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Lower Macungie Township

3400 Brookside Rd.
Macungie, PA 18062
Phone: 610-966-4343
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PUBLIC NOTICE

NOTICE IS HEREBY GIVEN that the Planning Commission of Lower Macungie Township will hold its regular meeting on January 12, 2021 at 7:00 p.m. via Zoom Meeting. A link will be published on the Township Website prior to this meeting for the public to participate.

Items on the meeting scheduled to come before the Commission are as follows:

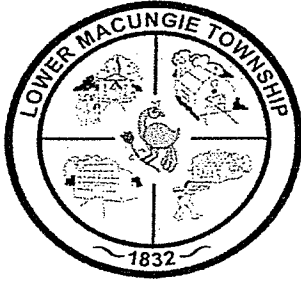
1. Reorganization
2. Approval of the December 8, 2020 Meeting Minutes
3. Woodmont Policy Discussion
4. DE 20-006 – ABE Doors Redevelopment, 6776/6718/6692 Hamilton Blvd – Land Development
5. Department Report

Any scheduled applicant not appearing by the end of the meeting is notified that the application will be considered and voted upon despite the absence.

If time permits, the Commission will consider other duly made requests for information.

The Lower Macungie Township Municipal building is accessible to the physically handicapped. Any person that requires special assistance to understand the nature of the business conducted at the above meeting because of visual, hearing or other impairment is requested to contact the Township Secretary at least five (5) days prior to the scheduled meeting to arrange for the necessary assistance.

Please note that all persons entering the building MUST wear a mask and practice Social Distancing



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TO: Lower Macungie Township Planning Commission
DATE: November 30, 2020
SUBJECT: ABE Doors Redevelopment Preliminary/ Final Land Development Plans

Dear Planning Commission Members,

Trainer Enterprises submitted Preliminary/Final Plan for properties located at 6692, 6718 and 6776 Hamilton Boulevard for Courtesy Review.

Southwestern Lehigh County Comprehensive Plan: The area is planned for Commercial land use. This category is intended to meet the needs for commercial development and its supporting uses, when scaled and positioned effectively to buffer the most intense uses (industrial) from the most sensitive (residential, agricultural, natural features.) Uses require public sewer and community water systems.

Lehigh Valley 2030 Comprehensive Plan: The properties are within the area shown for Urban Development. Recommended land uses include stores and businesses connected to public sewer and community water systems.

Zoning Classification: The property is located in the C (Commercial) District. The purpose of this District is to provide a place where Township residents and others can purchase goods and services. Development standards will be applied to ensure compatibility with nearby residential uses and to prevent traffic congestion on major roads such as Route 222 and Route 100.

Existing conditions: 6692 Hamilton Blvd. contains a single story single family home served by a low volume driveway. 6776 Hamilton Blvd. houses ABE windows and doors in a converted single family home served by a wide driveway and parking in front of the building. This portion of Hamilton Boulevard is graced with a consistent canopy of mature sycamores on both sides of Hamilton Boulevard. U-Line campus is directly across Hamilton Boulevard. Adjacent to the west is the Rite Aid pharmacy. Single Family homes on Ivy Drive are residential neighbors directly behind the properties.

Proposed Use: The applicant proposes to consolidate three parcels to create a parcel and develop a car wash and strip center that will house ABE Doors and other yet-to-be determined commercial users that potentially include food service.

Planning Considerations:

Site Plan: The application includes a coordinated commercial development. A retail strip is proposed in conjunction with a car wash on the single site. On-site parking is proposed in front of the strip center and vacuum and queue lands are proposed in front of the car wash. Parking is additionally provided along the sides of each building. Sidewalks on Hamilton Blvd. with a street wall and hedgerow have also been included within the plan.

Planning Considerations:

Sycamore Trees: At this time, it appears that all existing sycamore trees shall be preserved. It should be noted that the Township Engineer and Landscape Architect have noted concern about the potential cutting of roots, pruning of the trees and other actions that may harm the sycamores health and thereby threaten their vitality and lifespan. A certified arborist should review and approve and then inspect all potential work done to the trees to ensure survival. Further, minimal impact to the trees by way of design modification should be explored.

