March 2010

Smart Transportation in Lancaster County



Planning our future...

Lancaster County Planning Commission

TABLE OF CONTENTS

	Table of Contents ii
	Acknowledgementsiv
1.	An Introduction to Smart Transportation and Smart Growth 1
2.	Context-Sensitive Design
	 a. Context-sensitive roadway design: Harrisburg Pike Harrisburg Pike near Prince Street-urban setting Harrisburg Pike west of Marietta Avenue-suburban setting Harrisburg Pike west of State Road-suburban village setting b. Context-sensitive bridges Auction Road Bridge in Rapho/Penn Township Oregon Road Bridge in Manheim Township Fruitville Pike Bridge in Lancaster City
3.	Improved Local Street Connectivity
	a. Good Drive in East Hempfield Townshipb. Alleys in traditional neighborhoods
4.	Main Street Congestion Relief Projects
	PA 896 Relocation Project in Strasburg
5.	Encourage Mixed-Use Developments
	 a. Newport Development in Warwick Township b. Florin Hill in Mt. Joy Borough c. Brighton in Manheim Township d. Masterplan for the Redevelopment of Downtown Elizabethtown
6.	Intelligent Transportation Systems
	 a. Traffic Signal Coordination: countywide b. Traffic Surveillance Cameras and Dynamic Message Boards: U.S. 30, PA 283 and U.S. 222

7.	Pedestrian and Bicycle Facilities	. 11
	 a. Pedestrian Facilities Crosswalks, sidewalks and bulb-outs in Lancaster City Sidewalks and flashing light crosswalks in Lititz Safe Routes to School crosswalks in Columbia Bicycle Facilities Wide shoulders on PA 340 in East Lampeter Township Signed bicycle lane, Harrisburg Pike in E. Hempfield Township Bicycle racks at various locations in Lancaster City 	
8.	Transit and Intercity Passenger Rail Stations	13
	 a. Transit Stations and Amenities Queen Street Station. Phases 1 and 2 in Lancaster City Covered transit stop in Columbia Borough Bus turn-out on Harrisburg Pike in Lancaster City Passenger Rail Stations Lancaster Amtrak Station restoration Mt. Joy Station restoration 	
	 Elizabethtown Station restoration 	
9.	Traffic Calming	15
	 Angled parking and speed humps: College Avenue in Lancaster City Planted medians: Harrisburg Pike at College Row and President Avenue in Lancaster City Roundabouts and Traffic Circles: Millport Road near Lancaster County Airport and in Maytown 	
10.	Travel Demand Management	.17
	 a. Commuter Services of Pennsylvania b. Improved Transit Service: Capital Red Rose Corridor Commuter rail service (planned): Lancaster to Harrisburg]
11.	Access Management	19
	 a. Access Management Studies: U.S. 322 and PA 23 b. Access Management recommendation: Harrisburg Pike Study c. Model Access Management Ordinance 	

LCPC would like to express its appreciation to the municipal planners and officials and county businesses and development firms who provided information and photographs for this publication.

If you have questions about any of the projects in the Scrapbook or would like to know who to contact to learn more about a particular project, please contact Harriet Parcells, Senior Transportation Planner, at *hparcells@co.lancaster.pa.us*. Smart Transportation is a concept promoted by federal and state transportation laws and state departments of transportation and demanded by a growing number of citizens. It is being implemented in cities, counties and states across the country, including in Lancaster County. The purpose of this smart transportation scrapbook is to provide an overview of Smart Transportation and present examples of projects that have been implemented in Lancaster County that local government officials may wish to implement in their community.

What is Smart Transportation and why does it make sense?

Smart Transportation is a new approach to roadway planning and design in which transportation investments are tailored to the specific needs of each project. The different contexts—financial, community, land use, transportation and environment—determine the design of the solution. The best transportation solution arises from a process in which a multi-disciplinary team, considering a wide range of solutions works closely with the community.

Smart Transportation Guidebook, PennDOT/NJDOT, 2008

Smart Transportation is based on two concepts: 1) Context-Sensitive Solutions and 2) Smart Growth. The Federal Highway Administration defines **Context-Sensitive Solution** as "a collaborative, interdisciplinary approach that involves all stakeholders in developing a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources." The approach considers the total context within which a transportation improvement project will be situated. **Smart Growth** is growth of a city or community that emphasizes environmental preservation, compact development patterns, alternative transportation and social equity.

