EAST WHITELAND TOWNSHIP LAND USE ASSUMPTIONS REPORT

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1. INTRODUCTION

East Whiteland Township intends to establish a transportation impact fee that will charge developers for a portion of the cost of off-site road improvements associated with new development and redevelopment. Such transportation impact fees are enabled and regulated by the Pennsylvania Municipalities Planning Code (MPC), Article V-A and are referred to as Act 209.

This Land Use Assumptions Report (LUAR) is the first step in establishing this fee. The intent of the Report is to analyze the level of development that is anticipated to occur in the Township over the next ten years. This ten year "build-out" will then serve as the foundation for the subsequent Roadway Sufficiency Analysis (RSA) and Transportation Capital Improvements Plan (TCIP), on which the transportation fee will be based.

This Report describes the following:

- Description of the Study Area, or Transportation Service Area (TSA), and roadway network;
- An inventory of existing land uses in the Township;
- An inventory of approved and pending development;
- A discussion of population and employment projections; and
- An analysis of expected development potential over the next ten years ("10-year Build-out").

The development of this Report was guided by the Township's Transportation Impact Fee Advisory Committee (TIFAC) along with Township staff and the Township's Consultants, McMahon Associates, Transportation Engineers & Planners, and Thomas Comitta Associates, Inc., Town Planners & Landscape Architects. This group met a total of three times to provide input on the draft Report prior to the final draft. The Board of Supervisors adopted the Report on May 10, 2017.

2. TRANSPORTATION SERVICE AREA (TSA) AND ROADWAY NETWORK

Map 1 depicts the Transportation Service Area (TSA) within East Whiteland Township. This TSA encompasses 6.91 square miles or 62% of the Township's land area. The TSA is comprised of areas that will continue to see development over the next ten years, whether in the form of new, greenfield development, or more likely in terms of redevelopment. Excluded from the TSA are well established neighborhoods that are expected to remain stable for the next ten years, as well as other areas where development will not occur, including Township parks and open spaces, areas of active and former quarries, and a cemetery.

The Township's roadway network consists of 69.14 miles of roadways: 22.11 miles of state roads, including Route 202, Route 29, and Route 30, and 47.03 miles of roads owned and maintained by the Township. Key roads within the TSA are listed in Table 1 below, along with their ownership and functional classification.

In addition, 44 intersections have been identified to be included in the subsequent Roadway Sufficiency Analysis. These are also shown on Map 1 and listed in Table 2.

Table 1. Key Township Roads in TSA

Roadway Name	Roadway Classification [1]	Roadway Ownership
U.S. Route 202	Expressway	State
PA Route 29 (Morehall Road)	Major Arterial	State
PA Route 30 (Lancaster Avenue)	Major Arterial	State
PA Route 352 (Sproul Road)	Minor Arterial	State
PA Route 401 (Conestoga Road)	Minor Arterial	State
PA Route 2011 (Phoenixville Pike) ***South of PA Route 30***	Major Collector	State
Phoenixville Pike ***North of Swedesford Road***	Major Collector	Township
Planebrook Road	Major Collector	Township
PA Route 2022 (W. King Road)	Major Collector	State
Swedesford Road ***Between Township's western border & Bacton Hill Road***	Major Collector	Township
Swedesford Road ***Between Bacton Hill Road & Planebrook Road/Phoenixville Pike***	Major Collector	Other
PA Route 1002 (Swedesford Road) ***Between Planebrook Road/Phoenixville Pike & Township's eastern border***	Major Collector	State
Old Lincoln Highway	Minor Collector	Township
Malin Road	Minor Collector	Township
N. Bacton Hill Road	Minor Collector	Township
Matthews Road	Minor Collector	Township
Yellow Springs Road	Minor Collector	Township
Church Road	Local Distributor	Township
Hershey Mill Road	Local Distributor	Township
Morstein Road	Local Distributor	Township
Ravine Road	Local Distributor	Township
Liberty Boulevard	Local Distributor	Other
Valley Stream Parkway	Local Distributor	Township
Mill Lane	Local Distributor	Township
Sidley Road	Local Distributor	Township
Moores Road	Local Distributor *Local Between Church Rd & Phoenixville Pike*	Township

[1] *Based on Township's Comprehensive Plan, 2016*

Table 2. Study Intersections

Map ID	Intersection	
1	Phoenixville Pike	Ravine Road
2	Phoenixville Pike	U.S. Route 30
3	Planebrook Road	U.S. Route 30
4	Sproul Road (S.R. 0352)	U.S. Route 30
5	Church Road	U.S. Route 30
6	Sproul Road (S.R. 0352)	Three Tun Road
7	Sproul Road (S.R. 0352)	College Avenue
8	Sproul Road (S.R. 0352)	West King Road
9	Frazer Road	West King Road
10	Hershey Mill Road	West King Road
11	Morstein Road	West King Road
12	Ravine Road	West King Road
13	Morehall Road (S.R. 29)	U.S. Route 30
14	Morehall Road (S.R. 29)	Lindenwood Dr/Matthews Rd
15	Morehall Road (S.R. 29)	Swedesford Road
16	Morehall Road (S.R. 29)	Liberty Blvd
17	Morehall Road (S.R. 29)	Valley Stream Parkway
18	Morehall Road (S.R. 29)	Lapp Road Ext.
19	Morehall Road (S.R. 29)	Great Valley Parkway
20	Morehall Road (S.R. 29)	Flat Rd / Atwater Dr
21	Morehall Road (S.R. 29)	Turnpike Ramps
22	Morehall Road (S.R. 29)	Gen. Warren Blvd. / Atwater Dr
23	Liberty Blvd	E. Swedesford Road
24	Valley Stream Parkway	E. Swedesford Road
25	Old Lincoln Highway	Old Lancaster Rd/ Weybridge Dr
26	Old Lincoln Highway	U.S. Route 30
27	U.S. Route 202 Ramps	Matthews Road / Foundry Way
28	Conestoga Road (S.R. 401)	U.S. Route 30
29	Malin Road	U.S. Route 30
30	W. Liberty Blvd	W. Swedesford Road
31	W. Liberty Blvd	Old Morehall Road
32	Conestoga Road (S.R. 401)	W. Swedesford Road / Malin Rd
33	Conestoga Road (S.R. 401)	W. Swedesford Road
34	Mill Lane	Conestoga Road (S.R. 401)
35	Mill Lane	Swedesford Road
36	Church Road	Swedesford Road
37	Moores Road	Conestoga Road (S.R. 401)
38	Moores Road	Church Road
39	Phoenixville Pike	Conestoga Road (S.R. 401)
40	Bacton Hill Rd / Whispering Woods Ln	Conestoga Road (S.R. 401)
41	Phoenixville Pike	Craig Ln / Moores Rd
42	Phoenixville Pike / Planebrook Road	Swedesford Road
43	Bacton Hill Road	Swedesford Road
44	Phoenixville Pike	Yellow Springs Rd / Sidley Rd

3. EXISTING LAND USE

East Whiteland Township is primarily characterized by its combination of well-established, low-density neighborhoods, a strong office sector embodied by the Great Valley Corporate Center along Route 29, and a mixed retail segment located along the Route 30 corridor. Map 2 depicts the existing land uses in the Township. This map was developed using Chester County geographic information systems (GIS) data with verification through aerial photography, Google Streetview, and input from TIFAC members. There are 14 categories of land use found within the Township. Table 3 and Figure 1 provide a breakdown of the land uses by category and acreage.

Table 3. Existing Land Use

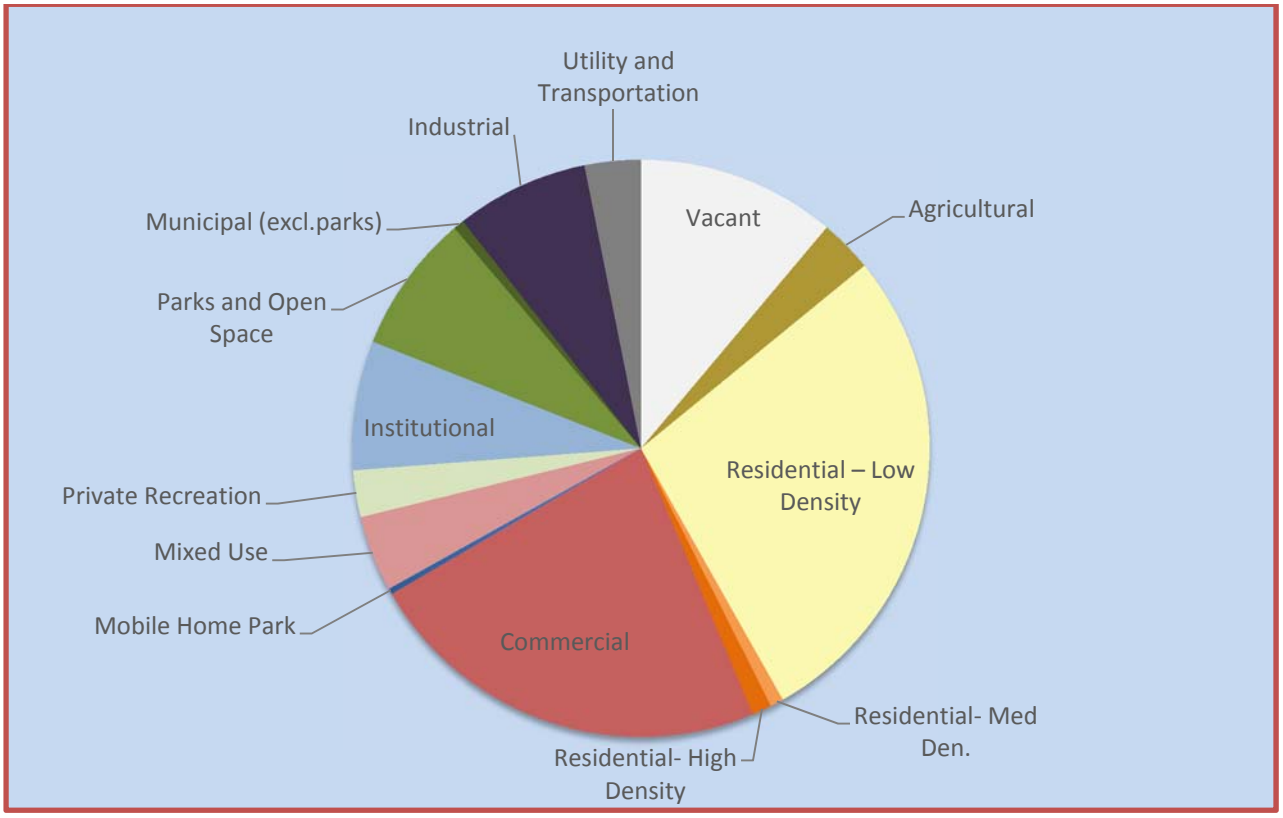
Existing Land Use	Acres	% of Total
Vacant	707.95	11.1%
Agricultural	188.7	3.0%
Residential – Low Density	1,766.27	27.7%
Residential- Medium Density	47.03	0.7%
Residential- High Density	69.82	1.1%
Mobile Home Park	20.41	0.3%
Commercial	1,460.75	22.9%
Mixed Use	271.41	4.3%
Private Recreation	166.74	2.6%
Institutional	461.5	7.2%
Parks and Open Space	496.04	7.8%
Municipal (excluding parks)	38.5	0.6%
Industrial	474.03	7.4%
Utility and Transportation	200.02	3.1%
Total	6,369.17	

For purposes of this Report, the most important observation derived from the Existing Land Use Map is that only 11% of the Township's land is characterized as vacant, and thus the Township is primarily built out. The largest parcels of vacant land can be found in the northwestern corner of the Township. Outside of this area, a closer look reveals that most of the remaining land is vacant due to development constraints such as floodplains, steep slopes, easements, irregular parcel boundaries, or lack of access.