Walkways: Sidewalks are provided along the entire frontage of the proposal on Hamilton Boulevard in accordance with SALDO and the Hamilton Boulevard Corridor Master Plan. Sidewalks should not negatively impact existing sycamores.

Landscaping: Adequate buffer planting and area shall be provided. Parking lot trees are required, but should not be installed in areas of immediate risk of collision with cars. The proposed buffer plantings should ensure 4 season shielding and protection from neighboring residents. **It appears all planning department landscaping comments have been addressed. Plantings have all been appropriately sized, as have proposed walls.**

Lighting: Lighting shall conform to township ordinances. **No lighting should be installed at the rear or eastern portion of the site that could negatively impact abutting neighbors with ambient glare, all site lighting shall meet Dark Sky lighting standards.**

Storm Water: Area for storm water management is shown to be reserved on the plan underground beneath parking. Current placement necessitates a traditional strip center layout with parking in front, as proposed, as previously discussed during Conditional Use approval. Comments by the Township Engineer shall be addressed.

Fire Department Review: The Fire Department is now satisfied with the plans, as presented.

Parking: Parking spaces may still be able to be reduced at the site if deemed possible with the Township Zoning Officer, this may be able to provide more space for outdoor seating and dining at the eastern end of the site.

November 30, 2020
Staff Review Letter

ABE Doors and Windows, Prelim/ Final Plan, LMT 19-032
LMT Planning

Site Design: A Project Design Companion including architectural renderings, building materials a facades, signage, landscaping and hardscaping standards, site lighting and fixtures and any public amenities or spaces shall be included with the Land Development submission per the new Comprehensive Zoning Ordinance of 2019 (LMT ZO Section 27-10A09). **No Project Design Companion has yet been submitted per the requirements of Township Ordinance.**

Architecture for the site shall conform to the uniformity standards of the Coordinated Commercial Development requirements of township ordinance. The car wash and strip center should respect the adopted Lower Macungie Township Design Guidelines in design and share similar design schemes. Public or amenity space should be made available in front of the strip center should the need for outdoor dining space or gathering space ever be needed.

Final Considerations: Outdoor dining space should be officially included in the plan per township planning documents (currently listed as “potential”), but also due to the lasting effect of the COVID-19 health crisis and likelihood of long term social distancing standards and al fresco dining expectations of the public. Given the four season nature of the Lehigh Valley, a roofed patio with potential outdoor heaters may be beneficial for the site, numerous dining establishments are already undertaking such improvements to allow for dining from May until potentially November. Grease traps shall be installed in the commercial/ strip center.

Respectfully Submitted,

Nathan Jones, AICP
Director of Community Development

Cc: Bryan McAdam, PE Township Engineer
Carl Best, Township Zoning Officer
Debbie Ward, Community Development Department
Jason Buchta, RLA Ott Consulting, Inc.




LOWER MACUNGIE TOWNSHIP

3400 BROOKSIDE ROAD

MACUNGIE, PA 18062

PHONE: 610-966-4343 • FAX: 610-965-3654

WEBSITE: www.lowermac.com

TO: LMT Planning Commission
FROM: Carl L. Best, Zoning Officer 
DATE: November 30, 2020
SUBJECT: ABE Doors Preliminary/Final Plan

I have received the application and plans for the above referenced property submitted by Ott Consulting Engineers in behalf of Trainer Enterprises Inc. As Township Zoning Officer, I offer the following comments relative to the Zoning Ordinance 1998-11, Chapter 27.

ZONING ORDINANCE (Code of Ordinances) CHAPTER 27

The applicant proposes to construct a one story 3,960 S.F. car wash building, along with a 11,292 S.F. retail building, located on the south side of Hamilton Blvd. The plan also proposes to combine three (3) lots into one (1) lot, with a total lot area of 2.5770 acres of land. The subject property is located at 6776, 6718 and 6692 Hamilton Blvd. in a C-Commercial Zoning District in which a car wash is permitted by Conditional Use and retail (under 40,000 S.F.) is permitted by right. The property is served by both public water and sanitary sewer.

