have been identified; funding is secured
  - Responsible party for routine maintenance is known and accepts responsibility

#### Project Phase Status

- Where in the project development process is the project?
  - Initial planning stage
  - Finalized to PennDOT standards; seeking funding
  - Ready to begin pre-construction activities
  - Pre-construction activities have begun
  - Completed ROW clearance
  - Completed utility clearance
  - Completed environmental clearance
  - Completed preliminary design
  - Completed final design
  - Pre-construction activities are completed

#### Safety

- Does the project improve safety of pedestrian/bicycle crossing and/or on-street bicycle facilities?

- Does the project improve safety through traffic calming techniques?

#### Environmental

- Does the project avoid environmental impacts to:
  - High Hazard Locations? (per York County Hazard Mitigation Plan and York County NAI)
  - Water resources? (per York County IWRP)
  - Air quality?

- Does the project improve or mitigate:
  - Stormwater management?
  - Water quality?
  - Air quality?

#### Mobility

- Does the project connect two or more different:
  - Land uses?
  - Urban areas or major employment centers?
  - Modes of travel?

- Does the project result in a connection to an existing alternate means of transportation?
The above criteria are subject to change if YAMPO does not meet the FHWA-required PennDOT targets. PennDOT will set targets that may affect YAMPO bridge selection criteria based on the following FWHA performance measures.

- Percentage of NHS bridges in good condition
- Percentage of NHS bridges in poor condition
In the summer of 2017, PennDOT will adopt a new *Strategic Highway Safety Plan*. The results of that plan will modify the safety selection criteria. Additionally, the criteria will accommodate the FHWA-required PennDOT targets for the following performance measures.

- Number of fatalities
- Rate of fatalities per 100 million VMT
- Number of serious injuries
- Rate of serious injuries per 100 million VMT
- Number of non-motorized fatalities and non-motorized serious injuries
Capacity Criteria

Level One (Absolute)
1. Is the project located within a municipality-adopted growth area and consistent with the current York County Growth Management Plan?
2. Is the project on a Level 2 or 3 CMP corridor or intersection?
3. Does the project have at least two full hours of travel time measurements operating below level of service of “c” (they do not need to be consecutive hours)?
4. The new alignment or roadway project avoid impacts to high hazard locations or environmentally sensitive areas as identified by the York County Hazard Mitigation Plan and the York County Environmental Resources Inventory respectively.
5. Does the project improve the response time or access for emergency vehicles?

Level Two (Weighted)
1. Economic Development (High) - Criterion being requested to be defined in the York County Economic Development Plan
2. Level of Service (High) - What is the total time of delay for hours of operation worse than LOS “C” (Multiply the volume for each movement to the time delay for each movement).
3. Air Quality Benefit (Low) - Measurement from air quality modeling software.
4. Cost Benefit Ratio (High) - The cost associated to YAMPO (all phases) divided by the difference in total time of delay between the build and no build scenarios of the project.
5. Coordination with other projects (High) - Can this project meet an objective of another subcommittee?
6. Freight Movement (Subjective-Yes or No) (Medium) - Does this project reduce bottlenecks in freight movement?
7. Environmental Benefit or Impact (Subjective- Yes or No) (Medium) - Look for guidance from the Agency Coordination Meeting (ACM)
8. Increasing Efficiency of Existing Network (Yes or No) (High)

Level Two (Future Weighted)
1. Forecasted volume to capacity ratio of the 10 and 20 year build scenarios as identified by the transportation model. (Medium)

Level Three (Final Absolute)
1. Municipality has adopted proper land use tools appropriate for protecting or reducing the cost of the transportation investment.
2. The project must explore solutions other than increasing roadway capacity to fix the problem.

The above criteria are subject to change if YAMPO does not meet the FHWA-required PennDOT targets. PennDOT will set targets that may affect YAMPO capacity selection criteria based on the following FWHA performance measures.

- Percentage of reliable person-miles traveled on the Interstate (LOTTR)
- Percentage of reliable person-miles traveled on the non-Interstate NHS (LOTTR)
- Truck travel time reliability on the Interstate system (average truck reliability index or TTR)
Rail Criteria

Level One (Absolute)
1. Funding - Are matching funds available or are funds currently in place to proceed with the project?
2. Does the project provide adequate infrastructure to safely transport industry standard minimum weight of rail cars?
3. Environmental - Does the project avoid or mitigate high hazard locations and avoid adversely affecting environmentally sensitive areas, productive agricultural lands or significant historic sites?

Level Two (Weighted)
1. Growth Management - Does the project contribute to the improvement of the infrastructure within designated growth area or rehabilitate/reuse existing buildings or improve/enhance community revitalization efforts? (High)
2. Congestion Mitigation - Does the project alleviate truck traffic on roadways? (High)
3. Economic Development - Does the project contribute to creating permanent jobs, producing a positive impact on local labor markets and provide suitable wages and job training? (Medium)
4. Green Technology - Is the business or project energy efficient; use energy conservation standards; produce, sell or use renewable energy; promote innovation in energy production and use; or expand renewable energy sources or clean power? (Low)
5. Safety - Will the project contribute to reducing the risk of derailments? (Medium)
6. Public Support - Has the project been discussed with local government(s) and community (ies), and is the project supported by local government(s) and the community (ies)? (Low)
7. Is the project supported by local comprehensive vision and plans? (Low)

Level Three (Final Absolute)
1. Is there the ability to leverage additional funds to complete the project?
Maintenance Criteria

- Out of Maintenance Cycle
  Road segments that are out of maintenance cycle are given a number of points between 0 and 10 based on the number of years out-of-cycle, compared to the most out-of-cycle segment.

- Maintenance Groups
  Road segments in Group I are given 6 points. Road segments in Group II are given 4 points. Road segments in Group III are given 2 points.

- Average Daily Traffic (ADT)
  Road segments are given a number of points between 0 and 10 based on their ADT, compared to the segment with the highest ADT.

- International Roughness Index (IRI) & Change in IRI
  Road segments are given a number of points between 0 and 5 based on their current IRI compared to the segment with the highest IRI. Road segments are given a number of points between 0 and 10 based on their change in IRI from the previous year's measurement, compared to the segment with the most change.

- Coordination with PennDOT
  During TIP development, PennDOT provides a list of betterment prospects. The prospective projects that are on the YCPC list are approved and funded.