(A map of natural resource constraints can be found in the Appendix.) Other parcels appear vacant as they are the subject of utility easements, such as natural gas pipeline or electrical transmission lines.

One additional category depicted on the Existing Land Use Map is that of "Sensitive Sites". Four such sites are located within the Township, and all are also situated within the TSA. These contaminated sites are the legacy of the Township's industrial past and central location and are in varying degrees of remediation. They include the former Knickerbocker landfill, former Foote mineral quarry, and the former Bishop Tube plant. As will be discussed in the Assessment of Future Development, all are expected to be developed within the next ten years, a sign that the Township has reached a point where the demand and value of developing such properties outweighs the burden of remediation. However, the Township and developers should proceed with utmost caution, compliance with federal regulations, and with sensitivity to the type of development appropriate for each site.

Figure 1: Existing Land Use in East Whiteland



4. Approved and Pending Development

As of March 2017, there are many land development plans either active (under review by the Township's Planning Commission and Board of Supervisors), or approved/under construction. A summary of these plans is provided in Tables 4, 5, and 6. While this development will contribute to the Township's build-out, plans submitted prior to the publication of the Township's Notice of Intent (NOI) to enact an Act 209 Ordinance and establish a transportation impact fee will be exempt from the fee.

The Township's NOI was published on October 19, 2016. Plans submitted after this date, but prior to the adoption of the transportation impact fee are subject to an interim fee. Such plans are noted below in Table 6.

Table 4. Approved Residential Units

Project[1]	Single-family detached Dwellings	Two-family Dwellings	Single-family Attached	Apartment Units
Atwater Village	68	80	401	
99 Church Road	43			
Celia Tract			59	
Cockerham Tract			51	
Haven at Atwater				326
Linden Hall			60	
Swedesford Square				244
Uptown Worthington				753
Total Units	**111**	**80**	**571**	**1,323**
Persons/HH (typ.)[2]	3.51	2.22	2.22	1.67
Projected population by unit type	389	178	1,267	2,209
Total Projected Population	**4,043**			

Source: 1. East Whiteland Township, 2016; 2. Montgomery County Planning Commission, Characteristics of the Population in New and Existing Housing Units, January 2012

Table 5. Approved Nonresidential Square Footage

Project [1]	Approved Square Footage
Atwater Village Comm	24,250 + 60,845 SF hotel (130 rooms)
Exeter 8 Lee	121,575
Immaculata Univ.	14,540
People's Light & Theater	2,152
Tom Ward	5,800
20 Moores	198,000
Uptown Worthington	422,500
Lincoln Court	16,000
6 GV PW	57,000
Total SF	**845,125**

Source: 1. East Whiteland Township, 2016

Table 6. Land Development Applications under Review

Project[1]	Single-family detached Dwellings	Two-family Dwellings	Single-family Attached	Apartment Units	Nonresidential SF
Bishop Tube/ 9 Malin Rd			228		
East Whiteland Grocery					36,170
Great Valley Center				600	837,260
Great Valley Community Org					41,128
*Swedesford 66			66		
Total Units/SF			**294**	**600**	**914,558**

Source: 1. East Whiteland Township, 2016

Note: Projects are under review and therefore may be significantly altered prior to any approvals.
** Plans submitted after the publication of the NOI.*

5. Population and Employment Trends

The MPC requires an analysis of population trends as part of the land use assumptions, to help justify the anticipated growth. This report provides the population and employment projections calculated by the Delaware Valley Regional Planning Commission (DVRPC) for ten years and beyond.

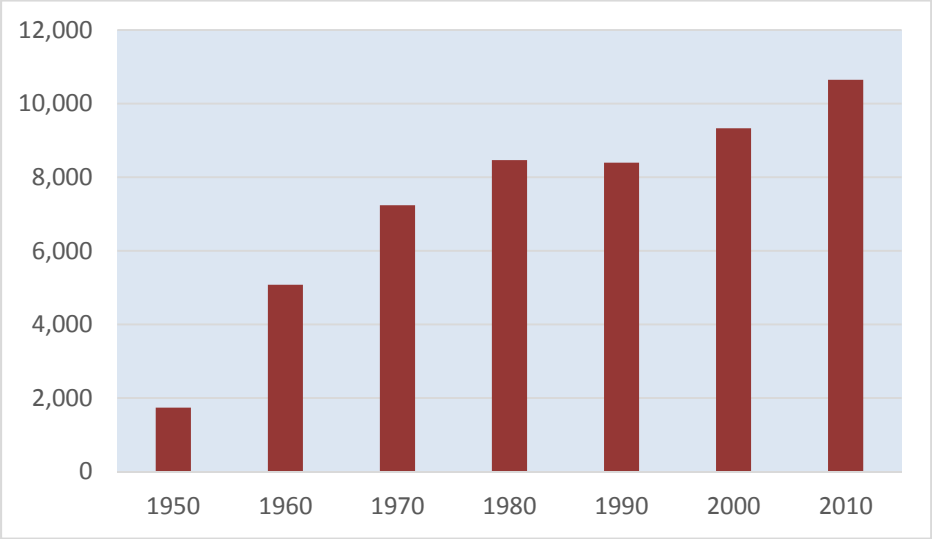
Historical growth trends for East Whiteland are shown in Table 7. In the most recent decade from 2000 to 2010, the Township experienced a 14% growth rate, even with the major economic recession that impacted the nation. As the region has recovered from the downturn, land development activity within the Township has once again picked up speed and, as can be seen in Table 8, future population trends are anticipated to maintain equally high rates of growth, peaking at more than 19% between 2020 and 2030. This growth rate makes sense given the list of approved plans discussed in the last section. The largest developments, Atwater and Uptown Worthington, are being built in phases, and thus a full impacts of these developments will not be felt until the 2020s.

Table 7. Population Growth, 1950- 2015

	Population	Growth Rate (in previous decade)
1950	1,740	
1960	5,078	191.8%
1970	7,242	42.6%
1980	8,468	17%
1990	8,398	-0.8%
2000	9,333	11%
2010	10,650	14%
2015 (est.)	10,702	0.5%

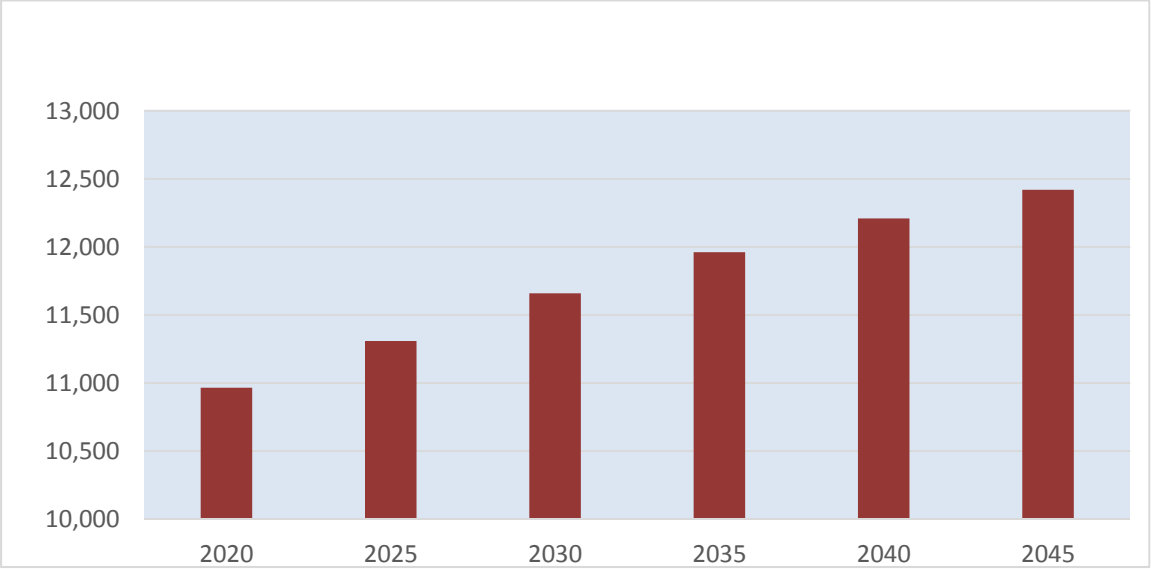
Source: US Census; American Community Survey

Figure 2. Historic Population Growth, 1950-2010



Source: DVRPC

Figure 3. East Whiteland Township, Population Forecast, 2020-2045



Source: DVRPC, 2016

Table 8. East Whiteland Township, Population Forecast, 2020 - 2040

	Population	Decadal Growth Rate	Absolute Change (per decade)
2020	12,002	12.7% (2010- 2020)	1,300
2030	14,309	19.2% (2020- 2030)	2,307
2040	16,221	13.4% (2030-2040)	1,912

Source: DVRPC, 2016

Table 9. Population Forecast, Surrounding Municipalities, 2020-2030

	2020	2030	2020 - 2030	% Change
East Whiteland	**12,002**	**14,309**	**2,307**	**19.2%**
Charlestown	6,198	7,217	1,019	16.4%
East Goshen	18,685	19,378	693	3.7%
Tredyffrin	30,232	31,578	1,346	4.5%
West Whiteland	11,426	12,454	1,028	9.0%
Willistown	11,177	11,724	547	4.9%
Chester County	543,702	599,932	56,230	10.3%

Source: DVRPC, 2016

Table 10. Employment Forecast, East Whiteland Township, 2010-2040

	Employment	Growth Rate
2010	23,774	
2020	24,735	4.04% (2010-2020)
2030	27,514	11.2% (2020-2030)
2040	29,730	8.05% (2030-2040)

Source: DVRPC, 2016

Table 11. Employment Forecast, East Whiteland and Surrounding Townships

	2020	*2030*	*Abs. Change 2020 - 2030*	*% Change*
East Whiteland	24,735	27,514	2,779	11.2%
Charlestown	2,676	3,024	348	13.0%
East Goshen	8,540	9,444	904	10.6%
Tredyffrin	56,127	58,870	2,743	4.9%
West Whiteland	24,750	27,241	2,491	10.1%
Willistown	7,680	8,107	427	5.6%
Chester County	312,459	347,578	35,119	11.2%

Source: DRVPC, 2016

The DVRPC creates population and employment forecasts for its 9-county region by allocating expected regional growth to the Counties, and then allocating each County's growth among its many municipalities. These forecasts are updated every two to three years, and were most recently adopted in July 2016. As a general rule, such forecasts are more accurate when they are made for a shorter time frame and/or a larger geographic area. While the calculation of the population and employment forecasts takes time, land use can seem to change quickly, impacting trends and projections. East Whiteland has many current examples of these potentially trend changing land use plans. For instance, the forecasts to not specifically account for the rezoning and future redevelopment of the Great Valley Corporate Center as a significant mixed-use center.