The Pennsylvania Department of Transportation (PennDOT) and New Jersey Department of Transportation (NJDOT) developed a *Smart Transportation Guidebook* (March 2008) to provide guidance to counties and municipalities in developing smart transportation solutions. A copy of the Guidebook is found on the Lancaster County Planning

Commission website under *Smart Growth Toolbox*, Transportation at *http://www.co.lancaster.pa.us/toolbox/cwp/view.asp?a=3&q=617249*.

Six principles guide smart transportation

- 1. *Tailor Solutions to the Context:* Roadways should respect the character of the community and its current and planned land uses. The design of a road should change as the road transitions from a rural to suburban to urban setting. Changes in roadway widths, the presence or absence of onstreet parking and other factors provide cues to drivers on how fast to drive.
- 2. Tailor the Approach: Tailor the approach to each specific project.
- 3. *Plan All Projects in Collaboration with the Community:* Transportation solutions should be the result of a collaborative process between the state department of transportation, the local community and other key stakeholders. For projects on Pennsylvania state roads, PennDOT reviews the proposed projects to ensure that they maintain vital statewide or regional mobility goals. Local government is responsible for establishing sound land use planning and for helping to create an interconnected street network that moves traffic efficiently and provides shorter trip lengths that are more amenable to walking, biking and transit.
- 4. *Plan for Alternative Modes:* The needs of pedestrians, bicyclists and transit users must be considered in designing all roadway projects.
- 5. *Use Professional Judgment:* All transportation project elements should be reviewed by a professional team.
- 6. *Scale the Solution to the Size of the Problem:* Find the best solution that fits within the context, is affordable, supported by the community (ies) and can be implemented in a reasonable time frame.

Recognized features of Smart Growth Transportation include:

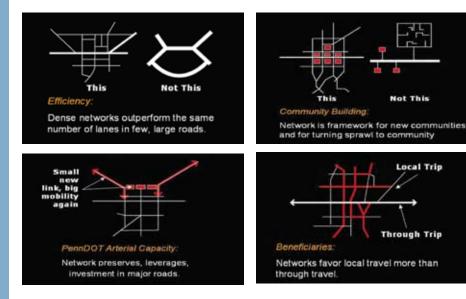
» Transit-Oriented Development: locate the train or bus station at the center of the community so that housing, offices and shops

are within walking distance and redevelop areas around existing transit stations with mixed land uses and higher densities.

- » Walking Gets High Priority: Smart growth communities feature a grid street pattern that makes it easy to make many trips by foot. They include sidewalks, traffic circles and other features that slow traffic speeds and maintain a safe walking environment.
- » Bicycle-Friendly Communities: Provide safe facilities for bicyclists and encourage residents to bike for transportation and recreation.

Federal Law Supports Smart Transportation

In 1991, Congress enacted the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). ISTEA shifted the focus of federal transportation policy from building the Interstate Highway System to enabling cities and communities to use federal transportation funds for the first time for a wide range of transportation choices. Since ISTEA, Congress enacted the Transportation Efficiency Act for the 21st Century (TEA-21) in 1998 and the Safe, Accountable, Flexible Efficient Transportation Equity Act, A Legacy for Users (SAFETEA-LU) in 2005 (*http://uscode.house.gov/pdf/2005/2005usc23.pdf*) which continued to promote investment of transportation funds in a broad range of transportation choices to help

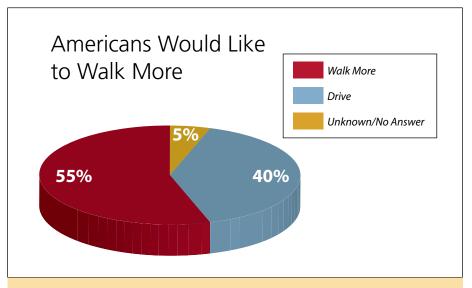


communities develop more transit-friendly, walkable, bikeable communities and preserve historic transportation resources and scenic viewsheds.