YCPC List of 1,000
Highest Ranked Road Segments

Programmed Projects

PennDOT Betterment Projects List

Other Notes
Public support and possible coordination with other projects near the segments are noted.

Public Perception
TIP/CDBG Projects
Utility Scheduling

Average Daily Traffic
Current IRI Rating
Change in IRI Rating
YAMPO LRTP

YAMPO classifies the state-owned roadway network into different levels of function. YAMPO will use the following classifications for the Maintenance selection criteria number 2, as illustrated by Map 15.

- **Group 1**
  
  The National Highway System roadways (NHS) and the red and blue detour routes for I-83. These roads are Priority #1. (High)

- **Group 2**
  
  Roadways not in Group 1, with a 2-digit State Route (SR) number that are not on the NHS, 3-digit SR number with AADT greater than or equal to 10,000, and 4-digit SR number with AADT greater or equal to 10,000. These roads are Priority #2. (Medium)

- **Group 3**
  
  Roadways not in Group 1 or Group 2, with either 3-digit or 4-digit SR numbers with AADT less than 10,000. These roads are Priority #3. (Low)

The above criteria are subject to change if YAMPO does not meet the FHWA-required PennDOT targets. PennDOT will set targets that may affect YAMPO maintenance selection criteria based on the following FHWA performance measures.

- Percentage of pavements on the Interstate System in Good Condition
- Percentage of pavements on the Interstate System in Poor Condition
- Percentage of pavements on the NHS (excluding the Interstate System) in Good condition
- Percentage of pavements on the NHS (excluding the Interstate System) in Poor condition
Transit Selection Criteria

The selection process for transit projects is unique, in that, YAMPO divides into three distinct categories: Transit System Maintenance, Mobility Need, and Mobility Alternative. This plan treats the selection process for the last two transit project categories differently.

- The maintenance of the existing transit system comprises the vast majority of the transit need. The need includes, but is not limited to, the acquisition of buses, the acquisition of real estate, construction of buildings, and the development of the Transit Development Plan approximately every five years. This project funding category is vital to keep the public system(s) operating. The public transit entity procures these funds through direct application to the federal government and/or the Commonwealth of Pennsylvania. Hence, the proposed project selection process will not apply to the maintenance of the existing transit system(s).
- Mobility Need projects involve transit and related improvements required to provide service to every individual, especially low-income and disabled individuals, and minority populations.
- Mobility Alternative projects involve transit and transit-related improvements outside the traditional sense. Projects can involve commuter express bus service, ridesharing, ITS, and land use considerations.

Mobility Need (Weighted)
1. Growth Management (Yes or No) (High) - Will the project improve the transportation infrastructure within designated growth areas identified in the York County Growth Management Plan?
2. Expand Existing Service (Yes or No) (High) - Does the project effectively enhance/expand/complement the current service being provided?
3. Mobility Challenges (Yes or No) (Medium) - Does the project mitigate mobility challenges for the disabled, low-income, and/or minority populations?
4. Connectivity (Yes or No) (Medium) - Will the project enhance or promote the connectivity of transit services and/or transportation modes?
5. Education (Yes or No) (Low) - Does the project promote or enhance the information sharing between transit operations and/or other entities?
6. Increase Job Markets (Yes or No) (Tie Breaker) - Will the project provide transportation services for individuals to commute to and from work?
Mobility Alternative (Weighted)
1. Reduce Single Occupancy Vehicles (SOVs) (High) - Has the project proven to reduce the number of SOVs on the County’s roadways?
2. Intelligent Transportation (IT) (High) - Does the project employ IT and IT System Architecture to improve or enhance transit or related services?
3. Growth Management (Yes or No) (High) - Will the project improve the transportation infrastructure within the designated growth areas identified in the York County Growth Management Plan?
4. Expand Existing Service (Yes or No) (High) - Will the project effectively enhance/expand/complement the current service being?
5. Connectivity (Yes or No) (Medium) - Does the project enhance or promote the connectivity of transit services and/or transportation modes?
6. Education (Yes or No) (Low) - Will the project promote or enhance the coordination/cooperation information sharing between transit operations and/or other entities?
7. Air Quality (Tie Breaker) - Has the project been proven to reduce the Vehicle Miles Traveled (VMT)?
8. Increase Job Markets (Yes or No) (Tie Breaker) - Will the project provide transportation services for individuals to commute to and from work?

The above criteria are subject to change if YAMPO does not meet the FHWA-required PennDOT targets. PennDOT will set targets that may affect YAMPO transit selection criteria based on the following FWHA performance measures.

Transit Safety (Total number of reportable injuries and rate per total unlinked passenger trips by mode; customer, employee, and public)

- Fatalities (paratransit & bus)
- Injuries (paratransit & bus)
- Safety Events (total number of reportable events and rate per total vehicle miles by mode)
  - Collisions
  - Fires
  - Evacuations for life safety

Transit Assets

- Equipment: (non-revenue) service vehicles: the percentage of which have either met or exceeded their Useful Life Benchmarks (ULB)
- Rolling stock: percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB
Public Participation

In order to ensure the YAMPO was weighing the selection criteria in a manner that represented the public view, YAMPO conducted an electronic survey by contacting over 1,400 people through e-mail and the YCPC website. The survey was open from January 5, 2009 to February 2, 2009. During that time, over 650 people completed all or part of the survey.

The results of the survey are in Appendix A. The results of the survey verified the majority of the selection criteria developed by YAMPO. However, YAMPO modified two criteria weights due to the results of the public comment period.

<table>
<thead>
<tr>
<th>Table 3 - Two Criteria Weights Modified</th>
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<tbody>
<tr>
<td>Criterion</td>
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<tr>
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<tr>
<td>Maintenance - Current IRI</td>
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<tr>
<td>Transit- Connectivity of Transit Service</td>
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</table>

In addition, the public weighted some criteria differently than YAMPO. However, YAMPO will still use the original weight because of additional facts that the YAMPO has available for decision-making. The safety criterion for type of crash will rank angle and hit fixed object crashes as medium and head-on and rear-end crashes as low, even though the public opinion identified head-on as the number one and hit fixed object as the fourth type to fix. The crash data for York County identify that hit fixed object crashes are more likely to result in a serious injury or fatality than a head-on crash.
Chapter VII – Reduce the Funding Gap

The 2009 LRTP identified quantitative needs that outpaced the $4 billion estimate. This update to the LRTP removed the cost estimates of those needs. Even with the increase in funding from Pennsylvania’s, assuming the transportation needs are greater than funding is reasonable.

