ALLEGHENY PLACES

THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

Transportation Element Update

November 2013

Allegheny County, Pennsylvania

THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

ALLEGHENY COUNTY, PENNSYLVANIA

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THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

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TABLE OF CONTENTS

ABOUT THIS DOCUMENT i

CHAPTER 1: DEVELOPING A VISION 1-1

Introduction 1-1
Seeing the Future 1-2
What's Your Favorite Place? 1-2
The Concept of Places 1-3
The Need for a Plan 1-4
Planning to be Great 1-4
The Need for Planning Consistency 1-5
Allegheny Places has Widespread Support 1-6
How to Use this Plan 1-7

CHAPTER 2: PLANNING FOR OUR PLACES 2-1

The Principles That Guided This Plan 2-1
Promoting Equity and Diversity 2-2
Four Phases of Plan Development 2-3
Forecasting Trends 2-4
– Residential Growth Forecasts 2-4
– Employment Growth Forecasts 2-4
– Development Patterns 2-4
– Pending and Proposed Development 2-5
– The 2025 Trend Scenario Map 2-5
Considering Alternative Futures 2-6
Developing the Preferred Future 2-7
Performance of the 2025 Composite Scenario 2-7
Directing Growth to Places 2-8
Implementing Places 2-9

TABLE OF CONTENTS (CONT'D)

CHAPTER 3: OVERVIEW OF TODAY'S PLACES 3-1

Introduction 3-1
A Snapshot of Allegheny County 3-2
A Demographic Profile 3-4
– Age Trends 3-5
– Disabled Populations 3-5
– A Redistribution of Population 3-6
– Minority Populations 3-6
– Racial Equity 3-7
– International Immigration 3-7
Land Use and Local Government 3-9
– Historic Settlement Patterns 3-9
– Today's Land Use Pattern 3-11
– A Welcome Trend 3-11
– Political Fragmentation 3-12

CHAPTER 4: RECOMMENDATIONS FOR TOMORROW'S PLACES 4-1

Introduction 4-1
Future Land Use Plan 4A-1
Historic and Cultural Resource Plan 4B-1
Economic Development Plan 4C-1
Housing Plan 4D-1
Parks, Open Space and Greenways Plan 4E-1
Resource Extraction Plan 4F-1
Agricultural Resource Plan 4G-1
Community Facilities Plan 4H-1
Transportation Plan 4I-1
Utilities Plan 4J-1
Environmental Resource Plan 4K-1
Energy Conservation Plan 4L-1

TABLE OF CONTENTS (CONT'D)

CHAPTER 5: PUTTING IT IN PLACES 5-1

Benefits of the Plan 5-1
The County Role 5-1
County Commitment and Leadership 5-2
County Planning Resources 5-2
County Outreach to Municipalities 5-2
County Outreach to Other Groups 5-4
Yearly Activities and Plan Updates 5-4
Action Plan for Implementation 5-5
The Allegheny Places Fund 5-5
Developments of Regional Significance and Impact 5-7

Model Zoning Provisions – Transit-Oriented Development 5-8
– Model Zoning Provisions for Allegheny TOD Places –
Article Y: Transit-Oriented Development Districts
Criteria for Consistency Review – A Checklist for ACED Staff Use 5-17

GLOSSARY A-1

LIST OF FIGURES

Figure 3.1	Allegheny County	3-2
Figure 3.2	Comparative Population Growth by Decade	3-4
Figure 3.3	Natural Population Change	3-5
Figure 3.4	Population Change: Allegheny County vs. Remainder of Pittsburgh MSA	3-5
Figure 3.5	Population Age 65 and Over	3-6
Figure 3.6	Population Change, 1990 – 2000	3-7
Figure 3.7	African American Population	3-8
Figure 4C.1	Labor Force Participation Rates by Gender	4C-2
Figure 4C.2	Distribution of Workers by Annual Earnings and Gender	4C-3
Figure 4C.3	Median Household Income	4C-3
Figure 4C.4	Median Household Income Relative to Allegheny County	4C-4
Figure 4C.5	Labor Force Participation by Race	4C-4
Figure 4C.6	Commuting into Allegheny County	4C-5
Figure 4C.7	Allegheny County Exports	4C-6
Figure 4C.8	Location of KOZ Sites	4C-8
Figure 4D.1	Owner Occupied Housing Units by Municipality	4D-1
Figure 4D.2	Homeownership Rates by Race and Ethnicity	4D-2
Figure 4D.3	Housing Unit Changes by Municipality, 1980 – 1990	4D-2
Figure 4D.4	Housing Unit Changes by Municipality, 1990 – 2000	4D-3
Figure 4D.5	Housing Unit Vacancy Rates by Municipality, 2000	4D-3
Figure 4D.6	Housing Units Built Before 1940, by Municipality	4D-4
Figure 4D.7	Housing Units Built Between 1950 - 1979, by Municipality	4D-4
Figure 4D.8	Housing Units Built Between 1990 - 2000, by Municipality	4D-5
Figure 4D.9	Allegheny County Building Permits	4D-5
Figure 4E.1	The Great Allegheny Passage	4E-7
Figure 4E.2	Pittsburgh-to-Harrisburg Mainline Canal Greenway	4E-8
Figure 4E.3	Allegheny Land Trust GREENPRINT – Concept and Strategy	4E-16
Figure 4E.4	Implementation Matrix	4E-17
Figure 4H.1	Hazardous Material Units Response Areas	4H-7

LIST OF FIGURES (CONT'D)

Figure 4I.1	Total Daily Miles Traveled in Allegheny County	4I-4
Figure 4I.2	Road Ownership in Allegheny County by Lane Mile	4I-6
Figure 4I.3	Sufficiency Rating of All Bridges in Allegheny County over 20 Feet in Length	4I-7
Figure 4I.4	Transit Ridership by Area	4I-26
Figure 4I.5	Airport Locations	4I-44
Figure 5.1	The Cross-Acceptance and Consistency Process	5-3
Figure 5.2	The Annual Review Process	5-4

LIST OF TABLES

Table 2.1	Growth Allocated to Places	2-8
Table 4D.1	Distribution of Publicly Subsidized Rental Housing	4D-9
Table 4D.2	Recommended Housing by Type of Place	4D-13
Table 4E.1	Park Definitions and Classification Standards	4E-2
Table 4E.2	County Park Facilities	4E-4
Table 4E.3	Appropriate Park Prototypes for Places	4E-20
Table 4I.1	Highway Functional Classes	4I-3
Table 4I.2	Functional Classification of Highways in Allegheny County by Linear Mile	4I-3
Table 4I.3	Congested Corridors	4I-5
Table 4I.4	Number of Crashes and Traffic-Related Deaths	4I-5
Table 4I.5	Bridges in Allegheny County with a Sufficiency Rating <10	4I-8
Table 4I.6	2040 Traffic Projections for PennDOT Congested Corridors	4I-11
Table 4I.7	2040 Transportation and Development Plan, Allegheny County Projects	4I-18
Table 4I.8	Demand Management Strategies	4I-21
Table 4I.9	CMAQ Eligible Project Categories	4I-23
Table 4I.10	Public Transit Ridership, FY 2012	4I-24
Table 4I.11	Additional Transit Funding from Act 44	4I-28
Table 4I.12	Pittsburgh International Airport Operations	4I-43
Table 4I.13	Location of Public, for-hire River Terminals in Allegheny County	4I-52
Table 4I.14	Three Rivers Locks and Dams	4I-52
Table 4J.1	Public Water Suppliers	4J-2
Table 4J.2	Designated Act 167 Watersheds	4J-12
Table 4K.1	Pittsburgh-Beaver Valley AQCR Attainment Status	4K-2
Table 4L.1	Demand Management Strategies	4L-9
Table 5.1	Action Plan for Implementation	5-6
Table 5.2	Implementation Strategy for *Allegheny Places*	5-22
Table 5.3	Implementation Strategy for *Allegheny Places* Transportation Plan	5-48

LIST OF MAPS (BOUND IN SEPARATE DOCUMENT)

Map 2.1	Major Land Development
Map 2.2	Pending and Proposed Land Development, 1993 - 2006
Map 2.3	2025 Trend Scenario
Map 2.4	2025 Composite Scenario
Map 3.1	Existing Land Use
Map 4A.1	Future Land Use Plan
Map 4A.2	Brownfields and Redevelopment Sites
Map 4B.1	Historic Resources
Map 4E.1a	Parks (Northwest Quadrant)
Map 4E.1b	Parks (Northeast Quadrant)
Map 4E.1c	Parks (Southwest Quadrant)
Map 4E.1d	Parks (Southeast Quadrant)
Map 4E.2	Greenways
Map 4E.3	Trails
Map 4F.1	Abandoned Mines and Affected Streams
Map 4G.1	Agriculture
Map 4H.1	Community Facilities
Map 4I.1	Transportation System
Map 4I.2	Proposed Transportation Projects
Map 4I.3	Roads by Functional Classification
Map 4I.4	Park-and-Ride Lots
Map 4J.1	Public Water Supply Service Areas
Map 4J.2	Wastewater Collection and Treatment Service
Map 4J.3	PA Stormwater Management Act 167 Designated Watersheds and Plan Status
Map 4K.1	Hydrology
Map 4K.2	Slopes
Map 4K.3	Natural Heritage Inventory
Map 4K.4	Landslide-Prone Areas

TRANSPORTATION PLAN

OVERVIEW OF THE TRANSPORTATION PLAN

According to *Bridges and Tunnels of Allegheny County* (*www.pghbridges.com*), geology has exerted a strong influence on the development of transportation in Allegheny County. The County is located on the Allegheny Plateau. Our three rivers, together with their many tributaries, formed bluffs and steep slopes as they cut their way through layers of rock for millions of years. Long ago, Native Americans traveled on trails through the area, often following the tops of the ridges to avoid river and stream crossings.

Today, Pittsburgh and its suburbs are known for steep hillsides and streets requiring steps for sidewalks. Other metropolitan locations may have similar topography, but generally they are not as heavily urbanized as Allegheny County. Not surprisingly, our topographic features require that we have thousands of bridges and numerous tunnels. It is virtually impossible to travel any notable distance without crossing a bridge or passing through a tunnel here. Pittsburgh is known as the "City of Bridges" for the number and variety of structures spanning our watercourses.

Transportation has been instrumental to Allegheny County's development and remains vital to its economic health. The County's transportation system is comprised of six basic modes that combine to create the network of infrastructure which moves people, goods and services. Particular emphasis is given through the planning process to modal choice and fuel alternatives. The transportation network is depicted on Map 4I.1.

The *Allegheny Places* Transportation Element is organized into sections featuring these transportation modes:

- **ROADWAYS AND BRIDGES**
- **PUBLIC TRANSIT**
- **BICYCLE AND PEDESTRIAN**
- **AIRPORTS**
- **RAIL FREIGHT**
- **WATERWAYS**

For each mode covered in the Plan, you will find Today's Conditions, Issues and Analysis, and Recommendations.

RELATIONSHIP TO THE FUTURE LAND USE PLAN

The purpose of the Transportation Plan is to maximize utilization of the existing transportation network, target new investment in the system for maximum return and provide all people equal access to growth opportunities, especially those associated with 'Places' designated on the Future Land Use Plan (see Map 4A.1).

The Future Land Use Plan focuses development in designated 'Places'. Most 'Places' are along existing transportation corridors and all are highly accessible to each other, as well as to the region. One of the key benefits of concentrating development, investment and activities in 'Places' is that transportation alternatives can be developed that provide choices and options for movement between 'Places'. This mobility will ensure a high level of access to jobs, shopping, schools, and other destinations. We have made choices resulting in the ability to concentrate investments for maximum effectiveness. Visible, usable, quantifiable and dramatic results can occur in a much quicker time frame by targeting funds to 'Places'.

The County's economic development policies for attracting new business as well as retaining existing businesses are dependent on efficiently moving people, goods and services. Therefore, it is critical that actions and recommendations promote a safe and dependable transportation infrastructure with maximized inter-connectivity for all modes. We want the best functioning system we can achieve, which requires careful, thoughtful planning and investment.

Provide all people equal access to growth opportunities, especially in defined Plan 'Places'.

TRANSPORTATION PLANNING FOR THE REGION

The Region

Allegheny County's transportation system is part of the regional transportation network. Efficiently managing this network requires regional cooperation and coordination

ALLEGHENY PLACES
THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

Future Land Use Map Description

(More information can be found in the Land Use Element of *Allegheny Places*)

Infill Areas: Provide opportunities for new development and redevelopment on vacant, abandoned or under-utilized properties.

Conservation Areas: Sensitive environmental features, scenic landscapes and cultural resources that are only meant for very limited or no development.

Places: Areas targeted for development.

1. Airport-Industry: Located in close proximity to Pittsburgh International Airport, and mainly include sites that have been targeted by the County and developers for office and light industrial development.

2. The Core: Located in downtown Pittsburgh and Oakland. Much new development in Core Places will be infill development, rehabilitation and reuse of existing buildings, and adaptive reuse of former industrial or warehouse sites and structures.

3. Corridors: Have good access to major transportation corridors and highway interchanges. They are relatively intense, mixed-use hubs of office, industrial, commercial and residential uses. Corridor Places can accommodate high-intensity land uses that require large amounts of land such as regional shopping centers, industrial parks, and business parks.

4. Urban Neighborhoods: Located within urban areas like the cities of Pittsburgh and McKeesport. They build on existing business districts and mixed-used areas in older, densely developed neighborhoods, and include more regionally-oriented services with a mix of housing types in a walkable setting.

5. Community Downtowns: Similar in character to Urban Neighborhoods, but are less densely developed. Most, but not all, Community Downtowns build on the existing business districts and downtowns in older communities.

6. Villages: Located in suburban communities throughout the County. Village Places are characterized by a mix of residences and small-scale, low-intensity businesses and services that primarily serve neighborhood needs. Non-residential development should neither generate, nor depend on, large volumes of vehicular traffic.

7. Rural Places: Located along the "edges" of the County in municipalities that are less developed. Rural Places are the least densely developed of all the types of Places. They will be primarily residential in nature, with a focus on single-family detached housing. Non-residential development will be limited mainly to recreation and essential supporting services.

8. Transit-Oriented Developments (TODs): A mix of relatively dense residential, office and retail uses at transit stations or transit stops, to maximize pedestrian access to transit. TOD is an overlay on selected Places that are located along the existing 'T' line and busways, and on proposed new transit lines. TOD Places will incorporate both infill development, and substantial new development on large parcels when available.

Future Land Use Plan

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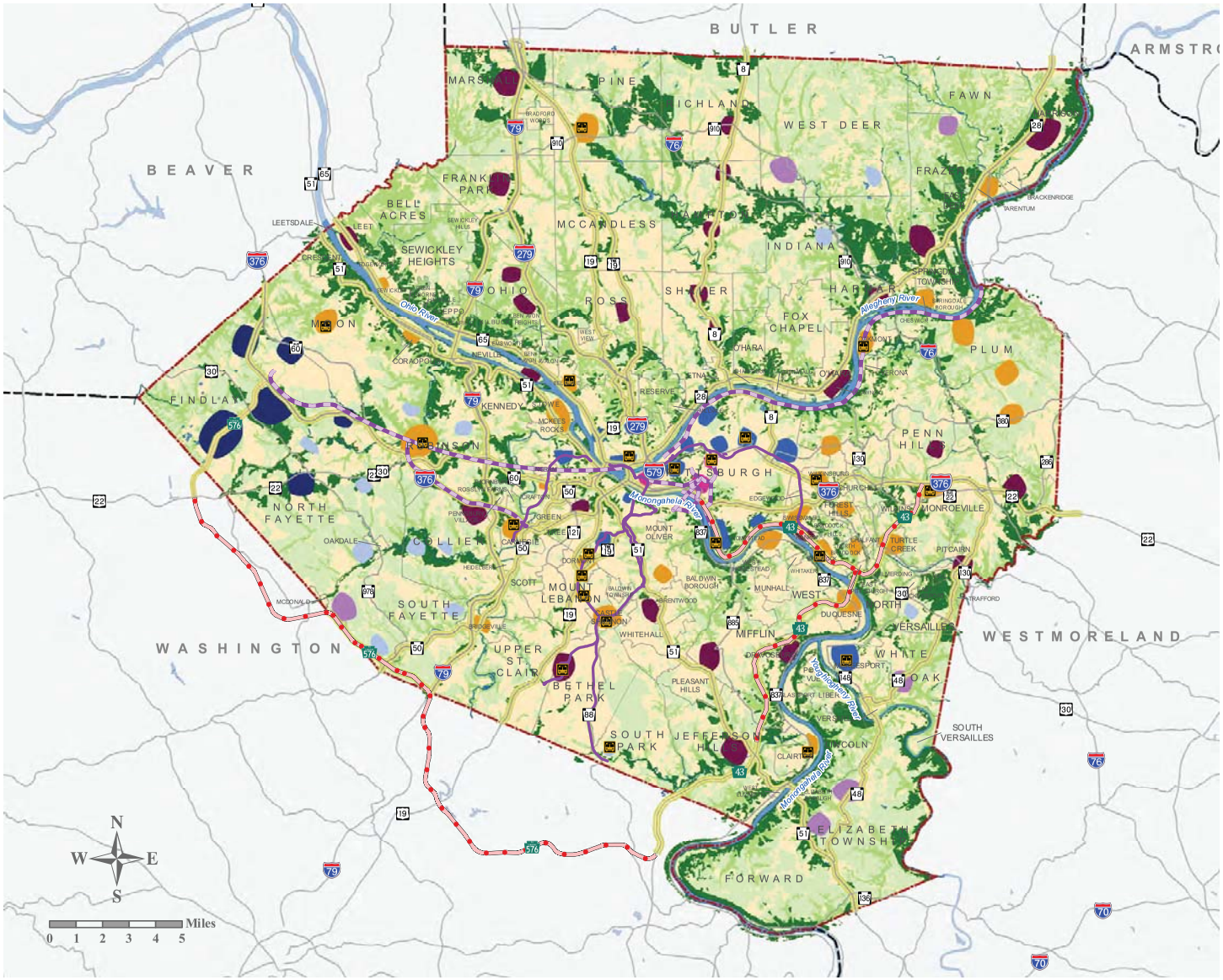

Future Land Use Plan

LEGEND

Places

- Airport
- Core
- Corridor
- Urban Neighborhood
- Community Downtown
- Village
- Rural
- Transit Oriented Development

Transportation

- Proposed New Highways
- Existing Transit System
- Proposed-Transit

Networks

- Road Corridors
- Allegheny Land Trust GREENPRINT
- Proposed Greenways
- Conservation Areas
- Infill Development

Base Map

- Major Roadways
- Allegheny County Boundary
- Bordering Counties
- Hydrology
- Municipal Boundaries

* These alignments are conceptual, alternatives will be studied.

DATA SOURCES

Allegheny County
Allegheny County Municipalities
City of Pittsburgh
Southwestern Pennsylvania Commission
Western Pennsylvania Conservancy
Individual Land Trusts
AirPhoto USA
Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
National Hydrography Dataset

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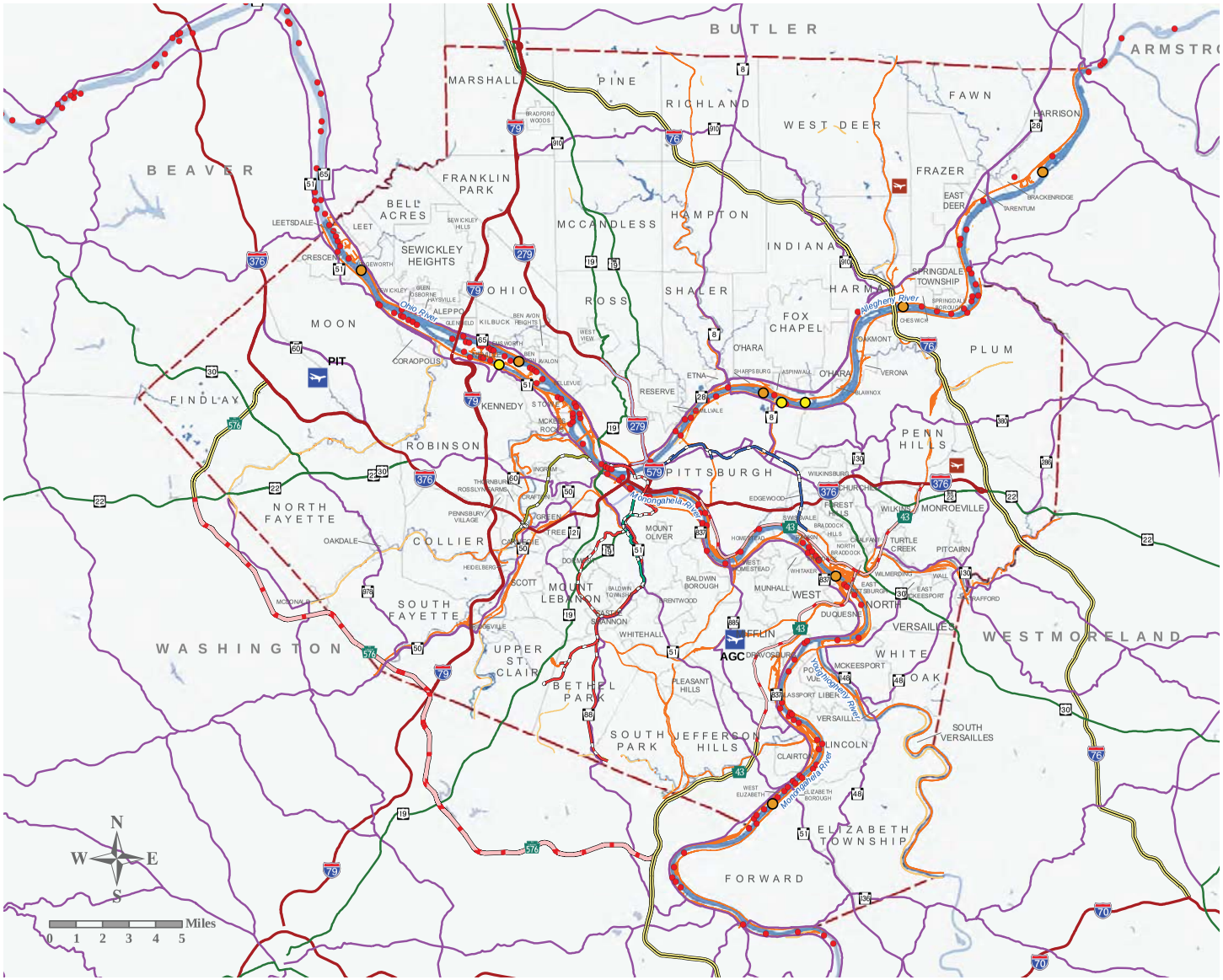
This map was prepared for:
Rich Fitzgerald, Allegheny County Executive
Allegheny County Economic Development - Planning Division

Map 4A.1

Transportation System

ALLEGHENY PLACES
THE ALLEGHENY COUNTY COMPREHENSIVE PLAN



Transportation System

LEGEND

Road

- Turnpike
- Interstate
- US Route
- State or Turnpike Route
- HOV Lane
- Proposed New Highway

Base Map

- Allegheny County
- Municipal Boundaries
- Bordering Counties
- Hydrology

Transit System

- East Busway
- West Busway
- South Busway
- T Line

Railroad

- Active Rail
- Inactive Rail

Water

- Industrial River Port
- Locks & Dams Navigable Waterway
- Dams Only

Air

- Public Airport
- Private Airport

DATA SOURCES

Allegheny County
City of Pittsburgh
Port of Pittsburgh Commission
Pennsylvania Department of Transportation
Bureau of Transportation Statistics
Pennsylvania Turnpike Commission
National Hydrography Dataset

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Allegheny County Economic Development - Planning Division

Map 4I.1

with all counties who are members of the Metropolitan Planning Organization (MPO). The MPO is the Southwestern Pennsylvania Commission (SPC). SPC is comprised of ten counties and the City of Pittsburgh. Regional coordination is critical to ensure that transportation systems are maintained, congestion is managed, and the safe and efficient movement of people and freight is attained. SPC's website contains extensive related information and can be accessed at: *www.spcregion.org*.

The Planning Partners

Transportation planning in Allegheny County is a cooperative effort between the County, PennDOT, the City of Pittsburgh and the Port Authority of Allegheny County (PAAC); all together they comprise the transportation Planning Partners. SPC is the regional organization where the 10-county MPO's Planning Partners come together to produce the official, funded Transportation Improvement Program (TIP), and the Long Range Transportation and Development Plan (LRP). The most recent LRP is the 2040 LRP. The LRP is a strictly fiscally-constrained plan. The most recent LRP was developed through participation in SPC's "Project Region" (see www.spcregion.org for more information). The resulting document is named "2040 Transportation and Development Plan for Southwestern Pennsylvania". Chapter 6 of the 2040 Plan contains the most recent listings of programmed transportation projects the Planning Partners expect to construct through 2040 (see Supporting Documents). "Project Region" and the resulting plan integrated transportation planning and economic development into a coordinated vision, with associated actions. Included is the identification of needs and resources, development of a range of potential alternatives, and recommendations for implementing specific solutions on a regional level. The regional plan is consistent with County Plans. Major proposed transportation projects are shown on Map 4I.2.

Public Involvement

Public involvement is critical to transportation planning. SPC utilizes public participation panels (PPPs) appointed by each County. Together, they elicit the input and active involvement of individual stakeholders, groups and entire communities from the earliest planning stages of transportation projects and processes through completion.

Councils of Government

There are eight Councils of Government (COGs) in Allegheny County. The COGs are voluntary coalitions of municipalities organized by geographic area. Most of our 130 municipalities belong to a COG. The COGs act to:

- Discuss and bring into focus regional challenges and opportunities
- Collect and maintain data of a regional interest
- Facilitate improved communication, coordination and intergovernmental cooperation between all levels of government
- Facilitate cooperative agreements
- Seek technical assistance
- Coordinate Federal, State and Local programs of regional importance

The COGs hold regular meetings to discuss issues, including transportation needs.

The Pennsylvania Turnpike Commission

The existing, and planned, Pennsylvania Turnpike Commission roadway system also plays a vital role in both our transportation system and future land use in Allegheny County. A priority PA Turnpike issue in the future will be obtaining funds for the completion of the Mon/Fayette Expressway and Southern Beltway Projects in Allegheny and Washington Counties. Programming for the Turnpike Commission's projects requires coordination through the SPC's Transportation Improvement Program and Long Range Plan. Funds to program new construction for the Turnpike are expected to come from non-traditional sources including partnerships and other creative finance methods.

ALLEGHENY PLACES
THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

Transportation Projects Map Key

Project Type	Project Number	Project Name
Highway	1	SR 286 widening, S.R. 22 to S.R. 380
	2	Campbells Run Road Widening – I376W area
	3	SR 28 – Creighton to Butler County Line
	4	SR 50 – Washington County Line to Miller Run
	5	SR 65 – Ft. Duquesne Bridge to California Avenue
	6	SR 3069 – Liberty Tunnel Rehabilitation
	7	SR 2031 – Lincoln Way Improvement
	8	SR 28 Troy Hill to Millvale
	9	SR 28 I579 to East Ohio Street
Traffic Operations & Safety	10	US 19 – Pine Creek to Wallace
Transit	11	Downtown to Airport
	12	West Busway Extension
	13	Downtown to Oakland
	14	Oakland Circulator
	15	Allegheny Valley Passenger Rail Transit
Bridge Capital Maintenance	16	Roberto Clemente Bridge (6th Street)
	17	Andy Warhol Bridge (7th Street)
	18	Rachael Carson Bridge (9th Street)
	19	10th Street Bridge
	20	Glenwood Interchange Bridges
	21	Greenfield Bridge
	22	Hulton Bridge Replacement
	23	Mansfield Bridge
	24	SR 8 – Butler Street Bridge over Heth's Run
	25	US 30 – Ardmore Blvd Bridge over Electric Ave
	26	SR 51 – West Carson Street Viaduct Replacement
	27	SR 65 – Marshall Interchange Rehabilitation
	28	SR 2085 – Birmingham Bridge Rehabilitation
	29	SR 3069 – Liberty Bridge Preservation
	30	SR 3104 – McKees Rocks Bridge Phase 2
	31	Triboro Interchange Bridges
	32	Charles Anderson Bridge
	33	Coraopolis Bridge Rehabilitation
	34	Dookers Hollow Bridge
	35	Greensburg Pike Bridge Reconstruction / Turtle Creek
	36	16th Street Bridge Rehabilitation
	37	Fleming Park Bridge Rehabilitation

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Transportation Projects Map Key (Continued)

Project Type	Project Number	Project Name
Intersections & Interchanges	38	S.R. 51 / 88 Intersection Improvements
	39	Warrendale Interchange
Intermodal Facilities	40	Carnegie Intermodal Facility with Intercept Garage
	41	Bates St Intermodal Facility w/ Intercept Garage
	42	Central Oakland Intermodal Connection Hub
	43	Pitcairn Freight Intermodal Facility

Proposed Transportation Projects

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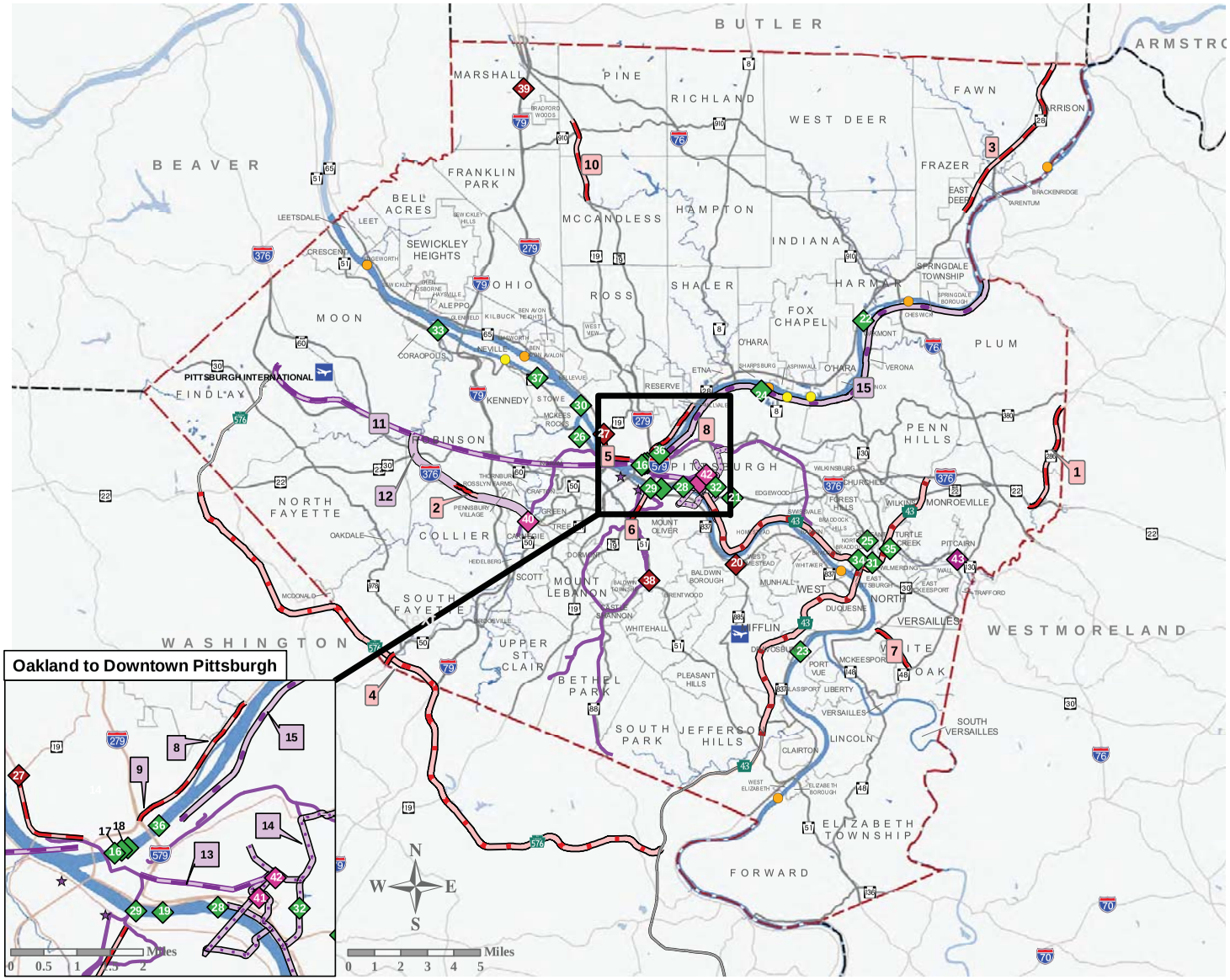

Proposed Transportation Projects

LEGEND

Transportation Projects

- Proposed Hwy Improvements
- Proposed New Highways
- West-Busway-Extension
- OaklandToDowntown_DowntownToAirport
- Oakland Circulator
- Allegheny-Valley-Transit
- Bridges
- Intermodal Facilities
- Key Interchanges / Intersections
- Intermodal Freight

Base Map

- Allegheny County Boundary
- Municipal Boundaries
- Bordering Counties
- Locks and Dams
- Dams
- Hydrology
- Airports
- Existing Transit System
- Monongahela and Duquesne Inclines
- Major Roadways

* These alignments are conceptual, alternatives will be studied.