Smart Transportation Makes Sense

Federal and state policymakers realize that we cannot "pave our way out" of traffic congestion. Bigger, wider roads quickly fill up with more cars which then require still larger and wider roads in a cycle that is unsustainable. Smart Transportation is a new strategy that provides a variety of convenient, safe and attractive transportation choices to address the growth in population and travel demand. Equally important is the need to design "smart growth" communities that bring together a mix of uses—residential, commercial, retail and educational—and provide sidewalks, bike lanes or wide outside lanes, transit stops and other infrastructure to support and encourage alternatives to driving. Smart growth communities have interconnected grid street patterns that shorten the length of trips people must make.

Surveys show that most Americans would like to live in communities that provide a range of mobility choices but many are currently held back from



Question: Please tell me which of the following statements describe you:

a) If it were possible, I would like to walk more throughout the day OR b) I prefer to drive my car wherever I go.

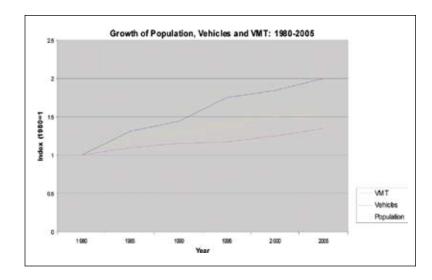
using alternatives due to a lack of infrastructure to support these modes. A 2002 survey found that 55% of Americans polled said they would like to walk more throughout the day compared to 41% who said they prefer to drive wherever they go. (source: *American's Attitudes Toward Walking and Creating Better Walking Communities*, STPP, 2003).

Smart Growth and Environmental Health

Smart growth has a direct connection to improved environmental quality. Travel by cars and trucks has been increasing at twice the rate of population growth. Actions by the federal government to require production of more fuel-efficient cars and cleaner-burning fuels are two crucial parts of U.S. efforts to reduce dependence on petroleum and reduce emissions of global greenhouse (GHG) gases. A third strategy, reduction in vehicle miles of travel (VMT), is also a fundamental part of the solution.

Unless VMT is reduced, gains produced by more efficient vehicles and cleaner fuels will be overwhelmed by growth in travel and will undermine the nation's ability to achieve desired GHG emission reduction goals.

Development of walkable, transit-friendly, mixed use communities that enable people to travel shorter distances for many trips and to make more trips by walking, bicycle or transit will contribute to creating healthier communities. Research shows that compact development will reduce the



need to drive between 20-40% compared with the prevailing suburban development patterns (source: Urban Land Institute, *Growing Cooler*, p. 9).

The Importance of Energy Efficiency in Transportation

Transportation accounts for over two-thirds of the petroleum consumed in the United States. Within transportation, cars, trucks and other highway vehicles are responsible for about 80% of petroleum use. More fuel-efficient vehicles and the availability of energy-efficient alternatives to driving such as transit and bicycle and pedestrian facilities, will reduce the amount of petroleum consumed in transportation. Greater energy-efficiency will, in turn, reduce emissions of harmful air pollutants. Lancaster County is a non-attainment for particulates and was recently redesignated non-attainment for ozone due to enactment of more stringent standards. Investments to increase energy-efficiency in transportation will contribute to the county's requirements to attain healthier air quality.

The transportation sector is a major contributor to air pollutants that create smog and GHG emissions. The key global greenhouse gas is carbon dioxide (CO2), which comes from the burning of fossil fuels. The U.S. accounts for 22% of the world's carbon dioxide emissions. Fully 44% of U.S. carbon emissions are from oil use, with transportation accounting for the largest share.

The average American produces 20 tons of carbon dioxide per year or 12.1 pounds per day. By taking transit rather than driving alone for a daily commute of 10 miles each way, you would save 4,600 pounds of CO2 per year (based on 240 work days per year). An even greater reduction in CO2 is possible by shortening the commuting distance so that walking and biking to work or other destinations become viable transportation options.

To calculate how much you could reduce your carbon footprint, visit *www.fta.dot.gov/planning/planning_environment_8523. html* and fill in your commute information.

2. CONTEXT-SENSITIVE DESIGN

Highways and bridges can be designed as context-sensitive solutions that fit into the surrounding landscape or neighborhood. A road in a local neighborhood can be designed with narrow lanes of 10 ft. width, on-street parking and trees lining the roadway to help slow traffic. A suburban arterial may be designed for higher speeds with 11-12 foot lanes and shoulders. A major arterial may have wide lanes and limited access, like U.S. Route 222, north of Lancaster City.

