

**WORCESTER TOWNSHIP PLANNING COMMISSION MEETING
WORCESTER TOWNSHIP COMMUNITY HALL
1031 VALLEY FORGE ROAD, WORCESTER, PA 19490
THURSDAY, OCTOBER 26, 2017, 7:30 PM**

CALL TO ORDER by Mr. Todd at 7:31 PM

ATTENDANCE

PRESENT:	GORDON TODD	[X]
	PAT QUIGLEY	[X]
	DOUG ROTONDO	[X]
	CHRIS DAVID	[X]
	RICK DELELLO	[X]

1. September 28, 2017 Meeting Minutes – Mr. Rotondo motioned to approve the September 28, 2017 Meeting Minutes, conditioned on corrections made to page 1, “Ms. David and Mr. Rotondo noted their opposition”, and to page 3, “October 26 Planning Commission”, second by Ms. Quigley. There was no public comment. By unanimous vote the motion was approved.
2. Himsworth (LD 2017-08) – Jeff Grosstephan, Engineer for the Applicant, provided an overview of a proposed Preliminary/Final Plan of subdivision for three lots on Hollow Road.

Mr. Grosstephan noted the plan was revised to include perimeter landscaping at Lot 3.

Ms. Quigley inquired as to site wetlands. Mr. Grosstephan noted he had provided the information requested by the Township Engineer.

Ms. Quigley inquired as to the deferral of sidewalks. Joe Nolan, Township Engineer, stated the deferral would be included in the approval resolution, and a note added to the record plan.

Ms. Quigley motioned to recommend the Board of Supervisors approve the Himsworth subdivision as presented, and conditioned upon the Applicant’s compliance with the most recent review letters, and further conditioned on the deferral of sidewalk installation until such time as the Board of Supervisors requires that sidewalks be installed, with this deferral to be included on the record plan, second by Ms. David. There was no public comment. By unanimous vote the motion was approved.

3. Advanced Realty (LD 2017-09) – Robert Irick, Engineer for the Applicant, provided an overview of a proposed revised Preliminary/Final Plan of land development at an existing industrial facility at 2750 Morris Road.

Mr. Irick reviewed items included in the review letters issued by the Township Engineer, Township Traffic Engineer and Montgomery County Planning Commission.

Mr. DeLello commented on the proposed loading dock improvements. Duane Horne, Property Manager, commented on tenant fit-out requirements at this portion of the facility. Mr. Ryan commented on permitted uses in this zoning district, and the use and occupancy permitting process.

Mr. Todd commented on previously-required landscaping. Mr. Nolan confirmed the landscaping had been installed as required.

Ms. Quigley commented on steep slope locations. Mr. Irick confirmed steep slopes are not situated in the application's area of improvement.

Mr. DeLello commented on the review letter issued by the Township Traffic Engineer. Mr. Irick stated the Applicant will comply with all items in this review letter.

Ms. David motioned to recommend the Board of Supervisors approve the Advanced Realty land development as presented, and conditioned upon the Applicant's compliance with the most recent review letters, second by Ms. David.

Michelle Greenawalt, Worcester, commented on development impact to neighboring properties.

By unanimous vote the motion was approved.

4. Stony Creek Village (LD 2017-10) – Carl Weiner, Attorney for the Applicant, provided an overview of a proposed Final Plan of land development for an office, restaurant and retail development at Township Line Road and North Wales Road.

Cornelius Brown, Engineer for the Applicant, noted that proposed was the same as that approved as a preliminary plan, absent revisions required by the NPDES permit and possible frontage and site access configuration.

Mr. Brown reviewed items included in the review letters issued by the Township Engineer and the Montgomery County Planning Commission.

Mr. Brown noted that McMahon Associates was the project's traffic engineer. Mr. Brown commented on traffic-related issues to be addressed, which include frontage and site access configuration.

Mr. Brown confirmed there is no proposed revision to the sanitary sewer connection.

Mr. Weiner commented on the status of relief previously-granted by the Zoning Hearing Board.

Mr. DeLello commented on projected sanitary sewer flows. Mr. Weiner commented on the data submitted to the Pennsylvania Department of Environmental Protection, and on past Planning Module studies.

Mr. DeLello commented on the relief previously-granted by the Zoning Hearing Board.

Kim McClintock, Worcester, commented on right-of-way and frontage improvements. Mr. Nolan will review the approved preliminary plan, proposed final plan, and existing site conditions in this regard.

Michael Holsonback, Worcester, commented on as-built plans.

Bill Goulding, Worcester, commented on the provision of sidewalks, and on the sanitary sewer oversight agreement between the Township and AQUA.

Review of the application will continue at a future Planning Commission meeting.

5. November 9 Planning Commission Meeting Agenda – At its November 9, 2017 meeting the Planning Commission discuss the Center Point Village Zoning Ordinance assessment, and will review the Stony Creek Village (LD 2017-10) land development. The Planning Commission may also review the 2044 Berks Road subdivision (LD 2016-05) and the Meadowood Grove (LD 2017-05) land development, if revised plans are received by the Township.
6. stormwater management ordinance – Mr. Ryan provided an overview of revisions made to this ordinance subsequent to the Members' previous recommendation to the Board of Supervisors.

Mr. Rotondo motioned to recommend the Board of Supervisors approve the proposed stormwater management ordinance, the 9th version dated October 19, 2017, second by Ms. Quigley. There was no public comment. By unanimous vote the motion was approved.

7. Other Business – There was no other business discussed at this evening's Business Meeting.

PUBLIC COMMENT

- There was no public comment at this evening's meeting.

ADJOURNMENT

There being no further business before the Planning Commission, Mr. Todd adjourned the meeting at 8:25 PM.

Respectfully Submitted:

Tommy Ryan
Township Manager

DRAFT



Urban Research & Development Corporation

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October 16, 2017

TO: Worcester Township Planning Commission and Staff

FROM: URDC, Charlie Schmehl (cschmehl@urdc.com)

SUBJECT: **Assessment of Center Point Village Vision Plan and Draft Development Regulations**

URDC was engaged to provide an Assessment of the work that has been completed to prepare the Center Point Village Vision Plan and to develop new Zoning and Subdivision and Land Development (SALDO) provisions for the Center Point Village area.

The County Planning Commission staff, Kennedy and Associates, and Township officials have completed great work in the Vision Plan and the draft zoning. Our goal is to find ways to further refine the draft regulations to make sure they achieve the Township's objectives, in a practical and realistic way.

There are many sections of the Plan and the draft regulations that we have not commented upon, because we agree with them as written.

We were first asked by the Supervisors to initially work with the Planning Commission to seek answers to three outstanding policy questions. The intent was that once there is some consensus on these questions, it will be easier to then address the remaining issues. This memo incorporates an updated version of the text of the first memo, with descriptions of tentative policy decisions made by the Planning Commission at their September meeting.

Current Zoning

We do not believe the current zoning should remain in place, unless there is an extremely attractive alternative option for landowners. The current zoning is geared towards strip commercial development. The current zoning would not only fail in creating a village environment, but also the current Commercial zone could cause land use conflicts with homes and access management problems along Valley Forge Road. It also does not make sense to have much of the floodplain to be currently commercially zoned along the east side Valley Forge Road.

Adopting the New Draft vs. Revising the Current Zoning Ordinance

A great deal of work, thought and input has been expended on the Vision Plan and the draft amendments. We believe the adopted Vision Plan is appropriate, and that adjustments should be made to the draft amendments to address ideas and concerns expressed in this memo.

Issues and Suggestions Regarding the Draft Development Regulations

1. Zoning Map

A zoning map was prepared showing CPV-1 and CPV-2 boundaries. It should be attached to the draft.

2. Convenience Store with Fuel Sales

A policy question was: Should a convenience store with gas pumps be allowed in the Village? How can the number, type, canopy and size of this type of use be controlled to satisfy market requirements, while also providing a rural village character?

It is a real challenge to make a convenience store with gas pumps fit within a rural village, but it is possible. If a gas station convenience store would be allowed, it would require special attention in writing the regulations.

Most chain convenience stores insist on 24-hour operations, which can threaten incompatibilities with nearby homes. These incompatibilities can be reduced with substantial landscaping requirements, large setbacks from homes, wide and thickly planted landscaped buffers, solid fences that help to deflect sound, agreements to limit late night deliveries, and prohibitions on outdoor video broadcasts and outdoor music.