DATA SOURCES

Allegheny County
URS Corporation
Bureau of Transportation Statistics
Southwestern Pennsylvania Commission
Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
National Hydrography Dataset

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This map was prepared for:
Rich Fitzgerald, Allegheny County Executive
Allegheny County Economic Development – Planning Division

Map 4I.2

ROADWAYS AND BRIDGES

■ TODAY'S CONDITIONS

FUNCTIONAL CLASSIFICATION

Highways are classified according to their function and the type of service they provide. The functional classification system serves as both a guideline for planning as well as means for determining funding for maintenance and upgrades. Table 4I.1 details the functional class breakdown and the definition of each class.

Table 4I.2 provides the total linear lane miles for each functional class within Allegheny County and Map 4I.3 shows the Allegheny County highway network by functional classification.

VEHICLE MILES TRAVELED

Figure 4I.1 shows that in recent years, average vehicle miles traveled (VMT) in the County decreased. As development patterns spread out, people drive more frequently and drive longer distances to reach destinations. While the general trend for VMT is increasing, fluctuations do occur and are a response to shifts in the economy, such as the Great Recession. The number of trips also increases due to changes in household patterns and locations of activities.

TABLE 4I.1 – Highway Functional Classes

FUNCTIONAL SYSTEM	SERVICES PROVIDED
Arterial	Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. Includes interstates, expressways and freeways.
Collector	Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

Source: AASHTO Green Book

Photo credit: McCormick Taylor

TABLE 4I.2 – Functional Classification of Highways in Allegheny County by Linear Mile

FEDERAL AID					SUB TOTAL	NON FEDERAL AID		SUB TOTAL	TOTAL
Interstate	Other Freeway/ Expressway	Other Principal Arterial	Minor Arterial	Major Collector		Minor Collector	Local Roads		
108.1	61.0	355.9	597.7	469.1	1,591.8	20.7	4,204.4	4,255.1	5,816.9

Source: PennDOT Bureau of Planning and Research, 2009 Highway Statistics

Roads by Functional Classification

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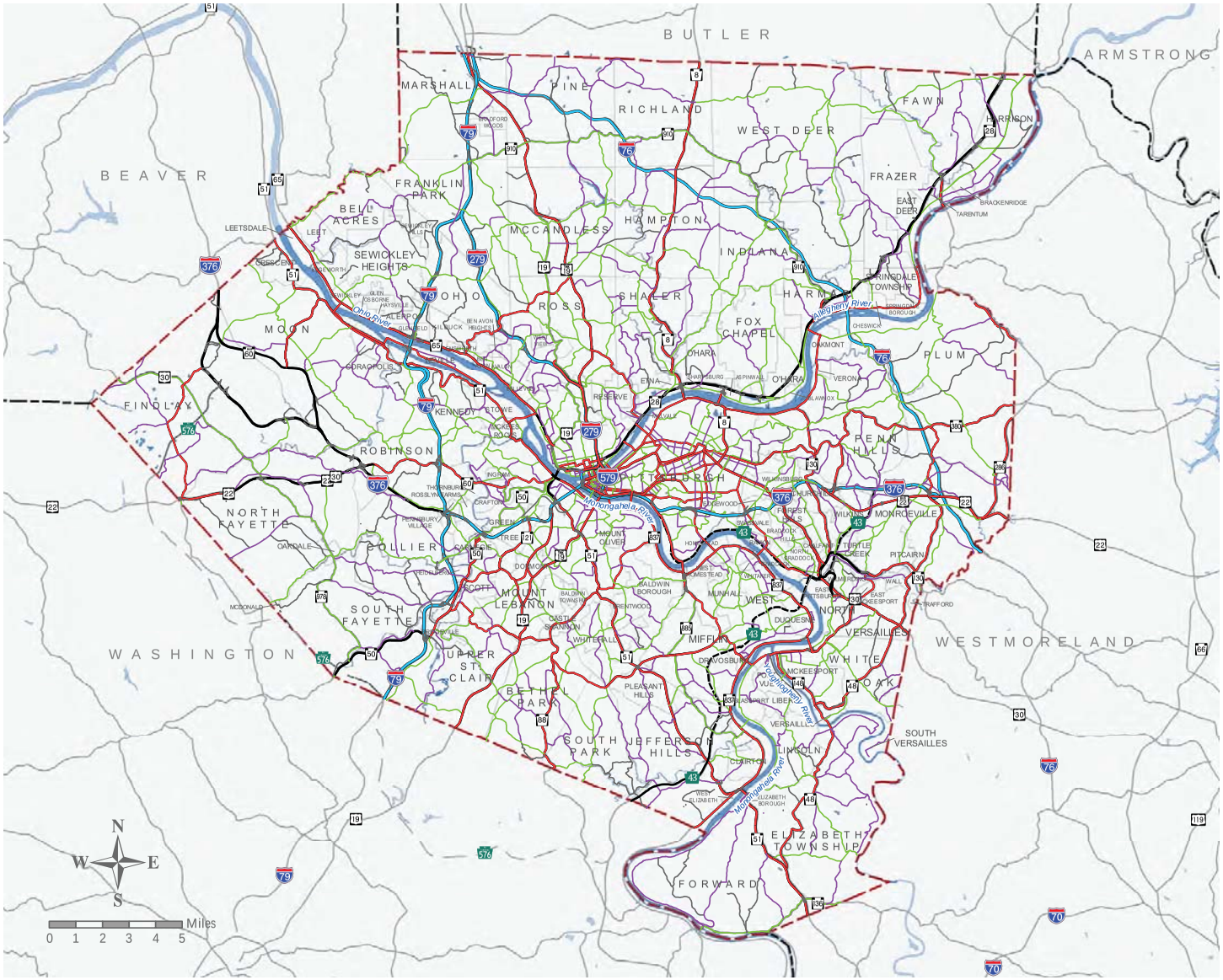

Roads by Functional Classification

LEGEND

Roads by Functional Classification

- Interstates
- Principal Arterial Roads (Freeways, Expressways)
- Principal Arterial Roads (Freeways, Expressways)
- Other Principal Arterial
- Minor Arterial
- Collector Roads
- Local Roads

Base Map

- Allegheny County Boundary
- Municipal Boundaries
- Bordering Counties
- Hydrology
- Major Roads
- Proposed Roads

DATA SOURCES

Allegheny County
Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
National Hydrography Dataset

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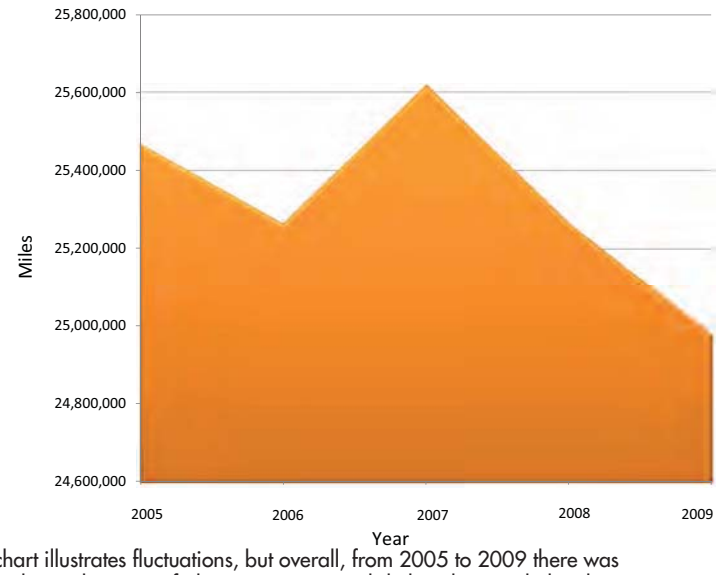
ROADWAYS AND BRIDGES

Figure 4I.1 – Total Daily Miles Traveled in Allegheny County



The chart illustrates fluctuations, but overall, from 2005 to 2009 there was a cumulative decrease of almost 500,000 total daily miles traveled in the County.

Source: PennDOT Bureau of Planning and Research, 2009 Highway Statistics

In February 2010, SPC's Congestion Management Process ranked the Parkway West Corridor (I-376 between Downtown Pittsburgh and Pittsburgh International Airport) as experiencing the highest traffic delay in the region.

Annual vehicle miles traveled in Allegheny County are still expected to increase in the next few decades, unless changes in development patterns occur that result in people needing to travel fewer miles. Figure 4I.1 shows that from 2005 through 2009 there was a cumulative decrease of total daily miles traveled. At the highest fluctuation there was a decrease of just under 2% of daily miles traveled, and there has been an overall decrease of 500,000 daily miles traveled during the entire period.

CONGESTION

The Southwestern Pennsylvania Commission (SPC) manages the federally mandated Congestion Management Process (CMP) for the 10-county region that includes Allegheny County. Within the County, there are approximately 64 corridors that are included in the program. Table 4I.3 lists the 19 congested corridors that were chosen to be analyzed for *Allegheny Places* with their corresponding average weekday traffic. Average Daily Traffic (ADT) for 2010 was used to determine the effects of the *Allegheny Places* land use scenarios, by comparing the base year traffic (2010) with projected traffic in 2025. *Allegheny Places*' future plan year is 2025.

TRAFFIC SIGNALS

Allegheny County has over 1,600 signalized intersections. The City of Pittsburgh has 583 signalized intersections. A total of 106 municipalities in the County maintain signals. In Pennsylvania, traffic signals are generally maintained and operated by the municipality, whether the intersection is owned by the state, county or local municipality, and regardless of which entity maintains the roadways.

CRASH STATISTICS IN ALLEGHENY COUNTY

Of Pennsylvania's 67 counties, Allegheny County had the highest number of reported crashes as well as the second highest number of traffic-related deaths in 2010. The number of crashes declined slightly every year from 2005-2010 (with the exception of 2007), as well as the number of traffic deaths (with the exception of 2010), as shown in Table 4I.4. Approximately 16% of these deaths were pedestrians. This information is tracked over time to determine which locations require additional safety measures.

ROADWAY OWNERSHIP

Of all the counties in Pennsylvania, Allegheny County has the highest number of roads owned by local municipalities. Local roads are maintained by approximately 130 public works departments, except in cases where municipalities have voluntarily joined together with their Council of Government (COG) to share the responsibility of road maintenance, among other services.

ROADWAYS AND BRIDGES

TABLE 4I.3 – Congested Corridors

CORRIDOR	LOCATION	2010 Daily Volume
I-376	Fort Pitt Tunnels	137,500
Parkway East (I-376)	Squirrel Hill Tunnels	102,000
I-79	Wexford	79,200
Parkway North (I-279)	McKnight Rd	77,600
I-376	Pittsburgh International Airport	62,800
I-79	Neville Island Bridge	60,400
Liberty Bridge	PJ McArdle Roadway, Pittsburgh	56,300
PA 28	31st St Bridge	46,100
PA 51 (Saw Mill Run Blvd)	Liberty Tunnels	37,300
PA 8	Etna	36,700
US 19 Truck (West Liberty Ave)	Liberty Tunnels	47,000
PA 65	McKees Rocks Bridge	43,900
US 19 (Banksville Rd)	Parkway West	47,200
PA 885 (Lebanon Church Rd)	PA 51	33,800
PA 121 (Greentree Rd/Cochran Rd)	Parkway West	28,100
Business US 22	Monroeville Mall/Thompson Run Bridge	23,900
US 30	Westinghouse Bridge	27,100
PA 88 (Library Rd)	PA 51	23,500
PA 837 (Duquesne Blvd/8th Ave/Carson St)	Kennywood	30,200

Source: SPC Cycle 9 Model

TABLE 4I.4 – Number of Crashes and Traffic-Related Deaths in Allegheny County

YEAR	2005	2006	2007	2008	2009	2010
Total Crashes	12,105	11,609	12,086	11,754	11,616	11,234
Number of Deaths	104	79	76	75	58	64
Number of Pedestrian Deaths	14	14	10	14	6	13

Source: PennDOT 2010 Crash Facts and Statistics

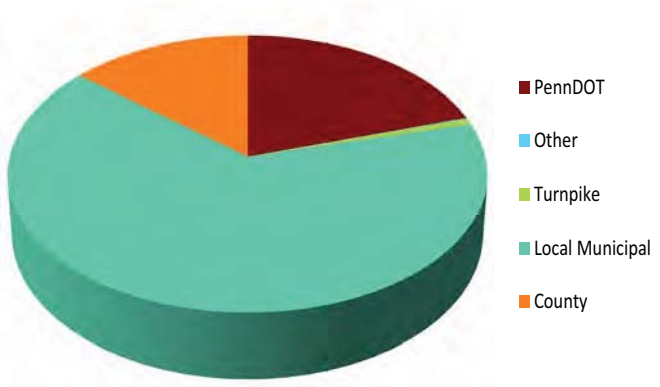
ROADWAYS AND BRIDGES

Allegheny County owns more lane miles of road than all other counties in the Commonwealth combined.

Allegheny County is responsible for maintaining 800 lane miles of road. The ownership pattern of those lane miles is fragmented and lacks continuity. Figure 4I.2 illustrates road ownership in the County.

BRIDGE OWNERSHIP

Figure 4I.2 – Road Ownership in Allegheny County by Lane Mile



Source: PennDOT Bureau of Planning and Research, 2009 Highway Statistics

Within Allegheny County boundaries, there are 1,448 bridges which are 20 feet or greater in length, of which PennDOT owns 838, the County owns 176, the City of Pittsburgh owns 83, the City of Clairton owns 2, the City of McKeesport owns 4, municipalities own 99, and 246 are owned by other entities such as PA Turnpike, railroads, etc). Allegheny County also owns and maintains another 325 bridges which are less than 20 feet in length for a total of 501 bridges owned by the County. Also, the County owns trail bridges but they are maintained by the official trail groups, which includes inspection to determine maintenance issues. The County always performs major and minor bridge rehabilitations, bridge replacements, inspections, repair contracts and emergency repairs.

The following major bridges are owned by Allegheny County:

- Mansfield Bridge
- Homestead Grays Bridge
- Rankin Bridge
- Glenwood Bridge*
- Rachel Carson Bridge
- Andy Warhol Bridge
- Roberto Clemente Bridge
- Sixteenth Street Bridge
- South Tenth Street Bridge
- Coraopolis Bridge
- Chartiers Creek Bridge
- Turtle Creek Bridge
- Levi Bird Duff Bridge
- Fleming Park Bridge
- Homeville Road Viaduct
- Jacks Run Bridge
- Dooker's Hollow Bridge
- Youghiogheny Bridge

* The Glenwood Bridge is jointly-owned. The structure, deck and sidewalks are each owned by different entities. The County owns the superstructure, the city owns the sidewalks and PennDOT owns the pavement.

BRIDGE CONDITION

The condition of bridges is determined by inspections and summarized in a Sufficiency Rating. A Sufficiency Rating is a rating from 0 to 100, where 0 is entirely insufficient or deficient and 100 is entirely sufficient. The calculated rating indicates the bridge's sufficiency or capability based on the following factors:

- The structure's adequacy and safety (accounts for 55% and based on inspection data)
- The structure's serviceability and functional obsolescence (accounts for 30% and based on ability of bridge to meet current traffic conditions)
- How essential the bridge is for public use (accounts for 15%)

The Sufficiency Rating is considered by the federal government when a state or county requests federal bridge

ROADWAYS AND BRIDGES

dollars to improve the condition of the bridge. Bridges with low sufficiency ratings are eligible for more funds:

Sufficiency Rating	Funding Eligibility
80 – 100	Not eligible
50 – 79	Eligible for costs to rehabilitate bridge
0 – 49	Eligible for costs to replace bridge

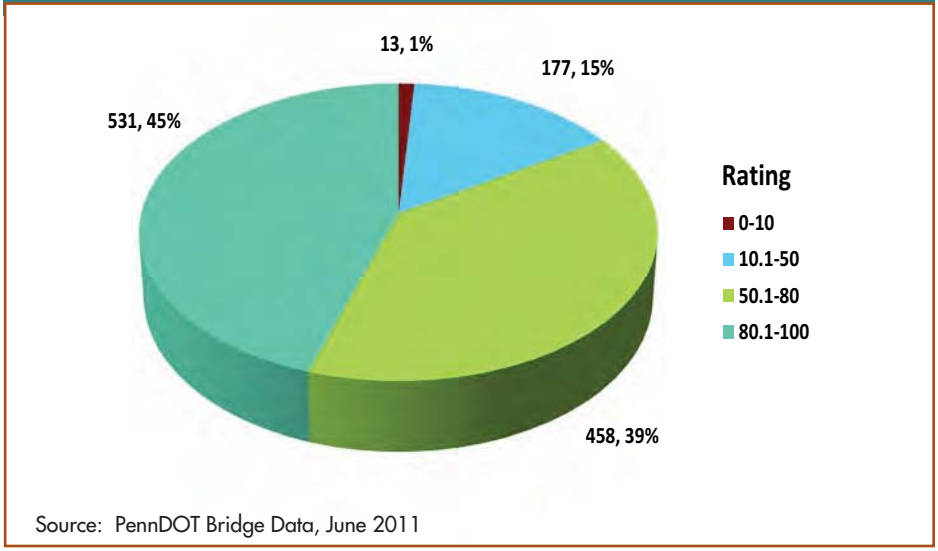
Photo credit: Kevin Smay

As of June 2011, of the 1,179 State-owned bridges in Allegheny County on state routes, 172 or 15% have a sufficiency rating that qualifies them for funding for replacement. Thirteen of these bridges have sufficiency ratings less than 10, which places them in serious need of repair.

As all bridges in the County get older, more will fall into the category of being in disrepair or as having substandard conditions. This will increasingly require substantial funding be targeted toward their upgrade, maintenance and replacement. Regular maintenance activities may extend the life of a bridge. But, with heavy dependency upon bridges to maintain connectivity countywide, bridges will get precedence over roads for funding as they deteriorate. The bridge projects do compete with other types projects on the TIP. Therefore, the poor condition of bridges in Allegheny County will negatively impact the amount of funds available for highway, road and other transportation projects for the foreseeable future.

Figure 4I.3 indicates that in 2011, 1% or 13 of the bridges in Allegheny County over 20 feet in length have a sufficiency rating of 10 or below. Those 13 bridges are listed in Table 4I.5 along with other Allegheny County bridges with sufficiency ratings under 10. In addition, there are another 177 bridges that are eligible for replacement and 458 that are eligible to rehabilitate or refurbish. In total there are 648, or almost 55% of this category of bridges located in the county, eligible for some type of repair. This is an incredible number of bridges that will need work over the next decade. These numbers do not account for the numerous bridges providing critical connectivity which are under 20 feet in length.

Figure 4I.3 – Sufficiency Rating of All Bridges in Allegheny County over 20 feet in Length



Source: PennDOT Bridge Data, June 2011

Over the past several years, funding for bridge rehabilitation and repair became insufficient because funding levels under Act 44, the most recent state transportation law, were not achieved. In late 2013, the Pennsylvania General Assembly passed Act 89 which is expected to improve the transportation funding outlook for several years. Acknowledging the dire condition of bridges in the state, Act

89 created a "bridge bundling" program. The aim of the program is to bundle state and/or locally owned bridges for the purpose of cost-efficient design and construction. Where local bridges are selected to participate, the local governments' match will be reduced by up to 100 percent.

In Allegheny County, 648 – or almost 55% of all bridges over 20 feet in length – are eligible for some type of repair.

CURRENT FUNDING AND PROJECT PROGRAMMING

Almost all major transportation projects, whether maintenance or new capacity projects, involve the use of Federal funds. Federal regulations require the SPC, as the designated Metropolitan Planning Organization (MPO) for the Pittsburgh Transportation Management Area, to develop

TABLE 4I.5 – Bridges in Allegheny County with a Sufficiency Rating < 10 as of June 2011

NAME	OWNER	TYPE	SUFFICIENCY RATING	STATUS
301118 AT WEST PARK	Railroad	Steel, Truss - thru	2	Posted
301067 N. AVE - BRIGHTON RD	Local	Steel, Girder riv/thru	2	Posted
BOSTON BRIDGE	State	Steel, Truss - thru	2	Open
@ INTERSECTION W/SR 1013	State	Steel, Truss - deck	3	Temp
OAKMONT BORO HULTON BR	Local	Steel, Truss - thru	3	Open
301014 IN HAYS #1	Local	Steel, I-beams	3	Posted
P09202 KENMAWR BRIDGE	Local	Steel, Girder riv/thru	3.5	Posted
1/2 MI NW OF SR 4002	State	Steel, Girder riv/thru	4	Open
125' S OF PROVOST ROAD	State	Concrete (in place), T-beams	4	Temp
P09203 WALL BOROUGH	Local	Steel, Girder riv/thru	4.2	Posted
@ INTERSECTION WITH SR 2075	State	Masonry, Arch deck - closed	5	Open
2656' NE OF SR 2053	State	Steel, I-beams	5.3	Posted
250' SE OF SR 0088	State	Concrete (in-place), T-beams	6	Temp
200' W OF INT. W/ SR 3004	State	Conc encased steel, I-beams	6	Open
PS01 PINE CR, S BR #1	State	P/S, Box beam - adj	6	Posted
MT05 MONTOUR RUN #5	State	P/S, Box beam - adj	6	Posted
SQ02 SQUAW RUN #2	Local	P/S, Box beam - adj	6	Open
HV04 HOMEVILLE CR #4	Local	P/S, Box beam - adj	6	Posted
449001 OVERLAND ST (XIO1)	Local	Steel, Girder riv/thru	7.4	Posted
301110 SWINBURNE BRIDGE	Local	Steel, Girder riv/thru	8.3	Posted

ROADWAYS AND BRIDGES

TABLE 4I.5 cont'd – Bridges in Allegheny County with a Sufficiency Rating < 10 as of June 2011

NAME	OWNER	TYPE	SUFFICIENCY RATING	STATUS
NEAR GLENWOOD INTERCHNG	State	Concrete (in place), Box culvert	9	Open
tl06 TURTLE CREEK #6	Local	Steel, Truss - thru	9.1	Posted
P50004 EMSWORTH - PT05	Local	Steel, Arch deck - open	9.3	Posted
441001 3/4 S/BEAV CO LINE	Local	Steel, Truss - thru	9.3	Posted
100' SE OF SR 3018	State	Concrete (in place), T-beams	9.6	Temp
1/2 MI SE OF SR 0050	State	Steel, girder riv/thru	9.8	Open
1/2 MI NW CORLISS TUNNEL	State	Concrete (in place), Slab (solid)	9.8	Open
200' NW OF SR 1034	State	Concrete (in place), T-beams	9.9	Posted

and maintain a TIP and a Transportation Long Range Plan (LRP). The TIP identifies the region's highest priority transportation projects, develops a multi-year program of implementation, and identifies available federal and non-federal funding for the identified projects. The TIP covers a four-year period of investment and is updated every two years through a cooperative effort of local, county, state and federal agencies, including participation by the general public. The LRP is similar in nature and covers a 20-year time frame. Transportation projects with any amount of federal funding must be included in both the fiscally-constrained SPC TIP and LRP.

Allegheny, Armstrong, Beaver, Butler, Fayette, Lawrence, Indiana, Greene, Washington, and Westmoreland Counties, and the City of Pittsburgh, are the ten counties and the city that comprise our region. Together they comprise the membership and geographic coverage of SPC, our MPO. Major transportation projects being pursued in Allegheny County must be part of official SPC transportation plans and programs to receive federal funding.

SPC's current TIP (Years 2013-2016) contains the following funding plan for highway and bridge projects in Allegheny County and the City of Pittsburgh. Highways and bridges receive funding from the "Title 1" Federal category, and bridges also receive state bridge bill funds.

SPC TIP Year 2013-2016 highway funding levels, including TIP funds for City, County and PennDOT projects in Allegheny County, total $141,838,295 average annual funding per year, and $567,353,180 total for this four-year TIP period. The significance of SPC funding levels is twofold. First, the SPC program is under limitations of fiscal constraint. Regional funding levels are a budgeted portion of the Commonwealth's overall transportation program. Therefore, the amount of federal and matching state funding is capped. Second, the amount of funding for Allegheny County including the City of Pittsburgh is also a function of the transportation needs of all the counties comprising the SPC Region. Within SPC's region, there are three PennDOT districts. Allegheny County is located in District 11-0 with Beaver and Lawrence Counties. PennDOT has established a set of criteria to ensure equitable distribution of anticipated Title I (or highway and bridge) funding. Criteria considered are data such as roadway lane miles, vehicle travel data, bridge condition, air quality attainment status, percent of urban population and accidents at rail-highway crossings. However, once the block of funds are received by a PennDOT district, the funds may not be targeted to specific counties based on those formulas. There are many reasons for this discussed in other sections of the Transportation Element and supplemental materials.

ROADWAYS AND BRIDGES

For updated information, you can view the TIP on SPC's website at *www.spcregion.org*. The TIP is adjusted frequently; checking SPC's website will update information included in this plan on the date the plan went to print. Once on SPC's website, click on Transportation, then on the TIP, then select the appropriate Allegheny County and City of Pittsburgh TIP data.

FUTURE TRAFFIC VOLUMES

For this plan, future highway use was projected to year 2040 by a traffic modeling methodology established to work in conjunction with SPC's transportation model. SPC provided its current highway network files and associated Cycle 9 data to be used as a base from which traffic produced by the proposed land use scenarios could be projected.

Base year traffic volumes on key routes in Allegheny County were compared. These volumes are shown in Table 4I.6. The largest increase in traffic volumes are near the 31st Street bridge on PA 28. These volumes are expected to grow by 80%. Other corridors that grow significantly are US 19 Truck (at the Liberty Tunnel), the Liberty Bridge, and Parkway North (I-279). Additional evaluation measures were also developed such as total vehicle miles traveled and total delay times among others. Further documentation on the methodology, as well as the complete set of results, can be found in the Supporting Documents.

In 2010 the full length of the Parkway West Corridor/I-376 is currently congested and backing-up during the AM and PM peak hours. By 2040 the Parkway West Corridor/I-376 is expected to be backed-up continuously for the entire day. It is obvious that we must plan to mitigate this projection.

The Parkway West (I-376), from Pittsburgh International Airport to Downtown Pittsburgh and on to Oakland, is the main spine highway of the County and the region. It is the lifeline for economic development opportunities, and it is the most heavily traveled highway in Southwestern Pennsylvania.

TABLE 4I.6 – 2040 Traffic Projections for PennDOT Congested Corridors

CORRIDOR	LOCATION	2010	2040	% CHANGE
I-376	Pittsburgh International Airport	62,800	76,900	22%
I-376	West of I-79	92,200	110,000	19%
I-79	Neville Island Bridge	60,400	77,300	28%
PA 28	31st St Bridge	46,100	83,000	80%
PA 65	McKees Rocks Bridge	43,900	45,300	3%
I-79	Wexford	79,200	104,200	32%
Parkway North (I-279)	McKnight Rd	77,600	96,200	24%
US 19 Truck (West Liberty Ave)	Liberty Tunnels	47,000	67,400	43%
PA 88 (Library Rd)	PA 51	23,500	27,700	18%
I-376	Fort Pitt Tunnels	137,500	138,300	1%
Liberty Bridge	PJ McArdle Roadway, Pittsburgh	56,300	78,100	39%
PA 8	Etna	36,700	43,100	17%
PA 51 (Saw Mill Run Blvd)	Liberty Tunnels	37,300	46,800	25%
US 19 (Banksville Rd)	Parkway West	47,200	38,800	-18%
PA 885 (Lebanon Church Rd)	PA 51	33,800	35,200	4%
Parkway East (I-376)	Squirrel Hill Tunnels	102,000	112,600	10%
PA 837 (Duquesne Blvd/8th Ave/Carson St)	Kennywood	30,200	32,900	9%
PA 121 (Greentree Rd/Cochran Rd)	Parkway West	28,100	30,700	9%
US 30	Westinghouse Bridge	27,100	33,300	23%
Business US 22	Monroeville Mall/Thompson Run Bridge	23,900	25,700	8%

Source: SPC Cycle 9 Model, URS

ROADWAYS AND BRIDGES

■ ISSUES AND ANALYSIS

This section examines ways to improve mobility on the County's roadways and bridges and to provide for effective maintenance.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- While the passage of new federal and state transportation funding bills in the past two years is certainly good news, there will be on-going funding concerns for transportation for years to come. The primary concerns will relate to changing funding priorities and the adequacy of funding sources to generate the projected levels of revenue to meet the most critical needs of the transportation system.
- Increasing congestion levels on corridors of concern such as I-376 (Parkways West and East), I-79 and Route 28 will limit opportunities and plans for economic development, and will result in more time spent in vehicles for freight operators and all citizens.
- Core areas such as Downtown Pittsburgh and Oakland have internal mobility problems that restrict movement and connectivity with other areas. Lack of a 'Transit First' (bus priority) traffic management policy negatively affects Downtown bus operations.
- Cost-effective congestion reduction strategies, such as traffic signal retiming projects, are underutilized. Other alternatives such as Bus Rapid Transit (BRT) and restructuring of downtown transit service to optimize transit circulation while reducing congestion may present viable options to congestion in Pittsburgh and Oakland.
- There is a lack of options such as bicycle and pedestrian facilities for intermodal and multimodal connectivity. These types of connectivity, through methods like Complete Streets, would create more options and modes for efficient travel.
- There is a lack of access management strategies on poorly functioning corridors. This situation can create unsafe conditions and high congestion levels.
- Disjointed or fragmented local municipal, County and State roadway ownership creates obstacles to effective road program strategies.
- There is a lack of attention to funding for 'Complete Streets', which have multi-modal functionality.

The following provides an understanding of these issues.

TRANSPORTATION FUNDING SHORTFALL

Despite new federal and state transportation laws, short- and long-term program stability is not assured.

The County and SPC are beginning to understand the ramifications of changes brought about by the two-year federal transportation bill passed in July 2012 and due to expire in September 2014. With the passage of the Moving Ahead for Progress in the 21st Century (MAP-21), the majority of federal transportation funding will go to roads and bridges in the National Highway Performance Program (NHPP) network, which consists of approximately 15 percent of nation's total roadway network miles. Meanwhile funding for the lower level federal aid roads in the Surface Transportation Program (STP) network, approximately 85 percent of the total transportation network miles, will be reduced to 30 percent of the total federal funding. Also problematic is the elimination of the federal highway bridge program, meaning many bridges will now compete with roadway projects for funding. This problem will be especially severe for those lower level roads on the STP network, where funding has been so drastically cut.

The federal transportation law also contains new rulemaking (e.g., creation of new performance measures) that will not be complete before the law expires on September 30, 2014. It is expected that transportation programs will continue to be funded through continuing resolutions while Congress formulates a new transportation law. Reductions in authorized funding levels could be a part of future federal transportation laws.

Complicating the funding picture at the federal level is the projected insolvency of the highway trust fund (HTF) by the end of 2014. The HTF is funded primarily by the federal gasoline tax (18.4 cents per gallon since the fund's creation in 1993). The HTF's buying power has been eroded by inflation, improved automobile fuel economy, and fewer miles being traveled by the American public in recent years. In order to meet MAP-21 authorized funding levels, a $15 billion transfer from the General Fund or a significant

increase in the federal gas tax would be required for 2015. Even greater amounts would be needed in future years.

Until recently, the situation at the state level was also extremely challenging. In 2007, a state transportation funding law known as Act 44 was passed. Much of the state's transportation budget was predicated on transfers from the Pennsylvania Turnpike and the tolling of I-80. When the bid to toll I-80 was denied, state funding dropped sharply. In 2011, the Transportation Funding Advisory Commission (TFAC) was formed to develop and evaluate new and innovative ways to deliver transportation services in the state.

In November 2013, many of the TFAC recommendations were adopted in the passage of Act 89, the state's new transportation funding law. For roads and bridges, the largest source of revenue will be generated through the gradual elimination of the cap on the average wholesale price of gas and diesel subject to the Oil Company Franchise Tax. By year five of the law, this source of revenue is expected to generate approximately $1.3 billion in revenue. The law also includes a variety of new and/or increased fines and fees.

The enactment of Act 89 should put the state in a better position to weather changes in federal funding policy. However, there may be continuing difficulties if the new law does not generate funding at projected levels and if the new revenue does not address the needs of the non-NHPP system. Additional challenges in the years to come include the fairness and sufficiency of the state liquid fuels allocation to counties and municipalities and the statewide allocation of transportation funding to the Commonwealth's MPOs.

INCREASING CONGESTION LEVELS ON CORRIDORS OF CONCERN

Congestion results when traffic demand approaches or exceeds the available capacity of the roadway network. Demand for vehicular travel in Allegheny County continues to rise as development expands to outlying areas. Road capacity changes throughout the day based on weather, work zones, traffic incidents or other non-recurring events. Building new capacity has not kept pace with travel demand due to lack of funds. The need for new capacity must be carefully weighed with many other factors because as more capacity is created, more vehicles miles are traveled, until the roadway system is congested again. Additionally, we are at the point where we cannot afford to maintain the system we already have. This cycle will continue until policies are put in place to help reduce congestion. There is a delicate balance between gridlock and acceptable levels of congestion. This plan points to pathways that can result in mitigation for this situation. But, the path will be long, and the needed changes will require open minds with a new way of looking at and solving issues. The new path will not be a business-as-usual approach.

CORE AREAS HAVE INTERNAL MOBILITY PROBLEMS

Congestion is present throughout Allegheny County, and that can be especially true in the core areas of Downtown Pittsburgh and Oakland. These locations are the major economic generators of the region, and are key locations for corporations and businesses as well as institutions of higher education, cultural facilities and medical facilities. Naturally these areas also experience a great deal of freight traffic. They are accessible via major highways, but also have an internal grid system that is served well by transit. The sheer volume of automobiles, buses, trucks, bicycles, and pedestrians and other service vehicles can cause severe mobility issues within the core areas. The congestion restricts movements and connectivity with other areas. Conflicts arise between modes and that can also limit movements, cause delays and create unsafe situations for transportation system users. In addition, accessing available parking locations can be an issue.