Though these forecasts were recently adopted, East Whiteland Township expects that they may underestimate residential population, and potentially employment as well. One point to consider is that 3,355 persons are anticipated to live in housing units that are currently approved and/or under construction in the Township (see Table 4). This accounts for 93% of the population growth forecasted for 2030. The Township notes however, that, as mentioned earlier, large developments such as the Great Valley Corporate Center and Atwater Village, will be built in multiple phases over time. The applicant for Great Valley Corporate Center, estimated ten to fifteen years for its complete build out, which would push project completion into the early 2030s. These trends are not accurately reflected in DVPRC's current population and employment forecasts and will likely be taken into account when the forecasts are updated.

6. Assessment of Future Development

Future development potential for East Whiteland Township was assessed for four categories of development:

1. Vacant residential
2. Vacant nonresidential
3. Redevelopment Potential- Parcel specific
4. Redevelopment Potential- Area specific

The methodology for each step varied slightly to best estimate a realistic build-out within the next ten years. In all cases, the total units and/or square feet are based on the concept of "developable acre" in which floodplains, wetlands, easements, and roads are "netted out" from the total acres of a tract. A thorough explanation of methodologies follow this section, with complete tables included in the Appendix.

There are many assumptions underlying the build-out analysis, most important are the following:

- That all existing and viable developed properties shown on the Existing Land Use shall continue into the future.
- That all approved applications for land development will not be included in the build-out calculations; and of the pending applications, only those submitted after the NOI on October 19, 2016 will count toward the build-out.
- That vacant lots and redevelopment sites will be developed in accordance with existing Zoning Ordinance and Zoning Map, unless otherwise noted in Section 3.
- That East Whiteland, being a primarily built out Township, is on the verge of a significant wave of redevelopment/development, as illustrated by the recent adoption of the Great Valley Revitalization Overlay District.
- That the development potential for any parcel is considered to be feasible for the ten year planning period. In many cases, this means that the development calculated does not represent the highest amount that would be permitted by zoning.

A. Build-out Summary

The total 10-year build out is estimated to be 3,450,400 nonresidential square feet and 1,010 dwelling units as seen in Table 12 below.

Table 12. Summary of Development Potential by Category

Category	Developable Acres	Nonresidential Square feet	Dwelling Units
Vacant Residential *(Table 13)*	209.2	NA	249
Vacant Nonresidential *(Tables 14 and 15)*	77.72	604,272	70
Redevelopment- Specific Parcels *(Tables 16-18)*	366.81	1,479,769	440
Great Valley Corp Center (*Table 19)*	163.72	544,219	NA
Route 30 *(Table 20)*	479.51	822,140	251
TOTAL		**3,450,400**	**1,010**

B. Methodology

Together with the TIFAC, the Township and Consultants identified five (5) categories of developable lands in the Township, as shown on Map 4, Build out Analysis:

Vacant Residential	Vacant parcels with residential zoning
Vacant Nonresidential	Vacant parcels with nonresidential or mixed use zoning
Vacant 10+ years	Vacant parcels that the TIFAC determined would remain vacant for the 10 year planning period
Potential Redevelopment- Parcel Specific	Specific parcels likely to redevelop within 10 years
Potential Redevelopment – Area Specific	Areas where redevelopment is likely to occur, but without clear indication of specific parcels

The TIFAC reviewed each of these areas for development and redevelopment potential. While in most cases, specific parcels were identified for redevelopment, there were two cases where an area was noted as likely to redevelop, but without a clear determination as to specific parcels. These areas are addressed individually:

1) Great Valley Corporate Center; and
2) Route 30 corridor (excluding specific parcels identified as vacant or with redevelopment potential).

For each category, the same basic steps were employed to determine the build-out:

- Identify parcels of at least 0.5 acre in size (unless parcels of less than 0.5 acres are located adjacent to other vacant/redevelopable parcels) for inclusion in the analysis.
- Identify current zoning district designation and/or future land use plan designation.
- Subtract development constraints (floodplains, easements) from the gross acreage of the tract resulting in the "developable acres". The East Whiteland Township Zoning Ordinance defines developable acre. The definition does not subtract steep slopes, riparian buffers and other development constraints. Therefore, where these additional constraints are found in the field they may or may not lower the actual yield. The tables depicting gross acreage and constraints are found in the Appendix.
- For residential parcels: Use the maximum dwelling units per acre (DU/AC) in accordance with the Zoning Ordinance to calculate the maximum dwelling units for residential units.
- For parcels in the Institutional (INS), Office Business Park (OBP), Professional Office (PO), or Industrial (IND) districts: Use the maximum building coverage to determine the maximum first floor square footage permitted, then multiply this square footage by the number of stories assumed per building. For the INS, PO and IND districts a 1- 1/2 story building is assumed. For the OBP district, a 2 story building is assumed.
- For parcels in the Village Mixed Use (VMX) District: Recent developments under these regulations have primarily been residential in nature. Current discussions with developers indicate that this trend will continue. Therefore, to calculate the development potential of a VMX parcel, 75% of the developable acreage is assumed to be residential and 25% is nonresidential and the square footage and number of dwelling units are based on this breakdown.

- Frontage Commercial (FC) District Parcels: Where the FC district is located within a mixed use node as identified by the Comprehensive Plan Update, such parcel is calculated in the same manner as the VMX. Where is it located outside of such a mixed use area, it is calculated as a nonresidential square footage.
- Where a specific land development concept has been shared with the TIFAC, such concept has been incorporated into the build-out and noted on a case by case basis.
- Assuming not every parcel identified will be developed to the assumed extent within the 10 year timeframe, all estimates are reduced by 25%.

C. Vacant Residential

There are 25 vacant, residentially zoned parcels, including one land development application under active review. The table below lists these parcels with their Map ID and estimated dwelling unit yield of 249 dwelling units.

Table 13. Vacant Residential Build out Calculations

A Map ID	B Address	C Zoning	D Dev Acres	E Max DU/AC	F DU Yield
1	32 FRAME AV	LDR	1.17	1	1
3	272 LAPP RD	LDR	20.69	1	20
7	(Cottonwood Dr)	LDR	4.60	1	4
8	240 PHOENIXVILLE PK	LDR	4.83	1	4
11	408 CONESTOGA RD	LDR	67.59	1	67
12	356 CONESTOGA RD	LDR	4.65	1	4
13	428 CONESTOGA RD	LDR	2.24	1	2
16	(Cottonwood Dr)	LDR	2.48	1	2
18	191 SIDLEY RD	LDR	8.02	1	8
20	60 SPROUL RD	LDR	7.57	1	7
21	105 CHURCH RD	LDR	3.27	1	3
22	501 SWEDESFORD RD	LDR	2.09	1	2
23	441 SWEDESFORD RD	LDR	6.81	1	6
25	4 FRAME AV	LDR	1.36	1	1
29	61 FLAT RD	LDR	37.11	1	37
30	432 CONESTOGA RD	LDR	3.73	1	3
32	50 CONESTOGA RD	LDR	2.90	1	2
33	CONESTOGA RD	LDR	5.12	1	5
36	476 CONESTOGA RD	LDR	1.76	1	1
37	(N CONESTOGA)	LDR	2.38	1	2
39	4 JEUNET LA	LDR	2.01	1	1
53	430 SWEDESFORD RD	LDR	1.07	1	1
61/55/43*	5 SWEDESFORD RD	RMH	15.7	12	66
SUBTOTAL			**209.2**		**249**

DU/AC = Dwelling Unit per Acre
LDR = Low Density Residential
RMH = Res Medium-High Density
* Active Land Development Application

D. Vacant Nonresidential

There are 27 vacant nonresidential parcels in East Whiteland Township as shown in the Tables 14 and 15 below.

Table 14. Vacant Nonresidential Build-out Calculations: Single Use Districts (OBP, IND, FC)

A Map ID	B Address	C Zoning District	D Dev Acres	E Bldg Cov	F Base SF (Nonres)	G Total SF (Nonres)
50	(LEE BLVD)	OBP	4.92	0.25	53,582	107,164
62	400 THREE TUN RD	IND	2.40	0.25	26,092	39,139
63	215 THREE TUN RD	IND	1.32	0.25	14,411	21,616
64	420 THREE TUN RD	IND	1.15	0.25	12,545	18,817
65	100 THREE TUN RD	IND	1.98	0.25	21,558	32,338
66	155 THREE TUN RD	IND	1.62	0.25	17,597	26,396
67	180 THREE TUN RD	IND	1.46	0.25	15,936	23,905
69	73 LANCASTER AV	FC	2.53	0.35	38,497	57,745
78	(MOREHALL RD)	OBP	3.07	0.25	0	0
79	514 LAPP RD	OBP	1.69	0.25	18,351	36,701
84	32 LANCASTER AV	FC	1.27	0.35	19,397	29,095
85	14 E LANCASTER AV	FC	1.02	0.35	15,613	23,419
87	323 LANCASTER AV	OBP	2.50	0.25	27,268	54,535
88	278 LAPP RD	OBP	25.65	0.25	0	0
58/59	215 S PHOENIXVILLE PK	OBP	4.75	0.25	51,728	103,455
subtotal			57.33			574,325
Nonres (x 75%)						430,744

OBP= Office/Business Park
IND = Industrial
SF = Square footage

Table 15. Vacant Nonresidential Build-out Calculations: Mixed-Use Districts and Nodes

A Map ID	B Address	C Zoning District	D Dev Acres	E Bldg Cov	F Base SF (Nonres)	G Total SF (Nonres)	H DU/AC	I Total Units
14	165 PLANEBROOK RD	VMX	1.18	0.55	7,066	10,600	7	6
28	169 PLANEBROOK RD	VMX	0.99	0.55	5,949	8,923	7	5
47	47 PROSPECT RD	VMX	1.37	0.55	8,206	12,308	7	7
49	593 LANCASTER AV	FC	0.86	0.35	3,278	4,917	7	5
68[2]	(LANCASTER AV)	PO	3.16	0.25	8,593	12,890	7	17
70/86	(MATTHEWS RD)	ROCRO	5.31	0.40	92,521	138,782		14
71[2]	161 LANCASTER AV	FC	2.79	0.35	10,619	15,929	7	15
73[2]	167 LANCASTER AV	FC	2.34	0.35	8,935	13,403	7	12
80[2]	155 LANCASTER AV	FC	1.02	0.35	3,875	5,812	7	5
83[2]	157 LANCASTER AV	FC	1.37	0.35	5,204	7,807	7	7
SUBTOTAL			20.39			231,371		93
X 75%						**173,528**		**70**

Notes and abbreviations:

1. Minimum dwelling units required per acre, all others refer to maximum DU/AC
2. Adjoining parcels under single ownership

DU/AC = dwelling units per acre
FC= Frontage Commercial
ROCRO= Regionally Oriented Commercial-Residential Overlay
SF = Square footage
VMX = Village Mixed Use

E. Potential Redevelopment- Parcel Specific

As mentioned in the introduction, Potential Redevelopment is further categorized into parcel specific redevelopment and area specific potential redevelopment. There are 53 parcels within this category. They are depicted in the tables below, organized by zoning district. In order to account for existing development, which would not count as "new" square footage in the build-out, a 50% "credit" is discounted from the nonresidential totals.

