

**WORCESTER TOWNSHIP PLANNING COMMISSION MEETING  
WORCESTER TOWNSHIP COMMUNITY HALL  
1031 VALLEY FORGE ROAD, WORCESTER, PA 19490  
THURSDAY, APRIL 26, 2018, 7:30 PM**

**CALL TO ORDER** by Chair Todd at 7:35 PM

**ATTENDANCE**

PRESENT:	GORDON TODD	[X]
	TONY SHERR	[X]
	DOUG ROTONDO	[X]
	MICHELLE GREENAWALT	[X]
	MICHAEL HOLSONBACK	[X]

1. March 22, 2018 Meeting Minutes – Mr. Sherr motioned to approve the March 22, 2018 Meeting Minutes as presented, second by Mr. Rotondo. There was no public comment. By unanimous vote the motion was approved.
2. Sparango Construction (LD 2016-05) – Joe Estock, Engineer for the Applicant, provided an overview of an eight-lot subdivision on Berks Road.

Mr. Estock reviewed proposed waiver requests. Mr. Estock stated the Applicant will withdraw the waiver requests for the use of HDPE piping in the public rights-of-way, existing tree survey and tree replacement.

Mr. Rotondo commented on the proposed flag lot.

Mr. Sherr commented on Belgian block curbing. Joe Nolan, Township Engineer, commented on the cost to maintain this curbing type.

Chair Todd commented on proposed widths of corner lots.

Mr. Sherr commented on soil permeability testing. Mr. Estock stated the Applicant will provide this testing prior to Final Plan submission. Mr. Nolan commented on the potential impact to the stormwater management system design, and the overall plan of subdivision, if the testing finds poor soils.

There was general discussion regarding sanitary sewage planning and design completed to date. Mr. Nolan noted the Applicant has not yet discussed with the Township how the proposed subdivision would connect to the Township-owned sanitary sewer system.

It was the consensus of the Members to require the Applicant to conduct required soil permeability tests, and to provide additional sanitary sewer information, and to return to the Planning Commission at a future meeting.

3. Whitehall Estates (LD 2018-01) – Carl Weiner, Attorney for the Applicant, provided an overview of a 39-unit subdivision at Whitehall Road and Potshop Road.

Rolph Graf, Engineer for the Applicant, commented on outside approvals received since the plan was granted preliminary approval in November 2016, including the issuance of a Highway Occupancy Permit by the Pennsylvania Department of Transportation and the approval of the Planning Module by the Pennsylvania Department of Environmental Protection. Mr. Graf noted the Part II permit, for the pumping station, is to be received.

Chair Todd commented on the extension of the trail from the open space to be dedicated to the Township to Potshop Road. Mr. Graf stated this may require some landscaping to be shifted, and he noted Property Owner consent would be needed.

Mr. Sherr commented on open spaces and stormwater management facilities to be dedicated to the Township. Mr. Graf noted the Applicant will provide a contribution in lieu of stormwater basin management to the Township, in an amount to be calculated by the Township Engineer.

Mr. Rotondo commented on guarding against the future subdivision of the farm lot, in specific if the Township should utilize a conservation easement or a deed restriction.

Mr. Rotondo commented on the preservation of a farmhouse sited at the location of one of the two proposed roadways.

Mr. Sherr motioned to recommend the Board of Supervisors grant Final Plan Approval for Whitehall Estates, conditioned on (1) the Applicant complying with all standing review letters, (2) the Township Solicitor reviewing the manner by which the farm lot is restricted against future subdivision, and (3), the Applicant providing a trail easement from the open space to be dedicated to the Township to Potshop Road, second by Mr. Holsonback.

Jim Mollick, Worcester, commented on Planning Commission reviews and approvals for the Whitehall Estates and Sparango Construction applications. Bill Goulding, Worcester, commented on the Whitehall Estates sanitary sewer connection to the Aqua-owned wastewater treatment system at Stony Creek Farms, and the developer walking the affected grounds with representatives for Stony Creek Farms in advance of construction.

The motion was approved, Mr. Rotondo abstaining and all other Members voting aye.

Dr. Mollick commented on the validity of Mr. Rotondo's abstention from voting.

4. Ordinance 2018-276 – Mr. Ryan provided an overview of a proposed ordinance to amend Township Code sign regulations to comply with the US Supreme Court's *Reed* decision.

Mr. Ryan noted Mr. Sheer had suggested a revision to the temporary sign definition, and the Township Solicitor was agreeable to this revision.

Mr. Sherr motioned to recommend the Board of Supervisors approve Ordinance 2018-276, amending the Township Code signage regulations, second by Ms. Greenawalt. There was no public comment. By unanimous vote the motion was approved.

5. Ordinance 2018-277 – Mr. Ryan provided an overview of a proposed “clean-up” ordinance to amend various sections of the Township Code.

Chair Todd commented on proposed driveway pillar regulations.

Ms. Greenawalt motioned to recommend the Board of Supervisors approve Ordinance 2018-277, amending various sections of the Township Code, second by Mr. Holsonback.

Dr. Mollick commented on deck encroachments into a setback, and on compliance with the Township Code and approved plans.

By unanimous vote the motion was approved.

6. May 24 Planning Commission Meeting Agenda – At its May 24 meeting the Planning Commission may review the 2044 Berks Road subdivision (LD 2016-05), if a revised plan is received by the Township, or if a review period extension is not received, and the Planning Commission may review the Palmer subdivision (LD 2017-01), if a revised plan is received by the Township. The Planning Commission will also review the proposed Center Point Village Ordinance.
7. Other Business – There was no additional business discussed at this evening’s meeting.

## **PUBLIC COMMENT**

- Dr. Mollick commented on the validity of Mr. Rotondo’s abstention from voting on the Whitehall Estate Final Plan, political contributions made by the Whitehall Estates developer, Planning Commission reviews and approvals for the Whitehall Estates and Sparango Construction applications, volunteer qualifications, and by-right land development plans.

**ADJOURNMENT**

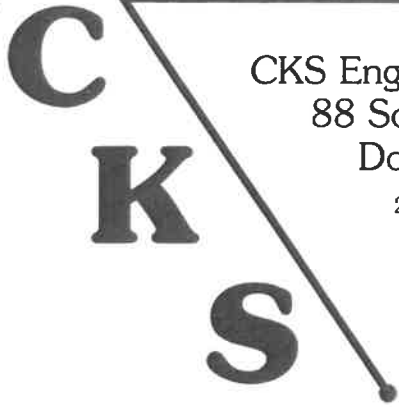
There being no further business before the Planning Commission, Chair Todd adjourned the meeting at 8:44 PM.

Respectfully Submitted:

---

Tommy Ryan  
Township Manager

DRAFT



CKS Engineers, Inc.  
88 South Main Street  
Doylestown, PA 18901  
215-340-0600 • FAX 215-340-1655

Joseph J. Nolan, P.E.  
Thomas F. Zarko, P.E.  
James F. Weiss  
Patrick P. DiGangi, P.E.  
Ruth Cunnane  
Michele A. Fountain, P.E.

RECEIVED  
APR 09 2018

April 4, 2018  
Ref: #7502

Township of Worcester  
1721 Valley Forge Road  
P.O. Box 767  
Worcester, PA 19490

Attention: Tommy Ryan, Township Manager

Reference: Sparango Construction Co., Inc. – Preliminary Land Development Plan  
2044 Berks Road

Dear Mr. Ryan:

CKS Engineers, Inc. is in receipt of a revised preliminary plan submission for the subdivision of the Josephine Sparango property at 2044 Berks Road. The subdivision plans were prepared by Joseph M. Estock, P.E., P.L.S., of King of Prussia, Pennsylvania. The plan set consists of twelve sheets dated October 7, 2016, last revised March 9, 2018. The plan proposes the development of eight single-family detached lots on the 16-acre property with a new cul-de-sac street (Josephine Way) extending from Berks Road. Seven of the lots will take access from the new street and one of the lots will take access directly from Berks Road. The site currently contains one single-family house with a detached garage, both of which are to be removed. The site is located in the "AGR – Agricultural Zoning District" and is being developed in accordance with Sections 150-12 through 150-17 of the Worcester Township Zoning Ordinance. CKS Engineers, Inc. previously reviewed plans for this subdivision and set forth our comments in a letter dated November 11, 2016. We have reviewed this latest plan submission to determine conformance with the Code of the Township of Worcester. Based upon our review of these plans, we offer the following comments:

#### SUBDIVISION AND LAND DEVELOPMENT ISSUES

1. The plan has been revised to include the following waivers being requested from the requirements of the Subdivision and Land Development Ordinance by the applicant. We note that the waivers are also listed in correspondence dated March 21, 2018 from Joseph M. Estock, PE:
  - a. Section 130-16.C.1.6 - According to the Worcester Township Comprehensive Plan, Berks Road is considered a feeder street and should have a minimum cartway width of 38 feet. The plans show an approximate 20-foot cartway width along Berks Road in the vicinity of the site, thereby not meeting the ordinance requirement. However, the 20-foot cartway width is consistent with the overall width of Berks Road in the vicinity of the site and based on the character of this

area and road volumes, we find the existing width to be satisfactory, absent of any plans the Township has for widening.

