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MEMORANDUM

To: *Chairman and Members of the
West Orange Zoning Board*

From: *John J. Hess, PE, PP, CME
Zoning Board Engineer*

Date: *March 25, 2026*

Re: *Application No. ZB-25-07
Mavis Tire Supply, LLC
Preliminary & Final Site Plan with 'C' and 'D'
Variances and Tree Removal Permit - Review #2
460 Prospect Avenue
Block 105, Lot 64.01
Our File: 115.WRZ0105.V01 (60001)*

CC: *Geniece Gary-Adams – Zoning Official
Zayibeth Carballo, PE, PLS, PP – Municipal Engineer
George Wheatle Williams, PP – Zoning Board Planner
Steven Warner, Esq. – Zoning Board Attorney
Mavis Tire Supply, LLC - Applicant
Lisa A. John-Basta, Esq. – Applicant's Attorney
Rodman R. Ritchie, PE – Applicant's Engineer
Larson Design Group, Inc. – Applicant's Architect
Christine A. Nazzaro-Cifone, PP – Applicant's Planner
James A. Conway Jr., PLS - Applicant's Surveyor*

Our office has received for review the following documents which were submitted in support of the above referenced application for Preliminary & Final Site Plan with 'C' and 'D' Variances:

- A set of Preliminary and Final Site Plan drawings (19 sheets) prepared Rodman R. Ritchie, PE with Dynamic Engineering of Marlton, New Jersey and bearing a latest revision date of February 16, 2025.
- A set of unsigned architectural plans (4 sheets) prepared by Larson Design Group, Inc. of Cranberry Township, Pennsylvania dated February 12, 2026.
- A Stormwater Management, Water Quality and Groundwater Recharge Analysis prepared by Rodman R. Ritchie, PE, PP and bearing a latest revision date of February 2026. Included with the report is a set of Drainage Area Maps (3 sheets) prepared by Dynamic Engineering and bearing a latest revision date of February 13, 2026.



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- A Stormwater Management Operation and Maintenance Manual prepared by Rodman R. Ritchie, PE, PP dated February 2026.
- A Tree Removal Report prepared by Michael LaLana, LTE and Marla A. Roller, LLA with Dynamic Engineering of Marlton, New dated March 2026.
- A Traffic Impact Study prepared by Patrick Downey, PE, PTOE and Justin Taylor, PE, PTOE with Dynamic Traffic of Newtown, Pennsylvania and bearing a latest revision date of February 12, 2026.
- A Consulting Report prepared by Christine A. Nazzaro-Cofone, PP with Cofone Consulting Group of Red Bank, New Jersey dated February 17, 2026.
- A completed Township of West Orange Application for Stormwater Permit dated February 6, 2026.
- A completed Grading Plan Design Items - Checklist.
- A Preliminary List of Variances & Waivers prepared by Dynamic Engineering Consultants, PC dated February 2026
- A copy of a February 19, 2026 letter from Rodman R. Ritchie, PE and Robert P. Freud, PE to the West Orange Zoning Board of Adjustment which addresses the comments in our September 29, 2025 engineering review letter and the October 23, 2025 planning review letter from Christopher N. Dochney, PP.

In addition to the above, our office previously received the following information as part of the original submission for this application:

- A print of an ALTA/NSPE Land Title Survey (1 sheet) prepared by James A. Conway Jr., PLS with Dynamic Survey, LLC of Newark, New Jersey and bearing a latest revision date of December 17, 2024.
- A Geotechnical Engineering Report prepared by Stephen F. Patt, PE and Jeffrey C. Yates, PE with ECS Mid-Atlantic, LLC of Moorestown, New Jersey dated December 10, 2024.
- Addendum No. 1 – Results of Test Pit Excavation and Infiltration Testing prepared by Jeffrey C. Yates, PE and Stephen F. Patt, PE dated January 29, 2025.
- A completed Application Form dated July 16, 2025.
- A Disclosure of all entities and individuals having a ten percent (10%) or greater interest in Mavis Tire Supply LLC.
- A completed Application for Tree Removal & Replacement Permit dated August 11, 2025.
- A completed Site Plan/Subdivision Checklist.
- A completed Sustainability Checklist Form.
- A July 9, 2025 Buffer Report from the Office of the Assessor which lists the properties within 200 ft of Block 105, Lot 64.01.