Municipalities have not been successful in convincing chain convenience stores to place their fuel pumps behind the store. We know of only one that was built that way—one of the Sheetz stores in Cranberry Township near Pittsburgh, which was within a Traditional Neighborhood Development.

Many convenience stores have been willing to alter their exterior materials to include stone, brick or similar materials. We have attached a memo that shows some of the newer facade designs. However, other chains insist on prominently using bright trademark colors. A federal court decision ruled that municipalities cannot interfere with the use of a company's trademark colors.

The canopy is a prominent visual feature. The old approach was to try to limit the height of the canopy. However, strict height limits can effectively prohibit an angled canopy, which helps to contain light pollution and which many people find more attractive than a flat canopy. Although zoning regulations do not typically regulate color, an applicant can be requested to use neutral or earth tone colors on the exterior face of a canopy, which is done by Wawa. Also, signs on the canopy can be strictly limited.

There have been great improvements in controlling the lighting of convenience stores. The lighting spillover can be controlled, and lighting is now typically recessed inside the canopy or deflected by an angled canopy.

Convenience stores with gas pumps typically generate substantial amounts of traffic. There have been some studies that claim that the Institute of Traffic Engineering traffic generation estimates are out of date, and undercount the traffic. A high percentage of this traffic is pass-by traffic that is already on the road. However, as convenience stores emphasize prepared foods (and possibly alcohol sales in the future), there will be a greater amount of destination traffic. That is particularly true if there are few other quick-service breakfast and lunch choices in the area and if there are a large number of persons working in the surrounding region during the day.

The draft ordinance proposes to limit gasoline pumps to a maximum of 6. This actually could have an unintended consequence of causing more congestion and long lines of vehicles waiting for an open pump. Internal congestion is a problem at many busy convenience stores with gas sales. One option would be to allow a maximum of 8 fuel dispensers. In comparison, the larger Wawas typically have 12 fuel dispensers (at 3 islands). A provision should also prohibit fueling for large trucks (some gas stations have one set of pumps for cars, and another set of pumps for large trucks).

Convenience stores with gas pumps typically attract large numbers of customers in the mornings who are driving oversized delivery trucks, trailers with lawn mowers, and contractor vehicles. That needs to be considered in parking lots.

Tens of new chain convenience stores with gas pumps are being built in the region. On the positive side, they can provide an initial infusion of dollars that can pay many of the up-front costs needed to start a larger development.

Major chain convenience stores often sell their gas at a lower price than existing older gas stations. This is because the convenience stores make most of their profits from food and tobacco products, and not gas. The gasoline sales are an attraction to bring customers into the store for other items. As a result, many existing older gas stations have closed when a major chain gas station/convenience store opened nearby.

Some chain convenience stores with gas are now providing indoor and outdoor seating. Some of this seating is designed to be combined with on-site alcohol consumption. There are some Pennsylvania court cases that appear to limit the ability of a municipality to use zoning to limit alcohol sales. Additional parking should be provided when there is any seating, but some flexibility could be provided for outdoor seating, which is not used during much of the year.

The Township already meets its legal obligation to allow for gasoline service stations as a special exception use in the C Commercial district. However, that district does not allow the use to operate between 10 pm and 6 am. We did not notice any provisions that would prohibit the gas station use in the C district from being combined with a retail store or restaurant.

The number of gas stations can be limited with a minimum separation distance. The distance could be written in such a manner that only one additional gas station would be possible in the Center Point Village beyond the existing gas station.

At their September meeting, by a 3-2 vote, the Township Planning Commission provided an initial vote that they would favor allowing a convenience store with gasoline sales if the proper standards are put into place. However, a separation distance between gasoline sales uses should be added so that no more than one new gasoline sales use is allowed in the Village.

Also, if the existing gas station would be redeveloped, it also should be required to meet modern standards.

3. Residential Density

A question was asked: What should be the minimum open space requirement and maximum permitted residential density in the Village? How can realistic market requirements be meshed with the intent of preserving a rural village character?

The Board of Supervisors adopted a Resolution in 2017 to amend the Vision Plan to limit the base density for residential land areas to 2.5 dwelling units per acre. The Plan previously provided a base density of 2 to 3 dwelling units per acre.

The current draft recommends a base density of one dwelling per acre for the residential portions of a tract, if there is no use of bonuses. If the applicant agrees to comply with various bonus options under the draft, a maximum density of 4 dwellings per acre could be achieved. The draft minimum open space requirement currently starts out at 35 percent (Draft Section 150-249.12.A.(1)) for most major projects. Through use of the bonuses, the maximum density could be increased to 1.25 homes per acre with 40 percent open space, and 1.5 homes per acre with 45 percent open space. However, there is no provision for incentives beyond 45 percent open space.

The goal should be to offer an initial density that is low enough so that an applicant would be highly motivated to use the density provisions. There are some results that can only be achieved through optional incentive-based bonus provisions. For example, a Township can not require that an applicant maintain 60 percent of a parcel of land in one large area of preserved open space.

Mr. E. Van Rieker provided a sketch plan of the Palmer Tract to the Township. It proposed 99 dwelling units on a 48.39 acre residential tract (after deleting the areas proposed for commercial uses). That was an average of 2.04 homes per acre. (The density calculation would be lower if the proposed open space on the south side of Skippack Pike would be allowed to be counted together with the northern side of Skippack Pike, but that area to the south is mostly flood-prone and wetlands).

The Van Rieker sketch plan showed 27.4 acres of preserved land north of Skippack Pike within the 48.4 acre residential development area. That would result in 56.6 percent open space. Most notably, the plan proposed to preserve a substantial contiguous area of scenic farmland.

We are uncertain whether a zoning ordinance can require an applicant to follow the conceptual "Land Use Bubble Map" for a permitted by right use. The Township Solicitor could be asked to provide input on the matter. It is more traditional to make greater use of incentives and bonuses to achieve the Township's preferred land use pattern. This could involve making the base average density to be only one dwelling per 2 acres (with large minimum lot widths), which is based upon the current zoning. As a result, the applicant would be strongly discouraged from choosing the conventional option. However, because that more conventional option would be offered, it is easier to legally defend the desired land uses with higher standards, because the applicant will have voluntarily chosen to use the optional standards.

At the September 2017 meeting, the Township Planning Commission provided an initial indication that they favor maintaining the current minimum lot size of two acres for areas that are not currently

commercially zoned, if the applicant does not meet all of the standards for the Village development. However, the ordinance should state that existing lawful lots can be used for a permitted by right use without needing to meet additional requirements as a noncon- forming lot.

An average base density of one dwelling per acre would then be possible if the applicant followed the conceptual Land Use Bubble Plan Map. The list of allowed commercial uses would also ONLY be allowed if there was compliance with the Land Use Bubble Plan Map. Then, the proposed system of density bonuses would be used. However, instead of allowing a maximum total average density of 4 dwelling units per acre, the Planning Commission recommended that the maximum density with the use of a reasonable set of bonuses should be limited to 1.75 units per acre. The goal is to make it very practical to achieve an average of 1.75 homes per acre, with the open space that is desired by the Township, by following the Vision Plan and the Land Use Bubble Plan Map.

As a result, there should be more emphasis on the percentage open space in the density bonuses. Instead of the density bonuses stopping once 45 percent open space has been achieved, the density bonuses should provide incentives up to 65 percent or higher open space. The highest bonuses should only be possible if the project provided large contiguous areas of open space that are mostly suitable for agricultural uses.

We recommend counting each acre of floodplain land, wetlands or steeply sloped land as one-half or one-quarter acre of open space.

To provide flexibility to relate to the changing real estate market, we recommend offering a little more flexibility in the percentages that can be built of each type of housing.

4. Scale and Height of Development.

A question was asked: What is an appropriate scale for non-residential development in the Village? How should maximum building size, building height and massing be controlled, to meet realistic market requirements with the intent of preserving a rural village character?

It is possible to allow a medium-sized building to have the appearance of connected smaller buildings, through the use of variations in setbacks, materials, rooflines and other features. An example is illustrated on an attachment.