- b. Section 130-18.A - Sidewalk shall be provided along all streets. The plans do not show any sidewalk along Berks Road or Josephine Way, thereby not meeting the ordinance requirement. It should be noted that there is no curbing or sidewalk currently provided along Berks Road in the vicinity of the site, and the Township should consider any longer-term pedestrian connectivity in the Township in any request for a waiver. The township may wish to consider a fee in lieu of the installation of the required sidewalk.
  - c. Section 130-18.B.1.a - Concrete curb is required along all residential streets, unless waived by the Board of Supervisors. There is no curbing currently proposed for Josephine Way. We are not in favor of this waiver request. Curbing should be provided on this road. Belgian block would be an acceptable alternate for concrete curb construction.
  - d. Section 130-20.A.4 - Corner lot widths on each frontage are required to be 1½ times the minimum width of the interior lots. Proposed corner Lots 1 and 7 do not meet this requirement. There is no reason given for requesting this waiver.
  - e. Section 130-24.B.3.e.2 requires all storm sewer pipe within public rights-of-way to be reinforced concrete pipe (RCP). High density polyethylene pipe (HDPE) is proposed on the plans. We do not support the use of HDPE in the public rights of way.
  - f. Section 130-20.C.3 does not allow the concentration of storm drainage along rear or side lot lines. The concentrated flow from the proposed rain garden discharge pipe at FES 16 is in the side yard of Lot 4. We recommend that the pipe be extended to discharge away from any side or rear yards, and continue the swale to the outbound property line. This will require an easement extension.
  - g. Section 130-28.E.1 requires a tree survey plan. The applicant is requesting a waiver of this requirement. There is no reason provided as to why this waiver is being requested.
  - h. Section 130-28.F.7 has specific requirements regarding removal and replacement of trees. The applicant is requesting a waiver of this requirement. We do not support this waiver request. Replacement trees are required by the ordinance.
2. According to the Township's Roadway Sufficiency Analysis, the proposed development is located in Transportation Service Area North, which has a corresponding impact fee of \$3,977 per "new" weekday afternoon peak hour trip and the applicant will be required to pay a Transportation Impact Fee in accordance with the Township's Transportation Impact Fee Ordinance. Based on Land Use Code 210 (Single Family Detached Housing) in the Institute of Transportation Engineers Publication **Trip Generation**, Ninth Edition, the proposed eight single-family homes will generate approximately eight total

“new” weekday afternoon peak hour trips. Providing a credit of one total “new” weekday afternoon peak hour trip for the existing single-family home to be removed, the number of trips subject to the transportation impact fee is seven. The TSA North impact fee of \$3,977 per “new” weekday afternoon peak hour trip applied to these trips results in a transportation impact fee of \$27,839.00.

3. Sight distance measurements should be graphically shown on the plans at the proposed Josephine Way intersection with Berks Road, as well as at the proposed driveway to Lot 8 along Berks Road. The plan has been revised to include sight distance information in Note #10 on Sheet 1, but the sight distances available have not been shown in plan view. (130-16.B.1, 130-16.E.5)
4. The minimum cartway width for residential streets is 32 feet, with an allowance to reduce the width to 28 feet or 30 feet, if conditions warrant. Since proposed Josephine Way is intended to serve only seven residences, we have no objection to the proposed 28-foot cartway. (130-16.C.1.a.4)
5. The stopping area for the proposed driveway for Lot 8 appears to exceed the maximum allowable grade of 4% behind the right of way line. (130-17.B.1)
6. Drainage easements will be required for all proposed stormwater facilities, including drainage pipes and swales, seepage beds, rain gardens, etc. The plan has been revised to include easements, but there is no clear indication of ownership and maintenance as well as who the easements are in favor of. Maintenance responsibilities must be clearly noted on the plans.

Regarding the easements provided, we note that there is an easement along the property line of Lot 4; the easement contains a swale that will discharge into the rain gardens. However, both the easement and swale both stop abruptly. The design should be revised to have the swale continue to a logical conclusion on the property, and the easement adjusted accordingly. (130-22.B)

7. Our previous review contained several stormwater management related comments. Many have been addressed. However, we note that the design has been revised beyond just the comments that had been raised. Although the plan still proposes rain gardens, seepage beds and an underground detention basin, the design approach regarding the watersheds has been completely changed. Accordingly, some of the comments below are new.
  - a. We had previously noted that the Summary of Peak Flow Rates tabulated in the Report, indicated that the total post-development flows did not include all post-development watersheds, resulting in the post-development runoff exceeding the pre-development rates. The design was based on standard drainage area allocation, in which the entire site is considered for both the pre and post-development conditions. The analysis has been revised to “cut out” areas beyond the paving or building areas.

Although using an "affected area" approach may be appropriate in some situations, we do not agree with how it has been applied for this site. For instance, the areas do not extend beyond the building footprints for downslope conditions. There are wooded areas that will be cleared to adequately grade those dwellings, and the groundcover will change from woods to lawn. That change has not been accounted for by the drainage area boundaries chosen. In addition, the design includes "Watershed 3", which we assume is for future construction of decks and patios. However, there does not appear to be any accounting for how the area of impervious surface has been calculated, and it has not been shown graphically. In addition, this extra area of impervious coverage has not been assigned to any particular structure or lot, therefore the contributing flows to the respective rain gardens and underground storage areas may not be accurate. Finally, there is a tabulation of this watershed for the pre-development conditions. We question how a runoff curve number can be calculated if there is no physical area identified on the plan. In combination with comment "b" below, we cannot accept the design as presented. We recommend that the design be reconsidered upon completion of onsite soil testing. We would be agreeable to meet with the applicant's engineer to discuss these concerns in more detail if necessary. (130-24.B.4.a and d)

- b. The locations of the proposed infiltration beds, underground detention basin and rain gardens must be tested for soil permeability and the results of the testing must be submitted to the Township. The engineer's response letter requests that the testing be deferred until Final Plan submission. We do not support this request. The proper functioning and long term success of the proposed systems as well as compliance with the ordinance requirements is dependent on infiltration capability. Until onsite soil testing has been performed, and the results analyzed, the stormwater management system cannot be finalized, nor approved. (130-24.B.4.e))
- c. In the submitted Post-Construction Stormwater Management Report (Report), the total of all post-development watershed areas cannot be less than the total of all pre-development watershed areas. In addition, the individual watershed areas noted on the Post-Development Drainage Area Plan should be coordinated with the respective watershed areas used in the Report. It does not appear that the Report or plan have been adjusted. For instance, the Plan identifies predevelopment watersheds 1, 2, 4 and 5. The Plan also identifies Postdevelopment watersheds 1, 2, 3, 4 and 5. This labeling is consistent in the Report. However, it appears that Postdevelopment Watershed 3 consists of "walks, decks and patios" only by label. As noted, the design cannot have a different sum of watershed areas from pre to post development conditions.

We also note that the numerical values for the areas as shown on the plan are not consistent with the values in the Report. For instance, the Plan identifies watershed 5 as 8,258 SF (0.1896 AC), the Report shows 0.195 AC for both the pre and post development. A similar discrepancy exists for watershed 4.



- d. The Report should be revised to include an inlet/outlet control analysis for the storm pipe system. (130-24.B.1.d and B.3.f)
  - e. FES 12 should be revised to be a concrete endwall so that adequate cover over the pipe can be provided. (130-24.B.3.j)
  - f. The proposed swale cross section is indicated to have 2:1 side slopes and a maximum depth of 1 foot. While 2:1 side slopes may exist along the road, we do not recommend regrading of the swale and installation of such slopes in the swale. Such slopes will likely be difficult to stabilize and the minimal 1 foot depth leaves no allowance for freeboard. (130-32.E.2, 130-32.F)
  - g. The areas used in Worksheet 4 at the end of the Report are not consistent with the areas used for the various pre- and post-development watersheds found elsewhere in the Report. For instance, page 61 contains a tabulation of post development site impervious coverage. The total shown is 68,752 SF. However, the total shown in Worksheet 4 is 77,751 SF.
  - h. The Profile: Inlet 9 – FES 12 shown on Sheet 8 has been revised to include a profile of the existing swale/drainage ditch along the southeasterly side of Berks Road, as well as the swale regrading. Based on the profile information provided, the proposed regrading of the existing swale will result in the swale being one foot below the existing grade at the tract boundary, which is not acceptable. In addition, the swale calculation provided indicates that the swale has approximately 10 cfs capacity at a depth of 1 foot. The storm sewer calculations indicate a flow of 34 cfs. The applicant must assure that the flows from proposed FES 12 will be received by an adequate drainage channel. (130-24.A.1 and 2)
  - i. The profile for the proposed drainage pipes associated with the rain gardens appears to indicate that perforated pipe will be installed under the proposed driveways. It is not advisable to have perforated piping under the driveways. The plan should be revised accordingly. (130-33.F.1)
8. Since public sewer service is proposed for this project, the Township will need to revise its Act 537 Sewage Facilities Plan and planning approval from the PADEP will be required. This will require a study to determine available capacity of existing receiving sewage facilities to serve this project. (130-26.A)
  9. A complete design analysis for the proposed LPSS, including the existing/proposed force main, must be submitted.
  10. Off-site sanitary sewer easements will be required for the proposed LPSS force main adjacent to Skippack Pike. If easements already exist, copies of the easements must be provided which indicate that the proposed force main is allowed to utilize the easement. (130-22.B)