Therefore, a number of entities must make decisions to close the funding gap. As part of the selection criteria public involvement process identified in Chapter VI, YAMPO asked the public questions about strategies to close the funding gap by evaluating 15 different revenue increases. A majority of the 575 responses supported only an increase in the annual vehicle registration fee (approved in 2016) and a traffic impact fee for new construction. Due to public support, it appears that raising revenue will only close a portion of the funding gap. Full survey results are in Appendix A.

Each subcommittee that had a gap between projected funding and projected need also identified ways to close the funding gap other than raising more revenue. The methods revolved around better planning and coordination, reduction of the need by reducing demand, policy development, and working with other funding sources to supplement federal and state transportation funding. The following ideas fall into the appropriate funding subcommittees. Since many of the ideas below are rooted in coordination and planning, they need to continue always to be successful and therefore will continue. A strikethrough indicates that some entity implemented the idea between 2009 and 2017.

Paths to Reduce the Bridge Funding Gap

1. County and Municipal - Implement a ten-year plan that addresses preventative maintenance and preservation treatments to avoid more costly replacement and rehabilitation projects. Evaluate the possibility of eliminating some bridges.
2. County and Municipal - Promote funding for local bridges through general funds, Pennsylvania Infrastructure Bank (PIB) loans, Hazard Mitigation Grant Funds, Pennsylvania Historic Museum Commission, and agility programs (state and local level).
3. Municipal - Promote educational instruction through the Local Technical Assistance Program (LTAP) to municipalities on preventive maintenance of bridges, as well as how to repair/replace bridges using municipal employees.
4. State - Evaluate the possibility of eliminating some bridges.

Paths to Reduce the Capacity Funding Gap

1. Recommend that all municipalities adopt provisions to require Traffic Impact Study (TIS) ordinances. In excess of 30 of municipalities currently require a TIS in their ordinance for certain types of development. The traffic impact study defines the impact and possible funding for specific capacity projects needed to mitigate new traffic associated with development.
   a. Develop transportation growth factors specifically for York County instead of identifying traffic growth rates from a statewide database. Local data will identify a more realistic impact growth is having on the transportation system.
2. Monitor the project delivery process and streamline project delivery through the National Environmental Policy Act (NEPA) by reducing duplication of environmental work in planning and project development.
3. Identify other opportunities to reduce single occupancy vehicles.
   a. SRTP (Commuter Services of South Central Pennsylvania), transit, ridesharing.
   b. Implement ITS beneficial projects within the major transportation network to provide real time opportunities for travel choices.
   c. Monitor signal timing to utilize adaptive traffic signal systems to move traffic more efficiently.
4. Include transit as part of option for improvements on corridors.
5. Encourage municipalities to develop more than local streets in their development patterns through the Official Map adoption process and street connectivity ordinances.
6. Encourage municipalities to adopt Traffic Impact Fee ordinances to enable them to collect impact fees from developers.

Paths to Reduce the Enhancements Funding Gap

1. Municipal Subdivision and Land Development Ordinance recommendations.
   a. Requiring schools to have pedestrian and bicycle access.
   b. Pedestrian and bicycle access should be evaluated within commercial and industrial locations.
2. Coordinate funding efforts with other funding programs (i.e. Community Development Block Grant (CDBG), Department of Conservation and Natural Resources (DCNR)).
   a. Identify opportunities for public private partnerships.
3. Encourage municipalities to adopt Recreation Plans and corresponding recreation impact fee to develop non-vehicular mobility options within the municipality.
4. All project development should continue to use the PennDOT bicycle and pedestrian checklist for all project development.
5. Include pedestrian and bicycle mobility projects in Official Maps Ordinances.
6. Develop pedestrian and bicycle trails within operational or abandoned corridors.

Paths to Reduce the Maintenance Funding Gap

1. Implement a pavement preservation program through asset management practices.
2. Streamline and monitor the project delivery process.
3. Coordinate with utility companies to find a more efficient method of accomplishing utility relocations to facilitate timely project delivery.
4. Develop stringent policies and regulations regarding the construction and maintenance of pavement cuts, such as utility cuts through the PennDOT HOP process.
5. Coordinate with utility companies/authorities, specifically during large utility infrastructure replacements, and also municipal public works planning and projects.
6. Better coordination with other projects such as non-maintenance TIP projects, CDBG projects, HOP work and other development projects.
7. Evaluate lowest volume state roads for turn-back to municipalities to reduce the need for more costly PennDOT maintenance.

Paths to Reduce the Security Funding Gap

1. Incorporate the proper security designs into projects near or within the “Medium to High” hazard areas as identified in the Hazard Risk Matrix of the York County Hazard Mitigation Plan or the Risk and Vulnerability Assessment Team (RVAT) Study.
2. The YAMPO should explore non-MPO and county funding sources in order to finance transportation improvements programmed for the LRTP, including, but not limited to Buffer Zone Protection (BZP) Funds.
Chapter VIII – Work Elements

2009-2040 Future Work Elements

The last step in the LRTP development process is the identification of work tasks for YAMPO and other stakeholders to complete. While YAMPO staff accomplishes many transportation planning objectives, planning for the future of York County’s transportation needs often requires the combined efforts of not only YAMPO staff but also legislators, municipalities, county, and state agencies, utility companies, and private citizen groups. Just as the transportation network itself both serves and impacts the strata of our society from economic development to emergency management to the environment, transportation planning must find the balance between the concerns, interests, needs, and available funding by involving all of the parties throughout the entire process.

Tables 4 and 5 list the work tasks that YAMPO has identified through the development of the previous chapters of this Plan. These tasks will collect the data, evaluate, and analyze the information in order to accomplish the objectives and implement the policies that YAMPO has developed. Table 4 depicts those tasks where the YAMPO staff will accomplish the work and/or take the lead for the accomplishment of those tasks. The table lists these elements in priority group order. However, there is no ranking of tasks within each priority group. Table 5 depicts those tasks that belong to YAMPO partners (other YCPC departments, CPTA, PennDOT, County of York departments, police departments, municipalities, and their municipal engineers, utility companies, school districts, railroads, etc.). The table does not list these elements in any particular order and YAMPO would support any agency that applies for funding to complete these tasks.

YAMPO will schedule future work tasks for the staff annually through the Unified Planning Work Program (UPWP). The UPWP identifies the individual work tasks that guide and direct planning efforts during a given period. In addition to the long-range tasks, FHWA and PennDOT identify federal and state planning priorities for local planners that address current issues.