The current market needs to be fully considered in setting maximum building sizes. For example, a chain pharmacy can serve as an essential anchor that helps to attract customers needed to support nearby smaller and independent businesses. A number of chain pharmacies now average 14,000 to 16,000 square feet of floor area in similar locations. The Township Planning Commission made an initial recommendation that a maximum square foot requirement of 15,000 square feet per commercial establishment should apply. That would require an adjustment to draft Sections 150-249.11.B. and 150-250.4, which would otherwise require a strict 5,000 square foot floor area limit for many commercial uses.

We do not believe that any maximum square footage should apply to offices. If an entity wanted to occupy more than 15,000 square feet of office space in a 2 or 3 story building, that could provide a beneficial anchor to help support commercial uses.

Also, we believe interconnected buildings can be attractive and desirable if there are proper design standards. Therefore, we do not recommend precluding several commercial businesses from being connected, provided that there is variation in the architectural design within the building.

The intent is to allow upper story apartments or offices above commercial uses. An applicant could use a false second story (such as with dormers), but it should not be required.

We recommend that drive-through facilities should be limited to pharmacies and financial institutions (such as banks). To the maximum extent feasible, the drive-through facilities should be at the back of a building.

The draft ordinance includes a number of design standards to provide commercial development with a high level of architectural design. Additional ones could be added; however, we understand a policy decision was previously made to delete some of the previously proposed standards. A balance is needed between necessary standards versus being too prescriptive and thereby tying the hands of architects.

The height standards should be written to make sure they do not preclude good design. The current method of measuring “building height” is based upon the average between the eave the ridge of a roof. This method does allow some flexibility for peaked and pitched roofs and decorative roof extensions. However, the proposed 35 feet height limit may still be limiting for commercial development, which may have higher ceilings. One option would be to allow a 45 feet height with a maximum number of 3 stories for businesses. As a result, developers would be encouraged to use decorative roof peaks and pitches and higher internal ceilings, but would not be allowed to squeeze in a fourth story.

Some communities require that buildings either include 2 or more stories, or have the appearance of 2 or more stories. That is used to a greater extent in downtowns than in villages. In many cases, developers do not believe it is feasible in a suburban or rural area to build a second story, particularly for uses such as banks. Having a standard of “appearing to have 2 stories” means that there are false second floor windows, which often have the appearance of a dormer on a pitched roof.

5. Land Use Bubble Plan

In the previous section, we described why the bulk of the new provisions for higher density should be regulated as an option. This is to allow a more defensible requirement that applicants must comply with the Land Use Bubble Plan. Because the applicant would have the option of creating 2-acre single family detached lots, it will be easier to legally require compliance with the Bubble Plan because it will be an option.

6. Allowed Uses

We recommend simplifying the housing types, and instead using the housing types in the current zoning ordinance. That would involve merging carriage house into townhouse, for example. A definition needs to be added for “Twin Homes,” which we recommend be limited to side-by-side homes

7. Commercial Depth

The draft limits commercial uses to a 300 feet depth from Skippack Pike and Valley Forge Road. A 400 feet depth would provide more room for internal shared circulation and more of a village vs. strip layout.

8. Drive-Through Uses

The draft would prohibit all drive-through uses in CPV-1, but allow almost all types of drive-through uses in CPV-2. We recommend drive-throughs in CPV-2 be limited to pharmacies and financial institutions. The drive-through window should be required to be placed on the rear of the building. The main change would be to not allow restaurant drive-throughs, which are more likely to generate conflicts with pedestrian traffic and are more likely to generate noise and litter.

9. Offices

Offices are proposed to be limited to “small scale” in converted dwellings. We believe all sizes of offices should be allowed, in new and old construction. Also, the draft allows apartments above commercial uses, but should also allow offices above commercial uses.

10. Residential Density

It is recommended that the base density be changed from one unit per acre to two acres per unit. However, by complying with the Land Use Bubble Plan, the design standards, and providing certain amenities, it should be practical to achieve 1.75 units per acre. The current maximum density in the draft is 4 units per acre.

We recommend that land that is separated by a pre-existing public street not be counted towards density of a tract.

11. Transfer of Development Rights

The current draft offers a bonus for transfer of development rights. The largest property owner was quoted at a meeting as saying they were not interested in using it. It may be advisable to delete the TDR option of sending additional density into the village to allow a more predictable maximum density.

12. Density Bonuses

For larger tracts, the minimum open space should be increased from 35 percent. Currently, a bonus can only be achieved for an additional 10 percent, up to a total of 45 percent open space. The goal should be to achieve a higher total percentage of open space on larger tracts, and to have most of that open space be contiguous.

13. Woodland Bonus

The draft proposes a 0.25 per acre density bonus for preservation of 50 percent of the woodlands. Most of the woodlands appear to be along the creek, where they will be protected by the existing Riparian Conservation Overlay. Therefore, this bonus may not be needed.

14. Off-Site Pedestrian Improvement Bonus

This bonus would mainly be valuable if the Township determines it would like sidewalks to be built within the street right-of-way but beyond the borders of a development site. As written, the developer of the Palmer Tract would have to build 1,600 feet of sidewalk along the properties of other landowners. We do not believe that bonus would be used as proposed. It may be found that the proposed trail system along the creek and the power lines would be cheaper and easier to construct, without the disruption and high expense of building sidewalks within a PennDOT right-of-way.

A more fair method would be to provide that for every X square feet of sidewalk that is constructed off-site, the applicant is allowed one additional dwelling unit.

15. Historic Building Bonus

There is a valuable proposed provision that the preservation of a historic building does not count towards density. Otherwise, a historic house might be demolished so that a much more profitable house could be built in its place. However, we do not believe an entire tract should receive a 0.5 increase in density because one historic building is preserved. Instead, it might be tied to a specific increase in number of dwelling units (such as 2).

16. Trail Bonus

The trails are important features. Some municipalities interpret the MPC provisions for pedestrian improvements to mean that trail links can be required in any case.

17. Housing Types

The draft says that at least two housing types are required, with each of those types comprising at least 20 percent and no one type comprising more than 60 percent. To allow flexibility for the market, we recommend that 60 percent be increased to 75 percent. One of the main results would be that a project could be comprised of up to 75 percent townhouses, which can make it much easier to achieve higher percentages of contiguous preserved open space.

We recommend that the term “carriage houses” not be used, and that attached side-by-side units be required to meet the townhouse standards. The building and impervious coverages for townhouses should be able to be met for the entire townhouse project area, as opposed to each lot, which allows condominium layouts. If a condominium arrangement is used, the townhouse dimensional standards should be only used for spacing purposes, and not require the creation of individual lot lines.

18. Non-Residential Percentage

As written, any Mixed Use Development must contain at least 5 percent non-residential uses. Mixed Use Development is proposed to be required on tracts of more than 3 acres. We suggest this minimum non-residential requirement only apply for larger tracts.

19. Single Family Detached Houses

The draft dimensional provisions discourage the construction of single family detached houses, by requiring four times the lot size for a single vs. a townhouse. We believe a properly designed single can work well on a 5,000 or 6,000 square foot lot with a 50 or 60 feet lot width. This compares to the draft requirement of 8,500 square feet lots with an 80 feet width. The width of a lot has great impacts upon infrastructure improvement costs to a developer. We recommend applying the “village single” design features (draft Section 150-249.11.B.2.d) to all singles within the Center Point Village.

We do not believe “maximum net lot area” requirements are needed.

20. Multi-Family

It is unclear why apartments need four times the net density as townhouses. Instead, we recommend a minimum one acre lot area for any new multi-family construction, so that a small lot is not converted into an apartment building where it would not be expected. The current draft is also strict in only allowing four apartments per building. That would make it harder to promote apartments above commercial uses.

21. Live Work Units

Consideration should be given to allowing Live Work Units. They involve a person conducting a business in the same building as they reside. The types of businesses would be limited, such as arts galleries, offices, electronics repair, and personal services. They function similar to a home occupation, except there is no limit to the percentage of the unit that can be used for the business. The division between the business and residential spaces can remain very flexible and can change over time. State Construction Codes were updated to make it easier to develop Live Work units, without needing fire separation walls between the spaces.

Live-Work Units often function is a townhouse-type of arrangement, with a street-level entrance for each business, and with the bulk of the upper story used as a residence.