April 4, 2018

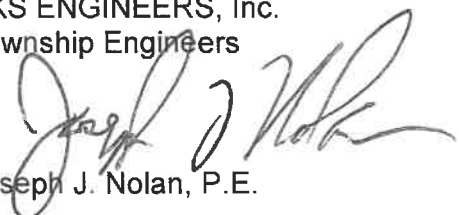
Ref: #7502

Page 6

11. The applicant is advised that a Water Quality Permit from the PADEP will be required for the proposed LPSS.
12. Public water facilities are proposed to extend from the existing water main in Berks Road along proposed Josephine Way to serve seven of the lots and an individual water serve to serve Lot 8. A letter of endorsement from the public water supplier should be submitted to the Township. (130-31.B)
13. We recommend that the proposed fire hydrant location be reviewed by the Township Fire Marshal. (130-31.G)
14. On Sheet 9, we note that Berks Road northeast of Skippack Pike is not a state road. However, Skippack Pike, including the intersection of Berks Road, is a state road. Relative to this, a Highway Occupancy Permit from PennDOT will be required for the proposed LPSS force main crossing at the intersection of Skippack Pike and Berks Road. The Township must be copied on all plan submissions and correspondence between the applicant and PennDOT and must be invited to any and all meetings between these parties. (130-14.J)
15. The applicant must obtain the approval of the Montgomery County Conservation District for the Erosion and Sediment Control Plans and for an NPDES Permit for Stormwater Discharges associated with construction activities. (130-32.A&B)

The above represents our comments on the revised plan submission. It should be noted that in the response letter from Joseph Estock dated March 21, 2018, numerous responses were addressed as "Pending. We request that this be deferred until the Final Plan Submission". Unfortunately, we cannot support this request in most cases. Most importantly, the entire site layout and stormwater management design was based on a series of infiltration beds, an underground retention basin, and numerous rain gardens without the benefit of on-site soils testing for permeability. This testing must be performed to determine if the design and plan layout are valid and conform to Township Code. Also, if public sewer is not available due to capacity issues in the system, other options for on-site sewer could affect the site layout and placement of the lots. These determinations should be done at the Preliminary Plan phase of this project.

Very truly yours,  
CKS ENGINEERS, Inc.  
Township Engineers



Joseph J. Nolan, P.E.

JJN/paf

cc: Robert L. Brant, Esquire, Township Solicitor  
Joseph M. Estock, P.E., P.L.S.  
Sparango Construction Co., Inc.  
File



McMAHON ASSOCIATES, INC.  
425 Commerce Drive, Suite 200  
Fort Washington, PA 19034  
p 215-283-9444 | f 215-283-9446

April 18, 2018

Mr. Tommy Ryan  
Township Manager  
Worcester Township  
1721 Valley Forge Road  
P.O. Box 767  
Worcester, PA 19490

PRINCIPALS  
Joseph W. McMahon, P.E.  
Joseph J. DeSantis, P.E., PTOE  
John S. DePalma  
William T. Steffens  
Casey A. Moore, P.E.  
Gary R. McNaughton, P.E., PTOE

ASSOCIATES  
John J. Mitchell, P.E.  
Christopher J. Williams, P.E.  
R. Trent Ebersole, P.E.  
Matthew M. Kozsuch, P.E.  
Maureen Chlebek, P.E., PTOE  
Dean A. Carr, P.E.

RE: **Traffic Review #1**  
2044 Berks Road (LD 2016-05)  
Worcester Township, Montgomery County, PA  
McMahon Project No. 818262.11

Dear Tommy:

Per the request of the Township, McMahon Associates, Inc. (McMahon) has prepared this comment letter, which summarizes our traffic engineering review of the proposed development to be located at 2044 Berks Road in Worcester Township, Montgomery County, PA. It is our understanding that the proposed development will consist of 8 single-family homes. Access to Lots 1 through 7 will be provided via roadway connection (Josephine Way) to Berks Road while access to Lot 8 will be provided via a direct driveway connection to Berks Road to the north of Josephine Way. It is our understanding that the existing single-family home on this lot will be removed as part of this proposed development.

The following document was reviewed and/or referenced in preparation of our traffic review:

- Land Development Plans for 2044 Berks Road, prepared by Joseph M. Estock Consulting Engineers and Land Surveyors, last revised March 9, 2018.

Based on our review of the submitted document noted above and a field view of the proposed site, McMahon offers the following comments for consideration by the Township and action by the applicant:

1. The applicant is requesting a waiver from **Section 130-16** of the **Subdivision and Land Development Ordinance** requiring a 38-foot cartway width along the site frontage. The plans currently show an approximate 20-foot cartway width along the site frontage of Berks Road, thereby not meeting the ordinance requirement. We are not opposed to the granting of this waiver. However, please see the next comment for ultimate right-of-way dedication.

2. General Note #7 (Sheet 1 of 12) states essentially that the area between the legal right-of-way and ultimate right-of-way on Berks Road is "being offered for dedication to the authority having jurisdiction at the time of taking." This note should be clarified to have the understanding that it is being offered by the landowner at the time of the approval of the land development for the future taking by the Township and/or PennDOT for purposes of providing infrastructure improvements.
3. According to **Section 130-18.B** of the **Subdivision and Land Development Ordinance**, curbing should be provided along the site frontage of Berks Road. Since no curbing is proposed along the site frontage of Berks Road, a waiver needs to be requested from this ordinance section.
4. The applicant is requesting a waiver from **Section 130-18.A** of the **Subdivision and Land Development Ordinance** requiring sidewalk to be provided along the site frontage of Berks Road, as well as along both sides of Josephine Way. Since there is currently no sidewalk along Berks Road in the vicinity of the site, McMahon suggests that if this waiver is to be granted, that the Township Supervisors should consider future pedestrian connectivity and sidewalk in this area, and thus either require that an escrow be collected or that a note be added to the plan requiring the owners of Lots 1, 7, and 8 to provide it upon Township request.
5. Due to the residential nature of the proposed development, sidewalk is recommended to be provided along both sides of Josephine Way, with appropriate ADA ramps and accommodations.
6. According to **Section 130-16** of the **Subdivision and Land Development Ordinance**, residential roads shall have a minimum paved width of 32 feet. The plans currently show a 28-foot cartway width along Josephine Way, thereby not satisfying the ordinance requirement. A waiver must be requested to allow a 28-foot cartway width along Josephine Way, and the Township Engineer does not have objection to the narrower width based on the number of homes to be served. However, McMahon notes that a narrower cartway width may better suffice with the addition of restriction of parking on at least one side of the street, and the Township Fire Marshall reviews and concurs with the plan.
7. The applicant is requesting a waiver from **Section 130-18.B** of the **Subdivision and Land Development Ordinance** requiring curbing to be provided along Josephine Way. The plans currently do not show any curbing along Josephine Way, thereby not satisfying the ordinance requirement. We are not in favor of this waiver request; therefore, the plans should be revised to show curbing along Josephine Way.
8. Turning templates should be provided demonstrating the ability of trash truck and fire/emergency vehicles specific to Worcester Township to maneuver into and out of Josephine Way and through the cul-de-sac. The Fire Marshall shall also review these plans for approval.
9. The designation of Berks Road should be added to the plans.

Mr. Tommy Ryan

April 18, 2018

Page 3

---

10. According to the Township's Roadway Sufficiency Analysis, the proposed development is located in Transportation Service Area North, which has a corresponding impact fee of \$3,977 per "new" weekday afternoon peak hour trip and the applicant will be required to pay a Transportation Impact Fee in accordance with the Township's Transportation Impact Fee Ordinance. Based on Land Use Code 210 (Single Family Detached Housing) in the Institute of Transportation Engineers publication, **Trip Generation**, Tenth Edition, the 8 single-family homes will generate approximately 8 total "new" weekday afternoon peak hour trips. Providing a credit of one new trip for the existing single-family home, the number of trips subject to the transportation impact fee is 7. The TSA North impact fee of \$3,977 per "new" weekday afternoon peak hour trip applied to the 7 trips results in a transportation impact fee of \$27,839.

Based on a review of the documents listed above, the applicant should address the aforementioned comments, and provide revised plans, and accompanying materials as appropriate, to the Township for further review and approvals. A response letter that addresses the comments contained herein should accompany the resubmission, indicating how each item has been addressed, and where the changes have been made in the documents being resubmitted.

We trust that this review letter responds to your request. If you or the Township have any questions, or require clarification, please contact me.

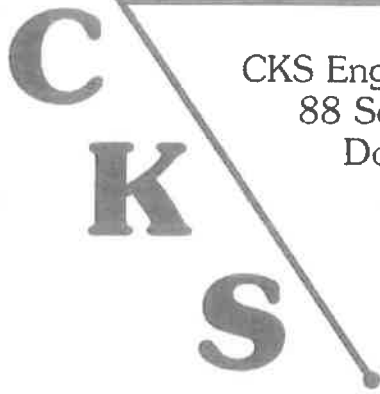
Sincerely,



Casey A. Moore, P.E.  
Vice President & Regional Manager

BMJ/CAM/lsw

cc: Joseph Nolan, P.E., CKS Engineers (Township Engineer)  
Robert Brant, Esq. (Township Solicitor)  
Joseph M. Estock, P.E. (Applicant's Engineer)



CKS Engineers, Inc.  
88 South Main Street  
Doylestown, PA 18901  
215-340-0600 • FAX 215-340-1655

Joseph J. Nolan, P.E.  
Thomas F. Zarko, P.E.  
James F. Weiss  
Patrick P. DiGangi, P.E.  
Ruth Cunnane  
Michele A. Fountain, P.E.

