

A safe and efficient transportation system is essential for the free flow of people and goods within and through the community. It also provides for necessary and efficient response by public and emergency services personnel. The location, quality, and availability of transportation facilities have a significant impact and an influence on where future growth and development is likely to occur. Therefore, understanding the composition, efficiency, and adequacy of a community's transportation system is essential. This section of the comprehensive plan will inventory the township's existing transportation system. Additional information concerning county-wide and regional transportation planning can be found in the Dauphin County Comprehensive Plan and the 2030 Regional Transportation Plan for the Harrisburg Area Regional Transportation Study.

Conewago Township has 50.37 miles of public highways and roads. Of this existing road mileage, the Pennsylvania State Department of Transportation (PennDOT) maintains 17.95 miles.

REGIONAL ACCESS

Several major roads pass through the township, providing access in a number of directions. Elizabethtown-Hershey Road (SR 743) is a straight, two-lane arterial traversing the township in a north-south direction. It provides access to Derry Township and the Hershey area in the north and Mount Joy Township, Lancaster County and the Elizabethtown area to the south. Colebrook Road (SR 341) serves as the main east-west thoroughfare in the township. Colebrook Road provides access to Londonderry Township to the west and South Londonderry Township, Lebanon County to the east. Many of the residential properties in the township are located in the northeastern portion of the township and are accessed by Ridge Road and Roundtop Road.

The Harrisburg–Lancaster Expressway (SR 283) and the Pennsylvania Turnpike (Interstate 76) pass through the township but are not accessed in the township. The closest Pennsylvania Turnpike interchange is the Harrisburg East Interchange located in Lower Swatara Township in Dauphin County. The Pennsylvania Turnpike provides access to Pittsburgh and points west and Philadelphia and points east. SR 283 is accessed just south of Conewago Township in Mount Joy Township, via SR 743. SR 283 is also accessed in Londonderry Township via the Toll House Road Interchange. SR 283 connects to Lancaster in the east and the Harrisburg East Interchange of Interstate 76. The SR 283 interchange on SR 743, coupled with the connection that SR 743 provides to the Hershey amenities in Derry Township to the north, make SR 743 in Conewago Township heavily traveled by both residents and visitors to the area.

ROADWAY FUNCTIONALITY

Several functional classifications are used in transportation planning to describe a roadway, or a section of roadway in terms of capacity, access, and design characteristics. **Table 5-1** represents the functional classification system utilized by the Tri-County Regional Planning Commission.

Figure 5-1: Functional Classification Characteristics

Characteristic	Arterial	Collector	Local
Sub-Classifications	<ul style="list-style-type: none"> ■ Limited Access / Interstate ■ Other Principal Arterials ■ Minor Arterials 	<ul style="list-style-type: none"> ■ Major ■ Minor 	None
Mobility vs. Access	Mobility of utmost importance	Mobility and land access of equal importance	Land access of utmost importance
Trip Distance	Typically used for longer trips (inter and intra-state, inter-region and longer intra-region and intra-county trips)	Short to medium distance intra-regional trips and for accessing arterial and local systems	Typically used for short trips and for accessing higher order systems
Traffic Volumes	Highest volume roadways; moderate to high volume on most arterials	Generally moderate volumes	Low volume roadways
Design Features	Limited, partial and unlimited access controls: widest right-of-way, cartway and shoulders; often 3 to 4 lane facilities	No access controls; moderate to minimum right-of-way, cartway and shoulder widths; often 2-lane facilities	No access controls; minimum right-of-way, cartway and shoulder widths; often 2 lane facilities
Speeds	Typically 45-65 mph	Typically 35-45 mph	Typically 25 mph
Through/Local Traffic	Minimal interference to through travel; local travel discouraged, especially on limited access roads	Balanced through and local travel	Through travel discouraged; local travel encouraged
Relation to Other Systems	Most important connections with other arterials and collectors, usually via grade separated interchanges or signalized intersections	Connects with Arterials and Locals. Collector/Arterial intersection often signalized. Collector/Local intersections often stop controlled.	Primarily connects with other locals and collectors. Most intersection of locals with other roadways are stop controlled.