Harrisburg Pike, Urban



Near the intersection with Prince Street, Harrisburg Pike is two lanes with a center turning lane. There are sidewalks but no shoulders or on-street parking. Traffic is heavy on this section of roadway, with an average of 28,000 vehicles/day. Design of *Harrisburg Pike* changes as it moves through different landscapes in the county. *Moving Smarter: Harrisburg Pike Transportation and Land Use Study* recommended amenities such as construction of sidewalks along five miles of Harrisburg Pike from downtown to Longs Park, construction of a multiuse trail, intersection improvements and other improvements.

Harrisburg Pike, Suburban



At the intersection with Good Drive, Harrisburg Pike consists of four wide lanes. Traffic volumes are lower than in the City. The wide lanes signal to drivers that they can travel at higher speeds.

Harrisburg Pike, Suburban



This section of Harrisburg Pike is also in a suburban setting, but further west of downtown. The road is two lanes, has trees that edge the road and a wide shoulder to improve bicycle accommodation. Traffic volumes average around 10,000 vehicles/day, about one-third of the volume of urban road sections.

Harrisburg Pike, Suburban Neighborhood



This section of Harrisburg Pike is in Landisville, once a rural village and now a suburban neighborhood. The two-lane road has onstreet parking and fits into a neighborhood context. It has lower traffic volumes.

Context-Sensitive Design in Bridges

Reconstruction of the historic *Auction Road Bridge*, which crosses Chiques Creek between Penn and Rapho townships, incorporated context-sensitive design. The bridge dates from 1916 and is a rare example of a rainbow arch design with diagonal members. It is one of only two such bridges in Pennsylvania. When the deteriorated bridge was reconstructed, it was widened to two lanes, lengthened to improve sight distance and incorporated design to reflect the character of the surrounding area. Reconstruction of the **Oregon Road Bridge** over Lititz Run in Manheim Township, which was built in 1913, incorporated gray stonework to fit in with surrounding buildings. A series of rock weirs were installed to maintain pool levels in the stream to protect the Black-Crowned Night Heron Rookery located 600 ft. upstream.

Auction Road Bridge



Reconstruction of the Auction Road Bridge was designed to reflect the historic design of the bridge and surrounding landscape.

Oregon Road Bridge



Reconstruction of Oregon Road Bridge used gray stones to fit in with stonework on surrounding buildings. Rock weirs were installed to protect a large bird rookery upstream.

3. IMPROVED LOCAL STREET CONNECTIVITY

Better street connectivity enables drivers to shorten their trips and the existence of connector roads helps to alleviate congestion on major arterials. Improved connectivity in the road network also benefits pedestrians, bicyclists and transit riders who don't have to travel as far to reach their destinations. A number of projects have been implemented and are planned in Lancaster County to improve connectivity of the local street network. Construction of *Good Drive* in East Hempfield Township provided an important north-south connector between Columbia Pike, Marietta Pike and Harrisburg Pike, all heavily travelled arterials, and a parallel reliever route for Rohrerstown Road. Construction of

sidewalks or wide shoulders in the future would accommodate non-motorized traffic and provide a more complete street. A planned educational and medical "Eds and Meds" mixed use development in northwest Lancaster City, along Harrisburg Pike, will connect College Avenue to Liberty Street and Charlotte Street to Stadium Drive. Paved alleyways in many historic Lancaster County neighborhoods provide important connectors between major streets. Some new mixed use developments in the county are incorporating these traditional alleyways into their design.

Arterial Connectors



Good Drive in East Hempfield Township provides an important connector between heavily travelled arterials and serves as a parallel reliever route for Rohrerstown Road.

Alleys



Alleys in traditional Grandview Heights (left) and in new developments like Brighton (right) in Manheim Township provide access behind the house to park a car, put out trash and for other purposes. This allows roads in front of the house to be maintained as pedestrianfriendly environments.

4. MAIN STREET CONGESTION RELIEF PROJECTS

The *PA 896 Relocation Project* located in and near the northeast quadrant of Strasburg Borough opened to traffic in mid-November, after more than ten years of planning. The roadway project was designed to reduce traffic, including growing truck traffic, through the square in Strasburg Borough. It will improve

safety and reduce congestion in the Borough that is caused by general, tourist and railroad attraction related traffic. The two-lane facility is just over one mile in length and has six foot shoulders which can better accommodate slow moving buggy traffic and bicyclists.



