



April 27, 2023

John Hess, PE, PP, CME
Zoning Board Engineer
66 Main Street
West Orange, New Jersey 07052

Re: Engineering Review #1
West Orange Plaza
Block 152.01, Lots 1445 & 1445.05
Township of West Orange
Essex County

Dear Mr. Hess:

Pursuant to your email dated April 6th, we have revised our plans and reports. We have also incorporated the changes requested in the SPRAB meeting held on March 21, 2023. Below is a detailed response letter addressing each one of your comments individually. The following documents are included in this submittal:

- Site Plans
- Maintenance Manual
- Lighting cut sheets with isolux patterns

B. DESIGN COMMENTS

Comment #1 - Based on our review, we find that the following items from the Township's Site Plan/Subdivision Checklist must be addressed:

- a) Item #7 — Proof that taxes are current.
- b) Item #14 — Affidavit of ownership.
- c) Item #20 — Copy and/or delineation of any existing or proposed deed restrictions or covenants.
- d) Item #39 — Spot elevations at corners of all/ structures.
- e) Item #52 — Plans and legal documents for compliance with West Orange COAH Ordinances.
- f) As required by NJAC 13:40-7.2(a)1, a signed and sealed copy of a survey of the property being developed must be submitted to the Board.

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PETRY RESPONSE:

These items are now included as a part of this submission.

Comment #2 - The Applicant has requested the following waivers:

- a) Item #22 — Development stages or staging plans.
- b) Item #46 — Solid waste management plan.
- c) Item #48 — Sight triangles.
- d) To permit a parking area setback of 2 ft whereas 5 ft is required by 525-8.1 of the Ordinance.
- e) To permit 1,204 parking spaces whereas 1,476 parking spaces are required.
- f) To permit 12 loading spaces whereas 34 loading spaces are required.
- g) To permit a minimum level of illumination in the parking lot of 0.0 footcandles whereas 1.5 footcandles is required.
- h) To permit a light pole height of 25ft whereas a maximum light pole height of 18 ft is permitted.
- i) To permit a retaining wall height of 13.5 ft whereas a maximum retaining wall height of 4 ft is permitted.

PETRY RESPONSE:

Statement. No response is required.

Comment #3 - It shows on the plans that 1,156 parking spaces are proposed including 27 handicap accessible parking spaces and 48 electric vehicle parking spaces. We note that Ordinance 2667-21 provides that each electric vehicle parking space shall count as at least 2 parking spaces for the purpose of complying with a minimum parking space requirement provided this shall result in a reduction of no more than 10% of the total required parking. With the 48-parking space credit, the Applicant is providing parking for 1,204 vehicles whereas 1,476 parking spaces are required.

PETRY RESPONSE:

Statement. No response is required.

Comment #4 - The Applicant should address the Board regarding whether the electric vehicle parking spaces will be make-ready or will the electric vehicle supply equipment be installed. If the parking spaces will be make-ready, then the Applicant should address the Board regarding their schedule for installing the electric vehicle supply equipment

PETRY RESPONSE:

The plans have been revised to note that 1/3 of the EV spaces will be installed initially, another 1/3 within 3 years, and the final 1/3 within 6 years (See Sheet SP-4). This is in keeping with NJSA 40:55D-66.



Comment #5 - It shows on sheet SP-4 that 13 parking spaces are occupied by cart corrals. The Applicant should clarify if the spaces occupied by the cart corals are included in the total parking space count.

PETRY RESPONSE: The parking spaces that are occupied by cart corrals have not been included in the total parking space count.

Comment #6 - Sheet SP-1 includes a note which states that 38 of the parking spaces are designated as compact spaces. However, our office is only able to locate 22 compact parking spaces on the plans. This discrepancy must be resolved.

PETRY RESPONSE: There is a grouping of 22 compact spaces along the southern side of the southerly drive aisle of Prospect Avenue and a second grouping of 14 compact spaces in front of Building 'C', just north of the "canoe" island, totaling 36 compact spaces (See Sheet SP-4). The site data chart has been revised to reflect this number.

Comment #7 - It shows on sheet SP-4 of the site plan drawings that a 10 ft x 18 ft refuse enclosure is proposed at the westerly end of Building A. We note that the distance from Unit A-6 to the trash enclosure is approximately 200 ft which appears excessive. The Applicant should address the Board regarding the feasibility of relocating the trash enclosure to a more centralized location.

PETRY RESPONSE: We anticipate that some of the Building A units will likely utilize the trash enclosure adjacent to Building B. Testimony will be provided further discussing the feasibility of this.