COST-EFFECTIVE CONGESTION REDUCTION STRATEGIES ARE UNDERUTILIZED

Roadway congestion can be temporarily reduced by increasing capacity. Increased capacity on a permanent basis is usually a time-consuming and costly endeavor. There are a number of cost-effective congestion reduction strategies that are underutilized. Examples of these are signal retiming projects, access management strategies, traffic incident

ROADWAYS AND BRIDGES

management and road/weather management. These strategies can all be cost-effective means to improve service on existing roadways.

LACK OF OPTIONS FOR INTERMODAL AND MULTI-MODAL CONNECTIVITY

Multi-modal and intermodal facilities are connection points where someone can access or link with another mode of travel. They can be facilities such as park-and-ride lots with transit service or parking lots with sidewalks and/or clearly marked bike routes or bike lanes. While Allegheny County's buses are equipped with bicycle racks and vehicle miles traveled and hours of delay are increasing, multi-modal and intermodal connections can make a difference and provide a choice of mode to the user. Overall, our transportation system lacks sufficient amounts of important connections between modes. Getting people out of their cars and traveling via another mode can reduce or slow the growth of congestion and the amount of delay.

LACK OF ACCESS MANAGEMENT STRATEGIES

Access Management is the proactive management of vehicular access points to land adjacent to all types of roadways. Good access management promotes safe and efficient use of the transportation network. US 19, 22 and 30 and SR 8, 28, 48, 50, 51, 60, 65 and 88 are highway corridors lacking good access management strategies. These roadways and the types of development along them, which tend to be strip development, are not designed for the high speeds of vehicles that travel these roads. Driveways and curb cuts are spaced very close together in some instances. This can cause safety issues due to poor sight distances and lack of turning lanes or controlled access points. In addition to these major roads coupled with strip development patterns, access management strategies could also benefit many local roads. Lack of good access management negates the investment made in highways and reduces their function.

Access Management encompasses a set of techniques that state and local governments can use to control access to highways, major arterials and other roadways. These techniques include Access Spacing, Driveway Spacing, Service Roads, Safe Turning Lanes, Median Treatments and Right-of-Way Management.

DISJOINTED ROADWAY OWNERSHIP

The pattern of roadway ownership throughout the County is very fragmented. PennDOT, the County and a local municipality can each own portions of the same roads as they wind throughout our County. Ownership is not necessarily based on functional class or volume of traffic. Allegheny County owns major roadways that have a higher classification and would typically be owned by the State. This situation results in the County maintaining roads that would be usually be paid for with State maintenance dollars. The County can wait in a long line and compete with State roads for those dollars, or spend County tax dollars to maintain roads. That type of spending makes our County taxes relatively higher than those of other counties and reduces the competitiveness of our County when attracting new population or business here. The current ownership pattern makes maintenance difficult and can result in uncoordinated and therefore more costly maintenance. The situation frequently increases the cost to perform basic functions such as snow removal and salting roadways during the winter months. County or State trucks must pass over roads they do not own to get to their area of responsibility. There are some cooperative agreements in place that result in entities trading snow removal duties with each other to rationalize the process, but sensible, rational road ownership patterns would be a big step toward making positive "good government" change (see Allegheny County Road and Bridge Evaluation Report in Supporting Documents).

Because Allegheny County owns more roads than all the other counties in the state combined, proportionately the County spends more County tax dollars on roads than other counties.

Of all the counties in Pennsylvania, Allegheny County has the highest number of roads owned by the County. But the largest percentage of all roads here are owned by local municipalities. These roads are maintained by approximately 130 public works departments, except in cases where municipalities have voluntarily joined together with their Councils of Government to share the responsibility of road maintenance, among other services. This large number of public works departments further complicates the coordination of maintenance activities within the County and naturally keeps costs high.

In some cases, some local municipalities cannot handle their responsibilities for the roads they own, due to limited budgets. There are also duplicative capital costs for municipalities in maintaining their roadways because

equipment, and staff the departments. Discontinuous sections of roadway requiring county, municipal and PennDOT personnel attention leads to inefficiencies, compared to a situation where continuous ownership would be more efficient.

NEED FOR 'COMPLETE STREETS'

The term 'Complete Streets' refers to the concept of making streets comfortable, safe and convenient for travel by auto, foot, bicycle and transit. This policy ensures that the entire right-of-way is routinely designed and operated to enable safe access for all users. Many of the streets within Allegheny County do not provide for users other than motor vehicles and buses. With the lack of funds available for routine maintenance activities, adding additional amenities for bicyclists and pedestrians can be difficult to require local municipalities, cities, the county, and the Commonwealth to include in their operating and roadway design budgets.

The Downtown-Oakland-East End Corridor BRT study is considering application of Complete Streets principles along Fifth and Forbes Avenues. More information can be found at www.GetTherePgh.org.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Efficiently connects all people to jobs, schools and activities
- Supports mobility of existing communities
- Provides efficient access to proposed development
- Facilitates the movement of people, services and freight
- Is well maintained in a cost effective and rational manner, and
- Utilizes smart techniques and strategies to achieve goals while stretching available road and bridge funds.

OBJECTIVES OF THE PLAN

The objectives of the Roadways and Bridges portion of the Transportation Plan are to:

A. Support the Future Land Use Plan through strategic prioritization of transportation system maintenance and operations. Funds for new road capacity will be scarce, and those types of projects must be considered very judiciously within the framework of the guiding principles of the Plan.

B. Target transportation investments to support job and housing growth as shown on the Future Land Use map.

C. Use demand management strategies to reduce highway congestion. Encourage options of telecommuting, ridesharing, staggered work weeks, flex-time, intelligent transportation systems and many other related techniques.

D. Coordinate transportation systems, modes and facilities to increase connectivity and mobility for all, including car, truck, barge, pedestrian, transit, rail, air, roads and bridges, bicycle, etc.

E. Protect and enhance the environment by promoting energy conservation, emissions reduction and use of alternative fuels.

F. Review County road and bridge ownership in addition to operation and maintenance practices to identify ways to improve efficiencies.

G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.

The following provides an understanding of the objectives.

A. Support the Future Land Use Plan through Strategic Prioritization of Transportation System Maintenance and Operations

The 'Places' designated in the Future Land Use Plan will be accessible via the traditional County system of circumferential belt roadways. Roadways will provide

vital linkages between Places to facilitate commuting to jobs and schools, and for shopping, entertainment, and cultural and recreational trips. This will be accomplished by utilizing as many mode options as are practical.

To provide good mobility and connectivity from Place to Place and to further connect these Places to the region, we need to maintain our existing roadway system and provide intermodal and multi-modal connections where feasible. New capacity projects would be generally limited to transit and private development of access roadways to new development. Similarly, upgrades to the system of limited-access highways should be undertaken. In general, these roadway projects should:

- Identify and promote improvements on congested corridors that are consistent with *Allegheny Places*.
- Identify projects to improve the capacity of existing roadways consistent with *Allegheny Places*. Make sure complete streets are incorporated with accommodations for ADA, walkers, bicyclists, transit users, etc.
- Perform access management studies for corridors (see full list in next paragraph) designated in the Future Land Use Plan, and adopt access management ordinances.
- Develop modified grid street systems for best circulation in designated Places where they are feasible within topographic constraints; and once again, provide for complete streets.
- Ensure that Places can be accessed by existing roadway systems and other transportation modes.

In addition, a key recommendation of the Plan is the completion of access management plans and their implementation for U.S. Routes 19, 22 and 30, and PA Routes 8, 28, 48, 50, 51 60, 65 and 88. Access management measures will allow these arterial roadways to function effectively as thoroughfares and provide a high level of accessibility for Places, as well as for current and future development along each of the identified roadway corridors.

Places themselves need to have effective systems of roadways and complete streets to allow circulation within each Place (by various modes) and to connect to external systems of roads, transit and trails. The Future Land Use Plan shows a number of locations for new Places where a modified street grid would work, but most are existing centers, to be reinforced and revitalized. For existing centers, the challenge will be to optimize the existing roadway system so that a balance is achieved between the movement of motorized vehicles and the establishment of transit, pedestrian and bicycle-friendly streetscapes, which are key to retaining current residents and attracting new residents, employment and activity.

Most Places are to be closely-knit, mixed-use centers of residences, shopping, employment, community facilities and open space. For new Places, a hierarchy of roads should be planned to provide for the intended walkable and transit-supportive character for these locations. Arterial, collector, boulevard, commercial, residential and alley types of roadways should be in the mix, with appropriate functions, design speeds, rights-of-way and cross-sections. A grid or modified grid of streets with small blocks is widely recognized as the most supportive for pedestrian and bicycle mobility and creates the most flexible kind of network for cars, trucks and buses as well.

Master plans, design guidelines and development codes should be completed for new Places in particular, to ensure that roadways are constructed as 'complete streets', with sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, provisions for transit stops and bicycle movement and, in most cases, on-street parking.

B. Target Transportation Investments to Support Job and Housing Growth

Transportation investments should be targeted to support the job and housing growth identified on the Future Land Use map. SPC has set up the following investment categories that can help guide where

ROADWAYS AND BRIDGES

transportation funding is spent, based on desired development patterns and need for improvements within the County.

Capital Maintenance

- Roadway Preservation or Reconstruction
- Bridge Preservation and Reconstruction/Replacement

Traffic Operations and Safety

- **Efficiency/Operations** – Projects that improve traffic flow, reduce congestion, and improve the operational characteristics of the existing transportation system.

- **Travel Demand Management** – Projects such as carpooling, vanpooling, emergency ride-home programs, telecommuting, commuter benefit strategies, parking incentives, park-n-ride lots, job access reverse commute programs, and other nontraditional types of projects that work to affect the demand side of transportation systems.

- **Safety** – While virtually every transportation project improves safety by bringing the transportation network up to current design standards, these are stand-alone projects to address specific safety issues.

Several major roadway improvement projects are recommended for Allegheny County, although the effects of these projects will be felt on a regional level. Table 4I.7 shows the projects from the TIP and SPC's 2040 Transportation and Development Plan which will assist in the advancement of the Future Land Use Plan in Allegheny County. The following projects from the 2030 Transportation and Development Plan have been completed. For more information on the 2030 Plan, please visit *www.spcregion.org*

- Parkway West
  - Interstate 376 Designation
  - Campbells Run Road
  - Widening and Tunnel Upgrades
  - I-79 / I-376 Interchange Ramps
- I-79
  - Complete Warrendale Interchange
- Parkway East
  - SR 286
- Route 28
  - I-279 Connector
  - Etna Interchange
  - Fox Chapel Interchange
  - Third Lane Widening north of Harmarville
- Route 51
  - West End Bridge Direct Connection
- Route 837
  - McKeesport / Duquesne Bridge Ramps
- Major Bridge Maintenance / Upgrades
  - Hulton Bridge
  - Rankin Bridge
  - Mansfield Bridge
  - 30 / Greensburg Pike Bridge
  - Roberto Clemente / Andy Warhol / Rachel Carson Bridges
  - 10th Street Bridge

There are also a number of projects from the 2030 Plan undertaken by the City of Pittsburgh that have been completed or programmed for completion that can be referenced at *www.spcregion.org*

The PA Turnpike Commission's Mon Fayette Expressway, completed in July 2012, stretches 70 miles southward from Allegheny County through the Monongahela River Valley to Interstate 68 near Morgantown, West Virginia. The highway will improve access to economically depressed Mon River towns, and support brownfield reclamation and redevelopment efforts in these communities. Additional funding to complete the project sections in Allegheny County is being sought through innovative means by the PA Turnpike Commission. Privatization or public/private partnership arrangements are being explored. The funding source for PA Turnpike projects is separate from the sources for municipalities, the County and PennDOT, although Turnpike projects must appear on the TIP.

The Carrie Furnace site is comprised of over 90 buildable acres of eco-industrial/flex-office park that will complement the riverfront adjacent Homestead

ROADWAYS AND BRIDGES

TABLE 4I.7 – 2040 Long Range Transportation and Development Plan, Allegheny County Projects

Project Corridor	Description	Investment ($M)
Roadway Capital Maintenance		
SR 28	Creighton to Butler County Line	$24.8
SR 50	Washington County Line to Miller Run	$15.0
SR 65	Ft. Duquesne Bridge to California Ave	$45.0
SR 3069	Liberty Tunnel Rehabilitation	$39.9
Allegheny Riverfront Infrastructure Projects	Allegheny Riverfront Infrastructure Projects	$38.4
Pittsburgh CBD Street Reconstruction	Pittsburgh CBD Street Reconstruction	$113.4
Roadway Capital Maintenance Reserve Line Item for Allegheny, Beaver and Lawrence Counties	Roadway Capital Maintenance Reserve Line Item for Allegheny, Beaver and Lawrence Counties	$1,922.8
Traffic Operations and Safety		
U.S. 19	Pine Creek to Wallace	$19.6
S.R. 51 / S.R. 88	Intersection Improvements	$18.1
I-279	Parkway North Operational Improvements	$11.6
I-376	Parkway East Operational Improvements	$5.8
I-376	Parkway West Operational Improvements	$16.9
City of Pittsburgh Traffic Signal System Upgrades	City of Pittsburgh Traffic Signal System Upgrades	$73.6
Painters Run Road	Bower Hill Rd to Robb Hollow	$22.7
Traffic Operations and Safety Line Item for Allegheny, Beaver and Lawrence Counties	Traffic Operations and Safety Line Item for Allegheny, Beaver and Lawrence Counties	$1,607.7

TABLE 4I.7 cont'd – 2040 Long Range Transportation and Development Plan, Allegheny County Projects

Project Corridor	Description	Investment ($M)
Bridge Capital Maintenance		
S.R. 8	Butler Street Bridge over Heths Run	$11.3
U.S. 30	Ardmore Blvd Bridge over Electric Ave	$12.0
S.R. 51	West Carson Street Viaduct Replacement	$16.1
S.R. 65	Marshall Interchange Rehabilitation	$59.3
S.R. 2085	Birmingham Bridge Rehabilitation	$34.9
S.R. 3069	Liberty Bridge Preservation	$41.0
S.R. 3104	McKees Rocks Bridge Phase 2	$18.0
Glenwood Interchange Bridges	Glenwood Interchange Bridges	$25.7
Triboro Interchange Bridges	Triboro Interchange Bridges	$23.5
Roberto Clemente Bridge Rehabilitation	Roberto Clemente Bridge Rehabilitation	$23.0
Andy Warhol Bridge Rehabilitation	Andy Warhol Bridge Rehabilitation	$23.0
Rachel Carson Bridge Rehabilitation	Rachel Carson Bridge Rehabilitation	$23.0
Charles Anderson Bridge	Charles Anderson Bridge	$19.8
Coraopolis Bridge Rehabilitation	Coraopolis Bridge Rehabilitation	$16.0
Dookers Hollow Bridge	Dookers Hollow Bridge	$15.0
Fleming Park Bridge Rehabilitation	Fleming Park Bridge Rehabilitation	$15.0
Glenwood Bridge Rehabilitation	Glenwood Bridge Rehabilitation	$19.0
Greenfield Avenue #39 Bridge Replacement	Greenfield Avenue #39 Bridge Replacement	$18.8
Greensburg Pike Bridge Reconstruction / Turtle Creek	Greensburg Pike Bridge Reconstruction / Turtle Creek	$23.2
Mansfield Bridge Rehabilitation	Mansfield Bridge Rehabilitation	$35.7
S. 10th Street Bridge Rehabilitation	S. 10th Street Bridge Rehabilitation	$24.4
Sixteenth Street Bridge Rehabilitation	Sixteenth Street Bridge Rehabilitation	$18.0
Bridge Capital Maintenance Reserve Line Item for Allegheny, Beaver and Lawrence Counties	Bridge Capital Maintenance Reserve Line Item for Allegheny, Beaver and Lawrence Counties	$3,859.9
New Capacity, Highways, and Bridges		
S.R. 28	Widening / I-579 to East Ohio Street	$13.6
S.R. 28	Troy Hill to 31st Street Bridge	$38.0
S.R. 286	Widening, S.R. 22 to S.R. 380	$93.2
S.R. 2031	Lincoln Way Improvement	$10.1
S.R. 2082	Hulton Road Bridge Replacement	$101.2
Campbells Run Road Improvements	Campbells Run Road Improvements	$20.8
Other New Capacity Projects for TIP Period for Allegheny, Beaver and Lawrence Counties	Other New Capacity Projects for TIP Period for Allegheny, Beaver and Lawrence Counties	$18.7

Note: **The 2040 plan is now available on the SPC website, www.spcregion.org. There are updates to the region's long range plan (LRP) every two years. Allegheny Places will be a continually updated plan, and will incorporate changes at regular intervals, but those changes may appear on the SPC website earlier.**

Waterfront development. The Redevelopment Authority of Allegheny County (RAAC) is encouraging the incorporation of the principles set forth by U.S. Green Building Council (USGBC) including promoting the sustainability in how buildings are designed, built, and operated (including LEED certification for all future development on the site).

Access to the proposed site is to be provided via a full access signalized intersection which will connect the Carrie Furnace site to Kenmawr Avenue directly across from the southbound ramps to Rankin Bridge, creating a new four-legged intersection. A second site access may be pursued at a later date in conjunction with the additional development that is anticipated. This access, if pursued, will require refurbishment of the existing Hot Metal Bridge to provide vehicular access to SR 0837 via an access drive that will connect to Waterfront Drive, just north of the existing structure.

In addition to the existing sidewalk network and numerous transit routes that serve the project site, there are other multimodal components of the proposed site. The site access roadway will contain a 10' bicycle lane / side path that will connect directly to the proposed site. Once on site, a trail will be constructed that will run along the river and connect to the Braddock and Rankin areas. There will also be a connection along the railroad track to Old Brown's Hill Road.

In addition to constructing a new trail, the RAAC also anticipates incorporating "sharrows" on roadways towards the Rankin and Braddock areas. In future phases of development, this trail will possibly traverse the Hot Metal Bridge and connect to the Waterfront area and the Great Allegheny Passage Trail.

The proposed site also has the potential for freight / river port access. A main line for CSX travels along the northern boundary of the site. Allegheny County has been in preliminary negotiations with CSX for potential design incorporations of rail access onto the site. The site currently has 6 river cells available for future usage. The current Waterfront Permit allows for each cell to support between 3 to 6 barges a piece. The RAAC has currently engaged an existing barging company to occupy these structures and maintain them. Preliminary discussions have also been held with the Port Authority of Allegheny County to offer shuttle service from the Swissvale Station to the site.

C. Use Demand Management Strategies to Reduce Highway Congestion

Demand Management Strategies can result in a more efficient use of the County's transportation system and resources. Table 4I.8 lists several possible strategies to employ throughout the County to assist in reducing congestion as well as unsafe travel conditions.

D. Coordinate Transportation Systems, Modes and Facilities to Increase Connectivity and Mobility

A common roadway attribute for all the Future Land Use Plan Places are signalized intersections. Upgrading signalized intersections, along with an ongoing retiming and coordination program, will yield the most cost-effective results of any other type of transportation improvement.

Numerous Federal Highway Administration (FHWA) studies have shown how a dedicated traffic signal coordination program can yield consistent benefits in terms of reduced travel time and increased fuel savings. On average, the retiming of one signalized intersection can result in an annual fuel savings of 4,000 gallons of fuel. At current fuel prices, this translates into a savings of $14,760 per year assuming $3.69 per gallon. This savings is likely to increase with rising fuel prices.

SPC has a full time staff person to assist municipalities with signal retiming projects. Effective use of this available resource is important and can be requested by contacting SPC (*www.spcregion.org*)

E. Protect and Enhance the Environment by Promoting Energy Conservation, Emissions Reduction and Use of Alternative Fuels

Clean air is an important part of a healthy environment. Unfortunately, many industrial and transportation activities that sustain our economy can also produce air pollutant emissions which degrade our air quality and threaten our environment. Safeguarding our air from such contamination is an important priority of PennDOT and Allegheny County.

ROADWAYS AND BRIDGES

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program is a funding mechanism that provides funds for congestion mitigation transportation projects that provide air quality benefits by reducing emissions. This program currently is valued at approximately $90 million for each TIP period. Criteria have been developed to determine eligible TIP projects (see Table 4I.9 for CMAQ Eligible Project Categories). SPC performs Air Quality conformity analysis for projects on the TIP and in the LRP to assist in determining project eligibility. These projects include the following:

- Diesel Engine Retrofit
- Signal Upgrades
- Traffic Flow Improvements
- Travel Demand Management Strategies
- Ride Sharing Programs
- Pedestrian and Bicycle Programs

TABLE 4I.8 – Demand Management Strategies

Alternative Work Schedules	Flextime, Compressed Work Week (CWW), and staggered shifts
Bike/Transit Integration	Ways to integrate bicycling and public transit
Bus Rapid Transit	Bus Rapid Transit (BRT) systems provide high quality bus service on busy urban corridors
Carsharing	Vehicle rental services that substitute for private vehicle ownership
Cycling Improvements	Strategies for improving bicycle transport including safe, separate facilities
Flextime	Flexible daily work schedules
Guaranteed Ride Home	An occasional subsidized ride home for commuters who use alternative modes
Individual Actions for Efficient Transport	Actions that individuals can take to increase transport system efficiency
Nonmotorized Facility Management	Best practices for managing nonmotorized facilities such as walkways, sidewalks and paths
Nonmotorized Planning	Planning for walking, cycling, and their variants
Park & Ride	Providing convenient parking at transit and rideshare stations
Pedestrian Improvements	Strategies for improving walking conditions
Ridesharing	Encouraging carpooling and vanpooling
Shuttle Services	Shuttle buses, jitneys and free transit zones
Taxi Service Improvements	Strategies for improving taxi services
Telework (Telecommuting, Distance-Learning, etc.)	Use of telecommunications as a substitute for physical travel
Traffic Calming	Roadway designs that reduce vehicle traffic speeds and volumes

Source: Victoria Transport Institute

- Education and Outreach
- Transit and Public Transportation Programs
- Inspection and Maintenance Programs
- Extreme Cold Start Programs
- Alternative "Clean" Fuels
- Flex-Time and Telecommuting

The County can inform and educate the public on ways to protect the environment. Allegheny County can lead by example and, for instance, use alternative fuels in its vehicle fleet and continue to advance CMAQ projects in the process described above.

F. Review County Road and Bridge Ownership to Identify Ways to Improve Operation and Maintenance Efficiencies

The County owns and maintains over 810 linear lane miles of roadways. In addition, there are 130 municipalities that own and maintain roadways. This large number of public works departments complicates the coordination of maintenance activities in the county.

The ownership patterns are disjointed and should be reviewed to determine the best way to rationalize the system. One option for defining road ownership within the County is to use the Federal Functional Classification System as a guide. If this classification system is used, the State would maintain, at a minimum, all Interstate Highways, other Freeways and Expressways, other Principal Arterial Highways and Minor Arterials outside the boundaries of the City of Pittsburgh. In addition, it assumes the State will maintain all of the major highway/bridge river crossings within these functional classifications, whether inside or outside of the City of Pittsburgh limits. Under the current road ownership situation in Allegheny County, the State owns highways in all functional classifications including local roads.

Under this proposal, Allegheny County Public Works road ownership would consist of a combination of Urban Collectors or Rural Major Collectors, Rural Minor Collectors and Local Roads. These same roadway classifications could also be owned by the City of Pittsburgh or local municipalities.

In addition to the roadways mentioned above, the following bridges should also be owned by PennDOT, based on their functional classification and traffic volumes:

- Mansfield Bridge
- Homestead Grays Bridge
- Rankin Bridge
- Glenwood Bridge
- Rachel Carson Bridge
- Andy Warhol Bridge
- Roberto Clemente Bridge
- Sixteenth Street Bridge
- South Tenth Street Bridge
- Windgap Bridge

(See the full report, Allegheny County Road and Bridge Ownership Valuation Report in the Supporting Documents.)

G. Use Efficient and Creative Funding Strategies

Construction of new roadways for Places is likely to be completed by a number of different means. Roadways for new Places may be built by private developers in accordance with locally-adopted master plans, design guidelines and development codes, and then dedicated to a municipality. Some projects may be constructed or upgraded as part of public-private partnerships. For example, there are investment opportunities associated with the Downtown to Oakland Bus Rapid Transit (BRT) project.

The Commonwealth of Pennsylvania has legislation in place to govern the use of Public/Private Partnerships (P3s) to fund public improvements.

ROADWAYS AND BRIDGES

TABLE 4I.9 – CMAQ Eligible Project Categories

Transit and Public Transportation Programs	CMAQ funds may be used to support the use of public transportation: service or system expansion; provision of new transit service; and financial incentives to use existing transit services.
Traffic Flow Improvements	This strategy reduces emissions by promoting efficient traffic movement, thereby reducing unproductive travel delays and emissions resulting from engine idling. There are many ways to reduce and improve air quality by improving traffic flow.
Travel Demand Management Strategies	The demand for transportation can be moderated by adopting policy incentives that minimize the aggregate number of single occupancy vehicle trips and miles traveled.
Ride Sharing Programs	Ride sharing programs are designed to increase vehicle occupancy in an attempt to reduce emissions. This can be achieved by minimizing the total number of vehicles on the road and these programs are most effective for commuting purposes.
Pedestrian and Bicycle Programs	No mobile source emissions are produced by travelers using bicycles or walking; therefore, programs that promote these options are eligible for CMAQ funds.
Education and Outreach	CMAQ funding may be used to increase public knowledge of transportation-related emissions and opportunities to reduce them through mitigation strategies and improved transportation choices.
Inspection and Maintenance Programs	Poor engine maintenance and malfunctioning of pollution control equipment can significantly increase the amount of emissions released per vehicle. Consequently, CMAQ funds may be used to introduce, conduct and provide start-up costs for automobile inspection and maintenance programs.
Extreme Cold Start Programs	CMAQ funds may be directed towards the development and implementation of programs that are designed to reduce or mitigate excessive cold start emissions.
Alternative 'Clean' Fuels	For CMAQ purposes, an 'alternative' fuel must reduce emissions to be eligible. These fuels can include natural gas, ethanol, methanol, electricity and liquefied propane gas.
Public/Private Partnerships	Partnerships between public and private enterprises can leverage scarce funding resources by allowing private firms to own or operate a service developed with public funds.
Experimental Pilot Projects	Experimental pilot projects are innovative initiatives that are designed to provide a funding mechanism for well thought out strategies that extend beyond current experience and are not explicitly eligible under the law.

Source: Federal Highway Administration

PUBLIC TRANSIT

■ TODAY'S CONDITIONS

Despite slow population growth and increasing suburbanization, mass transit remains a vital public service to residents and businesses in Allegheny County. We have a higher percentage of people (young people in particular) who commute to work in downtown by transit than most other places. According to the Pittsburgh Downtown Partnership, 54% of the workers commuting to Downtown Pittsburgh use public transit, a higher percentage than most other urban areas. In non-CBD travel, roughly 25-30% of travelers to Oakland use transit.

PORT AUTHORITY

The Port Authority of Allegheny County provides public transportation services throughout the County, plus minor portions of Armstrong, Beaver, Butler, Washington, and Westmoreland Counties – a 775 square-mile service area. In Fiscal Year 2012, the Port Authority provided 65,329,230 passenger trips (see Table 4I.10).

The following is a summary of Port Authority operations as of February 2012:

- Utilizing a fleet of about 700 buses, all equipped with bicycle racks, and 83 light rail vehicles, the Port Authority operates 98 local and express fixed bus routes and four light rail routes. Port Authority also owns and operates the Monongahela Incline and leases the Duquesne Incline to the nonprofit Society for Preservation of the Duquesne Heights Incline; Port Authority service is provided seven days a week with many routes operating between 6am and 1am.

- An extensive network of local buses serving nearly all City of Pittsburgh neighborhoods and most municipalities of Allegheny County. While service connects these communities to downtown Pittsburgh, a few routes also provide direct access to Oakland. Some routes provide feeder service with links to mainline routes to Pittsburgh. Other routes provide crosstown service, the most notable of which is 54 route linking the South Side, Oakland, Strip District and North Side without passing through downtown Pittsburgh.

- The Martin Luther King, Jr. East Busway is a 9.1-mile bus rapid transit guideway linking downtown Pittsburgh and Oakland and the City of Pittsburgh's East End

Photo credit: Richard Layman

TABLE 4I.10 – Public Transit Ridership, FY 2012

TRANSIT MODE	PASSENGERS
BUS	55,704,706
LRT	7,130,433
MONONGAHELA INCLINE	723,478
ACCESS	1,770,613
TOTAL	**65,329,230**

neighborhoods as well as many of Allegheny County's eastern suburbs. Most of its nine stations interface with local bus routes and many of the East Busway routes provide convenient transfers to Port Authority's light rail transit (LRT) system in downtown Pittsburgh. At Penn Station, riders can transfer to other regional operators serving Pittsburgh as well as to Amtrak and Greyhound.

- The West Busway is a five-mile fixed-guideway facility for buses that connects communities in western Allegheny County with downtown Pittsburgh. The West Busway also links these areas to Pittsburgh International Airport via Route 28X. It has great potential for a large park and ride, intercept garage at Carnegie utilizing existing busway ramps to ease congestion on Parkway West.

- The South Busway is a 4.3-mile bus facility that connects downtown Pittsburgh and the South Hills, in cluding the South Side Trail; it interfaces with the South Hills and Library 'T' lines.

- The 26.2-mile South Hills LRT system, also known as the 'T', links downtown Pittsburgh with Station Square and southern communities in the City of Pittsburgh and Allegheny County. The downtown portion of the system is a subway. In addition to several park-and-ride lots in the South Hills, it provides intermodal connectivity to the South Busway, South Side Trail south of downtown Pittsburgh and to East Busway and West Busway routes in downtown Pittsburgh. Intermodal connections to a parking garage and the Eliza Furnace Trail are possible at the First Avenue Station. The North Shore Connector opened for revenue service on March 25, 2012 and preliminary ridership data suggests a 30% increase in average weekly ridership.

- A 1.1-mile High Occupancy Vehicle facility through the Wabash Tunnel connects Route 51 (at Woodruff Street) and West Carson Street (at Station Square). It is intended as a reliever for Route 51 and Parkway West traffic to South Side and Downtown.

- The Monongahela Incline linking Station Square with Mount Washington provides connections to the LRT system and the South Busway. The Duquesne Incline, operated by the Society for the Preservation of the Duquesne Heights Incline and located about one mile to the west of the Monongahela Incline, also serves Mt. Washington and connects to bus routes, some of which operate on the West Busway.

- ACCESS is a shared ride transportation service for senior citizens and persons with disabilities.

- There are nearly 13,000 park-and-ride lot spaces at 52 locations available to Port Authority users. The locations of the park-and-ride facilities are shown on Map 4I.4. The locations of the park-and-ride facilities are shown on Map 4I.4.

RIDERSHIP TRENDS

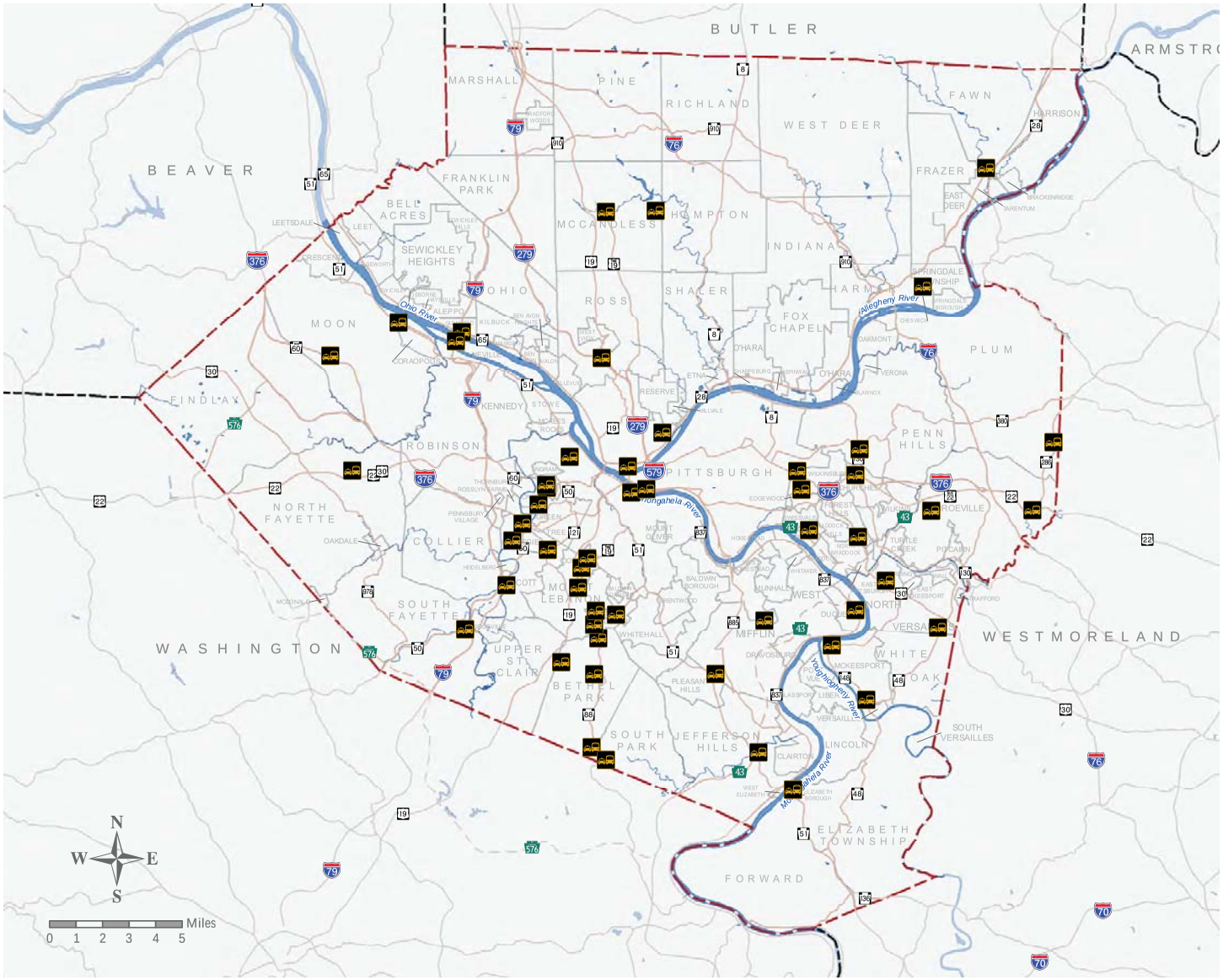
Each weekday, transit provides approximately 230,000 passenger trips. While the share of workers that use public transportation to commute, as a percentage of all workers in the County, has decreased from 24% in 1960 to 9.9% in 2010 overall (based upon US Census journey to work estimates), the percentage of workers that commute to the County's urban core is between 25% (Oakland) and 54% (Downtown) of all commuting trips. This high rate of transit commuting has been facilitated by major capital improvements such as the East Busway, the South Busway, the West Busway, and the rehabilitation of the South Hills light rail system as well as an extensive network of local buses linking most parts of Allegheny County with downtown Pittsburgh.