1. **Section 27-1701 11. A.B. & 12. Multiple Uses.** A. No more than one principal use shall be permitted on a single lot or parcel. B. Multiple uses in a single structure are permitted in the Commercial, Industrial, and ORLIC Zones as long as all parking requirements and all other provisions of this chapter are complied with. In all other zoning districts, no more than one principal use shall be permitted in a single lot or parcel. ***Since the plan is proposing two (2) uses on one (1) combined lot, the development shall be developed as a Coordinated Commercial Development. A Coordinated Commercial Development shall meet the following requirements:***

12. Coordinated Commercial and Industrial Development. Two or more industrial or commercial structures permitted in a particular zoning district may combine as a coordinated development subject to the following requirements:

- 1. All development shall occur as part of a unified site plan with a common architectural scheme.***
- 2. The owner shall provide assurances to the Township, acceptable to the Township Solicitor, that the initial development plan shall comprise not less than 50% of the ultimate coordinated development, measured as a percentage of the gross floor area.***

3. *The owner shall provide assurances to the Township, acceptable to the Township Solicitor that all structures shall conform to the site plan.*

4. *Structures may either be joined by common walls, or may be separated. In either event, the entire coordinated development shall be considered as a single parcel, without regard to ownership, provided that driveways and parking areas are available to each structure through cross easement agreements which assure adequate parking and access in accordance with Part 23 hereof.*

2. **Section 27-2406 J. Car Wash.** A Car Wash is permitted as a Conditional Use in the C-Commercial District. The applicant shall address the following Section during the Conditional Use process.

(1) Traffic flow and ingress-egress shall not cause traffic hazards on adjacent streets

(2) Access points shall be limited to two on each street abutting the lot.

(3) On-lot traffic circulation channels and parking areas shall be clearly marked.

(4) Centralized sewage disposal facilities and centralized recirculating water supply facilities shall be provided.

(5) Three marked parking/waiting spaces per manual car wash bay/lane and eight marked parking/waiting spaces per automatic car wash bay/lane shall be provided, to allow for stacking of waiting customers. A Conditional Use was approved by the Board of Commissioners on November 7, 2019. (with conditions).

3. **Section 27-1803 1.B** A fifty-foot buffer yard shall be required along the district boundaries between any nonresidential and residential district boundary lines in the Township or adjoining municipalities. ***The applicant should provide a fifty (50') foot wide buffer yard along the southern property line and a ten foot buffer along the eastern and western property lines. The buffer yard shall be a dense screen of plantings which meets the requirements of the Ordinance. The buffer yard shall be a landscaped area, free of structures (except fences and walls), manufacturing or processing activity, materials and vehicular parking. No driveways or streets shall be permitted in the buffer yards except at points of ingress or egress. The Landscape plan (including all buffers) has been submitted and will be reviewed by the Township, meeting the requirements of the Ordinance***

4. **Section 27-2301 E. (1)** Automobile servicing and repair. 4 spaces per each bay plus 1 space per employee. Retail. 1 space per 250 S.F. of gross floor area. ***Employee parking (4 spaces) for the proposed car wash are shown on the plan. Also the plan has provided Parking Calculations for Retail/Car Wash and for ABE doors and second (2nd) calculation which adds a Restaurant. Each scenario has provided the required parking in addition to the Car Wash stacking and vacuum spaces.***

5. **Section 27-2303 7. D. Parking Lot Landscaping.** One deciduous tree of a minimum caliper of 2 ½ inches measured 6 inches from the ground shall be required for every five (5) required off-street parking spaces. The trees shall be of the same species as listed in the LMT Subdivision and Land Development Ordinance. {Subchapter 22A} ***The applicant has provided a landscape plan and will be reviewed by the Township, meeting the requirements of the Ordinance***

6. **Section 27-2303 7. E. Parking facilities located adjacent to a street right-of-way shall provide a landscaping strip at least 10 feet in width. This area shall be planted with either shade or ornamental trees. A minimum of one tree for every 50 feet of lot frontage shall be provided, as well as an evergreen hedge (at least three feet in height), a wall or fence, or other methods to reduce the visual impact of the parking facility. *The applicant shall provide a ten (10) foot wide landscaped area, including an evergreen hedge, wall or fence along all areas adjacent to Hamilton Blvd. The plan has been revised indicating a three (3) foot high evergreen screened area.***