The future UPWP tasks listed below do not include continuous operating procedures for the daily business of YAMPO’s staff. These tasks include TIP updates, UPWP annual development, MPO meetings, individual project development, public meetings, vehicle counts, Highway Performance Monitoring System (HPMS) sample section reviews and air quality conformity requirements.

2017 Update

A strikethrough indicates tasks that YAMPO or another entity has completed, ongoing tasks that YAMPO has begun, or tasks that are no longer relevant.
### Table 4 - YAMPO Future Work Tasks

<table>
<thead>
<tr>
<th>YAMPO Staff Tasks</th>
<th>Other YCPC Dept.</th>
<th>Outside Agency</th>
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<tbody>
<tr>
<td><strong>High Priority Work Tasks</strong></td>
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<tr>
<td>(* denotes Project Selection Criteria task)</td>
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<tr>
<td><strong>Update the CMP Plan with the following elements:</strong></td>
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<tr>
<td>• Utilize forecasted Volume-to-Capacity levels from the transportation model as a performance measure.</td>
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<tr>
<td>• Capture 24-hour traffic counts to determine the number of hours at an unacceptable level of service.</td>
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<td>• Identify individual and CMP corridor intersections.</td>
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<tr>
<td>• Determine a measure for predictability of delay.</td>
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<tr>
<td>• Collect time delay information for Stage III corridors outside the normal peak hour times.</td>
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<tr>
<td>• Update travel demand model detail along the Stage III corridors sections.</td>
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<tr>
<td><strong>Design and implement program for collecting traffic count data for County bridges.</strong></td>
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<tr>
<td><strong>Obtain current local and county bridge inspection results annually.</strong></td>
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<tr>
<td><strong>Obtain current bridge data (BMS) annually.</strong></td>
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<tr>
<td><strong>Obtain current crash data annually.</strong></td>
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<tr>
<td><strong>Obtain current RMS data annually.</strong></td>
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<tr>
<td><strong>Consult with York County 911 for list of bridges/roads whose posting/closure causes significant delay or routing problems for emergency response teams and the public.</strong></td>
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<tr>
<td><strong>Create combined list of all utility companies, including municipal authorities, etc., and their project contacts in York County.</strong></td>
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<tr>
<td><strong>Solicit all utility contacts for list of their planned projects.</strong></td>
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<tr>
<td><strong>Create an annual crash data analysis report tracking identified statistics for various period-year comparisons. Report should include evaluation of “environmental” causes, specifically related to actual road condition.</strong></td>
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<tr>
<td><strong>Create Geographic Information Systems (GIS) layers with built-in calculations for easy annual update for:</strong></td>
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<tr>
<td>• Bridge data: i.e., changes in sufficiency rating, etc.</td>
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<tr>
<td>• RMS data: i.e., changes in IRI, etc.</td>
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<tr>
<td><strong>Develop an inventory and GIS map of flow-constricting bridges that are identified in Stormwater Management (Act 167) plans.</strong></td>
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<td><strong>Develop a GIS map of major road designated detour routes.</strong></td>
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<tr>
<td><strong>Develop an inventory and GIS map that designates significant areas of the county, such as natural areas, environmentally sensitive areas, historically significant areas, utility locations, and no-build areas such as quarries, and cemeteries, etc. The purpose of this inventory and map is to identify “red zone” areas or cautionary areas of the county where transportation projects should be avoided, if possible, and other alternatives considered. Should no alternative be viable, the project in the “red zone” will need additional impact assessments.</strong></td>
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</table>
### YAMPO Staff Tasks