Table 16. Potential Development/Redevelopment- Specific Parcels: INS, IND, OBP

Map ID	Address	Zoning District	Dev Acres	Bldg Cov	Base SF (Nonres)	Total SF (Nonres)	D Units (Res)
78[1]	100 LINDENWOOD DR	OBP	3	.25	0	0	170
94	5 BACTON HILL RD	IND	3.44	0.25	37,461	56,191	
100[2]	SWEDESFORD RD	INS	68.29	0.25	743,722	371,861	100
125/136[3]	367 OLD MOREHALL RD	OBP	66.49	0.25	0	0	0
139	(BACTON HILL RD)	IND	36.02	0.25	392,258	588,387	0
140	681 MOREHALL RD	OBP	13.66	0.25	148,745	297,490	
141	341 OLD MOREHALL RD	OBP	3.91	0.25	42,590	85,180	
143	9 BACTON HILL RD	IND	2.82	0.25	30,722	46,084	
144	7 BACTON HILL RD	IND	2.16	0.25	23,572	35,358	
145	3 BACTON HILL RD	IND	5.82	0.25	63,374	95,061	
146	17 BACTON HILL RD	IND	8.59	0.25	93,532	140,298	
149	56 BACTON HILL RD	IND	1.93	0.25	21,055	31,582	
148	71 BACTON HILL RD	OBP	7.25	0.25	78,916	157,832	
156	81 BACTON HILL RD	OBP	13.39	0.25	145,809	291,617	
160	79 BACTON HILL RD	OBP	9.45	0.25	102,887	205,774	
162	75 BACTON HILL RD	OBP	3.06	0.25	33,299	66,597	
163	77 BACTON HILL RD	OBP	2.09	0.25	22,801	45,603	
175	(N MOREHALL)	OBP	14.26	0.25	155,291	310,583	
176[4]	1145 KING RD	INS	31.89	0.25	347,304	0	75
176[4]	1145 KING RD	INS					30
Subtotals			297.52			2,825,498	375
Credit for Existing (50%)						1,412,749	0
Total						**1,412,749**	**375**

Notes on the Potential Redevelopment of Specific Parcels

1. Parcel 78 has been discussed as a partial redevelopment with the addition of 170 apartments.
2. Parcel 100, Whitehall Holdings, is zoned Institutional with approved plans for a Continuing Care Retirement Community (CCRC). CCRCs are not currently performing well in the market and current discussions for the parcel include approximately 370,000 square feet of nonresidential use and 100 townhouse units.
3. Parcels 125 and 136 are portions of the former Knickerbocker landfill. This parcel is severely constrained with steep and very steep slopes. While these constraints do not count toward the developable acreage (per EWT Zoning), they do need to be taken into account in terms of square footage. Current potential for these parcels is understood to be a solar farm. Square footage for such a use is very minimal and typically limited to any support and/or maintenance buildings.

4. The highlighted portion of Parcel 176 is owned by the Sisters, Servants of the Immaculate Heart of Mary. Long range plans could potentially include a retirement facility housing approximately 300 residential units. This concept, a permitted use within the INS district, will most likely not be acted upon until late in the planning horizon and thus only 25% (75 units) of this estimate is included in the current build-out. The remainder of Parcel 176 is the location of Immaculata University. The University has current plans to construct five (5) student housing buildings with a total of 30 apartments and 150 beds.

Table 17. Potential Development/Redevelopment- Specific Parcels: VMX, FC and ROCRO

Map ID	Address	Zoning	Dev Acres	Bldg Cov	Base SF (Nonres)	Total SF (Nonres)	H DU/ AC	I Total Units
48/101	170 PLANEBROOK	VMX	.89	.55	5,331	7,996	7	5
105*	560 LANCASTER AV	FC	0.25	0.35	938	1,407	7	1
110	150 PLANEBROOK RD	VMX	1.86	0.55	11,124	16,686	7	10
111	158 PLANEBROOK RD	VMX	0.89	0.55	5,359	8,038	7	5
112	39 PROSPECT AV	VMX	0.29	0.55	1,713	2,569	7	2
115	162 PLANEBROOK RD	VMX	0.36	0.55	2,161	3,242	7	2
117	176 PLANEBROOK RD	VMX	3.15	0.55	18,870	28,305	7	17
142	370 LANCASTER AV	FC	3.04	0.35	11,596	17,394	0	0
103*	554 LANCASTER AV	FC	1.48	0.35	5,626	8,440	7	8
104*	542 LANCASTER AV	FC	1.18	0.35	4,508	6,763	7	6
106*	562 LANCASTER AV	FC	0.38	0.35	1,464	2,195	7	2
109*	536 LANCASTER AV	FC	2.54	0.35	9,665	14,497	7	13
118*	20 NORBROS CI	FC	2.63	0.35	10,032	15,048	7	14
119*	558 LANCASTER AV	FC	0.61	0.35	2,307	3,460	7	3
Subtotal			19.55			134,040		88
Credit for Existing (50%)						67,020		44
Total						**67,020**		**44**

Notes:

1. Parcels 103, 104, 106, 109, 118, and 119 are expected to be the subject of a redevelopment proposal in the near future. Located within a Mixed Use Node per the Comprehensive Plan Update, it is highly likely that these will develop with higher density multi-family units. The number of new units is somewhat offset by existing development on Norbros Circle.

Table 18. Potential Development/Redevelopment- Specific Parcels: LDR

A Map ID	B Address	C Zoning	D Dev Acres	E Max DU/AC	F DU Yield
93	429 CONESTOGA RD	LDR	1.08	1	1
95	(BACTON HILL RD)	LDR	0.86	1	1
96	(BACTON HILL RD)	LDR	0.90	1	1
97	(BACTON HILL RD)	LDR	1.54	1	1
99	421 CONESTOGA RD	LDR	1.22	1	1
147	89 BACTON HILL RD	LDR	1.50	1	1
150	38 DILLAN DR	LDR	12.47	1	12
151	97 BACTON HILL RD	LDR	0.44	1	0
152	419 CONESTOGA RD	LDR	1.40	1	1
153	24 SPRING VALLEY RD	LDR	2.60	1	2
154	99 OLD VALLEY RD	LDR	13.64	1	13
155	1 SPRING VALLEY RD	LDR	1.08	1	1
157	425 CONESTOGA RD	LDR	1.65	1	2
158	415 CONESTOGA RD	LDR	2.38	1	2
159	417 CONESTOGA RD	LDR	2.60	1	2
161	85 BACTON HILL RD	LDR	2.16	1	2
164	427 CONESTOGA RD	LDR	2.22	1	2
Subtotal			49.74		**45**
Credit for Existing					24
New residential					**21**

LDR = Low Density Residential

F. Potential Redevelopment- Area Specific

As discussed briefly in the introduction to this section, there are two specific areas within the Township where redevelopment is anticipated, but the specific parcels are not known. These areas are:

1) Great Valley Corporate Center; and

2) Route 30 corridor (excluding parcels already designed as vacant or for parcel specific redevelopment).

The assumptions incorporated into the build-out for each area follows.

1) Great Valley Corporate Center:

Great Valley Corporate Center has been a centerpiece of office/business park development in the Township since the 1970's. Nearly 50 years later, this center is poised for significant change under largely new ownership. The fall of 2016 witnessed the transfer of nearly 30% of the parcels along Great Valley Parkway, Technology Drive, and Country View Drive from Liberty Property Trust to Workspace Properties.

Prior to the change of ownership, Liberty Property Trust requested and got approval for a significant zoning change for the parcels immediately fronting on Route 29. This rezoning is intended to permit an intense mix of uses, including office, apartments, hotel, and retail with common green areas. As part of this report, the TIFAC team made the following assumptions:

- That Workspace Properties bought the former Liberty Property Trust parcels with the intention of redeveloping a significant portion of them, renovating these decades old spaces to reflect current trends in office design and integrate them into the planned mixed use development.

- That other parcels that are individually owned by other companies will also explore redevelopment in light of the planned walkable, mixed-use development.

- Knowing that 30% of the parcels are owned by Workspace Properties and companies other than Liberty Property Trust, we use 30% as the baseline for parcels will redevelop in the next ten years.

- Unlike the VMX and other Districts, the development potential of the OBP district is better calculated through the use of the maximum floor area ratio (FAR) and the assumption that 2.5 story buildings will be developed.

Table 19. Great Valley Corporate Center Area-wide Redevelopment Potential

Map ID	ADDRESS	Dev Acres	Max FAR	Max SF	Existing SF	New SF
102	155 GREAT VALLEY PW	5.49	0.5	119,582	106,383	13,199
107	75 GREAT VALLEY PW	3.16	0.5	68,843	11,320	57,523
108	200 GREAT VALLEY PW	3.21	0.5	69,988	38,181	31,807
113	90 GREAT VALLEY PW	5.77	0.5	125,724	94,150	31,574
114	115 GREAT VALLEY PW	11.73	0.5	255,408	106,602	148,806
116	125 GREAT VALLEY PW	4.70	0.5	102,258	22,853	79,405
120/128	43 GREAT VALLEY PW	5.02	0.5	109,335	61,840	47,495
121	40 GREAT VALLEY PW	3.53	0.5	76,809	61,484	15,326
122	260 GREAT VALLEY PW	3.83	0.5	83,517	24,925	58,593
123	244 GREAT VALLEY PW	3.51	0.5	76,365	80,679	-4,314
124	261 GREAT VALLEY PW	6.93	0.5	150,964	71,699	79,264
126	280 GREAT VALLEY PW	2.97	0.5	64,776	32,432	32,344
127	36 GREAT VALLEY PW	3.36	0.5	73,287	33,047	40,240
129	283 GREAT VALLEY PW	4.13	0.5	90,017	34,697	55,320
130	205 GREAT VALLEY PW	4.25	0.5	92,473	45,401	47,073
131	30 GREAT VALLEY PW	3.24	0.5	70,486	5,801	64,685
132	362 TECHNOLOGY DR	10.83	0.5	235,949	81,953	153,996
133	300 TECHNOLOGY DR	4.91	0.5	107,016	22,505	84,510
134	224 GREAT VALLEY PW	3.01	0.5	65,568	63,802	1,766
135	84 GREAT VALLEY PW	3.77	0.5	82,078	42,819	39,259
137	59 GREAT VALLEY PW	9.34	0.5	203,396	127,820	75,576
138	177 GREAT VALLEY PW	13.85	0.5	301,663	140,801	160,862
165	3 COUNTRY VIEW RD	6.88	0.5	149,790	45,658	104,132
166	2 COUNTRY VIEW RD	4.63	0.5	100,822	38,780	62,042
168	5 GREAT VALLEY PW	4.33	0.5	94,244	69,480	24,764
170	3 GREAT VALLEY PW	4.73	0.5	103,084	45,888	57,196
171	4 COUNTRY VIEW RD	4.59	0.5	100,034	60,034	40,000
172	1 GREAT VALLEY PW	6.40	0.5	139,499	61,296	78,202
173	1 COUNTRY VIEW RD	5.59	0.5	121,775	53,232	68,543
174	7 GREAT VALLEY PW	6.01	0.5	130,920	66,045	64,875
SUBTOTAL						1,814,063
X 30%						**544,219**

2) Route 30- Potential Redevelopment

The Route 30 receives a more in-depth look as part of this build-out analysis for a number of reasons. First of all, the Corridor received priority focus in the Township's 2016 Comprehensive Plan as a location designated for future redevelopment. The Future Land Use Plan shows two particular nodes of mixed-use redevelopment, but does not shy away from recommending a holistic approach to re-envisioning the entire corridor. This "re-envisioning" is about to begin. In February 2017, the Township will be kicking off a Route 30 Corridor Master Plan, intended to re-imagine the land use and transportation elements along this three-mile stretch and make recommendations for comprehensive rezoning and transportation improvements. Unfortunately, the results of this forthcoming Master Plan are difficult to predict as part of this build-out analysis, but we can confidently assume that a different life for Route 30 will be envisioned and that this will include incentives for redevelopment and public private partnerships.