7. **Section 27-2303 5.** Any parking area designed for use by eight (8) or more cars after dusk shall be adequately illuminated. All lighting fixtures used to illuminate parking areas shall be shown on the plan and arranged to prevent glare into public streets and adjoining properties. The minimum nighttime illumination shall be no less than 0.5 foot candles per square foot throughout the access and parking area. ***The applicant has provided a lighting plan and will be reviewed and by the Township Engineer meeting the requirements of the Ordinance.***

8. **Section 27-2303.3.F** Where access to a State Road, a valid highway occupancy permit shall be obtained prior to plan recording. Where Penn DOT standards differ from those of the Township, Penn DOT regulations shall apply. ***Hamilton Blvd. is designated as a State Road (SR.0222) and highway occupancy permit shall be obtained. A copy of the permit shall be submitted to the Township.***

9. **Section 27-1802-** All methods of sewage, waste treatment and disposal shall be approved by the Pennsylvania Department of Environmental Protection (DEP) and in accordance with the Sewage plan of LMT. All subdivisions and land developments require DEP approval under The Sewage Planning Program. The Bethlehem District Office of the PA DEP should be contacted to determine which Sewage Facilities Planning documents would be required. ***DEP Planning Module should be submitted for review and approval.***

cc: N. Jones, Planning Director
Z. Graves, LMT
B. McAdam, CKS Engineers
D. Brooman, Esq.



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Doylestown, PA 18902

www.cksengineers.com
215.340.0600

December 1, 2020
Ref: #12506-62

Lower Macungie Township
3400 Brookside Road
Macungie, PA 18062

Attention: Nathan D. Jones, AICP Director of Community Development

Reference: ABE Doors
6776 Hamilton Boulevard
Land Development Plan
TWP # DE-20-006

Dear Nathan:

CKS Engineers, Inc. has completed our review of the above-referenced plan. The applicant is proposing to consolidate four (4) parcels on the south side of Hamilton Boulevard, having a gross acreage of approximately 2.6 +/- acres in the C – Commercial Zoning District. The proposal is to construct 11,292 SF of retail space and a car wash, on the resulting parcel. The project will be served by a parking lot, underground stormwater management facilities, public water and sanitary sewer. The applicant proposes two new driveways from Hamilton Boulevard, one of which is to be entrance only. The existing buildings on the property are to be removed. The submission consists of ten (11) plan sheets titled "ABE Doors Redevelopment" as well as a Stormwater Management plan set and narrative & PCSM plan set and Report dated June 22, 2020, last revised November 16, 2020 and Erosion and Sediment Control Plan Narrative dated June 22, 2020, last revised October 2, 2020, each prepared by Ott Consulting Inc.

We have reviewed the documents for compliance with applicable Zoning, Subdivision and Land Development Ordinance requirements and have the following comments:

1. We previously raised concerns as to how the utilities and other improvements as proposed can be constructed without damage to the existing sycamore trees along Hamilton Boulevard, as well as the relocation of the aboveground poles/wires, etc. The plan has been revised to show relocations of the existing utility poles on the parcels.

The plan also indicates a proposed utility easement along the site frontage, immediately behind the ultimate right-of-way. However, the plan does not specifically indicate who the easement is in favor of, i.e. LCA, Verizon, PP&L etc. The plan is also proposing to convert the aerial line that runs through the property to an underground utility service. An easement for the proposed underground utility should be provided. As required by ordinance, whenever a proposed public improvement encroaches upon a utility line or easement, the applicant should provide a letter from the utility verifying that the development will comply with all reasonable design criteria set by the utility. (22A-403.4.H, 22A-709.2, 22A-710.1.B.1.b, 22A-710.2, 27-1804)

2. The submission includes a plan containing turning templates for three different vehicles, over 3 areas of the site. We recommend that the Township emergency services personnel provide comment and acceptance of the proposal. The plan shows a fire truck entering areas that are

dead ends, requiring the truck to back up. This may not be acceptable to the Fire Department. We recommend that the Township's emergency services personnel provide comment. (22A-403.5.D)