Figure 4I.4 shows that use of transit is highly dependent on what area is being traveled to. The Central Business District (CBD) captures 36.8% of the trips via transit, whereas in the County as a whole, only 8.9% of the trips are made via transit (based upon SPC's 24-hour 2013 trip estimates).

Changes to service levels occurred in 2007 due to funding constraints. In June 2007, Port Authority implemented a 15% reduction in service. This was followed by another 15% reduction in service in March 2011. In July 2007, the state passed Act 44, which established additional future operational funding mechanisms for the state's transit agencies, including the authority to establish a local dedicated tax assessed on rental cars and poured drinks. However, because the law did not generate the expected level of funding, the Pennsylvania General Assembly passed legislation at the end of 2013 that provides new revenues for mass transit.

Park and Ride Lots

ALLEGHENY PLACES
THE ALLEGHENY COUNTY COMPREHENSIVE PLAN



Park and Ride Lots

LEGEND

Park and Ride Lots

- Park and Ride Lots

Base Map

- Allegheny County Boundary
- Municipal Boundaries
- Bordering Counties
- Hydrology
- Major Roadways
- Proposed Roads

DATA SOURCES

Allegheny County
Southwestern Pennsylvania Commission
Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
Port Authority of Allegheny County
National Hydrography Dataset

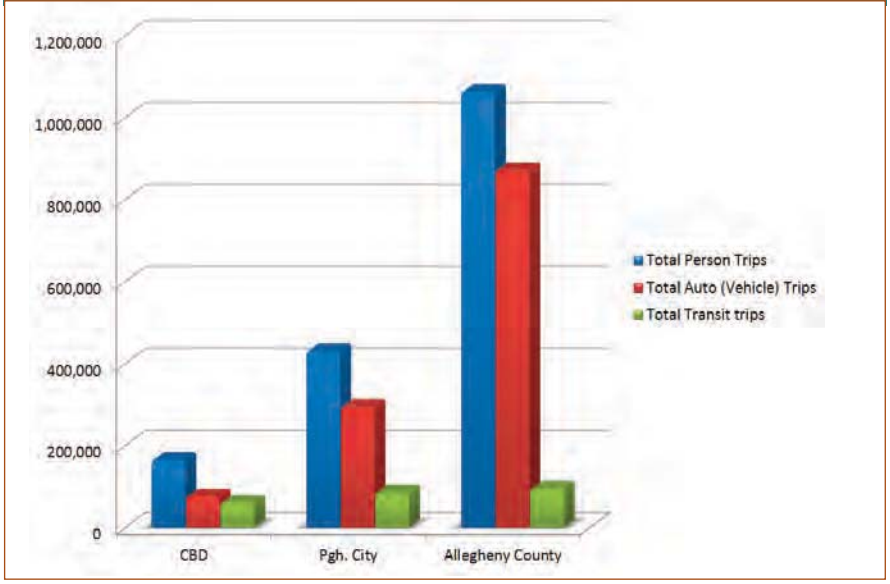
August 2013 Update

This map was prepared for:
Rich Fitzgerald, Allegheny County Executive
Allegheny County Economic Development - Planning Division

Map 4I.4

PUBLIC TRANSIT

Figure 4I.4 – Transit Ridership by Area



Source: SPC

Also contributing to the high rate of transit usage is the high number of transit dependent individuals in Allegheny County. According to the 2010 Census, there were 75,342 households (14.4%) in Allegheny County who did not have vehicles. In 2010, Allegheny County accounted for 10.6% of the households in the Commonwealth. This and the following data indicate that Allegheny County's residents are more dependent on transit than the region as a whole, the state, the nation and most metro areas.

In Allegheny County, there is a greater diversity of income groups using transit than in other similarly-sized metropolitan areas due to the reasons listed below.

- Port Authority's LRT and busway systems provide service which is time competitive with automobile travel
- The relatively high cost of parking in Downtown and Oakland makes transit, even with its current fares, an economic alternative to automobiles
- The relatively limited highway network results in severe congestion on key arterials leading to Downtown and Oakland, thus reducing the convenience of commuting by automobiles
- The continued prominence of Oakland and Downtown as a share of regional employment makes them also the locations where transit is most effective
- Many universities and colleges generate significant ridership from students and staff associated with these institutions through use of free transit passes.

Here are some other percentages of 0-vehicle households:

City of Pittsburgh	25.6%
10-County SPC Region	12.6%
Philadelphia County	33.6%
5-County SEPTA Service Area	16.7%
Pennsylvania	11.4%
United States	8.9%

Other Benchmark Metro Area Counties:

Atlanta (Fulton County)	12.2%
Cleveland (Cuyahoga County)	13.1%
Denver County	12.6%
Detroit (Wayne County)	12.7%
Houston (Harris County)	7.1%

PUBLIC TRANSIT

Milwaukee County	13.4%
Minneapolis (Hennepin County)	10.4%
St. Louis	6.3%
Seattle (King County)	9.0%

OTHER PUBLIC TRANSIT PROVIDERS

Public transportation providers in six surrounding counties offer routes that serve destinations in Allegheny County, primarily downtown Pittsburgh. These operators have routes converging at Penn Station on the Martin Luther King, Jr. East Busway, facilitating transfers with the Port Authority's routes and with other regional services. Mountain Line Transit, taking over a route discontinued by Greyhound in 2005, operates a route between Morgantown, WV and Pittsburgh. Additionally, there are numerous other agencies, organizations and schools that directly or indirectly provide transportation for their clients and customers.

SPC, through the Regional Strategic Vision for Public Transportation Serving Southwestern Pennsylvania, has provided several recommendations for improving the regional transit operation. These include a seamless fare box collection system, which would allow passengers to travel between modes and operators, Transit-Oriented Developments, and Intelligent Transportation Systems,

which improve management and operations of transportation systems through the use of computers and communication technology. Currently five regional transit providers are participating in the program.

Downtown Pittsburgh is an intermodal hub where County residents can access both rail and bus intercity transportation services as well as Port Authority transit vehicles at Penn Station on the East Busway.

Greyhound

A new intermodal facility includes access to Greyhound buses, parking, transit and the Amtrak train station and is adjacent to the PAAC East Busway. The Greyhound Terminal is in the new Grant Street Transportation Center located between Liberty and Penn Avenues at 11th Street in downtown Pittsburgh. Greyhound's routes serving Pittsburgh include direct service to New York City, Philadelphia, Washington, D.C., Harrisburg, State College, Wheeling, Erie, Columbus, St. Louis, Kansas City, Denver, Cleveland and Chicago.

MegaBus

Megabus, a new low-cost intercity bus company, began serving Pittsburgh in 2010. A year later, Megabus designated Pittsburgh as one of its operating hubs and is planning an additional stop. For every trip Megabus offers a small number of very low fares at $1.00 and $5.00. However, even Megabus' highest fares are typically less than those of Greyhound and Amtrak. To keep fares low, Megabus routes typically avoid smaller communities between large endpoint cities and, in most locations, do not use terminals. Megabus's current Pittsburgh stop is the David Lawrence Convention Center. Megabus' routes serving Pittsburgh include direct service to New York City, Philadelphia, Washington, DC, Harrisburg, State College, Morgantown, Cleveland, Toledo, Detroit and Ann Arbor.

Amtrak

From its station at Liberty and Grant Avenues in Downtown Pittsburgh, Amtrak serves Allegheny County with two intercity train routes. The Pennsylvanian Route provides daily service between Pittsburgh and Harrisburg, and onward to Philadelphia and New York City. The Capitol Limited provides daily service linking Chicago, Toledo,

PUBLIC TRANSIT

Cleveland, Pittsburgh, and Washington, D.C. The Amtrak station is adjacent to the Penn Station of the East Busway where intermodal connections can be made to transit service provided by the Port Authority and the region's other transit operators. Across Liberty Avenue from the Amtrak station is the Grant Street Transportation Center.

A provision of the Passenger Rail Investment and Improvement Act of 2008 requires states to assume responsibility for routes of 750 miles or less. Unless the Commonwealth of Pennsylvania finds the funds to continue operation of the Pennsylvanian, the future of this service will be in jeopardy.

Other Private Bus Companies

Several other private carriers operate scheduled bus service to and within Allegheny County. Fullington Trailways provides service between Pittsburgh and central Pennsylvania. Myers Coach Lines operates commuter service Super Shuttle provides shared ride door-to-door service from the Pittsburgh International Airport to hotels, residences, and businesses in the City of Pittsburgh and other locations in the Allegheny County and the region.

Numerous shuttles are operated by the University of Pittsburgh, UPMC, Carnegie Mellon and others.

CURRENT TRANSIT FUNDING

For the Port Authority, the past several years have been marked by on-going budget difficulties. The operating budget of the Port Authority transit system is funded by passenger fares, marketing revenues, Allegheny County, the Commonwealth of Pennsylvania and the Federal government (use of Federal funds for operating expenses is limited to a few very specific types of expenses). Over the past several years, these funding sources became inadequate to cover the agency's operating expenses due to a wide variety of factors.

One reason that funding did not cover operating expenses is that the Port Authority has been facing increasing costs. Costs for fuel, health care, and retirement benefits have grown rapidly in recent years. To make operations more cost effective, Port Authority undertook the Transit Development Plan, a comprehensive assessment of the bus route network. Most of the Plan was implemented in 2010 and 2011. Additionally, while costs have been escalating, revenues have not kept pace with inflation. In recent years, the Port Authority responded to these challenges by curtailing underutilized services, eliminating administrative staff (sharply reducing retirement obligations) and requiring employee health care contributions.

In 2007, the Pennsylvania legislature passed Act 44, which was intended to address some shortfalls in the state transportation budget. It authorized a fifty-year partnership between the PA Turnpike Commission and PennDOT which would have provided $83.3 billion for investment in transportation. A majority of this funding was to be used statewide to repair roads and bridges; in addition, all of the state's urban and rural transit agencies would have received increased, stable and performance-driven funding annually. However, in July 2010, Act 44 revenue dropped from $922 million to $450 million annually, due to the Commonwealth's application to toll I-80 not being approved by FHWA. Because of this, there was a significant gap in projected versus actual transit funding from Act 44 beginning in 2010. Table 4I.11 shows the additional funding Act 44 generated from FY 2009 to FY 2012.

TABLE 4I.11 – Additional Transit Funding from Act 44

Year	Total	Transit	Highway/Bridges
FY 2009	$850M	$350M	$500M
FY 2010	$900M	$400M	$500M
FY 2011	$450M	$250M	$200M
FY 2012	$450M	$250M	$200M

Source: PennDOT

PUBLIC TRANSIT

Six years later, the Pennsylvania General Assembly passed a new piece of legislation to provide a comprehensive transportation funding package for roads and bridges, mass transit, and multimodal transportation. Act 89, passed at the end of 2013, is expected to stave off crippling service cuts in the near term. Funding for mass transit will increase gradually over five years. By year five, statewide transit funding will total approximately $480 million.

Transit is a large portion of the County's budget and provision of additional matching funds is not easy to achieve. The City, as is the case with all local municipalities in Allegheny County, does not contribute to transit or the transit match. Act 44 also authorized second class counties (Allegheny) to implement two separate taxes to generate the County's local match for the State funding. The taxes, in effect now, include a tax on poured drinks and a tax on rental vehicles.

FUNDING SOURCES

SPC, as the designated MPO for the Pittsburgh Transportation Management Area, works with member counties to develop and maintain a Transportation Improvement Program (TIP). In addition to highway funding, transit funding involving federal grant programs (such as Title III Programs) and state, county and local match are also included on SPC's TIP. On the current 2013-2016 TIP, the Port Authority is budgeted for $1.2 billion total Title III Program funds (average annual funding = $302.1 M).

Funding for transit improvements in Pennsylvania is a combination of federal, state and local monies. Federal funding is provided through MAP-21 Title III. State funding is provided through formulas established in Act 26 of 1991 and amended in Act 3 of 1997. In addition, state capital budget funding is released annually for capital improvements.

Major capital transportation projects are a part of the programs developed by the member counties of SPC. The TIP identifies the region's highest priority transportation projects, develops a multi-year program of implementation, and identifies available federal and non-federal funding for the identified projects. The TIP covers a four-year period of investment and is updated every two years by designated planning partners in a collaborative effort of county, local, state and federal agencies, including participation by the general public.

Federal transit funding for the planning, construction and operation of transit projects is primarily accessed through three major Federal Transit Administration (FTA) Programs. Brief descriptions of these three programs follow.

Section 5309 - Fixed Guideway Capital Investment Grants (New Starts)

Section 5309 is a discretionary, competitive program that funds new and extended fixed guideway systems, bus rapid transit projects, and core capacity projects to expand capacity in fixed guideway corridors (those that are at or above capacity). Maximum federal share is 80 percent; however, FTA's current policy is to limit the federal share to the range of 50 to 60 percent due to the large of number of project applicants. Small Starts projects are limited to a net capital cost of less than $250 million with a maximum federal contribution of $75 million.

Section 5307 - Urbanized Area Formula Program

This program provides funds for planning, capital projects, and job access and reverse commute (JARC) projects that provide transportation to employment activities for low-income individuals. Distribution of Section 5307 funds is by statutory formula to individual urbanized areas. In most circumstances, Section 5307 funds apportioned to urbanized areas with populations of 200,000 and over cannot be used for operating assistance (an exception being the provision of JARC services). The federal share for capital projects is 80 percent and it is 50 percent for operating assistance.

Section 5339 – Bus and Bus Facilities

Section 5339 is a new formula program under Map-21 that provides funding to replace, rehabilitate, and purchase buses and related equipment as well as construct bus-related facilities. Each year, $65.5 million will be allocated, with each state receiving $1.25 million. The remainder will be allocated by formula based on population, vehicle revenue miles, and passenger miles. The program requires a 20 percent local match.

PUBLIC TRANSIT

■ ISSUES AND ANALYSIS

This section examines ways to provide more efficient and effective public transit service in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Difficult circulation in and around Oakland
- Lack of direct fixed guideway connection between Downtown and Oakland
- Lack of direct fixed guideway transit connection between Downtown Pittsburgh and the Airport
- Critical need for transit expansion and maintenance in the urban core
- Public and political attitudes toward transit
- Missing intermodal connections
- Lack of efficient system to meet current county needs and population levels
- Transit farebox doesn't pay for operating expenses

The following provides an understanding of these issues.

DIFFICULT CIRCULATION IN AND AROUND OAKLAND

Oakland is the economic wellspring for future growth of the region due to its concentration of research facilities, universities, hospitals and the potential and current realization of related spin-off companies. Circulation in and around Oakland does not meet the needs of current travelers. This is in spite of the fact that PAAC's transit routes serving Oakland are among the most heavily used in the system with a 25% mode share. There is a very high level of bus service on Fifth and Forbes Avenues which are the two key travel arteries through Oakland. Bus service is available in other areas of Oakland, too. There are also effective connections between Oakland and Downtown, Shadyside, East Liberty and other East End and South Side communities. Improvements to these services are needed for existing and future Oakland transit users. Transit plays a key role in connecting development to the institutions that are driving the growth in Oakland, but an expansion of the transit system is needed to help solve the circulation issues. There are internal mobility problems within the Oakland area that can be addressed by construction of an area circulator system which connects Oakland to Southside, Second Avenue, Bloomfield, Lawrenceville, Shadyside and CMU, bringing together greater Oakland's many assets and allowing the parts to function as a whole. Attracting new technology development, and retaining graduating students to enter the workforce here, is highly dependent on public transportation that is readily-available, and easy to navigate. Transit development efforts should be coordinated with the plans of the major institutions in and near Oakland. For more information see the Transit Action Team Report and Oakland Investment Committee Transit Report in the Supporting Documents.

LACK OF DIRECT FIXED GUIDEWAY CONNECTION BETWEEN DOWNTOWN AND OAKLAND

Transit from Downtown to Oakland will connect the two largest economic generation centers in the region – Pittsburgh and Oakland. A frequent, rapid and efficient fixed-guideway rapid transit connection between the two centers is critical as the County grows the education, medical and technology sectors at the core of regional prosperity. The corridor between town and Oakland is congested, and heavily served by bus transit. Facilitating growth downtown, in Oakland and in between, with excellent infrastructure, is a key component needed to assure future prosperity. To address the need for better connections linking Downtown, Oakland and other eastern neighborhoods in the City, a Bus Rapid Transit (BRT) Corridor Study has been initiated. Background on BRT is contained in the following section.

BRT Stations

BRT has distinct, safe and comfortable stations with amenities. The stations attract TOD activity. They spur investment and job creation on nearby mixed-use development sites where people can live, work, learn, invest and play. A prime advantage and opportunity along the Downtown Pittsburgh-to-Oakland BRT corridor is that station areas can accommodate pent-up real estate demand associated with the research and development activities of universities, hospitals and related "spin-off" businesses. Funding has been programmed to build a prototype BRT station in Oakland.

TOD Potential is High Density, Mixed-Use Neighborhoods with Station Area Amenities

The goal is to have a BRT corridor system on "complete

streets" with multi-modal accommodation for vehicles, transit, pedestrians and commuter bicycles. This can all be achieved on one street or by utilizing a parallel two-street pair. Ideally, the BRT corridor will include an improved, efficient, easy to understand and ride BRT service, resulting in long-term economic and community development, and a better quality of life, along a mixed–use corridor. BRT and station amenities are key elements for success and require excellent design, marketing and product development to project a strong brand and image. Stations emphasize safety, comfort and convenience features such as: lighting, security cameras, emergency call boxes, protection from weather and adjacent traffic, crosswalks, system maps, real-time information, a simple fare system, and transit authority security patrols. Above all, the facilities must be very clean and well maintained.

Economic development energizers result from the creation of a multimodal "complete street" corridor, or street pair, which accommodates transit, auto, and safe, separate commuter bike and pedestrian facilities. This includes a branded and coordinated streetscape with great aesthetics. The entire corridor should promote a common theme with unique neighborhood identifiers. Careful attention to aesthetics and details encourage quality transit-related development. Naming rights sales can generate revenue to support the BRT system. A BRT program for landscape standards and maintenance, with annual plantings at station areas, also creates attraction. Along with public art at key locations, selections for integrated art installations such as pavement treatments, lighting, benches and street furniture can assist in making the BRT experience seamless. Streetscapes are effective when coordinated with historic architecture and urban context. Traffic calming, coupled with larger sidewalk width for outdoor café zones, are examples of the type features that create exciting outdoor spaces and help achieve place-making.

Allegheny County Executive's Transportation Action Partnership (TAP)

The Allegheny County Executive's Transportation Action Partnership (TAP) was formed in 2008. TAP Co-chairs are: Dennis Davin of Allegheny County, Yarone Zober of the City of Pittsburgh and Dennis Yablonsky of the Allegheny Conference. Other TAP stakeholders include foundations, the Port Authority, PennDOT, universities, medical, research, development, innovation and investment entities, community organizations, labor, business, cultural and other representatives.

In 2010, TAP released a prospectus to the international transportation finance industry to gauge interest and help TAP prioritize transit initiatives. The prospectus result, based on analysis of industry input, recommended that TAP's highest priority project should be BRT Downtown Pittsburgh-to-Oakland. The highlight of the industry response includes five recommendations: (1) a single-purpose owner structure entity should be defined and established; (2) interagency agreements should be defined, and in place, to encourage development; (3) stakeholders should reach consensus on a general public statement of intent; (4) Pennsylvania private public partnership (P-3) enabling legislation is needed to provide a clear framework for developers and (5) it is very effective to secure major stakeholder/user commitments to develop a defined quantity of real estate over a specific time period.

BRT has the potential to transform the urban landscape along the Downtown Pittsburgh-to-Oakland corridor. TAP is currently working with the Port Authority, and many other stakeholders, to advance the BRT. Appropriately implemented, BRT does more than attract new riders. It assists in place-making; improves connections; creates more attractive, safer streets; is more convenient and provides connectivity for all modes of transport, including pedestrians and bicyclists. All of these factors work together to create safe, vibrant, multiuse places with people out-on-the-street. Importantly, in the Oakland area, the BRT corridor boasts medical and high tech initiatives which average over a billion dollars in research and development funding annually. Oakland is generally considered to be "built-out", but the research dollars create a huge unmet demand for nearby Class "A" office and R+D facilities. Further development is also constrained by traffic congestion and severely limited parking. A BRT upgrade along this corridor will reduce automobile dependency and create new opportunities to accommodate pent-up real estate demand.

In 2010, TAP stakeholders traveled to Cleveland to experience the Euclid Corridor HealthLine BRT. HealthLine was built cost effectively and operates successfully. HealthLine has stimulated $5 billion worth of development (TOD) at stations along a 6-mile corridor. Like our Downtown Pittsburgh-to-Oakland corridor, it connects the city, a

PUBLIC TRANSIT

redevelopment area and the region's universities /medical /research /cultural complex. Participants in the site visit included: Caren Glotfelty, formerly of The Heinz Endowments; Dan Cessna of PennDOT; Dennis Davin of Allegheny County; Rich Fitzgerald, President, Allegheny County Council in 2010 and currently Allegheny County Executive; Dennis Yablonsky of the Allegheny Conference and Steve Bland, formerly of Port Authority of Allegheny County.

The BRT will advance the recommendations of several recent long-range planning studies including: *Going Places* the TAP action plan; *Transit Development Plan* the Port Authority strategic plan; *AlleghenyPlaces* the County comprehensive plan and *ActiveAllegheny* the County commuter bike, pedestrian and complete streets plan.

Downtown - Oakland - East End BRT
The purpose of this effort, titled *Get There Pgh* is to develop a Downtown-Oakland-East End BRT project which would enhance prospects for economic development and community revitalization through transit improvements in the Downtown-Oakland-East End Corridor. This project is being advanced as a collaborative effort among more than 40 stakeholder organizations including the City of Pittsburgh, Allegheny County Economic Development, Allegheny Conference, educational and medical institutions and neighborhood groups such as Uptown Partners and groups representing the Hill District, along with Port Authority. The collaborative effort is being led by Sustainable Pittsburgh.

Current ridership in the corridor accounts for almost one-third of Port Authority's total system ridership. Opportunities for incorporating Complete Streets concepts are being investigated. The narrow width of streets and sidewalks throughout much of the corridor poses a challenge for accommodating transit, general traffic, pedestrians, bicyclists, and parking.

Conducting an Alternatives Analysis (AA) and the Environmental Assessment (EA) for a BRT project linking Downtown, Oakland and other East End neighborhoods in the City of Pittsburgh will enable the project to qualify for funding under the Federal Transit Administration (FTA) Small Starts Program. These studies are slated to be completed in Spring 2014.

Although Port Authority currently operates a high level of transit service in this Corridor, this study will investigate the potential for faster, more reliable, more easily understood, and more evenly scheduled trips through the Corridor. This could be accomplished through a program of operational and physical improvements such as stop consolidation, establishment of additional exclusive bus lanes and traffic signal priority at key intersections. Other potential improvements include use of articulated coaches for all service, provision of real-time passenger information, enhanced shelters and special marketing and branding.

The AA/EA scope of work includes development and definition of alternative alignments, preparation of capital and operating & maintenance cost estimates, analysis of impacts to the social and economic environment, assessments of transportation impacts including ridership forecasts and analyses of impacts to the physical environment. An extensive program of public outreach and agency coordination has been initiated.

The study will also consider financing options including funding contributions from private and institutional sources in the Corridor.

Based on the results of the AA/EA analyses, public input and agency involvement, a Locally Preferred Alternative will be selected. This effort will conclude with the submission of the

Small Starts or New Starts Criteria to FTA along with a request to FTA for advancing the project into Engineering.

More information about this effort can be found on the project website at *www.gettherepgh.org*

LACK OF DIRECT FIXED GUIDEWAY TRANSIT CONNECTION BETWEEN DOWNTOWN PITTSBURGH AND THE AIRPORT

Congestion along Parkway West makes travel to the airport difficult. Planned and recently completed infrastructure improvements offer the promise of a brighter future for the airport corridor. The proposed Southern Beltway will improve access and east-west mobility between the mid-Mon Valley and the Airport, and will assist in transforming the area around the Airport into a major warehouse and distribution center that will create thousands of jobs. The recently completed Findlay Connector, a new highway linking the Airport to Route 22, is spurring the development of more than

1,500 acres of nearby land. This additional development, and the jobs that will result, will better support conditions conducive to the provision of direct transit service to the airport. The West Busway/28X serves this route, on one-half hour headways. There should be consideration of the extent to which improvements in existing bus service would address the needs of the Airport Corridor in the short term. A new fixed guideway investment is likely years away in this case.

Several studies have investigated various alternatives for providing improved transit service from Downtown to Pittsburgh International Airport. Light Rail Transit from Downtown to the Airport utilizing a "Parkway" alignment, or a more direct new route, and establishing a major intermodal hub at a midway point for the West area will provide the best alternative for these reasons:

- Provides opportunities for travelers to our area to rapidly connect to Oakland and other essential corridors
- Directly serves Pittsburgh International Airport hub, and a midpoint "western" intermodal hub that will distribute commuters to employment centers, educational facilities and other points of interest in western Allegheny County
- Supports economic development, land use priorities and redevelopment opportunities along the corridor
- Connections from the intermodal hub to Robert Morris University, CCAC West, and many other higher education facilities should be accommodated
- Provides most direct and fastest route to Pittsburgh International Airport
- Provides a link connecting the downtown subway, North Shore and South Hills LRT and the East Busway

Bus Rapid Transit could be an alternative and serve some of the purposes in the interim before an LRT system is funded.

A fixed guideway transit connection would provide improved access to the region for travelers, support economic development and land use priorities along the corridor, and provide access to other transit facilities. Furthermore, without convenient and frequent transit, lower-wage workers will continue to face difficulty accessing jobs along the airport corridor. To serve concentrations of jobs in the sprawling environment in the airport corridor, a feeder system of buses or on-demand shuttles connecting to a multi-modal transit hub is needed.

CRITICAL NEED FOR TRANSIT EXPANSION AND MAINTENANCE IN THE URBAN CORE

A large number of commuters to the urban core use public transit on a regular basis. Therefore, it is vital to extend and maintain transit service to Downtown Pittsburgh and to Oakland. The routes that serve the urban core are the heart of the transit system and the revenues from these routes support services in other parts of the County.

PUBLIC ATTITUDE TOWARD TRANSIT

It is a common misconception among non-transit users, and the public in general, that transit is viewed as an expense rather than an investment in the local economy and a key to Allegheny County's livability. Transit provides vital service to employment centers, shopping, education and medical destinations among others. Port Authority investments in light rail and busways have helped generate new residential and commercial development, such as the Mellon Client Service Center at the Steel Plaza 'T' Station in Downtown Pittsburgh, PNC service center at the First Avenue 'T' station condominiums above Giant Eagle and Central Medical Commons in Shadyside, and the Eastside development in East Liberty. Additionally, Allegheny County conducted the South Hills TRID planning study for Transit Revitalization Investment Districts in Dormont and Mount Lebanon, to create the conditions for development and redevelopment at and near Port Authority's 'T' stations in those communities (see Supporting Documents for the full TRID study). In addition, the City of Pittsburgh has completed TRID studies for the South Hills Junction - Beechview Corridor and for East Liberty around the East Busway station, where $52 million of retail, residential, transit center and parking development is underway.

Another dimension of the attitude issue is the pressure to re-route buses in downtown and other locations in response to a negative perception of buses and bus riders. This increases transit operating costs and reduces convenience for transit patrons. The Bus Rapid Transit AA/EA includes a Downtown Circulation element which will evaluate the existing network of downtown bus routes and

PUBLIC TRANSIT

determine if there are changes which can result in operational efficiencies, improve service to riders and enhance the downtown environment. It is anticipated that this evaluation, just underway, will assess whether existing stops are optimally located.

MISSING INTERMODAL CONNECTIONS

The Port Authority's network of park-and-ride facilities supports connections with automobiles. Many of these lots are located on or near major thoroughfares, or adjacent to limited-access highways. Although all buses are equipped with bike racks, transit's coordination with bicycles is incomplete due to missed connection opportunities and parking, and in suburban areas direct pedestrian connections are often difficult. In order for the multi-modal connections to work, they need to be seamless to the user. Since 2000 the Port Authority has undertaken several initiatives to improve the interface for bicycles and transit. The First Avenue Station provides convenient access to the Eliza Furnace Trail and a bike and blade rental facility. Port Authority's Rack 'n Roll program of racks mounted on buses, the LRT system, and bicycles on the 'T' and Mon Incline, lets bicyclists use transit for part of their journeys. Bike racks have been installed at some transit stations. A map has been developed showing the relationship of bus routes to trails. The Port Authority will continue to pursue other opportunities for enhancing bike/transit linkages within available financial resources.

The multi-modal connections mentioned above with transit, bicycles, automobiles, pedestrians, etc. are very important to implementing the Places identified in the Future Land Use Plan (see Map 4A.1). These Places were envisioned to be mixed use and utilize a variety of transportation modes.

LACK OF EFFICIENT SYSTEM TO MEET CURRENT COUNTY NEEDS AND POPULATION LEVELS

Over the past few decades, the County has experienced population decreases in many of transit's traditional markets. Consequently, the Port Authority has had to modify its route structure or level of service to match the changing markets. However, some of the areas with the greatest population decline are also the communities with the greatest reliance on public transportation (i.e. the Mon Valley). The Port Authority has reduced service to the Mon Valley communities over the past 15 years even though it is considered a depressed area.

Photo credit: Port Authority of Allegheny County

There are three challenges to providing transit routes to changing markets:

1) Many of the new growth areas are characterized by low-density development and are more costly to serve than older densely developed communities in the City of Pittsburgh and older suburbs.

2) Port Authority's financial crisis limits its ability to add service to new areas while maintaining service to older (although declining) communities.

3) While there are some developments which prefer not to accommodate Port Authority buses, service and patrons, other developments are very interested in new or increased transit service.

TRANSIT FAREBOX REVENUES DO NOT COVER OPERATING EXPENSES

As with all transit systems, passenger fare revenue does not cover the entire cost of operating the transit system. Operating expenses are primarily subsidized with state and

local funds. Lottery revenues enable senior citizens to ride public transit for free. This is true of every transit system, and by the way, it is not unique to transit. The road and highway network, airlines, railroads etc., are all heavily subsidized. All modes require subsidy, especially the private automobile!

One reason that fares do not cover operating expenses is that Port Authority has been facing increasing costs. Expenditures for fuel, health care, and retirement benefits have grown rapidly in recent years. At the same time costs have been escalating, revenues have not kept pace with inflation. Port Authority has worked hard to address its increasing costs in recent years. Coupled with a new statewide transportation funding law, Port Authority's operating budget should experience stability in the coming years.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Public Transit portion of the Transportation Plan are to:

A. Target transportation investments to support job and housing growth as shown on the Future Land Use map.

B. Prioritize the maintenance of existing transportation infrastructure within and across all modes.

C. Provide integrated transportation alternatives and coordinated transportation systems to increase mobility.

D. Promote transit-oriented development (TOD) sites at key transit stations and along major transit corridors.

E. Connect Pittsburgh International Airport to Downtown, Oakland and major population centers via a rapid transit system.

F. Improve transit into and around Oakland.

G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.

The following provides an understanding of the objectives.

A. Target Transportation Investments to Support Job and Housing Growth

Transit is critical to the economic health of the region and the well-being of the public. It is a sustainable mode of transportation that will help to reduce traffic congestion. Transit is clearly a focus of future investment, and while funds are now tight, plans should be made to prioritize and accommodate future transit improvements.

Transit service to appropriate Places designated in the Future Land Use Plan would be by way of either a rapid transit mode (light rail or busway) or bus service. Transit circulation within Places can be by transit, but must be

Photo credit: Port Authority of Allegheny County

carefully planned. Smaller shuttle vehicles operated by a consortium of business owners or a public-private transportation management entity may be viable as these Places establish themselves as true mixed-use centers of housing, shopping and employment, and as a market for very localized and/or demand-responsive transit emerges.

Transit will play a significant role in Allegheny County's future.