View of the new PA 896 Bypass that will reduce traffic on downtown streets and through the square in Strasburg Borough and improve safety. (left).

Ribbon-cutting for the PA 896 on November 17, 2009. (right).



7

5. ENCOURAGE MIXED USE DEVELOPMENTS

Consistent with *Balance: the Growth Management Element of the Lancaster County Comprehensive Plan* (2006), mixed use developments have been and continue to be built in Lancaster County within designated urban growth areas. These developments, such as Newport Commons in Warwick Township, Brighton in Manheim Township, Florin Hill in Mount Joy Borough and the planned Masterplan for Redevelopment of Downtown Elizabethtown, provide pedestrian and bicycle trails and, where possible, transit stops and shelters. The mix of residential, small retail and commercial shops and restaurants enable residents to walk or bike short distances for many trips.



Sidewalks and brick crosswalks (left) and a multiuse trail network (right) are part of Newport Commons in Warwick Township. The development has small retail shops and a school within walking distance.





Brick sidewalks extend throughout the Brighton mixed use development, the first Traditional Neighborhood Development (TND) in Central Pennsylvania. Brighton has bicycle trails and 22,000 sq. ft. of retail space is open or planned, all within easy walking distance of the homes.



The Master Plan for the Redevelopment of Downtown Elizabethtown received the 2005 Envision Lancaster Smart Growth Award. The Plan lays the foundation for revitalization of the borough's downtown business district while preserving key historic and environmental features. Pedestrian-oriented paths and walkways through the open civic space connect to the surrounding community.



Florin Hill Mixed Use Development in Mount Joy Borough was named the best example of smart growth in Pennsylvania by 10,000 Friends of Pennsylvania. Florin Hill was designed to fit into the surrounding neighborhood through connectivity of the street network and walking and biking paths that link the community to nearby parks and a community center.



tel/Venerselit excelut, let Parts Hill development a single element is the revealability of the bound of Neural Jaw. The veners of single detexts, including for eads and model with low workfords families, and the regulation for dependent over, the veners of the land-loaded Boungs. The Floris Hill development is consistent with and supportive of the Lancader County Planning Contention of J. Synthonigal Units of First Area program.

Intelligent Transportation Systems (ITS) refers to the use of a range of technologies to improve the safety, security and efficiency of the nation's transportation system. Traffic signal retiming and traffic signal coordination along a corridor are among the most cost-effective ITS measures that a traffic engineering department or municipality can undertake. Traffic signal coordination reduces stops, delays and travel time and provides benefits to drivers in terms of improved fuel-efficiency and reduced frustration from stop and go driving. Other examples of ITS applications include: traffic incident management; road weather information systems; electronic toll collection; traveler information dynamic message signs; surveillance and detection through the use of traffic cameras, and prioritization at signals for transit vehicles and emergency responders.

Traffic Signal Coordination

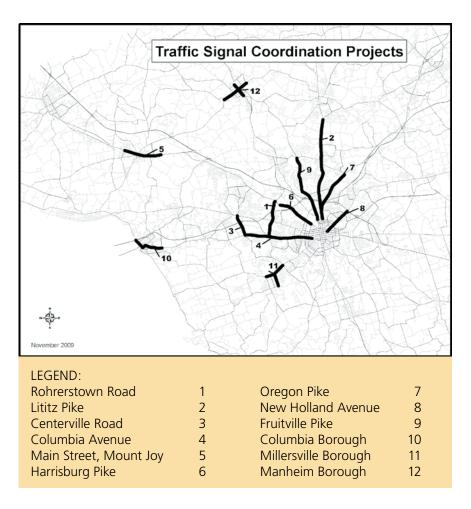
Lancaster County has a traffic signal coordination program under which traffic signals will be coordinated on twelve priority corridors. This will involve evaluation and retiming of over 115 traffic signals on the corridors. Work is currently underway on the following corridors: Rohrerstown Road, Main Street in Mt. Joy Borough, Lititz Pike, Harrisburg Pike, Columbia Avenue and Centerville Road. Work on the remaining corridors is expected to begin in FY 2010. Signals on PA 72 (Manheim Pike) and PA 23 are or will also be coordinated.