<table>
<thead>
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<td><strong>Develop an inventory and GIS map of historically significant sites throughout the county, including bridges, using National Historic designations (district and sites) and municipal and regional Comprehensive Plans.</strong></td>
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<td><strong>Hold an annual meeting with regional police chiefs to exchange crash location information/concerns and discuss the possibility of routine collection of non-reportable crash data by GPS.</strong></td>
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<td><strong>Develop a York County Official Map Ordinance identifying projects on the current YAMPO TIP.</strong></td>
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<td><strong>Develop a target list of priority corridors for access management ordinance implementation.</strong></td>
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<td><strong>Develop an inventory and GIS map of bridges that could be voluntarily closed instead of repaired and/or replaced.</strong></td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
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<td><strong>Continue to update a ten-year Capital Improvement Plan for County-owned bridges.</strong></td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
<td><strong>Undertake a major evaluation of the York County Functional Classification System Map.</strong></td>
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<td><strong>Continue to promote safety-oriented projects for future updates of the Capital Improvement Plan (CIP).</strong></td>
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<td><strong>Continue to support PennDOT in collection of HPMS sample sections and traffic count collection annually.</strong></td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
<td><strong>Develop a special annual MPO meeting with non-passenger-vehicle partners in York County to exchange current information, projects, and concerns in order to promote more coordinated efforts toward similar goals.</strong></td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
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<td><strong>Formalize the annual report cards for MPO actions and projects.</strong></td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
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<td>✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️</td>
<td><strong>Municipal outreach on topics such as long-range pavement preservation plans for local roads, corridor access management ordinances, planning for railroad operations, traffic impact fee ordinances, bridge maintenance, and improvements programs, bicycle/pedestrian access plans for municipal comprehensive plans through various outreach modes:</strong></td>
</tr>
</tbody>
</table>
| ✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️ | ✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️ | ✔️  ✔️ ✔️ ✔️  ✔️  ✔️ ✔️ | • topical Planning Perspectives newsletters  
• LTAP and other available technology transfer and educational classes  
• follow-up presentations at municipal meetings  
• outreach to targeted municipalities |
<table>
<thead>
<tr>
<th>Task Description</th>
<th>Priority</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinate a “standard” or model transportation planning and programming effort for municipal comprehensive planning projects with YCPC Long Range Planning’s Municipal Consulting Program.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Develop an inventory and routine inspection program for all local bridges 8-20 feet in length.</td>
<td>✔ ✔</td>
<td></td>
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<tr>
<td>Accurately map and model detour routes within the ten-mile Emergency Planning Zone (EPZ) to identify potential bottleneck areas.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Coordinate with police departments concerning problem intersections and/or corridors for causal evaluation.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Develop a How to be the Local Lead guidebook for municipalities involved in federally—or state-funded projects.</td>
<td>✔ ✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Test large-scale transportation alternatives employing the transportation model and rank these alternatives.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Implement a schedule for continued collection of data from park and ride areas around the County.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Coordinate a “standard” or model transportation planning and programming effort for municipal comprehensive planning projects with YCPC Long Range Planning’s Municipal Consulting Program.</td>
<td>✔ ✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Define what a reasonable proposal for restoring rail service along the York County Heritage Rail Trail would include (i.e., investment cost, customer base, interaction with the existing Heritage Rail Trail County Park).</td>
<td>✔ ✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Evaluate current roadway “ownership” throughout York County:</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>• lowest volume (AADT) roads for possible turn back to municipality</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>• roads currently owned by municipalities that are regional in nature as possible vacations to the state</td>
<td>✔ ✔</td>
<td></td>
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<tr>
<td>Complete a study to identify the need for the unquantifiable enhancement projects.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Analyze pedestrian/bicycle crash locations.</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>YCPC Trans Staff</td>
<td>Other YCPC Dept.</td>
<td>Outside Agency</td>
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<td>✓</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other YCPC Dept.</th>
<th>Outside Agency</th>
<th><strong>Table 5 - YAMPO Partner Future Work Task</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td></td>
<td><strong>YAMPO Partner Tasks</strong></td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Conduct periodic analysis/evaluation of County employee parking policies.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Complete a comprehensive study of traffic signals to check if they are up to current standards: LED lights, black plates, larger signal heads, etc.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Develop population projections for a 30-year horizon to the municipal level or model Transportation Analysis Zone (TAZ) level, if possible.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Study stop sign intersections with crashes for sight distance issues for “Stop Ahead” signs.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Inventory sign reflectivity.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Identify and prioritize missing links of sidewalks/trails by working with school districts to develop a pedestrian master plan as part of the municipal comprehensive plan.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Identify and prioritize missing links of sidewalks/trails within 1/4 mile of the fixed route transit service with attention paid to ADA requirements.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Identify rail rights-of-way, along with former and potential siding sites for preservation for future rail use.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Develop best practices booklet for the implementation of Transportation Enhancements (TE)/Safe Routes to School (SR2S) projects within York County.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Procure and develop educational resources, such as newsletters and websites, for community organizations, school districts, and municipalities to use in teaching and to promote pedestrian activity.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Develop a GIS map showing pipeline-utility lines with red/green zone future expansion opportunities: green zone areas denoting expansion possibilities and red zone areas denoting areas that are not acceptable for utility expansion.</td>
</tr>
<tr>
<td>✓</td>
<td></td>
<td>Coordinate training opportunities for police departments with regard to uniform completion of crash reports.</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>Coordinate with existing committees/groups to participate in incident management planning throughout the County, specifically with the County of York and the York County Office of Emergency Management.</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>Coordinate with existing committees/groups to participate in Homeland Security initiatives, including implementing the Risk and Vulnerability Assessment Team (RVAT).</td>
</tr>
<tr>
<td>Other YCPC Dept.</td>
<td>Outside Agency</td>
<td>YAMPO Partner Tasks</td>
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<tr>
<td>✅</td>
<td></td>
<td>List and evaluate measures for increased transit route efficiency: queue jumpers, bus ways, and High Occupancy Vehicle (HOV) lanes, bus pull-offs, tight corridors, etc.</td>
</tr>
<tr>
<td>✅</td>
<td></td>
<td>Evaluate potential ridership/demand for Express Bus Service East and West.</td>
</tr>
<tr>
<td>✅</td>
<td></td>
<td>Evaluate potential ridership/demand for transit service for Country Club Rd/Rathton Rd corridor serving York College, York Hospital, Penn State, and 550 Lofts housing development.</td>
</tr>
</tbody>
</table>
Chapter IX – Additional Transportation Modes and Issues

Tourism

The FAST Act of 2015 added tourism as one the ten planning factors MPOs must address through their LRTP process.

Environment

SAFETEA-LU established new requirements for the preparation of long-range transportation plans. One of these new requirements is that plans include a discussion of potential environmental mitigation activities associated with proposed development and potential implementation strategies for such activities.

In general terms, environmental mitigation activities are strategies, policies, programs, actions, and activities that, over time, will serve to protect, avoid, minimize, or compensate (by replacing or providing substitute resources) the impacts to, or disruption of, elements of the human and natural environment associated with the implementation of a LRTP. The human and natural environment includes, for example, neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and ambient air.

Protection and Avoidance

The York County Growth Management Plan Component of the York County Comprehensive Plan presents an overall countywide framework for growth, and provides a mechanism for working with municipalities to determine the specific location, pattern and timing of future development through the delineation of growth areas, and the identification of important agricultural and resource areas. The York County Growth Management Plan identifies the following three goals.

1. To protect and preserve important natural resources.
2. To direct growth and development to appropriate locations.
3. To facilitate coordinated planning at all levels of government.

Chapter VI of this Plan identifies selection criteria that aid in selecting transportation projects; help protect the environment; meet these three goals. One of the selection criterion used for both capacity and rail projects is whether the project is located within the growth area identified in the York County Growth Management Plan.

Air quality and emission pollution prevention and reduction is another environmental topic. The CMAQ project selection criteria is based on air quality benefits which are also a part of the Capacity project selection criteria. York County is required to perform air quality conformity analysis to each TIP and LRTP update to demonstrate that no future transportation projects will prevent the county from reaching its air quality attainment goals. Using the selection criterion that identify air quality beneficial transportation projects is another example of transportation decisions that solve transportation issues and protect the environment.
The York County Comprehensive Plan has two other plan components that will influence transportation decisions. The York County Natural Areas Inventory (NAI) and the York County Hazard Mitigation Plan identify environmentally sensitive areas and high hazard locations that YAMPO will use when selecting transportation projects. In the case of new project alignments, not including widening or realignments, the project will need to avoid the environmentally sensitive areas or high hazard locations identified in the York County Comprehensive Plan. NAI is a document compiled and written by the Pennsylvania Science Office of The Nature Conservancy and updated by YCPC Staff. It contains information on the locations of rare, threatened, and endangered species, and of the highest quality natural areas in the County.