B. Prioritize the Maintenance of Existing Transportation Infrastructure Within and Across All Modes

Upgrading our existing, aging transit infrastructure, along with the importance of regular maintenance of newer transit facilities, is key to ensuring a dependable, attractive and efficient system. Fixing our valuable investments first is a top priority for transit. This is especially important during a time when increasing numbers of commuters are likely to be attracted to the transit option to save money, help the environment and to be more physically active in their daily lives. We cannot afford to waste the valuable assets we currently have, but need to preserve them and maximize their use.

C. Provide Integrated Transportation Alternatives to Increase Mobility

Multi-modal transportation alternatives consider the full range of approaches to solving the transportation problems plaguing Allegheny County's roadways. Solutions can range from new rail lines, automated fixed-guideway transit and more bus routes to those that reduce demand by integrating modes and making it easier to use the system. Integrating park-and-ride facilities with transit stops, developing HOV lanes and ridesharing opportunities, providing sidewalks and bikeways to transit stops are all ways that can increase mobility. Designing and building 'Complete Streets' can also assist greatly in increased mobility and transit accessibility. Allegheny County is working closely with the City of Pittsburgh through MOVEPGH, the City's Transportation Plan, to realize the opportunities for combined transportation planning efforts. See *ActiveAllegheny* for more details.

There are several studies such as the Eastern Corridor Transit Study and the Allegheny Valley Railroad and Norfolk Southern Commuter Rail Interim Study and the Allegheny Riverfront Green Boulevard Study that have suggested using existing rail corridors for future rapid transit, since the infrastructure and right-of-way costs can be lower when compared to a new alignment. Additional alignments will be developed and assessed. Upgrades to track systems as well as agreements with railroad companies will be needed to allow commuter use of these lines, since freight and commuter operations are not necessarily compatible with each other. Freight trains and commuter rail equipment co-existed in Pittsburgh up to 1989 when the PATrain was discontinued and continue to co-exist in Baltimore, Washington, Chicago, Seattle and Los Angeles, among other cities. Nearly all commuter rail operations in the United States use Federal Railroad Administration compliant vehicles. Agreements are needed with railroad companies in order to gain access to rail lines, make track and signal improvements and ensure that commuter rail and freight operations do not interfere with each other. Future conflicts in rail use will increase along with the trend of vastly increased volumes of freight moving by rail.

Although rail traffic declined with the recent economic downturn, it has been growing since 2011, particularly with the rapid expansion of natural gas drilling activities in Pennsylvania. Rail traffic is expected to continue to rise exponentially as highways become more congested and moving freight via the highway system becomes less feasible and far more costly than by rail.

The Westmoreland County Transit Authority has completed its Allegheny Valley Railroad and Norfolk Southern Commuter Rail Interim Study which evaluated the potential for commuter rail on the Allegheny Valley Railroad between Arnold/New Kensington and Pittsburgh and on the Norfolk Southern rail line between Greensburg and Pittsburgh. This effort will build upon previous studies of these corridors. This analysis includes an assessment of integrating passenger trains

into lines with increasing freight train operations. The AVR could accommodate commuter rail service by scheduling freight operations at night. Operation of commuter rail service on the NS Pittsburgh Line would require improvements to existing tracks, signal and communication systems.

The Port Authority identified proposed alignments for new rapid transit lines through a public process, in the Airport Multi-modal Corridor, Eastern Corridor and Regional Transit Visioning studies. These studies have been conducted in partnership with SPC, Allegheny County and all the region's transit providers. In addition, there may be possibilities for improved transit to the North Hills, possibly through the use and/or conversion of the I-279 HOV facility for rapid transit. An important next step is selection of priority corridor(s) in consultation with the public, elected officials, local governments, Allegheny County, SPC and the Commonwealth of Pennsylvania. Private funding can help, but major transit capital investments will still require significant local and/or state public funding.

Las Vegas is one of the only places in the United States where a new transit project was implemented with major private funding. More typical are Charlotte, Denver, Portland, Salt Lake City, San Francisco and Seattle which fund transit projects with significant local and state funding to match federal funding, and then, complete appropriate engineering studies for selected alignments, secure rights-of-way and construct new rapid transit lines. While the funds for these types of projects are limited, additional and creative funding mechanisms need to be explored. Public-private partnerships (PPP) are one option that can help fund public improvement projects now that the enabling legislation is in place. One example of PPP is the Cleveland BRT system in which the Cleveland Clinic and University Hospitals paid $6.25M over 25 years for the naming rights to the line. The naming rights will generate between $18-$25 million for the Greater Cleveland Regional Transportation Authority.

D. Promote Transit-Oriented Development Sites at Key Transit Stations

Transit-oriented development (TOD) is an important national land development trend. TOD can be accomplished by targeting mixed-use development around existing and proposed transit stations. The existing 'T' line and busways and the new rapid transit lines envisioned for Allegheny County represent an ideal opportunity for TOD such as Eastside in the City of Pittsburgh's East Liberty and Shadyside neighborhoods and Dormont, Castle Shannon and Mt. Lebanon. TOD is consistent with the principles of the Future Land Use Plan and can provide significant additional ridership for the Port Authority's transit lines.

In 2004, the Pennsylvania Legislature passed legislation permitting the creation of a Transit Revitalization Investment District (TRID) to establish a mechanism for promoting TOD and capturing the value of development at and near transit stations. Allegheny County conducted a TRID planning study for areas adjacent to the light rail stations in the South Hills (see Supporting Documents for the full TRID study). The City of Pittsburgh recently completed a TRID planning study for the South Hills Junction - Beechview Corridor and the East Liberty busway station. In addition, the County co-sponsored the West Busway TOD Assessment and Plan to evaluate the corridor's potential for TOD. TOD plans were created for the Sheraden and Carnegie stations.

The Port Authority and its planning partners should conduct TOD market, planning and urban design studies for key transit stations, publicize the findings and solicit developers to build on TOD sites. Many of the PAAC stations along the 'T' line have functioned as TODs for the past century and could be enhanced by future development on PAAC-owned property or on adjacent or nearby privately-owned sites. Private developers are increasingly interested in development opportunities near transit stations. Public-Private Partnerships are an option to assist with site development.

E. Connect Pittsburgh International Airport to Downtown, Oakland and Major Population Centers via a Rapid Transit System

The main recommended transportation feature for *Allegheny Places* is transit from downtown Pittsburgh

PUBLIC TRANSIT

"to and around the Oakland Area", including a major intermodal hub in central Oakland and transit from Downtown Pittsburgh, via the new transit connection on the North Shore, to Pittsburgh International Airport. There have been several studies completed to date (mentioned in the integrated multi-modal section above) that suggest alternatives to complete the rapid transit connection between the Airport, Downtown and Oakland.

Along the entire route there will be opportunities for revitalized or new transit-oriented developments, intermodal hubs and other connection points, including intercept parking garages and park-and-ride facilities, trail interconnectivity, pedestrian-friendly improvements, feeder bus lines, bus-rapid-transit (BRT) connections (with potential to connect to hubs via shared high-speed right-of-ways) and many other-related and focused development and redevelopment opportunities. There is vast potential for additional transit connections to this suggested route.

The key connection is envisioned to take advantage of major transit-oriented development potential along the West Busway, between Pittsburgh and Oakland, on the North Shore and at other identified Places along the route.

New rail transit facilities are very costly and take time. Creative financing must be a component of all future rail transit construction, but there will be opportunities for interim measures as Allegheny County proceeds to implement this plan; for instance, the potential of proceeding with Bus Rapid Transit initially for service between Pittsburgh via the West Busway and Parkway West to the proposed Robinson Town Centre "mixed-use development/intermodal hub", and on to the Airport. This BRT route would eventually be replaced with LRT.

F. Improve Transit Into and Around Oakland

The County has had several objectives with respect to transit. A priority has been to connect Downtown Pittsburgh with Oakland via rapid transit. Additional transit within the Oakland area is also a priority, since the hospitals and universities in Oakland comprise one of the largest employment and educational centers in the region and, while a number of students and employees live in the vicinity, many more commute.

G. Use Efficient and Creative Funding Strategies such as Public/Private Partnerships, Privatization, and Leveraging Current and Future Assets

Allegheny Places recognizes that transit is a critical service on which many residents rely. In order to construct and operate many of the proposed transit projects, new funding mechanisms, such as public-private partnerships, need to be pursued.

The Port Authority, in partnership with SPC, Allegheny County and local governments, should explore options to address funding shortfalls and generate new revenues, including transportation to serve areas of new economic development (e.g. the North Shore, Eastside, South Side Works, Dormont and Mt. Lebanon TOD, etc). This may include, for example, TOD, TRID or public-private partnerships. Upcoming TOD opportunities include the West Busway TOD and the Downtown to Oakland BRT TOD.

BICYCLE AND PEDESTRIAN

■ TODAY'S CONDITIONS

The County has been planning for and building trails along its rivers since the 1980's. In 1990, development of a major county-wide trail network was launched with the Montour Trail, and the County's trail network continues to grow. Although the first trails were built with recreation funding and used, perhaps, primarily for recreation, they have evolved into active transportation corridors that link bicyclists and pedestrians to the places where they live, work, learn, shop and play. The County and City continue to plan for and promote bicycling and walking as active modes of transportation, both on-and off-road, in recognition of the value that a truly multimodal transportation system adds to the quality of life in Allegheny County.

ActiveAllegheny, completed in 2010, is a resource for integrating active transportation modes into the County's existing transportation system. "Active transportation" is defined broadly as human-powered modes of transportation that include bicycling, walking, kayaking and inline skating. The goal of *ActiveAllegheny* is to integrate active modes of transportation, with a focus on walking and bicycling, into our existing transportation network.

Photo credit: Kevin Smay

ActiveAllegheny identifies roadways that are important commuter routes and examines their potential as active transportation corridors. Connectivity with the County's transit system and to the trail network is discussed in Chapter 4E and later in this chapter. *ActiveAllegheny* also looks at connections to other active transportation modes such as the Three Rivers Water Trail . *ActiveAllegheny* recommends specific improvements, from lighting and crosswalks to separated bike/pedestrian lanes, needed to ensure that active travel will be safe travel. *ActiveAllegheny* also includes general recommendations for increasing public awareness of the value of active transportation, and other strategies for implementation.

ActiveAllegheny focus is primarily on providing safe means of travel on-road, for bicycles and walkers. The expanding riverfront trail system is also an important component of the County's active transportation network, as well as providing access to the rivers' many recreational opportunities. Municipalities are looking for ways to connect to the riverfront trail system so that the people in their communities can get to where they want to go. A brief overview of current projects is provided below.

Allegheny River:

The 2011 Community Trails Initiative Feasibility Study is a proposed alignment for a 26-mile long segment of the Three Rivers Heritage Trail along the northern side of the Allegheny River. The proposed trail corridor includes both on and off road segments. Connections to the municipalities along the river and to other important destinations are key components of the proposed alignment.

Portions of the trail have been completed and are already serving as active transportation corridors. In Millvale Borough, 65 people a day on average have been parking in Millvale Park and using the riverfront trail to commute to the City of Pittsburgh. The number of commuters continues to grow, and Millvale is exploring the development of a park-and-ride lot closer to their business district to bring people into the community. The Boroughs of Millvale and Etna are also developing an internal bicycle and pedestrian plan to connect the people and places within their communities to the Three Rivers Heritage Trail.

BICYCLE AND PEDESTRIAN

Monongahela River:

The Eliza Furnace Trail in the City of Pittsburgh was built to be an active transportation corridor connecting the neighborhoods of Oakland, Hazelwood and Greenfield to downtown Pittsburgh. It is heavily used by commuters and served by a commuter parking lot on the Hazelwood side of the trail. It has also become a popular trail for recreation and is enjoyed by lunchtime walkers, joggers and inline skaters from downtown businesses.

In the City of Duquesne, the Port Authority allows people commuting to downtown Pittsburgh via the Great Allegheny Passage to use their park-and-ride facility. Access to the park-and-ride also gives bicyclists easy access to Port Authority buses, which are equipped with bike racks.

The last segment of the Great Allegheny Passage that connects Pittsburgh to Washington DC was completed in West Homestead Borough in Summer 2013. It is expected to become another popular active transportation corridor, providing more options for commuters into the City and Oakland.

Ohio River:

The Ohio River Trail Pittsburgh to Coraopolis Feasibility Study will determine an alignment for an active transportation corridor that will connect the City of Pittsburgh to the Ohio River South Shore Trail being developed by the Ohio River Trail Council. The Ohio River South Shore Trail will extend from Coraopolis Borough in Allegheny County to Monaca Borough in Beaver County. The Pittsburgh to Coraopolis segment, like most of the Ohio River South Shore Trail, is primarily on-road with connections into the adjacent communities. The trail is expected to be an important commuter corridor for these municipalities and will also provide for bicycle and pedestrian commuting within the municipalities. The Ohio River Trail Council is also planning a trail for the north shore of the Ohio River in Allegheny County.

BicyclePA ROUTES

BicyclePA routes were designed by experienced bicyclists to provide those who want to traverse the state with a guide to some of the Commonwealth's highways and rail-trails. Few of these routes contain bike lanes or other facilities designed specifically for bicyclists. One such route is Pennsylvania Bike Route 'S', which passes through the southern portion of Allegheny County along Route 136. Another example is Pennsylvania Bicycle Route 'A', which passes through the western portion of Allegheny County as it extends from Erie to West Virginia. Bike Route A in western Allegheny County is also part of the proposed Ohio River South Shore Trail.

BICYCLE PARKING AND TRANSIT ACCESS

The Pittsburgh Downtown Partnership and Bike Pittsburgh have installed approximately 500 bike racks to date throughout the City. Many communities throughout the County are providing bike racks in their business districts through programs like Allegheny Together and Allegheny River Towns. Port Authority provides bicycle parking at many of its light rail and Busway stations. In addition, all of Port Authority's buses are equipped with bike racks. Transit riders can also take their bicycles on the light rail system and the Monongahela Incline.

OTHER PROJECTS

- BRT Downtown-to-Oakland/complete streets
- URA Allegheny Riverfront Green Boulevard
- North Park Lake Loop Road bike/ped upgrades
- Proposed bike-share rental program
- County Bridges safety upgrades like "bike-friendly" grate & scupper replacements
- Pittsburgh Open Streets plans

FUNDING

For a list of possible funding sources for active transportation activities and projects, please see the comprehensive plan supporting documentation under Transportation on the AlleghenyPlaces website.

BICYCLE AND PEDESTRIAN

■ ISSUES AND ANALYSIS

This section examines ways to facilitate increased bicycle and pedestrian travel in Allegheny County.

KEY CHALLENGES

- Unsafe and unattractive places to wait for transit
- Lack of available, safe bicycle parking facilities
- Lack of a bicycle route signage program
- Lack of continuous sidewalk network in new developments
- Consistently incorporating bicycle and pedestrian facilities into road, bridge, and transit projects
- Lack of public access to riverfronts

The following provides an understanding of these issues.

UNSAFE AND UNATTRACTIVE PLACES TO WAIT FOR TRANSIT

The majority of passengers access transit by walking to a stop. The conditions at transit stops vary throughout the County. Providing amenities such as good lighting and seating at transit stops and stations increases passenger comfort and safety and can increase transit ridership. Other amenities such as landscaping improve the visibility of the transit stop and enhance transit's appeal to the community. Bus shelters are key to comfort and encourage ridership in inclement weather. Pre-college students use PAAC to get to schools. Safety and dependability are especially critical for youth. Many communities, including the City of Pittsburgh, contract with private firms to provide transit shelters at transit stops. Communities can use new or renewed shelter contracts to improve the conditions of bus stops.

LACK OF AVAILABLE, SAFE BICYCLE PARKING FACILITIES

In order to encourage higher levels of bicycle usage in the County, bicyclists need a safe place to secure their bicycles when they reach their destination. With the exception of bike parking available at public parking garages and other strategic locations in Downtown Pittsburgh, PAAC stations as well as at numerous locations in Pittsburgh neighborhoods, bike racks are not available in most areas of the County. Bike racks/facilities can encourage multi-modal activity.

LACK OF A BICYCLE ROUTE SIGNAGE PROGRAM

Many residents of the County do not bicycle using the local roadway system due to real or perceived threats to bicycling such as traffic volumes, roadway width and traffic speed. While many roadways in the County are suitable for bicycling, residents do not have information that would help them decide which roads to use.

LACK OF CONTINUOUS SIDEWALK NETWORK IN NEW DEVELOPMENTS

In Allegheny County, different patterns of land use development affect pedestrian access to transit, employment, education, and shopping, among other destinations. The County's older communities often have a well-established sidewalk network that allows residents to easily walk to many destinations. Newer residential and employment centers often present difficulties for pedestrians due to the scale of development or because the construction of sidewalks was not required by local municipal ordinances. Even when there are requirements, they are frequently waived.

Developers often ask for exemptions because their sidewalks will not connect to a system of existing sidewalks. Sidewalk connectivity in the suburbs will only improve when all developments are required to install sidewalks.

CONSISTENTLY INCORPORATING BICYCLE AND PEDESTRIAN FACILITIES INTO ROADWAY PROJECTS

An efficient and cost-effective means of improving bicycle and pedestrian conditions is to integrate these facilities into the planning, design and construction of roadway projects. Bicycle and pedestrian needs should be considered at the earliest stages of transportation project development to ensure the appropriate accommodation of those needs.

Effective modal integration requires coordination among several entities including PennDOT, Allegheny County, SPC and local communities.

LACK OF PUBLIC ACCESS TO RIVERFRONTS

As discussed in Chapter 4E, Parks, Open Space and

BICYCLE AND PEDESTRIAN

Greenways, existing land uses, land ownership, topography, and a wide range of municipal land use regulations are just some of the challenges to completing the Three Rivers Heritage Trail. A comprehensive, multi-municipal approach will be critical to its success. The Allegheny County Riverfronts Project, an ongoing partnership between Allegheny County, Friends of the Riverfront and the Pennsylvania Environmental Council is an example of a regional collaboration designed to address these kinds of challenges.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs and schools
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Encourages multi-modal connectivity.

OBJECTIVES OF THE PLAN

The objectives of the Bicycle and Pedestrian portion of the Transportation Plan are to:

A. Provide Integrated, 'Active' Transportation Alternatives Including Bikeways, Sidewalks and Transit.

B. Coordinate transportation systems and modes to increase mobility.

The following provides an understanding of the objectives.

A. Provide Integrated, 'Active' Transportation Alternatives Including Bikeways, Sidewalks and Transit

Bicycling and walking should be encouraged through incorporating bicycle lanes and sidewalks into both roadway and transit projects. Utilizing and expanding bike trails can also serve to connect people to jobs, schools and shopping.

The Future Land Use Plan promotes compact mixed-use development and so it is imperative that sidewalks, pathways and crosswalks are included to accommodate the safe passage of pedestrians within Places.

The Future Land Use Plan further encourages linking Places to amenities such as parks, riverfronts, and greenways. Multi-modal transportation systems designed for Places therefore need to be coordinated with the trails and greenways network in the Parks, Open Space and Greenway Plan.

Integrating bikeways and sidewalks into new roadway projects, designating bike routes on existing streets, transit, trails and greenways should ultimately create an interconnected alternative 'Active Transportation' network throughout Allegheny County.

B. Coordinate Transportation Systems and Modes to Increase Mobility

Increasingly, the need to integrate walking and bicycling with transit usage is being recognized. As transit routes are being planned or improved, there is a need to ensure that there are:

- Safe ways to access transit stops
- Secure and convenient places to park bicycles
- Desirable places to wait for transit vehicles

Transportation provides access to many key opportunities such as jobs, quality schools, entertainment and recreation. An equitable and efficient transportation system includes multiple modes and ensures mobility for all residents.

AIRPORTS

■ TODAY'S CONDITIONS

PITTSBURGH INTERNATIONAL AIRPORT

Pittsburgh International Airport (PIT) is an economic generator for Southwestern Pennsylvania. Located 16 miles west of Pittsburgh, the airport is served by 8 air carriers and in 2011 accommodated 8 million travelers in nearly 150,000 aircraft operations. The airport encompasses almost 9,000 acres with four runways, four terminals with 75 gates, and has 13,000 parking spaces. More than 2,000 acres of PIT land are available for non-aviation and aviation-related development. This includes about 130 acres of pad-ready sites available and fully ready-to-go for users, as of 2012.

In addition to the traveling public, Pittsburgh International Airport also serves the freight community, processing about 176 million pounds of freight in 2011.

Pittsburgh International Airport went through a period of transition in the wake of the dominant carrier, US Airways, eliminating its connecting hub operations at the facility. Table 4I.12 shows airport operations in recent years.

Although US Airways still maintains a significant presence at PIT, several low-cost carriers such as Southwest have entered the market, and help to make PIT more competitive in terms of lower fares. In addition to reduced fares, new carriers have increased passenger volumes and trips originating from the airport by airlines other than US Airways. At the time of this update, the following carriers serve Pittsburgh International Airport:

- Air Canada
- American Airlines
- JetBlue
- Delta Airlines
- Air Tran Airways
- Southwest Airlines
- United Airlines
- US Airways

The following air cargo carriers serve Pittsburgh International Airport:

- FedEx
- UPS

There are intermodal facilities at PIT that connect passengers with private vehicles, limousines, taxis, transit and the Montour Bicycle Trail, as well as freight facilities to support the air cargo.

ALLEGHENY COUNTY AIRPORT

The Allegheny County Airport, located in West Mifflin, is the fifth busiest airport in the state and the largest general aviation airport in western Pennsylvania. It is classified as a business service airport with 118 based aircraft and approximately 67,000 annual operations. It is served by two

TABLE 4I.12 – Pittsburgh International Airport Operations, 2007-2011

Year	Passengers	% Change	Cargo Volume (lbs)	% Change
2007	9,822.588	-1.6%	185,806,055	-0.5%
2008	8,710,291	-11.3%	182,177,797	-2.0%
2009	8,031,175	-7.8%	158,696,927	-12.9%
2010	8,195,359	2.0%	170,522,692	7.5%
2011	8,300,310	1.3%	175,943,832	3.2%

Source: FAA

AIRPORTS

Photo credit: McCormick Taylor

lighted runways. The airport has a continuously staffed air traffic control tower. It serves as the primary FAA designated reliever airport for Pittsburgh International Airport. In this role, the airport supports a high volume of business, corporate and pleasure-related flying activity.

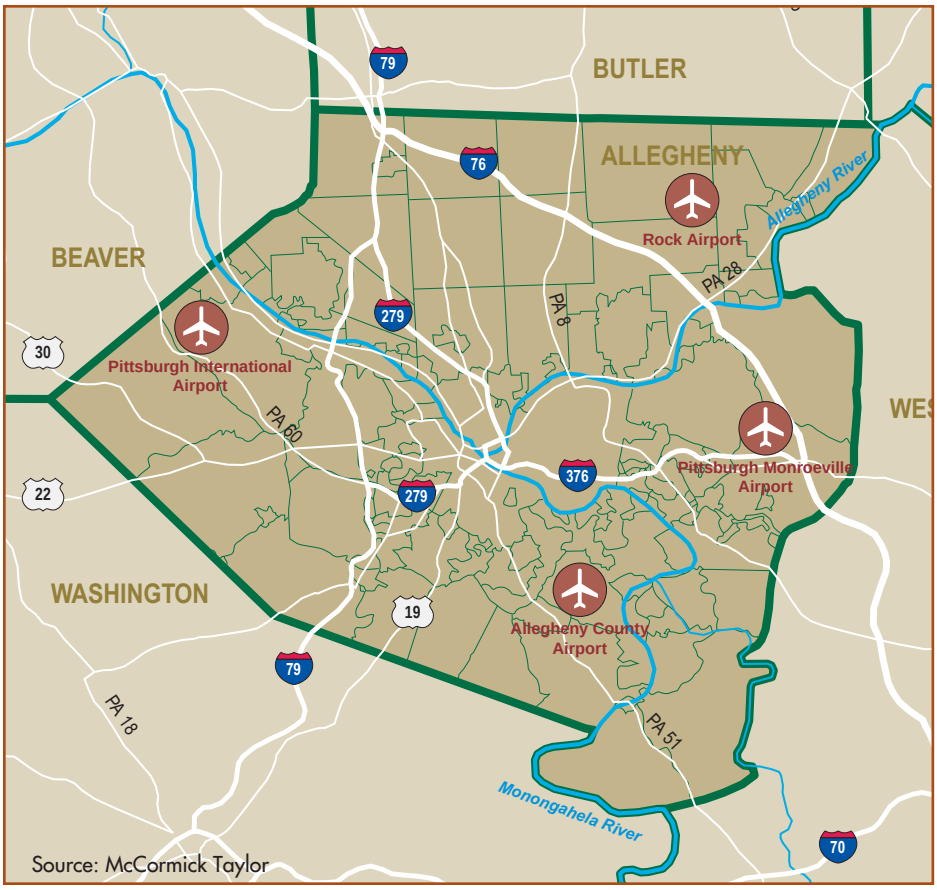
PRIVATE AIRPORTS

The County has two private airports, Pittsburgh-Monroeville Airport and Rock Airport. The locations of the County's airports are shown on Figure 4I.5.

■ ISSUES AND ANALYSIS

This section examines ways to support air travel in Allegheny County.

Figure 4I.5 – Airport Locations



Source: McCormick Taylor

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Underutilized passenger and cargo facilities at Pittsburgh International Airport
- No direct fixed guideway transit connection between Pittsburgh International Airport and Downtown Pittsburgh and Oakland
- Need to increase transcontinental international direct flight destinations
- Need to increase air cargo activities

AIRPORTS

Additional challenges of concern for the Allegheny County Airport Authority include:

- Increasing congestion levels and travel times between Pittsburgh International Airport, Downtown Pittsburgh, and Oakland that limit opportunities for growth at PIT and throughout the County
- The same issues apply for Allegheny County Airport in West Mifflin; it also suffers from increased congestion levels and travel times between it and Downtown Pittsburgh and Oakland.
- More than 2,000 acres of PIT land available for development that can assist in providing jobs for the community and lease revenues for the airport. (This is addressed in the Economic Development Plan – Chapter 4, Section C.)

The following provides an understanding of these issues.

UNDERUTILIZED PASSENGER AND CARGO FACILITIES AT PIT

There are underutilized gates and terminals due to the removal by US Airways of their hub at PIT and the resulting reduction in flights. Efforts are underway to attract more carriers and additional flights to and from PIT.

PIT has underutilized cargo buildings and 235,000 sq. ft. of cargo buildings with a vacancy rate of 35% in late 2011. A new development area at Northfield with a national developer will help to attract users and provide more facilities.

NO DIRECT FIXED GUIDEWAY TRANSIT CONNECTION BETWEEN PIT AND DOWNTOWN PITTSBURGH AND OAKLAND

Congestion along Parkway West makes travel to PIT difficult. Planned and recently completed infrastructure improvements offer the promise of a brighter future for the airport corridor. The proposed Southern Beltway will improve access and east-west mobility between the mid-Mon Valley and the Airport, from Route 22 to I-79, helping to transform the area around the Airport into a major warehouse and distribution center that will create thousands of jobs. The recently completed Findlay Connector, a new highway linking the Airport to Route 22, will facilitate the development of more than 1,500 acres of nearby land.

Currently, public transit is significantly underutilized in the Airport Corridor, falling far below national averages. In its 2004 study of the corridor, Carnegie Mellon University's Center for Economic Development concluded that one reason for this may be the disproportionately high commuting times via transit. Therefore, most commuters are using privately owned vehicles instead. Furthermore, public transit may not be an option available to workers working more than one job or working during 'off-hours'.

A fixed guideway transit connection with coordinated feeder services, would provide improved access to the region for travelers, support economic development and land use priorities along the corridor, and provide access to other transit facilities. Furthermore, without convenient transit, low-wage workers will continue to face difficulty accessing jobs in the airport corridor.

In the short term, Port Authority should increase service on Route 28X to build demand for service in the corridor.

AIRPORTS

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed airport development, and
- Facilitates the movement of passengers and freight.

OBJECTIVES OF THE PLAN

The objectives of the Airports portion of the Transportation Plan are to:

A. Support Pittsburgh International Airport efforts to retain and increase passenger and air cargo connectivity to national and international destinations.

B. Support freight movements through safe and efficient air shipping practices.

C. Increase connectivity to and from Pittsburgh International Airport to Downtown Pittsburgh, Oakland and major population centers via a rapid transit system, and other modes and system improvements.

The following provides an understanding of the objectives.

A. Support PIT Efforts to Retain and Increase Passenger and Air Cargo Connectivity to National and International Destinations

The Airport area is very important to the County in terms of the economic development opportunities it has to offer. If Allegheny County wants to compete with other cities in attracting national and international companies to locate in our region, it is very important to have non-stop flights to Europe and West Coast destinations. This is a key selling point in getting people to come to the region for business or tourism.

Elimination of US Airways connecting hub at PIT has resulted in fewer flights and fewer direct connections for passengers at PIT. The reduction in US Airways activity at PIT has made the airport more attractive to other airlines, and lowered travel cost to passengers.

B. Support Freight Movements Through Safe and Efficient Air Shipping Practices

Pittsburgh International Airport is one of the County's major transportation assets. This facility has the capacity to handle millions more passengers per year. While air traffic is currently down, the Airport Authority has been marketing the airport to multiple airlines, as well as the air cargo market. The airport's goal is to attract additional freight carriers, or combination passenger and freight carriers. The County and its planning partners should continue to support the full utilization of the airport and its facilities, including cargo, and the goal of increasing connectivity to national and international destinations.

- In an effort to expand air cargo business and to increase the region's international air service, PIT has committed to working with community leaders to support the area's cargo agencies.

C. Connectivity to and from PIT to Downtown Pittsburgh, Oakland, and Major Population Centers via a Rapid Transit System

The Airport area is very important to the County in terms of the economic development opportunities it offers. Projected development in the airport corridor requires support in terms of transportation investments for intermodal connections between the network of roadway, transit and freight facilities and other congestion reduction measures.

A future that includes rapid transit between the airport and Downtown is vital to the County. A direct connection from PIT to Downtown Pittsburgh, and on to Oakland, supports economic development plans, land use priorities and redevelopment opportunities along the corridor. Light rail transit can provide opportunities to rapidly connect to Oakland, North Shore and South Hills destinations. Please refer to the major Transit Recommendations found earlier in this section and the

AIRPORTS

Future Land Use Plan (Chapter 4, Section A) for more information.

Several studies have recommended using existing rail corridors for future rapid transit, because construction and right-of-way costs can be lower when compared to a new alignment, but many other factors add into the final mix of factors for decision-making. Alternatives will be developed and assessed.

Bus Rapid Transit (BRT) is an initial step toward development of LRT. A potential route is under consideration from Downtown to Oakland.

Robinson Town Center serves as a "western" intermodal and multi-modal hub to distribute commuters to employment centers, educational facilities and other destinations in western Allegheny County.

RAIL FREIGHT

■ TODAY'S CONDITIONS

More than 330 miles of rail lines cross Allegheny County. Historically, rail lines were built along the rivers and transported resources and finished products to and from the manufacturing facilities located there. Today, several railroads, such as the Union Railroad that serves the U.S. Steel Edgar Thompson Works in Braddock, still provide this type of service.

The major freight railroad routes in the County are owned by Norfolk Southern and CSX, which utilize the lines for their regional, national and international operations. The Norfolk Southern main line through the County is a link in its east-west line between Chicago and Baltimore, while CSX's line connects Chicago, Philadelphia and New York.

The following lists the class and name of railroads located in Allegheny County.

Photo credit: Kevin Smay

Class I Railroads

- CSX Transportation, Inc.
- Norfolk Southern

Class II Railroads

- Bessemer & Lake Erie Railroad Company (Canadian National)
- Buffalo & Pittsburgh Railroad, Inc. (Genesee and Wyoming Railway)
- The Wheeling & Lake Erie Railway Company

Switching Lines

- Pittsburgh & Ohio Central Railroad Company (Genesee and Wyoming Railway)
- Allegheny Valley Railroad
- McKeesport Connecting Railroad Company
- Turtle Creek Industrial Railroad (Dura-Bond)
- Pittsburgh Allegheny & McKees Rocks Railroad Company
- Union Railroad Company

Over the past 20 years, rail activity has increased significantly in the U.S. and regionally due to the increased use of containers (COFC) and trailers (TOFC) on flat freight cars. Rail companies are feeling pressure to increase capacity on rail lines and ensure maintenance in order to meet the continuously increasing demand. In many cases, the "last mile" of roadways connecting to rail freight terminals are in disrepair or deficient in ways that make them insufficient to handle the freight traffic traveling on them to be loaded onto rail cars.

FUNDING

The Southwestern Pennsylvania Commission's Freight Forum is working with railroads in the region to plan and fund infrastructure improvements. The Commonwealth of Pennsylvania's PA Rail Freight Assistance Program provides matching grants to railroads for projects which preserve essential rail freight service and stimulate economic development through new or expanded freight service. For 2011, the Governor's budget included increased assistance to improve rail freight infrastructure. In addition, the Commonwealth of Pennsylvania committed over $30 million in federal Tiger 1 program funds in 2010 for the vertical clearance of obstructions on the CSX rail line in southwestern Pennsylvania to complete a multi-state double stack clearance program for that major rail corridor.

RAIL FREIGHT

■ ISSUES AND ANALYSIS

This section examines ways to facilitate improved rail freight operations in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Need for double-stack capacity
- Port Perry Rail Bridge capacity issues
- How the increased volume of rail freight traffic impacts
  long-term passenger rail plans

The following provides an understanding of these issues.

LACK OF DOUBLE-STACK CAPACITY

Double stack clearance refers to a railway's ability to carry two containers, one on top of the other, on a rail car. The ability to "double-stack" containers exponentially increases the carrying capacity of a given train. In order for a train to be able to carry double stack cars, the vertical clearance of all bridges, underpasses, and other obstacles must exceed 22 feet. The presence of one vertical obstruction means that the entire corridor is restricted to single stack capacity.