Source: PennDOT; Tri-County Regional Planning Commission

Interstate 76 and SR 283 and 743 are the arterial roads in the township. SR 743 is considered a minor arterial and SR 283 and Interstate 76 are considered major arterials. Colebrook Road, Bachmanville Road, and Schoolhouse Road are the collector roads in the township. All three are considered minor collectors with the exception of the portion of Colebrook Road west of SR 743, which is considered a major collector. The remaining roads in the township are considered local roads. The functional classification of roadways in the township is shown in **Table 5-3**.

TRAFFIC VOLUME

PennDOT collects and maintains traffic counts for state roadways and publishes data on the Average Annual Daily Traffic (AADT) for segments of roadways. AADT is considered to be the typical daily amount of traffic, in both directions, on a particular road segment. Monitoring AADT flows on roadways is important because roadways of different functional classifications are designed to handle different volumes of traffic.

Arterials are roads designed to carry larger volumes of traffic, specifically “through” traffic, at higher speeds, and with limited access. The roads with the highest volumes of traffic in the township are the two principal arterials (I-76 and SR 283). As mentioned previously, neither of these roadways are accessed in the township. SR 743 has a significantly lower volume of traffic than these two thoroughfares, but the AADT of 12,000 vehicles signifies the level of importance that this road has to both residents of Conewago Township and to visitors connecting to SR 283 or amenities in Hershey.

Collector roads are designed to carry less traffic and at lower speeds than arterials. Traffic on collector roads usually represents a mix of local and through traffic and the road has a greater number of access points than arterials. AADT on the western portion of SR 341 is 1,600 vehicles. Traffic volume on the eastern portion of SR 341 is 1,100 vehicles daily. Bachmanville Road (SR 2011) has an AADT volume of approximately 800 vehicles and is classified as a

minor collector; Schoolhouse Road (SR 2013) is also classified as a minor collector and carries an AADT of 300 vehicles.

Local roads are designed to carry the least amounts of traffic, specifically local traffic, have the lowest speeds and provide direct access. SR 2007, 2008, 2009 and 2013 are all designated as local roads. Local roads with the highest daily traffic volumes are SR 2007 and 2013, with 550 and 500 AADT respectively, followed by SR 2008 and SR 2009 which carry 200 and 350 vehicles respectively.

Traffic volume can be used in conjunction with other information such as intersection configuration and signalization to determine the level of service for existing roadways and intersections.

LEVEL OF SERVICE

According to the Dauphin County Comprehensive Plan, Level of Service (LOS) is a qualitative measure describing the operational conditions within a roadway's traffic stream. It is based on service measures such as speed, travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Standards that define the minimum acceptable operating LOS for arterials, collectors and local roads have been developed. Determining where a particular roadway may fall below the acceptable LOS is a useful technique to identify congestion and areas where deficiencies need to be addressed and remedied. Levels of service are identified by alphanumeric designations ranging from "A" through "F", with "A" being the best and "F" being the worst. The various LOS for roadways generally include:

- LOS A - Excellent traffic flow, favorable progression, most vehicles do not stop at all.
- LOS B - Very good traffic flow, short delays, more vehicles stop than under LOS A causing higher levels of delay.
- LOS C - Traffic flow is still good, but the number of vehicles stopping is significant. Many vehicles still proceed without stopping.
- LOS D - The influence of congestion becomes noticeable. Few vehicles advance through the intersection without stopping.
- LOS E - The limit of acceptable delay for many agencies. Virtually no vehicles proceed without stopping.
- LOS F - Traffic volumes exceeds available capacity. All vehicles must stop at least once, and possibly must wait through several signal cycles before proceeding.

With the exception of SR 283, all of the state roadways in the township are rated as LOS A or B during their peak traffic hour. All of the state owned and maintained roadways, with the exception of SR 283, are operating at or above an acceptable LOS and are capable of handling the current daily traffic volumes.

Table 5-2: PennDOT Acceptable Levels of Service

Highway Type	Rural Level & Rural Rolling	Rural Mountain & Urban/Suburban
Freeway	B	C
Arterial	B	C
Collector	C	D
Local	D	D

Source: PennDOT

Table 5-3 lists the names, roadway numbers, functional classifications, road segment, volume, peak hour level of service, and required rights-of-way of state owned and maintained roadways in the township. The functional classification and traffic volumes found on state roadways are graphically displayed on **Map 5-1**.