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- A copy of a July 8, 2025 Verification of Taxes & Sewer Charges Paid from the Office of the Tax Collector which states that the taxes are paid until July 31, 2025, the 2024 sewer charges have been paid and the 2025 sewer charges have not yet been billed.
- Copies of various deed documents for the property in question.
- Copies of the following Zoning Board of Adjustment Resolutions of Approval for the property in question:
 - Zoning Board of Adjustment Case No. ZB 84-21 dated January 17, 1985.
 - Zoning Board of Adjustment Case No. ZB 84-21 dated February 14, 1985.
 - Zoning Board of Adjustment Case No. ZB 02-27 dated October 17, 2002.

We have reviewed the submitted information and offer the following comments:

A. PROJECT DESCRIPTION

The property in question is a rectangular tract which fronts on the easterly side of Prospect Avenue approximately 826 ft north of the intersection with Marcella Avenue. It has an area of 32,118 sf or approximately 0.74 acres and is located in the B-2 Zoning District. The property is currently occupied by a 3,334 sf 2-story office building which has been used as a realtor's office. According to the Resolution of Approval for Case No. ZB-02-27, 19 parking spaces were approved in front of the building and an additional 10 parking spaces at the southerly end of the property.

The Applicant is seeking Preliminary & Final Site Plan approval with 'C' and 'D' variances and a Tree Removal Permit to demolish the existing structure and pavement and to construct a new 6,205 sf automotive service facility with 7 service bays and a 1,142 sf retail sales area including a showroom, sales counter, waiting area and restrooms. On-site parking is proposed for 22 vehicles including 2 handicap accessible parking spaces. In addition, access is proposed to the site via a right in/ right out two-way driveway from Prospect Avenue. In addition, a full movement driveway is proposed on the southerly side of the site which will connect to Blueberry Bend which is a private road. The Applicant proposes an underground detention basin and a bioretention basin to mitigate the increase in runoff from the site. The overflow from these basins and the stormwater runoff from the undetained portions of the site will be collected and discharged to an existing 15" pipe which exits the property at the northeast corner of the site.

B. DESIGN COMMENTS

1. Based on our review, we find that the following items from the Township's Site Plan/Subdivision Checklist must be addressed:
 - a) Item #14 – *Affidavit of ownership*.
2. The Applicant has requested the following waivers in support of this application:
 - a) From the requirement to provide a minimum illumination level of 2.0 FC for the parking areas.
 - b) From the requirement to provide road and paving cross-sections and profiles (Checklist Item #41).
 - c) From the requirement to provide proposed street names (Checklist Item #42).



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- d) The Applicant proposes to comply with the West Orange COAH Ordinance as a condition of approval.
3. The Applicant should address the Board regarding the proposed hours of operation of the Mavis Tire Center and the hours of operation of the proposed site lighting. We recommend that light levels be dimmed/turned off one hour after closing to reduce light pollution.
 4. The Applicant should address the Board regarding the proposed frequency and anticipated hours for deliveries to the site.
 5. The Applicant should address the Board regarding the anticipated frequency and anticipated hours for removal of the waste oil at the site. In addition, the plans should be revised to show the location of the proposed waste oil tank.
 6. The Applicant should address the Board regarding their plans to provide a loading space as required by §25-12.3 of the Township Code.
 7. It states on sheet 5 that Prospect Avenue has a variable ROW width. The plans should be revised to show the existing ROW width and the ROW half-width in front of the property in question. In addition, the Applicant should address the Board regarding whether the Essex County Planning Board will require a ROW dedication along the site frontage. In their February 19, 2026 letter, Messrs. Ritchie and Freud state that the ROW width and any potential dedications will be provided as a condition of approval.
 8. It shows on sheet 5 that the Applicant proposes a driveway connection to Blueberry Bend which is a private road. The Applicant must demonstrate that they have the necessary approval from the Owner of Blueberry Bend to permit the proposed driveway connection. In their February 19, 2026 letter, Messrs. Ritchie and Freud state that *"The Applicant's property line extends to the centerline of Blueberry Bend. Therefore, any connections to the northern side of Blueberry Bend do not require approval from another party"*. Our office does not agree with this position. Since Blueberry Bend is a private road, the Applicant must demonstrate they have the right to use Blueberry Bend to access the proposed development. We note that this issue was discussed at the Site Plan Review Advisory Board meeting on November 18, 2025 at which time the Applicant agreed to provide copies of the existing easements to the Board.
 9. According to our notes, at the Site Plan Review Advisory Board (SPRAB) meeting on November 18, 2025 the Applicant agreed to provide a privacy fence along the rear property line. Therefore, the plans must be revised to show the privacy fence.
 10. It shows on sheet 5 that a 10'x10' masonry trash enclosure is proposed at the southeast corner of the building. The Applicant should provide testimony to the Board to demonstrate that the proposed trash enclosure will have adequate capacity to accommodate the trash and recyclables that will be generated at the site.
 11. It shows on sheet 5 that the proposed trash enclosure will be located close to the rear property line. We note that the property in question abuts an existing residential neighborhood. The Applicant should address the Board regarding the anticipated frequency and hours of pickup. Our office is concerned with the potential noise impacts on the adjoining residential properties.