Flooding caused by transportation infrastructure, especially bridges, is another selection criterion that YAMPO will evaluate to select projects. If two structurally deficient bridges are replacement candidates and one effects flooding and the other does not, the selection criterion will recommend that the bridge causing flooding problems be fixed first. YAMPO will use existing and future stormwater management plans (Act 167) to identify bridges that contribute to flooding issues. PennDOT is currently completing the Extreme Weather Vulnerability Assessment that uses historic and future climate impacts and vulnerabilities (with a focus on flooding risks), and identifying potential strategies to improve transportation resiliency. The YAMPO Floodway Study in process will identify roadways that flood when waterways flood and to identify which of these roadways should be addressed the next time rehabilitation or resurfacing project is in the same area or identification of a standalone project.

The Linking Planning and NEPA (LPN) process identifies environmentally sensitive areas and resources early in the project development process. During the development of LPN forms, PennDOT and YAMPO also identify project alternatives and evaluate the effect each has on the environment.

Minimize

When transportation infrastructure needs to be replaced or updated in an environmentally sensitive area, PennDOT will work with appropriate partner agencies to coordinate improvements to avoid impacts. An example of this is the coordination that has taken place in the early stages of the I-83, Exit 18 project between the Army Corps of Engineers and PennDOT concerning the potential impacts to Mill Creek.

Mitigation

Through design, it may be determined that an environmental resource will be impacted. At that point, the proper steps should be taken to mitigate the impact. To take the first step in facilitating the environmental mitigation process and ensure environmental review at the highest possible levels, YAMPO staff presented proposed selection criteria and the environmental data to be used in selecting transportation projects to PennDOT’s Agency Coordinating Committee (ACM) at their January 24, 2007, and December 3, 2008, meetings. This is the first step in discussing possible mitigation solutions. YAMPO staff also presented the proposed scope of work to the ACM at their January 24, 2007 ACM meeting. At that meeting, a representative of the US Fish and Wildlife Service requested to become a member of the Capacity subcommittee.

PennDOT established the ACM to identify as early as possible those projects throughout Pennsylvania that require extended environmental review times. The ACM is composed of agencies that are responsible for land use management, natural resources, environmental protection, conservation, and historic preservation throughout Pennsylvania.
The ACM meets, as needed, on a monthly basis to coordinate between PennDOT and other transportation planning agencies in the Commonwealth and federal and state resources agencies. ACM participants include:

- US Army Corps of Engineers
- US Environmental Protection Agency (EPA)
- US Fish and Wildlife Service
- US Department of Agriculture, Natural Resources Conservation Service
- National Marine Fisheries Service
- Pennsylvania Department of Environmental Protection (PADEP)
- Pennsylvania Department of Conservation and Natural Resources (DCNR)
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission
- Pennsylvania Department of Agriculture
- Pennsylvania Historical and Museum Commission
- Pennsylvania Department of Community and Economic Development (DCED)

In addition to coordination, agencies can take steps to mitigate future impacts to environmental resources. Wetland banking (Establishment of wetlands for use as credits when disturbing other wetlands) is something that the YAMPO contributed to in years past and will continue to purchase appropriate wetland banks prior to impacting wetlands in the future. Using that specific past experience, consideration should be given to other land banks for impacts to state game lands, county, and municipal parks, enlarging or linking existing endangered species habitat, and working with preservation societies or others to find a new location for historic bridges and other structures that will be impacted by transportation projects.

**York County Stormwater Consortium**

In conjunction with 52 municipalities required to have MS4 permits in York County, YCPC created the York County Stormwater Consortium to solicit stormwater improvement projects from municipalities and select improvements through a competitive process. The Stormwater Consortium will allow participating municipalities to share MS4 credits. When developing highway improvement projects through the Linking Planning and NEPA process, YAMPO reviews these projects for mutual benefit and stormwater mitigation.

**Greenhouse Gas Emissions and Climate Change**

Since the earliest days of ozone and particulate matter designation areas, YAMPO has fully complied with the requirements of transportation conformity of the Clean Air Act, working toward meeting the National Ambient Air Quality Standards (NAAQS), and tracking precursor pollutants, also known as Mobile Source Air Toxins (MSATS). As mentioned in Chapters IV, V, and VII, air quality is an overall concern for all of our transportation projects. The most current air quality information for York County is in the State of the Air report published by the American Lung Association. The PADEP’s website (www.dep.state.pa.us) also serves as a data source.

Recently, the issue of greenhouse gas emission levels and its impacts, specifically related to climate change, has generated a great deal of planning attention and is part of the FHWA System Performance measures. Across the nation, both the federal government and various states have been measuring these emissions, gaging impacts such as rising temperatures and sea levels, running predictor scenarios,
and formulating both preventative and adaptation policies, such as PennDOT’s Extreme Weather Vulnerability Assessment report.

Certainly, we would be remiss not to include any information about greenhouse gases and climate change, and their effect of these things on York County. However, currently there is very little pertinent information available to us. At this time, York County does not have a detailed, targeted plan for lowering greenhouse gas emissions; however, several initiatives, including no-idling policies and supporting commuter services as mentioned in Chapter III, are ongoing.

In 2008, PADEP formed the Climate Change Advisory Council that includes a Land Use and Transportation Subcommittee. This group is currently writing a series of work plans to lower Pennsylvania’s greenhouse gas emissions that, after approval, they will submit to the Pennsylvania Legislature for action. Both the PADEP (www.dep.state.pa.us) and EPA (http://www.epa.gov/) websites provide a great deal of information on greenhouse gas emissions, climate change, and impacts.

Coordinated Public Transit/Human Service Transportation Plan

SAFETEA-LU, signed into law on August 10, 2005, required each MPO to develop a coordinated plan for transit. A coordinated public transit/human service transportation plan identifies the transportation needs of individuals with disabilities, older adults and people with low income; and provides strategies for meeting those local needs; and prioritize transportation services for funding and implementation.

YAMPO last updated the Coordinated Plan in 2012 in partnership with CPTA. Since that time, CPTA has initiated the York Inclusive Coordinated Transportation Partnership, a diverse group of stakeholders including users of the transit system, healthcare providers, volunteer organizations, human service providers, the Area Agency on Aging, and planners. Through its subcommittees, this group provides a platform to cooperatively identify transportation issues and develop strategies to address them. The More People, More Places, More Possibilities, or 3P, campaign is a direct result of this initiative.

Pipeline Transportation/Transmission Operations

Known as the “hidden giant” of America’s transportation system, pipelines are the irreplaceable cores of United States petroleum transportation and the key to meeting domestic petroleum demand. Approximately 2.4 million miles of pipeline traverse the United States, supplying 65% of the nation’s energy. Oil and its petroleum derivatives (i.e., classified as hazardous liquid transportation) pipelines transport two-thirds of the petroleum shipped in the United States. Natural gas (does not include liquefied natural gas [LNG]) pipelines transmit nearly all natural gas products from the source to the consumer. Given the skyrocketing cost and geographic limitations of transporting such products via highways, railways, and waterways, pipeline transportation may be the most economical way to move these products from its sources to markets across the country.