Comment #8 - The Applicant should provide testimony to the Board to demonstrate that the trash enclosures proposed for the 4 new buildings will be adequate to handle the trash and recyclables from the tenants in these buildings.

PETRY RESPONSE: Testimony will be provided.

Comment #9 - It shows on sheet SP-4 that retaining wall 'D' is proposed along the westerly property line behind the proposed Target. The Applicant should address the Board on how the retaining wall can be constructed without encroaching on the neighboring property as a setback of only 2 ft is proposed.

PETRY RESPONSE: It is anticipated that a temporary construction easement will be sought from the neighboring property.



However, in the event this easement cannot be obtained, the contractor can implement either sheeting or soldier pile and lagging to perform the installation. Testimony will be provided.

Comment #10 - It shows on sheet SP-4 that retaining wall 'A' is proposed on the westerly side of Building 'D'. We note that this retaining wall will be up to 4 ft high. A fence should be provided on top of the retaining wall to protect pedestrians from injury.

PETRY RESPONSE: A guardrail has been added to the plans (See Sheet SP-4).

Comment #11 - It shows on sheet SP-4 that retaining wall 'B' is proposed adjacent to the northerly side of the main building opposite the northerly driveway from Prospect Avenue. We note that this retaining wall will be up to 3 ft high. A fence should be provided on top of the retaining wall to protect pedestrians from injury.

PETRY RESPONSE: A guardrail has been added along the stairs near retaining wall 'B' at the northeast corner of the proposed . The remainder of the retaining wall does not see any pedestrian traffic and is set back a minimum of 10' from the drive aisle, with a timber guide rail in between (See Sheet SP-4). As such, we do not believe a fence is required.

Comment #12 - Sheet SP-5 should be revised to provide top of wall and bottom of wall elevations at 50 ft intervals along retaining walls A, C & D.

PETRY RESPONSE: Additional top and bottom wall elevations have been added to the retaining walls as requested (See Sheet SP-5). Please note that the wall elevations for the retaining walls behind the main building are shown on Sheet LD-1.

Comment #13 - The Applicant should address the Board regarding the need to provide a loading space for Building 'D'.

PETRY RESPONSE: Testimony will be provided.

Comment #14 - The plans should be revised to show the fire lanes required by §13-8.5 of the Ordinance.



PETRY RESPONSE: The plans have been revised to show additional fire lanes (See Sheet SP-4). Any additional fire lanes required by the fire official will be added at their direction.

Comment #15 - The plans should be revised to include the following details:

- a) Bike Rack.
- b) Cart Coral.
- c) Crosswalk.
- d) EV Charging Station.
- e) Pavement Markings.
- f) Striped Island.

PETRY RESPONSE: The details have been added to the plans (See Sheets SP-13, SP-14, & SP-15).

Comment #16 - The proposed development will result in the disturbance of more than one acre. As a result, it is classified as a Major Development and is subject to the stormwater management requirements set forth in 525-29.4 of the Land Use Regulations.

PETRY RESPONSE: Statement. No response is required.

Comment #17 - The Applicant proposes to reduce the amount of impervious cover at the site by eliminating the existing slip ramp from Prospect Avenue and by adding landscape islands throughout the parking lot. As a major development, the project must be designed to meet the minimum standards for groundwater recharge, stormwater quality and stormwater runoff quantity by incorporating green infrastructure. The Stormwater Management Report must be revised to demonstrate that green infrastructure has been incorporated into the design of the project.

PETRY RESPONSE: As noted any project that meets the definition of a Major Development must comply with the water quantity, water quality, and groundwater recharge requirements. As demonstrated in the Stormwater Management Report, the proposed site meets the water quantity requirements because there is no increase in stormwater leaving the site at any point in time. This is caused by reducing the impervious surface on-site which is a form of green infrastructure. Additionally, since we are reducing the amount of motor vehicle surface, no water quality measures are required. Finally, the proposed development is within the metropolitan planning area so it is exempt from the ground water recharge



regulations. Since neither of these are required, no green infrastructure needs to be incorporated to meet the requirements.