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12. Sheet 5 should be revised to show the locations of the proposed detectable warning surfaces.
13. It shows on sheet 6 that there is an existing low point on the common property line with lot 2 just north of the existing 'A' inlet. In order to address this issue, it is our recommendation that the elevation of the grate on the existing 'A' inlet be lowered to provide positive drainage to the inlet.
14. It shows on sheet 7 that the Applicant proposes to install a new 6" DIP sewer lateral which will connect to an existing 6" cast iron sewer line. However, condition of the existing 6" cast iron sewer line is not known. As discussed at the November 18, 2025 SPRAB meeting, the existing cast iron sewer lateral should be televised to the point of connection to the existing sewer main to demonstrate that it is in good condition. In addition, sheet 7 should be revised to show the existing sewer main that the existing 6" cast iron sewer line connects to.
15. The plans should be revised to include the following details:
 - a) Detectable Warning Surface
 - b) Trash Rack
 - c) 4' Wide Riprap Swale
 - d) Striped hatching adjacent to the proposed building
 - e) Curb Taper

C. STORMWATER MANAGEMENT COMMENTS

1. On May 20, 2025, the Township of West Orange adopted Ordinance 2918-25 which amended the Township's Stormwater Control Ordinance (SCO). This Ordinance defines a major development as one which individually or collectively results in:
 - a. The disturbance of 0.5 acre of land since February 2, 2004.
 - b. The creation of 5,000 square feet or more of "regulated impervious surface" since February 2, 2004.
 - c. The creation of 5,000 square feet or more of "regulated motor vehicle surface" since March 2, 2021, or
 - d. A combination of b and c above that totals 5,000 square feet or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more.

It shows on sheet 12 that the area of disturbance will be 32,434 sf or 0.74 acres. As a result, this project is classified as a major development and must comply with the requirements in Ordinance 2918-25.

2. The Applicant proposes an underground detention basin and a bioretention basin to mitigate the increase in runoff from the site. The overflow from these basins and the stormwater runoff from the undetained portions of the site will be collected and discharged to an existing 15" pipe which exits the property at the northeast corner of the site.