Surveillance and Detection

Through federal stimulus funding, PennDOT plans to install traffic surveillance cameras on various portions of our limited access highways: US 30, US 222 and PA 283.

Traveler Information Dynamic Message Signs

Traveler message boards are planned along with the traffic surveillance cameras, on the above-mentioned routes.



7. PEDESTRIAN AND BICYCLE FACILITIES

Communities throughout Lancaster County are reconstructing existing sidewalks, filling in gaps in their sidewalk networks and building new sidewalks and bicycle facilities.

Pedestrian Facilities

The *City of Lancaster* reconstructed sidewalks and installed attractive brick crosswalks on many downtown streets. Bulb-outs were added at many intersections. Plans are in place to construct sidewalks and install pedestrian lighting along a five-mile section of Harrisburg Pike to enable people to walk safely from the downtown area and nearby neighborhoods to Long's Park, a major county recreational destination, and other locations along the corridor. In *Lititz*, Main Street and other streets have wide, tree-lined sidewalks. Lititz installed brick crosswalks with in-pavement lights on Main Street that flash to alert drivers to pedestrians in the crosswalk. *Columbia Borough*, in western Lancaster County, completed a "Safe Routes to School" project that installed attractive crosswalks and signage to provide a safe walking route for students to Columbia High School and an elementary school.



Brick crosswalks and bulb-outs at the corner of Queen Street and W. Orange Street in Lancaster City.



Crosswalks on Main Street in Lititz with flashing lights in the pavement alert drivers to pedestrians in the crosswalk. The "Look" message reminds pedestrians to look for cars before crossing the road.



Columbia Borough's "Safe Routes to School" project installed decorative crosswalks and signage to provide safe routes for students walking from surrounding residential areas to Columbia High School and an elementary school.

Bicycle Facilities:

Wide shoulders have been constructed on some of Lancaster County's roads to better accommodate bicyclists and horse-drawn buggies used by the Amish population. PA 340 has wide shoulders that are used heavily by Amish and Mennonite buggies and cyclists. The wide shoulders on a suburban section of Harrisburg Pike, about 7 miles west of downtown Lancaster, is signed for use by bicyclists. Lancaster City has installed bicycle racks at locations throughout the city to provide secure parking for bicyclists. An artistic bicycle rack at the historic Central Market allows shoppers to arrive by bicycle rather than trying to find parking downtown.



The bicycle rack, shaped like a bicycle, at the historic Central Market in downtown Lancaster is used by many people who cycle to the market.



A section of PA 340 in East Lampeter Township has wide shoulders to better accommodate horse and buggies and bicycles.



A suburban section of Harrisburg Pike in East Hempfield Township has wide shoulders and is signed for bicycles. No parking is allowed on the road.

8. TRANSIT AND INTERCITY PASSENGER RAIL STATIONS

Lancaster County is making substantial investments to improve the guality of its local transit system, Red Rose Transit Authority (RRTA), as well as the intercity passenger rail stations in the county that are located on the Keystone Corridor.

Transit

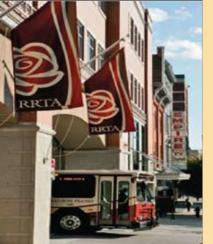
Queen Street Station in downtown Lancaster is RRTA's transit center, providing a clean, safe downtown location for customers waiting for or transferring to many RRTA routes. The station has shelters and benches set among trees and a fountain to create an urban park setting for transit users. Eleven bus routes serve the station, with additional routes within walking distance. RRTA is in the process of constructing Queen Street Station, *Phase 2*, a mixed use development that will provide three additional bus bays, a 395-car parking garage, 10,000 sg. ft. of street-level commercial/retail space and air rights over the parking structure to be leased for residential/commercial space. The station is in the heart of downtown Lancaster, enabling bus patrons to walk to most downtown destinations. The expected completion date for Queen Street Station 2 is September 2010. In Columbia Borough an attractive covered transit shelter offers transit patrons a comfortable place to wait for the bus.



stop in Columbia offers RRTA bus users a sheltered place to wait for the bus.



Planned Queen Street Station Phase 2, on the corner of Chestnut and Queen Street, will provide three new bus bays, a 395-space garage, street-level commercial/retail space and air rights above the parking garage for residential/commercial space.



Queen Street Station in downtown Lancaster is a major RRTA transit center.

