

Table of Contents

INTRODUCTION	2
REPORT PURPOSE	2
SOURCES OF INFORMATION	2
MAP INFORMATION.....	3
TRANSPORTATION SERVICE AREAS (TSA's).....	3
 EXISTING CONDITIONS.....	 4
LAND USE	4
TABLE 1 - EXISTING LAND USE & LAND COVER	5
POPULATION	5
TABLE 2 - POPULATION 1970-2040	6
HOUSING PROFILE.....	6
TABLE 3 - TOTAL HOUSING UNITS.....	6
RESIDENTIAL BUILDING PERMITS.....	7
TABLE 4 – RESIDENTIAL BUILDING PERMITS 2000-2017.....	7
EMPLOYMENT PROFILE.....	8
TABLE 5 – NUMBER OF JOBS.....	8
TABLE 6 – TOWNSHIP JOBS BY NAICS SECTOR.....	9
NONRESIDENTIAL BUILDING PERMITS.....	9
TABLE 7 – NONRESIDENTIAL BUILDING PERMITS 2012-2017.....	10
PENDING LAND DEVELOPMENT.....	12
TABLE 8 – PENDING LAND DEVELOPMENT AND REVIEW APPROVALS.....	12
 FUTURE DEVELOPMENT PROJECTIONS.....	 14
RESIDENTIAL DEVELOPMENT	14
TABLE 9 – POTENTIAL FUTURE RESIDENTIAL DEVELOPMENT PROPERTIES.....	16
NON-RESIDENTIAL DEVELOPMENT	19
TABLE 10 – PROJECTED EMPLOYMENT GROWTH BY NAICS SECTOR.....	19
TABLE 11– POTENTIAL FUTURE NON-RESIDENTIAL DEVELOPMENT PROPERTIES.....	21
 APPENDIX A – TOWNSHIP MAPS	
MAP 1 – TSA DISTRICTS	
MAP 2 – EXISTING LAND USE & LAND COVER	
MAP 3 – CURRENT ZONING	
MAP 4 – DEVELOPMENT PARCELS	
 APPENDIX B – SUMMARY OF PUBLIC COMMENT	

INTRODUCTION

REPORT PURPOSE

This Land Use Assumptions (LUA) Report is prepared for the consideration to adopt a Roadway Impact Fee Ordinance and Transportation Capital Improvements Plan for Derry Township (Township), Dauphin County (County). The purpose of this report is to develop land use assumptions for future development, and to identify changes to existing land uses within the Township over the next 20 years (through 2040).

Article V-A of the Pennsylvania Municipalities Planning Code (MPC), Municipal Capital Improvements, empowers municipalities within the Commonwealth to assess impact fees on new development to generate revenue for funding the costs of transportation capital improvements that are necessitated by, and attributable to the new development. The MPC requires that Impact Fee Ordinances be adopted and implemented in accordance with Act 209 of 1990. On August 22, 2017, the Township Board of Supervisors (Supervisors) enacted Resolution No. 1516 establishing an Impact Fee Advisory Committee (Committee) to evaluate the use of impact fees in the Township.

The MPC outlines the necessary components of a Land Use Assumptions report as follows:

1. A description of existing land uses within the designated study area;
2. A projection of future land use, development densities of residential uses, intensities of nonresidential development, and population growth rates which may affect the level of traffic within the study area over a period of at least 5 years. Projections shall be based on an analysis of population growth rates over the prior 5-year period, current zoning regulations, approved subdivision and land developments, and the future land use plan of the adopted Comprehensive Plan. Other studies related to demographics, parks and recreation, economic development, and any other study deemed appropriate by the Township may be included by reference in the Report.

The Committee conducted a public hearing on _____, 2018 for the consideration of land use assumptions. The Advisory Committee recommended approval of the LUA Report to the Supervisors. Comments from the public hearing can be found in Appendix ____.

SOURCES OF INFORMATION

For any development tract anticipated to develop over the next 20 years, assumptions were made regarding the probable use and development densities based on current zoning ordinance regulations. Historic census data, permit data and land use development trends were also considered when creating the potential development scenarios described in this report. A complete listing of data sources used in preparation of this report is provided below:

1. Derry Township Existing Land Use/Land Cover data from Dauphin County GIS (2016).

2. Derry Township Building Permit Records/U.S. Census Bureau Dwelling Construction Reporting Sheets, (2000-2016).
3. Derry Township Official Zoning Maps (2017).
4. Derry Township Official Map (2017).
5. Derry Township Comprehensive Plan, Future Land Use Maps (2015).
6. Dauphin County Population and Employment Projection Data, Dauphin County Planning Commission (2017).
7. United States Census Data, U.S. Census Bureau (2010).
8. American Community Survey Data, U.S. Census Bureau (2016).

MAP INFORMATION

Information from the Township GIS system was used to develop the mapping included in Appendix A of this report. Building permit data and development trends in the Township were also utilized when mapping future development properties. Included in Appendix A is the Transportation Service Areas (Map 1), Existing Land Uses (Map 2), Current Zoning (Map 3), and Existing and Projected Development Tracts (Map 4).

TRANSPORTATION SERVICE AREAS (TSA's)

Map 1 depicts the TSA boundaries within Derry Township. There is a total of 3 TSA's, each totaling less than 7 square miles in accordance with the requirements of Act 209. Each TSA is comprised of areas that will continue to see development over the next 20-year period. Local knowledge of Township properties was used in determining the boundaries of the TSA's, including property ownership, occupancy, environmental conditions and redevelopment potential of developed properties.

Most of the developed areas of the Township were excluded from the TSA's, with exception to the Chocolate Avenue corridor where redevelopment potential exists on properties within Downtown Hershey and Palmdale. Redevelopment potential was also identified along Governor Road, particularly within the existing Briarcrest development. Properties that contain significant sensitive environmental features, such as steep slopes, floodplains and wetlands were also largely excluded from the TSA's since larger developments on these tracts would be prohibitive.

EXISTING CONDITIONS

The existing conditions section of this report explores land use, population, employment, housing and permit trends within the Township. Comparisons are made to the same trends within Dauphin County, where applicable. In many cases, the numbers are derived from the U.S. Census American Community Survey (ACS), which are five-year estimates of data based on a sampling of residents within a given area. In the case of this report, the 2016 estimates were used (unless otherwise noted) which estimate data between the years of 2012 and 2016. The 2016 ACS data was released by the U.S. Census Bureau in December of 2017.

LAND USE

Dauphin County GIS data was used and updated to determine the existing land use and land cover conditions within the Township. The County Land Use Codes were used to tabulate a list of land use types as identified in Table 1 below. Map 2 in Appendix A reflects the existing land use conditions, while Map 3 identifies current base and overlay zoning classifications for each property in the Township. Zoning district boundaries are the primary determinant for future land use changes in the Township.

Nearly two-thirds of the Township's land area is currently used for residential, agricultural, or institutional purposes. Agricultural classifications include both unimproved farmland, and farmland that has been improved with buildings and other structures. Residential land uses consider all residential types, including single-family homes, townhouses, mobile homes, and apartment buildings. Institutional uses include churches, hospitals, schools, and municipal uses.