Both liquid petroleum (a.k.a., hazardous liquid) and natural gas pipelines travel through York County. The liquid petroleum pipelines are in the northern and central areas of the county. They carry refined petroleum products from either the Midwest or the Southwest to the Mid-Atlantic and New England regions of the country. The natural gas lines here traverse the northwestern, central, southwestern and southeastern areas of the county. The origin and destination of transmitting this product are somewhat similar to the petroleum lines.
Three petroleum companies own and operate liquid petroleum pipelines in York County, as follows:

- **Buckeye Partners, LP (Laurel Pipeline Company)**
  Based out of Ohio, Buckeye Partners operates an interstate pipeline that traverses northern Fairview Township, just south of the PA Turnpike (I-76). The name of the pipeline changes from Buckeye to the Laurel Pipeline Company when it enters York County. This company is a subsidiary of Buckeye Partners. This conduit transports petroleum products, such as diesel fuel, gasoline, and fuel oil. No product dispensing terminals or junctions are located along the length of the line in York County. Such stations, however, are at various locations within both Cumberland and Dauphin Counties.

- **Sunoco Pipeline, LP**
  This product line is a segment of the Company's “Eastern Pipeline System.” Two pipelines are in the county. One line traverse northern Fairview Township, south of the PA Turnpike (I-76), and the other parallels U. S. Route 30 from Abbottstown Borough, Adams County, to the Susquehanna River. These lines transport refined petroleum products, such as gasoline, fuel oil, and kerosene, from its refinery in Toledo, Ohio, to markets in the Northeast. According to the information received about this operation, no junctions or product dispensing terminals are located along the length of this line in York County.

- **Enterprise Products Partners, LP (formerly Texas Eastern Products Pipeline Company [TEPPCO] Partners)**
  Enterprise Products Partners, LP merged with TEPPCO Partners in October 2009. The pipeline traverses northern Fairview Township roughly paralleling the PA Turnpike (I-76). The company transports crude oil, refined petroleum products, natural gas and natural gas liquids nationally from its Mount Belvieu complex in Houston Texas. Again, from the information received about this line, no junctions and dispensing terminals appear to be located along this segment in York County.

Four companies own and operate natural gas pipelines in York County, as follows:

- **Texas Eastern Transmission, LP (TETCO)/Spectra Energy**
  Newly acquired by the Spectra Corporation, this gas transmission trunk line traverses the north-central area of York County from Washington Township to the Susquehanna River. No feeder branches are located along the length of the line in York County. However, this conduit does connect with a TETCO/UGI pipeline junction/compressor station directly across the Susquehanna River in Marietta, Lancaster County. TETCO/Spectra installed another natural gas line between the pipeline compressor station in Marietta, Lancaster County, Pennsylvania and Peach Bottom Township. This 39-mile long pipeline line enters York County in northern Hellam Township and continues south eventually intersecting with the Williams/Transco natural gas transmission line in Lower Chanceford Township, south of Norman Wood Bridge Road (PA 372). TETCO/Spectra began commercial service in August 2011. TETCO not only transports its own product, but it also transports products for other natural gas suppliers, such as the Columbia Gas Company, through a cooperative service agreement.
No direct federal subsidies are available for the construction and maintenance of pipeline facilities. However, the federal government has granted pipeline companies the power of eminent domain to acquire right-of-way for alignment or realignment of these conveyances. Despite funding availability, federal and state oversight of the construction and operation of these transportation/transmission conduits is mandated. The following agencies oversee the construction, operation and safety of both hazardous liquid, and natural gas pipelines:

- **U. S. Department of Transportation, Office of Pipeline Safety (OPS)/Pipeline and Hazardous Materials Safety Administration (PHMSA)**
  The OPS is the federal safety authority ensuring the safe, reliable, and environmentally sound operation of the Nation’s pipeline transportation system. PHMSA, acting through OPS, administers the department’s national regulatory program to assure the safe transportation of natural gas, petroleum, and other hazardous materials by pipeline. OPS develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. A user fee assessed on a per-mile basis on each pipeline operator that OPS regulates funds this program. Specifically, these agencies oversee the following:
  - Construction and operation of all interstate hazardous liquid pipeline facilities (e.g., oil and gasoline).
  - Abandonment of existing hazardous liquid facilities.
  - Administration of safety standards for all hazardous liquid and natural gas pipelines.

- **Federal Energy Regulatory Commission (FERC)** - Charged by Congress, FERC functions as an independent agency that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydroelectric power projects. Specifically, the Commission oversees the following:
  - Planning and construction of new interstate natural gas facilities (e.g., pipelines and compressor stations).
  - Abandonment of existing natural gas facilities.
  - Regulation of rates and practices of natural gas and hazardous liquid petroleum companies engaged in interstate transportation of such substances.
Pennsylvania Public Utility Commission (PUC)
The PUC handles the Commonwealth’s oversight of natural gas pipeline operations, because the state classifies pipelines utilities. Specifically, the Commission’s Gas Division oversees the construction and operation of local natural gas distribution and service pipelines, such as the ones operated by Columbia Gas of PA.

PennDOT
PennDOT plays a very small role in the oversight of pipeline transportation/transmission. However, it does become involved in the construction or relocation of these conduits, especially when they are to cross/travel underneath state roads. This function is overseen by the Utility Services Division (Utility Relocation Unit) of PennDOT (Central Office) and the Utility Administrator for each PennDOT Engineering District.

Other federal agencies overseeing these operations:
- Occupational and Safety Hazard Administration (OSHA)
- EPA
- Interstate Commerce Commission (ICC)
- Transportation Security Agency (TSA) of the U. S Department of Homeland Security (DHS)
Chapter X – Capital Improvements

To be consistent with SAFTEA-LU this Plan needs to address a minimum of a 20-year planning horizon. Throughout the subcommittee work detailed in Chapter IV and the rest of the document, the planning horizon was 2009-2035: a total of 27 years. The 2017 update advances the planning horizon to 2040 to maintain the 20-year planning horizon.