Another factor that could potentially influence future development along Route 30 is the reemergence of the idea of a Whiteland Train Station. It is more than likely that if this possibility is to become a reality, it will take more than 10 years, but the Township and other project partners are initiating discussions with SEPTA.

The challenges in estimating a redevelopment build-out for this corridor are many. The comprehensive rezoning could be adopted within 2 to 3 years, but the analysis must largely assume current zoning districts. A train station would render any redevelopment potential highly underestimated. However, it is difficult to pinpoint exact parcels without knowing the potential station location. Many parcels are already included in other categories in this report, but there is a belief that not adding another factor will leave the build-out analysis short in its calculations for Route 30. The parcels along Route 30 that fall outside of the other categories are shown on Map 4 in light green (Map ID 117). They add up to approximately 480 acres. These are the assumptions used in estimating a ten year redevelopment potential:

- Because of the long history of development along Route 30, the existing rail lines and electric transmission lines, the corridor is more constrained by infrastructure than by natural resources, such as floodplain. Therefore, we assume a developable acreage that is the same as the gross acreage.

- Zoning along Route 30 primarily falls into the "FC-Frontage Commercial" district, which permits a building coverage of 35% and maximum height of 35 feet. Other districts include Professional Office, and Village Mixed-use. The Professional Office district is minimal and so not calculated differently than the FC District. The maximum Village Mixed Use regulations are challenging to achieve on the small and irregular lots along Route 30. Therefore, we assume that applying the provisions of the FC district to the entirety of Route 30, while incorporating residential uses, is reasonable.

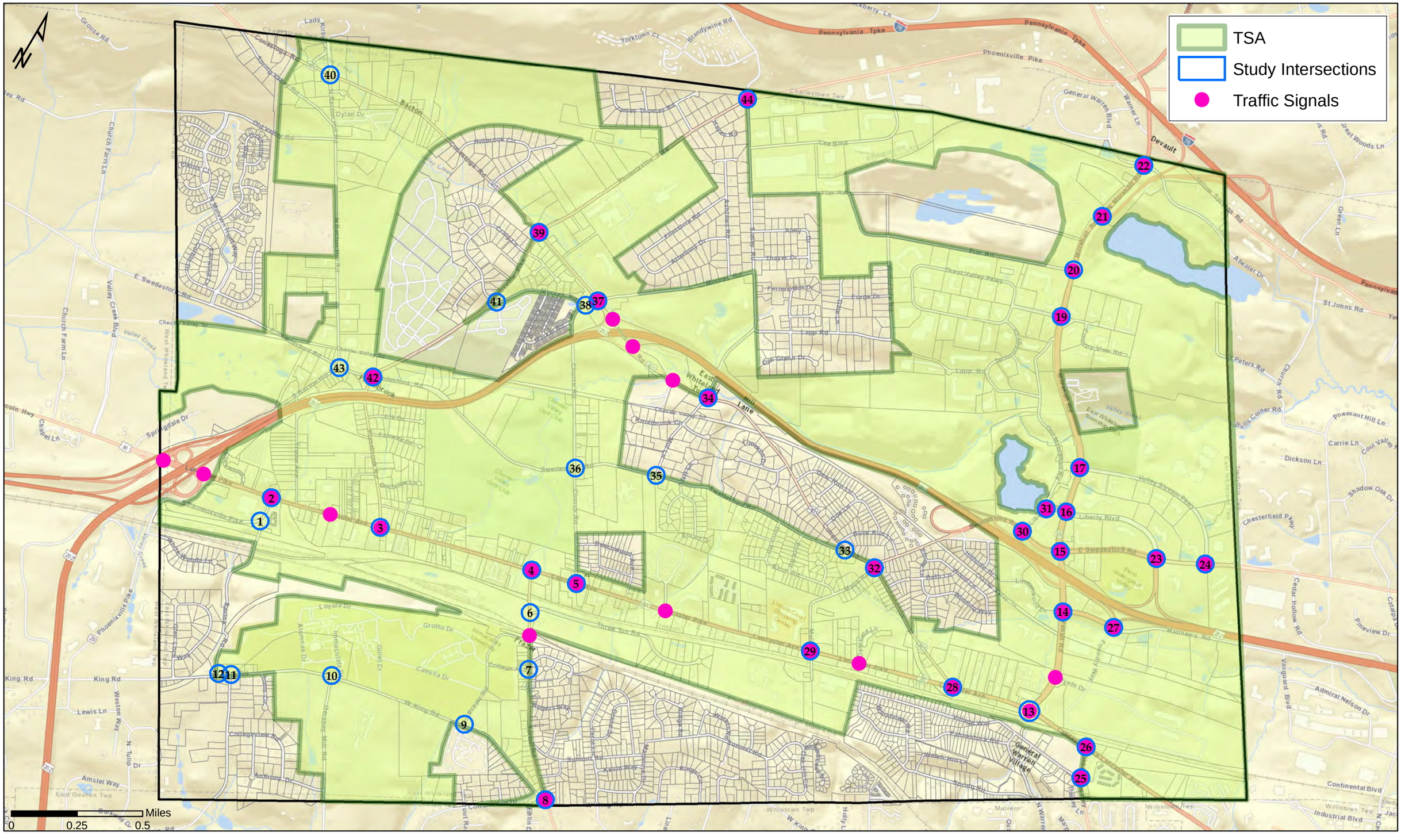
- After much discussion, analysis of the mixed-use nodes in the Future Land Use Plan, and other factors, the TIFAC agreed that an additional 15% of the corridor should be estimated for redevelopment.

- To further refine the redevelopment potential and account for what is expected to be a strong residential component, 75% of the redevelopment area is assumed to be residential. This acreage is then multiplied by 7 dwelling units per acre as currently permitted in the VMX district.

Table 20. Route 30 Redevelopment Potential

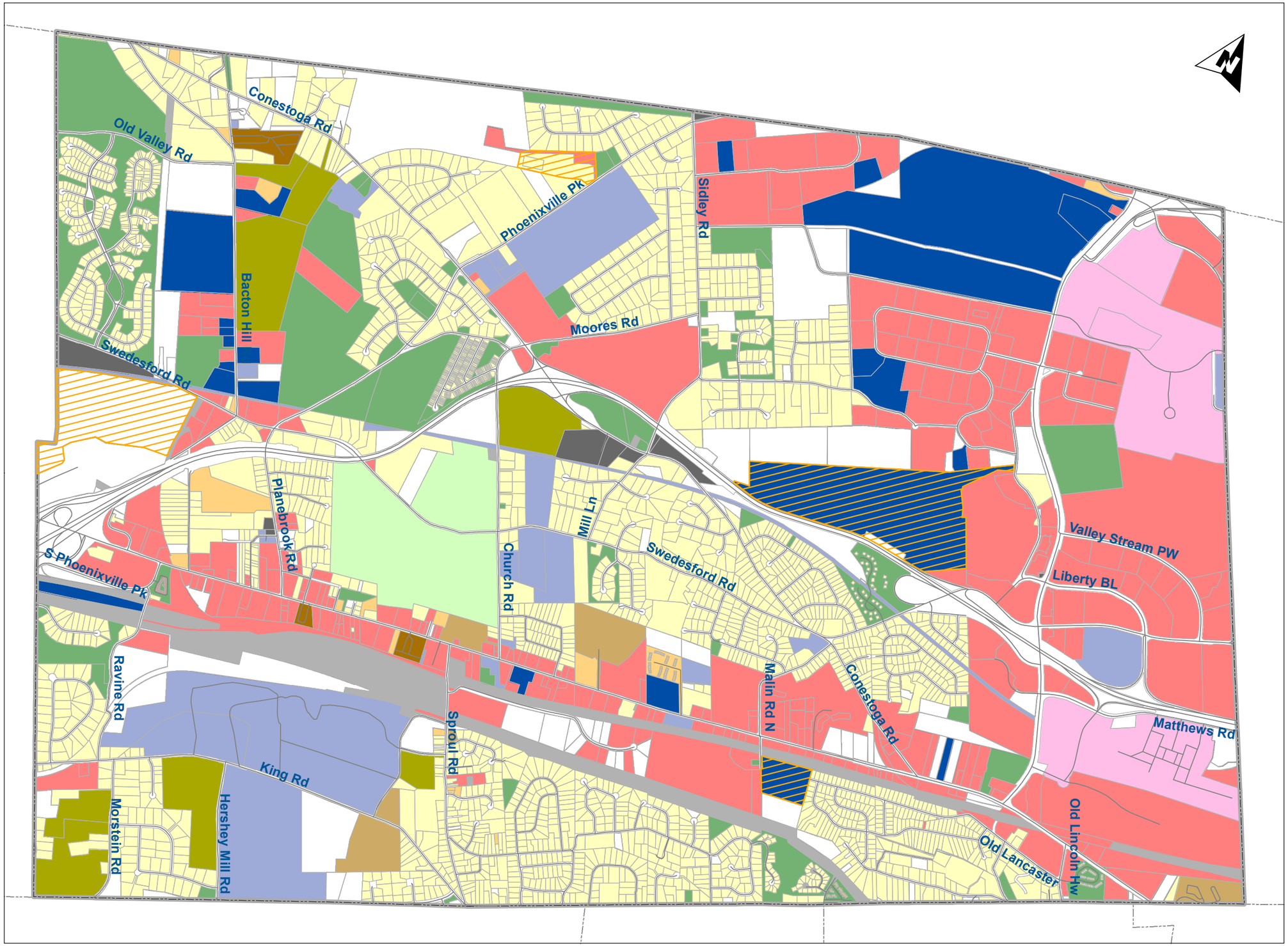
Total Acreage (Map ID 177)	479.51 ac
X 15%	71.9 ac
Nonresidential Component (50%)	35.95 ac
(0.35 Bldg Cov at 1.5 stories)	**822,140 SF**
Residential component (75%)	35.9 ac
7 du/ac (VMX)	**251 units**

Map 1. Transportation Service Area (TSA) and Study Intersections



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, Chester County

Map 2. Existing Land Use



East Whiteland Township

Chester County
Pennsylvania

Sensitive Sites

Land Use

- Commercial; 1,460.75 ac.
- Mixed Use; 271.41 ac.
- Private Recreation; 166.74 ac.
- Mobile Home Parks; 20.41 ac.
- Institutional; 461.5 ac.
- Utility and Transportation; 200.02 ac.
- Parks and Open Space; 496.04
- Municipal; 38.5
- Agricultural; 188.7 ac.
- Industrial; 474.03 ac.
- Low Density Residential; 1,767.27 ac.
- Medium Density Residential; 47.03 ac.
- High Density Residential; 69.82 ac.
- Vacant; 707.95 ac.