22. Flexibility in Home Occupations

For the existing homes that are along Valley Forge Road or Skippack Pike, one option is to be more flexible in home occupation regulations. These specific homes could be allowed to have a “Major Home Occupation.” Compared to the current home occupation requirements, this could allow a second non-resident employee (vs. the current limit of one), a sign of 2 square feet (vs. the current prohibition on all signs), more than 2 off-street parking spaces (vs. the current maximum of 2), and a floor area of up to 30 percent of the total building floor area (vs. a current limit of 500 square feet or ½ the first floor, whichever is more restrictive).

The current home occupation provisions could remain in place for the rest of the Township.

23. Non-Residential Use Setbacks

The proposed front yard setbacks are proposed to be measured from a sidewalk. Since not every property may have a sidewalk, we recommend using the right-of-way line. The side and rear setbacks for a non-residential use should vary, depending upon whether the adjacent lot is in a residential use or a residential district. We believe in relatively small setbacks between business uses, and larger setbacks (with buffers) between business uses and an existing or potential adjacent residential use.

The proposed non-residential use setbacks in both CPV-1 and CPV-2 include a maximum building length of 100 feet for facades facing a street, except for a “shopping center”. We believe interconnected buildings, or buildings that appear to be inter-connected buildings, can be attractive and very pedestrian friendly. Instead of a strict 100 feet length limit in the zoning ordinance, we recommend emphasizing requirements for variations in setbacks, rooflines and other features along a longer building.

24. Open Space Restrictions

Draft Section 150-249.10.D. states that all open space shall be permanently deed restricted from “future subdivision and development.” For land that is intended to become recreation land, there should be an exception for customarily accessory non-commercial recreation structures, such as pavilions. For land that is intended to be preserved in agricultural uses, there should be exceptions for customarily accessory structures, such as fences and small accessory agricultural buildings.

25. Number of Driveways

Draft Section 15-249.11.E.(1) is a zoning provision that limits a commercial lot in CPV-1 to only one driveway. In many situations, it is advisable to have one access point that allows right hand turns only, to relieve stress from the main driveway. That is customary for multi-use or higher traffic commercial properties. PennDOT will strictly control the number and location of driveways along the main roads. An alternative would be to say that only one driveway from a lot may permit left hand turns, unless specifically approved otherwise by the Supervisors.

26. Driveway Materials

Draft Section 150-249.11.E.(2) prohibits residential driveways visible from a street from being constructed of asphalt. We believe this is overly restrictive.

We do like the encouragement in this section of only hard-surfacing the two tire treads of a residential driveway, which reduces impervious coverage.

27. Loading Docks and Trash Disposal Areas

Draft Sections 150-249.11.F.(1) and 150-250.C.(1) require loading docks to be setback 25 feet from a residential lot. Draft Sections 150-249.11.F.(3) and 150-250.C.(3) have a similar setback for trash disposal areas. We believe a larger setback is needed, particularly since loading docks and trash disposal areas are usually unattractive and major sources of noise, odors and insects.

28. **Outdoor Storage**

Draft Section 150-249.11.F.(2) says that no outdoor storage or display is permitted “overnight.” We suggest it only apply to hours when the business is not open. The goal is avoid over-regulating an outdoor display during evening hours when a business is open.

29. **CPV-2 District**

The above provisions mainly address the CPV-1 provisions, but most of the above comments also apply to CPV-2. The CPV-2 area is proposed to allow a convenience store with fuel sales, which is addressed in a previous section of this report.

30. **SALDO Design Standards**

The Township has thoughtfully proposed to place many of the design standards in the Subdivision and Land Development Ordinance (SALDO). A SALDO standard can be modified if an applicant provides an alternative standard that meets the same purpose. In comparison, a zoning provision can only be modified by the Zoning Hearing Board at a hearing, after the applicant provides proof of a hardship.

Section 130-66 should be identified as a new section that is being added to the ordinance. Also, the new sections should start with A., not D.

We generally felt that the draft SALDO design standards were appropriate (draft Section 130-66). For low-traffic shorter residential streets, we believe sidewalks should only be required on one side. For the volumes of pedestrian traffic that are likely to occur, we believe the proposed 8 feet wide sidewalks in front of non-residential uses would be excessive. We believe 5 feet widths would be sufficient in all cases.

The draft provisions that require pitched roofs should be revised (draft Section 130-66.E.C(1)). It is important to have buildings that do not have the appearance of a flat roof. This is often achieved with slanted roofs around the sides of the building, but which have a flat lower interior roof that screens HVAC equipment. That exception should be included. Another exception to the prohibition of flat roofs for both non-residential and residential buildings should apply if a building has the appearance of a decorative historic cornice along the front. For example, some attractive townhouses have been built with a historic style top cornice.

Please contact us if there are any questions or comments.



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October 31, 2017
Ref: # 7380

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

Attention: Tommy Ryan, Township Manager

Reference: Stony Creek Village Land Development
Final Plan Submission - Review of Right-of-Way

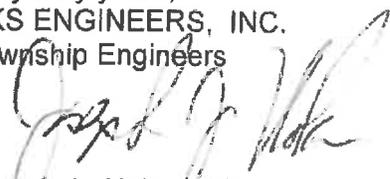
Dear Mr. Ryan:

There was a question raised at the Worcester Township Planning Commission Meeting on October 26, 2017 regarding the Right-of-Way that was part of the plans that received preliminary approval from the Township by Resolution No. 05-22 on December 5, 2005. As a result of this question, I reviewed the plans that received preliminary approval from the Board of Supervisors, and the current plans which have been submitted for final approval.

The plan set that received preliminary approval was originally dated March 29, 2004. The plans that have been submitted for final plan approval are dated September 21, 2017. I have reviewed the ultimate right-of-way on both plan sets and found that they are identical. There have been no changes to the ultimate right-of-way between the plans approved in 2005 and the latest final plan submission. In addition, all the waiver requests remain the same, and the Zoning Hearing Board decision which is shown on the plans is still valid.

Please contact me if you have any questions or need any further assistance with these plans.

Very truly yours,
CKS ENGINEERS, INC.
Township Engineers


Joseph J. Nolan, P.E.

JJN/paf

cc: Robert L. Brant, Esq., Township Solicitor
Cornelius Brown, Bohler Engineering, inc.
File

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Executive Summary

McMahon Associates, Inc. has completed a transportation impact study for the proposed mixed-use Stony Creek Village development which includes approximately 11,350 square feet of retail space, a 5,600 square-foot high-turnover sit-down restaurant, and 9,600 square feet of office space. This development is proposed to be located on the northwest corner of Township Line Road (S.R. 3001) and North Wales Road (T-377) in Worcester Township, Montgomery County, Pennsylvania (**Figure 1**). Access to the development is proposed to be provided via one full-movement access along Township Line Road (S.R. 3001) and one full-movement access along North Wales Road (T-377). A conceptual site plan, prepared by Bohler Engineering and dated September 21, 2017 is shown in **Figure 2**.

The scope of this transportation impact study is based on PennDOT's guidelines, per the Department's publication Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permits, dated January 28, 2009, and the requirements of the Township Ordinance.

The purpose of this transportation impact study is to evaluate the traffic impacts of the proposed development. The scope of this study includes an evaluation of the existing weekday morning, weekday afternoon, and Saturday midday peak hours as well as the future 2019 build-out year both without and with the development at the site-adjacent intersections of Township Line Road (S.R. 3001) and North Wales Road (T-377).

Trip generation data compiled for the proposed development includes Shopping Center (ITE Land Use Code 820), General Office Building (ITE Land Use Code 710), and High-Turnover (Sit-Down) Restaurant (ITE Land Use Code 932). This trip generation data is based on the Institute of Transportation Engineers (ITE) publication entitled, *Trip Generation Manual, 10th Edition*. Both the proposed shopping center as well as the high-turnover (sit-down) restaurant draws upon "pass-by" traffic which is already on the roadway heading to another primary destination. The "pass-by" trips at the driveways are combined with "new" trips to comprise total site trips. ITE data, accepted by PennDOT, indicates the proposed development will generate approximately 51 "new" trips during the weekday morning peak hour, 47 "new" trips during the weekday afternoon peak hour, and 55 "new" trips during the Saturday midday peak hour.