Table 5-3: Functional Classification, Volume, Level of Service and Required Width of PennDOT Roadways in Conewago Township

Roadway Name	Roadway Number	Classification	Segment	Volume ¹	Peak Hour Level of Service	Required Right-of-Way Width
Pennsylvania Turnpike	I-76	Principal Arterial	Entire Township	28,000	B	Varies
Harrisburg – Lancaster Expressway	SR-283	Principal Arterial	Entire Township	41,000	C	Varies
Elizabethtown Road	SR-743	Minor Arterial	Entire Township	12,000	B	60'
Colebrook Road	SR-341	Major Collector	Western Township border to SR-743	1,600	A	60'
Colebrook Road	SR-341	Minor Collector	SR-743 to Eastern Township border	1,100	A	60'
Bachmanville Road	SR-2011	Minor Collector	Entire Township	800	A	60'
Schoolhouse Road	SR-2013	Minor Collector	SR-743 to SR-2011	300	A	60'
Deodate Road	SR-2007	Local	SR-341 to Western Township border	550	A	50'
Mapledale Road	SR-2008	Local	SR-2009 to Eastern Township border	200	A	50'
Belair Road	SR-2009	Local	SR-341 to Southern Township border	350	A	50'
Schoolhouse Road	SR-2013	Local	SR-2011 to Eastern Township border	500	A	50'

Source: Tri-County Regional Planning Commission; PennDOT

TOWNSHIP FUNCTIONAL CLASSIFICATION

In the 1981 Conewago Township Comprehensive Plan, the township developed its own functional classification system. This system differs slightly from the Tri-County Regional Planning Commission and PennDOT system listed above. The roadway name, number and classification are indicated in **Table 5-4** below. It should be noted that the township's current Subdivision and Land Development Ordinance sets forth roadway standards for new streets in subdivisions and developments based upon the recommendations and functional classification system listed in the 1981 comprehensive plan.

- Arterial Street (Class 1): A major street or highway with fast or heavy traffic volumes of considerable continuity and used primarily as a traffic artery for intercommunications among large areas.
- Collector Street (Class 2): A major street or highway which carries traffic from minor streets to arterial streets including the principal entrance streets of residential development and streets for circulation within such a development.
- Minor Street (Class 3): A local street used primarily for access to abutting properties.

¹ 2002 Average Annual Daily Traffic

Table 5-4: Functional Classification of Conewago Township Roads (Existing, est. 1980)

Roadway Name	Roadway Number	Length (Miles)	Classification Number	Classification	Required Right-of-Way
Azalea Drive	T-333	0.17	3	Minor	50'
Bachmanville Road	SR-2011		2	Collector	60'
Ballyshannon Drive*	T-314		3	Minor	50'
Basler Road	T-567	0.26	3	Minor	50'
Beagle Road	T-311	0.80	3	Minor	50'
Beaver Road*	T-340	0.15	3	Minor	50'
Beechwood Lane*	T-329	0.10	3	Minor	50'
Bellaire Road	SR-2009		2	Collector	60'
Blue Ribbon Drive*	T-350	0.08	3	Minor	50'
Border Lane	T-335	0.12	3	Minor	50'
Brandt Road	T-688	0.70	3	Minor	50'
Castle Maine Court*	T-316		3	Minor	50'
Cedar Road	T-326	1.91	3	Minor	50'
Chestnut Road	T-568	1.45	3	Minor	50'
Church Road	T-565	0.70	3	Minor	50'
Colebrook Road	SR-341		1	Arterial	60'
Deer Run Road*	T-339	0.18	3	Minor	50'
Deodate Road	T-317 & SR-2007	0.45(T)	2	Collector	60'
Dogwood Drive	T-334	0.67	3	Minor	50'
Elizabethtown Road	SR-743		1	Arterial	60'
Elm Road	T-315	0.93	3	Minor	50'
Fox Chase Drive*	T-337	0.15	3	Minor	50'
Foxglove Circle	T-307	0.06	3	Minor	50'
Gates Road	T-572	1.40	3	Minor	50'
Glenmede Lane*	T-319		3	Minor	50'
Harrisburg-Lancaster Expressway	SR-283		1	Arterial	Varies
Hertzler Road	T-303	0.83	3	Minor	50'
Hemlock Court*	T-323	0.08	3	Minor	50'
Hill Road	T-304	1.01	3	Minor	50'
Hoffer Road	T-309	0.15	3	Minor	50'
Kirby Drive*	T-328	0.10	3	Minor	50'
Koser Road	T-570	0.50	3	Minor	50'
Laurel Drive	T-312	0.15	3	Minor	50'
Mapledale Road	T-571 & SR-2008	2.42(T)	3	Minor	50'
Meadow Lane	T-573	1.0	3	Minor	50'
Sand Hill Road	T-566	0.10	3	Minor	50'
Mill Road	T-564	2.18	3	Minor	50'
Nye Road	T-347	0.39	3	Minor	50'
Oak Road	T-336	0.11	3	Minor	50'
Old Hershey Road	T-602	4.43	3	Minor	50'
Pennsylvania Turnpike	I-76		1	Arterial	Varies
Pheasant Drive*	T-338	0.17	3	Minor	50'
Primrose Drive	T-331	0.36	3	Minor	50'
Rhoads Road	T-569	0.08	3	Minor	50'
Ridge Road	T-325	2.44	3	Minor	50'
Risser Road	T-702	0.28	3	Minor	50'
Roundtop Road	T-327	1.76	3	Minor	50'

