COMPREHENSIVE PLAN ADDENDUM

Mount Joy Township – Lancaster County, PA

Prepared by:

Mount Joy Township Comprehensive Plan Steering Committee
and
Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects

Fourth Full Draft:
March 16, 2006

COMPREHENSIVE PLAN ADDENDUM
Mount Joy Township – Lancaster County, PA

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TOWNSHIP OF MOUNT JOY

Lancaster County, Pennsylvania

RESOLUTION NO. 22-2006

A RESOLUTION OF THE BOARD OF SUPERVISORS OF MOUNT JOY TOWNSHIP, LANCASTER COUNTY, PENNSYLVANIA, AMENDING THE COMPREHENSIVE PLAN.

WHEREAS, by Resolution No. 9-1997 the Board of Supervisors of this Township adopted the "Elizabethtown Region Strategic Comprehensive Plan – the Borough, Mount Joy Township and West Donegal Township" prepared by Urban Research and Development Corporation, last revised June 5, 1997 (the "Comprehensive Plan"), as the Comprehensive Plan for the Township in accordance with Article III of the Pennsylvania Municipalities Planning Code ("MPC"); and

WHEREAS, by Resolution No. 9-1997 the Board of Supervisors determined that the Comprehensive Plan would include chapters entitled Why Plan; Introduction; The Vision; The Policy Plan; The Growth Management Plan; Background Studies; and all charts, tables, diagrams and textual matters contained therein as part of the Comprehensive Plan; and

WHEREAS, by Resolution No. 9-1997 the Board of Supervisors determined that the Comprehensive Plan would include the maps in the Elizabethtown Region Strategic Comprehensive Plan entitled Natural Features; Prime Agricultural Soils; Agricultural Security Areas; Preserved Farmland and Easement Applications; Soil Suitability for On-Lot Septic Systems; Functional Road Classifications; Transportation Plan; Community Facilities; Existing Land Use – 1995; Adjacent Zoning – 1995; Proposed Development; Existing Sanitary Sewer Lines and Service Areas; and Future Land Use Map – 1997; and

WHEREAS, the Board of Supervisors enacted the Mount Joy Township Zoning Ordinance of 1998, codified as Chapter 135 of the Code of Ordinances, to implement the Elizabethtown Region Strategic Comprehensive Plan; and

WHEREAS, the Township has experienced growth and development pressures since adopting the Elizabethtown Region Strategic Comprehensive Plan as the Township Comprehensive Plan and enacting the Zoning Ordinance; and

WHEREAS, the Board of Supervisors authorized the Township Administrator to form the Mount Joy Township Comprehensive Plan Steering Committee (the "Steering Committee") to review the Comprehensive Plan; and

WHEREAS, the Board of Supervisors retained Thomas Comitta Associates, Inc., Town Planners & Landscape Architects (the "Consultant"), to assist the Steering Committee in preparing an update to the Elizabethtown Region Strategic Comprehensive Plan; and

WHEREAS, the Steering Committee and the Consultant prepared the Comprehensive Plan Addendum dated March 16, 2006, (the "Addendum"); and

WHEREAS, the Township provided the Addendum to the Lancaster County Planning Commission, all contiguous municipalities, Elizabethtown School District, and Donegal School District for review and comment in accordance with Article III of the MPC; and

WHEREAS, the Township Planning Commission conducted a public meeting and reviewed the Addendum on April 24, 2006; and

WHEREAS, the Lancaster County Planning Commission reviewed the Addendum at its meeting on May 8, 2006, and provided written comments by letter dated May 9, 2006; and

WHEREAS, the Board of Supervisors held a public hearing, pursuant to public notice, on the Addendum on May 15, 2006; and

WHEREAS, the Board of Supervisors desires to adopt the Addendum as part of the Mount Joy Township Comprehensive Plan.

NOW, THEREFORE, BE AND IT IS HEREBY RESOLVED by the Board of Supervisors of the Township of Mount Joy, Lancaster County, Pennsylvania, as follows:

Section 1. The Board of Supervisors hereby adopts the Comprehensive Plan Addendum prepared by Mount Joy Township Comprehensive Plan Steering Committee and Thomas Comitta Associates, Inc., dated March 16, 2006, hereinafter referred to as the "Addendum", in the form and content presented at this public meeting, as part of the Comprehensive Plan for the Township in accordance with Article III of the MPC.

Section 2. The Addendum, as adopted by the Board of Supervisors, shall include the following chapters and all charts, tables, diagrams, appendices, figures and textual matter contained therein:

Introduction.
Goals.

Growth Management Plan.
Design and Development Guidelines.
Implementation Strategies.

Section 3. The Addendum shall include the maps entitled:

Existing Land Use Mount Joy Township, Lancaster County, Pennsylvania, Route 283/Hershey–Elizabethtown Interchange Development District.

Existing Land Use Mount Joy Township, Lancaster County, Pennsylvania, Route 283/Rheems Interchange Development District.

Conceptual Future Land Use Plan with existing land use Mount Joy Township, Lancaster County, Pennsylvania, Route 283/Hershey–Elizabethtown Interchange Development District.

Conceptual Future Land Use Plan with existing land use Mount Joy Township, Lancaster County, Pennsylvania, Route 283/Rheems Interchange Development District.

Alternative 2 Conceptual Design for Route 283/Rheems Interchange.

Alternative 3 Conceptual Design for Route 283/Rheems Interchange.

Alternative 4 Conceptual Design for Route 283/Rheems Interchange.

Mount Joy Township Official Map, July 2004, Sheet 2A and Sheet 2B.

Possible New Connector Roads Hershey–Elizabethtown Interchange Development District.

Section 4. The Township Secretary shall record the action of the Board of Supervisors approving the Addendum on the adopted Addendum as required by Section 302(c) of the MPC.

Section 5. This Resolution shall not be deemed to repeal Resolution No. 9-1997 adopting the Elizabethtown Region Strategic Comprehensive Plan as the Comprehensive Plan.

Section 6. In the event any provision, section, sentence, clause or part of this Resolution shall be held to be invalid, illegal or unconstitutional by a court of competent jurisdiction, such invalidity, illegality or unconstitutionality shall not affect or impair the remaining provisions, sections, sentences, clauses or parts of this Resolution, it being the intent of the Board of Supervisors that the remainder of the Resolution shall be and shall remain in full force and effect.

Section 7. This Resolution shall take effect and be in force immediately.

DULY ADOPTED this 19th day of June, 2006, by Board of Supervisors of the Township of Mount Joy, Lancaster County, Pennsylvania, in lawful session duly assembled.

TOWNSHIP OF MOUNT JOY
Lancaster County, Pennsylvania

Attest: Patricia J Bailey
~~(Assistant)~~ Secretary

By: Blaine E Miller
~~(Vice)~~ Chairman
Board of Supervisors

[TOWNSHIP SEAL]

CERTIFICATE

I, the undersigned, (~~Assistant~~) Secretary of the Township of Mount Joy, Lancaster County, Pennsylvania ("Township") certify as follows: The foregoing is a true and correct copy of a Resolution which duly was adopted by affirmative vote of a majority of the members of the Board of Supervisors at a meeting of said Board of Supervisors duly convened and held according to law on 19 JUNE, 2006, at which meeting a quorum was present; that such Resolution duly has been recorded in the minutes of the Board of Supervisors of the Township; and that said Resolution is in full force and effect, without amendment, alteration or repeal, as of the date of this Certificate.

I further certify that the Board of Supervisors of the Township of Mount Joy met the advance notice and public comment requirements of the Sunshine Act, 53 Pa. C.S.§701 et seq., as amended, by advertising the date of said meeting, by posting prominently a notice of said meeting at the principal office of the Township of Mount Joy or at the public building in which said meeting was held, and by providing a reasonable opportunity for public comment at said meeting prior to adopting such Resolution.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Township of Mount Joy, this 19TH day of JUNE, 2006

Patricia J. Bailey
(~~Assistant~~) Secretary

[TOWNSHIP SEAL]

COMPREHENSIVE PLAN ADDENDUM
Mount Joy Township – Lancaster County, PA

Introduction

This Comprehensive Plan Addendum pertains to two Interchange Development Districts along Route 208. The Hershey-Elizabethtown Interchange Development District encompasses land around the Rt. 283/Rt. 743 intersection. The Rheems Interchange Development District encompasses land around the Rt. 283/Cloverleaf Road intersection.

The overall purposes of the Comprehensive Plan Addendum are:

- to study and evaluate the relationships between land use and transportation for the two study areas;
- to provide an Addendum to the Strategic Comprehensive Plan of the Elizabethtown Region, dated July 21, 1997;
- to establish updated goals for the two study areas;
- to inventory existing land uses;
- to review transportation studies relevant to the two study areas;
- to recommend future land uses for the two study areas;
- to recommend design and development guidelines; and
- to recommend short and long-term implementation strategies **(including the revision of the Urban Growth Area boundary at the Hershey-Elizabethtown Interchange)**.

As a companion to this Comprehensive Plan Addendum, recommended Zoning Ordinance Amendments under separate cover have been prepared to help insure functional and attractive development for the two Interchange Development Districts. Recommended Zoning Map Amendments are also proposed under separate cover for both Interchange Development Districts.

Goals Pertaining to the Interchange Development Districts

The two Interchange Development Districts have a number of similar goals. In fact, the first 16 goals for each Interchange are practically identical. Goals 17 to 22 are different based on the differing character of each place.

The Steering Committee for the Comprehensive Plan Addendum participated in several "brainstorming" sessions to compose the goals. One of the overall messages with the goal statements are as follows:

- to foster coordination of future land use and future circulation/transportation so that future development and vehicular traffic can peacefully co-exist; and

- to promote a functional transportation network while creating attractive opportunities for commerce, employment, housing, and recreation.

These overall goals are expanded for the Interchange Development Districts in the pages that follow for:

+ Rt. 283/Hershey-Elizabethtown Interchange Development District; and

+ Rt. 283/Rheems Interchange Development District.

These goals also relate to Implementation Strategies (see page 5-1).

Goals for the Rt. 283/Hershey-Elizabethtown Interchange Development District

1. Create an interconnected system of roads, lanes and service drives.

2. Strictly limit and minimize all single-access roads, such as cul-de-sacs, within the study areas.

3. Focus on Access Management within the study areas, especially along roads that are in closer proximity to the two interchanges/exits.

4. Consider multiple modes of transportation involving: vehicular circulation, pedestrian circulation, and bicycle circulation, both within the study areas and with linkages beyond the study areas.

5. Promote mass transportation opportunities at both Interchanges to accommodate buses, jitneys, and possibly light rail.

6. Provide well designed park and ride parking lots.

7. Foster a commercial village type of environment, and not strip commercial development.

8. Promote mixed uses: commercial, recreational, residential and institutional.

9. Devise techniques to limit and/or tame "Big-Box" stores, so they do not dominate the Interchanges.

10. Minimize signage clutter.

11. Maintain a visually appealing environment.

12. Promote hospitality uses for lodging.

13. Strive to create a balanced pattern of development, with a more campus-type atmosphere.

14. Promote a neighborhood type character of development.

15. Minimize the number of new intersections (new driveways and associated "curb cuts") along Rt. 743.

16. Create new collector roads to create better linkages.

17. Create landscaped buffers to screen large-scale commercial development and parking.

18. Encourage the development of pedestrian and bicycle paths.

Goals for the Rt. 283/Hershey-Elizabethtown Interchange Development District

19. Protect the Conewago Trail, and create pedestrian accessways to link to the trail.

20. Create a new regional recreational park site.

21. Consider gateway enhancements to improve the attractiveness of the area.

22. Make accommodations for horse-drawn carriages along the local collector roads within the study area.

Goals for the Rt. 283/Rheems Interchange Development District

1. Create an interconnected system of roads, lanes and service drives.

2. Strictly limit and minimize all single-access roads, such as cul-de-sacs, within the study areas.

3. Focus on Access Management within the study areas, especially along roads that are in closer proximity to the two interchanges/exits.

4. Consider multiple modes of transportation involving: vehicular circulation, pedestrian circulation, and bicycle circulation, both within the study areas and with linkages beyond the study areas.

5. Promote mass transportation opportunities at both Interchanges to accommodate buses, jitneys, and possibly light rail.

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9. Devise techniques to limit and/or tame "Big-Box" stores, so they do not dominate the Interchanges.

10. Minimize signage clutter.

11. Maintain a visually appealing environment.

12. Promote hospitality uses for lodging.

13. Strive to create a balanced pattern of development, with a more campus-type atmosphere.

14. Promote a mixed-use, neighborhood type character of development.

15. Minimize the number of new intersections (new driveways and associated "curb cuts") along Cloverleaf Road.

16. Create new collector roads to create better linkages.

17. Improve traffic flow and lessen traffic congestion through the installation and maintenance of traffic lights in appropriate locations.

Goals for the Rt. 283/Rheems Interchange Development District

18. Enhance the appearance of the roadside environment with increased landscaping, fencing of outdoor storage areas, and the like.

19. Consider a phased or staged approach to transition major collector roads, over time, from two-lane to four-lane.

20. Consider the potential for redevelopment of selected properties, whereby the existing use(s) are changed in the future to new/different uses.

21. Minimize conflicting left turns along higher speed roads.

22. Consider road safety techniques and measures to address truck traffic.

Growth Management Plan

This Growth Management Plan component pertains to:

- Existing Land Use; and
- Conceptual Future Land Use.

Existing Land Use for each study area is depicted on the two maps that follow. The acreages for the existing land use is quantified on the two tables that follow.