Comment #18 - Our office has reviewed the Stormwater Maintenance Manual and find that the following items must be included in the manual:

- a) The name, address and telephone number of the person responsible for preventive and corrective maintenance must be included in the manual.
- b) Cost estimates, including the estimated cost of sediment, debris or trash removal, shall be included in the manual.
- c) Preventative and corrective maintenance shall be performed to maintain the functional parameters (storage volume, infiltration rates, inflow/outflow capacity, etc.) of the stormwater management measure, including, but not limited to, repairs or replacement to the structure; removal of sediment, debris, or trash; restoration of eroded areas; snow and ice removal; fence repair or replacement; restoration of vegetation; and repair or replacement of non-vegetated linings.
- d) The party responsible for maintenance shall perform all of the following requirements:
 - i. Maintain a detailed log of all preventative and corrective maintenance for the structural stormwater management measures incorporated into the design of the development, including a record of all inspections and copies of all maintenance related work orders;
 - ii. Evaluate the effectiveness of the maintenance plan at least once per year and adjust the plan and the deed as needed; and
 - iii. Retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, the maintenance plan and the documentation required by the Ordinance.
- e) In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the municipality shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have 14 days to effect maintenance and repair of the facility in a manner that is approved by the municipal engineer or his designee. The municipality, at its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair, the municipality or the County may immediately proceed to do so and shall bill the cost thereof to the responsible person. Nonpayment of such bill may result in a lien on the property.

PETRY RESPONSE: A revised Stormwater Maintenance Manual is included in this submittal (See enclosed). We have incorporated the required in items a through e above.

Comment #19 - The Stormwater Maintenance Manual and any future revisions shall be recorded upon the deed of record for each property on which the maintenance described in the maintenance plan must be undertaken. Prior to recording, the form of the deed must be reviewed



and approved by the Planning Board attorney and our office.

PETRY RESPONSE: A note to this effect has been added to the plans (See Sheet SP-1).

C. TRAFFIC

Comment #1 - We note that the Traffic Impact Assessment is more than two years old and the traffic counts referenced in the report are over four years old. Therefore, the Applicant should submit an updated Traffic Impact Assessment to the Board.

PETRY RESPONSE: An updated Traffic Impact Assessment is included under separate cover.

Comment #2 - It states on Page 10 of the Traffic Impact Assessment that 1,671 parking spaces are required whereas 1,242 parking spaces are proposed. However, it states on the Site Data Chart on Sheet SP-I that 1,476 parking spaces are required whereas 1,204 parking spaces are proposed. These discrepancies must be resolved.

PETRY RESPONSE: An updated Traffic Impact Assessment is included under separate cover.

Comment #3 - The naming of the intersections in the Synchro Reports in the Traffic Impact Assessment are not clear. For example: there is an intersection in the report identified as "12" without further information. Please revise accordingly.

PETRY RESPONSE: An updated Traffic Impact Assessment is included under separate cover.

Comment #4 - The Applicant should submit turning movement plans to the Board to demonstrate that adequate maneuvering room is available for trash trucks, emergency vehicles and delivery vehicles.

PETRY RESPONSE: Turning movement plans are included in this submittal (See Sheets TM-1 to TM-6).

Comment #5 - It shows on sheet SP-2 that drive-thru lanes are proposed adjacent to buildings 'C' and 'D'. The Applicant should provide testimony to the Board regarding the types of restaurants that are proposed and the adequacy of the proposed stacking at each location.



PETRY RESPONSE: At this time the type of use proposed for each of the buildings is unknown. The stacking lanes for buildings C and D can accommodate approximately 12 cars and 4 car respectively. Further testimony will be provided as necessary.

Comment #6 - It shows on sheet SP-2 that a one way drive aisle with angle parking is proposed along the northerly side of Building 'C'. As presently shown, the customers parking in these spaces will have to traverse the drive-thru lane in order to access the stores in Building 'C'. The Applicant should address the Board regarding their plans to provide a safe route for customers using these parking spaces.

PETRY RESPONSE: It is anticipated that these parking spaces shall be utilized by employees.

Comment #7 - Sheet SP-4 should be revised to provide left-turn-only traffic markings and signs for vehicles exiting the Suite 'D-3' drive-thru lane.

PETRY RESPONSE: The plan has been revised to indicate a left turn only exiting the drive-thru by Building 'D' (See Sheet SP-4).

Comment #8 - Sheet SP-4 should be revised to provide a stop sign and stop bar on the southerly end of the drive aisle which extends from Building 'C' to the southerly entrance drive from Prospect Avenue.

PETRY RESPONSE: Stop signs and stop bars have been added to the drive aisle near Building 'C' (See Sheet SP-4).

Comment #9 - It shows on sheet SP-4 that an island is proposed at the entrance to the site from Eagle Rock Avenue. A detail showing the dimensions of this island should be added to the plans.

PETRY RESPONSE: An inset has been added to the plans to show the entrance along Eagle Rock Avenue in more detail (See Sheet SP-4). Also, a mountable curb detail has been added to the plans (See Sheet SP-13).

D. LANDSCAPING AND FORESTRY COMMENTS

Comment #1 - In accordance with S25-11.3 of the Ordinance, a fifty (50) foot wide buffer is



required for all commercial property abutting a residential district or use in a residential zone; whereas the Applicant has provided a buffer of 10.1 feet, which is an existing condition. A waiver has been requested.