Roadway Name	Roadway Number	Length (Miles)	Classification Number	Classification	Required Right-of-Way
Schoolhouse Road	T-318 & SR-2013	0.38(T)	2	Collector	60'
Valley Road	T-305	1.68	3	Minor	50'
Vista Road	T-703	0.13	3	Minor	50'
Walnut Road	T-322	0.08	3	Minor	50'
Westhampton Terrace*	T-313		3	Minor	50'
White Pine Drive*	T-324	0.59	3	Minor	50'
Woodbine Drive	T-331	0.36	3	Minor	50'

Source: Conewago Township Comprehensive Plan, 1981

*Roads listed on PennDOT's 2nd Class Township Type 5 Map for Conewago Township, Dauphin County, apparently added since 1981 comprehensive plan

DESIGN STANDARDS

If insufficient right-of-way or cartway widths exist on township or state roadways, the township does and should continue to require developers to dedicate land for additional right-of-way during the subdivision and land development process. Building setbacks should be measured from the ultimate right-of-way to ensure that buildings are appropriately setback from the street when the township or PennDOT initiates improvements to their roadways.

CRASH CORRIDORS

The Tri-County Regional Transportation Plan (RTP) identifies general locations of frequent and severe crashes that should be considered community planning priorities. The plan identifies certain corridors in Conewago Township that experience crashes at a higher rate than the statewide average for that type of facility, as well as those that experience serious crashes (those resulting in fatality or major injury) at a higher rate than would be expected. The plan utilized PennDOT accident data from 1996 to 2001. The following areas in the township were identified in the RTP:

- Portions of the PA Turnpike and SR 283 within the township were identified as severe and frequent crash corridors. Both highways are limited access principal arterials, designed to accommodate large volumes of traffic and at higher speeds.
- SR 2007 from the intersection with SR 341 southwest to the township boundary was noted for the frequency and severity of crashes. This road carries the largest volume of traffic of the four PennDOT local roads in Conewago Township.
- SR 341 from its intersection with SR 743 to the intersection with SR 2009 was a listed crash corridor for severity of crashes. This section is listed as a minor collector and carries over 1,100 vehicles per day.
- SR 2013 from the intersection with SR 743 to the intersection with SR 2011 has been identified for the frequency of crashes. This roadway is listed classified as a local road, and carries the second largest volume of traffic of the four local roads in the township.

TRANSPORTATION IMPROVEMENT PROGRAM

According to the Dauphin County Comprehensive Plan and the Harrisburg Area Regional Transportation Study FY 2005-2008 Transportation Improvement Program included one project that may involve portions of SR 283 in Conewago Township. The SR 283 Reconstruction Project is scheduled for Preliminary Engineering at a cost of \$1,265,000 in FFY 2006, and Final Design at costs of \$1,000,000 and \$1,300,000 in FFY 2007 and 2008 respectively. This planned improvement may help relieve the frequency and severity of the crashes along the corridor, while improving the LOS.

TWELVE YEAR PROGRAM

PennDOT's State Twelve (12) year program lists improvements to SR 283 and SR 2011, Bachmanville Road. SR 283 is scheduled for highway restoration improvements and Bachmanville Road is scheduled for disaster initial response. These scheduled improvements may be located within the township.