Per the traffic evaluation, the following traffic improvements are recommended to mitigate the proposed development impacts. Since some of these improvements are within the state's right-of-way, coordination with PennDOT will be required to implement these improvements:

Site Accesses

Access 1: Full Movement Site Access along North Wales Road (T-377)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to North Wales Road (T-377); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

Access 2: Full Movement Site Access along Township Line Road (S.R. 3001)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to Township Line Road (S.R. 3001); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

We believe that the exiting left-turn movement at the North Wales Road access is appropriate due to the relatively low traffic volume that is expected to utilize that access, the adequate sight distance, the projected acceptable operation of each access intersection, as well as difficulty that any restrictions would create on site traffic that would be affected by such restrictions. During the weekday morning peak hour, the through/right-turn lane traffic queue on North Wales Road, will extend from Township Line Road past the access, but during this peak hour the volume of traffic exiting the site left onto North Wales Road is minimal, only five vehicles during the entire hour. It should be noted that the southbound North Wales Road left-turn queue is not expected to extend to the site access. Additionally, during other periods of the day, the traffic queues from either of the North Wales Road traffic queues are not expected to extend to the access location. As a result, we believe that the left-turn egress on North Wales Road is an acceptable movement.

The traffic analyses contained herein reveal that efficient access to and from the proposed development can be provided, and furthermore, site-generated traffic can be accommodated at the study area intersections.

Detailed results of the level-of-service and queueing analysis are contained in the matrices provided at the end of this report in **Tables 5 and 6**.

Existing Transportation Settings and Conditions

The proposed development will be located at the northwest corner of Township Line Road (S.R. 3001) and North Wales Road (T-377) in Worcester Township, Montgomery County, PA (**Figure 2**). The existing roadways and intersections in the vicinity of the site, which comprise the study area roadway network, are described in this section.

Roadway Characteristics

The study area roadway network and characteristics are summarized below in **Table 1**.

Table 1. Existing Roadway Characteristics

Roadway Name (Jurisdiction)	Average Daily Traffic Volumes (vehicles per day)	Roadway Classification		Travel Lanes (per direction)	Posted Speed Limit (mph)
		Smart Transportation ⁽¹⁾	PennDOT/ Township ⁽²⁾		
Township Line Road (PA Route 3001, seg. 90)	9,909 ⁽³⁾	Community Arterial	Urban – Minor Arterial	1	40
North Wales Road (T-377)	7,442 ⁽³⁾	Community Collector	Urban – Minor Arterial	1	35

(1) Based on Table 5.1 – Roadway Categories in the PennDOT publication, *Smart Transportation Guidebook*.

(2) Based on the roadway classifications provided on PennDOT's Internet Traffic Monitoring System (iTMS) website.

(3) Based on traffic data from PennDOT's Internet Traffic Monitoring System (iTMS) website. Based on traffic data from PennDOT's Internet Traffic Monitoring System (iTMS) website.

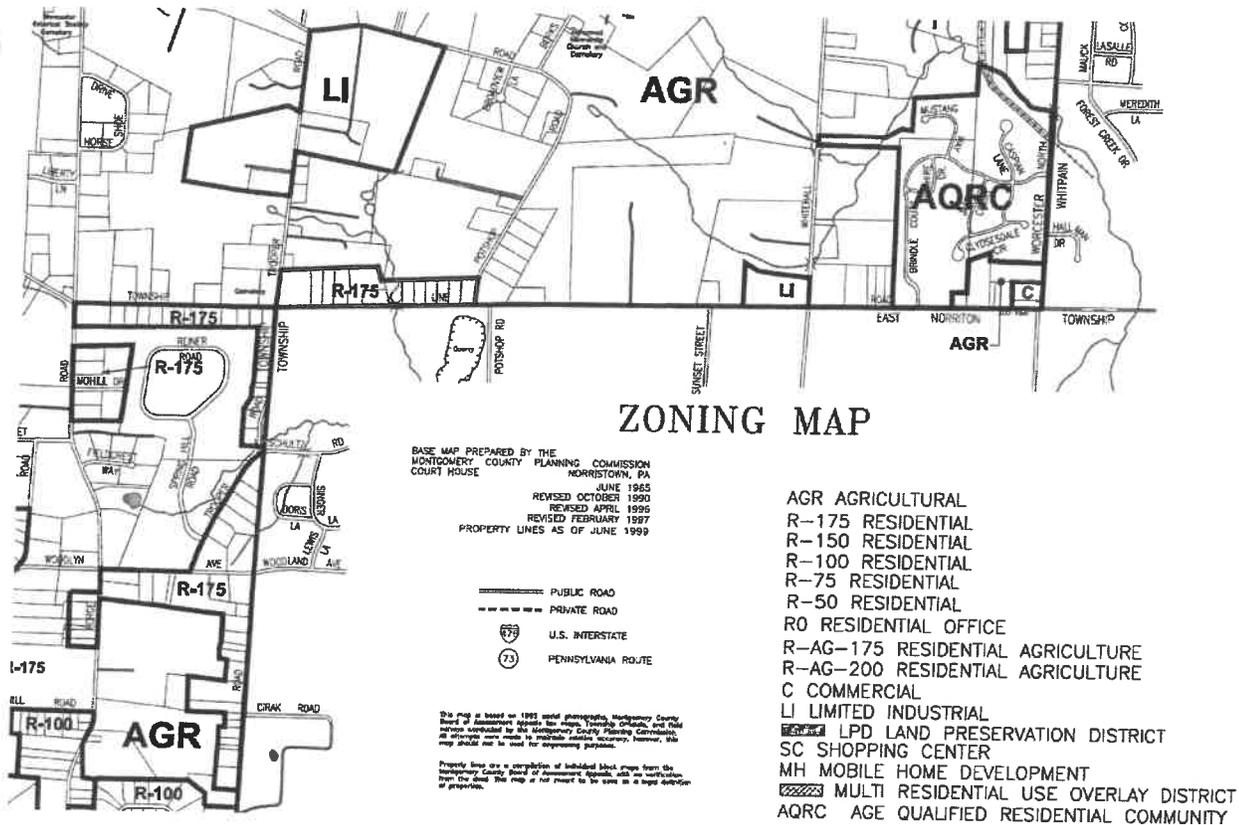
The following key intersection in the vicinity of the site comprise the study area:

- Township Line Road (S.R. 3001) and North Wales Road (T-377)

The existing characteristics of the study intersections, including photographs, field sketches, and signal permit plans are provided in **Appendix A**.

Land Use Context

The proposed mixed-use development in Worcester Township, Montgomery County is located within the C Commercial District and partly in the AGR District of Worcester Township.



Area Transit Services

There are currently no Transit services in the area.

Pedestrian-Bicycle Facilities

There are limited Pedestrian-Bicycle Facilities within the project area.

Traffic Count Data

Daily traffic counts were obtained from PennDOT’s Internet Traffic Monitoring System (iTMS) website. The traffic count data is provided in **Appendix B**.

Manual turning movement traffic counts were conducted at the study intersections during October 2017 during the weekday morning (7AM – 9AM), weekday afternoon (4PM – 6PM) and Saturday mid-day (11AM to 2PM) peak periods. The results of these traffic counts are tabulated by 15-minute intervals in **Appendix C**. The four-highest consecutive 15-minute peak intervals during these traffic count periods constitute the peak hours that are the basis of this traffic analysis.

The resultant peak hour traffic volumes are depicted in **Figure 3A** for the weekday morning (7AM – 9AM), weekday afternoon (4PM – 6PM) and Saturday mid-day (11AM to 2PM) peak periods. The traffic

volumes in Figure 3A were then analyzed to determine the existing operating conditions, and the results of this analysis are shown in **Figure 3B**. Specific details regarding the analysis results and traffic operations are provided later in this report.

Site Characteristics

This section presents the details regarding the proposed site, including the incremental increase in traffic volumes generated by the development during the peak hours and the distribution of site traffic to the study area roadways, as well as the proposed site access configuration, traffic control, and sight distance requirements.

Trip Generation

Traffic volumes generated by the proposed development were prepared based on trip generation data compiled from numerous studies contained in the Institute of Transportation Engineers (ITE) publication, *Trip Generation, 10th Edition*. Table 2 presents the anticipated vehicular trip generation for the proposed development.