PETRY RESPONSE: Statement. No response required.

Comment #2 - In accordance with 525-27.4 of the Ordinance, provide a note on the plans that a tree removal permit shall be secured prior to disturbance. Revise the plans to graphically depict and specifically label the location for tree protection fencing in accordance with 525-27.9.

PETRY RESPONSE:

Comment #3 - Our office notes that the trees to remain at the corner intersection are all invasive Black Locust trees. It is recommended to remove these trees and replant native woodland species in this area instead. Also, the trees noted along the parking lot on both street frontages are in poor condition. It is recommended to remove and replace these trees.

PETRY RESPONSE:

Comment #4 - Numerous invasive species were noted along the parking lot perimeter behind the existing buildings, including Ailanthus, Black Locust and Japanese Knotweed. Extra measures should not be taken to preserve these species.

PETRY RESPONSE:

Comment #5 - Revise the Planting Schedule on sheet L-3 of the landscape plans to indicate AG (Paperbark Maple) by caliper inch for the minimum installation size.

PETRY RESPONSE:

Comment #6 - Revise the plans to provide a native shrub in lieu of the proposed VON (European Cranberry-bush). The Applicant might consider American Cranberry-bush, Viburnum trilobum, instead, or another similar native, such as Witherod Viburnum, Chokeberry, Sweetspire or Fothergilla, most of which also come in dwarf varieties.

PETRY RESPONSE:

Comment #7 - It does not appear that the proposed landscaping for existing Building B5 shown



on sheet PB-7 of the architectural plans corresponds to the proposed landscaping on sheet L-3 of the landscape plans. This should be clarified.

PETRY RESPONSE:

E. LIGHTING COMMENTS

Comment #1 - In accordance with 25-14.1c of the Ordinance, light fixtures shall not exceed a height of eighteen (18) feet; whereas the Applicant has proposed fixtures at 25 feet tall. A waiver has been requested.

PETRY RESPONSE: Statement. No response is required.

Comment #2 - In accordance with 25-14.1c of the Ordinance, the level of illumination at ground level shall not exceed 0.5 footcandle at the property line; whereas light level spill into the right-of-way of Prospect Avenue.

PETRY RESPONSE: We agree that the light spillage along exceeds 0.5 foot candles along portions of the Prospect Avenue Frontage. This is necessary to provide proper illumination, especially at the driveways.

Comment #3 - Revised the plans to provide a three (3) foot high stanchion for all light poles within the parking area.

PETRY RESPONSE: The parking area lighting detail has been revised to indicate a 3 foot high stanchion (See Sheet SP-8A).

Comment #4 - Revise the plans to indicate the proposed light color temperature. Staff does not recommend exceeding 4,000 Kelvins.

PETRY RESPONSE: The proposed light color temperature has been added to the plans (See Sheet SP-8A). Please note that the plans call for the use of fixtures with a light color temperature of 4,000K.

Comment #5 - Revise the plans to indicate the proposed color and finish for all light fixtures and poles, to prevent confusion during construction.



PETRY RESPONSE: A note has been added to the plans indicating the proposed color for the fixtures and poles is black (See Lighting Note #2 on Sheet SP-8).

Comment #6 - Revise the 'Lighting Base Detail', sheet SP-15, to indicate the concrete strength. Staff recommends 4,500 PSI.

PETRY RESPONSE: The Lighting Base Detail has been revised to indicate a concrete strength of 4,500 PSI (See Sheet SP-8A).

Comment #7 - Revise the plans to provide manufacturer's catalog cuts for all light fixtures and poles, to prevent confusion during construction. Also, provide the full ordering information for the proposed light poles.

PETRY RESPONSE: The catalog cut sheets for the light fixtures and poles have been added to the plans (See Sheet SP-8A). Also, the requested cut sheets for the fixtures and poles have been attached to this letter.

Comment #8 - Revise the plans to indicate proposed timers and hours of operation for proposed light fixtures. Staff recommends light levels be dimmed after non-operational hours to reduce light pollution.

PETRY RESPONSE: The plans have been revised to include the proposed times of operation for lighting (See Lighting Note #1 on Sheet SP-8).

Comment #9 - Revise the plans to provide isolux pattern details with a scale and graph to correspond with the proposed light fixtures.

PETRY RESPONSE: The requested isolux patterns for the fixtures have been attached to this letter.

We trust that we have provided sufficient information for your continued review. Should you have any questions or concerns, please feel free to contact us.



Very truly yours,

PETRY ENGINEERING, LLC

J. Michael Petry

J. Michael Petry, PE, PP, AIA