Other categories below include transportation, which comprises all roads and railroads in the Township, and public utility areas, which include all properties held by public utility companies for the purpose of providing utility services to the Township (this does not include easements or rights-of-way on private property). Vacant land areas may include forested lands, quarries, landfills, or potential development tracts that are presently unimproved. Lastly, parks and open space properties include both public and privately-owned recreational areas, including lands held by Hershey Entertainment and Resorts; such as, Hersheypark, Giant Center and the Campgrounds.

TABLE 1 - EXISTING LAND USE & LAND COVER

Land Use Type	Acres	% of Total Land Area
Residential	3,949	23%
Commercial	1,058	6%
Industrial	675	4%
Transportation	1,711	10%
Public Utility	97	1%
Agriculture	4,061	23%
Vacant Land (Non-agriculture)	1,265	7%
Parks and Open Space	1,247	7%
Institutional	3,473	20%
Total	17,536	100%

SOURCE: U.S. CENSUS BUREAU & TRI-COUNTY REGIONAL PLANNING COMMISSION

POPULATION

Below, Table 2 shows the Township and County population growth in each decennial census since 1970 and includes the 2016 estimates to show population growth over the past five-years. The Tri-County Regional Planning Commission projects both the Township and County will continue to grow through 2040.

It is worth noting that the Township's Comprehensive Plan identifies that much of the population growth in the Township between 2000 and 2010 resulted from a change in how the U.S. Census counted students at the Milton Hershey school campus. Prior to the 2010 Census, students would not have been included within the Census for the Township. To further substantiate this observation, the Decennial Census between 2000 and 2010 indicates that the student age population in the Township increased by 2,234 residents. Enrollment at Milton Hershey School is roughly 2,000 students. If the Milton Hershey school population is deducted from the 2010 census figures, the growth rate in the Township between 2000 and 2010 would be approximately 6.6%, or less than a 1% annual growth rate. The 2016 ACS estimates reflect an even further decline in the annual growth rate since 2010.

TABLE 2 - POPULATION 1970-2040

Year	Derry Township	Dauphin County
1970	15,452	220,088
1980	18,115	232,317
1990	18,408	237,813
2000	21,273	251,798
2010	24,679	268,100
2016 Estimate	24,923	271,962
2020 Projection	26,007	279,506
2030 Projection	27,097	289,132
2040 Projection	27,625	296,766
PROJECTED CHANGE 2010-2040		
#	2,946	28,666
%	11.9	10.7

SOURCE: U.S. CENSUS BUREAU & TRI-COUNTY REGIONAL PLANNING COMMISSION

HOUSING PROFILE

Table 3 below shows that as of the last decennial census in 2010, the Township contains 10,267 dwelling units, which is an 8.3% increase from the 2000 census. According to the US Census, a household is defined as all individuals who occupy a single housing unit. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living quarters. The 2016 ACS estimates reflect an average household size in Derry Township of approximately 2.23 people for all occupied housing units. This would be a reduction from the average household size of 2.33 people in the 2010 Census. The 2016 ACS Estimates indicate a steady housing vacancy rate of 1.9% of total units.

TABLE 3 - TOTAL HOUSING UNITS

Year	Housing Units	# Change	% Change
1990	8,164		
2000	9,481	1,317	16.1
2010	10,267	786	8.3

Year	Housing Units	# Change	% Change
1990	8,164		
2000	9,481	1,317	16.1
2010	10,267	786	8.3

2016 Estimate 10,537

SOURCE: U.S. CENSUS BUREAU

RESIDENTIAL BUILDING PERMITS

According to Table 4 below, the Township averaged 41 building permits issued for new dwelling units each year since 2012. A notable trend in the housing construction in the Township has been an increase in the amount of multi-family apartment construction. Multi-family dwelling units have accounted for roughly 30% of the new housing stock in the Township since 2010. Based on knowledge of future development potential, this is a trend that is expected to continue over the next 10-20-year period. Building permit data would suggest that 10,547 dwelling units exist in the Township as 2017, which is not too far off the 2016 ACS estimates indicated in Table 3 above.

With the ACS estimates suggesting an average household size of 2.23 people, and a population projection of 27,625 people by 2040 from Tri-County Regional Planning Commission, the Township would need to construct at least 1,200 dwelling units over the next 20-year period to meet population projections. If the Township continues at the average construction rate over the past 5-years, 820 dwellings would be constructed over the 20-year period which would not meet the housing demands for future populations. With zoning changes being implemented in 2017 that adopted mixed-use policies and increased development densities, it is anticipated that residential development will increase from prior years.

TABLE 4 – RESIDENTIAL BUILDING PERMITS 2000-2017

Year	Single-Family Detached and Semi-Detached	Townhomes	Multi-Units	Total Units
2000	65	39	0	104
2001	79	29	0	108
2002	65	69	0	134
2003	68	48	0	116
2004	67	44	0	111
2005	86	27	0	113
2006	46	16	0	62
2007	12	27	0	39
2008	15	16	0	31
2009	8	31	0	39
2010	22	11	12	45
2011	16	6	12	34
2012	32	12	6	50
2013	21	12	6	39
2014	16	4	18	38
2015	17	12	6	35
2016	11	17	6	34
2017	11	17	22	50
Totals	657	437	88	1,182

SOURCE: DERRY TOWNSHIP BUILDING PERMIT RECORDS

EMPLOYMENT PROFILE

Multiple resources exist for determining the amount of jobs available in the Township. The first is the decennial census, which tracks employment numbers for all municipalities in the State. As of the 2010 census, Derry Township employed a total of 26,939 people. This is the second highest amount of jobs in Dauphin County, behind only Harrisburg City. Table 5 below projects that an additional 5,603 jobs will be added through 2040.

TABLE 5 – NUMBER OF JOBS

Year	Derry Township	Dauphin County
2000	21,612	151,559
2010	26,939	178,190
2020 Projection	28,694	189,774
2030 Projection	30,557	202,112
2040 Projection	32,542	215,251

SOURCE: U.S. CENSUS BUREAU & TRI-COUNTY REGIONAL PLANNING COMMISSION

The Census Bureau also maintains employment records through their 'On The Map Application', which utilizes data from Unemployment Insurance Wage Records. These records are reported by employers and maintained by each State for administering its unemployment insurance system. As of 2015, the Census Bureau information indicates that jobs in the Township have increased to 30,996. These numbers already exceed the 2030 projections for the Township, which were reported by Tri-County Regional Planning Commission. Based on the Census numbers, the last five-years has experienced an annual job growth rate of 3% in the Township, which would be an increase over the 2.4% growth rate that occurred between 2000 and 2010. Job growth is expected to continue in the Township. If the Township maintains at least the 2.4% annual growth rate from current estimates over the next twenty-year period, roughly 745 jobs would be added each year. Based on this growth rate, adjusted projections would result in 42,000 jobs in the Township by 2030.