3. The project will require a Traffic Impact Fee. The applicant's engineer has provided information on the PM Peak Hour Trips. They estimate that the site will produce 106 new peak PM trips. The site is in the East Transportation Service area, requiring a fee of \$2,512.00 per peak PM trip generated by the site, resulting in a traffic impact fee of \$266,272.00. (22A-403.5.M)
4. A Highway Occupancy Permit from PennDOT for the frontage improvements and driveways is required. (27-2303.3.F)
5. The applicant has provided a Traffic Impact Assessment, prepared by Traffic, Planning and Design (TPD), dated September 23, 2020. Comments by Heinrich & Klein Associates, Inc., are included by reference and attached to this review.
6. The applicant has provided a "will serve" confirmation from the Lehigh County Authority (LCA) dated October 26, 2020 regarding public water service. We note that the authority has agreed to providing service with specific conditions. Approval from the LCA regarding design and ultimately the service agreement, etc. should be provided. (22A-403.5.G, 22A-707.1)
7. Approval is required from the Lehigh County Conservation District and PADEP for the construction activities. Dependent on reviews by the respective agencies, additional plan revisions may be necessary. (23C-303.4)
8. The applicant proposes one subsurface detention basin to manage the increase in runoff that will result from the proposed improvements. We have the following comments regarding the grading, erosion control and stormwater management design:
 - a. The submission includes a May 26, 2020 Infiltration Test Report, prepared by GTA, Inc. As reported, there is negligible infiltration available onsite. Accordingly, the applicant's engineer states that the proposed underground storage system has been designed with an impervious liner and will utilize the MRC (Managed Release Concept) to address the release rate and volume control requirements of the ordinance.
 - b. We had previously commented that the stormwater calculations only account for onsite areas. The response letter from the applicant's engineer states that our previous comment was accurate. However, the detention basin design must account for all inflow, in order to ensure that it has been sized properly. Upon further review of the inflow hydrographs for the basin, it appears that the offsite areas have in fact been accounted for. However, we are not confident with the information presented, given the inconsistencies between the response, the plans and the stormwater management report. We recommend that the applicant's engineer re-evaluate the design documents and submit revised materials that are consistent and confirm compliance with the respective ordinance requirements. (23A-301.4, 23A-403.1.B)
 - c. The report indicates that the designer wishes to utilize the criteria from Ordinance Section 23A-306.13, which allows for the site to not be subject to the release rate requirements if through groundwater recharge or other means, does not increase the volume of runoff. This condition applies to Points of Interest 2 and 3 and is acceptable as presented.

- d. The summary of release rates is dated June 22, 2020, however revisions have been made to the system, and the report as currently submitted has a last revised date of October 2, 2020. All components of the report and summaries must be consistent with the latest revision.
 - e. Regarding the basin outlet structure detail, the detail for the structure has been revised to indicate the wall thickness of the box and indicates that the weir and orifice will be achieved with an 1/8" stainless steel plate. The detail indicates that the plate is to be attached to the walls with 4 tabs. The connection to the box walls is shown to be "watertight". We have concerns that once water pressure builds up behind this weir, the plate will flex or bow and will pull the edges away from the wall. We recommend the engineer contact our office to discuss further.
 - f. We had previously recommended either breaks in the berm at the rear of the site to allow for runoff to go through, or inlets to be proposed. The plan shows two inlets. However, several issues exist:
 1. The inlets are only a few feet from the property boundary and will be difficult if not impossible to install without impacting the adjacent properties. The inlets should be located no closer than 10 feet to the property line. (23A-301.4)
 2. The proposed grading is within 5 feet of the property boundary and at times right up to the property boundary. We have concerns that the proximity to the boundary will cause issues for the adjacent properties. (22A-710.1.C.1)
 3. The location of the inlets does not appear to be effective. For instance, spot elevations have been provided, however the slope along the back side of the berm is less than 2% and there are no defined swales to provide drainage to the inlets. As proposed, it appears that the inlets will collect only that runoff that is within a few feet of the inlets. The design should be reconsidered and revised.
 - g. Many of the notes related to the stormwater management facility including the BMP construction sequence, the O&M procedures, the NOI checklist notes and the PCSM long term maintenance notes are not site specific and must be revised. For instance, there are many references to "infiltration" facility that should be "detention" facility. In addition, the BMP Construction Sequence and the Operation and Maintenance Procedures, each on Sheet C-9.2 reference installation of vegetation over the infiltration bed which is not part of this design.
 - h. It appears that the storm sewer calculations provided in the Stormwater Management Report have been prepared for the 2 year design storm. Calculations should be prepared to confirm capacity for the 100 year Rational Method design storm. (22A-708.3.A.(3))
9. The Existing Trees to remain (primarily the sycamore trees along Hamilton Boulevard) are now shown on the Grading and Utility plan sheets. As shown, there are a substantial amount of improvements that encroach within the drip line of the trees including: the bike path, drive aisle, storm sewer, relocation of overhead utilities. Additionally, in some locations the proposed utility structures and grading is within a few feet of the trunk of some of these trees.