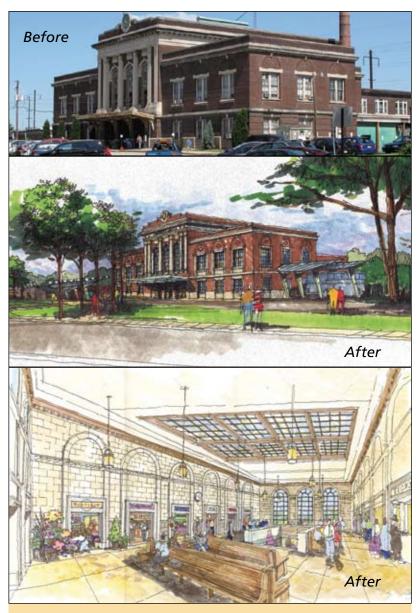
Intercity Passenger Rail Stations

Lancaster County has three Amtrak stations located on the Keystone Corridor, a federally-designated high-speed rail corridor that extends from Philadelphia to Pittsburgh. All are in the process of being restored — Lancaster, Mount Joy and Elizabethtown stations. All have seen ridership increase substantially in recent years. The station improvements will greatly enhance the comfort and guality of passenger rail service, accommodate the growing number of rail commuters and other travelers and are integral to plans to create more livable, walkable communities in the county. A groundbreaking ceremony was held at the Lancaster Amtrak Station on June 29, 2009 to begin a \$12 million restoration of the historic station. On August 4, 2009, a groundbreaking ceremony was held at the Elizabethtown station. Improvements to the platform, installation of an elevator and other improvements are being funded with \$9.3 million in federal stimulus funds. Work is also proceeding on improvements to the Mount Joy Station to add elevators and make the platforms ADA-compliant and add canopies over the platforms and walkways to the parking area and other improvements.



Restoration and Improvements

Architectural rendering of new platform and canopy for the Elizabethtown station.



Lancaster Station before (above) and after the \$12 million restoration (middle) and a rendering of the improved station interior.

9. TRAFFIC CALMING MEASURES

Traffic calming measures have been implemented at a number of locations in Lancaster County. Angled parking, speed humps and brick crosswalks were installed along **College Avenue**, next to the campus of Franklin and Marshall College in Lancaster City. Angled parking and bump-outs were also installed on South Duke Street. A planted median and wide sidewalks were built on **Harrisburg Pike at "College Row"** near the intersection with College Avenue. The measures enhance safety for drivers and for the pedestrians and bicyclists, many of whom are students. The wide sidewalks in front of the "College Row" shops and restaurants augment the pedestrian-friendly nature of this part of Lancaster City and provide space for outdoor dining. A planted median also exists on **President Avenue** in the City of Lancaster.



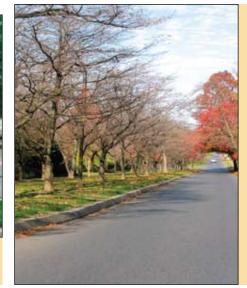
Planted median strip on Harrisburg Pike narrows the road, slows driving speeds and inhibits pedestrian crossings at inappropriate locations.



Wide sidewalks in front of "College Row" shops and restaurants on Harrisburg Pike.



Speed hump, brick crosswalk and angled parking along College Avenue on the Franklin and Marshall campus.



Planted median on President Avenue in the City of Lancaster dates back to the 1920's in furtherance of a circumferential boulevard that wasn't completed.

Traffic Circles and Roundabouts

Roundabouts and traffic circles are traffic calming measures that many communities across the country have constructed in recent years to slow traffic speeds. Both are raised islands placed in an intersection around which traffic circulates, but they tend to be constructed in different locations. Traffic circles are generally found on low-volume neighborhood roads which don't have a lot of commercial traffic but where traffic speed and safety are major concerns. Roundabouts, by contrast, are constructed on higher volume roads that experience both truck and automobile traffic. Roundabouts are well-suited to locations with a history of accidents, where speed is a concern and traffic back-ups need to be minimized. Both traffic circles and roundabouts can be landscaped to contribute to the aesthetics of the community. The only roundabout in Lancaster County is located on *Millport Road*, adjacent to the Lancaster County Airport. It serves to demonstrate the technology and future roundabouts could be installed in locations with higher traffic volumes. The historic towns of *Maytown* and *Marietta* have traffic circles.



