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MEMORANDUM

TO: Westtown Township Comprehensive Plan
Update Task Force

FROM: John Theilacker, AICP
Associate Director of Municipal Assistance

DATE: October 17, 2016

SUBJECT: **Planning For the Future Use of Land in
Westtown Township – Residential Build-out
Analysis**

As part of the comprehensive plan update, the Task Force will be working with its planning consultants and Township staff to plan for the future use of land in the township. Several pieces of information are important to this effort, including population and housing projections, developable land availability, public infrastructure availability, natural and cultural resource mapping, and so forth. Policies with respect to the rate of growth, housing diversity, economic development, environmental sustainability, and others will also help to guide this effort. At the October 27th Task Force meeting, population projections for the township will be presented along with other demographic information.

With regard to the subject of developable land availability, the Brandywine Conservancy's Geographic Information System (GIS) can help to quickly process publicly available electronic data regarding the township's use of land. We can estimate how much land in the township is "potentially" available today to accommodate projected population growth. "Potential" means possible – whether a landowner chooses to develop his or her land is largely unpredictable.



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We can also readily estimate the maximum number of new dwelling units possible based on land availability and existing zoning. Although some developed properties are likely to be re-developed in the future, our build-out exercise for the next Task Force meeting only focuses on vacant lands and lands with very limited development. This build-out projection is based on existing zoning, which is a product of earlier planning efforts and political decisions. This zoning is not “cast in stone”, and may change for a number of reasons in the future. For example, during this Plan update process, the Task Force may decide to recommend changes to the existing zoning, which in turn would produce a different future build-out scenario.

Included with this memo are three attachments for the Task Force to review in advance of its October 27th meeting: 1) a build-out analysis GIS workflow; 2) a map of the township showing potentially developable parcels by residential zoning district (color); and 3) an Excel spreadsheet showing the Conservancy’s residential build-out calculations using GIS.

The Westtown Build-Out Analysis GIS Workflow attachment shows assumptions made by the Conservancy when identifying potentially developable properties in the Township. For example, we only focused on build-out of vacant or underdeveloped parcels greater than five acres in size. While vacant or underdeveloped parcels of a size under this threshold could be built upon in the future, the resulting development would be fairly insignificant. Also, any vacant or underdeveloped property where a development is already approved but not yet constructed was also assumed to be unavailable.

This GIS workflow attachment also includes a list of physical site constraints that the Conservancy excluded on an individual parcel basis, yielding a “net” buildable acreage for each parcel. Floodplains, wetlands, and very steep slopes (greater than 25%) were excluded.



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The GIS workflow attachment also focuses on three of the Township's four existing residential zoning districts: A/C, R-1, and R-2. No vacant or underdeveloped land exists today that is zoned R-3 District.

Finally, for our development yield calculations, we assumed that a portion of each tract or parcel would be consumed in public (or private) streets and stormwater management facilities. Hence the additional 10% or 15% reduction or net-out.

The map of the township (second attachment) shows 36 parcels that the Conservancy has identified as potentially developable. The color of each parcel reflects one of the three residential zoning districts used for this build-out analysis, as shown on the map legend.

The third attachment is an Excel spreadsheet which lists these 36 potentially developable properties. The twelve columns along the top are (from left to right): Chester County Assessor's Tax Parcel Number, Acres, Owner 1, Owner 2, Owner Address 1, Owner Address 2, Residential Zoning Type or District (Agricultural/Cluster Residential, Rural-Suburban Residential, Suburban Residential), Net-out of physical site constraints, net out of future roads using a 10% net-out assumption, and net out of future roads using a 15% net-out assumption (both include stormwater facilities). The 36 listed parcels are grouped by the three applicable residential zoning districts.