Table 2. Vehicular Trip Generation ⁽¹⁾

Land Use	Size	Daily	Weekday Morning Peak Hour			Weekday Afternoon Peak Hour			Saturday Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Shopping Center ⁽²⁾	11,350 Sq. Ft	428	7	4	11	21	22	43	27	24	51
<u>Internalization</u> ⁽³⁾			-1	-1	-2	-11	-6	-17	-13	-7	-20
<u>Pass-By</u> ⁽⁴⁾			-1	-1	-2	-4	-5	-9	-4	-4	-8
New Trips			5	2	7	6	11	17	10	13	23
General Office Building ⁽⁵⁾	9,600 Sq. Ft.	94	9	2	11	2	9	11	3	2	5
<u>Internalization</u> ⁽³⁾			-1	-1	-2	-1	-2	-3	-1	-0	-1
New Trips			8	1	9	1	7	8	2	2	4
High-Turnover (Sit-Down) Restaurant ⁽⁶⁾	5,600 Sq. Ft.	628	31	25	56	34	21	55	32	31	63
<u>Internalization</u> ⁽³⁾			-2	-2	-4	-6	-10	-16	-7	-14	-21
<u>Pass-By</u> ⁽⁷⁾			-9	-8	-17	-11	-6	-17	-8	-6	-14
New Trips			20	15	35	17	5	22	17	11	28
Total All Uses		1,150	47	31	78	57	52	109	62	57	119
<u>Internalization</u>			<u>-4</u>	<u>-4</u>	<u>-8</u>	<u>-18</u>	<u>-18</u>	<u>-36</u>	<u>-21</u>	<u>-21</u>	<u>-42</u>
<u>Pass-By</u>			<u>-10</u>	<u>-9</u>	<u>-19</u>	<u>-15</u>	<u>-11</u>	<u>-26</u>	<u>-12</u>	<u>-10</u>	<u>-22</u>

Total Vehicular Trips			33	18	51	24	23	47	29	26	55
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- (1) Based on ITE's *Trip Generation Manual, 10th Edition*.
- (2) ITE Land Use Code 820 for Shopping Center based on the square footage of the shopping center.
- (3) Internalization was calculated based on the NCHRP 684 Internal Trip Capture Estimation Tool (worksheets available in Appendix E)
- (4) According to the Trip Generation Manual, for LU Code 820 approximately 24% of the total trips during the weekday morning peak hour after pass-by and 34% of the total trips during the weekday afternoon peak hour are pass-by. A rate of 26% was utilized for the Saturday midday peak hour.
- (5) ITE Land Use Code 710 for General Office Building based on the square footage of the building.
- (6) ITE Land Use Code 932 for High-Turnover (Sit-Down) Restaurant based on the square footage of the restaurant.
- (7) According to the Trip Generation Manual, for LU Code 932 approximately 33% of the total trips during the weekday morning peak hour after pass-by and 43% of the total trips during the weekday afternoon peak hour are pass-by. A rate of 33% was utilized for the Saturday midday peak hour.

Internal trip calculations were used to determine the amount of trips that would be served within the development (i.e.: to/from the office building to the restaurant and retail). Those calculations and details are provided in **Appendix D**.

Trip Distribution and Assignment

Site-generated traffic will approach and depart the site via different routes depending on factors such as the existing traffic patterns, location of major roadways, and the location of the development's site access. The distribution percentages for the anticipated directions of approach and departure and traffic assignment percentages are illustrated in **Figure 4A**. Application of the percentages illustrated in **Figure 4A** to the new peak hour trips contained in **Table 2**, provides an estimate of site traffic to be added to the study area. The site-generated traffic is also shown in **Figure 4B** for the weekday morning, weekday afternoon, and Saturday midday peak hours.

Figure 4C illustrates the pass-by distribution percentages and **Figure 4D** illustrates the pass-by trip assignment for the entire site for the weekday morning, weekday afternoon, and Saturday midday peak hours. The new and pass-by trips for the proposed development are then illustrated in **Figure 4E** for the weekday morning, weekday afternoon, and Saturday midday peak hours.

Site Access Configuration and Traffic Control

Access to the site is proposed via two unsignalized full-movement driveways, one along Township Line Road (S.R. 3001) and one along North Wales Road (T-377). The recommendations for the proposed access designs, including traffic control and geometric design, were based on industry accepted criteria and guidelines.

Additionally, the geometric design of the proposed site accesses were preliminarily evaluated based on guidelines contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads*, as well as local PennDOT District policies.

Based on the results of this evaluation, the following access configurations and traffic controls are recommended, subject to the detailed engineering of the site accesses:

Access 1: Full Movement Site Access along North Wales Road (T-377)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to North Wales Road (T-377); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

Access 2: Full Movement Site Access along Township Line Road (S.R. 3001)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to Township Line Road (S.R. 3001); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

We believe that the exiting left-turn movement at the North Wales Road access is appropriate due to the relatively low traffic volume that is expected to utilize that access, the adequate sight distance, the projected acceptable operation of each access intersection, as well as difficulty that any restrictions would create on site traffic that would be affected by such restrictions. During the weekday morning peak hour, the through/right-turn lane traffic queue on North Wales Road, will extend from Township Line Road past the access, but during this peak hour the volume of traffic exiting the site left onto North Wales Road is minimal, only five vehicles during the entire hour. It should be noted that the southbound North Wales Road left-turn queue is not expected to extend to the site access. Additionally, during other periods of the day, the traffic queues from either of the North Wales Road traffic queues are not expected to extend to the access location. As a result, we believe that the left-turn egress on North Wales Road is an acceptable movement.

Sight Distance

Sight distance field measurements and an evaluation were performed at the proposed access intersections along Township Line Road (S.R. 3001) and North Wales Road (T-377). Generally, the prevailing (85th percentile) travel speed, roadway grades and profiles, and the number of travel lanes play a role in determining if safe sight distances are available for egress and ingress at the proposed accesses. The existing sight distances at the proposed access intersections were measured and compared

to PennDOT's sight distance requirements. These sight distance requirements are contained in *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads*.

Table 3 summarizes the available sight distance measurements, as well as PennDOT's sight distance requirements at the proposed access locations. Please note these are for the locations listed on the current concept plan, if these locations change, the sight distance measurements will be updated accordingly.

Table 3. Sight Distance Measurements

Full-Movement Site Access and Township Line Road (S.R. 3001)

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable ⁽¹⁾	Acceptable ⁽²⁾	
Exiting	Looking Left	40	+4%	440	295	515
	Looking Right	40	-7%	460	360	
Left turn Entering	Looking Ahead	40	+4%	300	295	530
	From the Rear	40	-7%	300	360	

- (1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit, unless otherwise noted.
- (2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.

Full-Movement Site Access and North Wales Road (T-377)

Movement	Direction	Posted Speed (mph)	Approximate Grade	PennDOT Requirements (feet)		Available Sight Distance (feet)
				Desirable ⁽¹⁾	Acceptable ⁽²⁾	
Exiting	Looking Left	35	-3%	440	260	370
	Looking Right	35	+3%	350	239	
Left turn Entering	Looking Ahead	35	-3%	372	260	385
	From the Rear	35	+3%	372	260	

- (1) Based on the desirable sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit, unless otherwise noted.
- (2) Based on the safe stopping sight distance requirements contained in the *Pennsylvania Code, Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads* and the posted speed limit.
- (3) Distance measured to the intersection of North Wales Road and Township Line Road (S.R. 3001).

As shown in Table 3, all of the existing available sight distances at the site access intersection meet PennDOT's acceptable sight distance criteria. Proper landscaping must be maintained along the site frontage on Township Line Road (S.R. 3001) for provision of sight distances according to the above table. The actual available sight distances should be verified during detailed engineering of the site access. The PennDOT M-950S forms are completed and provided in **Appendix E** for both site access intersections.

Future Traffic Conditions

This section presents the future build-out year 2019 traffic conditions, both without and with the proposed development, which is anticipated to be completed and occupied by 2019. The future 2019 build-out year without-development traffic volumes were estimated by increasing the existing 2017 traffic volumes to account for regional growth, as described below. The incremental increase due to the anticipated trip generation for the site was then added, resulting in the future 2019 build-out year.