Draft: October 27, 2016; November 16, 2016
Data Sources:
All Base Data - Chester County GIS, 2015;McMahon Assoc;
Pending Dev- East Whiteland;

McMAHON
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Town Planners & Landscape Architects

Map 3. Natural Resources

East Whiteland Township

Chester County
Pennsylvania

Legend

100 Year Floodplain

Slope

0 - 15%

15 - 25%

Greater than 25%

Wetlands

Woodlands

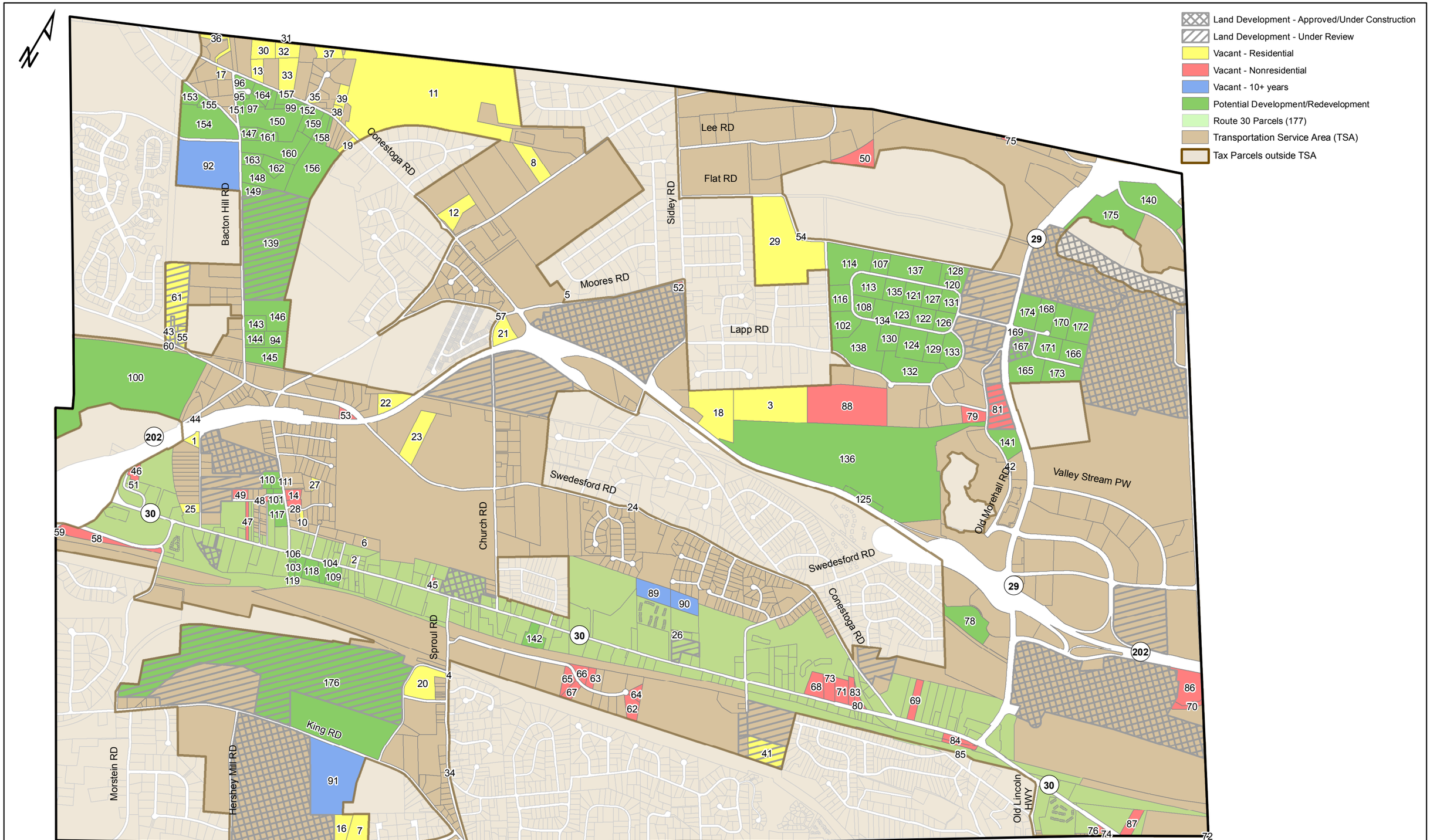
0 1,600 3,200
Feet

Data Sources: All Base Data, 100 Year Floodplain, Wetlands, Woodlands - Chester County GIS, 2015; Vacant Land - Delaware Valley Regional Planning Commission, 2010, Chester County GIS, 2015

July 13, 2016

TCA Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects

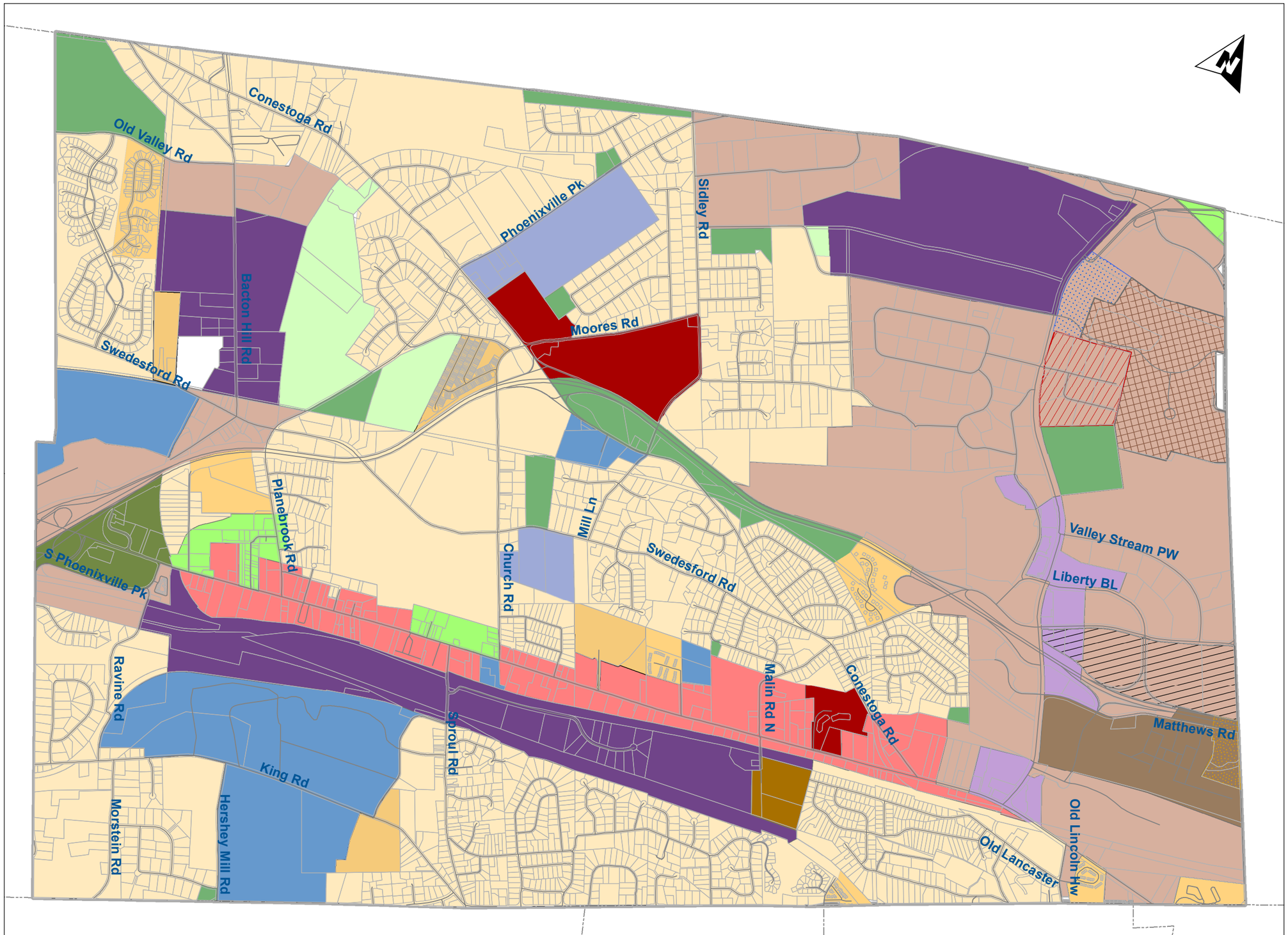
Map 4. Build-out Analysis Map



Note: Parcel numbers correspond to the Map ID in Tables 11, 12, 13, 14, 15, and 17, as well as the Build-out Analysis Table in the Appendix.

Service Layer Credits: Chester County

ZONING MAP



East Whiteland Township

Chester County
Pennsylvania

Legend

OVERLAY DISTRICTS

- <all other values>

DISTRICT

- Corporate Gateway Overlay
- Multimodal Transportation
- O/BPS Overlay
- RMH Overlay
- Regionally-Oriented Comm/Res Overlay 8/13/08

zoning

- <all other values>

DISTRICT

- Regionally-Oriented Commercial
- Industrial
- Cemetery
- Open Space
- Low Density Residential
- Medium Density Residential
- Medium-High Density Residential
- Institutional
- Neighborhood Schools
- Office/Business Park
- Office/Business Park Services
- Frontage Commercial
- Professional Office
- Regionally-Oriented Comm/Res
- Residential Revitalization
- Village Mixed-Use