The traffic Circle in the historic town of Maytown contains historic markers, an old tree and other artifacts related to the town's history.



Roundabout on Millport Road, adjacent to the Lancaster County Airport.



10. TRAVEL DEMAND MANAGEMENT

Travel Demand Management (TDM), also known as Mobility Management, is a general term for strategies that result in more efficient use of transportation resources. TDM emphasizes the movement of people and goods rather than motor vehicles and gives priority to more efficient modes such as walking, cycling, ridesharing and public transportation, particularly under congested conditions. TDM embraces a wide range of strategies, including: alternative work schedules (flextime, compressed work week and staggered shifts), telecommuting, improved transit service, construction of bike lanes and paths and pedestrian facilities and implementation of transit-oriented development.

Ridesharing

Lancaster County participates in and serves on the Board of Directors of Commuter Services of Pennsylvania, an eight-county program that provides carpool and vanpool matching services for workers in the eight-county region and works with major employers and their employees to educate them on the benefits of participating in the program and to establish ridesharing programs at the workplace. While the vast majority of Lancaster County workers live and work within the county (201,610 workers), nearly 7,000 people commute to work in Dauphin County, 4,025 to York County and other workers commute to Lebanon and Cumberland counties. Lancaster County has park-and-ride lots (some formal and some set up by commuters) and is looking to establish others at key locations.

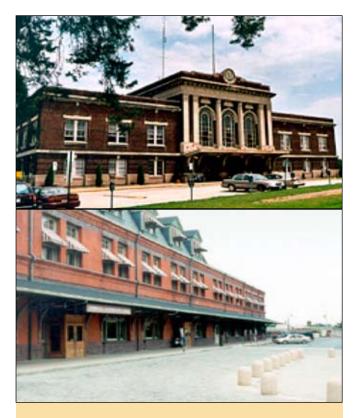


Improved Transit Service

Lancaster County also serves on the Board of Directors of the *Modern Transit Partnership (MTP)*, a regional non-profit organization that is working to establish a new commuter rail service, the Capital Red Rose Corridor, a 37.4 mile regional rail service between Lancaster and Harrisburg on the existing Keystone Corridor tracks. The commuter rail service will complement the intercity high speed rail service on the Keystone Corridor. It is just one corridor of a larger plan for regional transit service on several corridors with Harrisburg as the hub.



The 37.4 mile route of the Capital Red Road Corridor between Lancaster and Harrisburg with stops at Mount Joy, Elizabethtown, and Middletown.



Historic Lancaster Station, which is being restored (upper), and Harrisburg. Station, which has already been restored (lower).

11. ACCESS MANAGEMENT

The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system. Although it involves a complex balance of the need for local accessibility with the need for overall mobility, properly managed access is vital to the safety and efficiency of a community's street network.

Lancaster County has completed two access management studies: on *US 322* and *PA 23.* A model Access Management Ordinance was developed as part of the studies. Traffic operations, safety concerns, and existing land uses and municipal access regulations were reviewed and presented in these studies as a basis for proposing physical and regulatory improvements on these corridors.

Another study, "Moving Smarter: Harrisburg Pike Transportation and Land Use Study," examined one of Lancaster County's most congested corridors, Harrisburg Pike, and included among its highway and multimodal transportation recommendations, implementation of access management to increase the efficiency and safety of the corridor. The model Access Management Ordinance was included in the study. Lancaster County Planning Commission has placed the Model Access Management Ordinance on its website and plans to work with some municipalities to implement an access management ordinance. To view the Model Access Management Ordinance, go to the LCPC website and click on the Envision Smart Growth Toolbox, then click on Transportation and Access Management. (http://www.co.lancaster.pa.us/ toolbox/cwp/view.asp?a=3&q=606238)



Model Ordinances for Pennsylvania Municipalities Handbook

A Model Access Management Ordinance is located on the Lancaster County Planning Commission website.

SMART TRANSPORTATION IN LANCASTER COUNTY

Lancaster County Planning Commission 150 North Queen Street • Suite 320 • Lancaster, PA 17603 • (717) 299-8333 • F (717) 295-3659 www.co.lancaster.pa.us/planning • e-mail: **fsadiq@co.lancaster.pa.us** March 2010