Table 6 below identifies the jobs by NAICS Industry Sector in 2015. The top three industries in the Township are in the health care, arts and entertainment, and the accommodation and food services industries. With the knowledge that Hershey Entertainment and Resorts and Hershey Medical all have expansion plans over the next 20 years, it would be expected that these sectors will also see the most significant job growth going into in the future projection period.

TABLE 6 – TOWNSHIP JOBS BY NAICS SECTOR

Industry	Employed	Percentage
Health Care and Social Assistance	9,368	30.2%
Arts, Entertainment and Recreation	5,004	16.1%
Accommodation and Food Services	3,584	11.6%
Educational Services	3,223	10.4%
Manufacturing	2,674	8.6%
Management of Companies and Enterprises	2,060	6.6%
Retail Trade	1,472	4.7%
Transportation and Warehousing	1,081	3.5%
Administration and Support, Waste Management and Remediation	906	2.9%
Professional, Scientific, and Technical Services	460	1.5%
Other Services (Excluding Public Administration)	453	1.5%
Finance and Insurance	211	0.7%
Real Estate and Rental and Leasing	134	0.4%
Construction	134	0.4%
Wholesale Trade	104	0.3%
Information	80	0.3%
Utilities	36	0.1%
Public Administration	6	0.1%
Agriculture, Forestry, Fishing, and Hunting	6	0.1%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%
Totals	30,996	100.0%

SOURCE: ON THE MAP, U.S. CENSUS BUREAU (2015).

NONRESIDENTIAL BUILDING PERMITS

Table 7 below lists the nonresidential building permits that have been issued for new construction in the Township between the years of 2012 and 2017. Most of the new construction was for expansion of existing campus locations in the Township, including the Hershey Medical Center, Milton Hershey School, Derry Township School District, and the Hershey Company Corporate Offices on Crystal A Drive and in the Downtown. The Township also continues to see expansions to the commercial recreation areas of the Township, including expansion of hotels and other lodging facilities relating to the tourism industry.

New construction of retail services has been primarily limited to the Middletown Road corridor with the construction of the Stoverdale Commons commercial center. Outside of this area, the only other retail activity was at the existing Hershey Square Shopping Center, which included

construction of a new multi-tenant commercial structure. Lastly, the Downtown Hershey area has experienced continued revitalization, which was anchored by the completion of the Hershey Company corporate office expansion and alterations to the former chocolate factory location.

TABLE 7 – NONRESIDENTIAL BUILDING PERMITS 2012-2017

Application Name	Project Description
Bank	Floor Area (Sq. Ft.)
Centric Bank - Governor Rd.	2,960
Subtotal	2,960
Hotel/Lodging	Rooms
Fairfield Inn & Suites - W. Areba Ave.	108
Super 8 - Hockersville Rd.	37
Hersheypark Camping Resort - Cabin Construction - Sweet St.	23
Hilton Garden Inn 3-story Expansion - E. Main St.	13
Courtyard by Marriott - E. Chocolate Ave.	120
Subtotal	301
Commercial Recreation/Tourism	Floor Area (Sq. Ft.)
Chocolate World Expansion (Restrooms/Offices) - Chocolate World Way	3,800
Chocolate World Expansion (Chocolate Tasting Adventure)	2,170
Hershey Lodge - Natatorium Addition - University Dr.	25,315
Hershey Gardens Conservatory Building - Hotel Rd.	16,275
Subtotal	47,560
Retail/Personal Service	Floor Area (Sq. Ft.)
Visionworks - Hershey Square Shopping Center (Tenant #101) - Mae St.	2,511
Hershey Square Shopping Center - PA Wine & Spirits Addition - Mae St.	4,032
Sheetz Convenience Store - Middletown Rd.	6,558
Stoverdale Commons (Tenant Spaces 1, 2, 4, & 8-11) - Middletown Rd.	10,800
Hershey Square Shopping Center - (Tenant Space #102) - Mae St.	1,377
Melt Spa - 11 E. Chocolate Ave.	9,000
Subtotal	34,278
Office	Floor Area (Sq. Ft.)
Expansion to Global Innovations Center - Crystal A Dr.	4,280
JSDC Law Offices - 11 E. Chocolate Ave.	16,000
Hershey Company - Corporate Office Construction - 19 E. Chocolate Ave.	376,812
Derry Presbyterian Love Inc. Offices - E. Derry Rd.	2,234
Hershey Co. Data Center Expansion - Crystal A Dr.	8,425
MedExpress Urgent Care - E. Chocolate Ave.	4,750
Subtotal	412,501
Restaurant	Floor Area (Sq. Ft.)
Chipotle Mexican Grill - W. Chocolate Ave.	2,300

Application Name	Project Description
The Mill - Old West Chocolate Ave.	10,902
Five Guys - Hershey Square Shopping Center (Tenant #103) - Mae St.	2,812
Jasmine Cuisine - Stoverdale Commons Tenant Space 5 - Middletown Rd.	1,600
My Way Trattoria - Stoverdale Commons Tenant Space 7 - Middletown Rd.	1,600
Subtotal	19,214
Industrial	
Hershey West Plant Expansion - Old W. Chocolate Ave.	6,875
Subtotal	6,875
Institutional	Floor Area (Sq. Ft.)
DTSD Administrative Office Expansion - Middle School	4,500
Select Medical Rehab. Hospital Expansion - Old W. Chocolate Ave.	36,761
Country Meadows Retirement Community Expansion - Sand Hill Rd.	7,087
Hershey Medical Data Center - Bullfrog Valley Rd.	45,854
Hershey Volunteer Fire House Expansion - E. Caracas Ave.	27,830
MHS Campus Safety & Security Center	19,166
U-Gro Learning Center Expansion - Research Blvd.	31,500
Subtotal	172,698
Other	Floor Area (Sq. Ft.)
Hershey Community Food Bank - E. Derry Rd.	3,300
PA State Police Museum - Chapel & Museum Expansion - Academy Dr.	5,648
Hershey Co. Wastewater Treatment Plant - Old W. Chocolate Ave.	7,456
Subtotal	16,404

SOURCE: DERRY TOWNSHIP BUILDING PERMIT RECORDS

PENDING LAND DEVELOPMENT

According to the MPC, any land development applications filed with the Township prior to the advertisement of its notice of intent to adopt an impact fee Ordinance are not subject to assessment of the impact fee at the time of issuance of a building permit. Table 8 below lists the pending land developments that are either approved or pending approval from the Township. Interim impact fees may be assessed on developments filed after the Board of Supervisor's adopted Resolution 1516 on August 22, 2017. The plans that are eligible for interim impact fee assessment are noted below in Table 8. Locations of existing development have also been identified on Map 4 in Appendix A of this report.