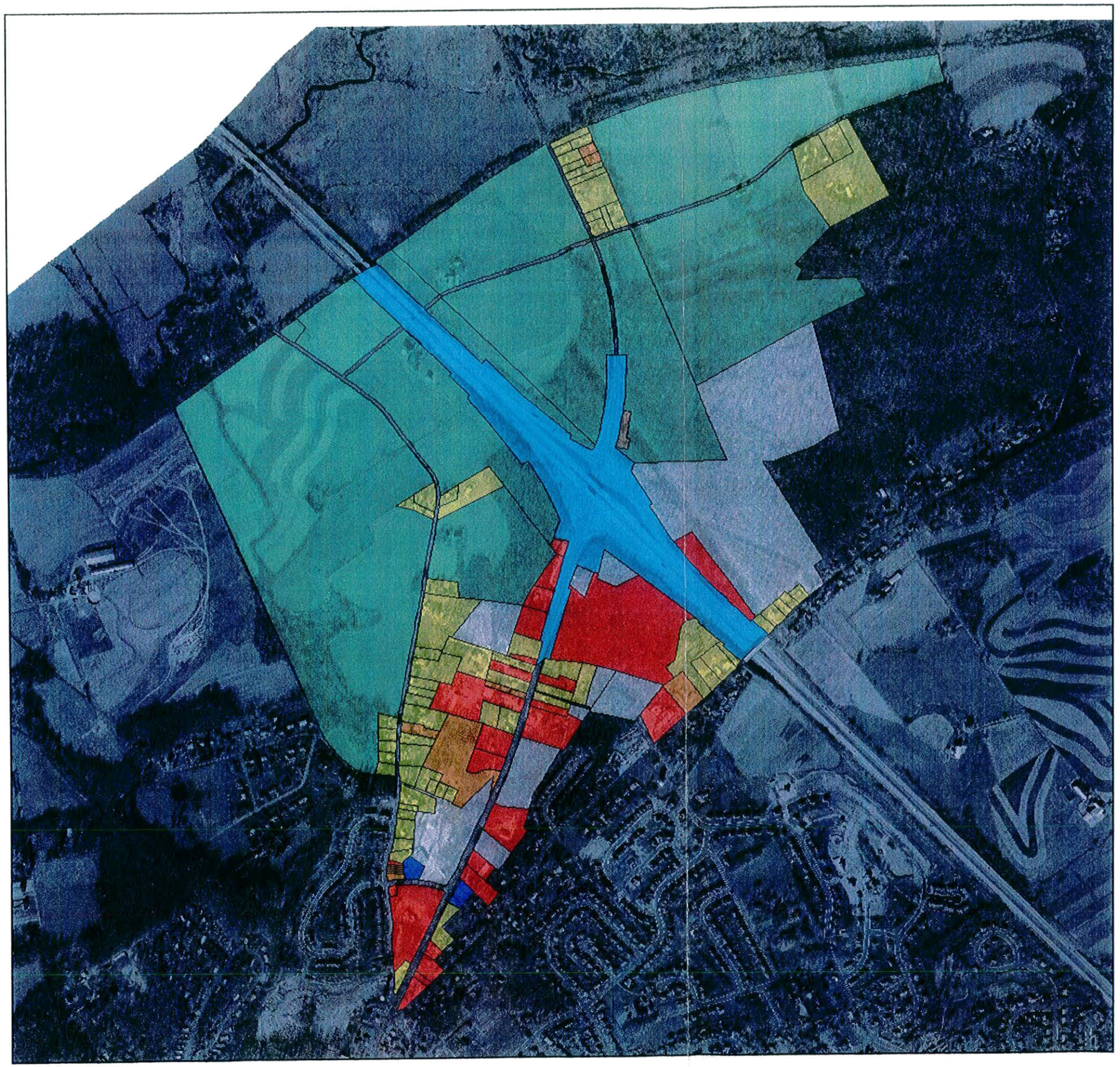
The Conceptual Future Land Use Plans for each study area are also included in this chapter. These plans are intended to express the conceptual vision for land development over the next 10 years.

Since these plans are essentially policy plans, they need to be accompanied by zoning ordinance amendments that are included in a companion document to this Comprehensive Plan Addendum.

Existing Land Use: Hershey – Elizabethtown

There are 130 properties totaling 622.04 acres within the Hershey – Elizabethtown study area. The acreage breakdown for the existing land uses shown on the map on page 3-2 is as follows:

Land Use Category	No. of Parcels	Acreage	Percent
Agricultural	12	362.80	58.32
Forestry/Woodland	10	80.02	12.86
Residential: Single-Family	66	60.56	9.74
Residential: Multi-Family	12	10.05	1.62
Commercial – Retail	25	52.60	8.46
Institutional	3	1.38	0.22
Utilities	1	0.65	0.10
Transportation	1	53.98	8.68
	130	622.04	100.0



Existing Land Use

Mount Joy Township
Lancaster County, PA

Route 283/Hershey-Elizabethtown
Interchange Development District

Legend

- Agricultural
- Forestry/Woodland
- Residential - Single-Family
- Residential - Multi-Family
- Commercial-Retail
- Institutional
- Utilities
- Transportation

N

300 0 300 600 900 1,200 1,500
Feet

Data Sources:

Aerial Photo & Parcels - Lancaster County Planning Commission, 2000
Land Use - Field Survey, Thomas Comitta Associates, Inc., Fall 2005

Prepared By:

Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects
18 West Chestnut Street
West Chester, PA 19380

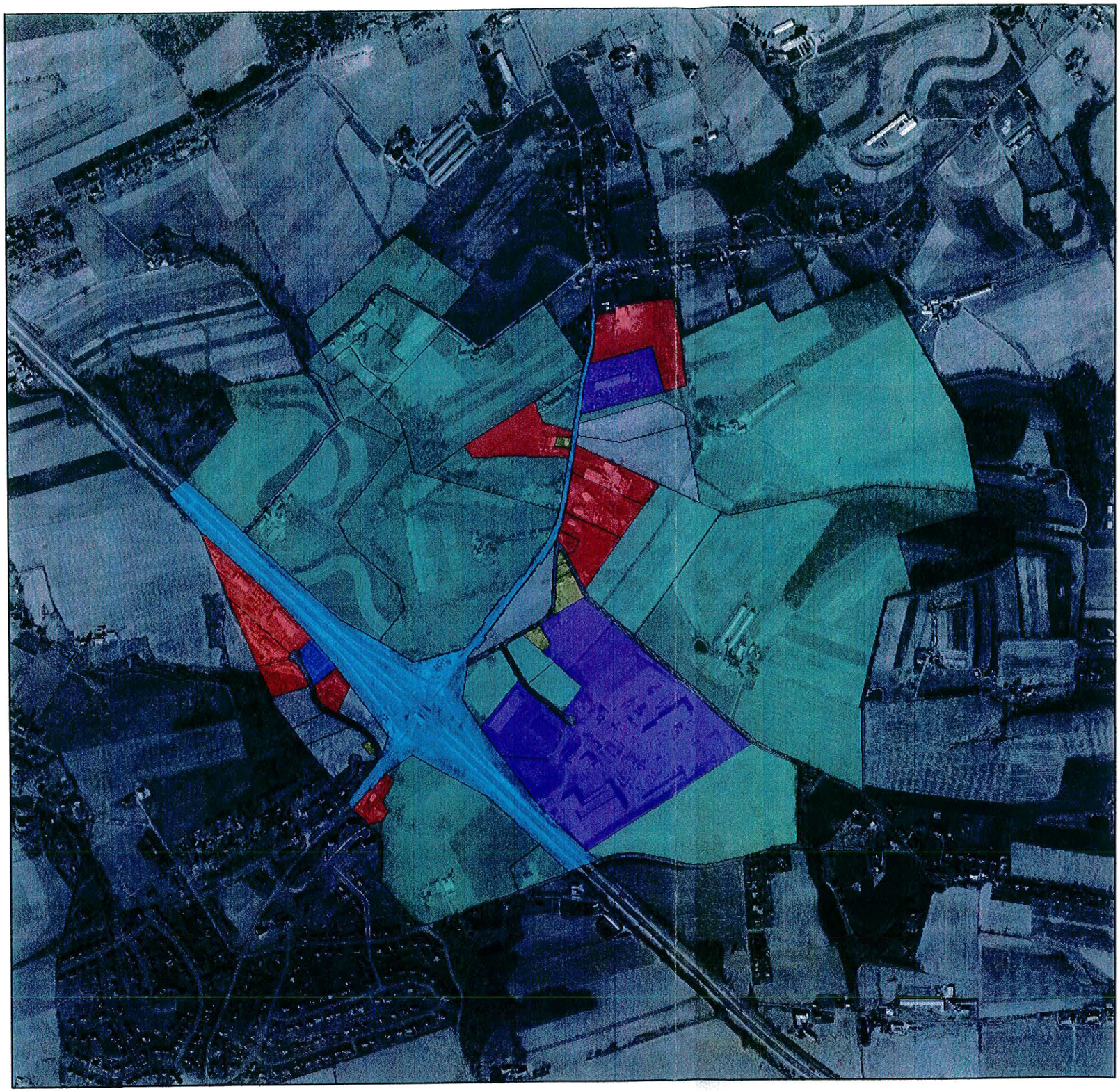
Date:

September 22, 2005
Revised: September 28, 2005;
October 12, 2005; January 3, 2006;
February 9, 2006
February 28, 2006

Existing Land Use: Rheems

There are 49 properties totaling 707.65 acres within the Rheems study area. The acreage breakdown for the existing land uses shown on the map on page 3-4 is as follows:

Land Use Category	No. of Parcels	Acreage	Percent
Agricultural	20	494.11	69.82
Forestry/Woodland	7	30.56	4.32
Residential: Single-Family	6	3.32	0.47
Commercial – Retail	11	48.63	6.87
Institutional	1	1.81	0.26
Industrial	3	74.35	10.51
Transportation	1	54.86	7.75
	49	707.65	100.0



Existing Land Use

Mount Joy Township
Lancaster County, PA

Route 283/Rheems
Interchange Development District

Legend

- Agriculture
- Forestry/Woodland
- Residential - Single-Family
- Commercial- Retail
- Institutional
- Industrial
- Transportation

N

300 0 300 600 900 1,200 1,500
Feet

Data Sources:

Aerial Photo & Parcels - Lancaster County Planning Commission, 2000
Land Use - Field Survey, Thomas Comitta Associates, Inc., Fall 2005

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September 22, 2005
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Conceptual Future Land Use

Springing from the inventory of existing land uses, and the goals for the two Interchange Development Districts included in Chapter 2, are two conceptual plans for future land use.

The crux of the issues pertaining to future land use relate to transportation and vehicular circulation. Although all of the properties within the two study areas are already zoned for various uses and could be developed to a certain extent today, any type of substantive development should not occur without the accompanying transportation infrastructure to support new development.

Mount Joy Township has engaged in several transportation studies and has prepared an Official Map to clarify the importance of road connections and road linkages to future growth. In essence, without local "relief routes" created by new road connections, an unacceptable level of traffic congestions will result. Therefore, new development will need to be very carefully coordinated with transportation improvements in order for a more functional future land use pattern to occur. (See Chapter 4 for additional detail.)

The Conceptual Future Land Use Plans on pages 3-7 and 3-8 depict a preferred outcome for the two Interchange Development Districts over the next 10 years. The ways in which a preferred development pattern should take form is also addressed in Chapter 4, Design and Development Guidelines, as well as in proposed Zoning Ordinance and Zoning Map Amendments prepared under separate cover.

The following information is shown on page 3-7 (superimposed on the Existing Land Use map) for the Mt. Joy – Hershey Interchange:

1. Commercial Retrofit Area
2. New Mixed-Use Area
3. Agricultural Area
4. Recreational Area

The color-coded areas without numerals are intended to be used as per the Existing Land Use designations shown on the Plan. Other features shown on the Conceptual Future Land Use Plan include:

- a Park and Ride facility in the southeast quadrant of the Interchange to help promote carpooling;
- two "Possible New Connector Roads" (also see page 4-23); and
- several potential bicycle trails and bicycle crossings.

For the Mt. Joy – Rheems Interchange Development District, the following information is shown on page 3-8 (superimposed on the Existing Land Use map):

1.A. Commercial Retrofit Area

1.B. Industrial Retrofit Area

2. New Mixed-Use Area

3. Agricultural Area

Again, the color-coded areas without numerals are intended to be used as per the Existing Land Use designations shown on the Plan. A Park and Ride facility is shown at the Cloverleaf Road/Merts Drive intersection to help promote carpooling.