We recommend that the engineer set up a meeting with us to determine what can be done to protect the existing sycamore trees along the front of the property. We have concerns that the impact to the root systems will cause permanent damage to the trees and note that preservation of these trees is a priority for the Township and was also specifically referenced as one of the conditions of approval in the Conditional Use approval decision. Although the plan as presented does not propose to remove any of the trees, we do not feel that the long term survival of several can be guaranteed based on the improvements as proposed. (22A-710.2, 27-1906.8)

10. We have the following Landscaping Design comments for consideration. We recommend that the applicant's landscape architect contact Kim Flanders at McCloskey & Faber to discuss possible locations, species, etc. (22A-710 unless noted otherwise)

- a. Some adjustments to proposed utilities were incorporated into the plans which reduce the impact to the existing mature Sycamore trees. However, as noted above, specific impact to these trees must be reviewed in further detail. The Applicant should provide a detailed outline of the tree protection measures to be used during construction in order to reduce disturbance within the dripline of the existing Sycamore trees scheduled to remain. We note that these Sycamore trees represent a historic fabric woven throughout Hamilton Boulevard.
- b. We continue to recommend that a Certified Arborist be retained to review the Sycamore trees relative to proposed improvements. A Certified Arborist could determine the likelihood of survival of each of the trees after construction; and/or could recommend steps to be undertaken before, during, and/or after construction to prolong the life of the tree assuming it can be preserved. Tree preservation measures, which may include but not be limited to root pruning and selective crown pruning and thinning, soil/root management and pest management programs, appear to be necessary in order to help prolong the life of the trees and lessen the impact from the project construction. This evaluation should take place prior to plan approval so that revisions to the design can be accomplished prior to recording and construction. We request that we be notified when the site inspection will take place, so that we may have a representative in attendance for the inspection.
- c. Although adjustments to the layout of proposed underground utilities were achieved since the previous submission, it does not appear that adequate space exists to provide the proposed parking lot trees along Hamilton Boulevard due to overhead utilities in this area. The close proximity of these trees to both the existing sycamore trees, the overhead wires and the underground detention basin may cause problems as the trees mature.

We would have no objection if a waiver was requested for the four shade trees proposed. There is a fifth shade tree that is too close to the detention basin discharge pipe and inlet, however it can be shifted to be greater than ten feet from those structures and still provide function as a parking lot shade tree.

- d. We offer the following comments relative to proposed species and placement of plant material:
 1. A minimum 3-foot height hedge is proposed hedge along parking per Zoning Ordinance section 27-2303.6.E. There is landscaping proposed within the 10-foot wide proposed utility easement running parallel to Hamilton Boulevard. We recommend that the

respective utility companies be contacted to confirm that the landscaping is permitted within the easement.