Regional Traffic Growth

To account for regional traffic growth, the existing traffic volumes were increased by an annual traffic growth rate of 0.41 percent per year compounded for 2 years to 2019, or 0.82 percent total to 2019. This growth rate is consistent with the traffic growth rate recommended by the PennDOT Bureau of Planning and Research *Growth Factors for August 2017 to July 2018* for similar urban, non-interstate roadways in Montgomery County.

Local Traffic Growth

To account for local traffic growth, surrounding municipalities were contacted to identify any other nearby future developments. Based upon coordination with Worcester Township, the existing traffic volumes were also increased to include the traffic to be generated by nearby approved developments in the vicinity of the Worcester. Specifically, the following development was included:

- **Center Square Golf Club Residential Development** – approximately 125 single family homes and 125 townhomes being built just south of Skippack Pike between Berks Road (S.R. 3004) and Whitehall Road

Planned Roadway Improvements

There are no known planned roadway improvement plans in the vicinity of the site.

Future Traffic Conditions

The total background growth and nearby approved development traffic volumes were then added to the existing 2017 traffic volumes, resulting in the future 2019 without-development traffic volumes. Next, the site generated traffic volumes, as shown in **Figure 4B**, were added to the future 2019 without-development traffic volumes, resulting in the future 2019 with-development traffic volumes. Detailed spreadsheets summarizing the traffic volumes are provided in **Appendix F**.

The resultant future 2019 build-out year peak hour traffic volumes without development are illustrated in **Figure 5A**, and the future 2019 build-out year with-development peak hour traffic volumes are illustrated in **Figure 5B** for the weekday morning, weekday afternoon, and Saturday peak hours. These traffic volumes were then analyzed to determine the future 2019 build-out year without and with development traffic operating conditions, and the results of this analysis are shown in **Figures 5C and 5D**. The analyses worksheets for the 2017 existing conditions and the 2019 build-out year without- and with-development conditions are then provided in **Appendices G, H, and I**, respectively.

Capacity/Level-of-Service Results

The peak hour traffic volumes were analyzed to determine the existing and future traffic operating conditions, both without and with the proposed development, in accordance with the standard techniques contained in the current *Highway Capacity Manual (2010)* for both signalized and unsignalized intersections. The HCM 2010 Methodology within Synchro 10.0 (build 806, rev. 77) traffic analysis software was utilized in the traffic analyses.

These standard capacity/level-of-service analysis techniques, which calculate total control delay, are described in **Appendix J** for both signalized and unsignalized intersections, as well as the correlation between average total control delay and the respective level-of-service (LOS) criteria for each intersection type.

According to PennDOT's *Policies and Procedures for Transportation Impact Studies Related to Highway Occupancy Permit Plans*, the following procedures and assumptions were utilized:

- For signalized intersections, the Pennsylvania base saturation flow rate (Exhibit 10-9) and Pennsylvania traffic signal control calibration parameters (Exhibit 10-10) outlined in PennDOT's *Publication 46, Traffic Engineering Manual*, were used.
- For unsignalized intersections, the base critical headways at TWSC intersections (Exhibit 10-11) and base follow-up headways at TWSC intersections (Exhibit 10-12) outlined in PennDOT's *Publication 46, Traffic Engineering Manual*, were used.
- All traffic signal timings at signalized intersections were optimized in without-development conditions.
- If the evaluation of without development to with development indicates that the overall intersection level-of-service has dropped, the applicant will be required to mitigate the level-of-service if the increase in delay is greater than 10 seconds. If the overall intersection delay increase is less than or equal to 10 seconds, mitigation of the intersection will not be required.

The existing and future build-out year 2019, both without and with the proposed development, are summarized in **Figures 3B, 5C, and 5D** respectively. As stated in the executive summary, the level-of-service and queue matrices are provided in **Tables 5 and 6**.

As illustrated in **Figures 3B, 5C, and 5D** with the proposed site and with the site related improvement recommendations, all study intersections will satisfy PennDOT's level-of-service criteria. **Table 4** below summarizes the overall levels of service for the study, and the detailed results of the level-of-service analysis are contained in the matrices provided in **Tables 5 and 6**.

Table 4. Overall Intersection Levels-of-Service

Weekday Morning Peak Hour

Intersection	Overall Level-of-Service (Delay in Seconds)		Delay Increase	Mitigates with Improvements
	2019 Without Development	2019 With Development		
Township Line Road (S.R. 3001) and North Wales Road (T-377)	C (22.4)	C (22.9)	+0.5 seconds	NA

Weekday Afternoon Peak Hour

Intersection	Overall Level-of-Service (Delay in Seconds)		Delay Increase	Mitigates with Improvements
	2019 Without Development	2019 With Development		
Township Line Road (S.R. 3001) and North Wales Road (T-377)	C (22.7)	C (23.3)	+0.6 seconds	NA

Saturday Midday Peak Hour

Intersection	Overall Level-of-Service (Delay in Seconds)		Delay Increase	Mitigates with Improvements
	Without Development	With Development		
Township Line Road (S.R. 3001) and North Wales Road (T-377)	A (9.1)	A (9.2)	+0.1 seconds	NA

Township Line Road (S.R. 3001) and North Wales Road (T-377)

Since the overall level of service will remain the same from without- to with-development conditions, mitigation is not required. However, the timings have been optimized within the parameters of the future permit plans to optimize future operations.

Township Line Road (S.R. 3001) and Site Access

This intersection will operate at overall LOS A with all movements operating at LOS C or better with development during all three peak hours.

North Wales Road (T-377) and Site Access

This intersection will operate at overall LOS A with all movements operating at LOS C or better with development during all three peak hours.

Conclusions and Recommendations

The following improvements are proposed in conjunction with the proposed development:

Site Accesses

Access 1: Full Movement Site Access along North Wales Road (T-377)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to North Wales Road (T-377); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

Access 2: Full Movement Site Access along Township Line Road (S.R. 3001)

- Classified as a low-volume driveway based on the anticipated daily traffic volumes.
- Provide a minimum cartway width of 26 feet, striped to provide one ingress and one egress lane
- Provide curb radii appropriate for the accommodation of trucks that will utilize the driveway;
- Provide stop-control on the egress approach to Township Line Road (S.R. 3001); and
- Provide ADA compliant curb ramps and crossings with connections to sidewalks along the property frontages.

The traffic analyses contained herein reveal that efficient access to and from the proposed development can be provided, and furthermore, site-generated traffic can be accommodated at the study area intersections.



CKS Engineers, Inc.
88 South Main Street
Doylestown, PA 18901

215-340-0600 • FAX 215-340-1655

RECEIVED
OCT 13 2017

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.

October 10, 2017
Ref: # 7380

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

Attention: Tommy Ryan, Township Manager

Reference: Stony Creek Village Land Development
Final Plan Submission

Dear Mr. Ryan:

CKS Engineers, Inc., is in receipt of a revised Final Plan for the Stony Creek Village Land Development. This latest plan submission includes a plan set consisting of 20 sheets which has prepared for Stony Creek Village, LP by Bohler Engineering, Inc., of Philadelphia, Pennsylvania. In addition to the plan set, I am in receipt of two (2) reports prepared for Stony Creek Village, the first report is titled "Post Construction Stormwater Narrative" and the second report is titled "Erosion and Sediment Pollution Control Calculations". Both reports are dated September 21, 2017 and prepared by Bohler Engineering, Inc.

This Final Plan proposes the development of a parcel of land, approximately 4.8 acres in size, at the north corner of the intersection at Township Line Road and North Wales Road. This parcel contains both commercial zoning and agricultural (AGR) zoning on portions of the property. This Land Development Plan previously received preliminary land development approval by Worcester Township. Approval was granted by Resolution No. 05-22, dated December 5, 2005. Since that approval, the applicant has not proceeded with further development of the property. In the interim period between 2005 and the present, the applicant did renew the DEP NPDES Permit relative to the stormwater management for the project. This renewal was obtained by the applicant's engineer in 2013.

The Final Plan submission is identical to what was approved by the Board for the preliminary plan. The project proposes three (3) separate buildings for commercial use which will include office space, retail space, and a proposed restaurant. The project will be provided with both public water and sewer service.