May 8, 2018  
Ref: #7514

Worcester Township  
1721 Valley Forge Road  
P.O. Box 767  
Worcester, PA 19490-0767

Attention: Tommy Ryan, Township Manager

Reference: The Grove at Meadowood – Final Land Development Plan  
(Worcester Township LD 2017-05)

Dear Mr. Ryan:

I am in receipt of a “final” plan submission for the proposed land development at the existing Meadowood life care facility. Although we understand this to be a final plan, all of the plan sheets are labeled “Preliminary Plan (Not to be Recorded)”. This should be corrected in future submissions. The applicant, the Meadowood Corporation, proposes to construct four three-story buildings (containing thirteen dwelling units each, for a total of 52 new units). The Final Land Development Plan has been prepared for the applicant by Woodrow & Associates, Inc., of Lower Gwynedd, Pennsylvania. The plan consists of twenty-five sheets dated July 28, 2017, last revised April 13, 2018.

The plan received Preliminary Approval from the Board of Supervisors at their meeting of February 21, 2018, as indicated in Resolution 2018-10. I have reviewed this plan for conformance with Final Plan requirements of the Zoning Ordinance and the Subdivision and Land Development Code of Worcester Township as well as the conditions of preliminary approval. Based on my review, I offer the following comments:

1. The plan identifies the proposed buildings as 3-story buildings however the Zoning Ordinance requires a maximum height of 35 feet not exceeding 2.5 stories. The applicant has applied for, and received relief for the height, however, in order to resolve opposition to the project, a “Restrictive Covenant and Conservation Easement Agreement” has been recorded that includes specific buffer plantings along an existing landscaping berm to the rear of the site.

The Record Plan has been revised to note the relief granted and includes sheet EB-1 to indicate the conditions established in the agreement. The Landscaping Plan contains a note stating plantings required by that agreement are shown on a plan by McCloskey & Faber. (ZO Section 150-15)

2. The applicant received an exemption from requiring Planning Module approval by Pennsylvania Department of Environmental Protection (PADEP) letter of September 27, 2017. This project flows are 7,800 gallons. (ZO Section 150-110.27)
3. The following waivers were granted but are noted as "requested" on the Record Plan. We recommend that the reference on the Record Plan be revised accordingly:
  - a. Section 130-24.B.3.a requiring the storm sewer system to carry a 50-year peak flow rate. We take no exception to this request on the condition that the design is shown to provide a means to adequately convey the 100-year post development storm to the detention facilities.
  - b. Section 130-24.B.3.h requiring that the maximum headwater depth in inlets is not less than 1 foot from the grate.
  - c. Section 130-24.B.3.j requiring a minimum of three feet of cover over storm sewer piping.
  - d. Section 130-24.B.3.k requiring the matching of storm sewer pipe crowns in storm sewer structures.
  - e. Section 130-24.B.4.f.7 requiring two feet of freeboard in the emergency spillway of the detention basins.
  - f. Section 130-24.B.4.f.7 requiring a minimum distance of 100 feet from the highest free water surface to dwelling unit.
  - g. Section 130-28.E.1 requiring an existing tree survey plan.
  - h. Section 130-33.C.1 requiring an Existing Features Plan to show features within 400 feet of any part of the land being subdivided.
  - i. Section 130-28.G.4 requiring street trees.
  - j. Section 130-23.A requiring monuments to be placed at changes of direction of rights of way and property lines.
  - k. Section 130-16.B.3 requiring vertical curves at centerline grade changes greater than 1%, and 25 ft. of curve for each 1% change in grade. We note that although the proposed configurations do not comply with the exact numerical requirements of this section, Meadowood Drive is a private road, and the proposed configuration appears to balance drainage and sight distance concerns.

4. The submission includes a "Post Construction Stormwater Management Report" dated July, 2017, last revised April 2018 prepared by Woodrow and Associates, Inc. The plan proposes a rain garden and a pond to control the runoff generated by the improvements. The pond has two forebay areas to provide additional water quality and volume control measures. The design will adequately address the Township stormwater management requirements.
5. Approval is required from the Montgomery County Conservation District and PADEP (NPDES Permit for construction activities). (SO Sections 130-32)
6. The Woodrow plans do not appear to include a detail or calculations for the proposed retaining wall. The plan should be revised to include a detail of the proposed wall, including a note stating that design drawings, signed and sealed by an engineer licensed in Pennsylvania, shall be provided for review prior to construction.
7. Turning templates should be provided to ensure that emergency service vehicles, particularly fire trucks and trash trucks, will be able to adequately navigate Grove Loop Drive. (SO Section 130-16.E)
8. We have the following landscaping plan comments:
  - a. The submission includes a separate, 12 sheet set of plans prepared by McCloskey & Faber. This set includes both overall and detailed area planting designs as well as hardscape information for retaining walls, fountains, etc. It is our understanding that the applicant would prefer to augment the required landscaping as shown on Sheet 12 of the Woodrow & Associates plan. Although we take no exception to additional plantings being installed, the information provided must clearly identify the required landscaping. The two plans are not consistent, nor does the McCloskey & Faber plan have any tabulation of required vs. provided plantings.

The Woodrow & Associates, Inc. plan must contain a note referencing the additional landscaping plans. Similarly, the McCloskey & Faber plans must include each of the plantings from the Woodrow plan as well as the supplemental plantings. The plans must be consistent as they relate to the landscaping requirements. We recommend the consultants revise the plans accordingly. This should be done prior to final plan consideration by the Board of Supervisors.
  - b. The symbols used on Sheet 12 in the Woodrow & Associates, Inc. plan are not consistent. For example, the "AR" trees are shown with several different symbols. The plan should be revised accordingly. (SO Section 130-28, 130-24)

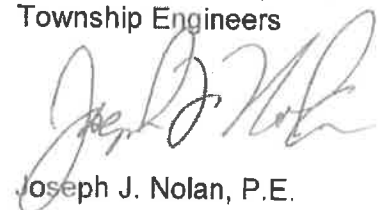


9. The plan should be revised to include ADA compliant designs and details for sidewalks and intersection crossings. (SO 130-14.J)
10. The Preliminary Approval resolution includes several conditions that we are including as a reminder to the applicant:
  - a. Payment of Traffic Impact Fees.
  - b. Purchase of EDUs for sewer capacity.
  - c. Obtain remaining outside agency approvals.
  - d. Land Development and Financial Security Agreement, including but not limited to construction escrow funding, easements, etc. Upon completion of the design and approval from the respective agencies having jurisdiction, the applicant should submit a probable cost of construction to our office for review and preparation of the escrow tabulation to be included in the Land Development and Financial Security Agreement.

The above represents our comments on this final plan. The applicant and his engineer should address these comments and resubmit revised final plans as required and also documentation on compliance with all applicable comments.

Please contact this office if you have any questions or need any further assistance on this subdivision plan.

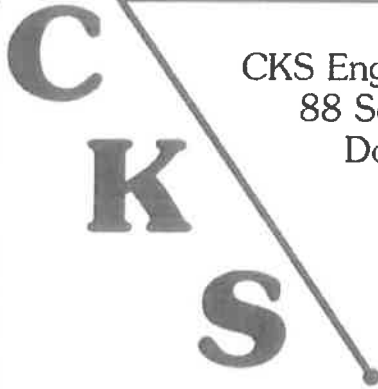
Very truly yours,  
CKS ENGINEERS, INC.  
Township Engineers



Joseph J. Nolan, P.E.

JJN/paf

cc: Robert L. Brant, Esq., Township Solicitor  
Timothy P. Woodrow, Woodrow & Associates, Inc.  
Paul Nordeman c/o The Meadowood Corp.  
File



CKS Engineers, Inc.  
88 South Main Street  
Doylestown, PA 18901  
215-340-0600 • FAX 215-340-1655

Joseph J. Nolan, P.E.  
Thomas F. Zarko, P.E.  
James F. Weiss  
Patrick P. DiGangi, P.E.  
Ruth Cunnane  
Michele A. Fountain, P.E.

May 17, 2018  
Ref: # 7514

Township of Worcester  
1721 Valley Forge Road  
PO Box 767  
Worcester, PA 19490-0767

Attention: Tommy Ryan, Township Manager

Reference: Meadowood - The Grove - Revised Landscaping Plan

Dear Mr. Ryan:

We are in receipt of a revised landscaping plan for The Grove of Meadowood as prepared by Woodrow and Associates, Inc., for The Meadowood Corporation. This sheet is number 11 of 25, is dated July 28, 2017, and has a latest revision date of May 17, 2018. This landscaping plan has been submitted in response to comment no. 8 in our last review letter dated May 8, 2018. This latest revised plan is meant to replace the landscaping plans that were submitted with the previous submission.

We have reviewed this revised landscaping plan and find that it is now a compliant plan and meets the requirements of the landscaping ordinance of Worcester Township. It is my understanding that Meadowood may also choose to enhance this plan in the future with additional plantings of shrubs and trees. This plan therefore has addressed all of the landscaping related comments set forth in our last review letter.

Please contact this office if you have any questions or need any additional information on this plan.

Very truly yours,  
CKS ENGINEERS, INC.  
Township Engineers



Joseph J. Nolan, P.E.