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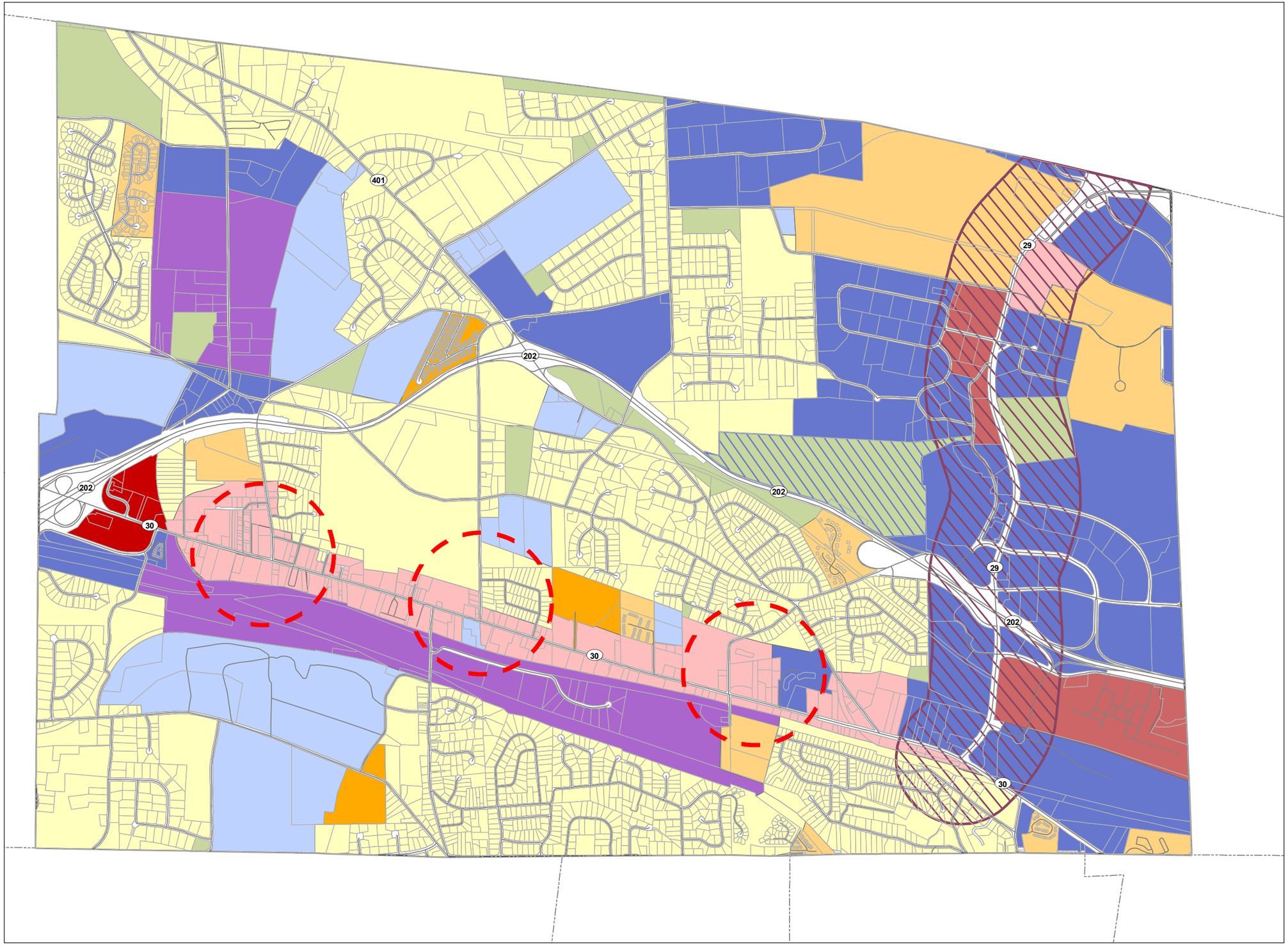
Map 6. Future Land Use



East Whiteland Township

Chester County
Pennsylvania

Legend

Route 29 Growth Corridor

Mixed-Use Nodes

Future Land Use

- Open Space
- Residential - Low Density
- Residential - Medium Density
- Residential - High Density
- Commercial
- Regional Commercial
- High Density Mixed Use
- Institutional
- Industrial
- Office/Business Park
- Open Space / Office/Business Park

0 1,800 3,600 Feet

Data Sources:
All Base Data - Chester County GIS, 2015;
FLU data- TCA, 2015

July 13, 2016

TCA Thomas Comitta Associates, Inc.
Town Planners & Landscape Architects

APPENDIX

Developable Acreage Calculations

The following tables provide the calculation of the developable acreage for each parcel included in the Build-Out Analysis and depicted on Map 4 (Map ID numbers correspond to Map 4).

The East Whiteland Township Zoning Ordinance defines Developable acreage as "The gross acreage of a lot minus the area of public rights-of-way, utility easements or rights-of-way, floodplains, wetlands, and sensitive sites." It is this developable acreage concept that is the basis for determining permitted dwelling units and floor areas. The following tables depict the gross acreage, constraints, and developable acreage for each parcel and a more realistic build-out estimate. Constraints were measured using GIS.

It is important to note that while effectively acting as constraints in the field, steep slopes and very steep slopes are not accounted for as part of the developable acreage and therefore are not included here. On particularly large parcels, steep slopes and very steep slopes are measured and netted out in the calculations within the body of the report.

The following abbreviations are used in the tables:

DU= Dwelling Units
DU/AC = dwelling units per acre
FC= Frontage Commercial District
IND = Industrial District
INS = Institutional District
LDR = Low Density Residential
MF DU = Multifamily Dwellings
OBP = Office/Business Park District
PO = Professional Office District
RMH= Residential Medium-High Density District
ROCRO= Regionally Oriented Commercial-Residential Overlay District
SF = Square footage
SFA = Single family Attached (townhouses)
SFD = Single family Detached
UPI = Universal Parcel Identification
VMX = Village Mixed Use District

1. Vacant Residential

Map ID	UPI	ADDRESS	Gross Acres	Zoning	Constraints	Dev Acres	DU Yield	Dwelling Type
1	42-3-139	32 FRAME AV	1.17	LDR	0	1.17	1	SFD
3	42-4-25.1	272 LAPP RD	20.69	LDR	0	20.69	20	SFD
7	42-7-16	(Cottonwood Dr)	4.60	LDR	0	4.60	4	SFD
8	42-3-39	240 PHOENIXVILLE PK	4.83	LDR	0	4.83	4	SFD
11	42-3-17	408 CONESTOGA RD	80.70	LDR	15.15	65.55	67	SFD
12	42-3-34.2	356 CONESTOGA RD	4.65	LDR	0	4.65	4	SFD
13	42-3-8	428 CONESTOGA RD	2.24	LDR	0	2.24	2	SFD
16	42-7-16.1	(Cottonwood Dr)	3.55	LDR	1.07	2.48	2	SFD
18	42-4-19	191 SIDLEY RD	14.65	LDR	6.63	8.02	8	SFD
20	42-7-2	60 SPROUL RD	7.57	LDR	0	7.57	7	SFD
21	42-3-123.1	105 CHURCH RD	3.55	LDR	0.28	3.27	3	SFD
22	42-3-121.1	501 SWEDESFORD RD	3.63	LDR	1.54	2.09	2	SFD
23	42-3-120	441 SWEDESFORD RD	6.81	LDR	0	6.81	6	SFD
25	42-3-144	4 FRAME AV	1.36	LDR	0	1.36	1	SFD
29	42-4-6.1	61 FLAT RD	37.11	LDR	0	37.11	37	SFD
30	42-3-5.2	432 CONESTOGA RD	3.73	LDR	0	3.73	3	SFD
32	42-3-6	50 CONESTOGA RD	2.90	LDR	0	2.90	2	SFD
33	42-3-11	CONESTOGA RD	5.12	LDR	0	5.12	5	SFD
36	42-3-2	476 CONESTOGA RD	1.76	LDR	0	1.76	1	SFD
37	42-3-7.1	(N CONESTOGA)	2.38	LDR	0	2.38	2	SFD
39	42-3-14.2	4 JEUNET LA	2.01	LDR	0	2.01	1	SFD
53	42-3-199.1	430 SWEDESFORD RD	1.07	LDR	0	1.07	1	SFD
***61/55/43**	42-3-80.1	5 SWEDESFORD RD	15.50	RMH		15.50	66	SFA
Total						**206.9**	**249**	

SFD = Single Family Detached Dwellings SFA = Single Family Attached (Townhouses)

* Calculations based on existing land development application

2. Vacant Nonresidential

Map ID	UPI	Address	Gross Acres	Zoning District	Con-straints	Dev Acres	Bldg Cov	Total SF (Nonres)	Total Units	Potential Uses
14	42-3Q-21	165 PLANEBROOK RD	1.18	VMX	0	1.18	0.55	10,600	6	Retail
28	42-3Q-21.2	169 PLANEBROOK RD	0.99	VMX	0	0.99	0.55	8,923	5	Restaurant
47	42-3-183	47 PROSPECT RD	0.86	VMX	0	1.37	0.55	12,308	7	Office
49	42-3-175	593 LANCASTER AV	1.37	FC	0	0.86	0.35	4,917	5	Retail
50	42-2-10.6	(LEE BLVD)	4.92	OBP	0	4.92	0.25	107,164		Office
62	42-4-296.8	400 THREE TUN RD	2.40	IND	0	2.40	0.25	39,139		Lt IND
63	42-4-296.15	215 THREE TUN RD	1.32	IND	0	1.32	0.25	21,616		Lt IND
64	42-4-296.9	420 THREE TUN RD	1.15	IND	0	1.15	0.25	18,817		Lt IND
65	42-4-296	100 THREE TUN RD	1.98	IND	0	1.98	0.25	32,338		Lt IND
66	42-4-296.16	155 THREE TUN RD	1.62	IND	0	1.62	0.25	26,396		LT IND
67	42-4-296.1	180 THREE TUN RD	1.46	IND	0	1.46	0.25	23,905		Lt IND
69	42-4-139	73 LANCASTER AV	2.53	FC	0	2.53	0.35	57,745		Retail
79	42-4-26.2	514 LAPP RD	2.66	OBP	0.97	1.69	0.25	36,701		Office
84	42-4-332	32 LANCASTER AV	1.27	FC	0	1.27	0.35	29,095		Retail
85	42-4-333.1	14 E LANCASTER AV	1.02	FC	0	1.02	0.35	23,419		Retail
87	42-5-11	323 LANCASTER AV	2.50	OBP	0	2.50	0.25	54,535		Office
88	42-4-25.2	278 LAPP RD	25.65	OBP	0	25.65	0.25	0		Access
58/59	42-6-13	215 S PHOENIXVILLE PK	4.36	OBP	0	4.75	0.25	103,455		Lt IND
68*	42-4-125.8	(LANCASTER AV)	3.16	PO	0	3.16	0.25	12,890	17	Retail
70/86	42-5-1.1C	(MATTHEWS RD)	7.91	ROCRO	2.6	5.31	0.40	138,782	14	Office
71*	42-4-125.3	161 LANCASTER AV	2.79	FC	0	2.79	0.35	15,929	15	Retail
73*	42-4-125.3A	167 LANCASTER AV	2.34	FC	0	2.34	0.35	13,403	12	Retail
80*	42-4-129	155 LANCASTER AV	1.02	FC	0	1.02	0.35	5,812	5	Retail
83*	42-4-125.2	157 LANCASTER AV	1.37	FC	0	1.37	0.35	7,807	7	Retail
						77.71		805,696	93	
X .75								**604,272**	**69**	

*Contiguous parcels expected to develop as one tract.