The notion of recommending that certain lands be rezoned **from Industrial** to Agricultural Use, and other lands be rezoned from Agricultural to Commercial/Mixed Use, and **from Agricultural to** Industrial Use is based on:

+ better balancing the agricultural and non-agricultural land uses in relation to existing and proposed road improvements;

+ better relating higher intensities of use based on proximity to the Interchanges; **and**

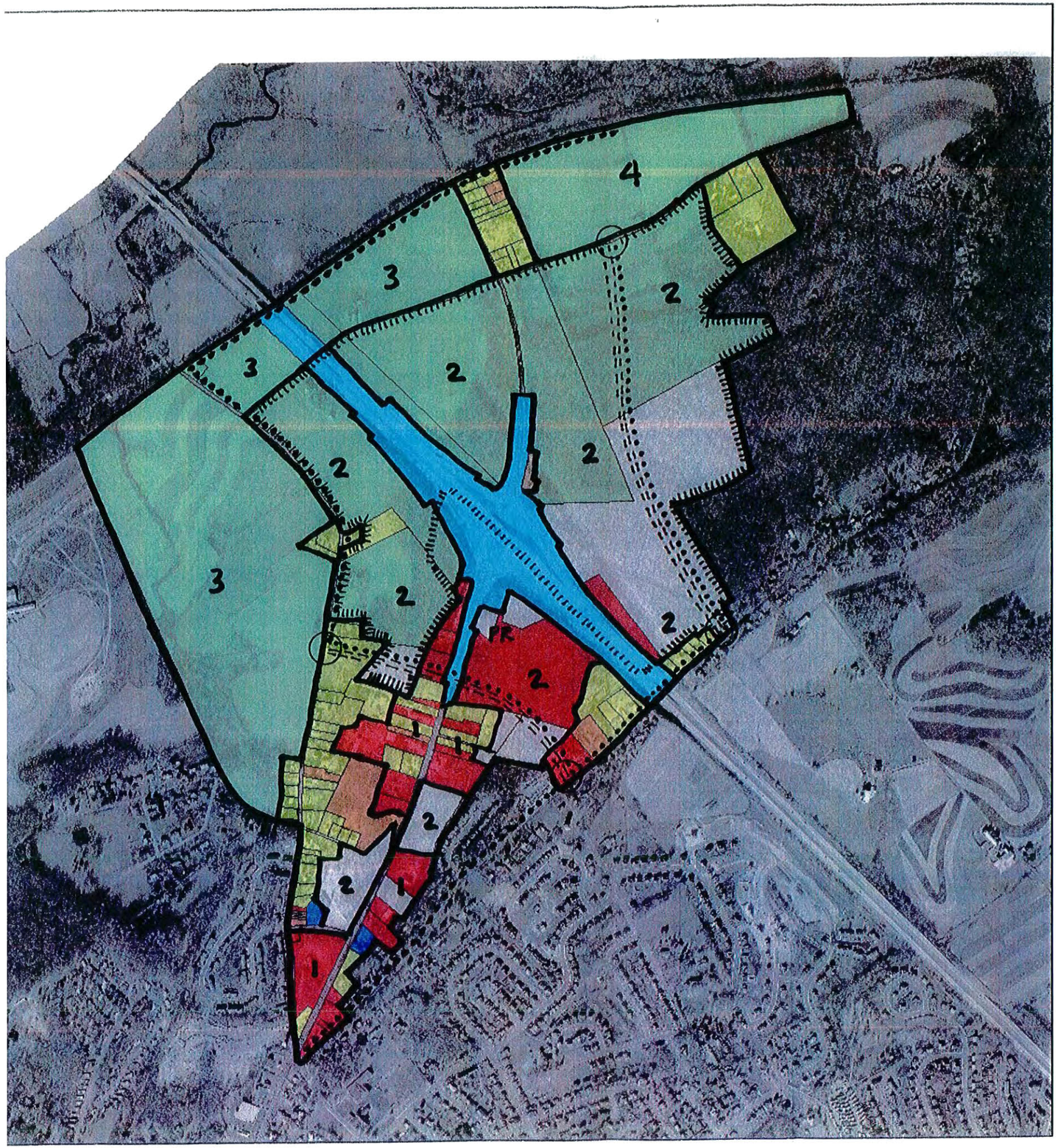
+ strengthening the relationships of proposed land uses **with** adjacent existing **land uses .**

These relationships can also be viewed in the proposed Zoning Map Amendments.

This shift in a recommended pattern for future development also involves a change in the Urban Growth Area boundary for the Hershey-Elizabethtown Interchange area as shown on page 3-8. Approximately 222 acres of land is shown with the designation "2" for New Mixed Area. This is offset with approximately 149 acres of land being designated "3" for Agricultural Area. It should be noted, however, that 76 of the 222 acres is already zoned LI. Therefore, the net rezoning shift is to convert only 146 acres of land currently zoned CR – Conservation Residential to Commercial/Mixed Use, and to offset this by converting 149 acres of LI zoned land to A – Agricultural zoned land.

In addition, at the Rheems Interchange area approximately 238 acres of land that is presently zoned LI is recommended for "3" Agricultural Area (and proposed to be rezoned to A-Agricultural).

Collectively, the shift in the Urban Growth Area boundary is justified as the Township has based the changes to the boundary on : road improvement relationships, proximity to the Interchange relationships; existing and proposed land use relationships, and compensatory acreage relationships.



Conceptual Future Land Use Plan with Existing Land Use

Mount Joy Township
Lancaster County, PA

Route 283/Hershey-Elizabethtown Interchange Development District

Legend

- Agricultural
- Forestry/Woodland
- Residential - Single-Family
- Residential - Multi-Family
- Commercial-Retail
- Institutional
- Utilities
- Transportation
- 1 Commercial Retrofit Area
- 2 New Mixed-Use Area
- 3 Agricultural Area
- 4 Recreation Area
- PR Park & Ride Facility
- ==== Possible New Connector Roads
- Potential Bicycle Trails
- Potential Bicycle Crossings

Note: Color-coded areas without numerals are intended to be used as per the Existing Land Use designation.

Extension of Urban Growth Area Boundary

N

300 0 300 600 900 1,200 1,500
Feet

Data Sources:
Aerial Photo & Parcels - Lancaster County Planning Commission, 2000
Land Use - Field Survey, Thomas Comitta Associates, Inc., Fall 2005

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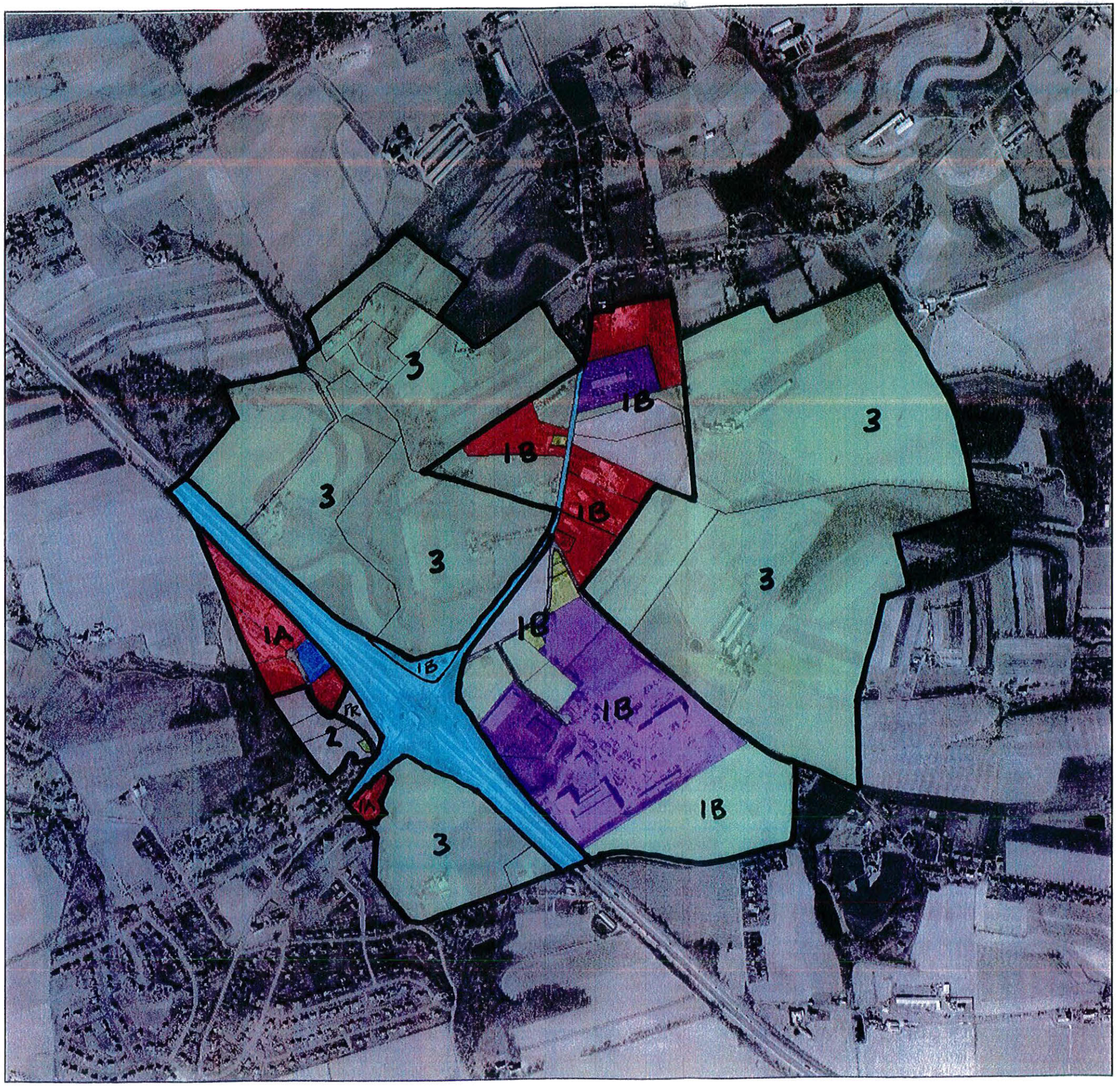

Conceptual Future Land Use Plan with Existing Land Use

Mount Joy Township
Lancaster County, PA

Route 283/Rheems
Interchange Development District

Legend

- Agriculture
- Forestry/Woodland
- Residential - Single-Family
- Commercial- Retail
- Institutional
- Industrial
- Transportation
- 1A Commercial Retrofit Area
- 1B Industrial Retrofit Area
- 2 New Mixed-Use Area
- 3 Agricultural Area

Note: Color-coded areas without numerals are intended to be used as per the Existing Land Use designation.

PR Park & Ride facility

N

300 0 300 600 900 1,200 1,500
Feet

Data Sources:

Aerial Photo & Parcels - Lancaster County Planning Commission, 2000
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Design and Development Guidelines

These Design and Development Guidelines provide "food for thought" for matters pertaining to:

- Key Design Elements
- Access Management Tools & Techniques
- Transportation Concepts
- Zoning Considerations

This information should be considered as recommended ideas to inform proposed Zoning Ordinance Amendments that are addressed in a companion document.

The Key Design Elements on page 4-2 are intended to illustrate how a more neighborhood-like character and structure would look if the Interchange Development Districts were developed. Critical to all of the "pieces of the puzzle" fitting together is the notion that an interconnected street network must be created and maintained, and that a streetscape character must be created and maintained.

Whenever large scale retail uses are proposed, they should also strive to create environments that **are** more neighborhood-like in **their** structure (see page 4-**25, 4-26, and 4-27**).

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Key Design Elements: Traditional Towns and Traditional Neighborhoods

Unlike conventional suburban development patterns (with separated land uses, deep setbacks, no on-street parking, cul-de-sacs, and no sidewalks), Traditional Towns and Traditional Neighborhoods promote more compact, walkable, mixed-uses, interconnected and sustainable communities, and have the following Key Design Elements:

"Anchor" for the Neighborhood: features a Green, Park, Corner Store, Post Office, Library, Town Hall, Community Center, Train Station, Theatre, or like use; enjoys success along a 3 to 5 block long "main street" or in a neighborhood or town center; provides a place for special events

Service Area and Size: features a ¼ to ½ mile (5 to 10 minute walk) from the Neighborhood Center to the edge; creates 40 to 160 acres for each neighborhood

Mix of Uses: combines Residential, Commercial, Institutional, Limited Industrial, Recreational and Open Space uses in a diversified but seamless arrangement; also combines first floor retail with second floor apartments and/or offices in the town/neighborhood center; encourages live-work units and granny flats

Park, Open Space, Countryside: creates the green, square or park to help "anchor" the Town/Neighborhood Center and neighborhood; a system of "green spaces" ecologically balanced with the built environment and distributed within the community; includes a "green edge" of open space to help shape neighborhoods and towns; forms the countryside between towns, villages, and other places

Network System of Interconnected Streets: organizes a block and pattern of lots; integrates boulevards, avenues, neighborhood streets,and alleys; links to pedestrian and other transportation systems; streets and street walls create outdoor rooms and the streetscape; street vistas terminate with public space, landmark structures or civic buildings

On-Street/Parallel Parking: provides a separator between vehicular and pedestrian traffic; utilizes cartway as an "aisle"; (with "overflow" parking to the rear or side of buildings); promotes effective "traffic calming" by slowing down the speed of vehicles, especially along narrower streets

Streetscape: promotes human scale relationship for the pedestrian as part of the public realm; an "outdoor room" type of space created by 2 to 5 story buildings, located (in the most compact part of the Transect) 60 to 85 feet across from one another on both sides of the street; buildings at a "build-to" line create a Street Wall (which may have up to a 4 to 8 foot offset)

Lanes (Alleys): allows for preservation of frontage streetscape; provides vehicular access to parking in the rear; provides opportunities for rear access to an accessory apartment (granny flats),or for deliveries; provides access for utilities and staging construction

Sidewalks/Crosswalks/Pedestrian Paths/Walkways: serve to link uses, buildings, lots and streets together; accommodates a healthy pedestrian circulation network; provides close to home opportunities for exercise; enhances wayfinding and an appreciation of the neighborhood/place

Building Types: focuses on buildings designed by type, not solely by function, to allow for adaptations and changes in use (e.g. from dwelling, to shop, to work place, to civic use); most appropriate when an expression of regional/local context and style

Porch/Portico/Colonnade: serves as transition element from the private realm of the building to public realm of the sidewalk and street; provides shade; promotes a finer, more ornamental "texture" of the building; creates a cozy space to sit, walk, relax; provides the outdoor room for greeting and socializing with neighbors and friends

Shade Trees: provide (as street trees) the canopy/overhead plane to help create an "outdoor room"; and (as shade trees) provides an "old shade" character of the neighborhood

Other Vertical Infrastructure: includes civic art such as gateways, monuments, gazebo, pavilion, pergola, as well as walls, fences, trees, hedges, street lamps, benches, or like features

Interchange Development Districts
Access Management Tools & Techniques

"Access Management" is one of the Goals for the Interchange Development Districts. The 24 most frequently mentioned principles of Access Management that are found in the literature are listed in alphabetical order below.

Ten (10) of the 24 principles were considered to be particularly applicable by the Steering Committee (# 7, 10, 11, 12, 13, 14, 16, 18, and 19). These 10 principles and the other 14 provide basic "Tools & Techniques" for the Comprehensive Plan Addendum in general, and the Conceptual Future Land Use Plans for the Interchange Development Districts in particular.