BRIDGES

In addition to the information listed in the Dauphin County Comprehensive Plan and the 2030 Regional Transportation Plan for the Harrisburg Area Regional Transportation Study, according to PennDOT's Bridge Management System, there are two Township-owned bridges posted with maximum weight limits:

Table 5-5: Bridges Posted with Maximum Weight Limits

Roadway Name	Roadway Number	Feature Crossed	Owner	Weight Limit (1 lane)	Length
Hertzler Road	T-303	Conewago Creek tributary (stream)	Conewago Township	15 tons	23'
Valley Road	T-305	Conewago Creek tributary (stream)	Conewago Township	10 tons	23'

Source: Tri-County Regional Planning Commission

PUBLIC TRANSPORTATION

Currently, there is no public transit service to Conewago Township. The Cumberland-Dauphin-Harrisburg Transit Authority, also called Capital Area Transit (CAT), nearest service area runs east along US 322 and US 422 extending into Derry Township (Hershey area) a few miles north of Conewago Township. Additionally, the Red Rose Transit Authority (RRTA) in Lancaster County provides public transit service to Elizabethtown (Lancaster County) a few miles south of Conewago Township. It should be noted that Conewago Township is connected to both areas being served by public transit, by SR 743.

The Hershey Intermodal Transportation Center is currently under construction in Derry Township. The Transportation Center is proposed as a multi-level parking garage that is scheduled to accommodate 600 vehicles, offer a pedestrian bridge across Norfolk Southern Railroad, and future plans for a pedestrian and bicycle trail and a trolley and tram system. The center is intended to bring together various transportation systems into one central location as accommodations for Capital Area Transit, County of Lebanon Transit, and Capitol Trailways bus

service. Once the proposed Hershey Intermodal Transportation facility is constructed, a possible connection between the CAT and RRTA service could be extended along SR 743 between Hershey and Elizabethtown through Conewago Township.

The Dauphin County Area Agency on Aging maintains a listing of public and private partnership van service companies to provide transportation to residents age 60 or over. There is no van service provided to Conewago Township residents currently, but Londonderry and Derry Townships both have van service for their older residents. Hummelstown Borough, West Hanover, and East Hanover Townships also offer the service to their residents.

PARK-AND-RIDE FACILITIES

Currently, there are no park-and-ride facilities in the township that would encourage carpooling. There is a park and ride facility located Mount Joy Township, Lancaster County, along SR 743 prior to the SR 283 interchange.

AVIATION

There are no airport facilities in Conewago Township. The Harrisburg International Airport (HIA) is located within a short commute of Conewago Township in Lower Swatara Township. The airport provides the region with direct and connecting commercial air passage and airfreight service to national and international destinations. There is a general aviation airport, Reigle Airport, located in nearby South Londonderry Township, Lebanon County.

RAIL

There are no active rail lines or rail service in Conewago Township. The nearest passenger rail service terminals are in Middletown, Elizabethtown, and the Harrisburg Transportation Center in downtown Harrisburg. Amtrak train service is available at these locations and provides service to Philadelphia and points east, as well as Pittsburgh and points west. From these hubs, riders can transfer to Amtrak's nationwide rail network.