1. All residential units in this table are expected to be multifamily dwellings.

3. Redevelopment Potential- Parcel Specific Nonresidential/Mixed Use

Map ID	UPI	Address	Gross Acres	Zoning District	Con-straints	Dev Acres	Total SF (Nonres)	Total DU	Uses
78	42-4-257.1	100 LINDENWOOD DR	8.8	OBP	0	3	0	170	MF DU
48/101		170 PLANEBROOK	.89	VMX	0	.89	7,996	5	Retail
94	42-3-84.2B	5 BACTON HILL RD	3.44	IND	0	3.44	56,191	0	Recreation
100	42-3-130	SWEDESFORD RD	70.30	INS	2.01	68.29	371,861	100	Data warehouse; SFA
110	42-3-170	150 PLANEBROOK RD	1.86	VMX	0	1.86	16,686	10	MF DU
111	42-3-170.1	158 PLANEBROOK RD	0.89	VMX	0	0.89	8,038	5	Retail
112	42-3-171.1	39 PROSPECT AV	0.29	VMX	0	0.29	2,569	2	Restaurant
115	42-3-171	162 PLANEBROOK RD	0.36	VMX	0	0.36	3,242	2	Office
117	42-3-178	176 PLANEBROOK RD	3.15	VMX	0	3.15	28,305	17	
139	42-3-89	(BACTON HILL RD)	43.29	IND	7.27	41.02	588,387	0	Light ind
140	42-2-8	681 MOREHALL RD	13.66	OBP	0	13.66	297,490	0	Office
141	42-4-50	341 OLD MOREHALL RD	5.15	OBP	1.24	3.91	85,180	0	Office
142	42-4-306	370 LANCASTER AV	3.04	FC	0	3.04	17,394	0	Retail
143	42-3-84.1	9 BACTON HILL RD	2.82	IND	0	2.82	46,084	0	Light ind
144	42-3-84.2A	7 BACTON HILL RD	2.16	IND	0	2.16	35,358	0	Light ind
145	42-3-84.2	3 BACTON HILL RD	5.82	IND	0	5.82	95,061	0	Light Ind
146	42-3-84	17 BACTON HILL RD	8.59	IND	0	8.59	140,298	0	Light Ind
148	42-3-91	71 BACTON HILL RD	7.25	OBP	0	7.25	157,832	0	Office
149	42-3-89.1	56 BACTON HILL RD	1.93	IND	0	1.93	31,582	0	Light Ind
156	42-3-90	81 BACTON HILL RD	15.19	OBP	1.8	13.39	291,617	0	Office
160	42-3-93	79 BACTON HILL RD	9.45	OBP	0	9.45	205,774	0	Office
162	42-3-91.1	75 BACTON HILL RD	3.06	OBP	0	3.06	66,597	0	Light Ind
163	42-3-92	77 BACTON HILL RD	2.09	OBP	0	2.09	45,603	0	Light Ind
175	42-2-8.2	(N MOREHALL)	28.29	OBP	14.03	14.26	310,583	0	Light Ind
176	42-6-34	1145 KING RD	31.89	INS	0	31.89	0	75	Student housing
176	42-6-34	1145 KING RD	150.8	INS	0	150.8	0	30	Retirement housing
103*	42-3-229	554 LANCASTER AV	1.48	FC	0	1.48	8,440	8	Retail
104*	42-3-231	542 LANCASTER AV	1.18	FC	0	1.18	6,763	6	MF DU
105*	42-3-228.1	560 LANCASTER AV	0.25	FC	0	0.25	1,407	1	
106*	42-3-228	562 LANCASTER AV	0.38	FC	0	0.38	2,195	2	
109*	42-3-232	536 LANCASTER AV	2.54	FC	0	2.54	14,497	13	
118*	42-3-230	20 NORBROS CI	2.63	FC	0	2.63	15,048	14	
119*	42-3-228.2	558 LANCASTER AV	0.61	FC	0	0.61	3,460	3	
125/136	42-4-42	367 OLD MOREHALL RD	118.02	OBP	28.51	66.49	0	0	Solar Farm
SUBTOTAL						464	2,961,536	462	
50% Credit for existing							**1,480,768**	**0**	

SFA = Townhouse; MF DU = Multifamily Dwellings;

* Contiguous parcels expected to redevelop as one tract.

4. REDEVELOPMENT POTENTIAL- PARCEL SPECIFIC RESIDENTIAL

Map ID	UPI	Address	Zoning	Con-straints	Dev Acres	Max DU/AC	DU Yield	Potential Uses
93	42-3-98.1A	429 CONESTOGA RD	LDR	0	1.08	1	1	
95	42-3-98.5	(BACTON HILL RD)	LDR	0	0.86	1	1	
96	42-3-98.4	(BACTON HILL RD)	LDR	0	0.90	1	1	
97	42-3-98.6	(BACTON HILL RD)	LDR	0	1.54	1	1	
99	42-3-98.3	421 CONESTOGA RD	LDR	0	1.22	1	1	
147	42-3-95	89 BACTON HILL RD	LDR	0	1.50	1	1	
150	42-3-96	38 DILLAN DR	LDR	0	12.47	1	12	
151	42-3-97	97 BACTON HILL RD	LDR	0	0.44	1	0	
152	42-3-100.1	419 CONESTOGA RD	LDR	0	1.40	1	1	
153	42-3-51	24 SPRING VALLEY RD	LDR	0	2.60	1	2	
154	42-3-53	99 OLD VALLEY RD	LDR	0	13.64	1	13	
155	42-3-52	1 SPRING VALLEY RD	LDR	0	1.08	1	1	
157	42-3-99	425 CONESTOGA RD	LDR	0	1.65	1	2	
158	42-3-101	415 CONESTOGA RD	LDR	0	2.38	1	2	
159	42-3-100	417 CONESTOGA RD	LDR	0	2.60	1	2	
161	42-3-96.1	85 BACTON HILL RD	LDR	0	2.16	1	2	
164	42-3-98	427 CONESTOGA RD	LDR	0	2.22	1	2	
					49.76		47	SFD

5. Redevelopment – Area Specific

a. GVCC –

Map ID	UPI	ADDRESS	Gross Acres	Zoning District	Constraints	Dev Acres
102	42-4-15.22	155 GREAT VALLEY PW	5.49	OBP	0	5.49
107	42-4-15.5	75 GREAT VALLEY PW	3.16	OBP	0	3.16
108	42-4-15.24	200 GREAT VALLEY PW	3.21	OBP	0	3.21
113	42-4-15.13	90 GREAT VALLEY PW	5.77	OBP	0	5.77
114	42-4-15.9	115 GREAT VALLEY PW	11.73	OBP	0	11.73
116	42-4-15.8	125 GREAT VALLEY PW	4.70	OBP	0	4.70
120	42-4-15.7A	43 GREAT VALLEY PW	0.65	OBP	0	0.65
121	42-4-15.4	40 GREAT VALLEY PW	3.53	OBP	0	3.53
122	42-4-15.14	260 GREAT VALLEY PW	3.83	OBP	0	3.83
123	42-4-15.21	244 GREAT VALLEY PW	3.51	OBP	0	3.51
124	42-4-15.27	261 GREAT VALLEY PW	6.93	OBP	0	6.93
126	42-4-15.26	280 GREAT VALLEY PW	2.97	OBP	0	2.97
127	42-4-15.3	36 GREAT VALLEY PW	3.36	OBP	0	3.36
128	42-4-15.7	33 GREAT VALLEY PW	4.37	OBP	0	4.37
129	42-4-16.1	283 GREAT VALLEY PW	4.13	OBP	0	4.13
130	42-4-15.11	205 GREAT VALLEY PW	4.25	OBP	0	4.25
131	42-4-15.2	30 GREAT VALLEY PW	3.24	OBP	0	3.24
132	42-4-16	362 TECHNOLOGY DR	10.83	OBP	0	10.83
133	42-4-15.20	300 TECHNOLOGY DR	4.91	OBP	0	4.91
134	42-4-15.25	224 GREAT VALLEY PW	3.01	OBP	0	3.01
135	42-4-15.6	84 GREAT VALLEY PW	3.77	OBP	0	3.77
137	42-4-15.1	59 GREAT VALLEY PW	9.34	OBP	0	9.34
138	42-4-15.23	177 GREAT VALLEY PW	13.85	OBP	0	13.85
165	42-4-52	3 COUNTRY VIEW RD	6.88	OBP	0	6.88
166	42-4-52.3	2 COUNTRY VIEW RD	4.63	OBP	0	4.63
168	42-2-12.3	5 GREAT VALLEY PW	4.33	OBP	0	4.33
170	42-2-12.1	3 GREAT VALLEY PW	4.73	OBP	0	4.73

Map ID	UPI	ADDRESS	Gross Acres	Zoning District	Constraints	Dev Acres
171	42-4-52.5	4 COUNTRY VIEW RD	4.59	OBP	0	4.59
172	42-2-12.2	1 GREAT VALLEY PW	6.40	OBP	0	6.40
173	42-4-52.2	1 COUNTRY VIEW RD	5.59	OBP	0	5.59
174	42-2-12	7 GREAT VALLEY PW	6.01	OBP	0	6.01
Subtotal			163.7			1,814,062
X 30%						**544,219**

Anticipated Uses: Office (75%), Research and Development (15%), and Light Manufacturing (10%)

5. VACANT PARCELS UNDER 1 ACRE

The following vacant parcels under 1 acre are not included in the build-out estimate, though they are noted on the build-out map.

Map ID	UPI	ADDRESS	ACRES	Zoning District
2	42-3R-1	4 CHARLES ST	0.40	Frontage Commercial
4	42-7-35.1	63 SPROUL RD	0.03	Low Density Residential
5	42-3-333	23 MOORES RD	0.00	Low Density Residential
6	42-3-216.2	45 COFFMAN ST	0.28	Low Density Residential
10	42-3R-22.3	3 GOLF VIEW LA	0.39	Low Density Residential
15	42-7-22	1040 KING RD	0.54	Low Density Residential
17	42-3-60	461 CONESTOGA RD	0.71	Low Density Residential
24	42-4-64.1B	321 SWEDESFORD RD	0.05	Low Density Residential
26	42-4-98.5	51 MAPLE LINDEN LA	0.53	Frontage Commercial
27	42-3R-32.1	12 FAIRWAY DR	0.70	Low Density Residential
31	35-7-54	2128 VALLEY HILL RD	0.12	Low Density Residential
34	42-7A-80.1	135 SPROUL RD	0.01	Low Density Residential
35	42-3-14.3	1 WILLING WY	0.69	Low Density Residential
38	42-3-14.1	2 JEUNET LA	0.80	Low Density Residential
40	2-1-35		0.12	Low Density Residential
42	42-4-50.1	320 OLD MOREHALL RD	0.16	Office/Bus Park Services
44	42-3-139.7	14 S BACTON HILL RD	0.20	Office/Business Park
45	42-3-226	449 LANCASTER AV	0.27	Village Mixed Use
46	42-3-136.2	641 LANCASTER AV	0.69	Regionally-Oriented Comm
47	42-3-183	593 LANCASTER AV	0.86	Frontage Commercial
48	42-3-176	35 PROSPECT AV	0.20	Village Mixed Use
51	42-3-136.1	13 LOCKWOOD LA	0.53	Regionally-Oriented Comm
52	42-4-2	2 MOORES RD	0.76	Professional Office
54	42-4-6.1	61 FLAT RD	0.08	Low Density Residential
57	42-3-116	116 MOORES RD	0.00	Med-High Density Res
59	42-6-13.1	211 S PHOENIXVILLE PK	0.39	Office/Business Park
60	42-3-128	954 SWEDESFORD RD	0.22	Med-High Density Res
72	43-9-91		0.04	Med Density Residential
74	42-5-20	74 E LANCASTER AV	0.46	Office/Business Park
75	35-4-107.13A		0.51	Office/Business Park
76	42-5-19	72 E LANCASTER AV	0.26	Office/Business Park