1. Acceleration Lanes
2. Continuous Two-way Left Turn Lanes (TWLTL)
3. Corner Clearance (distance on road between intersection and first driveway)
4. Deceleration Lanes
5. Driveway Channelization
6. Driveway Gradient
7. Driveway Radius
8. Driveway Spacing From Interchange Ramps
9. Driveway Spacing Standards
10. Driveway Throat Width and Length
11. Frontage Roads
12. Indirect Turns
13. Installation of Non-traversable and Directional Medians
14. Internal Access to Outparcels
15. Left Turn Lanes
16. Lot Size and Width
17. Median Acceleration Lanes
18. Pre-existing Access
19. Right-of-way preservation
20. Roundabouts
21. Safe Sight Distance
22. Service Roads
23. Shared Driveways
24. Signalized Intersection Spacing

It should be noted that the specific design criteria is intended to be "food for thought". These "Tools & Techniques" should not be considered to be Ordinance regulations. Specific Ordinance provisions would have to be incorporated into future Subdivision and Land Development Ordinance Amendments.

Interchange Development Districts
Access Management Tools & Techniques

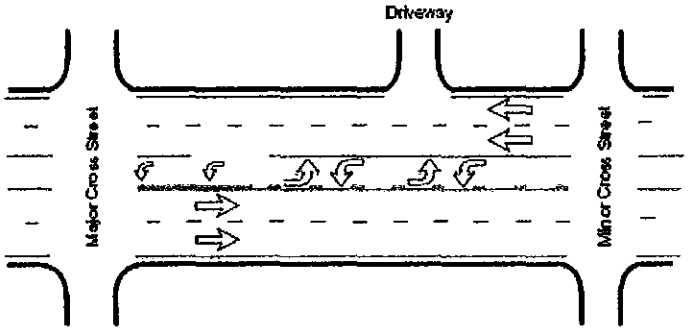
1. Acceleration Lanes

An acceleration lane is an auxiliary lane at a side street or driveway that enables vehicles entering the main road to increase speed to enter the flow of traffic with little disruption to the through traffic.

Acceleration lanes consist of a taper and acceleration length. Generally, long tapers enhance the function of an acceleration lane. Acceleration lanes should be addressed during the land development approval process.

2. Continuous Two-way Left Turn Lanes (TWLTL)

A continuous TWLTL is located between opposing traffic streams and provides a safe refuge area for vehicles completing left turns from both directions of travel, as indicated below.

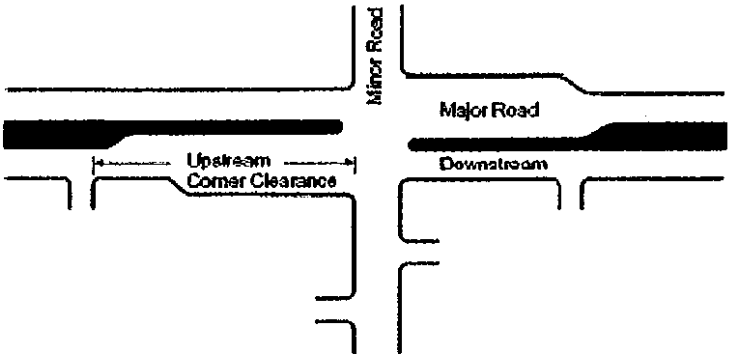


The use of TWLTLs requires careful consideration of driveway locations to prevent overlapping left turns. The construction of TWLTLs for new roads can require significant right-of-way acquisition. In some cases, TWLTLs can be retrofitted for roads that have four travel lanes. For roads with only two travel lanes, TWLTLs can be much more difficult to retrofit due to right-of-way constraints and potential impacts to existing structures and properties.

3. Corner Clearance

Corner clearance is the distance along a road between an intersecting street and the first driveway. The figure below illustrates upstream corner clearance.

Interchange Development Districts
Access Management Tools & Techniques



Corner clearance, at a minimum, should be equal to or greater than driveway spacing standards. On high volume or high speed roads, a longer corner clearance is preferable. It is undesirable for driveways to be located within the functional area of an intersection. The functional area includes all areas where separate turn lanes exist. Preferably, driveways on a corner property should be located on the minor street or as close to the property line farthest from the intersection as is possible.

4. Deceleration Lanes

A deceleration lane is an auxiliary lane that enables vehicles to decrease speed before turning right into a driveway or side street.

Deceleration and right-turn lanes consist of a taper, deceleration length and storage length. Generally, long tapers enhance the function of a deceleration lane. The application of standards is related to the driveway use and classification of the road being accessed.

5. Driveway Channelization

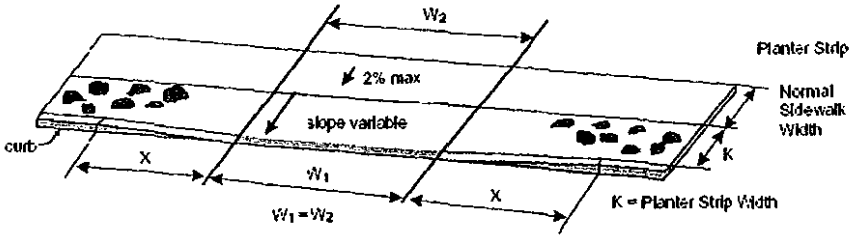
Raised channelization islands are used at a driveway's intersection with a public road when it is necessary to prohibit or restrict left turn movements into or out of the driveway. The practice can be used to restrict driveway movements to right-in/right-out, right-in/right-out and left-in, or right-in/right-out and left-out on undivided roads or roads without a median.

The American Association of State Highway Transportation Officials (AASHTO) recommends a minimum island size of 75 square feet in most cases. Mountable curbs are often used to enable easy access for emergency response vehicles. Proper signage is needed to indicate the prohibited movements and minimize violations.

Interchange Development Districts
Access Management Tools & Techniques

6. Driveway Gradient

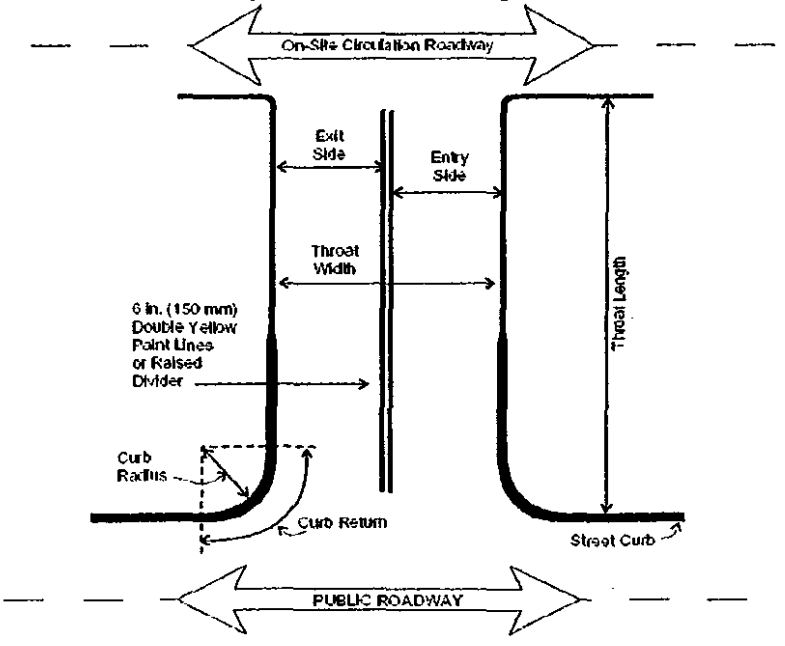
The change in grade between the road cross slope, and the slope of a driveway as shown in the figure below.



Design guidelines must consider the types of vehicles that will use the driveway. Abrupt changes in grade should be avoided.

7. Driveway Radius

The driveway radius (often referred to as the turning radius) is a paved adjustment between the edge of the main road, and the edge of a driveway that facilitates right-turn movements in or out of a driveway as shown in the figure below.



A driveway radius should be designed for the largest vehicle, including public transportation vehicles, expected to use the driveway on a daily basis. The speed and grade of the adjacent road are also considerations.

a. Typical commercial driveway radii are 30 to 60 feet.

b. Typical residential driveway radii are 10 to 30 feet.

8. Driveway Spacing From Interchange Ramps

Driveway spacing from interchange ramp is the minimum distance between the end of an acceleration lane or beginning of a deceleration lane to the first permitted driveway or side street.

The National Cooperation Highway Research Program (NCHRP) Report 420 recommends that an unsignalized access be located at least 750 feet from an interchange ramp, and that a signalized access be located one half mile or greater from the terminus of an interchange ramp. The minimum spacing standards can be maintained in some instances through the acquisition and preservation of limited access right-of-way. Traffic control measures at ramp termini should be carefully analyzed when the desired spacing between driveways and interchange ramps cannot be provided.

9. Driveway Spacing Standards

Driveway spacing is the distance between two driveways. States and the Transportation Research Board (TRB) have diverse definitions of driveway spacing. For example, Iowa DOT defines it as the distance from centerline to centerline between two driveways. TRB defines driveway spacing as the distance from outside curb line of the first driveway throat to the inside curb line of the next driveway throat. Some states define it as inside edge to inside edge while others measure from the end of radius of one driveway to the beginning of the radius of the next driveway. It is important that the definition of driveway spacing creates a tangent distance between the end of the radius of one driveway and the beginning of the turning radius at the next driveway. Without such a requirement, a radius from one driveway could tie into the radius of an adjacent driveway using the other definitions.

The driveway spacing standards vary from state to state. The spacing standards should be related to the classification and speed of the road. The higher the road classification, the greater the spacing requirement for the classification. Principal arterial roads would be the most restrictive, whereas a local road would be the least. High volume generators are typically given at least two driveways. New driveways should be aligned with driveways and intersections on the opposite side of the road, wherever feasible. Another tool that is used by some municipalities to reduce the number of driveways on primary

roads is to require that access be obtained from local roads instead of arterial roads where the property has access to both types of roads.

10.A. Driveway Throat Width

The driveway throat width is the narrowest dimension of a driveway measured perpendicular to the driveway centerline.

Non-commercial driveways should have a width between 10 feet and 24 feet. Commercial driveways vary from a minimum of 10 to 16 feet wide in one direction to a maximum of two inbound or three outbound lanes (10 to 12 feet each).

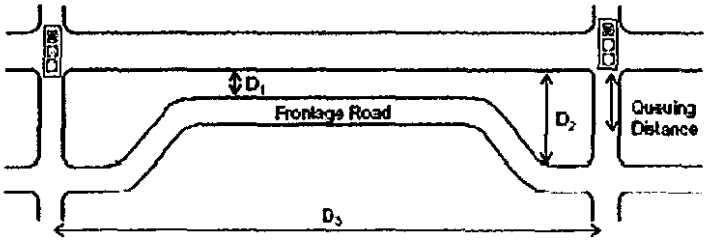
10.B. Driveway Throat Length

The driveway throat length is the distance along a driveway from the edge of the travel lane on the intersecting street to the first interior intersection.

Traffic volumes, type of vehicles and queues are the primary considerations for the design of driveway throat lengths. The proper throat length for a driveway should be determined during the land development approval process.

11. Frontage Roads

A road that runs parallel to an arterial between the right-of-way of the major road, and the property and building setback line, as indicated in the figure below. It provides access to multiple properties.

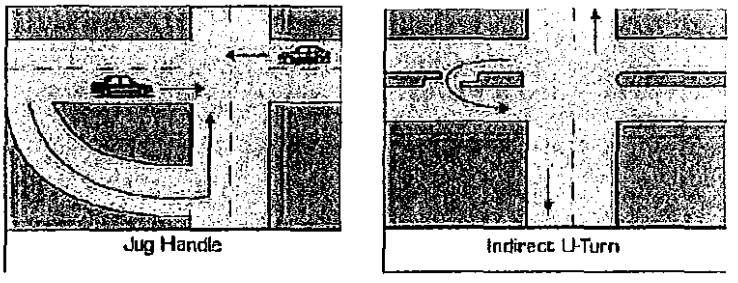


AASHTO standards include a separation distance of 75 to 150 feet from the frontage road to the arterial, and 300 feet should be provided in rural areas. The separation distance includes the tangent and radii between the arterial and frontage road. For heavy traffic generators, a frontage road should be incorporated into the site circulation plan. Horizontal curves can be used to increase the distance between the intersection of a connector road and the major road. Best practices such as internal access to out parcels, shared driveways and shared parking can be utilized along frontage roads to help maximize their access management benefits.

Interchange Development Districts
Access Management Tools & Techniques

12. Indirect Turns

Some of the biggest issues with managing access come at intersections where vehicles must cross traffic. Some states and cities have adopted indirect turns to reduce these conflicts. In New Jersey, the jug-handle left turn requires a right turn onto a feeder street, followed by a left onto a cross street. Detroit has extensively used an indirect U-turn that requires a U-turn past an intersection, followed by a right turn instead of a regular left turn. Like dedicated left-turn lanes, indirect turns reduce crashes, improve congestion, and add capacity. Crashes decline by 20 percent on average, and 35 percent if the indirect turn intersection is signalized. Capacity typically shows a 15 to 20 percent gain.

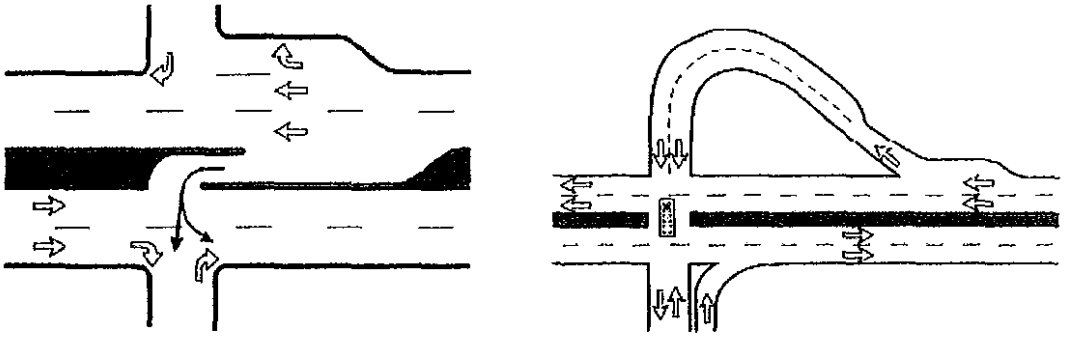


13. Installation of Non-traversable and Directional Medians

Medians can be used to reduce conflict areas by restricting turn movements into and out of driveways that are located on an undivided highway (generally four or more lanes). Medians are designed to physically prevent left turns into a driveway or onto a side street and left and through movements from a driveway or side street. Directional medians contain breaks at key locations to provide access to a particular land use or side street as shown in the figure below. A separate left turn lane is typically used at a break in the median.