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3. The Applicant proposes to have the roof runoff discharge to the underground detention basin. It states in Chapter 11.2 of the New Jersey Stormwater Best Management Practices Manual that an extended detention basin (Non-GI) can only be used to address the stormwater runoff quantity control aspects of the development when a waiver or variance is obtained from N.J.A.C. 7:8-5.3 as it is not considered to be green infrastructure. Therefore, the Applicant requires a waiver from §25-29.4p (green infrastructure standards) of the Ordinance.
4. The stormwater report should be revised to include stability calculations for the stone riprap in the bioretention basin.
5. The times of concentration shown in the Existing Conditions input Summary Table on page 3 do not match the times of concentration in the hydrograph summary reports. Revise accordingly.
6. The existing peak flow rates shown in the Existing Conditions Flow Summary Table on page 3 and in the Point of Analysis #1 Table on page 6 of the stormwater report do not match the existing peak flow rate in the hydrograph summary reports. Revise accordingly.
7. The following information shown in the Proposed Conditions Input Summary Table on page 4 of the stormwater report does not match the same within the hydrograph summary reports.
 - a. The time of concentration of PDA-Bioretention Basin (Pervious)
 - b. The time of concentration of PDA-Bioretention Basin (Impervious)
 - c. The drainage area of PDA-Uncontrolled (Pervious)
 - d. The time of concentration of PDA-Uncontrolled (Pervious)
 - e. The drainage area of PDA-Uncontrolled (Impervious)
 - f. The time of concentration of PDA-Uncontrolled (Impervious)Revise accordingly.
8. The proposed peak flow rates shown in the Proposed Conditions Flow Summary Table on page 4 of the stormwater report do not match the Point of Analysis #1 Table on page 6 of the stormwater report nor the proposed peak flow rate in the hydrograph summary reports. Revise accordingly.
9. Table 5-1 on page 5 of the stormwater report states that the bioretention basin does not have a maximum drain time since underdrains are proposed which is incorrect. The capacity of the underdrain system must be sufficient to allow the basin to drain within 72 hours while still retaining moisture below the surface for uptake by vegetation.
10. The Point of Analysis #1 Table on page 6 shows that the proposed peak flow rate will be reduced for each storm event. However, it remains for the Applicant to demonstrate that the post-construction runoff hydrographs for the current and projected 2 year, 10 year and 100 year storm events will not exceed, at any point in time, the pre-construction hydrographs for the same storm events.



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11. The stormwater collection system calculations in the stormwater report must be revised to consider the stormwater conveyed through the existing 6" CIP upstream of the existing round inlet.
12. The stormwater report has a section which shows the results of several test pits performed on site. The test pit locations must be shown on the plans. At this time, our office cannot confirm if the required number of test pits were performed or if the minimum separation from the seasonal high water table to proposed basin was met.
13. The drainage area maps and hydrograph summary reports must be revised to include a separate drainage area within the ROW as sidewalk is now proposed.
14. The existing and proposed drainage area maps and hydrograph summary reports must be revised to separate the drainage areas between which stormwater enters the underground pipe system and which stormwater sheet flows off site.
15. The maintenance plan should be revised to include as-built construction plans of the stormwater management measures and copies of pertinent construction documents such as laboratory test results, permits and completion certificates.
16. The maintenance plan should be revised to note that the party responsible for maintenance must submit to the Township every May 1st an annual maintenance report including all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development.
17. The maintenance plan must be revised to include the language from §25-29.13 (Stormwater License and Inspection Requirements).
18. As stipulated in §25-29.12b7(d), the party responsible for maintenance of the site's stormwater system must post a two-year maintenance guarantee in accordance with N.J.S.A. 49:55D-53.
19. The stormwater management operation and maintenance manual and any future revisions must be recorded upon the deed of record for the property. Prior to recording, the form of the deed must be approved by the Board Attorney and our office.
20. There is a discrepancy between sheet 6 and the 'Underground Basin Outlet Control Structure' Detail on sheet 16 regarding the rim elevation. Revise plans accordingly.
21. There is a discrepancy between sheet 7 and the 'Outlet Control Structure #2 Detail' on sheet 15 regarding the invert of the 6" pipe. Revise accordingly.
22. The Drainage & Utility Plan (sheet 7) shows an existing manhole at the southeast corner of the site which could not be opened. The plans must be revised to clarify the purpose of this manhole and to show any associated piping. In their February 19, 2026 letter, Messrs. Ritchie and Freud state that they are working with project surveyor to identify the purpose of this manhole, and this information will be provided as a condition of approval.
23. Sheet 7 shows a proposed storm cleanout within the bioretention basin at elevation 619.39. This will result in the separation between the underdrain and the sand layer being less than the minimum three inches. Revise to ensure the minimum separation is met.