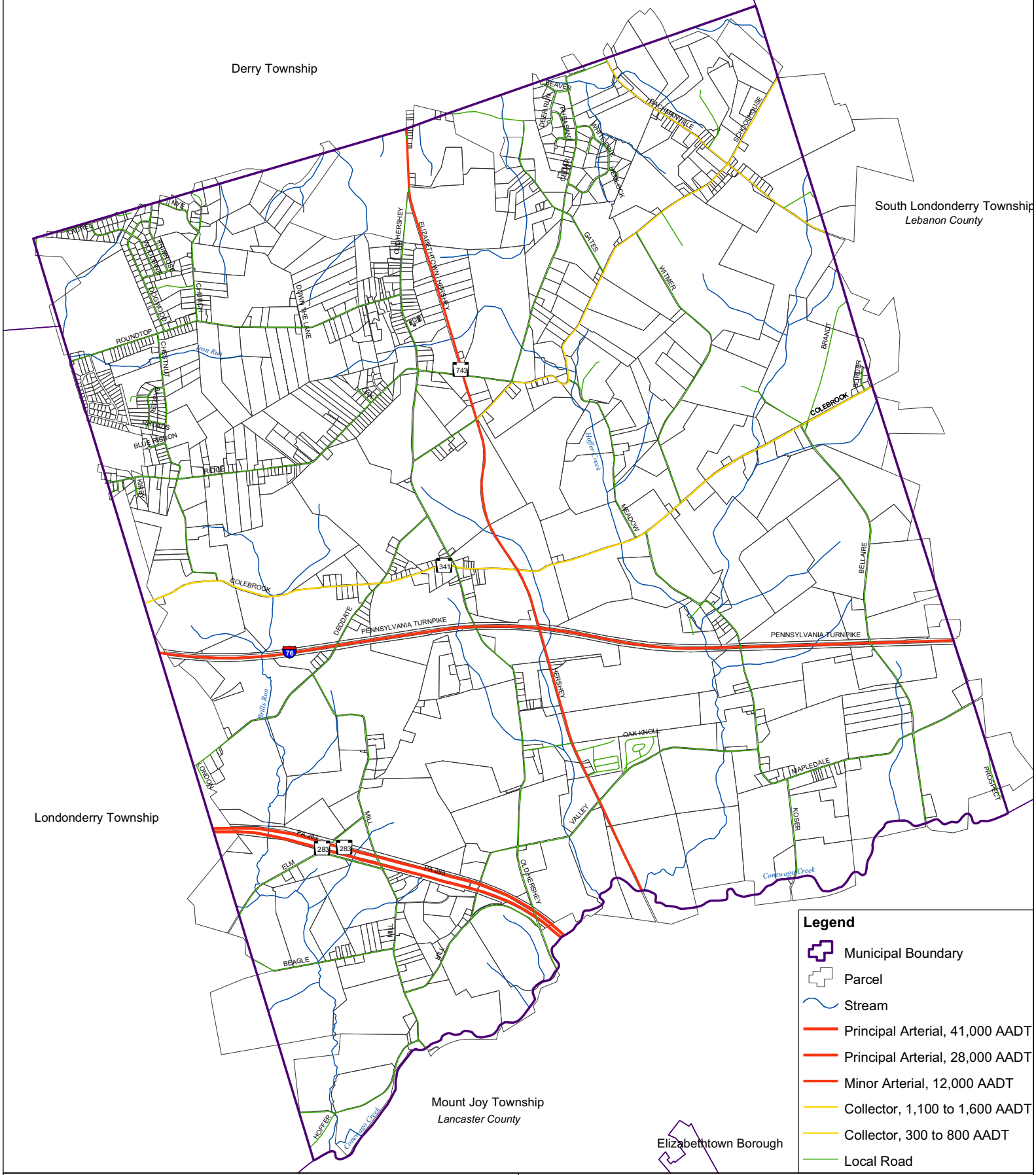
BICYCLE AND PEDESTRIAN

Although the township Subdivision and Land Development Ordinance requires sidewalks to be installed in all new subdivisions or land developments, the vast majority of Conewago Township, due to its rural nature, lacks a network of bicycle and pedestrian facilities.










The Dauphin County Comprehensive Plan identifies SR 743 and SR 341 from its intersection with SR 743 to the township's western border as roadways possessing the need for bicycle and/or pedestrian facilities. These facilities have been indicated as roadway based facilities.

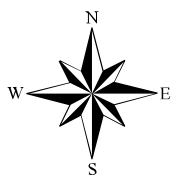
TRAVEL TIMES TO WORK

In 1990, the mean travel time to work for Conewago Township residents was 19.5 minutes. This figure was slightly higher than Dauphin County, which had a 1990 mean travel time to work of 19.0 minutes. The 2000 Census indicated a three minute increase to 22.5 minutes. Dauphin County's mean travel time to work also increased to 21.1 minutes. The absolute and percentage increase in travel times of Dauphin County residents were not as great as those in Conewago. These increases can be attributed to increased congestion along the major roadways in the region.

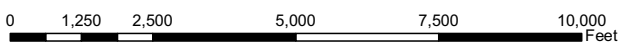


Legend

-  Municipal Boundary
-  Parcel
-  Stream
-  Principal Arterial, 41,000 AADT
-  Principal Arterial, 28,000 AADT
-  Minor Arterial, 12,000 AADT
-  Collector, 1,100 to 1,600 AADT
-  Collector, 300 to 800 AADT
-  Local Road



**Map 5-1
FUNCTIONAL CLASSIFICATIONS
AND
TRAFFIC VOLUMES**



**CONEWAGO TOWNSHIP COMPREHENSIVE PLAN
2008**

PA State Plane South, NAD 1983
 Base Map Source:
 Copyright (c) 2006: Dauphin County GIS
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