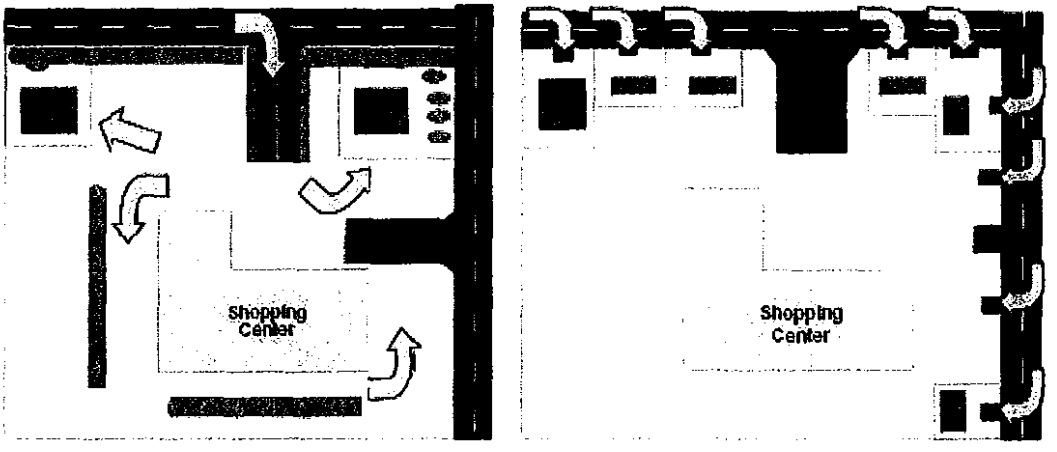
Median widths vary from 4 to 18 feet or greater for a protected left-turn bay, allowing left turns into a driveway or side street. Access restrictions created by the placement of a median can be mitigated through the use of jug handles and permitting u-turns at signalized intersections. Jug handles also eliminate the need for left-turn signal phases on the main road as shown in the figure below.

Interchange Development Districts
Access Management Tools & Techniques



14. Internal Access to Outparcels

Internal access consists of an on-site circulation system that serves the out parcels, as well as the interior development. Requirements for internal access are most applicable to shopping centers and office parks.



TRB recommends that proposed developments under the same ownership, phased development plans, or properties consolidated for development should be considered one property. The regulations should require that all access to out parcels be internalized using the main access point of the principal use. Compatible building setback requirements are critical to designing a safe and efficient internal circulation system. If the building setbacks are too large, they can limit the design options for acceptable internal circulation. The internal access system must be signed properly to help direct drivers to the out parcels.

Interchange Development Districts
Access Management Tools & Techniques

15. Left Turn Lanes

A left turn lane is an auxiliary lane used exclusively for left turn movements. Left turn lanes are usually provided for either a high left turn volume into a driveway or side street, or when a combination of left turn volumes and high through volumes cause long delays.

The Institute for Transportation Engineers (ITE) recommends that at high-speed rural intersections, left turn lanes should be provided for safety reasons, whether or not warrants are satisfied. The length of left turn lanes should accommodate the 95th percentile queue and provide adequate distance for deceleration into the lane. However, the length of left turn lanes can be restricted by topography and existing land uses.

16. Lot Size and Width

The regulation of lot size and dimensions including frontage, setbacks, and prohibition of irregular lot shapes such as flag lots.

Greater lot frontage requirements allow for greater spacing between driveways. Setback requirements should allow adequate area for the future improvement or widening of the road. Minimum lot size is particularly important for corner lots at intersections. Greater lot sizes at intersections allow driveways to be located outside the corner clearance area of the intersection.

17. Median Acceleration Lanes

An auxiliary lane located in the median area or shadow opposite of a left turn lane that enables left turning vehicles from a driveway at a t-intersection to cross one direction of traffic to a "safe haven" area and then merge into the other direction of traffic.

A median acceleration lane at a t-intersection can serve as an interim measure before a fourth leg and signalization is added. The median acceleration lane can be converted into a left turn lane to the fourth leg. The lanes should be signed and marked properly to ensure correct use and avoid confusing turning movements.

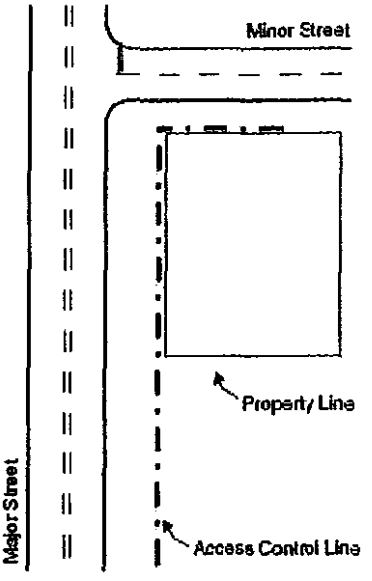
18. Pre-existing Access

Permitted driveways in place at the time of the adoption of an ordinance that do not conform to proposed access management standards should be designated as pre-existing driveways. They shall be brought into compliance with the proposed standards whenever: i) new driveway permits are requested; ii) modifications to an existing driveway permit are requested, iii) the property owner or applicant applies for a change in property use and will generate more vehicle trips than the existing use, iv) an expansion of the existing use will result in an increase in trip generation.

Interchange Development Districts
Access Management Tools & Techniques

19. Right-of-way preservation

The acquisition of an area of land through purchase, dedication or easement needed to accommodate the future widening of a road as shown in the figure below.

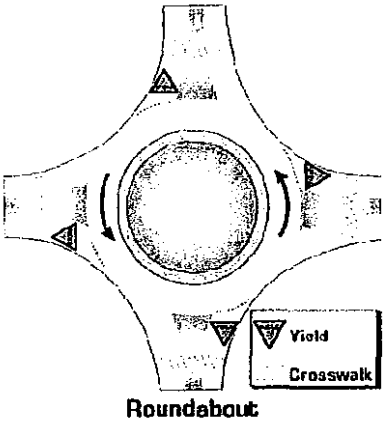


Adequate building setback standards are essential to the preservation of right-of-way for future road improvements. The acquisition of right-of-way can be implemented through the designation of ultimate right-of ways in the Township Subdivision and Land Development Ordinance. The ultimate right-of-way is the area of land beyond the dedicated or legal right-of-way needed to accommodate the future widening of a road. The ultimate right-of-way varies based on the functional classification of the road. Ultimate right-of-ways should be based on a full build-out of the Township.

Interchange Development Districts
Access Management Tools & Techniques

20. Roundabouts

Roundabouts represent a potential solution for intersections with many conflict points. Though not appropriate for all situations, roundabouts reduce vehicle movements across traffic. Only a few studies have examined the safety benefits of roundabouts. One study of four intersections that were replaced with roundabouts in Maryland found a drop in crashes between 18 and 29 percent and a reduction in injury crashes between 63 and 88 percent. The cost of crashes at these locations – one measure of severity – was also reduced by 68 percent. Overall crashes on roundabouts were more minor than those at left turn locations. Another study of roundabouts in several locations found a 51 percent reduction in crashes, including a 73 percent reduction in injury crashes and a 32 percent reduction in property-damage-only crashes for single-lane roundabouts. Multi-lane roundabouts only experienced a 29 percent reduction in crashes.

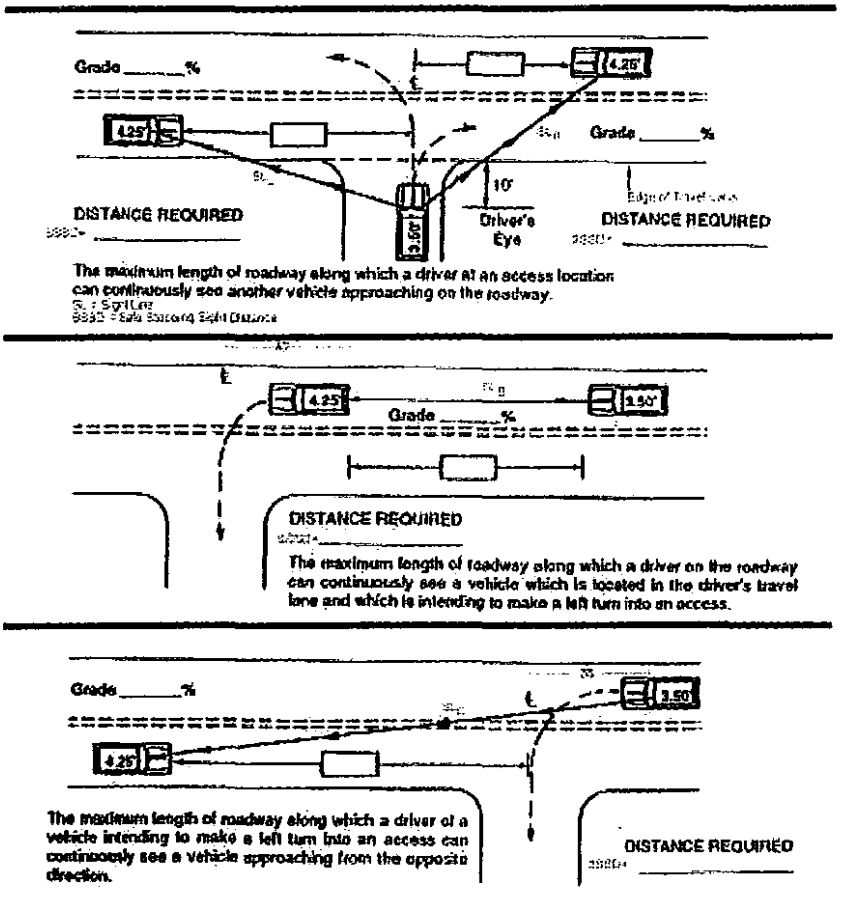


Roundabout

Interchange Development Districts
Access Management Tools & Techniques

21. Safe Sight Distance

The distance required for drivers to safely make a left turn or right turn from a driveway or intersecting road, or for a driver to safely make a left turn from a road into a driveway as shown in the figure below.

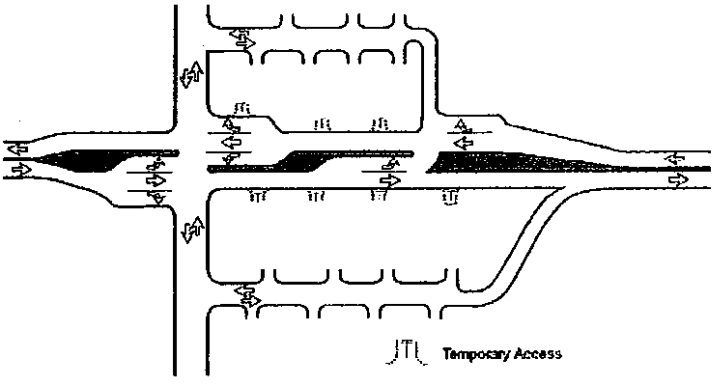


Safe stopping sight distance requirements should address left turning vehicles entering driveways as well as left and right turning vehicles exiting from the driveway. Guidelines should address how sight distance measurements should be taken and applied at the location of the proposed driveway.

Interchange Development Districts
Access Management Tools & Techniques

22. Service Roads

Service roads are publicly or privately owned roads auxiliary to a major road that provides access to several non-residential parcels, as indicated in the figure below.

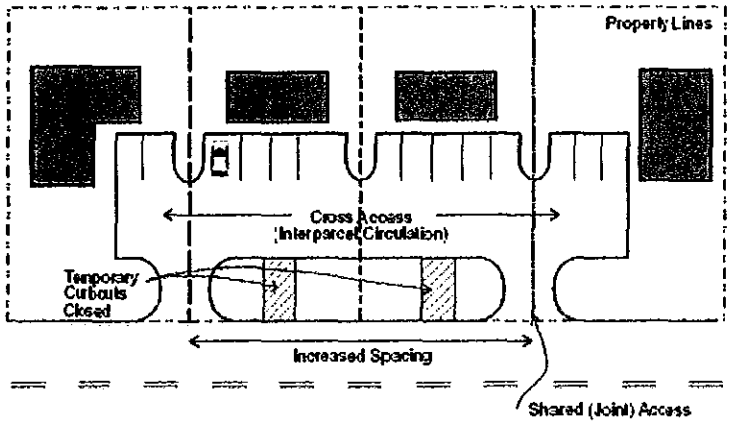


The distance between the major road and service road must be sufficient to create developable sites. *A Policy on Geometric Design of Highways and Streets*, AASHTO (2001 recommends an outer separation distance of 300 feet. *NCHRP Report 420*, "Impact of Access Management Techniques" (1999) recommends an outer separation distance of at least 300 feet on high-volume crossroads. The ITE publication, *Transportation and Land Development* recommends an outer separation distance of at least 120 feet. The outer separation distance includes the tangent and radii between the major road and service road. Initial developments may have to be given temporary access to the major road until the service road is fully implemented.

Interchange Development Districts
Access Management Tools & Techniques

23. Shared Driveways ("Joint and Cross Access")

A single driveway used to access multiple properties as shown in the figure below.



TRB recommends that policies and regulations should be established in municipal ordinances to guide the process for implementing shared or joint access rather than on a case-by case basis. Current policies usually require shared or joint access between compatible land uses on major roads. Other considerations for determining the feasibility of shared and joint access include existing and proposed buildings, parking and driveway locations, adjacent buildings and natural constraints.

24. Signalized Intersection Spacing

The spacing between signalized intersecting is the distance between two signalized at-grade intersections, measured centerline to centerline.

Traffic signal spacing standards are a function of the cycle length of the traffic signal, and the desired travel speed. The *Access Management Manual*, published by TRB states that traffic signal spacing at half-mile intervals is generally desirable. Optimum and uniform signal spacing is essential for efficient progression and appropriate speeds.