2. Per Zoning Section 27-2303. 6. A, greenspace areas associated with parking shall be covered with all season groundcover and that the use of mulch shall be minimized. Designation of proposed parking lot greenspace plantings should be clearly indicated on the plan, i.e. sod, lawn. The plan merely states that areas not covered by paving or building "shall be covered with an all-season ground cover...". As previously stated, the type of groundcover must be indicated and appropriate information, i.e. seed mix, planting types and number, included.
 3. Details for the proposed refuse enclosures should be provided. The plan has been revised to include a note stating that the architect will provide a design. However, the details are required prior to approval and must be included in the land development plan set.
 4. We recommend that the landscaping requirements information be expanded to incorporate all landscape requirement categories in order to verify compliance and to include the quantities of proposed and existing trees to count toward the landscape requirements. Essentially, the tabulation should be revised to indicate the required trees, the proposed trees and the deficiencies.
11. We have the following comments regarding sanitary sewer service:
- a. The applicant must obtain Sewage Facilities Planning Approval from the Pennsylvania Department of Environmental Protection (PADEP) for the proposed subdivision. Relative to this matter, we note the applicant has submitted a PADEP Sewage Facilities Planning Module Application Mailer to Lower Macungie Township for review. (S.O. Section 22A-706)
 - b. The applicant must pay the pertinent tapping fees for the water and sewerage connections that are proposed in conjunction with this project prior to, or as a condition of, final plan approval.
12. We have the following drafting and engineering comments:
- a. No light source or combination thereof which casts light on adjacent residential property exceed 0.1 footcandle as measured at the property line. The lighting near the existing dwelling to the East of the site does not comply. We note that some of the light levels are 0.1 footcandle as measured 5 feet off the property line. It may be possible to have house side cutoff shields installed to bring these fixtures into compliance. (27-1805.6.A, 27-1805.6.E, 27-1805.6.C.(4))
 - b. The proposed pole mounted fixtures each indicate that 4000K fixtures are proposed. We note that Dark Sky compliant lighting is generally considered to be at or near 3000K. The lighting should be revised to be Dark Sky compliant, as indicated in the Lower Macungie Township Design Guidelines. (27-2303.1.C)

13. Approvals should be provided from the following agencies:

- a. Lehigh Valley Planning Commission
- b. Lehigh County Conservation District
- c. PennDOT
- d. Lehigh County Authority

We recommend the plan be revised and resubmitted. Should you have any questions, please feel free to contact me.

Very truly yours,
CKS ENGINEERS, INC.
Township Engineers

 paf

Bryan McAdam, P.E.

BMc/paf
Enclosure

cc: Bruce Beitel, Township Manager
Renea Flexer, Assistant Township Manager
Debbie Ward, Admin. Assistant, Planning and Zoning
David Brooman, Esq., Township Solicitor
Jason W. Buchta, Ott Consulting Inc.
Janet & James Lett, Property Owners
Kim Flanders, McCloskey & Faber, P.C.
Brian Cicak, CKS Engineers, Inc.
Andreas Heinrich, Heinrich & Klein Associates, Inc.
File



**HEINRICH & KLEIN
ASSOCIATES, INC.**

TRAFFIC ENGINEERING & PLANNING
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November 12, 2020

Bryan McAdam, P.E.
CKS Engineers, Inc.
4259 W. Swamp Road, Suite 410
Doylestown, PA 18902

Re: ABE Doors Redevelopment – 6776 Hamilton, LLC
6776 Hamilton Boulevard
Lower Macungie Township, Lehigh County, PA

Dear Mr. McAdam:

As requested, I have completed a Traffic Engineering Review of the ABE Doors Redevelopment proposed at 6776 Hamilton Boulevard in Lower Macungie Township, Lehigh County, PA. The site is currently occupied by two residential structures, one of which has been converted to commercial use and occupied by ABE Doors & Windows. It is my understanding that it is proposed to demolish the two existing structures and re-develop the site for 11,292 square feet of commercial floor space and a 4,000 square foot automated car wash (one tunnel). The two existing driveways will be eliminated; and, it is proposed to construct two new driveways to intersect Hamilton Boulevard – the west driveway as a full-movement driveway, and the east driveway as an entrance only driveway. A Transportation Impact Assessment (TIA) was prepared by Traffic Planning and Design, Inc., dated September 23, 2020. A Preliminary/Final Record Plan for the proposed development was prepared by Ott Consulting, Inc., last revised 8/17/20. My comments are as follows:

1. In consideration of the current impacts to traffic activity due to Covid-19, in lieu of expanding the study area as part of the TIA, it is recommended that traffic monitoring be implemented by the Applicant within six-months of full occupancy of the proposed development to include the intersections of Hamilton Boulevard with Lower Macungie Road and Hamilton Boulevard with Mill Creek Road. The purpose of the traffic monitoring is to optimize the traffic signal phasing and timing for the two signalized intersections. The traffic monitoring should include the weekday morning (7:00 AM to 9:00 AM), weekday afternoon (4:00 PM to 6:00 PM), and Saturday midday (11:30 AM to 1:30 PM) peak periods. Care must be exercised to assure that the automated car wash is in operation during the period of the intersection turning movement counts.