Due to steadily increasing volume of rail shipping, many raillines in Allegheny County have already been converted to double-stack capacity. Converting the remaining rail corridors is a priority in the region.

The Pennsylvania Public Utility Commission (PUC) supports the call for double stack clearance on all railways by imposing a 22 ft. vertical clearance requirement on all bridges and structures over active rail lines.

PORT PERRY RAIL BRIDGE CAPACITY ISSUES

The Port Perry Rail Bridge is a key connection crossing the Monongahela River. It carries Norfolk Southern rail traffic into and out of the Pitcairn Intermodal Facility. The bridge connection is single track rail, which significantly impacts the volume of goods that can travel through the area and increases travel time for the railroads. Trains must wait substantial amounts of time for opposing rail traffic to clear the bridge. The bridge at Port Perry is a "pinch point" which slows traffic and negatively affects productivity.

INCREASED VOLUME OF RAIL FREIGHT TRAFFIC IMPACTS LONG-TERM TRANSIT EXPANSION PLANS

Many proposed passenger rail investments and plans for expansion of existing fixed guideway facilities involve the idea of using existing railroad rights-of-way. It will be critical to coordinate with the railroads to determine where joint use may be possible and what rail expansion or reduction plans are being discussed, as transit plans progress. Railroads will want to maintain access to rail line facilities and capacity as moving freight via rail becomes an increasingly viable and cost-effective option for freight movement. In an era of exploding oil and gas prices, and with ever-decreasing highway capacity due to increased traffic, rail becomes more and more desirable.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Rail portion of the Transportation Plan are to:

RAIL FREIGHT

A. Support freight movements through safe and efficient truck and rail intermodal connectivity and systems as well as with multi-modal facilities.

B. Increase rail safety at interfaces with people and with other transportation modes.

C. Support increased movement of goods by rail to free road capacity, and increase road capacity by supporting rail freight initiatives.

The following provides an understanding of the objectives.

A. Support Freight Movements Through Safe and Efficient Intermodal Connectivity

The preservation of existing and future rail corridors in Allegheny County is a critical need for the region. As congestion on the region's highways continues to increase, freight movement by rail can be a viable alternative to trucking. Improving existing intermodal centers and developing others in key locations are fundamental to efficient future freight movement. Road access to the Pitcairn Intermodal Center (a Norfolk Southern facility) should be improved to allow efficient transfer of freight to and from the trains. In addition, the elimination of the pinch point at Port Perry should be investigated and supported.

B. Increase Rail Safety

The interface between rail and other modes of travel is a source of accidents. Elimination of at-grade crossings should be pursued by railroad companies throughout the County. Eliminating at-grade crossings will result not only in improved safety but assist with making rail movements more efficient. Increasing pedestrian safety at rail crossings is also very important.

C. Support Increased Movement of Goods by Rail

Shipping via our rail infrastructure can provide shippers with cost-effective and efficient transportation, especially for heavy and bulky commodities. In terms of cost-effective energy use, rail engines are more fuel efficient than trucks. In terms of time savings, rail can also provide a more efficient travel time for freight companies as well as the added benefit of increasing capacity on the roadways by reducing the number of trucks using the roadway network. This is of particular importance in light of the projected increase in freight traffic over the next 10-15 years.

The energy industry (including coal, oil, and natural gas) has dramatically increased the volume of rail traffic especially for frack sand and liquid gas. Along the Parkway West (I-279) the Rook Yard (a Wheeling & Lake Erie facility) has experienced increased activity and expansion due to shale-related needs.

WATERWAYS

■ TODAY'S CONDITIONS

Allegheny County has significant water transportation resources for personal, commercial and recreational travel, and for freight shipment.

PORT OF PITTSBURGH

The Port of Pittsburgh continues to be one of the busiest ports in the nation. It's a vital element in an expansive and expanding transportation network that provides Allegheny County businesses with access to regional and global markets.

Photo credit: McCormick Taylor

Each year the Port of Pittsburgh moves approximately $8 billion worth of goods and contributes more than 45,000 jobs in southwestern Pennsylvania. Nearly 250,000 jobs in the region rely on the maintenance of a reliable river transportation system. The primary commodities moving through the Port include coal, sand and gravel, limestone, scrap, chemicals and primary manufactured goods (such as alloys, fabricated metal products, lime, cement and glass). The Port encompasses a number of terminals, as shown in Table 4I.13.

The Port of Pittsburgh is the second busiest inland port in the United States.

According to the Port of Pittsburgh Commission, Pittsburgh is the third largest inland port in the nation. Based on 2011 data from the US Army Corps of Engineers, Pittsburgh is the third busiest inland port in the nation and the 21st busiest port, of any kind, in the nation. Pittsburgh handles more tonnage than Philadelphia, Seattle, and Chicago. The more than 34 million tons of cargo the Port of Pittsburgh ships and receives each year equates to an annual benefit to the region of more than $873 million.

LOCKS AND DAMS

Within Allegheny County, there are seven locks and dams that facilitate the movement of raw materials and goods to end users and there are intermodal facilities for transfer to other modes of transportation. Table 4I.14 shows the existing system of locks and dams.

If one of the locks or dams in Allegheny County became inoperable, it would take 700 trucks per day seven days a week to move the freight that would have otherwise been carried on the rivers over the same period of time.

PASSENGER SERVICE

The Gateway Clipper is a private company offering excursion cruises on the Three Rivers, and has what is believed to be the largest inland riverboat fleet in the country. The Gateway Clipper also offers a passenger river shuttle that operates in a loop from Station Square to the North Shore's Heinz Field, PNC Park and Carnegie Science Center and back, stopping at the Point along the way.

MARINAS

Throughout the County there are numerous marinas and boat docks for private boat owners. In recent years, there has been an increase in locations for kayak rentals and launches along the rivers and on local park lakes.

WATERWAYS

TABLE 4I.13 – Location of Public, For Hire River Terminals in Allegheny County

COMPANY NAME	RIVER	MILEPOST
Three Rivers Marine and Rail Terminals	Monongahela	19.1 RDB
Allegheny River Terminals, Inc.	Allegheny	18.6 LDB
Azcon Corporation	Allegheny	7.0 RDB
Port of Leetsdale	Ohio	14.5 RDB
RiverLift Industries	Monongahela	23.5 LDB
Gulf Materials Dock (GTC)	Monongahela	10.2 RDB
Josh Steel	Monongahela	10.1 RDB
Kinder Morgan	Monongahela	16.1 LDB
Kinder Morgan (KM Ferro Group)	Ohio	33.5 RDB
Transtar/Union Railroad	Monongahela	12.1 LDB

RDB - Right Descending Bank, LDB - Left Descending Bank

TABLE 4I.14 – Locks and Dams in Allegheny County

RIVER	FACILITY	YEAR OF CONSTRUCTION/ RECONSTRUCTION
OHIO RIVER		
	Emsworth Locks and Dam	Locks: 1922 Dam: 1938
	Dashields Locks and Dam	Locks and Dam: 1929
MONONGAHELA RIVER		
	Braddock (Locks and Dam 2)	Locks: 1906/1953 Dam: 1906/2004
	Elizabeth (Locks and Dam 3)	Locks and Dam: 1907/1967
ALLEGHENY RIVER		
	Pittsburgh (Lock and Dam 2)	Locks and Dam: 1934
	CW Bill Young – Barking (Lock and Dam 3)	Locks and Dam: 1934
	Natrona (Lock and Dam 4)	Locks and Dam: 1927

Source: U.S. Army Corps of Engineers

WATERWAYS

■ ISSUES AND ANALYSIS

This section examines ways to ensure the continued viability of waterway transportation in Allegheny County.

KEY CHALLENGES

In developing the Transportation Plan, the Transportation Resource Panel helped to identify these key challenges:

- Condition of existing Lock and Dam system
- 'Last Mile' of local roadways in freight corridors
- Underutilized river system for water taxis and transit
- Need more marinas boat launches to facilitate access to rivers

The following provides an understanding of these issues.

CONDITION OF EXISTING LOCK AND DAM SYSTEM

The condition of the lock and dam system is deteriorating quickly due to its age. A failure of any one of the locks and dams could cause severe impacts to the local and regional economy and to the regional transportation system. If a shut down of the lock and dam system occurs, it will be difficult to accommodate freight on the roadway system. To put it in perspective, if one of the locks or dams became inoperable, it would take 700 trucks a day seven days a week to move the freight that would have otherwise been carried on the rivers over the same period of time. The condition and cost to operate locks and dams in Allegheny County is shown in the following section.

Allegheny River Lock and Dam 2: Average cost to operate and maintain Lock 2 at an acceptable level of risk is $4.0 million per year. Lock 2 was built in 1934. It is a single chamber lock and any failure will effectively close the river beyond it to navigation until repairs are made.

Allegheny River CW Bill Young Lock and Dam: Average cost to operate and maintain this lock at an acceptable level of risk is $3.1 million per year. This lock was built in 1934. It is a single chamber lock and any failure will effectively close the river beyond it to navigation until repairs are made.

Photo credit: McCormick Taylor

Allegheny River Lock and Dam 4: Average cost to operate and maintain Lock 4 at an acceptable level of risk is $1.7 million per year. Lock 2 was built between 1920 and 1927, making it almost 90 years old. It is a single chamber lock and any failure will effectively close the river beyond it to navigation until repairs are made.

Monongahela River Braddock Locks and Dam: While the dam is new, the locks were built in 1906 and rehabbed in 1953. The average cost to operate and maintain Braddock Locks at an acceptable risk level is $3.6 million per year.

Monongahela River Locks and Dam 3 at Elizabeth: Dam 3 is scheduled for removal upon completion of the reconstruction of the Charleroi Locks. Locks and Dam 3 were built in 1907 and rehabbed in 1967. In addition to the costs of emergency repairs, it is costing $3.2 million per year to operate and maintain a set of locks and a dam that should have been removed in 2003. According to the Corps of Engineers, "Locks and Dam 3 are highly unreliable and threaten to halt navigation on the Monongahela River at any time. The dam was in a progressive stage of failure in 2006 and 2007. Emergency repairs, expected to last for 5 to 10 years, were completed in 2007 and 2008. The locks at Lock and Dam 3 are also highly unreliable. Many of the components of the

locks filling and emptying system are out of service and the landwall filling/emptying flume is severely deteriorated."

Ohio River, Emsworth Locks and Dams: The Corps of Engineers describes the Emsworth Dams as presently being in an exigent situation. Temporary, emergency repairs to the erosion protection downstream of the dams were completed in January 2005 to fix 10-foot-deep scour holes--65 percent of the erosion protection was in a failed state. Due to the extreme corroded state of the dam gates, failure of any one of the seven lift gates yet to be replaced would most likely cause a portion of the stilling basin to fail and possibly undermine the dam. The systems are proven to be unreliable due to multiple failures within the past four years. The dams have been categorized as Dam Safety Action Class 1, urgent and compelling. The Emsworth Locks and Dams are the oldest project on the Ohio River, having been completed in 1922. The average cost for operation and maintenance is $4.0 million per year and the cost for the Major Rehabilitation was last updated at $168.3 million.

Ohio River, Dashields Locks and Dam: Dashields was built in 1929 and costs $4.4 million per year to operate and maintain. The locks are in a debilitated condition and work was authorized in 2011 to stabilize a lock wall that is at risk of falling into the river. The work has not begun due to a closed township road barring access to the work site.

'LAST MILE' OF LOCAL ROADWAYS IN FREIGHT CORRIDORS

Local roadways in the freight corridors often do not have the capacity to handle the type and amount of vehicles accessing river ports, such as large trucks that have wide turning radii. 'Last mile' of roadways refers to the local roadways that connect the river ports with the interstate and arterial roadways system. These routes should be signed to assist drivers to efficiently move freight.

UNDERUTILIZED RIVER SYSTEM FOR WATER TAXIS AND TRANSIT

Due to recent riverfront developments, an opportunity exists to develop a river taxi system as an alternative to commute to Downtown Pittsburgh and to link key attractions in Station Square, North Shore, the Strip District and Downtown. An assessment should be completed to see if river transit is a viable option now that there is more of a concentration of development.

NEED MORE MARINAS AND BOAT LAUNCHES

The rivers are a wonderful resource for the residents of Allegheny County. Additional marinas and boat launches should be developed in appropriate places to provide more people the opportunity to enjoy the rivers as well as to handle more cargo loading and multi-modal connectivity.

■ RECOMMENDATIONS

GOAL OF THE PLAN

An excellent multi-modal transportation network – integrated with the Future Land Use Plan – that:

- Connects people to jobs
- Supports mobility of existing communities
- Provides efficient access to proposed development, and
- Facilitates the movement of goods and freight.

OBJECTIVES OF THE PLAN

The objectives of the Waterways portion of the Transportation Plan are to:

A. Support freight movements through safe and efficient water systems.

B. Provide access to the rivers for commercial and recreation uses.

WATERWAYS

The following provides an understanding of the objectives.

A. Support Freight Movements Through Safe and Efficient Water Systems

The Three Rivers provide a major means of freight movement. The preservation of the rivers' system of locks and dams that are managed by the Army Corps of Engineers is critical to keep freight moving. The age and condition of the system is a major maintenance concern. Funding is available at the federal level, but not at levels sufficent to rehabilitate the system in the near future. To alleviate concerns and to ensure freight continues to move along the rivers, local representatives need to urge Congress to appropriate sufficient funding for the maintenance and rehabilitation of southwestern Pennsylvania's system of locks and dams.

B. Access to the Rivers for Commercial and Recreational Uses

The Three Rivers and adjacent brownfields also provide a source of developable land and recreation. These areas are being opened up for uses that include mixed-use centers, office parks, retail centers, recreational centers and trails. Allegheny County and organizations such as Riverlife Task Force and Friends of the Riverfront are using the rivers to revitalize areas of the County that have been neglected and have historically been industrial uses in the past. Homestead's Waterfront development and the City of Pittsburgh's South Side Works are two examples of developments that utilize brownfields and their proximity to the river to their advantage. Trails have been incorporated into the developments to encourage alternative modes of travel as well as recreation. Additional development of marinas and public boat launches will provide the residents of Allegheny County with access to the rivers.

ALLEGHENY PLACES
THE ALLEGHENY COUNTY COMPREHENSIVE PLAN

CHAPTER 5:
PUTTING IT IN *PLACES*

Allegheny Places is a blueprint for the future for Allegheny County, showing how growth and redevelopment can be directed to existing and future Places to provide new economic opportunities, revitalize existing communities, protect natural features, maintain and develop transportation and infrastructure, and conserve open space and historic and cultural resources.

Allegheny Places is a call to action. This chapter describes the Plan implementation strategy. It includes a specific sequence of steps for the County, municipalities, COGs, local agencies, the state, and others to create a positive future for the County and all of its Places.

BENEFITS OF THE PLAN

Allegheny Places offers significant benefits to everyone.

Allegheny Places benefits the County by:

- Setting the vision and direction for the coming decades
- Providing a framework for decision-making
- Providing implementation strategies for a more vigorous approach to conservation, land development and economic initiatives
- Identifying new economic, residential and cultural opportunities
- Assisting in developing partnerships with residents, communities and businesses through their involvement in plan development
- Informing the County capital budget process to target goals more effectively

Allegheny Places benefits municipalities by:

- Providing a better understanding of multi-municipal issues
- Providing tools, models, best practices and funding sources
- Providing data and mapping to support development and redevelopment opportunities
- Strengthening applications for government grants and loans
- Facilitating the processing of permits

Allegheny Places benefits private developers by:

- Explaining County economic development policies and strategies
- Highlighting development opportunities
- Providing data and mapping for development sites
- Strengthening applications for government grants and loans (When applying for government grants, loans or permits, a development proposal that is consistent with County and local plans will be more likely to gain a favorable review)
- Facilitating the processing of permits
- Assisting in national and international marketing
- Providing a single source (the e-library) for municipal land development regulations

Allegheny Places benefits local nonprofit and civic organizations by:

- Providing a cohesive vision for enhancing the overall quality of life in Allegheny County
- Providing direction on where these organizations can focus their efforts and leverage their resources with other partners

The benefits of managed growth and revitalization may be realized only if Allegheny County is joined in action by local municipalities and their Councils of Government, public agencies, private organizations, developers, investors and others. Timely, coordinated planning efforts must make the most of opportunities to direct development, investment and activity to specific areas, and to ensure that initiatives occur in ways that support existing communities. Deliberate, cooperative steps to implement the Plan's goals, objectives and policies are required in order to create a bright future for Allegheny County.

THE COUNTY ROLE

Allegheny County will mobilize its resources and bring them to bear on the issues and opportunities raised by *Allegheny Places*. The Implementation Strategy outlined in this chapter calls for a higher County profile in planning over the coming years. The Implementation Strategy also calls for a higher

profile for local planning as well, with municipalities looking to the County for assistance to help them fulfill that role. County government will be the lead agency in the implementation of *Allegheny Places*.

Municipalities need to be able to receive county assistance in preparing local land use planning ordinances and plans, infrastructure plans, and other technical planning assistance. The County will develop a formal planning assistance program with local governments and other planning partners. The program will include the delivery of specialized professional planning services to local governments under contractual terms and/or the distribution of small grants to municipalities to assist them in engaging their own professional planning expertise.

There is plenty of work to be done to implement the Plan. Actions are required by all those influencing the future direction of Allegheny County, but the County Executive, the County Council, the Authorities, and the County Office of Economic Development will begin the process.

COUNTY COMMITMENT AND LEADERSHIP

Following adoption, *Allegheny Places* becomes the day-to-day policy document of the County regarding development and redevelopment. The decisions of Allegheny County and its Authorities will be consistent with *Allegheny Places*, including capital budget expenditures. Unequivocal support from County-level public officials will make it easier to persuade local officials, developers, and others to take the Plan seriously.

Similarly, all Allegheny County departments should integrate the Plan into their day-to-day work. Staff support of the Plan should be a basic obligation of employment, as should the dissemination of the Plan's policies.

COUNTY PLANNING RESOURCES

The County will strengthen and mobilize its resources in order to help County Council and government to use the Plan. When the Plan is put into effect, outreach to municipalities will commence immediately upon Plan adoption and be sustained for the foreseeable future. Substantive planning issues raised by the Plan will need to be followed up with further studies, research, model ordinance preparation, and other professional planning activities. Plan amendments and updates will be ongoing to ensure that the Plan remains timely.

Plan implementation depends upon a much more prominent County planning role in the coming years. Allegheny County will need a planning staff that is comparable in size and capabilities to other counties in Pennsylvania that are populous, diverse, and committed to planning as a means to achieve economic growth and a high quality of life. Within a year of adoption of the Plan, there should be in place a ten-person planning staff with an adequate budget to cover the work program, estimated to be $1.2 million. Within five years of Plan adoption, Allegheny County should have a planning staff of twenty-five people, with a corresponding commitment to an adequate budget of at least of $2.5 million in payroll support. Staff will be based both at a central planning office and at 'planning area' offices, such as described below.

COUNTY OUTREACH TO MUNICIPALITIES

The centerpiece of the Plan is its Places, which are the focus of the implementation program for the Plan. This message will be conveyed in discussions with municipalities and others that are the County's partners in Plan implementation. The discussion below describes how the County will work with municipalities and other planning partners. Examining existing and proposed local land use policies, regulations, and other initiatives to ensure consistency with the Plan will be a common element of each partnership.

The County will publicize the Plan and provide information to its public and private planning partners so they can take actions necessary to support Plan implementation. The single most important group targeted for education and outreach is Allegheny County's municipalities. The County will also work closely with its other partners, which will include federal, state, county and local agencies, authorities, institutions, and the private sector, to ensure their awareness and participation.

The County looks to its constituent municipalities, including the City of Pittsburgh, to take actions in support of *Allegheny Places*' policies. Actions include adopting local comprehensive plans and ordinances that are generally consistent with *Allegheny Places* and providing planning and design support for the development of designated Places in the Plan. It is critical that Allegheny County achieves a high degree of cooperation from local

municipalities, especially their acceptance of the basic principles of the Plan.

Cooperation, **cross-acceptance**, and **consistency** are the key guidelines toward establishing a solid relationship between municipalities and *Allegheny Places*. There are two major challenges, however, which are as follows:

- Allegheny County has a large number of municipalities. Outreach, interaction, and agreement can be slowed to an ineffective pace when the number of jurisdictions is so great.

- Many local elected and appointed officials are volunteers and may not have had the opportunity to become well versed in the latest planning concepts and tools. Allegheny County will need to help local officials obtain a working knowledge of the Plan. Doing so will show the many advantages and opportunities that working with the County and neighboring municipalities can provide. It will also allow discussions about planning tools and programs to occur from a common basis of knowledge.

There are some methods available to help overcome these shortcomings, which include harnessing a structure for intermunicipal cooperation that already exists. Councils of Government (COGs) are organizations that bring neighboring municipalities together for common purpose and should be utilized in the implementation of *Allegheny Places*. The County understands the need for additional funding as the COGs take on new responsibilities. As the process moves forward, funding sources will be identified. In the implementation of *Allegheny Places*, COGs can play new roles. These are discussed below.

Cooperation

The Councils of Government are existing multi-municipal organizations that can potentially be an important partner in advancing the Plan's implementation. While there are many municipalities, most are grouped together into eight COGs. In the *Allegheny Places* era, each COG area will be considered a County sub-planning area. Professional planning personnel will be assigned from County staff to provide planning assistance germane to each planning area, promote the policies of the Plan, work with local municipalities on achieving consistency with the Plan, and facilitate the operations of Places Task Forces.

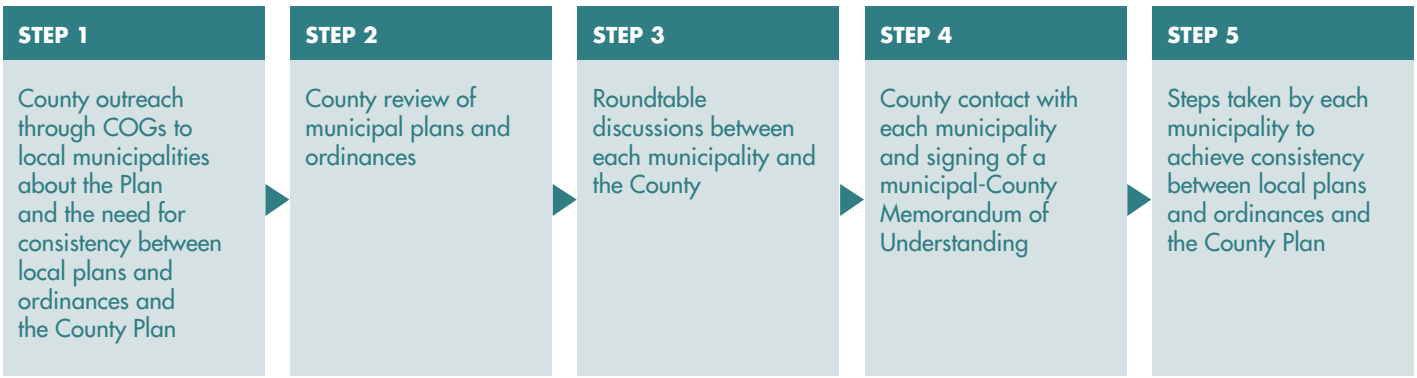
Allegheny County will work within each COG area to provide initial outreach and education about the Plan to local municipalities. As Plan implementation proceeds, the County will customize its messages about planning for each COG area.

Many of the Places identified in the Plan cross municipal boundaries. Among other things, the COGs can help to promote the cooperation of local municipalities with the County and with one another in order to make Places achieve their potential. The County will work within the COG areas to promote and support intermunicipal planning, cooperative zoning, and area master planning and design guidelines consistent with the Places defined in the Plan.

Cross-Acceptance and Consistency

Outreach and education is vital to help municipalities understand the potential that is expressed in the Plan and to explain local roles in Plan implementation. Advancing the policies of *Allegheny Places* will require that local comprehensive plans and ordinances be generally consistent with the Plan, and support the creation of new

Figure 5.1 – The Cross-Acceptance and Consistency Process



and revitalization of existing Places as directed in the Plan. Allegheny County will coordinate with the interCOG Council toward using the COG framework to gain the confidence and cooperation of local jurisdictions.

A first step will be to prepare the groundwork for a formal review of current (in general, those not more than ten years old) local plans and ordinances for their consistency with the County Plan. "Cross-acceptance" will be established in the form of a memorandum of understanding (MOU), in which municipalities agree to work with the County to implement the Plan. The MOU will outline the municipality's agreement in regard to the following points:

- Municipal support for the implementation of *Allegheny Places*
- Willingness to work with the County, the COG, and other municipal partners to implement the Plan
- Authorization for consistency reviews that will identify the manner in which local plans can be made generally consistent with the County Plan

In addition to a formal letter prepared by County technical staff, consistency reviews will include roundtable discussions among local and County representatives. The letter will summarize potential inconsistencies and/or shortcomings of current plans and ordinances, outline steps that municipalities can use to achieve consistency, and identify appropriate resources.

If the comprehensive plan and implementing ordinances of a municipality are found to be generally consistent with *Allegheny Places*, the letter will summarize the points of consistency, and outline steps that the County and municipality may take to further support and implement the Plan.

COUNTY OUTREACH TO OTHER GROUPS

While the municipalities will be critical to the Plan's ultimate implementation, there are many other groups that will be equally important partners in Plan implementation. The County will provide outreach and education about the Plan to key groups for all levels of government and other institutions that have an interest in the Plan, and/or are important for implementation. How the County would like to work with a group or institution to implement the Plan will be central to the message. Follow up information and strategy sessions will be arranged with these groups and institutions to review the Plan and discuss how best to work together in the future.

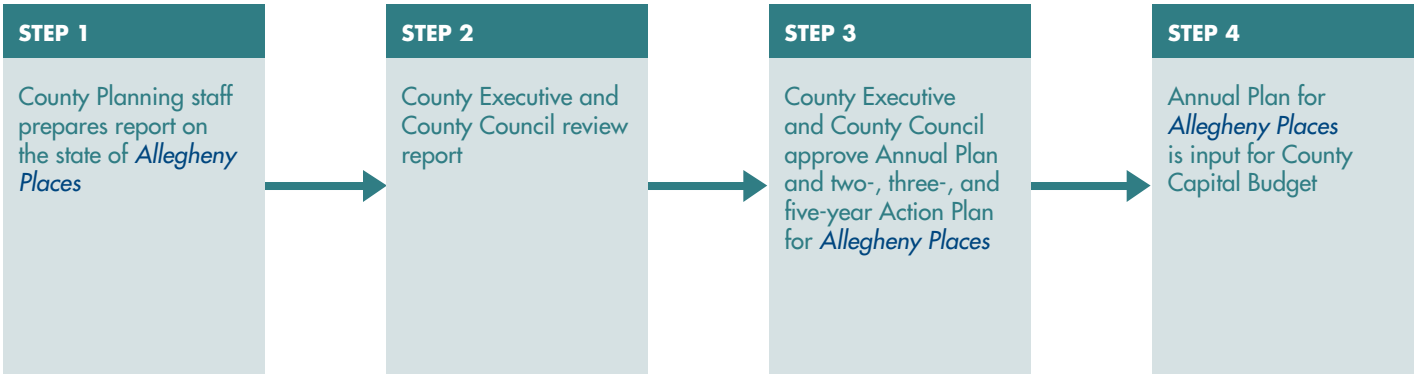
YEARLY ACTIVITIES AND PLAN UPDATES

The chief mechanism for updating *Allegheny Places* will be the Annual Review. County planning staff will prepare an annual report to the County Executive and County Council summarizing development activities in the County and progress on Plan implementation. If there are any amendments to the Plan to be considered for adoption, County

Planning staff will prepare these for consideration as part of the annual report.

The Annual Review will, as an annual agenda item, include an Annual Plan, which outlines cross-acceptance agreements to be obtained, consistency reviews to be completed, studies to be undertaken, and other initiatives to be made over the coming year. The Annual Plan will also contain a two-, three-, and five-year Action Plan.

Figure 5.2 – The Annual Review Process



Capital Budget Review

The approved Annual Plan will be completed in time to be considered in the preparation of the County Capital budget. Proposed capital budget items will be reviewed by County staff for consistency with the Plan. Inconsistencies may indicate either the need for a change in the focus of expenditures, or an update to *Allegheny Places*.

ACTION PLAN FOR IMPLEMENTATION

Table 5-1 describes initial critical actions needed to implement the Plan, including internal County coordination and the addition of staff resources. Also included is enlisting the services of public and private agencies and organizations at all levels in order to coordinate policies and leverage available technical and financial resources.

THE ALLEGHENY PLACES FUND

The County's resources, including funding available through the County's general taxing powers and its special Authorities and grants from State and Federal agencies, will be applied toward the implementation of *Allegheny Places*. Many of the required implementation actions are basic commitments that adoption of a County Plan implies, such as education and outreach, cross-acceptance with local communities, and reviews of local plans and ordinances for consistency with the Plan.

Adoption of *Allegheny Places* also implies a commitment to follow through with the establishment or revitalization of Places, as designated in the Plan. Through *Allegheny Places*, the County has targeted specific locations for development and redevelopment. Allegheny County has made a commitment to these Places as the foundation for future growth and investment in the County through policy and programming. To that end, bonds issued by the County would provide funding for economic and community development and redevelopment projects in designated Places. The Allegheny Places Fund (APF) will support the mission of implementing *Allegheny Places*.

Eligible Applicants

Applicants will be Places Task Forces, established through cooperative agreements among the County, one or more COGs, and one or more municipalities that have Memoranda of Understanding with the County . A Place Task Force would be set up for the express purpose of overseeing the planning, design, development and/or redevelopment of a Place, as designated in the Future Land Use Plan of the Comprehensive Plan.

Funding for projects is expected to be highly competitive. Projects that meet the most Plan goals will be rated highest for receipt of funds.

Eligible Project Types

- Creation and adoption of specific master/urban design plans for designated Places
- Creation and adoption of new development regulations for designated Places
- Design, production and distribution of marketing brochures to solicit private partners to participate in the development/ redevelopment of designated Places
- Pre-construction activities, including approved demolition and engineering
- Construction or rehabilitation of infrastructure
- Acquisition, development, or improvement of civic open space, trails, and greenways
- Building and/or property acquisition and/or rehabilitation

Ineligible Project Types

- Administrative or operating costs of a Place Task Force
- Maintenance or operating costs for new or existing facilities or infrastructure

Required Community Involvement

To be eligible for grants from the APF, a Place Task Force for a designated Place must be set up through an agreement among the County, the relevant COG (or COGs), and the relevant municipality (or municipalities). Membership in the Task Force should include representatives of these same groups. Meetings of the Task Force should be open to the

TABLE 5.1 – Action Plan for Implementation

	ACTION	TIMING
1.	Adopt *Allegheny Places*	Immediate
2.	Identify staffing required for plan implementation (coordination, consistency reviews, technical assistance) & increase planning staff as appropriate	Immediate
3.	Coordinate with all County departments regarding plan policies and implementation steps	Within 6 mos.
4.	Coordinate with all regional, state and federal agencies regarding their roles in supporting plan implementation	Within 6 mos.
5.	Coordinate with all major foundations and non-profit organizations regarding their roles in supporting plan implementation	Within 6 mos.
6.	Determine budgetary requirements and establish capital budget funding for plan implementation (staffing, programs)	Within 1 yr.
7.	Develop and deliver outreach program with COGs	Within 1 yr.
8.	Work with COGs to implement education and outreach program for municipalities	Within 1 yr.
9.	Determine method for setting priorities for implementing Places	Within 1 yr.
10.	Identify top 3 Places for early implementation	Within 1 yr.
11.	Conduct targeted municipal outreach and gain agreements for consistency reviews	Within 1 yr.
12.	Conduct consistency reviews to identify planning and regulatory needs as well as infrastructure requirements for top 3 Places for early implementation	Within 2 yrs.
13.	Gain memorandums of understanding and perform consistency reviews for 20% of municipalities	Within 2 yrs.
14.	Develop new plans and ordinances to support each of the top 3 Places for early implementation	Within 2.5 yrs.
15.	Gain memorandums of understanding and perform consistency reviews for 40% of municipalities	Within 3.5 yrs.
16.	Gain memorandums of understanding and perform consistency reviews for 60% of municipalities	Within 5 yrs.
17.	Gain memorandums of understanding and perform consistency reviews for 80% of municipalities	Within 6 yrs.
18.	Gain memorandums of understanding and perform consistency reviews for 100% of municipalities	Within 7 yrs.

public, advertised, with opportunities for residents of the Place and its vicinity to participate. The Task Force must be able to demonstrate to the APF that applications for funding have been preceded by publicly-advertised community meetings in which the opportunity for residents to express opinions on the types of projects to be considered for funding have occurred.

Local Match

The APF will provide no more than 75% of total project costs for any project. The local match may come from a variety of sources, both public and private, including local, state, and federal sources, school districts, public authorities, foundations, lending institutions, and private developers.

DEVELOPMENTS OF REGIONAL SIGNIFICANCE AND IMPACT

Article III, Section 301 (7) (ii), of the Municipalities Planning Code (MPC) defines Developments of Regional Significance and Impact (DRSI) as "any land development that, because of its character, magnitude or location will have substantial effect upon the health, safety, or welfare of citizens in one or more than one municipality." The MPC specifies that a County Comprehensive Plan shall "identify current and proposed land uses which have a regional impact and significance, such as large shopping centers, major industrial parks, mines and related activities and recreational complexes, hospitals, airports and port facilities."