TABLE 8 – PENDING LAND DEVELOPMENT AND REVIEW APPROVALS

Map 4 ID	Development Name	Type	Location	Review Status
E-2	Woodland Hills	Residential - 5 Single Family Dwellings	Woodland Ave./Hillside Rd.	Approved - 4 dwellings remain
E-20	Oak Springs - Phase III	Residential - 6-unit Townhouse	Bernie Ct. (Village of Innsbruck)	Unrecorded - Conditional Approval extended through January 2020
E-8	The Point	Residential - 22 Single Family Detached and 55 Townhouse Dwellings	Stoverdale Rd./Red Fox Dr.	Approved - 11 SFD's and 38 Townhouse Units Remain
E-9	Muscalus Property	Residential - 32 Multi-family Apartments	Middletown Rd.	Approved - 16 units (2 buildings) remain.
E-4	Hershey Developers	Residential - 3-lot Subdivision	Sandhill Rd.	Pending - 2 new single-family dwellings, 1 existing
E-5	Rosemont	Residential - 90 Multi-family Apartments	Rhue Haus Ln.	Approved - 2 multi-family buildings remain (40 units total); fitout of remaining units on-going
E-19	East Caracas Apartment Complex	Residential - 24 Multi-family Apartments	Hemlock Court	Approved - 12 units remain.
E-6	Fox Glen Subdivision	Residential - 5-lot Subdivision	Fox Glen Drive	Unrecorded - Conditional approval for 4 new single-family dwellings, 1 existing to remain

Map 4 ID	Development Name	Type	Location	Review Status
E-12	Hersheypark - 2020 Attraction**	Commercial Recreation	Hersheypark Dr.	Pending - Alterations to park entry, including 118,000 sq. ft. in building additions and improvements.
E-7	Stoverdale Commons	Commercial - Retail/Bank	777 Middletown Rd.	Approved - 3 retail/office spaces (4,800 sq. ft.) & 2,880 sq. ft. Bank pad site remain
E-14	Chafia Capital Partners	Commercial - Retail/Office	555 E. Chocolate Ave.	Approved - 20,250 sq. ft. of retail or office space remain
E-10	Hershey Towne Square	Commercial - Retail/Restaurant	169 W. Chocolate Avenue	Approved - Building shell approved for all 3 buildings; 32,950 sq. ft. of commercial space with tenant approvals pending
E-11	Chocolate World Expansion	Commercial - Retail/Office	101 Chocolate World Way	Unrecorded - Conditional Approval for 13,600 sq. ft. office/retail expansion
E-13	Tanger Outlets - Starbucks	Commercial - Restaurant	Northeast Dr.	Pending - 2,196 sq. ft. restaurant
E-15	Miller Oral Surgery**	Commercial - Healthcare Office	1220 E. Chocolate Ave.	Pending - 3,281 sq. ft. healthcare practitioners office
E-17	Red Roof Inn**	Commercial - Hotel	1806 E. Chocolate Ave.	Pending - Construction of a 3-story, 60-room hotel building
E-1	The Crossing (Sheetz & Hershey Pharmacy)	Commercial - Retail/Office	Fishburn/Governor Rd.	Pending - 41,482 sq. ft of retail and 7,282 sq. ft. of office.
E-18	LIT Palmyra	Industrial - Warehouse	350 N. Lingle Ave.	Unrecorded - Conditional Approval for 374,125 sq. ft. distribution warehouse
E-3	Hershey Medical Children's Hospital Expansion	Institutional - Hospital	600 Centerview Dr.	Pending - Additional 3-floors on existing building, 116,000 sq. ft.
**Developments are eligible for collection of interim impact fee under Resolution No. 1516.				

SOURCE: DERRY TOWNSHIP BUILDING PERMIT RECORD

FUTURE DEVELOPMENT PROJECTIONS

RESIDENTIAL DEVELOPMENT

The limiting factor for population growth in the Township over the past 10-20-year period has been the availability of appropriately zoned land for residential development. Since adoption of the 2017 Zoning Ordinance, inquiries for future development have increased significantly. Knowledge of future development currently in the planning stages also supports an increase in residential development over the next 10-20-year period. Additionally, the employment sector in the Township is growing faster than what projections have predicted for 2020 and beyond. A higher employment base will ensure that a higher demand for additional housing in the Township continues within the study period.

Table 9 below provides a listing of potential development tracts where residential development may occur. These properties have also been identified on Map 4 in Appendix A. When estimating the maximum development yield of these properties, the following assumptions were made:

- Unless otherwise noted, residential densities of the base or overlay zoning districts were assumed. Higher densities may be achieved if the developer opts to complete a cluster development or master planned development under the Zoning Ordinance.
- Development tracts that currently are zoned Conservation are assumed to develop to the densities of the zoning district identified by the Future Land Use map of the 2015 Comprehensive Plan.
- The residential permit trends showing a 30% share of multi-family dwelling construction has been assumed to continue. Therefore, where a mix of housing types are permitted, 30% of the projected units were assumed at the multi-family residential densities.
- 20% of the land area for each property is assumed to be used for road construction, preservation of sensitive environmental features, and open space.
- Densities have been adjusted for properties where concept renderings or sketch plans have been submitted to the Township for future development. Development yields in these cases are based on the study analyses completed by the property owners and/or developer.

If considering current zoning regulations and anticipated future land use changes identified in the 2015 Comprehensive Plan, this would result in a maximum housing yield of 5,154 dwelling units over the 20-year study period. This potential supply of housing far exceeds prior development trends in the Township, as well as future housing demands based on population projections. Therefore, it is likely that the maximum yield will not be achieved during the study period, and projections will need to be adjusted based on knowledge of future development.

Six of the future development properties identified in Table 9 currently contain Conservation zoning classifications. These properties are shown on the future land use map of the Township Comprehensive Plan to eventually be rezoned to permit a higher density of development. The Comprehensive Plan indicates that the appropriate time for rezoning considerations would be once traffic improvements are made to the surrounding road network, including the Middletown Road corridor. Therefore, if focusing only on the properties in Table 9 that contain current zoning to enable residential development, the anticipated supply of housing would decrease to 3,362 dwelling units. This would still well exceed the most recent development trends and anticipated future housing demands in the Township; therefore, any rezoning of properties within the Conservation District would not need to be considered within the report period to meet the future housing demands within the Township.

The Hershey West End development, currently in the planning stages, would bring 926 new dwelling units to the Township based on current projections by the developer. It is anticipated that this development will have a full build-out schedule of 10-15 years from project approval. No other development plans for properties owned by the Hershey Trust Company have been indicated to the Township at this time; therefore, it is assumed that the other development parcels in Table 9 owned by the Milton Hershey School or the Hershey Trust Company as Trustee to the School, won't be considered for development until after the 20-year development projections; and only once the West End project is completed. Based on these assumptions, the anticipated housing construction over the next 20-year period is projected to be 1,905 dwelling units, or on average, approximately 96 dwelling units per year over the 20-year study period. If considering that 979 units will be constructed in this period outside of the West End project, this averages to 49 additional dwelling units a year, which is in line with building trends over the previous five-year period as outlined in Table 3.

The following is a listing of projected dwelling units by TSA district in the Township¹:

- TSA-1 – 500 dwelling units.
- TSA-2 – 68 dwelling units.
- TSA-3 – 1,337 dwelling units.