2. A Gap Study should be completed for site access to assure there are sufficient safe gaps for left turn egress from the site. Appropriate adjustments should be made to model pre-Covid-19 conditions.
3. More information is required relative to the operations of automated car wash. Specifically, confirmation is required to assure the 25 stacking spaces is sufficient so that queuing does not block the driveway or extend out into Hamilton Boulevard. Further, the stacking spaces are indicated to be only 18 feet in length. To adequately account for the average vehicle length and space between each vehicle in the queue, stacking should be based on a minimum of 20 feet per vehicle. In addition, supporting documentation for the use of a pass-by rate of 50% for the automated car wash must be provided.
4. The Preliminary/Final Record Plan indicates 11,292 SF of retail floor space of which 4,480 SF is indicated to be a potential restaurant; while the TIA is based on 4,165 SF office (12 employees), 4,887 SF retail, and 2,240 SF high-turnover restaurant. These differences need to be resolved; and, the trip generation calculations revised to reflect the land uses with the highest trip generation. Also, please clarify if the ABE Doors & Windows will have a retail showroom, and if so, revise the trip generation accordingly. Expand the trip generation data to include the Saturday peak hour.
5. Based on the preliminary estimates of the potential trip generation contained in the TIA, the proposed development might be expected to generate as 106 external trips per hour during the PM peak hour. The resultant preliminary Traffic Impact Fee calculation for a development situated in the East Transportation Service Area is calculated to be \$266,272.00 (i.e., 106 PM peak hour trips X \$2,512.00 per PM peak hour trip = \$266,272.00). This calculation is subject to confirmation of the size and land uses proposed in the development; and, confirmation of the pass-by trip rate for an automated car wash. It should be noted that the Applicant is invited to also provide data to support a credit for the trip generation for the current uses of the site.
6. Please confirm if the outdoor seating area is included in the parking calculations. It should be noted that if the 4,165 SF to be occupied by ABE Doors & Windows is ever occupied for future retail use, the parking calculations will be short one or two parking spaces.
7. It is recommended the full-movement access driveway be shifted to the east to align with the 17-space parking bay, and the entrance only driveway be eliminated.
8. The Auxiliary Turn Lane Warrant Analysis should be expanded to include the Saturday peak hour when the Automated Car Wash, together with the retail and restaurant components, will have their highest trip generation. There is concern that peak operations for the automated car wash will result in queues spilling out into Hamilton Boulevard. While there is a two-way center left turn lane to accommodate that spillover for left turn entry, there is no spillover are along eastbound Hamilton

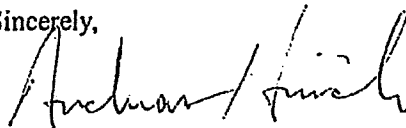
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Boulevard. It may be advisable to consider widening eastbound Hamilton Boulevard in advance of the full movement driveway for a separate right turn deceleration lane regardless of the results of the turn lane warrant analysis.

9. Truck turning paths should be indicated for access to/from the proposed development to accommodate the appropriate design vehicle. Please discuss how trucks will access the loading zone and refuse trucks will access the refuse enclosures, particularly if the parking spaces in the area of the loading zone and refuse enclosures are occupied.
10. The plan should dimension the end of the driveway curbs two feet off the edge of pavement along Hamilton Boulevard.
11. All pedestrian facilities shall be ADA compliant.

If you should have any questions, or wish to discuss these comments in greater detail, please call me at your convenience.

Sincerely,



Andreas Heinrich, P.E., P.T.O.E.
Principal

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