Some examples of DRSIs in Allegheny County include:

- The Casino planned for the North Shore in the City of Pittsburgh
- The new Pittsburgh Penguin Arena planned for the Hill District in the City of Pittsburgh
- The recently completed Pittsburgh Mills Mall in Fraser Township
- The Wal-Mart development in Kilbuck Township (application withdrawn)

Over the planning period it is expected that there will be other development in Allegheny County with the potential to have a substantial effect on the Region; for example, the Allegheny County Riverfronts Project and proposed Greenways Network. However, it is likely that there will be more smaller-scale developments whose potential effects are multi-municipal, rather than regional.

The MPC gives local municipalities the authority to approve subdivisions and land developments in the municipality. In Allegheny County, the county planning agency's role is primarily advisory. The Planning Division will continue providing advisory reviews of proposed land developments, as required by the MPC. For those applications that meet the definition of a DRSI, whether regional or multi-municipal, the recommendations of Planning Division will be consistent with the goals and objectives of *Allegheny Places*.

Benchmarks to determine whether a proposed development is likely to have impacts on more than one municipality are needed. The Planning Division will consider the following criteria in reviewing potential DRSIs:

Distance of the project site from a municipal boundary;

- Size of the project (square footage of floor space, numbers of dwelling units, parking spaces, acreage);
- Use
- Height of structures;
- Extent of physical disturbance;
- Extent of excavation;
- Extent of demolition;
- Presence of historic resources;
- Presence of rare or endangered plants or wildlife;
- Presence of natural features;
- Presence of publicly-accessible open space;
- Trip generation rates (automobiles);
- Trip generation rates (trucks);
- Trip generation rates (rail and other "heavy" modes);
- Extent of stormwater runoff;
- Water consumption rates;
- Sewage generation rates;
- Noise generation rates;
- Airborne emissions generation rates;
- Extent of vibration;
- Extent of outdoor illumination.

Thresholds for the criteria and others that may be developed will be established as part of the ongoing implementation of the Plan. The findings of the Kilbuck Landslide Task Force, which was formed to investigate the causes of landslide that occurred in September of 2006, will be considered, and additional recommendations that may result from the work of the Task Force.

MODEL ZONING PROVISIONS – TRANSIT-ORIENTED DEVELOPMENT

Transit-Oriented Development (TOD) is characterized by compact, mixed-use development centered on transit stations. Concentrating complementary residential, commercial, and office uses around transit stations in a pedestrian-friendly environment creates an efficient land use setting in support of transit usage and provides convenience, mobility, and economy for residents, employees, and visitors. The model zoning provisions for TOD, following, explicitly support the following characteristics that are typically associated with TODs:

- A mix of land uses including residential, retail, office, and civic space;
- A strong network of pedestrian connections, amenities and proximity of destinations to promote a safe, convenient, and walkable environment;
- More intense development closest to the transit facility, with a gradual reduction in intensity as one moves outwards;
- "Infilling" existing districts and neighborhoods;
- Orientation of buildings and building access to streets;
- Reduction in parking requirements where compared with conventional development;
- Balancing of land uses to maintain a steady flow of activity throughout the day and evening;
- Safe, attractive, and convenient transit stations; and
- Office and retail destinations within 1/8-mile of the transit station and the majority of residential units within 1/4-mile of the transit station. This configuration matches research that concludes that commuters will walk 1/8-mile from a transit station on a commute to work, but that they will walk a somewhat greater distance (1/4-mile) to transit stations from home.

MODEL ZONING PROVISIONS FOR ALLEGHENY COUNTY TOD PLACES

ARTICLE Y: TRANSIT-ORIENTED DEVELOPMENT DISTRICTS

Y00 General Provisions
Y01 Permitted Uses
Y02 Development Standards — Development Parcels
Y03 Development Standards — Roadways
Y04 TOD Station District
Y05 TOD Primary Pedestrian District
Y06 TOD Secondary Pedestrian District
Y00 GENERAL PROVISIONS

Y00.01 Definitions.

Unless otherwise expressly stated, the following words shall, for the purpose of this Article, have the meanings indicated:

Cartway The extent of a street from curb to curb, including the travelway, shoulders, and on-street parking areas.

Neck-down A traffic calming device, usually at intersections, in which the curb line is brought out to the edge of the travelway. The effect of a neck-down is to reduce the effective width of the street for pedestrians, while maintaining the width of the street for the movement of traffic.

Primary pedestrian frontage A streetscape in which the front façades of buildings are constructed up to the street right-of-way and for which there are no building setbacks.

Right-of-way A strip of land occupied by a street, including its cartway, boulevard, and sidewalks.

Streetscape The area between building façades on either side of a street or between properties on either side of a street, encompassing its cartway, boulevards, sidewalks, setbacks, and property façades or frontages.

TOD station district A zoning district in the immediate vicinity of a transit station and encompassing lands generally within 1/8-mile of the transit station.

TOD primary pedestrian district A zoning district adjacent to a TOD Station District and encompassing lands generally with 1/4-mile of a transit station.

TOD secondary pedestrian district A zoning district adjacent to a TOD Primary Pedestrian District and encompassing lands generally with 1/2-mile of a transit station.

Traffic calming Physical measures taken within the right-of-way of a street that have the effect of increasing pedestrian safety. Traffic calming may be achieved by devices that lessen pedestrians' exposure to vehicles, increase pedestrians' visibility to motorists, reduce vehicular speeds, or have a combination of these effects.

Transit station A location for passenger boarding and alighting from public transportation vehicles traveling on fixed guideways, including rail stations.

Travelway The lanes of a street for moving traffic and any shoulders between the lanes and on-street parking areas.

Y00.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in transit-oriented development districts in accordance with Section Y01.

Y00.03 Conditional Uses.

The [governing body] is authorized to grant Conditional Uses for uses specified in Section Y01 in accordance with Article ____ and for applications meeting the following criteria:

A) The use shall not generate high levels of vehicular traffic, nor noise, noxious odors, air pollution, or glare;

B) The manner, location, and hours of operations and of deliveries to the premises shall be compatible with the daily cycle of active and quiet periods associated with any adjacent or nearby residential uses;

C) The use shall complement other uses in the district, creating a mixed-use character that contributes toward an increased rate of bicycle and pedestrian access to local services, including transit, minimized auto-trip generation, and additional security for district businesses;

D) Additional Conditional Use criteria specified in Sections of this Article are met, when appropriate.

Y00.04 Accessory Uses.

Accessory uses are permitted in accordance with Article ____.

Y00.05 Buffers.

Buffers shall be provided in accordance with Article ____.

Y00.06 Signs.

Signs shall be in accordance with Article ____.

Y00.07 Sewer and Water Facilities.

All development in transit-oriented development districts shall be served by central water and sanitary sewer facilities acceptable to the [governing body] and subject to the approval of the Pennsylvania Department of Environmental Protection or its successor agency and the appropriate municipal authority providing water or sewer facilities.

Y00.08 Performance Standards.

Any activity or use in transit-oriented development districts shall comply with the performance standards of Article ____.

Y00.09 Street and Parcel Layout.

Transit-oriented development districts shall consist of an interconnected grid or modified grid layout of streets with development parcels generally bounded by streets formed as part of this layout. Rights-of-way and streets shall be in accordance with Section Y03.

Y00.10 Pedestrian and Bicycle Orientation.

Transit-oriented development districts shall facilitate pedestrian and bicycle access to the transit station and a high level of mobility throughout TOD districts. Sidewalks and bike lanes shall be provided in accordance with Section Y03. Additional routes for pedestrians and cyclists, such as mid-block cut throughs and all-weather trails, shall also be provided. Intersection neck-downs shall be provided wherever feasible. Traffic calming techniques shall be employed to promote pedestrian safety.

Y00.11 Use Mix.

Transit-oriented development districts shall consist of a mix of land uses. TOD Station Districts shall substantially comprise street-level shops, with office and residential uses above.

TOD Primary Pedestrian Districts shall substantially comprise residential uses with retail uses oriented to local residents.

TOD Secondary Pedestrian Districts shall comprise a mix of residential, retail, and other uses. Institutional uses, ranging from community centers and post offices to day-care centers, schools, and libraries, are recommended in transit-oriented development districts and strongly recommended in TOD Station Districts.

Y00.12 Transit Station.

Transit stations shall be located centrally within a TOD Station District, with a high degree of accessibility, surrounded by a closely-related mix of retail, office, and residential uses. Transit stations shall provide covered platforms and bicycle storage space for transit patrons. Access, drop-off, and waiting opportunities for rubber-tired transit vehicles (feeder bus, shuttle bus) and other vehicles (private auto, taxi) shall be provided. Civic open space shall be provided adjacent to the transit station.

Y00.13 Parking and Loading.

On-street parking is required in accordance with Section Y03. Off-street parking and loading shall be provided in accordance with Article ____. On-street parking spaces located within five hundred (500) feet of a use may be credited toward required off-street parking spaces as specified in Article ____. Off-street parking, including bicycle parking, should take the form of small lots behind buildings and as part of structures containing other uses, such as retail, residential, and office uses.

Y00.14 Open Space.

Linear open space corridors shall be provided to facilitate pedestrian and bicycle connections to the transit station as well as from TOD Station Districts to TOD Primary Pedestrian Districts and TOD Secondary Pedestrian Districts. Non-linear open space in TOD Station Districts shall be usable for civic and community functions. TOD Primary Pedestrian Districts shall contain open space areas for passive recreation and tot-lots. TOD Secondary Pedestrian Districts shall contain substantial open space areas for active and passive recreation. Open space shall protect natural features, including floodplains, wetlands, and tree masses.

Y00.15 Natural and Landscaped Areas.

Except as provided for in specific sections of this Article, all portions of a tract not occupied by buildings and required improvements shall be maintained as landscaped areas consisting of natural environmental features and/or planted vegetation.

Y01 - Y03 Please reference the tables immediately following section Y06

Y04 TOD STATION DISTRICT

Y04.01 Intent.

The intent of the TOD Station district is to provide for the combining of offices, stores and shops, hotels and inns, higher intensity residential uses, and civic, public, and semi-public uses in a closely-knit walking precinct at transit stations. It is the purpose of these regulations to encourage a diversification of uses in each TOD Station district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. In addition, the specific intent of the district is to:

A) Encourage the development of land and buildings at transit stations for a variety of uses, either individually or together within the same building, for compatible mixed-use developments;

B) Permit the development of functionally-related land uses in a manner that is supportive of transit usage and that is more efficient, environmentally-sensitive, and mutually-supporting than conventional sprawling, strip-type, low-intensity suburban development;

C) Maximize transit patronage and minimize auto-trip generation through maximizing opportunities for bicycle and pedestrian mobility to transit and bicycle and pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;

D) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of transit utilization and pedestrian circulation;

E) Provide for civic, public, and semi-public uses, including exterior common use areas, convenient to office and commercial concentrations, so as to function for the general benefit of the community as places for relaxation, recreation, and social activity;

F) Enhance the functional values of natural and landscaped areas for developed areas, including groundwater recharge, runoff control, and microclimate moderation.

Y04.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Station districts in accordance with Section Y01.

Y04.03 Development Standards.

Uses shall occur in accordance with the standards of Section Y02.

Y04.04 Pedestrian Frontages.

At least seventy-five percent (75%) of streetscapes in TOD Station districts shall be primary pedestrian frontages.

Y04.05 Building Size and Spacing.

The greatest dimension of a structure, measured parallel to exterior walls, shall not exceed two hundred (200) feet. The minimum distance between structures shall be ten (10) feet, except that all structures connected by a common roof line or effectively connected by means of intervening covered areas shall be considered as one (1) structure.

Y05.06 Orientation of Retail and Service Commercial Premises.

Patron access to commercial premises shall be by way of a door or similar opening giving access directly from the sidewalk along the front of the property or directly from the street right-of-way.

Y04.07 Bicycle and Pedestrian Circulation Provisions for Natural and Landscaped Areas.

Natural and landscaped areas, as provided for in Section Y00.15, shall predominantly consist of natural environmental features or planted and maintained vegetation, but up to twenty percent (20%) of the total area may also consist of exterior common use areas such as pedestrian paths, sidewalks, plazas, courtyards, and recreational amenities. Whenever practicable, ground surfaces in common use areas shall be constructed of pavers in a sand setting bed with permeable joints, or similar partly-pervious surface treatments.

Y05 TOD PRIMARY PEDESTRIAN DISTRICT

Y05.01 Intent.

The intent of the TOD Primary Pedestrian district is to provide for the combining of medium-high intensity, residential uses, stores and shops, offices, and civic, public, and semi-public uses in a closely-knit walking precinct close to transit stations using all modes. It is the purpose of these regulations to encourage a diversification of uses in each TOD Primary Pedestrian district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. In addition, the specific intent of the district is to:

A) Encourage the development of land and buildings close to transit stations for a variety of uses, either individually or together within the same building, for compatible mixed-use developments;

B) Permit the development of functionally-related land uses in a manner that is supportive of transit usage and that is more efficient, environmentally-sensitive, and mutually-supporting than conventional sprawling, strip-type, low-intensity suburban development;

C) Maximize transit patronage and minimize auto-trip generation through maximizing opportunities for pedestrian and bicycle mobility to transit and pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;

D) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of transit utilization and pedestrian and bicycle circulation;

E) Provide for public and semi-public uses, including exterior common use areas, convenient to medium-high density residential concentrations, so as to function for the general benefit of the community as places for relaxation, recreation, and social activity;

F) Enhance the functional values of natural and landscaped areas for developed areas, including groundwater recharge, runoff control, and microclimate moderation.

Y05.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Primary Pedestrian districts in accordance with Section Y01.

Y05.03 Development Standards.

Uses shall occur in accordance with the standards of Section X02.

Y05.04 Pedestrian Frontages.

At least fifty percent (50%) of streetscapes in TOD Primary Pedestrian districts shall be primary pedestrian frontages.

Y05.05 Retail and Service Commercial Uses.

Retail and service commercial uses shall be contained in multistory, mixed-use structures with retail and service commercial uses on the ground level and office and/or dwellings on the upper levels. The greatest dimension of a structure, measured parallel to exterior walls, shall not exceed two hundred (200) feet. The maximum ground level footprint of a retail and service commercial building shall be twenty thousand (20,000) square feet. The minimum distance between structures shall be ten (10) feet, except that all structures connected by a common roof line or effectively connected by means of intervening covered areas shall be considered as one (1) structure.

Y05.06 Orientation of Retail and Service Commercial Premises.

Patron access to commercial premises shall be by way of a door or similar opening giving access directly from the sidewalk along the front of the property or directly from the street and/or bicycle right-of-way.

Y05.07 Pedestrian Circulation Provisions for Natural and Landscaped Areas.

Natural and landscaped areas, as provided for in Section Y00.15, shall predominantly consist of natural environmental features or planted and maintained vegetation, but up to twenty percent (20%) of the total area may also consist of exterior common use areas such as pedestrian paths, sidewalks, plazas, courtyards, and recreational amenities. Whenever practicable, ground surfaces in common use areas shall be constructed of pavers in a sand setting bed with permeable joints, or similar partly-pervious surface treatments.

Y06 TOD SECONDARY PEDESTRIAN DISTRICT

Y06.01 Intent.

The intent of the TOD Secondary Pedestrian district is to provide for the combining of moderate-intensity residential uses, stores and shops, offices, and civic, public, and semi-public uses in areas near to transit stations. It is the purpose of these regulations to encourage a diversification of uses in each TOD Secondary Pedestrian and Bicycle district and to promote close interrelationships among different uses; high-quality, visually-attractive, and environmentally-responsible site design and buildings; efficient circulation systems; conservation of land and energy resources; reduced rates of auto-trip generation; and increased opportunities for pedestrian circulation. Furthermore, it is the intent to:

A) Establish or reinforce moderate-intensity, mixed-use areas, following the precedent of traditional towns, by keeping a variety of different, reasonably-compatible uses together in a closely-knit setting;

B) Provide for convenient, local services for residents living in and near to these areas and opportunities for short-distance trips by automobile or alternate means, such as by bicycle or on foot;

C) Encourage the use of transit;

D) Allow for moderate-intensity commercial uses where more intensive commercial use would have adverse effects on adjacent and neighboring residential areas;

E) Minimize auto-trip generation through maximizing opportunities for pedestrian movement and patronage of multiple facilities in a development district that emphasizes the interrelationship of uses and structures;

F) Establish a framework for development that anticipates and encourages the necessary conditions for a high level of pedestrian circulation.

G) Enhance the functional values of open space and landscaping for developed areas, including groundwater recharge, runoff control, microclimate moderation, noise attenuation, and visual buffering.

Y06.02 Permitted Uses.

Uses are Permitted by Right, as Special Exceptions, and as Conditional Uses in TOD Secondary Pedestrian districts in accordance with Section Y01.

Y06.03 Development Standards.

Uses shall occur in accordance with the standards of Section X02.

Section Y01: Permitted Uses – Transit-Oriented Development Districts

Use Classification	DISTRICTS		
	STN.	PP	SP
Use Classification			
1. Stores and personal service shops dealing directly with customers	P	P	SE
2. Restaurants or other similar establishments, but excluding drive-in facilities	P	P	CU
3. Banks, but excluding drive-in facilities	P	P	CU
4. Cinemas or similar recreational or cultural establishments	P	P	CU
5. Exercise or fitness facilities	P	P	SE
6. Studios for dance, art, music or photography	P	P	SE
7. Nursery schools or day care centers	P	P	SE
Business or professional offices, including:			
1. Operations designed to attract and serve customers or clients on the premises, such as the offices of physicians, lawyers, other professions, veterinarians (but excluding animal boarding facilities), insurance and stock brokers, travel agents, & government entities	P	P	CU
2. Operations designed to attract little or no customer or client traffic other than employees of the entity operating the principal use	P	P	CU
Hotels, motels or inns	P	CU	
Bed & breakfast establishments	P	P	P
Lawn and garden centers			CU
Not-for-profit museums, libraries or other educational, cultural, religious, civic or philanthropic uses of a similar nature	P	P	CU
Public or private not-for-profit open space and recreation uses	P	P	P
For-profit open space and recreation uses		CU	P
Transit stations or public utility facilities	P	P	P
Animal hospital, veterinarian, or kennel		P	CU
Single-family detached residential dwellings (SFD)			P
Two-family residential dwellings (2F)		CU	P
Single-family attached residential dwellings (SFA)		P	P
Multi-family residential dwellings (MF)	P	P	P
Residences, in mixed-use commercial-residential or institutional-residential buildings	P	P	SE
Drive-in facility			CU
Non-accessory antennas			CU
Public garage, motor-vehicle sales, service or repair shop, gasoline service station and motor vehicle parking lot		CU	CU

P Permitted **SE** Special Exception **CU** Conditional Use
STN. Station District **PP** Primary Pedestrian District **SP** Secondary Pedestrian District

Section Y02: Development Standards – Transit-Oriented Development Districts

Standards	DISTRICTS		
	STN.	PP	SP
Maximum Tract Density (floor-area ratio[FAR])	1.2	0.8	0.6
Minimum Tract Density (floor-area ratio[FAR])	0.6	0.4	–
Maximum Tract Density (units per developable acre)	40	20	7
Minimum Tract Density (units per developable acre)	25	10	–
Minimum Tract Area (square feet)	1,000	2,500	5,000
Maximum Building Coverage (% of tract)*	55	45	35
Maximum Impervious Coverage (% of tract)	65	55	45
Central Water & Sewer Facilities Required	Yes	Yes	Yes
Maximum Height - Principal Structures (feet)	65	45	35
Minimum Height - Principal Structures (feet)	35	25	–
Maximum Height - Accessory Structures (feet)	45	50% height of tallest principal structure	16
Minimum Lot Width at Right-of-Way Line (feet)	20	20	20
Minimum Lot Width at Building Setback Line (feet)	20	20	30
Minimum setbacks from streets (feet):			
■ Any building face to arterial street ultimate right-of-way	0	0	20
■ Any building face to collector or local street ultimate right-of-way	0	0	10
■ Any building face to common parking area	5	5	10
■ Surface parking areas to arterial street ultimate right-of-way	20	20	30
■ Surface parking areas to collector street ultimate right-of-way	10	10	15
■ Surface parking areas to local street ultimate right-of-way	10	10	10
Maximum setbacks from streets (feet):			
■ Any building face to arterial street ultimate right-of-way	5	10	–
■ Any building face to collector or local street ultimate right-of-way	0	5	–
Minimum principal structure setbacks from tract perimeter (excluding street frontages) (feet):			
■ From other like-zoned tracts	5	5	10
■ From other district boundary lines	10	10	15
Minimum principal building spacing (feet):			
■ Window wall to windowless wall	20	20	20
■ Window wall to window wall			
a) Front to front	40	40	50
b) Rear to rear	35	35	45
c) End to end	25	25	35
d) Front to rear	40	40	50
e) Front to end	40	40	50
f) Rear to end	35	35	45

* Excluding parking structures required to meet minimum off-street parking requirements.

Standards	ROADWAY TYPES					
	Arterial	Collector	Boulevard	Mixed Use	Residential	Alley
Function	As per Place Master Plan		Entry Roadway into District or Development	Collector or Local Fronting Mixed Uses	Collector or Local Fronting Residential	Access to Interior of Blocks
Design Speed	40	30	30	25	25	15
Right-of-Way Width (feet)	86	64	78	64	52	18
Paved Width (Cartway) (feet)	66	44	22 x 2 = 44	44	24 – 28	18
Parking, both sides	Yes	Yes	Yes	Yes	Yes *	No
Parking, one side	No	No	No	No	Yes **	No
Concrete or Granite Curbing	Yes	Yes	Yes	Yes	Yes	No
Central Landscaped Area (14-foot-wide boulevard)	No	No	Yes	No	No	No
Side Landscaped Areas (5 feet between cartway & sidewalks)	Yes	Yes	Yes	Yes	Yes	No
Sidewalks (both sides)	Yes	Yes	Yes	Yes	Yes	No
Bikeways (both sides)	Yes	Yes	Yes	Yes	No	No
Street Lights (both sides)	Yes	Yes	Yes	Yes	Yes	One Side
Street Lights -- Maximum Height (feet)	16	16	16	16	16	16
Street Lights -- Maximum Spacing (one side) (feet)	90	80	70	60	60	60
Shade (Street) Trees (both sides)	Yes	Yes	Yes + Blvd.	Yes	Yes	No
Shade (Street) Trees -- Maximum Spacing (one side) (feet)	80	70	60	40	40	–

* 28-foot-wide cartway

** 24-foot-wide cartway

CRITERIA FOR CONSISTENCY REVIEW — A CHECKLIST FOR ACED STAFF USE

LAND USE

Local Comprehensive Plans, Area Master Plans, and Ordinances

Is it generally consistent with the Future Land Use Plan's distribution of land uses?

Does it recognize and support the Future Land Use Plan's designation of Places, infill areas, conservation areas, and parks, open space, and greenways?

Does it provide for relatively-dense, mixed-use, walkable, bikeable, and transit-friendly districts? [Not every plan or ordinance will need to do this but, central as the question is to *Allegheny Places* generally, it ought at least to be asked.]

Land Developments

If the use is an "urban" use (residential, commercial, industrial, institutional), is it proposed for a location consistent with where the Future Land Use Plan directs such uses (ie Places or infill areas)?

Is the intensity of use and size of project proposed consistent with the Future Land Use Plan's directing of major (intense, large) development to Places (i.e. major new developments not directed to infill areas)?

Is it a Development of Multi-Municipal Impact (DMMI)?

Will the use contribute to the revitalization of existing developed areas, or, if not, will it contribute to the development of a relatively-dense, mixed-use, walkable, bikeable, and transit-friendly Place?

Does the proposal mix uses, or, if not, does it positively contribute uses that will, together with existing and prospective development, form a mixed-use neighborhood, district, or Place?

Is the use accessible to transit, pedestrians, and bicyclists? If not, does it, though its features, anticipate and accommodate these modes being provided in the short- and/or medium-term future?

ECONOMIC DEVELOPMENT

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide a variety of locations and opportunities for employment, and respond to and accommodate current and prospective trends in business and industry?

Does it provide for a balance of housing and jobs?

Does it provide for close home-work linkages, including employment within walking distance of housing?

Does it provide for multi-modal access?

Land Developments

Does it provide for the kinds of jobs that match the skills of the resident labor force?

Is it supportive of the Comprehensive Plan's endorsement of mixed-use development?

Does it address the home-work commute? Does it anticipate and accommodate employee and visitor access by multiple modes from the region?

Does it anticipate and accommodate access by the resident labor force, including pedestrians, bicyclists, and transit users?

Does it address the needs of employees for services during the workday, including retail services, day care, and recreation?

Are the impacts reasonable? Is the site appropriate for the use?

Does it anticipate and accommodate additional uses (residential, commercial, industrial, institutional) that may follow its implementation?

HOUSING

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide for a variety of housing opportunities, including affordable housing, to meet the needs of residents as they move through the life cycle?

Are there adequate areas to accommodate single-family detached, single-family attached, and multi-family units?

Do at least some districts allow for small-lot single-family detached units?

Is there provision for units for residents with specialized needs in housing?

Are accessory apartments permitted?

Do at least some districts allow for a wide range of housing types by right (versus special exception or conditional use)?

Are mixed-use developments encouraged?

Land Developments

Does it meet a local need for certain types of housing? An area need? A regional need?

Does it contribute toward a balance of uses (residential, commercial, industrial, institutional) in the community?

Does it contribute toward a balance of types of residential units in the community?

Does it provide work-live units?

Does it contain a mix of uses so that, for example, residents can reach retail services without making vehicular trips?

Does it have mixed-use buildings, so as to maximize residents' convenience to services?

Do residents have convenient opportunities to reach destinations (jobs, school, day care, shopping, recreation) by means other than private vehicles?

Are there safe, separate bicycle and pedestrian facilities and amenities?

Is the development connected to the greenway system by an open space linkage? By some other means?

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it accommodate the range of spaces, facilities, and programs outlined for the type of community (small, mature suburban, rapidly-growing edge, urban) in the Comprehensive Plan?

Does it provide strategies to achieve the range of spaces, facilities, and programs outlined for the type of community (small, mature suburban, rapidly-growing edge, urban) in the Comprehensive Plan?

Does it acknowledge a need to conserve open space and identify strategies to do it?

Does it recognize the countywide greenway system and Active Allegheny system plan and support their implementation?

Land Developments

Are there appropriate facilities to accommodate the recreation and open space needs of the expected population? If not, will the developer contribute financially or otherwise to off-site accommodation of recreation and open space needs of the expected population?

Is the open space distributed logically throughout the development and are spaces linked to one another? Is there

a means to circulate conveniently and safely within the open space and within the development on foot? By bicycle?

Is the development connected to the greenway system by an open space linkage? By some other means?

RESOURCE EXTRACTION

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it address the issue of mitigating effects of resource extraction, if applicable?

Land Developments

Will land development contribute positively to cleanup of mined areas?

AGRICULTURE

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it support agriculture as a viable economic activity, if applicable?

Land Developments

Does it threaten or support maintenance of economically-viable agricultural activities?

COMMUNITY FACILITIES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it make provision for needed services and facilities?

Does it encourage sharing of services among providers?

Land Developments

Is it visible to its expected users? Is it easily found?

Is it accessible to its expected users by various means (vehicular, transit, pedestrian, bicycle)?

Is it accessible to its expected users, based on personal levels of mobility? Are the appropriate amenities present to support ADA, pedestrians, and bicyclists?

Will it provide multiple services at one location? Does it anticipate and accommodate expansion of services and of floor area?

TRANSPORTATION

Local and Regional Comprehensive Plans, Area Master Plans, and Ordinances

Does it provide for mobility by a variety of means (car, truck, rail, boat, air, transit, pedestrian, bicycle)?

Does it link Places, as designated in the County Comprehensive Plan?

Does it advocate 'complete streets', transit use, trails and other means for safe, separate bicycle and pedestrian mobility?

Does it contain measures that promote safety of its users across all modes?

Is it supported by recommendations in the SPC Long Range Plan? (www.spcregion.org)

Land Developments

What are its trip generation rates (automobiles, trucks, other)? Is there a traffic impact study? How will trips be accommodated? Is there a strategy to reduce automobile trip generation?

Does it have a grid or modified-grid systems of streets for multi-modal mobility?

Does it have 'complete streets', with sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, provisions for transit stops and bicycle movement, and, in most cases, on-street parking?

UTILITIES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Are utility extensions and expansions consistent with the Future Land Use Plan?

Does it address the need to conserve and protect water supplies?

Does it address the problem of stormwater management? Solid waste disposal? Sanitary sewer?

Does it support regionalization and shared use of utility assets?

Land Developments

What is its rate of stormwater generation? How does it address stormwater runoff?

What is its rate of water consumption? How is water conservation addressed?

What is its rate of solid waste generation? How is recycling and solid waste disposal handled?

ENVIRONMENTAL

Local Comprehensive Plans. Area Master Plans, and Ordinances

Is development directed to appropriate locations, in conformance with the Future Land Use Plan?

Does it address methods to reduce airborne emissions?

How are surface and ground water resources protected? Waterways and wetlands?

Are alternate transportation modes supported to reduce fossil fuel usage?

Land Developments

Is it designed so as to minimize impacts on environmentally-sensitive areas? What is the extent of natural features? Rare or endangered plants or wildlife?

Are physical disturbance and excavation minimized?

What are the rates of noise generation? Airborne emissions? Vibration?

What is the extent of outdoor illumination?

HISTORIC AND CULTURAL RESOURCES

Local Comprehensive Plans, Area Master Plans, and Ordinances

Does it protect historic and cultural resources, including viewsheds and corridors? How?

Does it promote historic and cultural resources? How?

Land Developments

Does it contribute to saving a resource from demolition or loss by neglect?

Does it contribute to the long-term protection of resources?

If adaptive reuse is proposed, is the extent and type of change appropriate?

ENERGY CONSERVATION

Local Comprehensive Plans. Area Master Plans, and Ordinances

Does it promote compact, mixed-use centers that allow for less use of the automobile, especially in designated Places?

Does it promote reinvestment and adaptive reuse in existing centers?

Does it promote mobility by transit?

Does it promote alternative fuels? 'Green' buildings?

Does it promote dafe, separate bicycle and pedestrian facilities encouraging healthy lifestyles?

Land Developments

Is it a compact, mixed-use, walkable, bikable, and transit-friendly layout?

Is there a mix of residential and employment space, so that at least some workers can walk to their jobs?

Are there live-work units?

Are attached dwellings, multi-family residences, and multiple-unit structures present?

Are there shade trees? Any 'green' buildings?

TABLE 5.2 – Implementation Strategy for Allegheny Places

LAND USE

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Create Places that emphasize community.	1. Formulate master/urban design plans that incorporate mixed-use buildings, civic space, community facilities, and 'complete' streets, including sidewalks, crosswalks, landscaping, pedestrian-oriented lighting, transit stops, bicycle lanes, and on-street parking.	• Places Task Forces • Allegheny County Planning • COGs • Local Governing Bodies	High-priority Places – Now. Other Places – as set by schedule for Places development.	Consultant fees to prepare Places plans. and Places regulations.
	2. Adopt new development regulations for each Place to achieve a mixing of uses and use tools such as form-based zoning and design controls to gain pedestrian-scaled settings and land development plans that follow through on the guidelines of the master/urban design plans.	• Places Task Forces • Local Governing Bodies • Allegheny County Planning • COGs	When master/ urban design plans are in final draft form.	Consultant fees to prepare Places regulations.

LAND USE

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Direct development, redevelopment and conservation to Places identified on the Future Land Use map.	1. Devise focused master/urban design plans and new zoning district regulations for Places.	• Allegheny County Planning • COGs • Places Task Forces • Local Governing Bodies • DCED • Other State Agencies	High-priority Places – Now. Other Places – as set by schedule for Places development.	Consultant fees to prepare Places plans and Places regulations.
	2. Produce and distribute marketing brochures to solicit private partners to participate in the development/ redevelopment of Places.	• Allegheny County Planning • COGs • Places Task Forces • Local Governing Bodies • Other ACED	When master/ urban design plans are in final draft form.	Consultant fees to prepare brochures.
	3. Review and approve land development plans for Places.	• Places Task Forces • Local Planning Commissions • Local Governing Bodies • Allegheny County Planning • PennDOT, DEP, other State Agencies	When final land development plans are ready.	Some review costs may be passed on to developers.
	4. Construct land developments in Places.	• Developers • Local Governing Bodies • PennDOT	When final land development plans are approved.	Developers, possibly PennDOT and/ or others.

LAND USE

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
C. Ensure that new development occurring outside of designated Places and Infill Areas is beneficial and necessary.	Coordinate Community Development Block Grant (CDBG) funding with infill areas identified on the Future Land Use map.	• Allegheny County	Now	Agency staff time, for the most part.
D. Encourage transit-oriented development.	Provide new and/or upgraded transit service for Places, including internal circulation and connections to external destinations.	• Port Authority • TMAs • Allegheny County Planning • COGs • Places Task Forces • SPC	In time for first new occupants and thereafter.	Developer or corporate entity may pay for internal service.