In summary, much of the future residential development in the Township is expected to occur in TSA-3 with the anticipated West End Development project. Additionally, most of the undeveloped lands within the R-1 zoning district are within the TSA-3 district, which further increases the residential development potential in this area. Development in the TSA-1 district would be resultant from infill development in the Palmdale area to the south of the Norfolk Southern railroad and west of N. Lingle Avenue. Smaller infill development tracts also exist in the TSA-1 district along East Derry Road. Lastly, TSA-2 will likely see the least amount of new residential development since most of the available land within this area is held by Hershey Trust, and no development plans for these properties are projected within the study period. Both TSA-1 and TSA-2 contain redevelopment potential in the Downtown Hershey Area and the Briarcrest neighborhood; however, redevelopment in these areas are currently projected to bring more non-residential floor area to the Township in-lieu of additional dwelling units.

¹ Dwelling type will be assessed by the Roadway Sufficiency Analysis to differentiate estimated trip generation between uses.

TABLE 9 – POTENTIAL FUTURE RESIDENTIAL DEVELOPMENT PROPERTIES

Map 4 ID	TSA District	Owner	Address	Zoning District	Gross Lot Area	Maximum Permitted Density	Maximum Development Yield	Estimated Timeframe
R-7	3	Melvin E. Ricker*	1563 Wood Rd.	Conservation (Future PCW)	136.1 acres	5 Dwelling Units/Net Developable Acre(NDA) (SFD) & 12 DU's/NDA (Apartment)	770 Dwelling Units	Year 20+
R-8	3	Milton Hershey School*	Waltonville Rd.	Conservation (Future PCW)	110 acres	5 Dwelling Units/NDA (SFD) & 12 DU's/NDA (Apartment)	617 Dwelling Units	Year 20+
MU-1	3	Garver Tract*^	Middletown Rd.	Conservation (Future PCW)	66 acres (developable)	5 Dwelling Units/NDA (SFD)& 12 DU's/NDA (Apartment)	175 Single-Family detached dwellings, 114 Townhomes (289 total)	Year 20+
R-6	3	Bonnymeads RTR LP*	Landvater Rd.	Conservation (Future R-1)	53.7 acres (rest in Londonderry)	2 DU's/NDA	85 Dwelling Units	Year 20+
R-9	3	Prometheus One, LLC/Kenneth Wenger Properties*	Middletown Rd.	Conservation (Future R-2)	8.95 acres	3 DU's/NDA	21 Single Family Dwelling Units	Year 1-10
R-4	3	Eric V. Spangler	918 Hill Church Rd.	R-1	17.4 acres	2 DU's/NDA	27 Single Family Dwellings	Year 10-20
R-3	3	Gerald R. Ebersole	950 Bullfrog Valley Rd.	R-1	10.5 acres	2 DU's/NDA	16 Single Family Dwellings	Year 10-20
R-5	3	B&J Water Co.	Overlook Dr./Brookline Dr.	R-1	30 acres	2 DU's/NDA	48 Single Family Dwellings	Year 10-20
R-2	3	Schroll Smith Partnership	1129 Roush Rd. (North Side)	R-1	30.5 acres (developable)	2 DU's/NDA	48 Single Family Dwellings	Year 10-20
R-1	3	Schroll Smith Partnership	1129 Roush Rd. (South Side)	Conservation	235 acres	1.25 DU's/5 NDA's (Cluster Option)	58 Single Family Dwellings	Year 10-20

Map 4 ID	TSA District	Owner	Address	Zoning District	Gross Lot Area	Maximum Permitted Density	Maximum Development Yield	Estimated Timeframe
R-10	3	Zell Tracts	2177 Swatara Creek Rd.	R-3	9.18 acres	5.5 Dwelling Units/Net Developable Acre (SFD) & 12 DU's/NDA (Apartment)	54 Dwelling Units	Year 1-10
R-11	1	Milton Hershey School	Governor Rd./Fishburn Rd.	Hershey Mixed Use	198.38 acres	5 Dwelling Units/NDA (SFD) & 8 DU's/NDA (Apartment)	935 Dwelling Units	Year 20+
R-15	2	Claypoole Properties	Laudermilch Rd./E. Derry Rd.	Hershey Mixed Use (O8 Overlay)	4.07 acres	7 Dwelling Units/NDA (SFD) & 25 DU's/NDA (Apartment)	30 Dwelling Units	Year 1-10
R-16	2	Brayson Services Inc.	E. Derry Rd.	Hershey Mixed Use (O8 Overlay)	0.90 acres	7 Dwelling Units/NDA (SFD) & 25 DU's/NDA (Apartment)	12 Multi-family Units	Year 1-10
R-12	1	Hershey Entertainment & Resorts, Co.	West of Lingle Ave.	Palmdale Mixed Use (O6 Overlay)	88 acres	5 Dwelling Units/NDA (SFD) & 12 DU's/NDA (Apartment)	500 Dwelling Units	Year 10-20
MU-4	1	Milton Hershey School/Hershey Foods	East of Laudermilch Rd.	Palmdale Mixed Use (O6 Overlay)	197.25 acres (total); 78.9 acres assumed residential (40%)	5 Dwelling Units/NDA (SFD) & 12 DU's/NDA (Apartment)	450 Dwelling Units	Year 20+
R-13	2	Hershey Trust Company	170 Washington Ave.	Palmdale Mixed Use	18.17 acres	5 Dwelling Units/NDA (SFD)	72 Dwelling Units	Year 20+
R-14	2	Marijon Shearer	1258 E. Caracas Ave.	Palmdale Mixed Use	6.76 acres	5 Dwelling Units/NDA (SFD)	26 Dwelling Units	Year 10-20

Map 4 ID	TSA District	Owner	Address	Zoning District	Gross Lot Area	Maximum Permitted Density	Maximum Development Yield	Estimated Timeframe
MU-3	3	Milton Hershey School***	E. Main St.	Planned Campus West	39.4 acres	5 Dwelling Units/NDA (SFD) & 12 DU's/NDA (Apartment)	160 Dwelling Units (124 in multi-family apartments)	Year 1-10
MU-2	3	Milton Hershey School**	Waltonville/Wood Rd.	Planned Campus West (O7 Overlay)	202.37 acres undeveloped; 141 acres assumed residential (70%)	5 Dwelling Units/NDA (SFD) & 12 DU's/NDA (Apartment)	522 multi-family units; 120 age-restricted apartment units; 161 Townhouse units; 123 single-family detached dwellings (926 units total).	Year 1-10
* Lands shown on Future Land Use map in Comprehensive Plan for future upzoning which will be dependent upon completion of future road improvements.								
^ Conditional use application and rezoning petition received for 289 dwelling units. Decision is pending.								
**Hershey West End Development - No formal submission made; however, pending Master Plan submittal for 926 dwelling units.								
***Assumptions per 2015 concept plan. No formal submission made and residential units on this property would require a rezoning petition to include the O7 overlay designation.								