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24. The 'Doghouse B Inlet Detail' on sheet 14 and 'Type B Inlet' on sheet 15 should be revised to include a N-Eco Curb Piece.
25. The 'Outlet Control Structure #2 Detail' on sheet 15 must be revised to provide a trash rack on the 0.6' weir.
26. The 'Outlet Control Structure #2 Detail' on sheet 15 shows a 2.5" PVC pipe in the structure noting "Stopcock gate to be closed for normal operations". The Applicant must clarify the purpose of this pipe.
27. There is a discrepancy between the sand layer callout and Note #2 on the 'Bioretention System Detail' on sheet 15 regarding the required thickness of the sand layer. This discrepancy must be resolved.
28. The 'Bioretention System Detail' on sheet 15 includes a callout for a 6" gravel layer. However, the detail shows 3" of stone under the underdrain pipe and 6" of stone above the underdrain pipe. Therefore, the thickness of the stone must be 6" plus the O.D. of the underdrain pipe. This discrepancy must be revised.
29. The 'Bioretention System Detail' on sheet 15 should be revised to note the size and type of underdrain pipe that is proposed.
30. The 'Bioretention System Detail' on sheet 15 should be revised to note that the gravel layer must 0.5 inch to 1.5 inch clean, broken stone or pea gravel.
31. The 'Bioretention System Detail' on sheet 15 must be revised to include a note which states *"To ensure proper system operation, the permeability rate of the gravel layer must be at least twice the design permeability rate of the sand layer"*.
32. The 'Bioretention System Detail' on sheet 15 should be revised to specify the minimum permeability rate required for the soil planting bed and the sand layer.
33. The 'Bioretention System Detail' on sheet 15 should be revised to note the elevation of the bottom of the gravel layer.
34. The 'Bioretention System Detail' on sheet 15 should be revised to provide specifications for the soil planting bed which complies with Chapter 9.7 of NJ BMP manual.
35. The 'Bioretention System Detail' on sheet 15 should be revised to provide a note which states that *"The soil bed material must be placed in lifts not to exceed 6 inches. Additional materials may be necessary to account for settling over time."*
36. The 'Bioretention System Detail' on sheet 15 should be revised to include a note which states that *"The minimum density of vegetation within the system is 85%."*
37. The 'Underground Basin Outlet Control Structure' Detail on sheet 16 should be revised to show the proposed height of the 4' weir and the vertical distance from the top of slab (elev. 617.75) to the bottom of the 8" reinforced concrete lid.
38. The 'Underground Basin Outlet Control Structure' Detail on sheet 16 shows that the invert of the 48" pipe will be at elevation 617.75 whereas the '48" HDPE Schematic Underground



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Basin Detail' on the same sheet shows the bottom of basin elevation (6" minimum below the 48" pipe to also be at 617.75. This discrepancy must be resolved.

D. LANDSCAPING COMMENTS

1. Due to soil volume being a limiting factor for a tree, provide one (1) CCR (Redbud) in lieu of the middle QC (Scarlet Oak) within a grouping of 3 QC. Also, provide an oak in the white oak family due to bacterial leaf scorch (BLS). To maintain the same quantity of shade trees, move one (1) oak to the northeast corner of the site.
2. Revise the plans to provide CCR (Redbud) in lieu of proposed ASL (Serviceberry) to avoid providing the two (2) hosts required for cedar apple rust (Juniperus species).
3. To reduce damage to the existing Norway Spruce near Prospect Avenue, remove the section of sidewalk and shift the proposed row of shrubs closer to the parking stall. This will reduce damage to the tree as well as reduce the need to limb the tree to seven (7) feet above final grade.
4. Revise the plans to include the following note to indicate: "If existing trees within the twenty (20) foot buffer easement should fail due to construction damage, additional plant materials may be required at the discretion of the Township Engineer."

E. LIGHTING COMMENTS

1. Review and revise the plans to indicate proposed timers and hours of operation. Our office recommends light levels be reduced or turned off after hours of operation to reduce light pollution.
2. Revise the plans to provide the catalog cuts and ordering information for the proposed light pole for further review.

The Applicant is hereby advised that any revised plans or other documents submitted to the Board should be accompanied by a cover letter which addresses each of the comments in this review letter and also details any other changes that have been made to the plans as these may not be readily apparent.