LAND USE

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote municipal consistency with *Allegheny Places*.	1. Plan together, using the COGs structure as a mechanism for intermunicipal consultation, cooperation, and consensus-building, with the involvement of the County, State, and other planning partners, as appropriate.	• Allegheny County Planning • COGs • Local Governing Bodies • DCED • Other State Agencies • Other Planning Partners	Now	Agency staff time, for the most part.
	2. Determine the Places that should be high-priority ones and for which focused master/urban design plans need to be prepared.	• Allegheny County Planning • Other ACED • COGs • Local Governing Bodies	Now	Agency staff time, for the most part.
	3. Establish Places Task Forces for each high-priority Place, to oversee the preparation of focused master/urban design plans.	• Allegheny County Planning • COGs • Local Governing Bodies	Now + 6 mos.	Agency staff time, for the most part.
	4. Limit the amount, extent, and intensity of new development outside designated Places.	• Allegheny County Planning • COGs • Local Governing Bodies • DCED, PennDOT, DEP • Other State Agencies	Now	Agency staff time, for the most part.
	5. Work to establish the interconnecting greenway network of the Future Land Use Plan.	• Allegheny County Planning • COGs • Local Governing Bodies • DCNR, DEP, DCED • Other Planning Partners	Now	Possible purchase of easements for public access.

HISTORIC AND CULTURAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Promote and protect historic and cultural resources.	1. Establish a Historic Resources volunteer committee with one Planning Division employee to be responsible for overseeing the implementation of the Historic & Cultural Resources Plan.	• Allegheny County Planning Division	Short-Term (1-2 years)	Dependent on existing staff or new hire
	2. Conduct a comprehensive county survey of historic sites.	• Historic Resources Committee • Historic Preservation Organizations • Local foundations and State agencies (funding)	Short-Term	$5,000 to $10,000 per year
	3. Work with the Local Government Academy to provide education and training to elected officials on the importance of historic and cultural resources.	• Historic Resources Committee • Local Government Academy	Short-Term	N.A.
	4. Promote historic resources in the County through brochures, historic tour opportunities, a news campaign, and County website.	• Historic Resources Committee (create the brochures, lead tours, etc.) • Allegheny County Department of Computer Services (update website) • Local Foundations, state agencies and private partners (supply funding)	Medium-Term (3-5 years)	$5,000 to $10,000 yearly
	5. Provide development incentives to preserve resources such as density bonuses, grants for preservation from a municipal or outside source, or tax incentives (i.e. donating property or easement).	• Municipalities • Allegheny County Economic Development • Foundations, Private Partners	Medium-Term	Dependent on the incentive
	6. Work with municipalities to establish historic districts under the Historic District Act and/or the MPC, by utilizing historic district ordinances available through PHMC or Allegheny County.	• Historic Resources Committee • Allegheny County Planning Division	Medium-Term	N.A.

HISTORIC AND CULTURAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
	7. Apply to become a *Preserve America* Community, and incorporate their goals into the revitalization of the *Allegheny Together* Communities.	• *Allegheny Together* Staff	Medium-Term	N.A.
	8. Update the Historic & Cultural implementation strategies after completing the historic resource survey, and with input from the County's citizens, municipalities, historical societies, and other preservation-oriented groups.	• Historic Resources Committee	Medium-Term	N.A.
B. Utilize cultural resources as a tool to stimulate economic development.	1. Identify heritage tourism opportunities in Allegheny County.	• Historic Resources Committee	Short-Term	N.A.
	2. Market historic and cultural resources as a feature of new and revitalizing Places.	• Historic Resources Committee (create the marketing materials) • Municipalities (utilize marketing materials when developing Places) • COGs (utilize marketing materials when developing Places)	Medium to Long Term (3+ years)	N.A.
C. Encourage cooperation between historical and cultural organizations throughout the County.	Work with the Councils of Government (COGs) to attend one of their municipal meetings yearly to educate municipalities on incentives for historic properties.	• Historic Resources Committee	Short-Term	N.A.

HISTORIC AND CULTURAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
D. Protect historic landscapes including viewsheds and corridors.	1. Identify additional Heritage Park tourism opportunities in the region.	• Historic Resources Committee • Surrounding Counties	Short-Term	N.A.
	2. Apply for funding from PA Department of Conservation and Natural Resources for identified Heritage Park opportunities.	• Historic Resources Committee	Medium to Long Term	N.A.

ECONOMIC DEVELOPMENT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Prioritize development and redevelopment in accordance with the Guiding Principles.	Use public and foundation funding and technical assistance to support investment in these locations.	• Federal, State, Regional, County, & Local Governments • Foundations • Other Planning Partners	Thru planning period	Mixture of public & private funding.
B. Target investment to increase job opportunities where low- and moderate-income people live.	Direct public funding to appropriate locales; guide foundation and private funding as well.	• Federal, State, Regional, County, & Local Governments • Foundations • Other Planning Partners	Thru planning period	Mixture of public & private funding.
C. Match development types to Places identified in the Future Land Use Plan.	Follow Plan recommendations by type of Place.	• Allegheny County Planning • Allegheny Co. Economic Dvlp. • Places Task Forces • Local Governing Bodies • COGs • DCED	Thru planning period	Agency staff time, for the most part.
D. Support and recruit industry targets identified in the Future Land Use Plan.	Follow Plan recommendations to encourage 'driver' industries.	• Allegheny Co. Economic Dvlp. • Allegheny County Planning	Thru planning period	Agency staff time, for the most part.
E. Work with the educational system to produce and attract skilled workers.	Train computer and health care professionals, as well as other specialists needed by industry.	• Community College of Allegheny County • Workforce Investment Board	Thru planning period	Agency staff time, for the most part.
F. Advance a uniform, streamlined development process throughout the county.	Train municipal officials	• Pennsylvania Municipal Planning Education Institute • Allegheny Co. Economic Dvlp. • Allegheny County Planning	Thru planning period	Agency staff time, for the most part.
G. Require that new developments provide for pedestrians and are completely accessible to individuals with disabilities.	Adopt new development regulations.	• Local Governing Bodies • Places Task Forces • Allegheny County Planning	Start now, especially for high-priority Places.	Agency staff time and/or consultant fees to prepare regulations.

ECONOMIC DEVELOPMENT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
H. Promote an efficient transit system to provide access to jobs.	Connect Places and provide multi-modal access within Places.	• Port Authority • TMAs • Allegheny County Planning • COGs • Places Task Forces	Start now, especially for high-priority Places	Agency staff time, for the most part. Developer or corporate entity may pay for internal service in Places.
I. Target Incentives in accordance with Preferred Development Scenarios.	Direct tax incentives and other business supports to revitalize and expand existing Places.	• Federal, State, Regional, County, & Local Governments • Foundations • Other Planning Partners	Thru planning period	Mixture of public & private funding.
J. Attract investment and tourism by enhancing our cultural, environmental, educational and historic resources.	Target heritage tourism.	• State Tourism Agencies • Greater Pittsburgh Convention and Visitors Bureau	Thru planning period	Agency staff time, for the most part.

HOUSING

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Support existing fair housing policies that ensure a right to housing regardless of race, disability, and other federally and locally protected classes.	Expand the geographic distribution of affordable housing units across municipalities within the county through housing development and redevelopment.	• Local Governing Bodies • Places Task Forces • Allegheny County	Thru planning period	Agency staff time, for the most part.
B. Provide a variety of mixed-income and affordable housing in Places identified on the Future Land Use Plan.	Target funding to communities that adopt housing development regulations consistent with the recommendations of *Allegheny Places*' Plan for Housing.	• Local Governing Bodies • Places Task Forces • Allegheny County	Thru planning period	Agency staff time, for the most part.
C. Target infill housing where needed.	Complete a countywide study of vacant and abandoned properties.	• Allegheny County	Now	Agency staff time and/or consultant fees to conduct study.
D. Promote accessible and visitable housing in communities with desirable amenities.	Increase the number of new and redeveloped housing units that include affordable, accessible and visitable units in a variety of housing structures and tenure types.	• Local Governing Bodies • Places Task Forces • Allegheny County	Thru planning period	Agency staff time, for the most part.

HOUSING

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote the use of green building techniques and energy efficient housing design.	Provide information on website to encourage developers to use LEED.	• Allegheny County	Thru planning period	Agency staff time, for the most part.
F. Support measures to reduce foreclosures.	Provide information on County website to educate residents on the dangers of predatory lending, and contact information for banks that can help provide support.	• Allegheny County • Local Banks	Thru planning period	Agency staff time.

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Implement a strategy to establish greenways that provide connections between people, recreational facilities, cultural facilities and other significant public areas.	1. Establish a Greenways Committee	• Allegheny County	Immediately	Agency staff time.
	2. Hire a Greenways Coordinator to serve as program manager for the Greenways committee	• Greenways Committee • DCNR	Immediately	Salary
	3. Develop a comprehensive list of conservation priorities	• Greenways Committee & Coordinator	w/in 6 mos. of hiring coordinator	N.A.
	4. Develop education and outreach programs and marketing strategies to promote the Greenways Network	• Greenways Committee & Coordinator	Short Term and on-going	TBD
	5. Work with adjacent counties and SPC to develop a regional greenways network	• Greenways Committee & Coordinator	Short Term and on-going	TBD
	6. Complete the Great Allegheny Passage a. determine an alternative route for the property that cannot be acquired b. Construct 2 new bridges at Whitaker & Port Perry	• Allegheny County • Allegheny Trail Alliance	a. 2009 – 2010 b. late 2009	a. TBD b. $5 milion
	7. Connect Montour Trail to: a. South Park b. Pittsburgh International Airport	• Allegheny County Parks Foundation • Montour Trail Council • Allegheny County • Airport Authority	a. 2009 b. 2008	a. $1,000,000 b. $60,000
	8. Develop detailed cost estimates and scopes to: a. Complete the Pittsburgh to Erie Greenway, & specifically the Community Trails Initiative segment in Allegheny County (32 miles) b. Complete the Pittsburgh to Harrisburg Mainline Canal Greenway	• Greenways Committee • Allegheny County • PEC • Friends of the Riverfront • Allegheny Ridge Corp.	a. Feasibility Study funded; Mid to long term for implementation	TBD

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
	9. Connect Panhandle Trail to Settler's Cabin Park	• Allegheny County Parks Foundation	Short-term	TBD
	10. Connect Youghiogheny Trail to Round Hill Park	• Allegheny County Parks Foundation • Regional Trail Corp.	Mid to Long Term	TBD
	11. Connect Panhandle Trail to the Three Rivers Heritage Trail	• Allegheny County Parks Foundation	Long-term	TBD
	12. Acquire property and/or easements for the Plum Creek Trail to connect to Boyce Park	• Allegheny County Parks Foundation	Mid-term	TBD
	13. Acquire property to connect the Baker Trail, Freeport-Butler Trail and Rachel Carson Trail to Harrison Hills Park	• Greenways Committee • Allegheny County Parks Foundation • Other Partners	Long-term	TBD
	14. Acquire easements for the Rachel Carson Trail and connect to the North Hills/ Harmony Trail (west) and the Pittsburgh to Erie Greenway (east)	• Allegheny County Parks Dept. • Allegheny County Parks Foundation	Long-term	TBD
	15. Coordinate reconstruction of Route 28 to ensure trail connections along the Allegheny River are maintained	• Allegheny County • Friends of the Riverfront	Short-term	TBD
	16. Participate in the development of a County Active Transportation Plan (see Transportation) to integrate trails and greenways that serve as connections between destinations.	• Allegheny County • Greenways Committee • PennDOT • SPC	Short term for plan; Mid to Long Term for implementation	TBD
	17. Lobby state and federal governments to: a. Expand game lands and regional parks b. Fund open space and greenway planning efforts	• Allegheny County • Local Governing Bodies • Land trusts and conservancies • Developers	Thru planning period	Mixture of public & private funding for land and/or easement acquisitions.

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Implement a strategy to establish greenways that encourage protection of bio-diverse areas, floodplains, steep slopes, forested areas, landslide-prone areas, riparian corridors and wildlife corridors.	1. Support the implementation of the GREENPRINT developed by Allegheny Land Trust.	• Allegheny County • Greenways Committee • Land Trusts & conservancies • Local Governing Bodies	Thru planning period	TBD
	2. Develop a tool kit to assist municipalities and others with the conservation of identified open space.	• Allegheny County • Greenways Committee & Coordinator	w/in 3 yrs	N.A.
C. Expand the parks and trails system to serve future populations.	1. Complete the park improvement and system-wide recommendations of the 2002 Allegheny County Parks Comprehensive Master Plan (see Supporting Documents).	• Allegheny County • Allegheny County Parks Foundation	Thru planning period	$10 million from County + private funds raised
	2. Implement the recommendations of the 2007 Allegheny County Parks Action Plan (see Supporting Documents).			
	3. Continue to use CDBG funds to assist low/mod income areas to rehab existing facilities, replace substandard equipment, provide adaptive reuse of obsolete facilities.	• Allegheny County • COGs • Local Governing Bodies	Thru planning period	Dependent on annual allocation of CDBG funds
	4. Update the municipal survey of parks to include an assessment of the condition of park facilities, and to identify unmet needs on a multi-municipal basis.	• Allegheny County • COGs • Local Governing Bodies	w/in 3 years	TBD
	5. Conduct workshops and other outreach activities to promote the use of Park Prototypes	• Allegheny County • COGs • Local Governing Bodies	December 2008 & on-going	$5,000 for December workshop
	6. Use the DCNR Peer to Peer and Circuit Rider Programs to assist with the creation of multi-municipal open space, trail, park and recreation organizations	• Allegheny County • COGs • Local Governing Bodies	Immediately & on-going	TBD

PARKS, RECREATION, OPEN SPACE, AND GREENWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
D. Facilitate Public Access to Riverfronts	1. Develop a toolkit for the Riverfront Community Linear Greenway Prototype	• Allegheny County • State Agencies • Foundations	w/in 2 years	TBD
	2. Work with PEC and Friends of the Riverfront to design and implement the Community Trails Initiative as a multi-municipal demonstration project.	• Allegheny County • Local Governing Bodies • PEC • Friends of the Riverfront	Mid-term	TBD
	3. Work with the Allegheny County Riverfronts Project and its partners to create a linear park along the 4 rivers	• Allegheny County • Local Governing Bodies • PEC • Friends of the Riverfront • Allegheny County Riverfront Commission • Other Planning Partners	Thru planning period	TBD
E. Ensure that regionally significant parks and trails are in ADA compliance and transit accessible.	Publish ADA guidelines on website and work with transit providers to provide upgraded service.	• Allegheny County Planning • Port Authority • TMAs	Now and thru planning period	New and expanded facilities and transit services.
F. Raise public awareness of the benefits of greenways and open space.	Conduct County, DCNR, and DCED marketing programs.	• Allegheny County • State Agencies • Foundations • Other Planning Partners	Now and thru planning period	Agency staff time, for the most part.

RESOURCE EXTRACTION

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Mitigate the negative effects of resource extraction.	Set priorities for remediation, particularly those related to acid mine drainage, in areas that have been mined (surface and deep) or quarried.	• PADEP • USDI-OSM • USEPA • Appalachian Clean Steams Initiative (ACSI) • Local Governing Bodies • Allegheny County	Now	Agency staff time, for the most part.
B. Identify areas of potential mine subsidence.	Require mine subsidence information to be provided as part of the development approval process.	• Local Governing Bodies	Thru planning period	N.A.

AGRICULTURE

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Support agriculture as a viable industry.	Establish Agriculture Security Areas and enact effective agricultural zoning.	• Local Governing Bodies	Now and thru planning period	Agency staff time, for the most part.
B. Locate new infrastructure outside of identified agriculture areas.	Identify agriculturally-significant areas in each municipality.	• Local Governing Bodies	Now and thru planning period	Agency staff time, for the most part.
C. Promote the use of Allegheny County Agricultural Land Preservation Program.	Acquire conservation easements.	• Allegheny County • Local Governing Bodies • Land trusts & conservancies	Now and thru planning period	Mixture of public & private funding.
D. Promote sustainable agricultural practices.	Provide links on County website to organizations/agencies active in these efforts.	• Allegheny County	Now	Agency staff time.

COMMUNITY FACILITIES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Encourage multi-municipal cooperation in the provision of municipal services.	Provide workshops for local municipalities on regional servicing.	• PA Local Government Academy • Allegheny County	Now	Agency staff time, for the most part. Possible consultant fees.
B. Provide efficient emergency response services.	Upgrade centralized communications system.	• Allegheny County	Now	Agency staff time, consultant fees, new equipment.
C. Support and promote high quality educational opportunities for all of the county's citizens.	Construct new and upgraded facilities in concert with Places development.	• School Districts • Community College of Allegheny County • Other Educational Institutions • Places Task Forces • Local Governing Bodies • Allegheny County • Developers	Start now, especially for high-priority Places	Agency staff time. Consultant fees. Developer may pay for facilities as part of Plan approvals.
D. Support and provide equal access to the public library system throughout the county.	Expand Knowledge Connections, Bookmobile, and eiNetwork programs.	• Allegheny County • Allegheny County Library Association • Carnegie Library of Pittsburgh	Now and thru planning period.	Agency staff time. Consultant fees. Technical upgrades.

COMMUNITY FACILITIES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
E. Promote coordination among hospitals to ensure the quality of health care.	Expand data sharing among health care organizations.	• Allegheny County Human Services Department • Health care Organizations	Now and thru planning period.	Agency staff time, for the most part.
F. Encourage the development of public & private adult day care centers, senior centers, licensed personal care facilities and any other age-related facilities to care for the County's aging population.	Construct new and upgraded facilities, especially in concert with Places development.	• Allegheny County Human Services Department • Public and private providers	Start now, especially for high-priority Places	Agency staff time. Developer may pay for facilities as part of Plan approvals.
G. Promote equal access to public facilities.	Develop sliding-scale user-fee program for selected services.	• Allegheny County • Local Governing Bodies • Other Providers	Thru planning period.	Agency staff time, for the most part.

UTILITIES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Protect and enhance the quality and quantity of water resources.	1. Continue to utilize the 3 Rivers Wet Weather Demonstration Program to promote and facilitate regional/cooperative approaches to achieving compliance with the Clean Water Act.	• Allegheny County • PADEP • Local Governing Bodies • Local Water Suppliers	Thru planning period.	Agency staff time, for the most part.
	2. Facilitate the development and implementation of Source Water Assessment and Protection programs throughout Allegheny County.	• Allegheny County • PADEP • Local Water Suppliers	Thru planning period.	Agency staff time, for the most part.
	3. Assume a lead role in implementing a water supply pollutant incident early warning system on the county's three rivers.	• Allegheny County • PADEP • USEPA • Local Water Suppliers	Now and thru planning period.	Agency staff time, for the most part.
	4. Utilize best management practices (BMPs) for new development.	• Local Governing Bodies • Allegheny County Planning • Developers	Start now, especially for high-priority Places	Agency staff time. Developer construction/ installation expenses.

UTILITIES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Support planning and funding for utility extensions and improvements that are consistent with the Future Land Use Plan.	1. Direct new development and redevelopment to areas with adequate public infrastructure.	• Allegheny County Planning • COGs • Places Task Forces • Local Governing Bodies • Local Authorities • DCED • Other State Agencies	High-priority Places – Now. Other Places – as set by schedule for Places development.	Agency staff time, for the most part.
	2. Use Pennsylvania Sewage Facilities Planning Act (Act 537) planning process to anticipate and prepare for future development and to identify and address on-lot sewage disposal problems.	• Local Governing Bodies • Local Authorities • PADEP • Allegheny County Health Department	Now and thru planning period.	Agency staff time, for the most part.
C. Support regionalization and shared use of utility assets.	1. Facilitate and coordinate the actions of agencies and governments regarding storm water management, stream maintenance and flood mitigation.	• Allegheny County • Local Governing Bodies • PADEP	Now and thru planning period.	Agency staff time, for the most part.
	2. Complete a regional storm water management plan under the Pennsylvania Storm Water Management Act (Act 167) management agency.	• Allegheny County • Local Governing Bodies • PADEP	Now	Agency staff time. Consultant fees.

ENVIRONMENTAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Meet federal, state, and local air quality standards.	1. Develop educational and/or incentive programs to promote pollution prevention and encourage the use of lower polluting products/services.	• PADEP • USEPA • Allegheny County	Now and thru planning period.	Agency staff time, for the most part.
	2. Work with local industries to reduce air emissions, especially toxic emissions, in order to meet federal air quality standards.	• PADEP • USEPA • Allegheny County • Local Industries	Now and thru planning period.	Agency staff time. Industry expenses for emissions reduction installations.
	3. Develop programs and/or incentives to promote and attract green renewable power.	• PADEP • USEPA • Allegheny County • Local Businesses	Now and thru planning period.	Agency staff time, for the most part.
	4. Develop plans to reduce motor-vehicle congestion on area roadways.	• PennDOT • PADEP • USEPA • Allegheny County	Now and thru planning period.	Agency staff time, for the most part.
	5. Direct development and redevelopment to Places as identified on the Future Land Use Plan.	• Allegheny County Planning • COGs • Places Task Forces • Local Governing Bodies • DCED • Other State Agencies	Now and thru planning period.	Agency staff time, for the most part.

ENVIRONMENTAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
B. Improve quality of surface water and groundwater resources.	Protect and restore critical stream valleys, floodplains and wetlands to preserve their functions for flood water storage, water supply and ground water recharge.	• Local Governing Bodies • Watershed Organizations • Allegheny County • PADEP • USEPA • Developers	Now and thru planning period.	Mixture of public & private funding.
C. Identify and protect ecologically sensitive areas such as wooded steep slopes, stream headwaters, woodlands, and wildlife corridors.	Set conservation priorities from Conservation Corridors Plan.	• Allegheny County • Western Pennsylvania Conservancy • Pennsylvania Environmental Council • PADCNR	Now	Agency staff time, for the most part.
D. Encourage development in Places to minimize impacts to greenfields.	Direct development and redevelopment to Places as identified on the Future Land Use Plan.	• Allegheny County Planning • COGs • Places Task Forces • Local Governing Bodies • DCED • Other State Agencies	Now and thru planning period.	Agency staff time, for the most part.
E. Protect and restore critical stream valleys, floodplains and wetlands to preserve their functions for floodwater storage, water supply and groundwater recharge.	Enact new and updated local regulations.	• Local Governing Bodies • Allegheny County Planning	Now and thru planning period.	Agency staff time, for the most part.

ENVIRONMENTAL RESOURCES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
F. Eliminate urban, agricultural and industrial pollution runoff to protect streams and watersheds.	Enact riparian buffer ordinances.	• Local Governing Bodies • Allegheny County Planning	Now	Agency staff time, for the most part.

ENERGY CONSERVATION

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
A. Protect and enhance the environment and public health by promoting energy conservation and continuing to improve the county's air quality.	1. Develop educational and/or incentive programs to promote pollution prevention and encourage the use of lower polluting products/services.	• PADEP • USEPA • Allegheny County	Now and thru planning period.	Agency staff time, for the most part.
	2. Work with local industries to reduce air emissions, especially toxic emissions, in order to meet federal air quality standards.	• PADEP • USEPA • Allegheny County • Local Industries	Now and thru planning period.	Agency staff time. Industry expenses for emissions reduction installations.
B. Establish compact mixed-use centers that provide a dense population of potential transit users, both for trips within and between centers.	1. Lay out new neighborhoods and districts with a grid or modified grid circulation systems and small blocks.	• Places Task Forces • Allegheny County Planning • COGs • Local Governing Bodies	High-priority Places – Now. Other Places – as set by schedule for Places development.	Consultant fees to prepare Places plans and Places regulations.
	2. Encourage municipalities to provide zoning districts that provide the necessary densities and intermingling of uses to achieve compact, mixed-use centers as well as permit live-work structures.	• Places Task Forces • Local Governing Bodies • Allegheny County Planning • COGs	When master/ urban design plans are in final draft form.	Consultant fees to prepare Places regulations.

ENERGY CONSERVATION

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES	TIMING	COSTS
C. Make transportation corridors multi-modal, by providing vehicular, transit, pedestrian and cycling options.	Link new development to major educational, cultural, and recreational destinations via transit and trail connectors.	• PennDOT • Port Authority • TMAs • Allegheny County Planning • Places Task Forces	Now and thru planning period	Mixture of federal, state, and local funding.
D. Provide incentives to develop certified 'green' buildings and use alternative fuels and renewable energy.	Encourage municipalities to amend local development regulations.	• Local Governing Bodies • Allegheny County Planning • Green Building Alliance • Sustainable Pittsburgh	Now	Agency staff time, for the most part.

TABLE 5.3 – Implementation Strategy for Allegheny Places Transportation Plan

ROADWAYS AND BRIDGES

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
A. Support the Future Land Use Plan through strategic prioritization of transportation system maintenance and operations. B. Target transportation investments to support job and housing growth as shown on the Future Land Use map. C. Use demand management strategies to reduce highway congestion. Encourage options of telecommuting, ridesharing, staggered work weeks, flex-time, intelligent transportation systems, etc. D. Coordinate transportation systems, modes and facilities to increase connectivity and mobility for all, including car, truck, barge, pedestrian, transit, rail, air, roads and bridges, bicycle, etc. E. Protect and enhance the environment by promoting energy conservation, emissions reduction and use of alternative fuels. F. Review County road and bridge ownership to identify ways to improve operation and maintenance efficiencies. G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.	• Program road and bridge maintenance and construction on the TIP (Transportation Improvement Program). • Explore creative financing methods including P3 (Public/Private Partnerships) to fund road and bridge projects. • Allegheny County and the Public Works Department should rationalize a system for road and bridge ownership. • SPC should develop specific transportation demand management strategies. • Manage sprawl and encourage urban redevelopment at the municipal level through the Allegheny Places strategies, local zoning, and land development ordinances.	• Allegheny County • City of Pittsburgh • Local Governing Bodies • Southwestern Pennsylvania Commission • PennDOT District 11-0

PUBLIC TRANSIT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
A. Target transportation investments to support job and housing growth as shown on the Future Land Use map. B. Prioritize the maintenance of existing transportation infrastructure within and across all modes. C. Provide integrated transportation alternatives and coordinated transportation systems to increase connectivity and mobility. D. Promote transit-oriented development sites at key transit stations and along major transit corridors. E. Connect Pittsburgh International Airport to Downtown, Oakland and major population centers via a rapid transit system. F. Improve transit into and around Oakland. G. Use efficient and creative funding strategies such as public/private partnerships, privatization, and leveraging current and future assets.	• Integrate 'Complete Streets' concepts into transportation improvement projects. • Explore using existing rail corridors for commuter rail service (e.g., Allegheny Valley Transit – Strip District to New Kensington). • Maintain a Transportation Action Partnership (TAP) to spearhead development of Transit projects (Those projects highlighted in green have been completed since the 2008 plan was completed): – Oakland Circulator – Rapid Transit from Downtown to Oakland – Light Rail or Bus Rapid Transit upgrade to current available transit from Oakland to the Mon Valley – Rapid Transit from Downtown to Airport – North Shore Connector – East Busway Extension to Rankin/East Pittsburgh – Carnegie Intercept Garage – Bates Street Intercept Garage – Port Authority Transit Development Plan – Regional Transit/Regional Pass Study – Rapid Transit to the North Hills • Develop TOD strategies as outlined in the West Busway Plan, contained in the Allegheny County E-Library (http://www.alleghenyplaces.com/e_library/e_library.aspx). The purpose of the West Busway Area TOD Assessment and Plan was to explore the revitalization potential of the West Busway and adjacent area communities that will support public transportation solutions to the region's transportation and land use challenges.	• Allegheny County • City of Pittsburgh • Local Developers • Port Authority of Allegheny County • Southwestern Pennsylvania Commission • PennDOT Bureau of Public Transportation

BICYCLE AND PEDESTRIAN

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
Focus on connectivity, access, and mobility through two specialized components: A. Provide Integrated "Active" Transportation Alternatives including Bikeways, Sidewalks, and Transit B. Coordinate transportation systems and modes to increase mobility.	• Conduct an inventory of bicycle and pedestrian facilities and amenities at transit stops and stations. • Prioritize and implement bicycle and pedestrian improvement projects at selected transit stops and stations. • Install secure bike racks in all public parking areas. • Develop a program to encourage the provision of low-cost bicycle parking facilities to private parking facility owners. • Publish a county map and install wayfinding signage that identifies roadways suitable for on-road commuting. • Identify roadways on the TIP that are scheduled for resurfacing and other improvements and work with PennDOT to ensure that the shoulders are paved. • Work with PennDOT to add bicycle and pedestrian facilities as part of all types of PennDOT projects. • Design and construct 'Complete Streets' whenever appropriate to provide safe, comfortable and convenient travel via auto, foot, bicycle and transit. • Implement BRT Downtown-to-Oakland/complete streets • Implement Proposed "Complete Streets"/"Road Diets" • Proceed with North Park Lake Loop Road bike/ped upgrades • Develop better bike facilities & amenities • Implement proposed bike-share rental program • Continue with County Bridges safety upgrades like "bike-friendly" grate & scupper replacements • Provide appropriate bicycle facilities at PIT to support and encourage bicycle tourism • Complete the riverfront trail system • Provide park-and-ride lots for use by commuter bicyclists by identifying parking facilities that have excess capacity and are located near trails and other bike routes	• Allegheny County • City of Pittsburgh • Local Bicycle and Trail Organizations • PennDOT • Port Authority of Allegheny County • Southwestern Pennsylvania Commission • Local Municipalities • Allegheny County Airport Authority

AIRPORTS

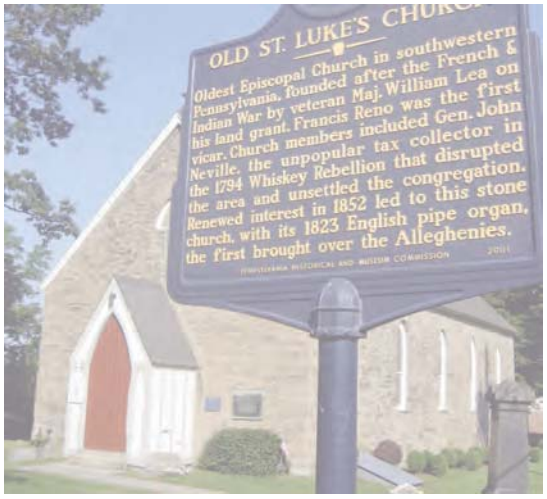
OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
A. Support Pittsburgh International Airport (PIT) efforts to retain and increase passenger and air cargo connectivity to national and international destinations. B. Support freight movements through safe and efficient air shipping practices. C. Increase connectivity to and from PIT to Downtown Pittsburgh, Oakland and major population centers via a rapid transit system, and other modes and system improvements.	• Support PIT efforts and strategies to increase passengers, air carriers, cargo carriers and national and international flight destinations. • Retain, improve and increase service on the PAAC 28X Route serving PIT. • Develop a direct high-speed Light Rail Transit (LRT) connection from PIT, via the North Shore, to Downtown Pittsburgh and on to Oakland. • Create a midway multi-modal intermodal hub between Downtown and PIT in the vicinity of Robinson Town Center as a first step to the LRT connection from PIT to Downtown Pittsburgh and Oakland. • Continue development of congestion mitigation measures such as improvements PennDOT has completed for the 22/30/60 Interchange area. • Appropriate entities should promote airport operations and facilities in marketing materials. • Increase the number of parking spaces at the airport. • Market the availability of land for air cargo facilities and other development potential. • Support development of PIT in accordance with the Pittsburgh International Airport Layout Plan - 2006, and the Pittsburgh International Airport Site Prioritization Analysis - 2004. • Support development of more than 2,000 acres of non-aviation land on the airport property, especially the 400+ acres ready for users. • Support development of the Allegheny County Airport, located in West Mifflin, in accordance with the Allegheny County Airport Master Plan Update - 2006.	• Airport Area Chamber of Commerce • Allegheny County • Allegheny County Airport • Greater Pittsburgh Chamber of Commerce • Greater Pittsburgh International Airport • Port Authority of Allegheny County • Southwestern Pennsylvania Commission

RAIL FREIGHT

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
A. Support freight movements through safe and efficient truck and rail intermodal connectivity and systems as well as with multi-modal facilities. B. Increase rail safety at interfaces with people and with other transportation modes. C. Support increased movement of goods by rail to free road capacity, and increase road capacity by supporting rail freight initiatives.	• Eliminate the pinch point at Port Perry by widening the rail corridor to two tracks. • Identify potential double-stack rail freight corridors that could be developed to accommodate double-stack heights in the future. • Invest in projects which would increase capacity of the freight rail network and in projects that would allow for operation of commuter rail. The latter should be done in coordination with PAAC and the Transportation Action Partnership. • Address rail crossing safety for pedestrians and other modes. • Coordinate road improvements to achieve increased efficiency and better intermodal connectivity.	• Allegheny County • City of Pittsburgh • Greater Pittsburgh International Airport • PennDOT • Railroad Companies • Southwestern Pennsylvania Commission

WATERWAYS

OBJECTIVES	ACTIONS	RESPONSIBLE PARTIES
A. Support freight movements through safe and efficient water systems. B. Provide access to the rivers for commercial and recreation uses.	• Create a coalition of local leaders and industry representatives to urge Congress to appropriate sufficient funding for the maintenance and rehabilitation of the region's locks and dams facilities. • Expand the water taxi system to include more special events and/or daily commuting. • Implement "Last Mile" improvements to accommodate the type and volume of vehicles accessing the ports. • Promote and reclaim the economic potential of the rivers as a regional transportation resource with trails to connect population and activity centers, thereby providing alternative modes of travel. • Continue coordination among regional transportation agencies and partners to complete maintenance projects listed below:	• Allegheny County • Port of Pittsburgh • Southwestern Pennsylvania Commission


OLD ST. LUKE'S CHUR
Oldest Episcopal Church in southwestern Pennsylvania, founded after the French & Indian War by veteran Maj. William Lea on his land grant. Francis Reno was the first vicar. Church members included Gen. John Neville, the unpopular tax collector in the 1794 Whiskey Rebellion that disrupted the area and unsettled the congregation. Renewed interest in 1852 led to this stone church, with its 1823 English pipe organ, the first brought over the Alleghenies.
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
2011