Several of the Access Management principles described above will be embedded into the planning and zoning text for the Interchange Development District.

Transportation Concepts

Various transportation concepts have been addressed by other consultants, especially at the Rheems Interchange Development District. A "Point of Access Study" has been completed by Traffic Planning and Design, Inc. (TPD) for Route 283/Cloverleaf Road Interchange Improvements. Four plans, prepared by TPD titled "Alternative Conceptual Design" for Rheems Interchange Development District area, are enclosed on pages 4-18 to 4-20. Clearly, these four plans illustrate the critical need for interconnecting roads and relief routes.

Another important exhibit is the Mount Joy Township Official Map, shown on pages 4-21 and 4-22. It depicts several new road alignments to which affected development in the Rheems Interchange Development District shall conform.

In addition, on page 4-23, there is a very conceptual sketch that illustrates "Possible New Connector Roads" for the Hershey – Elizabethtown Interchange Development District Area.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0300		2 of 4
	MOUNT JOY TOWNSHIP			

REVISION NUMBER	REVISIONS	DATE	BY

LEGEND:

- EXISTING WATER FEATURE
- EXISTING PROPERTY LINE
- DEVELOPMENT BY OTHERS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE/STRUCTURE
- HISTORIC BUILDING
- PROPOSED TRAFFIC SIGNAL
- EXISTING WETLANDS

Ramp A
Cloverleaf Road
FARM
Cloverleaf Road
Steel Way Drive
PENNDOT MAINTENANCE FACILITIES
Ramp D
FARM
Ramp A
Ramp B2
Ramp B
GREINER
Cloverleaf Road
Ramp B
Route 283
Ramp C
Ramp D
Merts Drive
TWP BLDG
HOLIDAY INN
RHEEMS MENNONITE MEETING HOUSE
FARM
Merts Drive Extension
Ridge Run Road Extension
FARM
Schwanger Road
Ramp C
Cloverleaf Road
Knoll Drive
Rob Drive
Ramp D Alternative Design
Ramp D
Collector
Road A
Merts Drive Extension
HILSHER RAFFENSPERGER DEVELOPMENT (PROPOSED)
Cloverleaf Road
Ridge Run Road
Fairview Drive
Sheri Lane
150 75 0 150 300
SCALE IN FEET

TRAFFIC PLANNING & DESIGN, INC.
SARATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
POTTSTOWN, PENNSYLVANIA 19464
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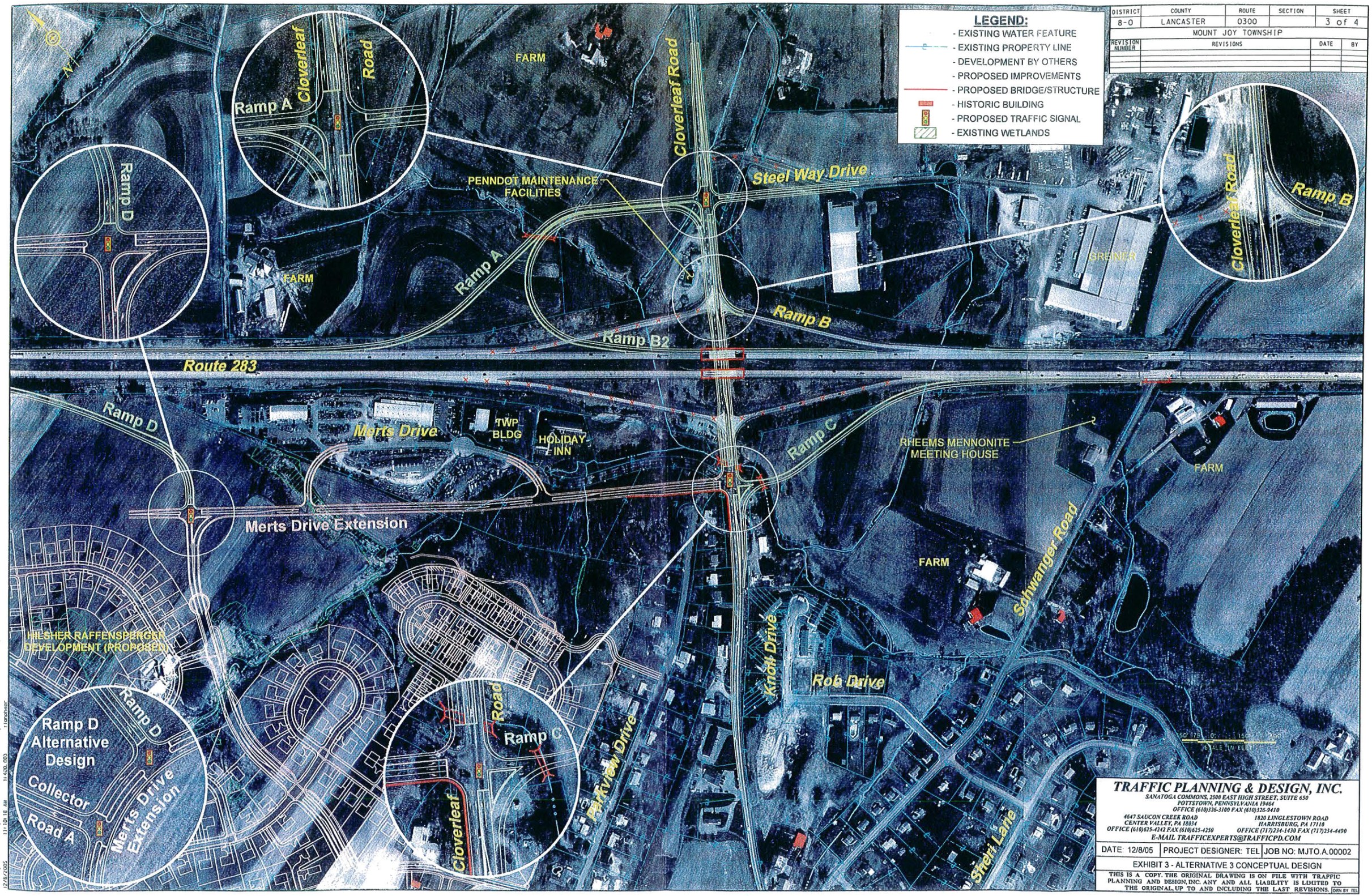
4647 SAUCON CREEK ROAD
CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
OFFICE (717)234-1430 FAX (717)234-4490
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

DATE: 12/8/05	PROJECT DESIGNER: TEL	JOB NO: MJTO A 00002

EXHIBIT 2 - ALTERNATIVE 2 CONCEPTUAL DESIGN



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0300		3 of 4

MOUNT JOY TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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DATE: 12/8/05	PROJECT DESIGNER: TEL	JOB NO: MJTO.A.00002

EXHIBIT 3 - ALTERNATIVE 3 CONCEPTUAL DESIGN

DRN BY TEL

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
8-0	LANCASTER	0300		4 of 4
	MOUNT JOY TOWNSHIP			

REVISION NUMBER	REVISIONS	DATE	BY

LEGEND:

- EXISTING WATER FEATURE
- EXISTING PROPERTY LINE
- DEVELOPMENT BY OTHERS
- PROPOSED IMPROVEMENTS
- PROPOSED BRIDGE/STRUCTURE
- HISTORIC BUILDING
- PROPOSED TRAFFIC SIGNAL
- EXISTING WETLANDS

N

Ramp A

Cloverleaf Road

FARM

Cloverleaf Road

Ramp D

PENNDOT MAINTENANCE FACILITIES

Steel Way Drive

Ramp B

Cloverleaf Road

FARM

Ramp A

GREINER

Ramp B

Ramp B2

Route 283

Ramp D

Merts Drive

TWP BLDG

HOLIDAY INN

Ramp C

RHEEMS MENNONITE MEETING HOUSE

Schwanger Road

FARM

Merts Drive Extension

FARM

Ridge Run Road Extension

Cloverleaf Road

HILLSHER RAFFENSPERGER DEVELOPMENT (PROPOSED)

Knoll Drive

Rob Drive

Ramp D Alternative Design

Ramp D

Collector

Road A

Merts Drive Extension

Cloverleaf Road

Ramp C

Parkview Drive

Sheri Lane

SCALE IN FEET

12/8/2005 11:18:47 AM J:\projects\11400_003\

TRAFFIC PLANNING & DESIGN, INC.

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E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

DATE: 12/8/05	PROJECT DESIGNER: TEL	JOB NO: MJTO.A.00002

EXHIBIT 4 - ALTERNATIVE 4 CONCEPTUAL DESIGN

 DRN BY TEL

RECORDING STATEMENT
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF LANCASTER

ON THIS 19th DAY OF July, 2004, BEFORE ME, THE UNDERSIGNED OFFICER, A NOTARY PUBLIC IN AND FOR THE AFORESAID COMMONWEALTH AND COUNTY PERSONALLY APPEARED Charles W. Riedorf WHO ACKNOWLEDGED HIMSELF TO BE THE CHAIRMAN OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF MOUNT JOY, LANCASTER COUNTY, PENNSYLVANIA, AND THAT HE, AS SUCH OFFICER, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING OFFICIAL MAP BY SIGNING THE NAME OF SUCH TOWNSHIP BY HIMSELF AS SUCH OFFICER AS THE ACT AND DEED OF THE TOWNSHIP AND FOR THE PURPOSE OF RECORDING THE OFFICIAL MAP AS REQUIRED BY THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE.

IT WITNESS WHEREOF, I SET MY HAND AND OFFICIAL SEAL.

Grace N. Miller
NOTARY PUBLIC

TOWNSHIP CERTIFICATION
THIS MAP IS CERTIFIED AS THE ORIGINAL OFFICIAL MAP OF MOUNT JOY TOWNSHIP AS ADOPTED BY THE MOUNT JOY TOWNSHIP BOARD OF SUPERVISORS, LANCASTER COUNTY PENNSYLVANIA, ON 19 JULY 2004

CHAIRMAN/MOUNT JOY TOWNSHIP BOARD OF SUPERVISORS

SECRETAY/MOUNT JOY TOWNSHIP

GENERAL NOTES:

ALL SUBURBAN ARTERIALS ARE CONTROLLED ACCESS IN ACCORDANCE WITH ARTERIAL STREET DESIGN CRITERIA WITHIN CHAPTER 119 "SUBDIVISION AND LAND DEVELOPMENT" AND PENNDOT DESIGN MANUAL 2.

PROVIDE LEFT TURN LANES ON ALL APPROACHES OF SIGNALIZED INTERSECTIONS UNLESS OTHERWISE NOTED.

PROVIDE A MINIMUM RIGHT-OF-WAY 50' FOR LOCAL ROADS, 60' FOR COLLECTOR ROADS AND SUBURBAN ARTERIALS UNLESS NOTED OTHERWISE. PROVIDE AN ADDITIONAL 20' MINIMUM RIGHT-OF-WAY FOR MERTS DRIVE AND RIDGE RUN ROAD TO ACCOMODATE PEDESTRAIN BIKEWAY.

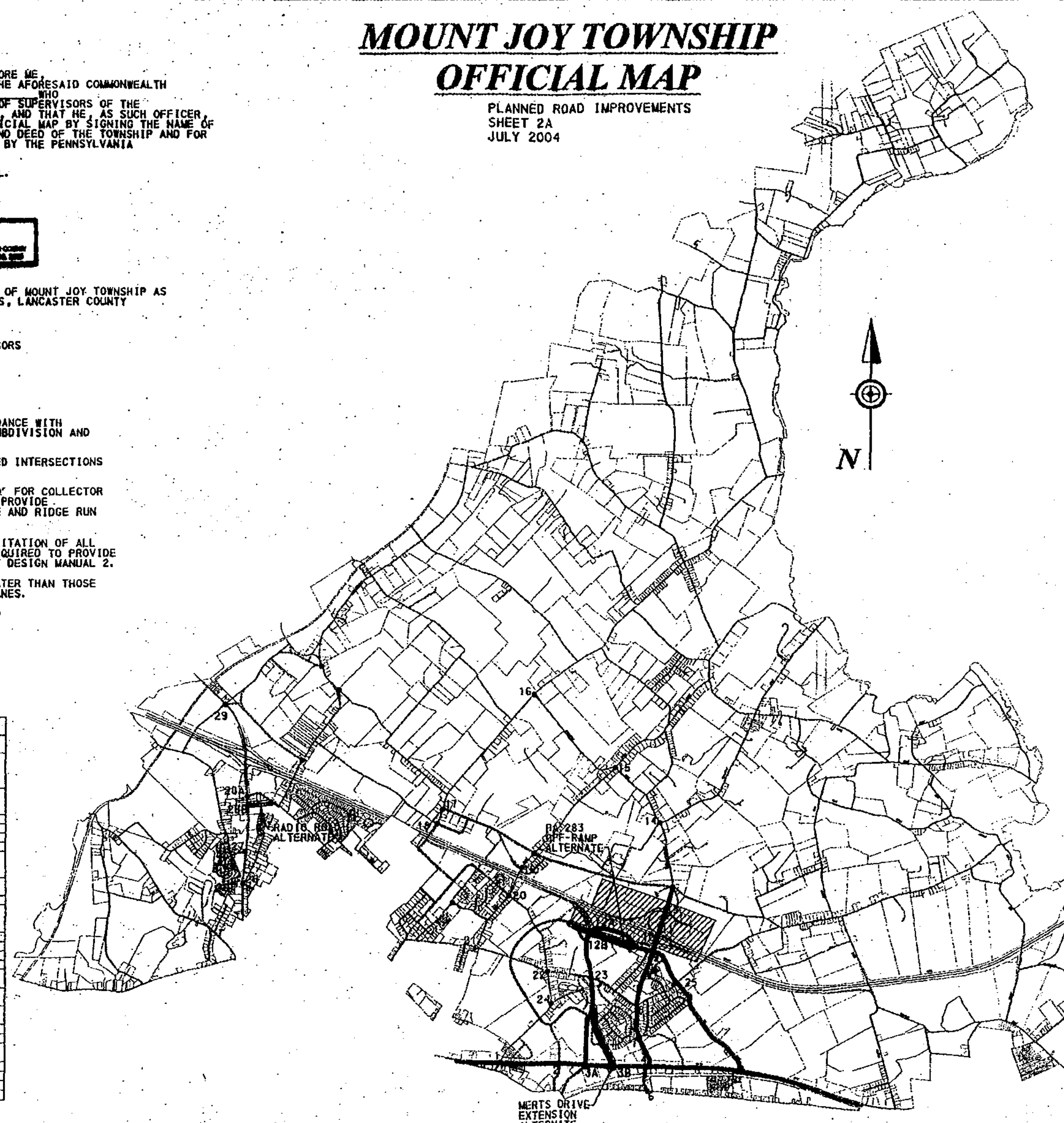
PROVIDE SLOPE EASEMENT BEYOND RIGHT-OF-WAY FOR REHABILITATION OF ALL EXISTING ROADS WHEN VERTICAL GEOMETRY ADJUSTMENT IS REQUIRED TO PROVIDE SAFE SIGHT STOPPING DISTANCE IN ACCORDANCE WITH PENNDOT DESIGN MANUAL 2.