JJN/paf

cc: Robert L. Brant, Esq., Township Solicitor  
Tim Woodrow, Woodrow & Associates, Inc.  
Paul Nordeman c/o The Meadowood Corp.  
File



McMAHON ASSOCIATES, INC.  
425 Commerce Drive, Suite 200  
Fort Washington, PA 19034  
p 215-283-9444 | f 215-283-9446

May 8, 2018

Mr. Tommy Ryan  
Township Manager  
Worcester Township  
1721 Valley Forge Road  
P.O. Box 767  
Worcester, PA 19490

PRINCIPALS  
Joseph W. McMahon, P.E.  
Joseph J. DeSantis, P.E., PTOE  
John S. DePalma  
William T. Steffens  
Casey A. Moore, P.E.  
Gary R. McNaughton, P.E., PTOE

ASSOCIATES  
John J. Mitchell, P.E.  
Christopher J. Williams, P.E.  
R. Trent Ebersole, P.E.  
Matthew M. Kozsuch, P.E.  
Maureen Chlebek, P.E., PTOE  
Dean A. Carr, P.E.

RE: **Traffic Review #2**  
The Grove at Meadowood - (LD 2018-02)  
3205 Skippack Pike  
Worcester Township, Montgomery County, PA  
McMahon Project No. 817583.11

Dear Tommy:

Per the request of the Township, McMahon Associates, Inc. (McMahon) has prepared this review letter, which summarizes our traffic engineering review of the proposed development of The Grove to be located along the north side of the Meadowood Drive loop road at the northern end of the property opposite of Wren Court and Founders Village, and south of the on-site maintenance barn proposed for an addition in Worcester Township, Montgomery County, PA. It is our understanding that the proposed development will consist of the construction of four new, 13-unit buildings on approximately 1.25 acres, and they will add a total of 52 new units for independent housing of people 65 years or older. This will bring the total number of dwelling units at the Meadowood property to 409 units (currently at 357 dwelling units of a few varieties). Access to the new phase, The Grove, is proposed to be provided from a reconfiguration of the Meadowood Drive loop road in the area of the development that will create a new T-intersection northeast of Wren Court, and the limits of roadway reconstruction appears to extend from and between the maintenance barn driveway and the eastern Founders Village access.

The following documents were reviewed and/or referenced in preparation of our traffic review:

- Preliminary Land Development Plans for the Grove at Meadowood, prepared by Woodrow & Associates, Inc., last revised April 13, 2018.
- Response to Comments Letter for the Grove at Meadowood, prepared by Woodrow & Associates, Inc., dated April 20, 2018.

McMahon met with the applicant's engineer, Woodrow & Associates, on March 29, 2018 to complete a walk-thru of the plans and prior review letter and offered feedback prior to the formal plan resubmission. Upon review of the resubmitted and amended documents noted above, the previous comments have been largely addressed and McMahon offers the following comments for consideration by the Township and action by the applicant to satisfy the remaining items:

1. A list of eleven (11) waivers are being requested and detailed on sheet 2 of 25. Due to their on-site nature, and that most of which are not transportation related, the Township Engineer will comment on the waivers in their review.
2. The applicant is also requesting a waiver from **Section 130-16.B.3 of the Subdivision and Land Development Ordinance** which states that the length of a vertical curve must be approximately 25 feet per 1% of grade change. Two vertical curves on Meadowood Drive (west) (PVI STA. 3+04.64 and PVI STA. 3+77.92) and one vertical curve on Meadowood Drive (east) (PVI STA. 0+93.71) do not meet this criteria. Since traffic volumes along Meadowood Drive are expected to be low, **we are not opposed to the granting of this waiver.**
3. Informational: The Skippack Pike intersection has been the subject of a signal warrant evaluation over the years, and the necessary access and adjacent roadway improvements that would need to accompany any warranted signal installation. Costs for the design & construction for a signalization project have created a burden of expense in order to complete them, but signal warrants in a study completed nearly 9 years ago were not yet satisfied, and PennDOT has not approved a signal project to date for the access. The signal project would involve desirably realigning Meadowood Drive opposite Hollow Road and adding left-turn lanes for both Meadowood Drive and Hollow Road, as well as adding a right-turn deceleration lane for Meadowood Drive to reduce the number of access points along Skippack Pike, provide the turning lanes for added safety (especially due to the age-restricted nature of the Meadowood residents), and provide the safety of a signal for both minor road approaches to Skippack Pike in this area. However, the signal must satisfy signal warrants and be approved by PennDOT before it is installed. With the addition of The Groves units for this project, the applicant is encouraged to evaluate the access for signal warrants and/or find additional access to/from the Meadowood community in light of growing traffic demands on the abutting state roadway network along the property. Understanding there is a master plan for this project, the Township and Board should decide at what point in time a traffic/signal warrant study and enhanced access to/from the property should be made, and request this of the applicant to complete. Pursuing a possible grant then to complete the intersection improvements, through a multi-modal grant and/or ARLE grant, etc. to match some private dollars from Meadowood with local support to produce a public-private partnership grant application may be something the Board may want to consider.
4. All curb ramps and pedestrian routes (i.e., sidewalks, crosswalks, etc.) are to be constructed in accordance with the current Federal and PennDOT ADA standards. ADA ramp design and crosswalk striping details should be included on the detail pages of the plans. McMahon has not

reviewed the detailed design of any ramps internal to the site. We note that the layout of the parking and crossing areas are a better layout over the previously reviewed plans.

5. ADA ramps should be shown on the plans at all locations where the proposed paved trail/pedestrian walkways crosses areas with curbing. There are several areas that should be called out on the plans.
6. A stop sign and stop bar should be added to the plans at the following locations:
  - On the maintenance barn driveway approach at its intersection with Meadowbrook Drive.
  - On the Building 1 egress-only driveway approach just prior to its intersection with Meadowbrook Drive.
7. Standard "one-way" or internal-specialty, low-level "one-way" signs should be shown on the plans along the one-way drives entering and between each building notifying vehicles of the one-way traffic flow. "Do Not Enter" signs should also be placed on the exterior of each building on each side of the egress to prevent vehicles from entering the wrong way, and similarly, these signs may be posted internally to each garage to prevent exiting at the ingress-only points.
8. The Township and its engineering consultants must be included in any submissions and meetings with PennDOT and other agencies involving Meadowood with regards to its access, signalization, and/or improvements to the adjacent roadways for the Meadowood site.
9. According to the Township's Roadway Sufficiency Analysis, the proposed development is located in Transportation Service Area North, which has a corresponding impact fee of \$3,977 per "new" weekday afternoon peak hour trip and the applicant will be required to pay a Transportation Impact Fee in accordance with the Township's Transportation Impact Fee Ordinance. Based on the existing trip generation rate preliminarily calculated using the volumes and units built in 2008, the additional 52 dwelling units will generate approximately 11 total "new" weekday afternoon peak hour trips. The TSA North impact fee of \$3,977 per "new" weekday afternoon peak hour trip applied to these trips results in a transportation impact fee of \$43,747.

Based on our review, the applicant should address the aforementioned comments and resubmit plans to the satisfaction of the Township. A response letter addressing our comments should accompany the resubmission.

Mr. Tommy Ryan

May 8, 2018

Page 4

---

We trust that this review letter responds to your request and satisfactorily addresses the traffic issues that are related to the proposed addition apparent to us at this time. If you or the Township have any questions, or require clarification, please contact me or Kenneth D. O'Brien, P.E., PTP.

Sincerely,



Casey A. Moore, P.E

Executive Vice President & Regional Manager – Mid-Atlantic

BMJ/WLT/CAM

cc: Joseph Nolan, P.E., CKS Engineers (Township Engineer)  
Robert Brant, Esquire, Township Solicitor  
Tim Woodrow, P.E., Woodrow & Associates, Inc.  
John Kolb, P.E., Woodrow & Associates, Inc.  
Paul Nordeman, Executive Director, The Meadowood Corporation

May 9, 2018

Re: Vision for Center Point Proposed Ordinance

Attached is a copy of the above referenced ordinance that I have marked up.

In addition to the mark ups I have the additional comments.

The land use bubble plan refers to Class I commercial, Class II commercial, Mixed Use Preservation, and Residential uses. The proposed ordinance refers to CV1 and CV2 uses, making the ordinance difficult to follow relative to the vision plan.

In addition, CV1 includes provisions for both residential and commercial uses and maybe mixed use preservation. (kinda hard to tell)

Mixed use preservation doesn't really appear to be dealt with at all.

This really needs to be cleaned up.

Maintaining the village character has always been a major factor in the development of this vision. One of the ways to accomplish this is to include various Architectural restrictions such as sizes of buildings, heights of buildings, minimum roof pitches, and reference to existing buildings. Some of these are already in the ordinance, but, I believe that they need fine tuning.

I suggest considering adding an Architectural review procedure, perhaps by the planning commission.

The vision plan proposes a base density of 1 du/acre. This doubles the existing density. For this benefit to the owners, I think that additional requirements such as requiring the trails shown on the property by the vision plan. Trails off the property could be included as a bonus.

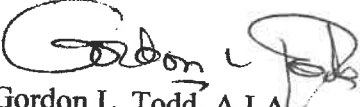
The vision plan calls for "A maximum density of 2.5 du/acre for land designated for residential use." In the latest proposal for the Palmer property, the residential portion is 47.54 acres. Assuming 50% is open space, the land designated for residential is 25.9 acres



Therefore, the base density would be 25.9 du, with a maximum of 64.75 du.

The comprehensive plan calls for medium density in the Center Point area. A density of slightly more than 2 du/acre is not quite medium density in my opinion. If the intention was to include the open space as part of the "area designated for residential use" the word should probably be changed. If open space is included in the calculation the density in the residential area would be 5 du/acre.

I am in favor of retaining the "growing greener" ordinance with this zoning. It makes no sense to me that we reduce our requirements and then give the developer additional density to give it back.