Due to the dynamic nature of funding and project delivery, the YAMPO has adopted a new approach and a separate document called the YAMPO CIP that identifies the capital investments planned for the county and will serve as the CIP for the 2017-2040 LRTP.

The TIP, which YAMPO routinely modifies based on cost savings or increases in construction bids, project delays, and increases or decreases in projected funding or policy decisions, identifies the first four years of the CIP. Any major changes identified as adding a new project or a cost increase more than $3 million require YAMPO approval. The CIP identifies projects in the next 23 years in the periods shown in the following table. Within each period, YAMPO includes a cost requirement on any projects shown in order to maintain fiscal constraint.

<table>
<thead>
<tr>
<th>Type of Document</th>
<th>12-YEAR PROGRAM</th>
<th>LRTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP</td>
<td></td>
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<tr>
<th>Size of Project (Cost)</th>
<th>ALL PROJECTS</th>
<th>PROJECTS OVER $5 MILLION TOTAL &amp; NHS PROJECTS</th>
<th>PROJECTS OVER $10 MILLION TOTAL</th>
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</table>

The majority of the projected funding for the next 23 years identified in the CIP remains in a general line item and not allocated to a specific project. Based on the decisions made in Chapter V, the CIP places funding into project areas (safety, maintenance, transit, etc.). YAMPO will use the selection criteria identified in Chapter VI to select projects from those specific areas in the first six years of the CIP. Some basic elements of the CIP are below:

- YAMPO will modify and amend the CIP at the same time it approves a TIP amendment
- Cost estimates multiplied by a YOE factor
- A list of un-programmed candidate projects
- Projected funding (from Chapter V)
- Regionally significant projects that YAMPO will model for air quality conformity if the project scope is modified

Another element of the LRTP required by federal law is an analysis of air quality conformity. Due to the approach the YAMPO is taking with the CIP, the Air Quality Conformity Analysis Report for the YAMPO will be a stand-alone document as well. Please refer to the most recent version of the YAMPO Air Quality Conformity Report for conformity determination for this plan.
Glossary

**3C**: Continuing, comprehensive and cooperative. Federal requirements for the planning process.

**3P**: More People, More Places, More Possibilities. An initiative of CPTA.

**AADT**: Annual average daily traffic

**Act 167**: State stormwater management legislation. Requires municipal plans.


**ARTS**: Annual Report of Transit Statistics

**BMS**: Bridge Management System. A PennDOT data collection effort.

**BWI**: Baltimore/Washington International Airport

**BZP**: Buffer Zone Protection. A federal funding program.

**CAT**: Capital Area Transit

**CDBG**: Community Development Block Grant. A federal funding program administered in York County by YCPC.

**CIP**: Capital Investment Program. A list of funding and major projects over the LRTP.

**CMAQ**: Congestion Management Air Quality. A federal funding source.

**CMP**: Congestion Management Process

**CPTA**: Central Pennsylvania Transportation Authority. The local governing board of rabbittransit and its shared ride programs.

**CRFC**: Critical Rural Freight Corridors. A federal road designation.


**CXY**: Capital City Airport

**DCED**: Department of Community and Economic Development. A state agency.

**DCNR**: Department of Conservation and Natural Resources. A state agency.


**EPA**: Environmental Protection Agency. A federal agency.

**EPZ**: Emergency Planning Zones

**ESPN**: East Penn, LLC. A rail operator.

**FAA**: Federal Air Administration

**FAST Act**: Fixing America’s Surface Transportation. Federal transportation legislation.

**FERC**: Federal Energy Regulatory Commission

**GIS**: Geographic Information System

**HOP**: Highway Occupancy Permit. Required for a property to access a PennDOT road.

**HPMS**: Highway Performance Management System. A federal data collection effort.

**ICC**: Interstate Commerce Commission. A federal agency.

**IRI**: International Roughness Index. A road maintenance measure.

**ITS**: Intelligent Transportation Systems

**LFA**: Local Federal Aid. A road classification.

**LRTP**: Long Range Transportation Plan. *This document.*

**LTAP**: Local Technical Assistance Program. PennDOT-led outreach to municipalities.


**MDT**: Harrisburg International Airport

**MPO**: Metropolitan Planning Organization. The local decision-making body for transportation projects funded by federal and state money.

**N/S**: Norfolk Southern. A rail operator.

**NEPA**: National Environmental Policy Act. A federal requirement for transportation projects.

**NHPP**: National Highway Performance Program. A federal funding source for the NHS.

**NHS**: National Highway System

**NYCRCPT**: Northern York County Regional Comprehensive Plan Transportation Element

**OMAST**: Operation and Maintenance of Adaptive Signal Technology. A subcommittee of YAMPO.

**OPS**: Office of Pipeline Safety. A federal agency.

**OSHA**: Occupational and Safety Hazard Administration. A federal agency.

**PADEP**: Pennsylvania Department of Environmental Protection. A state agency.

**PennDOT**: Pennsylvania Department of Transportation. A state agency.

**PHMSA**: Pipeline and Hazardous Materials Safety Administration. A federal agency.

**PHL**: Philadelphia International Airport
PIB: Pennsylvania Infrastructure Bank

PIP: Public Involvement Plan


ROC: Report on Congestion. Produced by YAMPO/YCPC.

RSA: Roadway Safety Audit. A plan of crash history and improvement recommendations.

RTCS: Regional Transit Coordination Study.

RVAT: Risk Vulnerability Assessment Team

SARAA: Susquehanna Area Regional Airport Authority.


SD: Structurally deficient. A classification of bridge condition.

SRTP: Susquehanna Regional Transportation Partnership. A multi-MPO governing body that funds Commuter Services.

TAP: Transportation Alternatives Program. A federal funding source focusing on bicycle and pedestrian improvements.

TDP: Transit Development Plan. A five-to-ten year plan for a transit agency.

THV: York Airport near Thomasville

TIP: Transportation Improvement Program. A four-year plan of all transportation projects.

TIS: Traffic Impact Study. Part of the land development process.

TSA: Transportation Safety Administration. A federal agency.


UPWP: Unified Planning Work Program.

USDOT: United States Department of Transportation. A federal agency.

YAMPO: York Area Metropolitan Planning Organization. See MPO.

YCEA: York County Economic Alliance. The combined former York County Chamber of Commerce and York County Economic Development Corporation.

YCPC: York County Planning Commission. The Transportation Department is the staff of YAMPO.

YOE: Year of Expenditure. An estimate of the expected cost of a project in the year it will be constructed.