RIGHT-OF-WAY REQUIREMENTS AT INTERSECTIONS MAY BE GREATER THAN THOSE REQUIRED FOR CORRIDORS TO PROVIDE NECESSARY TURNING LANES.

INTERSECTIONS REFERENCED WITH "A" OR "B" CORRESPOND TO ALTERNATIVE ROADWAY ALIGNMENTS.

MOUNT JOY TOWNSHIP OFFICIAL MAP

PLANNED ROAD IMPROVEMENTS
SHEET 2A
JULY 2004



2000' 0' 2000' 4000'
SCALE IN FEET

SOURCE OF BASE MAP INFORMATION:
LANCASTER COUNTY PLANNING COMMISSION, 2000

ROADWAY IMPROVEMENTS

Roadway	Description	Right-of-way Requirements	Roadway Classification
Route 283/Cloverleaf Road Interchange	Relocate or Realign Ramps	--	Expressway/Arterial
Route 230 Between Elizabethtown Borough and Mount Joy Borough	Construct a 2nd Eastbound/Westbound Thru Lane Maintain continuous two-way left turn lane	100 feet	Suburban Arterial
Cloverleaf Road Between Route 230 and Mt. Pleasant Road	Construct a continuous two-way left turn lane	60 feet	Suburban Arterial
Ridge Run Road	Extend to Merts Drive	80 feet	Suburban Arterial
Merts Drive	Extend to Route 230	80 feet	Suburban Arterial
College Avenue	Extend to Schaeffer Road	60 feet	Collector
Ridge View Road	Extend to Cloverleaf Road	60 feet	Collector
Andrew Avenue	Construct spur to the east of Cloverleaf Road intersecting with Route 230	50 feet	Local
Unnamed Collector	Construct new collector loop road to Merts Drive Extension	60 feet	Collector
Seager Road/Seager Lane	Connect cul-de-sacs	50 feet	Local
Andrew Avenue/Westbrook Avenue	Connect cul-de-sacs	50 feet	Local
Brookfield Drive	Connect to Schwanger Road	50 feet	Local
Joclyn Drive	Extend to Unnamed Collector	50 feet	Local
Knoll Drive	Extend to Ridge Run Road	50 feet	Local
Ridge View Road North	Extend to Dairy Lane	60 feet	Collector
Spring Road	Horizontal realignment at Schaeffer Road	50 feet	Local
Mt. Gretna Road	Horizontal Realignment at Oberholtzer Road	60 feet	Collector
Koser Road	Horizontal Realignment at Mt. Gretna Road	50 feet	Local
Beverly Road	Spur to Mt. Gretna Road	50 feet	Local
Radio Road	Extension to Mt. Gretna Road	60 feet	Collector
Elizabethtown Road/College Avenue	Connector	60 feet	Collector
Merts Drive	Spur	50 feet	Local
Schaeffer Road	Spur	50 feet	Local
Joclyn Drive	Extend to Anchor Road	60 feet	Collector
Anchor Road/Route 230	Connector	60 feet	Collector

INTERSECTION IMPROVEMENTS
(SEE GENERAL NOTES ON THIS SHEET)

Ref No.	Intersection	Description	Right-of-Way Requirements	Additional Requirements
1	Route 230 and Schwanger Road	Construct a 2nd EB/WB thru lane Construct a SB right turn lane	Route 230: 100 ft. Schwanger Road: 80 ft.	--
2	Route 230 and Joclyn Drive	Signalize intersection Construct a 2nd EB/WB thru lane	Route 230: 100 ft. Joclyn Drive: 60 ft.	Signal may not be required with the prohibition of southbound left turns and no Joclyn Drive extension to Anchor Road
3A 3B	Route 230 and Merts Drive Extension	Signalize intersection Construct a 2nd EB/WB thru lane Construct a WB right turn lane Construct a SB right turn lane	Route 230: 120 ft. Merts Drive Ext.: 80 ft.	Construct northbound and southbound approach
4	Route 230 and Cloverleaf Road	Construct a WB right turn lane Construct a SB right turn lane Construct a 2nd EB/WB thru lane	Route 230: 120 ft. Cloverleaf Road: 80 ft.	--
5	Route 230 and Ridge Run Road	Signalize intersection Construct a 2nd EB/WB thru lane	Route 230: 100 ft. Ridge Run Road: 60 ft.	Realign southbound approach
6	Colebrook Road and Harrisburg Avenue	Signalize intersection	Colebrook Road: 60 ft. Harrisburg Avenue: 60 ft.	--
7	Cloverleaf Road and Andrew Avenue	Signalize intersection	Cloverleaf Road: 60 ft. Andrew Avenue: 60 ft.	--
8	Cloverleaf Road and Schwanger Road	Signalize intersection	Cloverleaf Road: 60 ft. Schwanger Road: 60 ft.	Realign eastbound and westbound approaches
9	Cloverleaf Road and Merts Drive	Signalize intersection Construct a 2nd NB thru lane Construct a WB right turn lane Construct a SB right turn lane Construct 2 EB left turn lanes	Cloverleaf Road: 100 ft. Merts Drive: 80 ft.	Realign eastbound approach Construct westbound approach
10	Cloverleaf Road and EB Route 283 Ramps	Signalize intersection Construct a 2nd NB/SB thru lane Construct SB left turn lane	--	***
11	Cloverleaf Road and WB Route 283 Ramps	Signalize intersection Construct a 2nd NB/SB thru lane	--	***
12A 12B	EB Route 283 off-ramp and Merts Drive	Signalize intersection	Route 283 Off-ramp: 60 ft. Merts Drive Ext.: 80 ft.	Construct eastbound off-ramp and Merts Drive Extension
13	Cloverleaf Road and Steel Way Drive	Signalize intersection	Cloverleaf Road: 60 ft. Steel Way Drive: 60 ft.	--
14	Greentree Road and Cloverleaf Road	Signalize intersection	Greentree Road: 60 ft. Cloverleaf Road: 60 ft.	**
15	Greentree Road and Ridge Road	Signalize intersection	Greentree Road: 60 ft. Ridge Road: 60 ft.	**
16	Elizabethtown Road and Greentree Road	Construct a NB left turn lane	Elizabethtown Road: 60 ft. Greentree Road: 60 ft.	**
17	Elizabethtown Road and Ridge View Road	Signalize intersection	Elizabethtown Road: 60 ft. Ridge View Road: 60 ft.	Signal may not be required with Ridge View Road North Extension to Dairy Lane
18	Elizabethtown Road and Ridge View Road North	Signalize intersection	Ridge View Road N.: 60 ft.	--
19	Ridge Road and Ridge View Road	Signalize intersection	Ridge Road: 60 ft. Ridge View Road: 60 ft.	Relocate eastbound approach
20	Ridge Road and Sheaffer Road	Signalize intersection	Ridge Road: 60 ft. Schaeffer Road: 60 ft.	--
21	Ridge Road and Campus Road	Signalize intersection	Ridge Road: 60 ft. Campus Road: 60 ft.	--
22	Campus Road and Sheaffer Road	Signalize intersection	Campus Road: 60 ft. Schaeffer Road: 60 ft.	*
23	Schwanger/Campus Road and Merts Drive Extension	Signalize intersection Construct a SB right turn lane	Schwanger Road: 60 ft. Campus Road: 60 ft. Merts Drive Ext.: 80 ft.	Realign Campus/Schwanger Road Construct Merts Drive Extension
24	Schwanger Road and Schaeffer Road	Signalize intersection	Schwanger Road: 60 ft. Schaeffer Road: 60 ft.	*
25	Ridge Run Road and Schwanger Road	Signalize Intersection	Ridge Run Road: 80 ft. Schwanger Road: 60 ft.	--
26	Holly Street and Mt. Gretna Road	Construct westbound right turn lane	Holly Street: 60 ft. Mt. Gretna Road: 60 ft.	--
27	Route 743 and Veterans Drive	Signalize Intersection	Route 743: 60 ft. Veterans Drive: 60 ft.	--
28A 28B	SR 743 and Radio Road	Signalize Intersection	Route 743: 60 ft. Radio Road: 60 ft.	--
29	Beverly Road and SR 743	Signalize Intersection	Route 743: 60 ft. Beverly Road: 60 ft.	--

TABLE NOTES:

* TRAFFIC SIGNALS MAY NOT BE REQUIRED AT REFERENCE 22 & 24 WITH CONSTRUCTION OF THE NEW COLLECTOR LOOP CONNECTING TO MERTS DRIVE EXTENSION.

** TRAFFIC SIGNALS AND INTERSECTION IMPROVEMENTS MAY NOT BE REQUIRED AT REFERENCE 14, 15 & 16 WITH CONSTRUCTION OF RIDGE VIEW ROAD EXTENSION TO CLOVERLEAF ROAD.

*** THE IMPROVEMENTS AT REFERENCE 10 AND 11 DEPEND ON THE RESULTS OF A POINT OF ACCESS STUDY FOR THE ROUTE 283/CLOVERLEAF ROAD INTERCHANGE.

KEY:

- INTERSECTION IMPROVEMENT
- SUBURBAN ARTERIAL
- COLLECTOR ROAD
- LOCAL ROAD
- INTERCHANGE IMPROVEMENT

TRAFFIC PLANNING & DESIGN

MOUNT JOY TOWNSHIP
OFFICIAL MAP

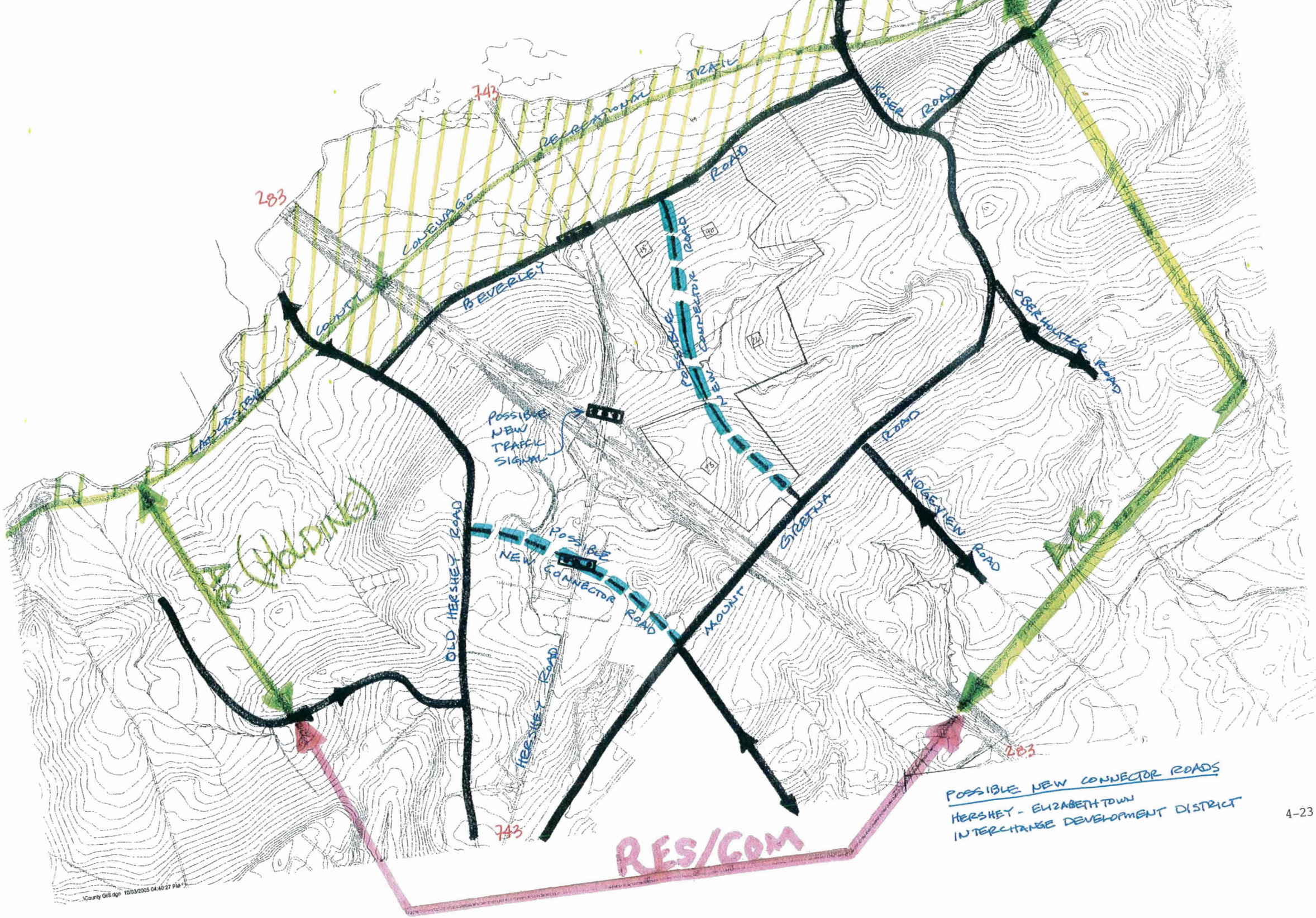
PLANNED ROAD IMPROVEMENTS
SHEET 2B
JULY 2004

N

29
28A
28B
27
26
RADIO ROAD ALTERNATE
18
17
16
15
14
PA 283 OFF-RAMP ALTERNATE
19
20
21
12B
9
22
23
24
25
7
1
2
3A
3B
4
6
MERTS DRIVE EXTENSION ALTERNATE

KEY:
- INTERSECTION IMPROVEMENT
- SUBURBAN ARTERIAL
- COLLECTOR ROAD
- LOCAL ROAD
- INTERCHANGE IMPROVEMENT

1000' 0' 2000'
SCALE IN FEET



POSSIBLE NEW CONNECTOR ROADS
HERSHEY - ELIZABETHTOWN
INTERCHANGE DEVELOPMENT DISTRICT

Zoning Considerations

Zoning Ordinance Amendments that pertain to the Interchange Development Districts are included as a companion document to this Comprehensive Plan Addendum. The physical extent of the areas to be rezoned match the areas shown on the Conceptual Future Land Use Plans.