  
Gordon L. Todd, A.I.A.



**Center Point Village Zoning District 1 (CPV-1)**

**§150-249.1 Intent.**

The primary purpose of the Center Point Village (CPV-1) District is to permit a mix of various housing types, commercial businesses, and institutional buildings in a walkable village with a sense of community and place as outlined in the goals and concepts illustrated in the document entitled, *A Vision for Center Point Village*—adopted by Worcester Township to guide the development in the area around the historic crossroads of Skippack Pike and Valley Forge Road, which serves as the geographic heart of both Worcester Township and Montgomery County. To those ends, the Center Point Village District 1 is intended to:

- A. Create a mixed use, village character.
- B. Allow a range of small scale commercial and institutional uses within easy walking distance of adjoining residential homes.
- C. Accommodate a variety of housing types.
- OTW D. Ensure that commercial uses have a character that is compatible with the existing historic character of Worcester Township, as well as future residential uses within the district.
- E. Promote pedestrian orientation of streets and buildings to ensure a walkable village setting.
- F. Develop businesses, streets, parks, open spaces, and homes that promote social interaction as well as privacy.
- G. Give priority to pedestrian movement along sidewalks and trails and access to commercial areas, open spaces, and streets; and discourage design that gives priority to vehicular convenience only.
- H. Create a street circulation system with sidewalks and trails that provides safe and convenient access but discourages fast or heavy traffic that is incompatible with a residential neighborhood.
- I. Use scale, building orientation, and landscaping to establish community identity.
- J. Use open and recreational spaces as community focal points.
- K. Encourage the residential density necessary to support retail uses in Center Point Village so that residents of the village will have the option of walking or biking to nearby amenities.
- L. Preserve rural areas of the township by concentrating development in and around the existing Center Point Village.

- M. Provide an appropriate receiving zone for the transfer of development rights (TDR).
- N. Fulfill the purposes and objectives outlined in Article VII-A "Traditional Neighborhood Development" of the Pennsylvania Municipalities Planning Code (Act No. 247 of 1968, as reenacted and amended).

**Section 150-249.2 Site Layout**

The overall site plan for any new development within the CPV-1 District shall generally adhere to the final land use bubble plan on page 22 of the document entitled *A Vision for Center Point Village*, adopted on October 15, 2014 (included here as Appendix 1). An alternative site layout may be used in the event that the applicant and the Board of Supervisors agree that such a layout would be preferable in order to implement the overall vision of the aforementioned document.

**Section 150-249.3 Permitted Uses.**

The following uses are permitted in the CPV-1 District according to tract size:

- A. Tracts of less than 3 Acres at the time of the adoption of this ordinance.
  - (1) Anywhere in the district, the following residential uses, alone or in combination:
    - (a) Single-family detached dwellings.
    - ~~(b) Village single dwellings.~~
    - (c) Twin homes
    - (d) Townhouses
    - (e) Carriage homes
    - (f) The conversion of existing structures, constructed prior to 1940, into multi-family buildings.
  - (2) Park and open space uses, including neighborhood open space, passive open space, and active recreation uses.
  - (3) Municipal uses, including township administration buildings, fire stations, and other similar uses.
  - (4) On lots with frontage along Skippack Pike or Valley Forge Road, the following non-residential uses, individually or combined within a building, provided that such uses do not extend more than 300' from the ultimate right-of-way of Skippack Pike or Valley Forge Road:

- (a) Retail commercial uses, personal service businesses, restaurants, and financial establishments, provided no drive-through facilities are provided for any of these uses.
  - (b) Bed and breakfast establishments.
  - (c) Small-scale offices in converted residential structures.
  - (d) Mixed use buildings with non-residential uses on the first floor and residential use on subsequent floors or a mixture of non-residential and residential uses on subsequent floors. These buildings shall comply with all standards for non-residential buildings.
- (5) Transferred development rights in accordance with Article XXIX – Transferable Development Rights of the Worcester Township Zoning Code:
- B. Tracts of 3 or more acres at the time of the adoption of this ordinance and parcels combined to create tracts of 3 or more acres shall choose one of the following options.
- (1) Mixed Residential Development, which shall include a mix of residential uses listed above in Section 150-249.3.A(1), provided the development meets the residential mixing requirements in Section 150-249.7.A.
  - (2) On tracts with frontage on Skippack Pike or Valley Forge Road, Mixed Use Development, which shall include a mix of uses listed above in Section 150-249.3.A, provided the development meets the mixed use requirements in Section 150-249.7.B.
    - (a) When utilizing the Mixed Use Development option, non-residential uses shall not extend more than 300 feet from the ultimate right-of-way of Valley Forge Road or Skippack Pike. All other lots shall have a residential use listed above in Section 150-249.3.A(1) or open space use listed above in Section 150-249.3.A(2).
  - (3) Transferred development rights in accordance with Article XXIX – Transferable Development Rights of the Worcester Township Zoning Code.

**Section 150-249.4 Density.**

**A. Residential Density.**

- (1) The base density for residential portions of all developments shall be one (1) dwelling unit per acre if no bonuses are utilized. Residential portions of developments shall have a maximum overall density of four (4) dwelling units per acre when utilizing all bonuses, as outlined in Section 150-249.6.

- (2) The residential portion of developments shall include the entire tract area minus the area of any non-residential lots and existing legal right-of-ways. The residential acreage may include residential lots, newly proposed streets, and open space areas. Mixed use buildings containing non-residential uses and apartment dwellings shall be considered residential for the purposes of calculating residential density.

**Section 150-249.5 Transferable Development Rights.**

The Center Point Village-1 District shall be established as a Transferable Development Rights (TDR) receiving zone, in accordance with the provisions of Article XXIX of the Worcester Township Zoning Code. Transferrable Development Rights may be used to increase the base density by up to 1.5 dwelling units per acre as outlined in Section 150-249.6, below.

**Section 150-249.6 Bonuses.**

Developments within the CPV-1 District shall qualify for an increase in density as follows. The applicant shall be required to provide additional information in order to demonstrate that the bonus feature standards will be met. Unless stated otherwise in the table below, each "bonus feature" category may be utilized to earn a density bonus only one time.

- A. Bonus features, as required in the table below, shall entitle the applicant to an incremental increase in density, up to four (4) dwelling units (DUs) per acre. If the applicant transfers at least two (2) TDRs into the CPV-1 District, the applicant shall also be exempt from the residential mix requirement in Section 150-249.7A and Section 150-249.7.B(2) below.

Bonus Feature	Bonus Dwelling Units (DUs) per Acre	Bonus Feature Standard
Open Space	0.25	0.25 DUs per acre may be earned for each additional 5% open space provided above and beyond the base requirement. Up to 0.5 DUs per acre may be earned using this bonus.
Preserved woodland areas or mature trees	0.25	The preservation of at least 50% of mature trees or woodland areas on site shall qualify. Compliance with this provision shall be determined by the Township Engineer.
Off-site pedestrian improvements	0.5	Off-site pedestrian improvements to Skippack Pike or Valley Forge Road that further the goals of <i>A Vision for Center Point Village</i> . To qualify the applicant shall construct new sidewalks or upgrade existing sidewalks to the township's specifications by widening, adding street furniture, and/or adding decorative elements. The required sidewalk improvement and/or construction shall be equal

trails

		in length to the greatest dimension of the development tract. The township shall decide if proposed improvements satisfy this bonus, and all improvements shall be in addition to the other requirements of this ordinance, and the Worcester Township Subdivision and Land Development Ordinance.
Existing historic buildings	0.5 1 to 1.2	Any applicant that proposes to retain and use any and all principal buildings on the property that were constructed before 1940 shall qualify, so long as the buildings are not altered in a manner that is incompatible with their historic character. Which structures constitute principal buildings, and compatibility with historic character shall be determined by the Board of Supervisors. Preservation of existing historic buildings shall not count toward the overall density of the development.
<del>Trail Improvements</del> Make requirement	<del>0.25</del>	Trail improvements that further the goals of <i>A Vision for Center Point Village</i> by providing linkages depicted within that plan. To qualify the applicant shall build a trail that is equal in length to the trail segment shown on the tract in the final land use bubble plan in <i>A Vision for Center Point Village</i> . If no segment is depicted across the tract, the applicant shall build a trail elsewhere in the village equal to or greater in length than the greatest dimension of the development tract.
<del>Combining parcels</del>	<del>0.25</del>	<del>Combining existing parcels of less than 3 acres to create a new tract of land that is 3 acres or more in size in order to create a Mixed Residential Development or Mixed Use Development.</del>
Transfer of Development Rights (TDR)	1.5 1	The applicant may utilize TDRs for an increase in density of up to 1.5 DUs per acre, in accordance with Article XXIX of the Worcester Township Zoning Code and Section 150-249.5, above.

**Section 150-249.7 Mix Requirements.**

A. Mixing Requirements for Mixed Residential Developments. All Mixed Residential Developments shall meet the following mixing requirements:

- (1) The development shall include at least two of the following housing types: single-family detached, village house, twin homes, townhouse, carriage home, or multi-family in a converted existing structure built prior to 1940. To qualify as one of the two required housing types, a housing type must comprise at least twenty percent (20%) of the total housing units in the development. No housing type may exceed sixty percent (60%) of the total housing units in the development.

- (2) At least thirty-five percent (35%) of the tract area shall consist of open space, in accordance with the requirements of Section 150-249.12. Applicants may earn a density bonus as outlined in 150-249.6 for providing additional open space.