NON-RESIDENTIAL DEVELOPMENT

Non-residential development can be difficult to predict as economic factors change frequently. Projected development based exclusively on annual averages for non-residential permit issuance in the Township would result in numbers that would not meet the employment projections of this report. Therefore, local knowledge of future development was used in combination with the employment projections described in this report to determine future non-residential growth. With employment projections of 42,000 employees by 2030, this would be an added work force of 11,000 employees between 2015 and 2030. Table 6 above was utilized to divide the anticipated job growth by NAICS sector. This assumes that each sector will generally remain a similar percentage of the employee workforce through 2030. Table 10 below shows the projected growth by NAICS sector.

TABLE 10 – PROJECTED EMPLOYMENT GROWTH BY NAICS SECTOR

NAICS Sector	% of Current Employment	Projected Employment Growth
Health Care and Social Assistance	30.2%	3,322
Arts, Entertainment and Recreation	16.1%	1,771
Accommodation and Food Services	11.6%	1,276
Educational Services	10.4%	1,144
Manufacturing	8.6%	946
Management of Companies and Enterprises	6.6%	726
Retail Trade	4.7%	517
Transportation and Warehousing	3.5%	385
Administration and Support, Waste Management and Remediation	2.9%	319
Professional, Scientific, and Technical Services	1.5%	165
Other Services (Excluding Public Administration)	1.5%	165
Finance and Insurance	0.7%	77
Real Estate and Rental and Leasing	0.4%	44
Construction	0.4%	44
Wholesale Trade	0.3%	33
Information	0.3%	33
Utilities	0.1%	11
Public Administration	0.1%	11

NAICS Sector	% of Current Employment	Projected Employment Growth
Agriculture, Forestry, Fishing, and Hunting	0.1%	11
Mining, Quarrying, and Oil and Gas Extraction	0.0%	0
Totals	100%	11,000

The Institution of Transportation Engineers (ITE) has developed averages for the square footage of certain uses per employee. These averages were considered in order to ensure that nonresidential projections do not exceed anticipated employment growth over the same period. Below is a summary of projected non-residential development through 2030.

- 325,000 sq. ft. of retail trade/personal service (approximately 600 sq. ft./employee)
- 125,000 sq. ft. of restaurant space (100 sq. ft./employee)
- 400,000 sq. ft. of professional or medical practitioner's office
- 125,000 sq. ft. of medical research facilities
- 6 hotel sites (670 rooms) and 1 hotel/conference center (130 rooms)
- 400,000 sq. ft. of hospital or specialized medical care (300 sq. ft./employee)
- 90,000 sq. ft. of higher education classroom space (Medical Center)

Table 11 below lists the potential development properties for non-residential uses:

TABLE 11– POTENTIAL FUTURE NON-RESIDENTIAL DEVELOPMENT PROPERTIES

Map 4 ID	TSA District	Owner	Address	Zoning District	Gross Lot Area	Estimated Timeframe
MU-1	3	Garver Tract (Proposed Carousel Development)	Middletown Rd.	Conservation	66 acres (developable)	Year 1-10
MU-4	1	Milton Hershey School/Hershey Foods	East of Laudermilch Rd.	Palmdale Mixed Use (O6 Overlay)	197.25 acres (total); 118.35 acres assumed non-residential (60%)	Year 20+ (No development projected)
C-5	2	Infill & redevelopment of properties along East Chocolate Avenue in Palmdale		Palmdale Mixed Use (O10 Overlay)	4.0 acres	On-going Year 1-20
MU-5	1	Infill & redevelopment of properties in Downtown Hershey		Hershey Mixed Use (O9 Overlay)	40.0 acres	On-going Year 1-20
C-6	1	The Hershey Company	Tract C Hersheypark Dr/Crystal A Campus	Planned Campus North	41.45 Ac.	Year 1-10
C-3	3	Penn State Hershey Medical Center	University Dr.	Medical Campus Central	Expansion of existing facilities	On-going Year 1-20
MU-2	3	Milton Hershey School (West End Development)	Waltonville/Wood Rd.	Planned Campus West (O7 Overlay)	202.37 acres (undeveloped); 61.37 acres assumed non-residential (30%)	Year 1-10

Map 4 ID	TSA District	Owner	Address	Zoning District	Gross Lot Area	Estimated Timeframe
C-1	3	Dennis Burd Properties	Middletown/Kaylor Rd.	Planned Campus West (O7 Overlay)	17.6 acres	Year 1-10
C-2	3	Wabank Associates	Middletown Rd.	Planned Campus West	51.26 acres	Year 1-10

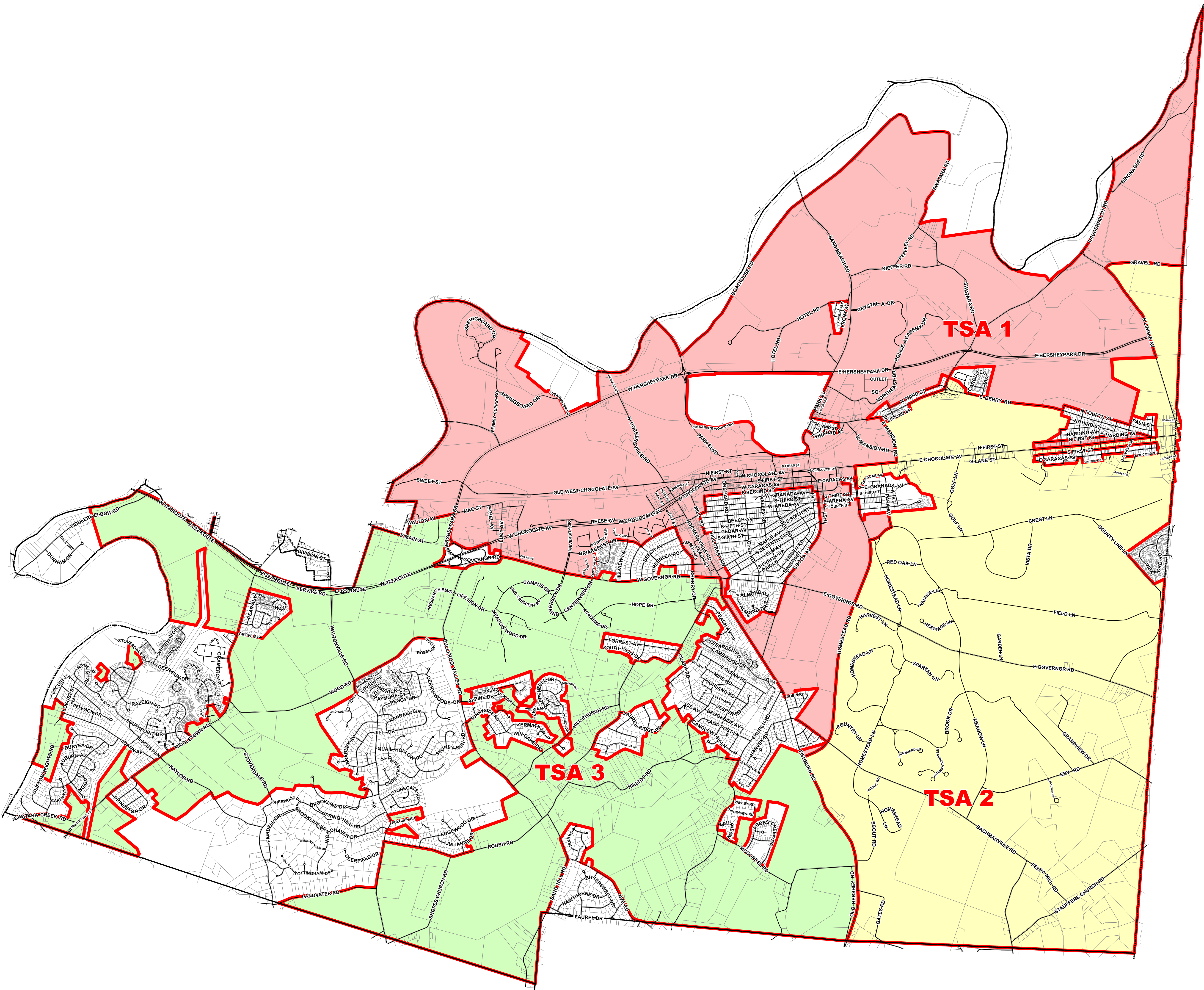
The following is a summary of anticipated development by TSA District:

- TSA-1:
 - 100,000 sq. ft. of retail/personal services
 - 60,000 sq. ft. of restaurant space
 - 75,000 sq. ft. of professional/medical practitioner office space
 - 5 hotels (530 rooms)
- TSA-2:
 - 10,000 sq. ft. of retail/personal services
 - 10,000 sq. ft. of restaurant space
 - 10,000 sq. ft. of professional/medical practitioner office space
- TSA-3:
 - 215,000 sq. ft. of retail/personal services
 - 55,000 sq. ft. of restaurant space
 - 315,000 sq. ft. professional/medical practitioner office space
 - 125,000 sq. ft. of medical research facilities
 - 400,000 sq. ft. of hospital expansion or specialized medical care
 - 90,000 sq. ft. of higher education classroom space (Medical Center)
 - 1 hotel/conference center (140 rooms) and 1 hotel (120 rooms)

Roadway Impact Fee
Map 1
Derry Township
Dauphin County, Pennsylvania

- Street
▭ Parcel
▭ Municipal Boundary
- Transportation Service Area Boundary
- TSA 1
 - TSA 2
 - TSA 3

	Square Miles
TSA 1	6.98
TSA 2	6.86
TSA 3	6.69

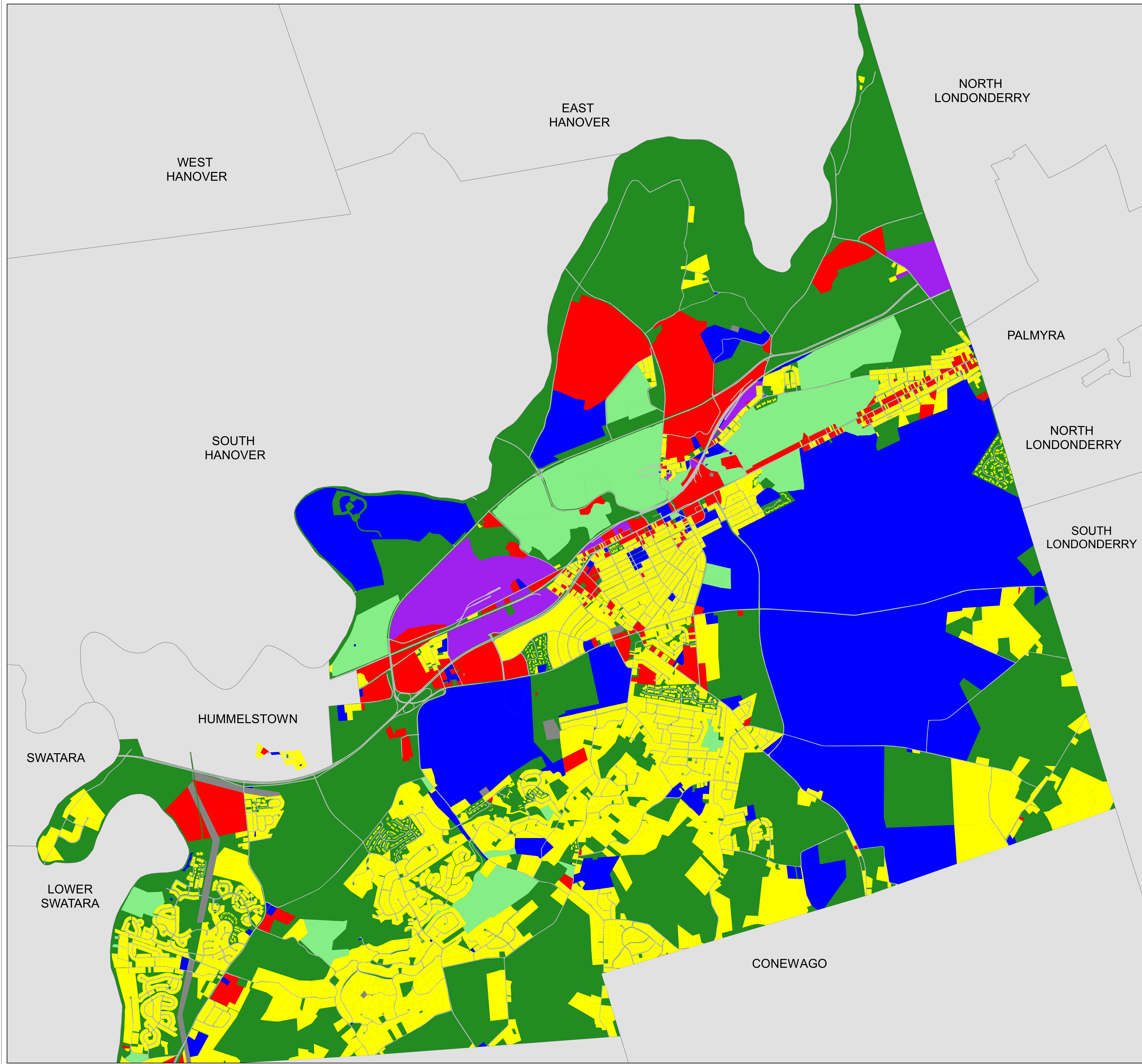


Mapping derived from data provided by Dauphin County.

2/22/2018	PM: EJS	GIS: BLS	QA: EJS	R002484.0484
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HRG
Herbert, Rowland & Grubb, Inc.
Engineering & Related Services
An Employee-Owned Company

369 East Park Drive
Harrisburg, PA 17111
717.564.1121 (phone)
717.564.1158 (fax)
www.hrg-inc.com









Map 2

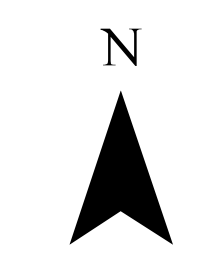
Exsting Land Use

*2017 Land Use Assumptions Report
Derry Township, Dauphin County*



Land Use Classification

-  Agriculture/Undeveloped
-  Residential
-  Commercial
-  Industrial
-  Institutional
-  Parks & Recreation
-  Utility
-  Transportation



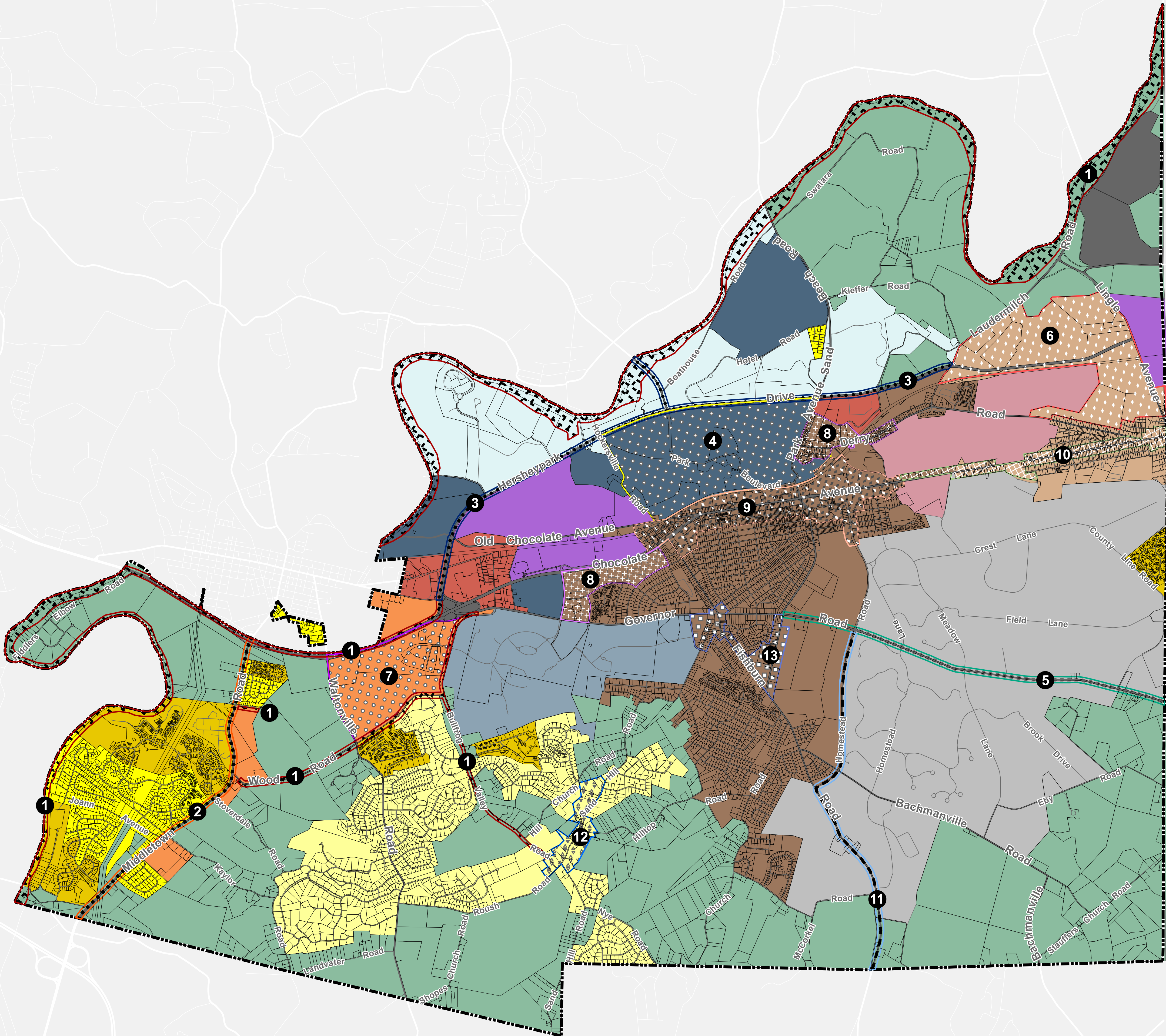
Data Source: Base information from Dauphin County GIS,
land use updated from Derry Township land use records

Drawn By: BJW, 1/12/2018



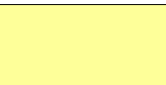












Map 3

Current Zoning

2017 Land Use Assumptions Report
Derry Township, Dauphin County



Base Zoning Districts

	Conservation	Conserve, Recreate, Live
	Limited Compatability	
	R-1	
	R-2	Live, Recreate
	R-3	
	Palmdale Mixed Use	
	Hershey Mixed Use	Live, Shop, Eat, Recreate
	Planned Campus North	
	Planned Campus South	
	Planned Campus West	Work, Learn, Play, Eat
	Medical Campus Central	
	Commercial Recreation	
	Commercial Golf	
	General Commercial	
	Industrial	

Overlay Zoning Districts

	1	Community Heritage Buffer
	2	Middletown Road
	3	Hersheypark Drive/Route 39
	4	Hersheypark
	5	Governor Road
	6	Palmdale Future Development Area
	7	Planned Campus West Future Development Area
	8	Compact Development
	9	Downtown Core
	10	East Chocolate Avenue
	11	Homestead/Fishburn Roads
	12	Sandhill Road
	13	Southern Core



Map 4

Development Parcels

2017 Land Use Assumptions Report
Derry Township, Dauphin County

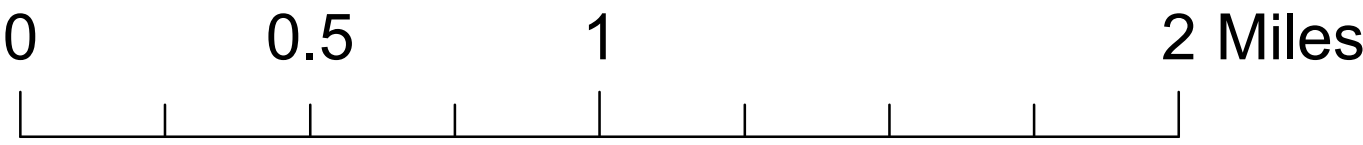
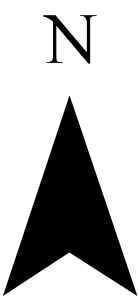


Township Developments

- Approved Land Development
- Future Land Development

Base Zoning Districts

- Conservation
- Limited Compatibility
- R-1
- R-2
- R-3
- Palmdale Mixed Use
- Hershey Mixed Use
- Planned Campus North
- Planned Campus South
- Planned Campus West
- Medical Campus Central
- Commercial Recreation
- Commercial Golf
- General Commercial
- Industrial



Drawn by: BJW 1/18/2018