Each of the future land use categories depicted on the plans on pages 3-7 and 3-8 will be governed by transportation improvements shown in the Comprehensive Plan Addendum to support future development, and the special design and development regulations set forth in the Zoning Ordinance Amendments.

In addition to the Key Design Elements on page 4-2, pages 4-25, **4-26, and 4-27** provide some images on how to think about and design large scale **buildings and** retail environments.

tHink smallmart...

(on the "downsizing" and repositioning of large scale retail)

Mashpee Commons—Smaller footprint buildings (less than 50,000 square feet) forming a new "Main Street" environment.

Mashpee Commons—Streetscape:
"Bookend Buildings" along street, forms "Outdoor Room"

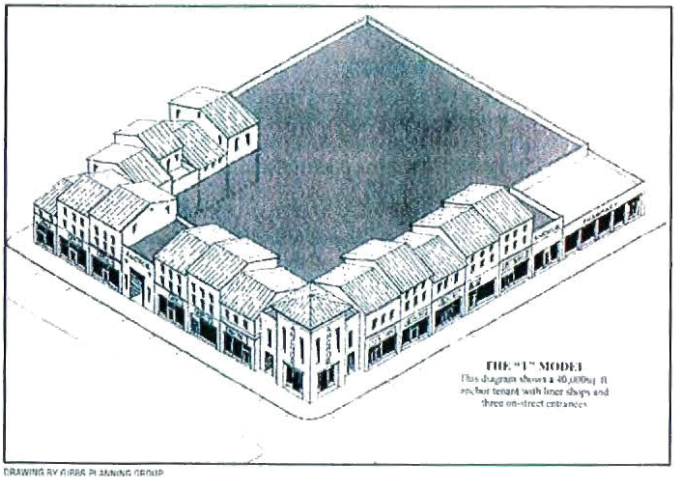
The next time that Walmart, or Target, or other like-type large scale retail store, comes to town, ask them to "tHink smallmart." Large scale retail units can be sized and positioned to create attractive and desirable "Main Street Environments."

"Main Street Environments" are typically formed by the placement of Street Walls on both sides of a street, approximately 60 to 85 feet apart.

Square footages in the range of 50,000 to 65,000 square feet on the ground floor can be positioned in an urban context, without being offensive or ugly.

Large scale retail can add value to a Town or Neighborhood and respect local character. The large scale retail building type can be edged with Liner Shops.

Two-Story Target and Streetscape at Washingtonian Center:
Gaithersburg, Maryland



Big Box Commercial Buildings as a possible Infill opportunity, if "edged" by Liner Shops.

Disaggregate the big box...

(the articulation of large scale retail buildings)

Lowe's in Morrisville, North Carolina (as viewed from frontage street)

Lowe's Articulated Facade

This Lowe's big-box, located near the Raleigh-Durham airport in North Carolina has two noteable facades, one towards the frontage street and one towards the parking lot.

Although Lowe's is one use, it appears as a multiple-use group of buildings. The massive scale of the building is toned down through the articulation.

A more attractive architectural statement is made, through such design features as: articulation of the facade; two-story construction; recesses and projections to the facade; varied roof design; varied building materials; and varied massing of the building parts.

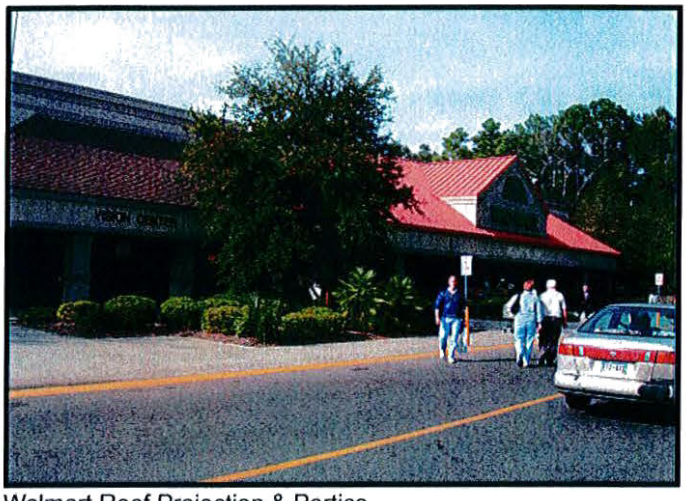
Lowe's: Parking Lot Frontage

Lowe's Articulated Facade

Disaggregate the big box...

(the articulation of large scale retail buildings)

Walmart Entry & Forecourt



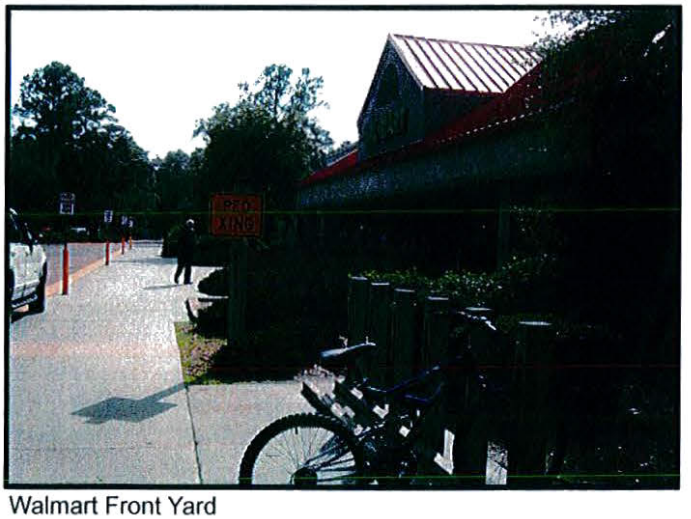
Walmart Roof Projection & Portico

This Walmart located on Hilton Head Island, South Carolina, is articulated with sloped roofs and a projected roof and portico.

In contrast with the conventional Walmart store that projects a stark big-box appearance, the careful design and articulation of the building, the front yard, the parking lot, and the overall landscape, results in a more attractive and user-friendly environment.

Varied building materials, roof projections, the portico, varied colors, generous landscaping, and pedestrian amenities, collectively proivde a distinctive streetscape character, not typically found at big-box store locations.

Walmart Garden Center



Walmart Front Yard

Implementation Strategies

Short-Term

The short-term implementation strategies that flow from this Comprehensive Plan Addendum are:

- to enact the Zoning Ordinance Amendments that are the companion document to this Plan;
- to enact related Subdivision and Land Development Ordinance Amendments that pertain to both the Key Design Elements on page 4-2, as well as the Access Management Tools and Techniques from pages 4-3 to 4-16; and
- to require the planned improvements to the transportation infrastructure to support future land development, as shown on pages 4-18 through 4-23.

The short-term implementation strategies should be addressed in 2006, 2007 and 2008. The Zoning Ordinance Amendments should be enacted in 2006.

Long-Term

The long-term implementation strategies that should be addressed from 2009 to 2015 pertain to those topics covered in Chapter 2 as goals, beyond the short-term subjects mentioned above.

In 2016, this Plan should be further updated to reflect conditions and considerations at that time.

Short-Term and Long-Term Implementation Strategies

The goals from pages 2-2 through 2-5 are "revisited" on pages 5-2 through 5-5. A Timeframe is noted for each as being Short-Term, Long-Term or On-Going. In addition, the most responsible Agency is listed. The Agency key is as follows:

BOS	=	Board of Supervisors
PC	=	Planning Commission
PA DOT	=	PennDOT
D	=	Developer
EAPA	=	Elizabethtown Area Park Authority

Short-Term and Long-Term Implementation Strategies for the Rt. 283/Hershey-Elizabethtown Interchange Development District	**Timeframe**	**Responsible Agency**
H-E.1. Create an interconnected system of roads, lanes and service drives.	On-Going	D
H-E.2. Strictly limit and minimize all single-access roads, such as cul-de-sacs, within the study areas.	On-Going	BOS PC
H-E.3. Focus on Access Management within the study areas, especially along roads that are in closer proximity to the two interchanges/exits.	On-Going	BOS PC
H-E.4. Consider multiple modes of transportation involving: vehicular circulation, pedestrian circulation, and bicycle circulation, both within the study areas and with linkages beyond the study areas.	On-Going	BOS PC
H-E.5. Promote mass transportation opportunities at both Interchanges to accommodate buses, jitneys, and possibly light rail.	Long-Term	BOS PC
H-E.6. Provide well designed park and ride parking lots.	Short-Term	PA DOT
H-E.7. Foster a commercial village type of environment, and not strip commercial development.	On-Going	BOS PC
H-E.8. Promote mixed uses: commercial, recreational, residential and institutional.	On-Going	BOS PC
H-E.9. Devise techniques to limit and/or tame "Big-Box" stores, so they do not dominate the Interchanges.	On-Going	BOS PC
H-E.10. Minimize signage clutter.	On-Going	BOS PC
H-E.11. Maintain a visually appealing environment.	On-Going	D
H-E.12. Promote hospitality uses for lodging.	On-Going	BOS PC
H-E.13. Strive to create a balanced pattern of development, with a more campus-type atmosphere.	On-Going	BOS PC
H-E.14. Promote a neighborhood type character of development.	On-Going	BOS PC
H-E.15. Minimize the number of new intersections (new driveways and associated "curb cuts") along Rt. 743.	On-Going	D
H-E.16. Create new collector roads to create better linkages.	On-Going	D
H-E.17. Create landscaped buffers to screen large-scale commercial development and parking.	On-Going	D
H-E.18. Encourage the development of pedestrian and bicycle paths.	On-Going	BOS PC

Short-Term and Long-Term Implementation Strategies for the Rt. 283/Hershey-Elizabethtown Interchange Development District	**Timeframe**	**Responsible Agency**
H-E.19. Protect the Conewago Trail, and create pedestrian accessways to link to the trail.	On-Going	BOS D
H-E.20. Create a new regional recreational park site.	Long-Term	EAPA
H-E.21. Consider gateway enhancements to improve the attractiveness of the area.	On-Going	PA DOT BOS
H-E.22. Make accommodations for horse-drawn carriages along the local collector roads within the study area.	On-Going	PA DOT BOS

Short-Term and Long-Term Implementation Strategies for the Rt. 283/Rheems Interchange Development District		Timeframe	Responsible Agency
R.1.	Create an interconnected system of roads, lanes and service drives.	On-Going	D
R.2.	Strictly limit and minimize all single-access roads, such as cul-de-sacs, within the study areas.	On-Going	BOS PC
R.3.	Focus on Access Management within the study areas, especially along roads that are in closer proximity to the two interchanges/exits.	On-Going	BOS PC
R.4.	Consider multiple modes of transportation involving: vehicular circulation, pedestrian circulation, and bicycle circulation, both within the study areas and with linkages beyond the study areas.	On-Going	BOS PC
R.5.	Promote mass transportation opportunities at both Interchanges to accommodate buses, jitneys, and possibly light rail.	Long-Term	BOS PC
R.6.	Provide well designed park and ride parking lots.	Short-Term	PA DOT
R.7.	Foster a commercial village type of environment, and not strip commercial development.	On-Going	BOS PC
R.8.	Promote mixed uses: commercial, recreational, residential and institutional.	On-Going	BOS PC
R.9.	Devise techniques to limit and/or tame "Big-Box" stores, so they do not dominate the Interchanges.	On-Going	BOS PC
R.10.	Minimize signage clutter.	On-Going	BOS PC
R.11.	Maintain a visually appealing environment.	On-Going	D
R.12.	Promote hospitality uses for lodging.	On-Going	BOS PC
R.13.	Strive to create a balanced pattern of development, with a more campus-type atmosphere.	On-Going	BOS PC
R.14.	Promote a mixed-use, neighborhood type character of development.	On-Going	BOS PC
R.15.	Minimize the number of new intersections (new driveways and associated "curb cuts") along Cloverleaf Road.	On-Going	D
R.16.	Create new collector roads to create better linkages.	On-Going	D
R.17.	Improve traffic flow and lessen traffic congestion through the installation and maintenance of traffic lights in appropriate locations.	On-Going	D PA DOT

Short-Term and Long-Term Implementation Strategies for the Rt. 283/Hershey-Elizabethtown Interchange Development District		Timeframe	Responsible Agency
R.18.	Enhance the appearance of the roadside environment with increased landscaping, fencing of outdoor storage areas, and the like.	On-Going	D PA DOT
.19.	Consider a phased or staged approach to transition major collector roads, over time, from two-lane to four-lane.	Long-Term	PA DOT
R.20.	Consider the potential for redevelopment of selected properties, whereby the existing use(s) are changed in the future to new/different uses.	On-Going	D
R.21.	Minimize conflicting left turns along higher speed roads.	On-Going	PA DOT
R.22.	Consider road safety techniques and measures to address truck traffic.	On-Going	PA DOT BOS