B. Mixing Requirements for Mixed Use Developments. When the Mixed Use Development option is chosen, the mix of uses shall adhere to the following requirements:

- (1) All Mixed Use Developments shall meet the following mix requirements:

Type of Use	Min. % of Land Area	Max. % of Land Area
Open Space	35%	N/A
Residential	20%	60%
Non-Residential ?	5%	45%

Use growing greener ordinance

- (2) The development shall include at least two of the following housing types: single-family detached, village house, twin homes, townhouse, carriage homes, or multi-family in a converted existing structure built prior to 1940. To qualify as one of the two required housing types, a housing type must comprise at least twenty percent (20%) of the total housing units in the development.

**Section 150-249.8 Residential Dimensional Requirements.**

Residential development shall meet the following dimensional criteria. In the case that a development is unlotted, compliance with equivalent lot standards shall be demonstrated.

	Single-Family Detached	Village Single	Twin Home	Townhouse	Carriage Home	Multi-Family**
Min. Net Lot Area	8,500 sq. ft. per du	5,000 sq. ft. per du	3,600 sq. ft. per du	2,400 sq. ft. per du	3,200 sq. ft. per du	8,500 sq. ft. per du
Max. Net Lot Area	10,000 sq. ft. per du	6,500 sq. ft. per du	5,000 sq. ft. per du	N/A	N/A	10,000 sq. ft. per du
Min. Lot Width	80 feet	60 feet	36 feet	24 feet	28 feet	80 feet
Required front façade location when not facing a principal arterial (When facing a principal arterial, add 10 feet to each requirement)	Not less than 15 or more than 25 feet from the outer edge of the sidewalk or R.O.W.	Not less than 10 or more than 25 feet from the outer edge of the sidewalk or R.O.W.	Not less than 15 or more than 25 feet from the outer edge of the sidewalk or R.O.W.	Not less than 5 or more than 25 feet from the outer edge of the sidewalk or R.O.W.	Not less than 15 or more than 25 feet from the outer edge of the sidewalk or R.O.W.	N/A
Min. Side Yard	10 feet min, 25 aggregate	5 feet min, 15 aggregate	12 feet	12 feet per end unit	14 feet per end unit	10 feet min, 25 aggregate
Min. Rear Yard	25 feet	25 feet	25 feet	25 feet	25 feet	25 feet

Max Building Coverage on a lot	25%	30%	35%	50%	60%	25%
Max. Impervious Coverage on a lot*	40%	50%	60%	70%	80%	40%
Max Building Height	35 feet	35 feet	35 feet	35 feet	35 feet	35 feet
Max. Dwelling Units per Building	N/A	N/A	N/A	6	4	4

\*The Maximum Impervious Coverage at the time of development shall be 5% less than the total listed in the table above. The additional allowable impervious coverage, up to the amount listed in the table above, shall be reserved for the use of the home owner.

\*\*Multi-family refers to units in a converted existing structure, constructed prior to 1940. Existing non-conformities are exempt from these dimensional requirements, so long as non-conformities are reduced to the best extent possible.

**Section 150-249.9 Non-Residential Dimensional Requirements.**

<b>Non-Residential Buildings</b>	
Min. Net Lot Area	10,000 sq. ft.
Min. Lot Width	70 feet
Required front façade location when not facing a principal arterial (When facing a principal arterial, add 10 feet to each requirement)	Not less than 0 or more than 20 feet from the outer edge of the sidewalk. An additional 15 feet may be added if improved open space in accordance with §150-249.12.B(1)(a) is placed between the outer edge of the sidewalk and the front façade of the building.  Additional buildings may be placed on a lot without meeting this requirement when the additional building is smaller than and behind a building meeting this requirement
Min. Side Yard	15 feet
Min. Rear Yard	30 feet
Max Building Coverage on a lot	40%
Max. Impervious Coverage on a lot	60%
Max Building Height	35 feet
Max. Dwelling Units per Building (Mixed Use Buildings)	4
Min. Distance Between Buildings on Same Lot	20 feet
Max. Building Length	100 feet for facades facing a street

**Section 150-249.10. General Requirements.**

- A. All developments must provide open space in compliance with Section 150-249.12, herein.
- B. Utilities. All developments shall be served by public sewer and public water.

- C. Ownership. Any land area proposed for development shall be in one ownership or shall be subject to a joint application filed by every owner of the land area proposed for development, under single direction, using one overall plan and complying with all requirements of the CPV-1 District.
- D. Ownership and Maintenance of Common Open Space and Facilities. Ownership and maintenance of common open space and other common facilities shall be provided in accordance with the regulations in Section 150-249.110.12 of the Worcester Township Code. All open space shall be permanently deed restricted from future subdivision and development.

**Section 150-249.11. Design Standards.**

All development in the CPV-1 District shall comply with the Worcester Township Subdivision and Land Development Ordinance (SALDO), except in the case that the requirements herein conflict with those requirements, whereby the standards in this ordinance shall apply. All development shall meet the following design standards:

- A. General Layout of Mixed Use Developments and Mixed Residential Developments
  - (1) Mixed Use Development shall be laid out so that all non-residential uses, including mixed-use buildings, shall have frontage along Skippack Pike or Valley Forge Road.
  - (2) Non-residential buildings shall be placed to make walking to open space and residential areas easily accessible to pedestrians by providing an interconnected system of sidewalks and trails.
  - (3) Streets
    - (a) Streets shall be interconnected with each other and with streets on abutting properties in an interconnected modified grid pattern.
    - (b) Cul-de-sacs shall be not be permitted in the CPV-1 District unless no other options are practical. The use of cul-de-sacs must be recommended by the Worcester Township Planning Commission.
      - [1] When allowed, cul-de-sacs shall not serve more than eight dwelling units and shall not exceed three hundred twenty (320) feet in length.
    - (c) Street trees shall be required along all streets in accordance with Section 130-28.G(4) of the Worcester Township Subdivision and Land Development Ordinance (SALDO) with the exception of the following requirement, which shall supersede the requirements of the SALDO:
      - [1] Street trees shall be placed in a grass buffer strip between the curb and sidewalk that is a minimum of eight (8) feet wide.



- (d) Between any two intersections on a residential street, the setbacks of all buildings shall be the same along the entire segment of street and on both sides of the street. This is in addition to the front façade location requirements of Section 150-249.8.

(4) Alleys

- (a) Alleys should be one way when feasible. One-way alleys shall be fourteen (14) feet wide, and two-way alleys shall be eighteen (18) feet wide. Traffic calming devices such as speed humps shall be incorporated into the alleys when feasible.

B. Building Design Standards

- (1) Non-Residential and Mixed-Use Buildings shall meet the following requirements:

- (a) Building Footprint and Total Commercial Area. The maximum building footprint of non-residential and mixed-use buildings shall not exceed five thousand (5,000) square feet and the total square footage devoted to commercial use in a building shall not exceed 5,000 square feet.

- (2) Residential Building Design Standards

- (a) All dwelling units must have at least one primary entrance in the front facade. For twin homes, this requirement may be met if at least one of the units has its primary entrance in the front facade.
- (b) Townhouse buildings may contain no more than six (6) attached dwelling units.
- (c) Carriage homes buildings may contain no more than four (4) attached dwelling units.
- (d) Village single dwellings must meet all of the following criteria:
  - [1] A sidewalk through the front yard, leading from the street sidewalk or curbline to the front door or front porch of the Village House.
  - [2] If the village single dwelling has a front-facing garage then the garage must be located at least ten (10) feet behind the building's front façade and the garage door shall include architectural features that are similar to the ones used on the main house. The garage door shall also have windows.

[3] All village single dwellings shall contain at least two of the following features. Whichever two options are chosen shall apply to all village houses within a development to create a sense of architectural unity: ← \*

[a] An unenclosed porch, extending across at least one-third of the front of the house, excluding the garage, being at least six (6) feet in depth.

[b] A front yard enclosed by a picket fence at least thirty (30) inches but no more than thirty-six (36) inches in height.

[c] A rear-facing garage that is accessed by a rear alley, with no access taken from the primary street in front of the village single dwelling.

C. Parking Standards

(1) Residential garages, parking lots, and/or driveways should not be the dominant aspect of the building design, if visible from the street, parking lots shall be buffered and garage doors shall have decorative elements such as windows, decorative hardware and shall not be white. ← say what

(2) Non-Residential Parking Design Standards. Off-street parking for non-residential buildings shall comply with the following requirements.

(a) Off-street parking shall be visually screened from existing and proposed streets by hedges, walls, buffer plantings, or similar site elements. Such screens shall be between two (2) feet and four (4) feet high.

(b) Parking areas on abutting non-residential lots shall be interconnected by access driveways when deemed feasible by the Board of Supervisors.

(c) Each non-residential lot shall provide easements for its parking areas and access driveways guaranteeing access and use to all other non-residential lots within the tract.

(d) Non-residential parking lots shall be set back at least ten (10) <sup>more</sup> feet from residential lots.

(3) Single-Family Detached Parking Design Standards. Garages for single-family detached units shall meet one of the following design options:

\* (a) The garage is side entry, so garage doors are perpendicular or radial to the street which the front facade faces.

(b) The garage is located behind the rear facade of the house. This garage may be detached from or attached to the house, and the garage doors may face any direction.