When estimating maximum residential yield in either the Agricultural Cluster (A/C) or Rural/Suburban Residential (R-1) zoning districts, the Conservancy assumed that developers would favor use of the zoning ordinance's Flexible Development option. The flexibility with lot sizes and building setbacks that this option permits often yields a slightly higher total number of lots or dwellings than a conventional subdivision would yield. For the purposes of estimating maximum residential yield in the Suburban Residential (R-2) zoning district, developer use of the Flexible Development option was again assumed, and the availability of public water and sewer was also



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assumed. One scenario reflects developer use of only single-family detached dwelling units (lower multiplier); the other reflects developer use of semidetached or townhouse units (higher multiplier).

Based on the methodology employed, the Conservancy's residential build-out estimates that approximately 417 acres of land are potentially available today for accommodating future township growth (and not including lands that may re-develop in the future).

The Conservancy's residential build-out also estimates that a maximum yield of roughly 390 to 440 new residential dwellings could theoretically result from these 417 acres based on today's zoning.

Westtown Build-Out Analysis Workflow

Removed from analysis:

- Properties less than 5 acres in size
- Westtown School properties
- West Chester School District properties
- Properties already developed (determined by visual analysis)
- Properties pending development (Crebilly, Hawthorne, Rustin, Westtown Woods)

Natural features net-out:

- 100-year floodplains (FEMA)
- Wetlands (NWI)
- Water bodies (NHD)
- Slopes >25% (Chester County GIS)

Zoning Assumptions (rounded to next lowest whole number):

- A/C District:
 - o Favored use of Flexible development option: net tract area (acres) x 1.1 (multiplier)
- R-1 District:
 - o Favored use of Flexible development option : net tract area (acres) x 1.1 (multiplier)
- R-2 District:
 - o Assumed public off-site sewage and off-site water available: net tract area x 1.98
 - o For single-family semidetached or two-family detached dwellings: net tract area x 2.9

Scenarios:

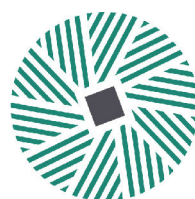
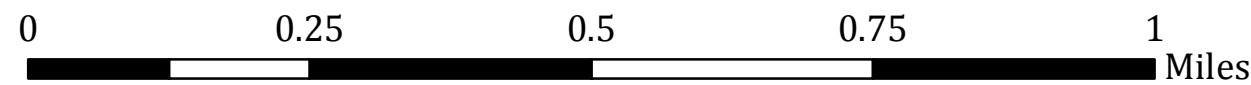
1. 15% road net-out and public off-site sewage/water (R-2) = **390** (A/C + R-1+ R-2)
2. 15% road net-out and single-family semidetached /two-family detached dwellings (R-2) = **413**
3. 10% road net-out and public off-site sewage/water (R-2) = **416**
4. 10% road net-out and single-family semidetached /two-family detached dwellings (R-2) = **440**

Total Developable Land (after natural features net-out, but before road net-out):

- A/C District = 131.86 acres (2.4% of township)
- R-1 District = 256.86 acres (4.6% of township)
- R-2 District = 28.54 acres (0.5% of township)
- **TOTAL = 417.26 acres (7.5% of township)**

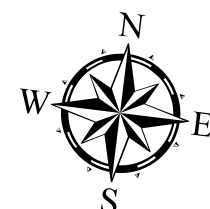
Developable Land

Westtown Township
Chester County, Pennsylvania



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Disclaimer: This map is for illustrative purposes only and does not constitute a valid survey.
Map created: October 13, 2016



Willistown
Township

East Goshen
Township

West Goshen
Township

West
Chester
Borough

East
Bradford
Township

Edgmont
Township

Thornbury
Township

Birmingham
Township

CHESTER COUNTY
DELAWARE COUNTY

Legend

- Township boundary
- County boundary
- Adjacent municipalities
- Tax parcels
- Roads
- Water resources
- Bodies of water

Parcels available for
development (by zoning
district)

- Agricultural/Cluster
Residential
- Rural-Suburban
Residential
- Suburban Residential