October 10, 2017

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Based on my review of this Final Plan submission, I offer the following comments:

1. The preliminary plans approval resolution (No. 05-22) did not include the waiver requests that were endorsed by the Township Planning Commission, and approved at a Board of Supervisors Meeting on October 3, 2005. These waivers include the following:
 - a. Section 130-17.D.7 - Parking stall dimensions shall be not less than 10 ft. in width and 20 ft. in depth.
 - b. Section 130-24.B.4.f.1 - All detention basins shall be designed as per procedures developed by US Soil Conservation service as outlined in its Technical Release No. 55.
 - c. Section 130-16.C - Sidewalks shall be provided along all streets unless not required by the Board of Supervisors. A waiver was granted on October 3, 2005 to provide a 6 ft. trail as well as a 15 ft. trail easement along North Wales Road in lieu of sidewalk.
 - d. Section 130-24.B.4.f.2 - A 100-Year, 24 Hour Storm under full development conditions should be released at a maximum outflow rate equal to that resulting from a 10-Year, 24 Hour Storm under present conditions.
 - e. Section 130-24.B.3.j - Minimum of 3 ft. of coverage shall be maintained over all storm drain pipes.
 - f. Section 130-33.C.1.n.4 - Show existing features within 400 ft. of the property.
 - g. Section 130-18.B - All curbing to be constructed of concrete. A waiver was granted to allow Belgian Block curb in lieu of concrete curb.

All of the above waiver requests were approved by the Board of Supervisors at their October 5, 2005 meeting. These waivers should be included in the Final Plan Resolution.

2. A traffic analysis report was prepared for this project by McMahon Associates, Inc. That report is dated November 3, 2005 and based on that report, McMahon recommended 96 trips for use in calculation of the traffic impact fee for this project. Since the development of the site has remained unchanged from when it was previously approved, the trip calculations should remain unchanged as well. Therefore, the applicant will be responsible for the traffic impact fee for 96 trips.

October 10, 2017

Ref: # 7380

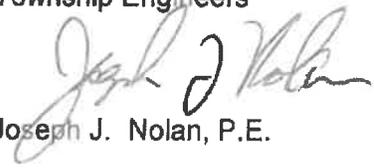
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3. The site will be served with a sanitary sewer extension which will convey flows through the Stony Creek Farms development for treatment at the wastewater treatment plant within that development. Planning approval has already been obtained for this project. That planning approval was provided by DEP letter of April 25, 2007. A sanitary sewer extension has already been provided to serve this project which was constructed in conjunction with the realignment of the Township Line Road/North Wales Road intersection. There is an existing manhole in front of the entrance drive to the project on North Wales Road. A lateral extension will be provided to connect to this manhole.
4. The project will be served with public water from Pennsylvania American Water Company. A "Letter of Water Service Ability" was obtained by the applicant's engineer and is dated October 17, 2006.
5. The Land Development Plan, sheet 1, shows a 15 ft. trail easement for this project and also a construction of a 6 ft. walking trail within that easement. Metes and Bounds should also be added to the easement and a legal description provided for dedication to Worcester Township.
6. The applicant did appear before the Worcester Township Zoning Board in conjunction with various variances and special exceptions required for this project. Zoning relief was granted by Application No. 03-17 by the Worcester Township Zoning Board dated January 16, 2004. The zoning decision is shown on Sheet 1 of the Land Development Plan. The Township and Township Solicitor should review the status of this zoning decision in conjunction with this project.

The above represents all comments on this final plan submission. The above items should be reviewed and any modifications or changes to the plan should be made as required. The applicant's engineer should prepare a construction cost estimate for use in preparation of a construction escrow for this project which can be used in the development agreement between the Township and the developer.

Please contact me if you have any questions or need any further assistance on this project.

Very truly yours,
CKS ENGINEERS, INC.
Township Engineers


Joseph J. Nolan, P.E.

JJN/paf

cc: Robert L. Brant, Esq., Township Solicitor
Cornelius Brown, Bohler Engineering, Inc.
File

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JODY L. HOLTON, AICP
EXECUTIVE DIRECTOR

October 19, 2017

Mr. Tommy Ryan, Manager
Worcester Township
1721 Valley Forge Road—Box 767
Worcester, Pennsylvania 19490

Re: MCPC #17-0231-001
Plan Name: Stony Creek Village
Situate: Township Line Road (N)/North Wales Road (W)
Worcester Township

Dear Mr. Ryan:

We have reviewed the above-referenced land development plan in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested on October 2, 2017. We forward this letter as a report of our review.

BACKGROUND

The applicant has proposed to develop a property located at Township Line Road and North Wales Road in Worcester Township. The parcel is predominantly located within the Township's Commercial District with a small portion within the AGR-Agricultural District. Three buildings are proposed for the site, two of which are 4,800 square feet and will have retail on the first floor and office on the second floor. The third building is 5,800 square feet and will contain both retail and a restaurant use. Two entrances to the site are proposed, one on North Wales Road and one on Township Line Road. All of the proposed parking is situated behind the buildings with the buildings visible at street level. Extensive landscaping and stormwater management is included on the plan, including a vegetative swale, infiltration trench, and several rain gardens. The applicant was granted several variances on November 25, 2003 under the condition that all businesses on the site will be closed by 11:00 PM. Several variances and waivers were granted to the applicant in 2003 and 2004.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal, however, in the course of our review we have identified the following issues that the applicant and Township may wish to consider prior to final plan approval. We do wish to commend the applicant for several elements of the plan, including the use of mixed use buildings, green parking techniques, stormwater management, landscaping, and the trail on the site. We wish to praise the applicant for the proposed plan and feel it will fit the character of the surrounding AGR-Agricultural and Commercial Districts.

REVIEW COMMENTS

TRANSPORTATION

- A. Coordination with PennDOT – We recommend that the applicant coordinates with PennDOT regarding the site entrance and exit on Township Line Road (a state-owned road). The applicant will need to be issued a highway occupancy permit (HOP) for driveway access on this road.
- B. Intersection on North Wales Road – There may be conflicts for left turns out of the North Wales Road driveway exit with the left-turn lane on North Wales Road. The Township should consider this carefully to ensure the viability and safety of left turns out of the development onto North Wales Road.

We wish to outline the favorable elements of the proposed plan referred to in the recommendation section above. Please see the following review comments:

PARKING

- C. Placement of Parking Areas – All of the parking on the site is located behind the three proposed buildings. This reduces the amount of parking visible from the street and will to create a more attractive development.
- D. Green Parking – The applicant has included landscaping and stormwater management, including a swale and several rain gardens, within the site's parking areas. This will help to manage increased runoff on the site from once construction is complete while adding aesthetic benefits to the parking areas.

STORMWATER MANAGEMENT

- A. The applicant has included comprehensive stormwater management on the site, including seven rain gardens, an infiltration trench, five swales, and water quality filters throughout the site. This stormwater management will help to slow the infiltration of runoff, as well as to remove pollutants from stormwater.

TRAIL CONNECTION

- A. The applicant is providing both a 6' foot trail and a 15' trail across the length of the property on North Wales Road. This segment serves as a stepping stone in connecting local Township trails to the Norristown Farm Park and beyond. We commend the applicant for including this trail segment.

CONCLUSION

We wish to reiterate that MCPC supports the applicant's proposal with minor comment as the applicant incorporated several favorable elements of the plan, including green parking design, the placement of parking behind the buildings, and extensive stormwater management and landscaping.

Please note that the review comments and recommendations contained in this report are advisory to the municipality and final disposition for the approval of any proposal will be made by the municipality.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the municipal seal and signature of approval must be supplied for our files.

Sincerely,



Jamie Magaziner, Planner II
JMagazin@montcopa.org
610-278-3738

c: Brennan Marion, Applicant
Cornelius Brown, PE, Applicant's Representative
Gordon Todd, Chrm., Municipality Planning Commission

Attachments: 1. Aerial View of Site
 2. Reduced Copy of Plan



Stony Creek Village
170231001

Montgomery
County
Planning
Commission
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PO Box 311, Norristown, PA 19304-0311
215.610.2783 ext. 215.610.2783 ext. 1
www.montco.org/planning
Year 2015 aerial photography provided by the
Cabrera Valley Regional Planning Commission