**Center Point Village Zoning District 2 (CPV-2)****§150-250.1 Intent.**

The primary purpose of the Center Point Village 2 (CPV-2) District is to create a commercial core within a walkable village as outlined in the goals and concepts illustrated in the document entitled, *A Vision for Center Point Village*—adopted by Worcester Township to guide the development in the area around the historic crossroads of Skippack Pike and Valley Forge Road, which serves as the geographic heart of both Worcester Township and Montgomery County. The CPV-2 District is designed to serve as the heart of the village and to compliment the standards set forth in the nearby CPV-1 District. To those ends, the Center Point Village District 2 is intended to:

- A. Allow a range of small scale commercial and institutional uses within easy walking distance of adjoining residential homes.
- B. Ensure that commercial uses have a character that is compatible with the existing historic character of Worcester Township, as well as future residences within the development.
- C. Promote pedestrian orientation of streets and buildings to ensure a walkable village setting.
- D. Give priority to pedestrian movement along sidewalks and trails and access to commercial areas, open spaces, and streets; and discourage design that gives priority to vehicular convenience only.
- E. Create a street circulation system with sidewalks and trails that provides safe and convenient access.
- F. Use scale, building orientation, and landscaping to establish community identity.
- G. Use open and recreational spaces as community focal points.
- H. Preserve rural areas of the township by concentrating development in and around the existing Center Point Village.
- I. Provide retail uses in Center Point Village so that residents of the village will have the option of walking or biking to nearby amenities.

**Section 150-250.2 Site Layout**

The overall site plan for any new development within the CPV-2 District shall adhere to the final land use bubble plan on page 22 of the document entitled *A Vision for Center Point Village*, adopted on October 15, 2014 (included here as Appendix 1). An alternative site layout may be used in the event that the applicant and the Board of Supervisors agree that such a layout would be preferable in order to implement the overall vision of the aforementioned document.

**Section 150-250.3 Permitted Uses.**

The following uses are permitted in the CPV-2 District:

- A. Class One Uses. On any lot, the following uses are permitted:
- (1) Retail commercial uses, personal service businesses, restaurants, and financial establishments, excluding drive-through facilities.
  - (2) Convenience stores, without fuel pumps.
  - (3) Park and open space uses, including central open space, passive open space, and active recreation uses.
  - (4) Municipal uses, including township administration buildings, fire stations, and other similar uses.
  - (5) Bed and breakfast establishments.
  - (6) Small-scale business or professional offices in converted residential structures.
  - (7) Offices of doctor, dentist, and other healthcare providers.
  - (8) Studio for dance, art, music, photography, or exercise.
  - (9) Day care center
- B. Class Two Uses. On lots with a minimum area of forty thousand (40,000) square feet and a minimum width at the building line of one hundred (100) feet, in addition to Class One Uses, the following uses are permitted:
- (1) Uses with drive-through facilities, including restaurants, drug stores, banks and financial institutions, provided:
    - (a) The use provides sufficient on-site stacking lanes to accommodate a minimum of six (6) automobiles leading to the first drive-through window, bank teller window, remote teller window, or drive through automatic teller machine on the site, and two (2) automobiles for each additional drive-through facility on the site.
    - (b) These stacking lanes shall not interfere with parking spaces or the external circulation of the site.

(c) Drive through windows shall face the rear or side yard of the site. Drive through windows shall not face a public street.

(2) Gas stations, mini-marts, convenience stores with fuel pumps and other use with fuel pumps, provided that:

(a) All activities except those to be performed at the fuel or air pumps are performed within a completely enclosed building. Outdoor storage is not permitted.

(b) Minimum setback of pump islands is fifty (50) feet from street ultimate rights-of-way, eighty (80) feet from residential property lines, and thirty (30) feet from all other property lines.

(c) Minimum setback of parking (any portion) from fuel pumps is thirty (30) feet.

(d) The fuel pump area does not interfere with parking spaces or internal circulation. In developments with multiple uses, the fuel pump area shall be separated from the parking and internal circulation of other uses.

(e) There shall be a maximum of six (6) fuel pumps.

(f) Body repairs and/ or painting shall not be permitted.

(g) Canopies meet the following requirements:

[1] Canopies shall be set back at least fifteen (15) feet from property lines and ultimate rights-of-way lines and fifty (50) feet from abutting residentially zoned properties.

[2] Canopies shall have a maximum height of sixteen (16) feet measured to the underside of the canopy. For slanted canopies, this sixteen (16) foot maximum can be measured at the portion of the canopy closest to the street.

[3] Individual canopies shall have a maximum area of 3,600 square feet; multiple canopies shall be separated by a minimum distance of 15 feet. Total aggregate area of all canopies shall be a maximum of 7,000 square feet.

[4] Lighting for canopies shall be recessed so that the bottom of the lighting fixture is flush with the underside of the canopy, using a full cutoff flat lens luminaire.

[5] Canopies shall be designed to be architecturally compatible with structures in the surrounding area with regard to color and building materials. Colors shall be compatible with buildings in the neighborhood, and pitched roofs shall be used unless deemed impossible by the Board of Supervisors.

← Canopies shall ~~Not~~  
face public street

C. Class Three Uses. On lots with a minimum area of one hundred fifty thousand (150,000) square feet and a minimum width at the building line of five hundred (500) feet, in addition to Class One Uses and Class Two Uses, the following uses are permitted:

- (1) Shopping center <sup>K3</sup> in accordance with additional standards in Section 150-250.4, Section 150-250.6, and all other regulations of this district. A shopping center shall include three or more separate retail uses and shall not include drive-through facilities.

**Section 150-250.4 Dimensional Requirements.**

	Class One Uses	Class Two Uses	Class Three Uses
Min. Net Lot Area	10,000 sq. ft.	40,000 sq. ft.	150,000
Min. Lot Width	70 feet	100 feet	500 feet
Required front façade location when not facing a principal arterial (When facing a principal arterial, add 10 feet to each requirement)	Not less than 0 or more than 20 feet from the outer edge of the sidewalk. An additional 50 feet may be added if improved open space in accordance with §150-250.7.A(3) is placed between the outer edge of the sidewalk and the front façade of the building.  Additional buildings may be placed on a lot without meeting this requirement when the additional building is smaller than and behind a building meeting this requirement	Not less than 10 or more than 30 feet from the outer edge of the sidewalk. An additional 100 feet may be added if improved open space in accordance with §150-250.7.A(3) is placed between the outer edge of the sidewalk and the front façade of the building.  Additional buildings may be placed on a lot without meeting this requirement when the additional building is smaller than and behind a building meeting this requirement	Not less than 20 or more than 60 feet from the outer edge of the sidewalk. An additional 100 feet may be added if improved open space in accordance with §150-250.7.A(3) is placed between the outer edge of the sidewalk and the front façade of the building.  Additional buildings may be placed on a lot without meeting this requirement when the additional building is smaller than and behind a building meeting this requirement
Min. Side Yard	15 feet	15 feet	40 feet
Min. Rear Yard	30 feet	30 feet	40 feet
Min. Building Setback from abutting residential properties	40 feet	50 feet	65 feet
Max Building Coverage on a lot	40%	30%	25%
Max. Impervious Coverage on a lot	60%	60%	60%
Max Building Height	35 feet	35 feet	35 feet
Min. Distance Between Buildings on Same Lot	20 feet	20 feet	50 feet
Max. Building Length	100 feet for facades facing a street	100 feet for facades facing a street	250 feet for facades facing a street
Max. Building Footprint	5,000 square feet	15,000 square feet	20,000 square feet

Why three classes

Why three classes

**Section 150-250.5. General Requirements.**

- A. Utilities. All developments shall be served by public sewer and public water.
- B. Ownership. Any land area proposed for development shall be in one ownership or shall be subject to a joint application filed by every owner of the land area proposed for development, under single direction, using one overall plan and complying with all requirements of the CPV-2 District.
- C. Ownership and Maintenance of Common Open Space and Facilities. Ownership and maintenance of common open space and other common facilities shall be provided in accordance with the regulations in Section 150-110.12 of the Worcester Township Code. All open space shall be permanently deed restricted from future subdivision and development.

**Section 150-250.6 Additional Standards for Class Two Uses and Class Three Uses.**

Commercial uses that are permitted as a Class Two Use or a Class Three Use shall meet the following standards:

- A. Buildings, driveways, parking areas, loading areas, outdoor activity areas, light sources, trash areas, and other potential nuisances shall be located and designed to minimize adverse impacts on abutting residential properties. In order to limit the adverse impact of a proposed general commercial use, the Board of Supervisors may require alternative site layouts, including increased setbacks from residential property lines, different locations of buildings, parking areas, and driveways, the incorporation of loading and trash collection areas as part of the principal building design, and increased screening for light sources and outdoor activity areas.
- B. Driveway intersections with streets and traffic circulation patterns within lots shall be located and designed to minimize congestion and safety problems on adjacent streets and nearby intersections. The Board of Supervisors may require alternative driveway locations and site design in order to alleviate potential congestion or safety problems.
- C. Buildings, driveways, and parking areas shall be located and designed in such a manner to maximize pedestrian safety and accessibility. Developments shall provide safe pedestrian connections to existing roadways and adjacent residential developments. Sidewalks and multi-use trails shall be utilized to make such connections. All developments should adhere to the pedestrian connectivity goals of the township's adopted plan, *A Vision for Center Point Village*.

**Section 150-250.7. Design Standards.**

All development in the CPV-2 District shall comply with the Worcester Township Subdivision and Land Development Ordinance (SALDO), except in the case that the requirements herein conflict with those requirements, whereby the standards in this ordinance shall apply. All development shall meet the following design standards: