



# Memorandum

Township of Plainsboro  
Department of Planning and Zoning

To: Development Review Committee

From: Bonnie Flynn, AICP/PP, CFM, Director of Planning & Community Development  
Ron Yake, AICP/PP, Township Planner and Zoning Officer

Date: May 12, 2025

Subject: DRC Memo on the Princeton Nurseries Project (P24-03)

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As you recall, we met with the applicant for the Princeton Nurseries project on March 18<sup>th</sup>. The applicant was advised at that meeting to address specific items in the memo that needed to be addressed before the application could advance from the DRC to the Planning Board. The applicant's team proceeded to address such items. Planning Board staff have reviewed the applicant's response and are of the opinion that, while many of the comments have been addressed, some require additional attention.

Staff are recommending that the comments in the memo that are coded **BLUE** (Planning related comments) and **Green** (Engineering related comments) require resolution before the application can advance to the Planning Board. The applicant will be given the week following the DRC meeting (until May 27<sup>th</sup>) to respond back to staff with the plan details and information requested. If the applicant fails to address these comments by May 27<sup>th</sup> (realizing that they will receive the DRC memo electronically a week before the upcoming DRC meeting, so they will have two weeks to respond), the applicant will be advised that their application will not be considered at the June 16<sup>th</sup> or subsequent Planning Board meeting until staff is confident the comments have been satisfactorily addressed.

Like the memo in March, this DRC memo remains structured to aid in your understanding of project-wide issues, as well as issues specific to the various components of the project (i.e., Mixed-Use District, East Residential Area, and West Residential Area). The first part of the memo is the background section, followed by detailed sections dealing with various regulatory requirements (pages 1-14), after which are sections containing staff comments and recommendations involving Project Wide Issues (pages 14-39), Non-Residential/Mixed Use Area Issues (pages 40-46), East Residential Area Issues (pages 46-49), and West Residential Area Issues (pages 49-52).

While the DRC memo has remained longer than is typical for a project that is nearly ready for consideration by the Planning Board, staff strongly believes it's important that the comments in the memo remain as a record of issues addressed and those yet to be addressed through the post-Planning Board resolution compliance review process.

Blue = P&Z plan revisions prior to PB  
Green = CME plan revisions prior to PB

## Plainsboro Township

Preliminary/Final Major

Subdivision & Site Plan

Application: P24-03

Memo Date: 3/6/2025

Rev. Memo Date: 5/12/2025

Meeting Date: 5/20/2025

# DRC Project Review Memo

Applicant: WRV Nurseries Plainsboro Owner, LLC

Property Owner: Same

Type of Application: Preliminary/Final Major Subdivision and Site Plan  
with design waivers (Sidewalk, §85-22B.1.)

Name of Project: Princeton Nurseries Mixed-Use Development

Property Location: Block 102, Lots 5 and 6  
Block 106, Lot 1

Zone: PMUD-Planned Unit Development Zone  
Designated “Integrated Mixed-Use Neighborhood  
Development” on the PMUD Use Location Map

Present Use: Substantially undeveloped (portion of existing roadway and  
stormwater management system improvements)

Adjacent Land Uses: North -- South Brunswick Twp.  
(planned for non-residential development)  
South -- Princeton Forrestal Village and Assisted  
Living/Nursing Facility  
East -- US Route 1  
West -- Multifamily (Barclay Square Apartments)

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## **I. BACKGROUND**

On September 21, 2020, the Planning Board adopted a General Development Plan (GDP) for a 109-acre area within the PMUD Zone owned by the Trustees of Princeton University and known as Princeton Nurseries. According to the GDP, the intent of the Princeton Nurseries development is the creation of a highly “amenitized” neighborhood that is anchored by a commercial main-street destination retail-commercial environment that will support a diverse range of shopping opportunities, modern innovative-collaborative office spaces, dining and entertainment options, integrated and activated open space, new and varied housing choices, including affordable housing, and vibrant gathering places for events. Over the course of the last two years, Township staff have been meeting with representatives for the Applicant and contract purchaser of the site, WRV Nurseries Plainsboro Owner, LLC, in consideration of, initially, a concept plan, and now their formal development application for the site (preliminary/final major subdivision and site plan).

*For further information on Land Use History involving this property and application, refer to the Zoning and Land Use Conformance Review memo prepared by Phillips Preiss, dated September 27, 2024, last revised April 17, 2025.*

## **II. ZONING AND LAND USE CONFORMANCE**

The Applicant’s professional planner, Kate Keller, of Phillips Preiss Grygiel Leheny Hughes LLC (Phillips Preiss), who had been involved with Princeton University in preparing the University’s 2020 GDP document, has prepared a detailed zoning and land use conformance document, dated 9/27/2024, last revised 4/17/2025, in which she describes how the proposed plans for the project conform with the requirements of the adopted GDP, as well as the PMUD Zone and the subdivision site plan regulations that were amended in anticipation of this planned development. The following is a summary of the highlights of that document.

### **A. General Development Plan Compliance**

- 1) In the first part of the Applicant’s compliance document there is a detailed discussion on the land use history related to the overall Princeton Forrestal Center and the subsequent planning and zoning

changes leading up to the development and adoption of the GDP for the Princeton Nurseries project.

- 2) A detailed overview of the Princeton Nurseries GDP document is provided, explaining how the proposed subdivision and site plan application satisfies the requirements of the GDP, including the general location of land use areas across the site (i.e., residential areas, flex/transition areas, and mixed-use core area), adherence to the vision for the site related to the guiding principles in the GDP involving land use, circulation, open space, utility/local services, and stormwater management.
- 3) The next section provides a discussion on the circulation elements of the GDP, including facilities for pedestrians, vehicular circulation, parking, and management of on and off-site traffic impacts from the development (see shared parking analysis and the analysis of traffic impacts).
- 4) The section on open space describes how the proposed Nurseries project exceeds the total amount of open space required for the project (30% required, 42% provided), which includes the central civic space (min. 1 acre required, 2+ acres proposed), the neighborhood parks (over min. 2 acres), and the conservation area at the northeast corner of the site.
- 5) The discussion on the Community Facilities portion of the GDP makes reference to proposed roadway improvements, opportunities for expanded or alternative transportation services such as a pilot shuttle service (required to operate for min. 12 months), as well as future expanded New Jersey Transit service to the site, a possible bike share program, the provision of shopping, food and beverage establishments, as well as access to a high quality network of open space areas serving the project site, the Princeton Forrestal Center generally, as well as the township and surrounding areas.
- 6) In compliance with the Housing Plan in the GDP, the Applicant's plan proposes 950 dwelling units, of which up to 200 units may be age-restricted. 96 units shall be affordable family units in accordance with the State requirements under the Uniform Housing Affordability Controls (UHAC). Consistent with the GDP, the Applicant's plan calls for a diversity of housing types, including freestanding multifamily,

mixed-use multifamily, townhouse, stacked units, and single-family detached dwellings. The Applicant proposes to limit all units to three or fewer bedrooms as required in the GDP.

- 7) In addition to the GDP provisions referenced above, the Applicant is required to demonstrate the adequacy of on and off-site infrastructure to support the build-out of the proposed project, including stormwater management, water, sewer, electric, gas, and solid waste disposal. The Applicant has provided detailed engineering analysis demonstrating compliance with this portion of the GDP and the applicable regulatory requirements.
- 8) While the proposed project has been granted a twenty (20) year vesting period per the approved GDP (which vesting period begins at the time of final approval of the first development application on the project), the Applicant anticipates the build-out of the project to occur within a shorter time frame. According to the GDP, Phase 1 is expected to be completed within approximately 3 years from the start of construction; Phase 2, within 5 to 8 years from the start of construction; and Phase 3, sometime between 8 and 19 years from the start of construction. While the Applicant doesn't specify absolute time frames regarding their proposed phasing schedule, it appears the Applicant does expect to complete Phases 1 and 2 within the first six years from the start of construction.
- 9) A projected phasing schedule for this project is included as Exhibits A and B, which are attached to the Zoning and Land Use Conformance Review memo prepared by Philips Preiss, dated September 27, 2024, and is further described in the Applicant's project narrative.

Phases 1 and 2 are included in association with this application, Phase 3 is not but will be subject to review and approval under a separate major site plan application(s) subject to the applicable building use and floor area limitations set forth in this application. Under the above referenced exhibits, the Applicant indicates that 518 for-sale residential units and 432 rental units will be "unlocked" for development in Phase 1, however, since 97 of the rental units include the age-restricted rental units planned for Building E1 in Phase 3, technically Phase 1 will include 335 rental units and not the 432 rental units identified in subject exhibits. Also, the Phase 3 column of the

exhibits makes no reference to the 97 units planned in that phase, but only references the possible retail development on Lots E1 and E2.

Per the Applicant's 5/2/25 spreadsheet related to non-residential square footage and the Applicant's narrative related to residential, the project includes the following three phases of development:

- Phase 1:
  - Building A (136 multifamily rental units (16 of which will be affordable) and 24,675± sq. ft. retail/commercial),
  - Building B (199 multifamily rental units (28 of which will be affordable) and 30,005± sq. ft.),
  - Recreation/Clubhouse Building (14,600± sq. ft.), and
  - Building D1 (29,150± sq. ft. retail, 80,080± sq. ft. office).
  - 518 for-sale residential units and 335 rental residential units.
  - Affordable housing shall be provided in accordance with the provisions of Paragraph 7 of the 2020 GDP Developer's Agreement.
- Phase 2:
  - Building C (Hotel/125 keys, max. 75,000 sq. ft. + 6,170 sq. ft. retail/restaurant),
  - Building D2 (10,090± sq. ft. retail), and
  - Building D3 (30,000± sq. ft. retail/grocery).
- Phase 3:
  - Building E1 (mixed-use with 97 age-restricted rental units and 28,000± sq. ft. retail OR only retail of 35,000± sq. ft.)
  - Building E2 (40,000± sq. ft. retail)
  - Possibly up to 18,000 sq. ft. of additional retail in Buildings A & B

10) Consistent with the GDP, a fiscal impact analysis (FIA) was prepared for the project demonstrating that the proposed development will have a positive fiscal benefit to the Township (see the FIA document provided).

## B. Zoning Compliance

Under the PMUD Zone compliance review, while it's indicated that the proposed development will comply with all applicable zoning and development standards, certain among these are worth highlighting as requirements that may require further discussion, including:

- 1) §101-141D of the zoning regulations, which includes reference to §85-62D of the subdivision and site plan regulations, mentions that the Applicant will conform with the Township's requirements regarding the ownership and maintenance of open space. Since the proposed development involves three development entities, which include the Applicant and their two residential development partners (Pulte Group and NVR Inc.), the issue of the maintenance of all common elements including open space is a matter that needs to be addressed in the Developer's Agreement for this project.
- 2) The proposed vehicular, bicycle, and pedestrian circulation network will be privately owned and maintained by the Applicant or an association entity created to manage and maintain common elements in the development. The Applicant has requested the main north-south commercial street in the development be a Township roadway subject to a perpetual private maintenance agreement. The Applicant states that because the water service provider for the development (New Jersey American Water Company) requires a fifteen feet wide exclusive easement for all water mains in private streets, there is not enough room for the other underground utilities that will be necessary for this development (electric, gas, sanitary, stormwater). If this matter is to be considered, it will need to be addressed within the context of the Developer's Agreement for this project.
- 3) Regarding §101-142D of the zoning regulations relating to vehicular and pedestrian circulation, including the proposed street system, interior drives, parking areas, as well pedestrian sidewalks, walkways, and bikeways, the Applicant explains that the development will feature an extensive and safe pedestrian, bicycle, and vehicular circulation network that promotes connectivity and accessibility. The pedestrian-oriented design of the circulation system proposed will result in traffic calming and safe vehicular, bicycle, and pedestrian circulation. In this regard and specifically regarding bicycle circulation in the development, the Applicant has prepared a Bicycle and Pedestrian

Plan (dated 9/26/2024) that proposes utilizing existing roadways for bicycle circulation. To accommodate this option, low vehicular travel speeds, generous *share the road* signage and sharrows (pavement markings designating roadways for shared vehicular/bicycle travel) will be necessary.

- 4) §101-142S(3) of the zone states that – “In the event an adjoining area in South Brunswick Township is developed, the main commercial roadway shall be extended into South Brunswick when it has been determined by the Planning Board that such connection will be adequately accommodated and supported by the Township roadway network and will contribute to the vitality and functioning of the integrated mixed- use neighborhood development.” Staff directed the Applicant to locate the proposed roundabout at the northern border of the main commercial roadway entirely inside the Nurseries site in Plainsboro to facilitate efficient traffic flow in the development. The Applicant wishes to shift the roundabout north to straddle the municipal boundary with South Brunswick and extend the roadway north into South Brunswick when detailed traffic analyses have been prepared and submitted to the Township and reviewed by the Planning Board’s Engineer’s office, which would allow the Planning Board to conclude that the requirements set forth above have been satisfied.
- 5) The phasing plan on Sheet CS0802 shows a portion of Phase 1 of the project extending into South Brunswick to accommodate the shift of the roundabout north onto the Nurseries site in South Brunswick as noted above. Until such time as the Planning Board approves such plan change, the phase line for Phase 1 shall not extend north of Plainsboro’s municipal border with South Brunswick.
- 6) §101-142S(3) of the zone states that – “A second crossing shall be provided if all the necessary approvals can be secured (e.g., NJDEP, DRCC, South Brunswick Township). If the adjoining area in South Brunswick contains compatible land uses relative to the approved plan for Plainsboro (i.e., residential adjoining residential), the connection shall be a roadway; otherwise, it shall be limited to a pedestrian/bikeway connection. Since the adjoining land in South Brunswick has been planned for non-residential development only (per an adopted redevelopment plan for the Nurseries property in South Brunswick, also being developed by the Applicant), the Applicant is proposing the second crossing into South Brunswick to a bicycle and

pedestrian path only, consisting of natural materials so as to cause minimal disturbance to the environmentally sensitive area along Harry's Brook.

- 7) Parking spaces shall be provided as required in §101-143D unless the Applicant can demonstrate to the satisfaction of the Planning Board, by way of a shared parking analysis, that an adequate amount of parking will be provided on the site for all proposed uses. The methodology used by the Applicant to calculate the reduced number of parking spaces may consider the methods recommended in "Shared Parking," published by the Urban Land Institute, or other recognized standards acceptable to the Planning Board.

According to the Applicant, particularly within the core of the site where the non-residential uses are concentrated, shared parking may be required at times to best reflect the unique mixed-use nature of the development. A shared parking analysis has been provided to demonstrate the adequacy of the proposed parking scheme for the proposed use mix, using recognized traffic engineering standards.

- 8) With regard to signage, §101-142G indicates that the sizes, locations, designs, colors, textures, lighting and materials of all temporary and permanent signs and outdoor advertising structures or features shall not detract from the design of proposed buildings and structures and the surrounding properties. As has been discussed with the Applicant and as noted in the Design Guidelines compliance section of this memo, a comprehensive signage plan shall be prepared and reviewed by staff based on the guidance provided by the GDP Design Guidelines (Part 7 Signage & Public Art) and subject to the approval of the Planning Board.
- 9) Due to the interrelated nature of the uses within an integrated mixed-use neighborhood development, per §101-142S(4), the build-out of such a development shall take place in a coordinated fashion in accordance with an approved phasing plan. The terms of such phasing plan shall be set forth in a Developer's Agreement for the project.

## C. Subdivision & Site Plan Regulations Compliance

- 1) Per Chapter XIV of the GDP, the Subdivision and Site Plan Review regulations (§85-57) require that, prior to approval of any planned development, the Planning Board shall conduct a study as required by N.J.S.A. 40:55D-45 (Findings for planned developments). In approving the GDP application for the Princeton Nurseries development, the Planning Board in effect found that the following facts and conclusions have been satisfied, which remain valid as it pertains to the current application.
  - i. That departures by the proposed development from zoning regulations otherwise applicable to the subject property conform to the zoning standards applicable to the planned development.
  - ii. That the proposals for maintenance and conservation of the common open space are reliable, and the amount, location and purpose of the common open space are adequate.
  - iii. That provision through the physical design of the proposed development for public services, control over vehicular and pedestrian traffic and the amenities of light and air, recreation and visual enjoyment are adequate.
  - iv. That the proposed planned development will not have an unreasonably adverse impact upon the area in which it is proposed to be established.
  - v. In the case of a proposed development which contemplates construction over a period of years, that the terms and conditions intended to protect the interests of the public and of the residents, occupants and owners of the proposed development in the total completion of the development are adequate.
- 2) As indicated in Article XIII, planned developments require unique site design and planning. This was understood to be the case with the proposed Princeton Nurseries project, which the PMUD Zone regulations referred to as an "Integrated Mixed-Use Neighborhood Development." To accommodate the flexibility needed for this planned development, revisions were made to the PMUD Zone and subdivision and site plan regulations, and a GDP (including design guidelines) was adopted. All of which was done to facilitate the implementation of an overall Vision for the project – which was that

of creating a truly integrated, amenity rich and walkable mixed-use neighborhood.

- 3) The proposed development complies with all the applicable subdivision and site plan requirements except for a requested design waiver from a requirement in the subdivision and site plan regulations involving Integrated Mixed-Use Neighborhood Development. In §85-22B1 of the regulations, sidewalks or other pedestrian walkways are required to be provided on both sides of all streets. The Applicant notes that there are five locations within the development where sidewalks are not provided on both sides of the street due to environmental constraints, utility connections, or similar impediments that make the installation of a sidewalk impracticable. The Applicant's submission includes a plan that identifies the location of each segment of sidewalk where they are seeking this waiver. In all cases where sidewalks are provided on only one side of the street, crosswalks are proposed at the nearest safe location (including mid-block in residential areas), to ensure that a comprehensive, integrated pedestrian network will exist on the site.

#### **D. Affordable Housing Compliance**

- 1) The discussion on the affordable housing requirements for this project refers to the requirements set forth in the GDP and the affordable housing requirements contained in the Developer's Agreement of the GDP. Per the GDP, the project shall include an affordable housing set aside equal to 12.7 percent of the 750 non-age-restricted units approved for this project, or a total of 96 units. All the affordable units are to be interspersed among the non-age-restricted market rate units among multiple buildings. All affordable units will be subject to compliance with the New Jersey Fair Housing Act, the Uniform Housing Affordability Controls (UHAC), the Township Code provisions dealing with affordable housing, and as set forth in the GDP Developer's Agreement.
- 2) The Applicant states that all the affordable units will be integrated with the market-rate units. For example, the affordable multifamily units in the mixed-use core (Buildings A & B) are located within the same buildings, building floor levels, and wings as the market-rate units. Market-rate units are located within buildings adjacent to the affordable units, with such buildings having similar cladding and integrated into the development. A uniform architectural treatment

will be incorporated across both the market rate and affordable units, so that the affordable units are not segregated or separated from the market-rate units in the development. The Applicant notes further that the affordable housing units will be interspersed such that there will be no indication from the exterior building materials or finishes that affordable units are located within.

#### **E. Design Guidelines Compliance**

- 1) The Applicant provided a detailed review and commentary on compliance with the Design Guidelines (Guidelines) referenced in §101-142S(1) of the PMUD Zone regulations and contained in the adopted GDP. As noted by the Applicant, the Guidelines are not intended to be viewed as regulations, but instead as “guidelines” that encourage creativity in addressing development related matters, while maintaining a desired level of aesthetic and functional quality within the physical environment, including building typologies, architecture, circulation, open space & landscaping, and public art and signage.
- 2) Under Section 4.0 of the Applicant’s compliance review document dealing with non-residential and mixed-use building “Architecture,” it indicates that the Guidelines include recommendations regarding the placement of buildings; quality of exterior building materials/colors; location and frequency of building entrances; types, design, and relationship of windows to walls areas; variations in rooflines, including concealment of rooftop equipment; establishment of “green roofs;” in addition to other design related matters. The Applicant notes that their plan complies with each of these Guideline recommendations.
- 3) Under Section 4.4 of the Applicant’s compliance document specifically dealing with residential buildings, it notes that the Guidelines recommend where residential buildings are located on a site, how they should relate to other adjoining buildings and the street, what kind of building setbacks that are appropriate, and what qualities the exterior elevations of buildings should have. The Applicant notes that their plan complies with each of these recommendations.
- 4) Under Section 4.5c of the Applicant’s compliance document dealing with Townhouse type residential units, reference is made to the recommendation in the Guidelines that each townhouse dwelling unit shall be provided with private or semi-private outdoor space, which may include lawn, deck, patio or terrace, breezeway, or an all-

season room, and may be located at ground level or on an upper floor. The Applicant indicates that the majority of the proposed townhouse units are provided with such outdoor space.

- 5) Under Section 5.0 of the Guidelines dealing with Circulation, mention is made that residential parking areas may be restricted to owners, tenants, or guests. While most of the townhouse units (traditional side-by-side and stacked units) include unit garage parking, some of the affordable units do not include garage parking (e.g., Pulte affordable stacked townhouse units and NVR's Johnson/Taylor stacked units).
- 6) Under Section 5.2 of the Applicant's compliance document dealing with Vehicular Mobility & Entrances, mention is made of the need to accommodate mass transit, including signage, stops, shelters, and pull-offs. The Applicant indicates that pull-off areas are proposed on the main commercial street and in the vicinity of on-street parking in the residential areas.
- 7) Under Section 5.3 of the Guidelines, Pedestrian/Bicycle Circulation & Facilities, it states that – All sidewalks, walkways, and multi-use pathways shall be designed in accordance with the requirements set forth in §85-22B of the Township Subdivision and Site Plan regulations. As noted under the discussion above under Subdivision and Site Plan Regulations Compliance, the Applicant is seeking a waiver from the requirement that sidewalks be provided on both sides of all streets. Further discussion on this request is covered under the Subdivision and Site Plan Waiver section of this memo.
- 8) Other than the sidewalk waiver referenced above, all other pedestrian walkways, including the proposed pathway that will serve as the required second connection to the Nurseries property in South Brunswick Township, shall comply with the pedestrian walkway requirements in §85-22 (Sidewalks, Walkways, and Multi-Use Pathways).
- 9) The Guidelines (Section 5.3g) indicate:

*“Shared facilities should be accessible from all buildings and connected both internally and externally by a comprehensive on-site pedestrian/bicycle circulation system. A combination of on-road bike lanes, sharrows, and off-road multi-purpose paths should be designed for safe use by pedestrians and bicyclists.”*

In response to compliance with the above Guideline, the Applicant indicates – “A pedestrian and bicycle circulation plan is provided as Exhibit C to this report.” The referenced plan is labeled “Russo Development LLC, Bicycle & Pedestrian Plan, Dated 9/26/24.” The plan which the Applicant references as Exhibit C includes a legend that identifies all bicycle circulation with a solid line and all pedestrian circulation with a dashed line. There is no specific reference on the plan to the manner in which bicycle circulation facilities are proposed, whether they are to be on-road bike lanes, sharrows, off-road multi-purposed paths, or a combination of these.

10) Under Section 5.4 of the Guidelines, Street Typologies & Frontage Guidelines, it states that – *“A design speed of 25 mph should be used for all roadways within the Princeton Nurseries neighborhood.”* The Applicant indicates that the street network within the development has been designed as a pedestrian-forward experience with posted speeds of 15 mph in many locations and a maximum speed of 25 mph.

11) Under Section 6.2 of the Guidelines, Buffering & Screening, states that all above-ground utility equipment, such as PSE&G transformers, shall be screened. The Applicant notes that all such equipment shall be screened using landscaping and board-on-board fencing that is consistent with the surrounding residential buildings.

Section 6.2c also requires screening of loading areas, dumpster and compactor facilities, generators and electrical and mechanical equipment, which screening treatment shall utilize six to eight foot tall brick or decorative masonry walls and decorative metal gates compatible in color and texture with nearby building walls.

The Applicant indicates that while refuse collection will generally be located within the proposed buildings, where not feasible, structures such as compactors and dumpsters shall be screened with masonry materials matching the nearby buildings. Loading and similar service areas shall include substantial landscape buffers, as well as fencing and/or decorative masonry walls to screen such areas from residential and general public view.

12) According to Section 8.2 (Solid Waste) of the Guidelines, a solid waste and litter management plan shall be developed in association with the review of this project. Such plan shall address issues related to the disposal, collection, and removal of solid waste, including recycling

throughout the site. The Applicant indicates that private trash and recycling hauling services are anticipated within the mixed-use core/commercial areas, and that public trash collection will handle residential waste in the other areas of the development. See the staff recommendation to this comment in the Project Wide Issues section of this memo, under Sanitary Sewer and Solid Waste Issues (see **Comment A.11** v. on page 30).

- 13) According to Section 7.0 of the Guidelines dealing with Signage and Public Art, signs are an important design element that can improve the visual quality of a project; bring human scale and legibility to the street environment and public realm; and create a sense of interest, activity, and vibrancy. Signage shall be considered in an imaginative way through the use of traditional signage, as well as public art and identity signage that will contribute to branding the distinct identity of Princeton Nurseries and will contribute to placemaking efforts. The Applicant notes that a comprehensive sign package will be provided and reviewed by Planning Board staff at the appropriate time for consideration by the Planning Board.

*For further information on this application's conformance with the Township's Zoning and Land Use regulations, refer to the September 27, 2024 memo, last revised April 17, 2025, prepared by Phillips Preiss.*

### **III. SUBDIVISION AND SITE PLAN CHECKLIST WAIVERS**

The Applicant has requested eighteen (18) subdivision plan checklist and seven (7) site plan checklist submission waivers and has submitted a list that identifies the requested waivers with an explanation and justification for each. Staff have reviewed the requested waivers and are of the opinion that such waivers are reasonable and support their being granted.

### **IV. SUBDIVISION AND SITE PLAN WAIVER**

As noted under the Zoning and Land Use Conformance discussion above as it relates to "Subdivision and Site Plan Regulations Compliance," the Applicant is seeking a waiver from the requirement that sidewalks be provided on both sides of all streets. Staff have reviewed the five locations where this waiver request will apply. Three of

these segments of sidewalk (along Roads B, C, and E) appear to offer limited pedestrian access benefits because they adjoin areas that will not be developed or are somewhat redundant relative to a nearby segments of sidewalk (e.g., segment along Road E). The other two areas where sidewalk waivers are being sought include the segment of sidewalk along the east side of Road G, next to the parking area serving mixed-use Building A, and the segment of sidewalk on the west side of Road K, next to the parking area serving mixed-use Building B. Both segments of sidewalk involve grade conditions (3:1 noted on plan) that are too steep to accommodate sidewalks. The Applicant shall explain how these two steep sloped areas will be stabilized to avoid erosion, and what combination of retaining walls and landscaping are being considered to address these areas. **Staff recommend** that the screening and landscaping treatment recommended in this memo for this area be made a condition of granting these two waivers (see Comment B.3) i. pages 41 and 42).

The Applicant is also requesting a waiver from the segment of sidewalk along the east edge of future Building E2, located along the west side of Road K. Since this segment involves a site that is in Phase 3, which is not included in this application, **staff recommend** that consideration of this waiver be deferred until an application for that site is under consideration. The Applicant agrees with this recommendation.

## **V. STAFF COMMENTS AND RECOMMENDATIONS**

Given the size and complexity of this project, and in order to facilitate compliance with staff recommendations and Planning Board conditions of approval, the comments and recommendations that follow will be organized into four different categories, including those that apply to the entire project, those that apply to the Non-Residential/Mixed-Use portions of the project to be developed by the Applicant, and those that apply to the East and West residential only portions of the project to be developed by the Applicant's residential partners, Pulte Group and NVR Inc.

### **A. PROJECT WIDE ISSUES**

#### **1) General Subdivision and Site Plan Issues**

- i.** The Applicant's Engineer has provided sheet CS0900 demonstrating all proposed sight triangles for the site. The subdivision plans shall be amended to indicate all proposed sight triangle easements.

- ii. All easements and rights in favor of the Township shall be expressed in deeds and grants suitable for recording at the County Clerk's Office, the form of which shall be approved by the Township Attorney and the description in which shall be approved by the Township Engineer.

2) Residential Site Improvement Standard (RSIS) Compliance Issues

- i. The Applicant's engineer has provided an RSIS table on sheet CS0202 of the plan set. The Applicant shall discuss the need for a design exception regarding the following items:

- a. **Driveway Width**

The proposed residential driveway widths shall be revised to 20 feet wide in order that the driveway/garage combinations will provide the required parking counts.
- b. Minimum centerline radius

Staff support the granting of this exception as the applicant has proposed reduced speed limit signs in advance of the curves.
- c. Intersection location

Staff support granting of this exception given the nature of the proposed development.
- d. Minimum intersection curb radius

The applicant has provided a circulation plan demonstrating the adequacy of the curb radii and accordingly staff supports the granting of this exception.
- e. Sidewalk and graded area

Portions of Roads C, E, G, & K are depicted on the sidewalk exhibit as having sidewalks with graded lawn areas on only one side of the street. Staff support the granting of this exception given the nature of the project.

3) Parking (EV) Issues

- i. The EV charger details provided on Sheet CS6008 of the engineering site plan lack dimensional details referenced in §101-13.8F(4)(c) of the Township regulations that apply to both publicly-accessible and non-publicly accessible EV chargers ("EVSE outlets and connector devices shall be no less than 36 inches and no higher than 48 inches from the ground where the mounted"). Such plan information shall be provided on the plan drawings used when filing for the required permits for such EV chargers.

4) Traffic Impact and Circulation Issues

- i. Staff has the following comments regarding the traffic study:
  - a. It should be noted that the Applicant's Engineer previously prepared a traffic study for the approved GDP prior to the COVID-19 pandemic with traffic counts taken in 2018-2019. The Applicant's Engineer performed a comparison of pre-COVID traffic volumes and 2024 traffic volumes in the traffic study and indicated that the traffic volumes along US Route 1 intersections are similar and that the traffic volumes on the local roads away from Route 1 have decreased after COVID. The Applicant's Engineer performed an analysis under the pre-COVID traffic volumes and indicated that the levels of service and delays for the build with mitigation scenario are similar to the levels of service and delays with the 2024 traffic volumes.
  - b. It should be noted that there is a Traffic Agreement in place from Exhibit 5 of the original GDP and that the Applicant's responsibilities to off-site intersection improvements and milestones are as summarized in the table below:

<b>Summary of Traffic Mitigations from the Adopted Princeton Nurseries Developer's Agreement dated December 9, 2020</b>		
Study Intersection	Improvement Summary	Construction Trigger or Milestone
College Road West and Seminary Drive and Nursery Road	Signal Timing Changes for the AM, PM, and Saturday Peak Hours	Signal Timing Changes prior to the first certificate of occupancy
	Intersection Improvements – Lane Modifications	Design Improvements as part of the initial site plan application. Improvements to be completed prior to the issuance of a Certificate of Occupancy for any development projecting an overall LOS D or worse.
Seminary Drive and Mapleton Road / Barclay Boulevard	Construct Southbound Dedicated Right Turn Lane	Improvements to be completed prior to Certificate of Occupancy for any development projecting a Southbound approach LOS E or worse.
Scudders Mill Road (CR 614) and College Road East / Crowne Plaza Driveway	WB and SB Intersection Improvements – Lane Modifications, Increasing Max cycle length to 120 seconds	When Princeton Nurseries Development generates a projected 400 trips in the AM or PM Peak Hour.
College Road East and Research Way	Install Traffic Signal	Submit Traffic Signal Warrant Analysis. If warranted, 6 months after Township requests the signal in writing.
Seminary Drive and Evergreen Drive / proposed Western Drive	Intersection Improvements – Lane Modifications	Intersection Improvements at the time the proposed Western Drive is constructed
	Install Traffic Signal	Submit Traffic Signal Warrant Analysis. If warranted, 6 months after Township requests the signal in writing.

For full details, including all the improvements and milestones, see Exhibit 5 of the adopted Princeton Nurseries Traffic Agreement dated December 9, 2020.

- c. The Applicant's Engineer listed the banquet hall with 500 seats as part of this application. However, Staff understands that the banquet hall is no longer proposed. References to the banquet hall shall be removed from the shared parking analysis.

- d. A floor area of 25,000 square feet was utilized in the traffic study for future Building E1 whereas the potential floor area ranges from 28,000 to 35,000 square feet. The traffic study should be amended to utilize the highest potential floor area and trip generation.
- e. The Applicant's Engineer provided a trip generation comparison of the proposed new trips vs. the proposed trips under the prior 2020 GDP Approval and indicated that there are 326 less new trips in the AM Peak Hour, 379 less new trips in the PM Peak Hour, and 567 less trips in the Saturday Peak Hour. Staff notes the current application proposes 154,515 square feet less retail, 139,920 square feet less office, the same number of hotel rooms, 97 less senior adult multi-family units, 11 less single-family houses, and 11 more multi-family units than the 2020 GDP.
- f. The Applicant's Engineer performed a traffic signal warrant analysis indicating the warrants were not met at the unsignalized intersections of College Road East and Research Way and the intersection of Seminary Drive / Road E. In addition, the Applicant's Engineer only analyzed the first three warrants. The traffic signal warrant analyses shall be performed with the warrant volume thresholds from the current MUTCD, and the remaining warrants in the MUTCD shall be reviewed as part of the warrant analyses. The Applicant's Engineer indicated that the non-vehicle warrants were not applicable, but the crash experience warrant shall be reviewed as part of the warrant analyses.
- g. The Applicant's Engineer shall submit a warrant analysis for the College Road East and Research Way intersection and the Seminary Drive and Evergreen Drive / Western Site Access Roadway (Road E) intersection with each future preliminary site plan application.
- h. The Applicant's Engineer shall implement the proposed intersection improvements and signal timing changes

listed in the Traffic Agreement in the adopted Princeton Nurseries Development Agreement, dated December 9, 2020 for the signalized intersection of College Road West and Seminary Drive prior to the first certificate of occupancy.

- i. The Applicant's Engineer noted that the Overall Level of Service for the signalized intersection of College Road West and Seminary Drive is projected to be a Level of Service C or better during the peak hours prior to the implementation of the traffic signal changes and the geometric intersection improvements. However, the Traffic Agreement requires the intersection improvements to be designed as part of this current site plan application. The Applicant indicated that the geometric improvements are shown on the Site Plan and that detailed construction plans for the roadway and intersection improvements including traffic signal and electrical plan will be provided as a condition of approval prior to construction of site access.

The Applicant's Engineer shall submit an Intersection Capacity and Level of Service analyses with future site plan applications. If future site plan applications degrade the overall Level of Service to D or worse, then necessary intersection and/or traffic signal improvements shall be required to be implemented prior to the certificate of occupancy for the future site plan applications.

- j. The Applicant's Engineer noted that the southbound Approach Level of Service for the signalized intersection of Seminary Drive and Mapleton Road / Barclay Boulevard is projected to be a Level of Service C or better during the peak hours prior to the implementation of geometric intersection improvements and associated traffic signal improvements. The agreement requires the intersection improvements and associated traffic signal improvements to be implemented when the southbound approach Level of Service degrades to E or worse. Intersection Capacity and Level of Service analyses

shall be submitted with future site plan applications. If future site plan applications degrade the southbound approach Level of Service to E or worse, then intersection improvements and associated traffic signal improvements shall be required to be implemented prior to the certificate of occupancy for the future site plan applications.

- k. The Intersection Improvements including associated traffic signal improvements required (as listed in the Traffic Agreement in the adopted Princeton Nurseries Development Agreement, dated December 9, 2020) for the signalized Intersection of Scudders Mill Road and College Road East / Crowne Plaza Driveway shall be implemented as the Princeton Nurseries Development is expected to generate a projected 982 trips in the AM peak hour and a projected 1,178 trips in the PM Peak Hour. Plans for the signal timing modifications and the intersection improvements shall be submitted to the Township and Middlesex County for review and approval as a condition of any approval granted by the Planning Board. The improvements shall be constructed and operational prior to the issuance of the first certificate of occupancy.
- l. The intersection improvements (as listed in the Traffic Agreement in the adopted Princeton Nurseries Development Agreement, dated December 9, 2020) at Seminary Drive and proposed Western Access Drive / Road E shall be completed at the time the proposed Western access Drive / Road E is constructed.
- ii. The Applicant notes that while the roadways in the project are proposed as private roadways, they are requesting consideration be given to making the main boulevard street a Township street subject to a perpetual private maintenance agreement between the Applicant and the Township. The Applicant has explained that because the New Jersey American Water Company requires a fifteen (15) feet wide exclusive easement for all their water mains in private streets, and given the urban design goal of limiting the width of the

roadway to one travel lane each way, along with on-street parking, there would not be enough room for other necessary utilities in the roadway (electric, sanitary sewer, storm sewer, gas) if it were required to be a private roadway. By entering into a comprehensive perpetual maintenance agreement whereby the Applicant would be wholly responsible for the maintenance of all improvements within the street right-of-way, one could achieve the same objective in terms of maintenance responsibilities as would be the case if the roadway were to be privately owned and maintained. **Staff recommend** that this matter shall be addressed within the Developer's Agreement for the project.

- iii. Staff directed the Applicant to locate the proposed roundabout at the northern border of the main commercial roadway entirely inside the Nurseries site in Plainsboro. The Applicant wishes to shift the roundabout north to straddle the municipal boundary with South Brunswick and extend the roadway north into South Brunswick when detailed traffic analyses have been prepared, submitted to the Township, and reviewed by the Planning Board Engineer's office, and concluding with a recommendation to the Planning Board that the requirements set forth in the GDP and the PMUD Zone regulations regarding such connection have been satisfied (**see Comment 4 on page 7 above**).
- iv. As noted earlier under the Applicant's conformance memo, the proposed street network within the development has been designed with pedestrian safety in mind, where posted speeds of 15 mph in many locations and a maximum speed of 25 mph are planned. If the minimum enforceable travel speed of 25 mph is to be effectively enforced, **staff recommend** the Applicant enter into a Title 39 Enforcement Agreement with the Township (**NJSA 39:5A-1**), which would allow the Township Police to enforce parking, speeding, and careless driving motor vehicle laws throughout the development. **Staff recommend** that this matter be addressed within the context of the Developer's Agreement for the project and that the Applicant be required to provide all studies and documentation required for same.
- v. "No Thru Traffic" signage shall be provided at Evergreen Drive.

- vi. Fire lanes and striping are subject to the approval of the Fire Subcode Official.
- vii. Detailed plans and signal timing analyses, as applicable, shall be submitted to the Township for review and approval prior to the implementation of any traffic mitigation improvements.

## 5) Pedestrian and Bicycle Circulation Issues

- i. The GDP and PMUD Zone regulations call for a planned second connection into South Brunswick that if built would be subject to outside agency approvals (e.g., NJDEP, DRCC, South Brunswick Township). Due to the commercial/industrial land uses planned for the adjoining area in South Brunswick, such connection is required to be limited to a pedestrian/bicycle pathway or trail. The Applicant is proposing this pathway to consist of natural materials to minimize disturbance to the environmentally sensitive area along Harry's Brook where such pathway would be located. The site plan regulations (§85-22B6) require such pathways to have a minimum width of eight (8) feet.

Since no pedestrian/bicycle pathway is proposed in South Brunswick at this time that would connect to the pathway contemplated for the Nurseries site in Plainsboro, **staff recommends** that a pedestrian/bikeway access easement be provided to accommodate a future pathway connection in the event a pathway is developed in South Brunswick to join the planned pathway on the Nurseries site in Plainsboro, at which time the Applicant would be required to pursue the completion of the second connection.

- ii. In the zoning and land use conformance review memo, mention is made of a pedestrian and bicycle circulation plan (referred to as Exhibit C). The plan, which was on an 8½ inch by 11 inch sheet of paper, was lacking in detail. The applicant has prepared a new pedestrian and bicycle circulation plan in the engineering site plan, on Sheets CS0905 through CS0909. **Staff recommend** more generous use of sharrows (share-the-road bike image on pavement) and that they be coupled with

Share-the-Road vertical signage to reinforce for motorists the presence of cyclists in the roadways of the Nurseries project.

- iii. Given the pedestrian and bicycle orientation of the proposed development, staff recommended to the applicant that the final plans include a detailed plan sheet that identifies the type, quantity, and location of all proposed bike racks on the site, as well as designated bicycle storage facilities (indoor storage or outdoor bike storage lockers) in or near each of the following buildings:
  - a) Mixed-Use Buildings A and B,
  - b) Clubhouse Building B2,
  - c) Hotel/restaurant building,
  - d) Buildings D1, D2, and D3,
  - e) Pulte Clubhouse,
  - f) Pulte Multifamily age-restricted buildings, and
  - g) Affordable units without garages.

While the current plans include a bike rack detail on Sheet L-26 of the landscape plan, there is no table on the plans that indicate the total number of bike racks and bike storage facilities in the various buildings referenced above. Also, there is no legend or clear graphic, such as a black dot or something similar, that is conspicuous and easily located on the plans, communicating where and how many bike racks there are across the site. **Staff recommend** that the final plans shall include this information, as well as a table that summarizes the number of bike racks, bike storage lockers, as well as bicycle storage capacity in buildings, for further review and approval by Planning Board Staff.

6) Landscaping, Screening, and Fence Issues

- i. As noted in the prior discussion regarding the Design Guidelines, Section 6.2 (Buffering & Screening), all above-ground utility equipment, such as PSE&G transformers, shall be screened. The Applicant notes that all such equipment shall be screened using landscaping. Staff recommend that a landscape plan detail shall be provided to this effect.

- ii. The Applicant's plans have been revised to identify a unified fence for general screening purposes other than for loading areas, solid waste storage, or large equipment enclosures. While the detail on the plan (Sheet L-26, detail 13) notes the fence to be a vinyl picket fence, such fence is made of composite board material and not vinyl/PVC and is not a picket fence but a solid privacy fence intended for screening purposes. Composite board fencing is more durable and of a higher quality than vinyl fencing. Also, while the detail notes the fence height as being 6 feet, a 4 foot and an 8 foot high fence should also be identified as an option where appropriate. **Staff recommend** the description in the fence detail be amended to read – “Composite Board Privacy Fence.”
- iii. Sheets CS3001 and CS3003 of the engineering site plan identify or reference a fence detail for the proposed pump station facility. Consistent with the comment above, **staff recommend** the pump station fence detail be revised accordingly, including reference to the fence detail on Sheet L-26, detail 13 of the landscape plan.
- iv. Regarding other required screening, the Applicant notes in the Conformance memo that while refuse collection will generally be located within the proposed buildings, where not feasible, structures such as compactors and dumpsters shall be screened with decorative masonry materials matching the nearby buildings (see detail on site plan Sheet CS6008). **Staff recommend** that such screening requirements also apply to the screening of other large equipment not listed above (e.g., generators, HVAC equipment for non-residential buildings), as well as loading areas that would be visible from nearby residential areas and streets (e.g., rear loading areas serving Buildings D1 and D3).
- v. Sheet CS6008 of the site plan identifies a construction detail for a trash or recyclable materials dumpster enclosure. The plan detail notes a height of six to eight feet for such an enclosure. The height of such enclosures shall be variable from six to eight feet depending on the storage needs of the users. No trash or recyclables or dumpster containers shall be allowed to be visible above the height of the enclosure structure.

vi. The Applicant has agreed to provide decorative masonry screen walls at the rear of each stacked-townhouse and traditional townhouse building where views down the townhouse garage alleys are visible from the lettered streets, and at a minimum will include where such alleys meet the streets labeled Roads B, D, E, F, G, H and O. Images of this decorative screen wall are provided in a document prepared by the Applicant entitled – “Pulte/NVR Rear Alley Perspective Views.” Sheet L-26 of the landscape plan provides a construction detail of the NVR and Pulte driveway screen walls.

viii. The proposed site will require significant regrading to accommodate the proposed development. Where retaining walls are required, the applicant is proposing a particular masonry wall detail depicted on Sheet L-26 Detail 8 of the landscape plans. Where such walls are required, the Applicant has complemented the area with landscape plantings.

ix. **Staff recommend** that all rooftop equipment shall be screened, and all rooftop stairwell/elevator penthouses shall be faced with high quality materials complementing the colors and materials used on the building involved. The applicant has agreed to this recommendation.

x. Staff notes that calculations have been provided for reforestation requirements. The Applicant has indicated 9.73acres of mature woodlands are to be removed, with a required reforestation area of 2.43 acres. Sheet L-2 notes that there are two (2) locations on-site to be planted for reforestation and the remaining 0.26 acres are to be provided off-site. The Applicant shall provide clarification regarding where the 0.26 acres of remaining reforestation will be proposed and provide a plan of same for Staff review.

xi. Page 26 of the Princeton Nurseries Design Guidelines depicts a central median as the street entrance treatment for the Nurseries project. Staff asked the Applicant to explain why this option is not being pursued in the current plan and what effect such a change would have if required to meet this design guideline. The Applicant responded by stating the following:

*The primary entrance is designed to accommodate multiple ingress/egress movements within the existing right-of-way in compliance with industry standards. Introduction of a median would result in a misalignment of lanes through the intersection, would widen the roadway width, and increase pedestrian crossing lengths. This high volume section of roadway would also create difficulties for maintenance of any landscaped area in the median. Careful attention has been made on the border area entry design to achieve a Placemaking entry point to the site.*

xii. The proposed buffer landscaping along the southern limit of the development, including College Road West, Seminary Drive, and the Route 1 Ramp, shall be revised to provide a greater quantity of large maturing trees. The Applicant's Landscape Architect shall reduce the number of shrubs provided in order to increase the quantity of evergreen and shade trees.

## 7) Lighting Issues

- i. Pursuant to Section 8.1 of the Guidelines, outdoor lighting shall be designed as part of an overall vision for the site and responsive to specific contexts, with the goal of providing adequate illumination within the non-residential/mixed-use areas, and to avoid excessive lighting in areas abutting and within the residential uses. This includes providing lighting that allows for a safe and walkable environment during the evening and nighttime hours throughout the development, particularly along the proposed streets, pedestrian walkways, parking lots, and parks/open space areas (not the northeast preservation area).
- ii. The Applicant's Engineer has indicated the hours of operation for the proposed light fixtures are from dusk to dawn. A note shall be added to the proposed plans.
- iii. The lighting plans shall be revised to provide light levels for individual streets and parking areas within the 'Statistics' chart, sheet L-10. The information provided does not break down the average, maximum, and minimum footcandle levels to adequately review proposed lighting. It appears light levels exceed the typical average of 0.40-0.45 footcandles for residential street lighting and are under the required minimum

of 0.50 footcandles for parking areas. The Applicant shall coordinate the final lighting design with Planning Board Staff.

8) Signage Issues

i. Street name signs.

a) Sheet CS6006 of the engineering site plan identifies a street name sign detail. **Staff recommend** the Applicant consider street name signs that are highly legible and compliant with the current standards for such signs but are otherwise designed to reflect a unique identity to be associated with the Princeton Nurseries development. A similar effort was undertaken by the Township for the Village Center area of town about twenty years ago, which signs include graphics that are unique to that area of town. The applicant agreed to pursue this option with Planning Board staff.

ii. Monument identification.

a) See **Comment B.4) iii. on page 44** under Non-residential/Mixed-Use section dealing with Signage Issues.

iii. Project Construction and Sales/Leasing Signage

a) Township Code §101-157(2)(g) limits the size, number and location of any temporary project sales and leasing signs. In addition, this section of the Code allows a temporary project construction sign, but only when the project is approved and under construction. If the applicant wishes to propose a project construction sign, such information shall be included in the final site plan for review by Planning Board staff during the Planning Board resolution compliance phase of plan review.

9) Grading, Drainage, and Stormwater Management Issues

i. The Applicant has agreed to provide an Easement in favor of the Township for access to and from the proposed basins

within South Brunswick Township as a condition of approval. The deed of easement shall be subject to the review and approval of the Township Attorney and Township Engineer.

- ii. The Applicant has agreed to provide a blanket Drainage, Conservation, Maintenance, and Access Easement in favor of Plainsboro Township and the County of Middlesex for the stormwater management systems as a condition of approval. The deed of easement shall be subject to the review and approval of the Township Attorney and Township Engineer.
- iii. An Operations & Maintenance Manual has been provided for the proposed stormwater management measures on-site in accordance with the NJDEP Stormwater Management BMP Manual – Chapter 8. Staff provide comments for same in the Technical Appendix.
- iv. The Applicant has agreed to provide the Maintenance Plan and any future revisions shall be recorded upon the deed of record for the property on which the maintenance described in the maintenance plan must be undertaken as a condition of approval. The form of which shall be approved by the Township Attorney prior to recording the same with the Middlesex County Clerk's Office per Section 85-28 J.

#### 10) Water Supply and Distribution Issues

- i. The Applicant is responsible for obtaining approval from New Jersey American Water.
- ii. All water distribution system improvements shall be installed in accordance with the requirements of the water utility and the Plumbing Subcode Official.
- iii. The design of the on-site water distribution system shall be adequate to provide fire protection as per ISO standard, Fire Suppression Rating Schedule, or per AWWA M31, Manual of Water Supply Practices.
- iv. The Applicant is responsible for obtaining a permit from the NJDEP BWSE.

- v. Test data and calculations shall be provided demonstrating that the required domestic and fire demands and pressures can be provided from the existing system.
- vi. The design and adequacy of fire suppression systems and the delineation of the fire lanes are subject to the review of the Fire Subcode Official.

11) Sanitary Sewer and Solid Waste Issues

- i. All sanitary sewer piping and appurtenances shall be installed in accordance with the requirements of the Plumbing Subcode Official. A note to this effect has been added to sheet CS0202.
- ii. The Applicant has submitted a Sanitary Sewer Report including calculations of the anticipated sewer demands in accordance with N.J.A.C. 7:14A-23.3. The Applicant shall submit information to confirm the adequacy of the downstream conveyance system to accept the proposed flows and the availability of facilities to accept and treat the flow. The Applicant has agreed to this recommendation.
- iii. The Applicant acknowledges they are responsible for obtaining Treatment Works Approval from the NJDEP.
- iv. The Applicant is responsible for obtaining approval from the South Brunswick Sewerage Authority.
- v. A solid waste and litter management plan shall be developed for the overall project to address issues related to the disposal, collection, and removal of solid waste, including recycling. In the Conformance memo the Applicant indicates that private trash and recycling hauling services are anticipated within the mixed-use core/commercial areas, and that public trash collection will handle residential waste in the other areas of the development. Since the Township does not provide solid waste collection or hauling services, **staff recommend** that the Applicant and its residential development partners (Pulte and NVR) develop a joint solid waste and litter management plan that addresses the matter, subject to the review and approval of Planning Board staff prior to the release of any certificates of occupancy in the project. It is recommended that this

requirement be incorporated into the Developer's Agreement for this project. The applicant has agreed to the recommendation.

## 12) Construction Issues

- i. The pools, recreational facilities, retaining walls, and all structures are subject to the review of the Township Construction Code Official.
- ii. Barrier Free Sub-code compliance is subject to Construction Code Official review and approval.
- iii. The barrier free accessibility requirements, including the number of handicapped parking spaces, shall be as determined by the Township Construction Official. All sign details for handicapped parking spaces shall be consistent with the current sign design details applicable to the Princeton Forrestal Center.
- iv. The Applicant shall discuss provisions for the management of construction activity and construction vehicles on-site during the construction of the proposed improvements, and provide detailed hauling, staging and circulation plans for the project, to be reviewed and approved by Township staff.
- v. The following construction notes have been added to the plans:
  - a. "Prior to the commencement of construction, a detailed sequence of construction and contractor's staging plan shall be provided to separate and manage construction traffic and public traffic. This will further establish contractor's work and staging areas for each stage of construction, and shall include but not limited to items related to the placement of construction office and/or construction trailers, outdoor equipment and materials storage, safety and security fencing, vehicular and pedestrian circulation, installation of underground utilities, parking area construction and construction related signage."

- b. "Prior to the commencement of construction, including initial site clearance and grading, a hauling plan shall be submitted to the Township for review and approval for the movement of any construction materials or demolition debris on roadways leading from the Township border and vice versa."

13) Affordable Housing Issues

- i. Pursuant to the GDP approval, the proposed development is required to provide a minimum of 96 affordable housing units that comply with the New Jersey Fair Housing Act and the Uniform Housing Affordability Controls (UHAC) set forth under N.J.A.C. 5:80-26.1et seq. According to the Applicant, the required affordable housing units will be integrated throughout the development in accordance with the adopted GDP Developer's Agreement (dated 12/9/2020). The affordable housing units will be provided in compliance with the state UHAC requirements, including bedroom distribution, affordability controls, and locational requirements within the development. The proposed units will be physically integrated with the market-rate units for each of the housing types in the development (i.e., multifamily mixed-use, traditional townhouse, and stacked-townhouse), including within the same buildings, same floors, and same wings (multifamily mixed-use) as the market-rate units. The exterior architecture of the various buildings containing affordable units are designed to be indistinguishable from buildings that contain only market-rate units. The affordable units will be completed in a timely manner, to comply with the ratios set forth in UHAC and the Township Code, as applicable.

14) Miscellaneous Issues

- i. The Applicant shall mill and pave Seminary Drive / College Road West if damaged during construction. The Applicant has agreed to this recommendation.
- ii. The Applicant's plan identifies numerous streets or roadways labeled as Roads A through P, and numerous alleys labeled as Alley 1 through 14. The Township Code (§85-20.1G) requires that street names not be duplicative in appearance or duplicative

sounding, with the Planning Board reserving the right to approve or name streets. Staff shall work with the Applicant, as well as local emergency services and the 08540 Princeton Post Office (Carnegie Center) that serves this portion of the Township, to consider names or identifiers for the proposed streets and alleys. All building or unit addresses shall be associated with the approved street names only and not alleys or building names.

- iii. **Staff recommend** that the Applicant's final plans include a plan sheet that identifies the location and details associated with cluster mailboxes that will serve both the Pulte and the NVR stacked units and townhouses.
- iv. The Applicant has submitted an Environmental Impact Assessment prepared by Van Note-Harvey, division of Pennoni, dated July 19, 2024, as required in §20-10 of the Township Code. The assessment includes a comprehensive review of existing and proposed site conditions, including environmentally sensitive areas, anticipated environmental impacts, cumulative and/or long-term environmental effects, evaluation of any unavoidable impacts, methods for mitigating adverse environmental impacts, including remediation of contaminated soils associated with historic pesticide applications on the site, and alternatives to the proposed project. As noted in Section F of the report (Alternatives to the Proposed Project), the project is designed to minimize impacts on the environment and surrounding community, and is designed to meet all local and state requirements.
- v. NJDEP Flood Hazard Area Verification Approval and accompanying plans shall be submitted to Staff upon receipt.
- vi. Staff acknowledge that there was prior pesticide contamination on-site and that the Applicant has proposed several remedial action methodologies within the Remedial Approach for Residential and Commercial Parcels Letter. The Remedial Action Workplan shall be completed and submitted to Staff. Upon completion of the remedial action, a Response Action Outcome shall be submitted to Staff upon receipt. The Applicant has agreed to provide same.
- vii. Consistent with the restriction in the GDP, limiting all dwelling units to not more than three (3) bedrooms each, **staff recommend** that a blanket deed restriction be included with the subdivision approval

for the project site. The Applicant has agreed to such deed restriction, which may be cited as a requirement in the project developer's agreement.

- viii. The Applicant shall discuss the schedule and sequencing of proposed improvements associated with the proposed residential and mixed-use project; include specific elements to be included and constructed in each sequence/phase. The plans have been detailed to indicate the improvements to be constructed in each sequence/phase. The developers shall coordinate all roadway construction, stormwater collection and management systems, water systems and sanitary sewer systems for the site with adjacent property owners and onsite tenants as required and as the construction of the project advances.
- ix. Prior to the release of the final development plans for the project (e.g., site plan, landscape plan, architectural plans), and in association with the review of the final plans by the Planning Board Engineer's office, including the determination of the estimated bond amount and inspection fees for the project based on estimated cost of site related improvements, consideration shall be given to the manner in which performance bonds related to the improvements that are to be dedicated to the Township (*improvements associated the College Road West and Seminary Drive frontage of the project, as well as possibly Nursery Road*), as well as for all required buffer landscape improvements, will be handled. The purpose of such discussion is to prevent a situation where a lack of progress in completing the required improvements per the approved plan could result in delaying the release of certificates of occupancy, and subsequently the release of the bonds for the project.
- x. A project phasing schedule is included as Exhibits A and B of this application. In these exhibits the Applicant indicates that 518 for-sale residential units and 432 rental units will be "unlocked" for development in Phase 1, including the 97 age-restricted rental units planned for Parcel E1 in Phase 3 of the project. In the far left column of the exhibits, next to the words "Rental Residential," **staff recommend** that a superscript reference to Note 2 be provided referring to the 97 age-restricted rental units in Phase 3. An additional note should be added below the table explaining that all

335 market-rate and affordable rental units in Buildings A and B will be developed in Phase 1. Add a superscript next to the words “Rental Residential” referencing this additional note.

- xi. In Exhibits A and B, while the applicant has included a comment (Note #2) at the bottom of the two exhibits referring to the 97 units as being unlocked for development per the GDP phasing requirements and subject to future Planning Board approval, no reference is made to the 97 units on Parcel E1 in the Final/Phase 3 column of the table. **Staff recommend** that Exhibits A and B be revised to add reference to Note #2 in the Final/Phase 3 column of both exhibits.
- xii. The Applicant shall discuss the availability of essential gas and electrical service to the site. “Intent-to-Serve” letters from the respective utility companies have been provided.
- xiii. Consistent with the GDP, a fiscal impact analysis (FIA), including a market analysis was prepared for the project demonstrating that the quantity of non-residential development proposed in the project is well suited to regional market conditions and that the proposed development will have a positive fiscal benefit to the Township. An updated FIA was prepared by BBPC, dated October 31, 2024 based on the current development program for the project. According to the FIA, their findings demonstrate that the projected revenues are sufficient to cover the additional cost generated by the new development (population, employees, school children).
- xiv. **Staff recommend** that this subdivision shall require the establishment of a Homeowners’ Associations and other Association entities as appropriate, to own and/or maintain all private street right-of-way improvements, including roadways; all pervious pavement areas; sidewalks; signage; street furniture; trash receptacles; and recreational amenities; including all improvements in designated open space areas, including walking paths, common area fences and landscaping; and all stormwater management facilities, including bioretention facilities and pervious pavement stormwater systems. All stormwater management facilities shall be placed within easement areas to ensure access and maintenance of the facilities by the applicable Association. The Association documents shall include landscape maintenance and stormwater management facilities maintenance manuals, which shall be reviewed and approved by the Planning Board

Engineer's office. All proposed Association documents shall be reviewed and approved by the Planning Board Attorney prior to filing with the New Jersey Department of Community Affairs (DCA).

xv. **Staff recommend** that a "plain language disclosure statement" shall be prepared by the Applicant for all For-Sale Residential Units to the satisfaction of the Planning Board Attorney, and shall at a minimum, as applicable to the residential unit type, contain the following:

- a. Information on the prior use of the site for farming / nursery activities, as well as information on existing conditions in the vicinity of the proposed subdivision, including the NJDEP approved underground storage of dieldrin contaminated soil removed from the residential development parcel (Barkley Square) located to the west of the subject site and deposited within an existing berm located along the westernmost edge of the subject site.
- b. Information on the proposed development, including:
  - 1) Prominent notification of mandatory membership in the applicable Association serving a particular for-sale unit in this development and the respective Association's perpetual responsibility to maintain all required stormwater management facilities (including those that exist within easements on individual residential unit lots), and all common area open space landscaping and related improvements.
  - 2) Prominent notification that failure on the part of the Association to maintain the required stormwater management facilities, private streets and alleys, and common area elements (open space, related landscaping and walkways) may result in the Township entering the affected properties and performing the maintenance in accordance with the procedures set forth at N.J.S.A. 40:55D-43b and charging the costs of such maintenance pro rata against each of the dwelling units and nonresidential owners in the development pursuant to N.J.S.A. 40:55D-43c.
  - 3) Information on the presence of easements (stormwater management related) on some of

the parcels (including single-family lots) and that such easements will limit the types, location, and extent of improvements allowed on such parcels, and may in some instances have the effect of prohibiting some types of improvements.

- 4) Information on the respective developer's responsibility to install and thereafter maintain for a period of two (2) years from the date of such installation all required landscaping in their portion of the development, including tree plantings; and that homeowners/unit owners shall be aware that a representative for the respective developer may need to enter their individual or Association property to satisfy this requirement, including replacing dead or dying trees as required by the Township, and that presumptive permission to do so has been granted by each of the homeowners/unit owners in order to allow the developer to fulfill this requirement.
- 5) Information not referenced above but otherwise required for adequate disclosure notification by state law, including any requirements of the New Jersey DCA and common law, as applicable.
- 6) A copy of the approved "plain language disclosure statement" approved as to form by the Planning Board Attorney, shall be provided to, signed off, and dated by contract purchasers prior to closing. A copy of same shall be provided to Township staff when applying for the certificate of occupancy for the property or dwelling unit involved, as evidence of having satisfied this requirement.
- 7) The deed of conveyance for each of the newly created parcels (including single-family lots) shall contain a deed restriction setting forth the same information required to be contained in the disclosure statement outlined above.
- 8) Until the final parcel (including single-family lots) is sold, the respective developer will be solely responsible for maintaining and repairing all stormwater management related facilities.

xvi. **Staff recommend** that the following building elevation drawings submitted in association with this application, unless revised in response to conditions of the Planning Board and reviewed and accepted by Planning Board staff, shall reflect the approved architectural details of the proposed buildings:

- Proposed Mixed-Use & Commercial Buildings and Proposed Residential Buildings – Site East prepared by Minno Wasko Architects and Planners,
- The Princeton Nurseries plans prepared for NVR Inc. by Wade Architecture,

xvii. The Applicant shall enter into a Developer's Agreement with the Township to include, but not be limited to the items listed below, and such agreement shall have been signed by all parties associated with same prior to obtaining Zoning approval for the first building permit for this development:

- a. Ownership and maintenance of open space areas (§101-141D), pedestrian and bicycle circulation network, as well as roadways, alleys and other common elements in the project.
- b. Perpetual maintenance agreement involving the main north-south boulevard street in the project.
- c. Affordable housing requirement.
- d. Require a blanket deed restriction enforcing three-bedroom limit in GDP for all dwellings.
- e. Detailed phasing plan.
- f. Agreement to provide site and related improvements performance bonds for the project, treating each of the three areas of the project (Mixed-Use, East Residential Area, and West Residential Area) independently.
- g. Consideration of Phase 3 of project shall require the submission of a preliminary/final major site plan application(s) for the development of Buildings/Sites E1 and E2 of the project.
- h. Solid Waste and Litter Management Plan pursuant to Section 8.2 (Solid Waste) of the Guidelines.
- i. Participate in a Title 39 (NJSA 39:5A-1) Traffic Enforcement Agreement with the Township.
- j. Provide a shuttle service per the requirements set forth in the adopted GDP Developer's Agreement and investigate the possibility of New Jersey Transit extending its service to the proposed development.

- k. Other requirements as set forth in the adopted December July 24, 2020 copy of the GDP Developer's Agreement signed by the Township and the Trustees of Princeton University on or about December 9, 2020.
- xviii. Given existing site conditions and the size of the development parcel at 109 acres, the Applicant expressed interest in being allowed to commence pre-construction activity involving removing existing non-preserved plant material per the proposed plan, installing erosion and sediment control barriers, and initial site grading work (but no infrastructure improvements) prior to the release of the final approved plans. **Staff recommend** that such be allowed, but not before the applicant has submitted: A) a reforestation plan reviewed and approved by the Planning Board Engineer's office, B) have received the final approvals and/or exemptions from all outside agencies having jurisdiction over the project, C) have submitted a hold harmless agreement with the Township found acceptable to the Township Attorney, and D) have submitted a site restoration bond as recommended by Planning Board Engineer's office, and found acceptable by the Township Clerk.
- xix. At the March 18, 2025 DRC meeting **staff recommended** consideration be given to providing play equipment areas for young children living in the East and West residential areas. The applicant has responded by providing play equipment in both the neighborhood park area serving the East residential area (located east of Building D3) and the neighborhood park area serving the West residential area (located north of Road F). The play equipment is shown on Sheet L-29 of the landscape plans.
- xx. Any proposed temporary sales facilities intended to be used by the applicant or its residential partners shall be shown on the final site plan drawings for review by Planning Board staff during the Planning Board resolution compliance phase of plan review.

## B. NON-RESIDENTIAL/MIXED-USE AREA

- 1) Design Guideline Issues
  - i. The applicant indicates that the proposed development may include green roof features along the second floor amenity/outdoor common areas of the mixed-use multifamily buildings (Buildings A & B). **Staff recommend** the final plans show the details of these green roof features, including where they will be located, how they will function and be maintained.
- 2) Parking Issues
  - i. Given the concentration of residential and commercial uses on the site, and the likelihood that many of the residents and retail/commercial tenants will frequently be receiving goods by various delivery services (Amazon, Fedex, UPS, DoorDash, Grubhub), the provision of convenient short-term parking for such vehicles will be important to preventing vehicle circulation and parking issues/conflicts. The Applicant indicates that such short-term parking is expected to occur along the residential streets in the site without the need to designate areas (experience has shown it's unlikely such drivers would restrict themselves to such areas). The applicant also mentioned that the same delivery vehicles could be accommodated at the drop-off areas located on Road A (Nursery Road) in front of Buildings A and B.
  - ii. Staff have the following comments regarding the parking analysis:
    - a. The proposed retail and residential uses for Building A require 345 parking spaces by ordinance after taking EV Credits. The current plans submitted indicate that there are 313 proposed off-street parking spaces and 65 on-street parking.
    - b. Building B requires 477 parking spaces by ordinance after taking EV Credits. The current plans submitted indicate that there are 375 proposed off-street parking spaces and 102 on-street parking spaces.
    - c. The proposed Hotel and Restaurant (Building C) requires 192 parking spaces by ordinance after taking

EV Credits. The current plans submitted indicate that there are 190 proposed off-street parking spaces and 23 on-street parking spaces.

- d. It appears that elongated tandem parking spaces are proposed in the parking garage level of the multi-family flat buildings on Road K opposite the eastern end of Road P. The Applicant's Engineer shall discuss the operation of same.
- e. We reviewed the overall parking for Building D – the proposed buildings D1, D2, and D3 consisting of office, retail, and a grocery. Building D requires 524 parking spaces by ordinance after taking EV Credits. The current plans submitted indicate that there are 565 proposed off-street parking spaces and 26 on-street parking spaces.
- f. The floor areas utilized in the parking study for Buildings A and B shall be amended to conform to the plans for the project.
- g. The potential future 18,000 square feet of expansion for Buildings A and B has not been addressed in the parking study. The applicant should clarify how parking for same will be accommodated.
- h. Staff notes that future Buildings E1 and E2 were excluded from the parking study. The applicant shall confirm how the parking for same is anticipated to be provided.

### 3) Landscaping, Screening, and Fence Issues

- i. In the Applicant's plan there are parking spaces that will serve Buildings A and B that front directly onto Roads G and K, respectively. The area between these parking spaces and Roads G and K are where the Applicant is requesting a waiver from the installation of sidewalks because of steep grade conditions. Staff is concerned about the elevated grade along these two areas, and

the visibility of the proposed parking from the adjoining streets and residential areas.

The landscape plan (Sheets L-5, L-6, L-26, and L-28) show a maximum 30 inch high decorative masonry wall extending along approximately 75 percent of this area, with plantings that include Red Oak trees spaced roughly 40 feet on-center, and assorted deciduous shrubs and ornamental grasses. Staff is concerned that the planting program for this area lacks densely planted evergreen trees and shrubs that are needed to more effectively screen views of the parking behind Buildings A and B as seen from Roads G and K, respectively, and from the nearby residential areas.

The applicant shall explain why the proposed screen wall doesn't extend along the full length of the area that is the subject of the requested sidewalk waiver.

**Staff recommend** the proposed landscaping in these areas include densely spaced mixed evergreen and deciduous plantings, and that the landscape plans be revised to reflect this condition, subject to the review and approval of Planning Board staff. After the decorative masonry wall and revised landscaping are completed per the approved plan, Planning Board staff shall inspect such installation and determine if additional plantings are necessary to achieve the desired level of buffer screening.

- ii. While the screen wall and landscaping recommended above are intended to screen cars parked along the area behind Buildings A and B, the proposed loading areas and the large vehicles that will periodically park in these areas will not likely be screened by the proposed  $30\pm$  inch decorative wall and landscaping along this area. **Staff recommend** that a separate 8 foot high wall made of high quality masonry materials (stone or brick) that complement the materials and colors used on proposed Buildings A and B be constructed along these loading areas. The plans (site plan and landscape plan) shall be revised to reflect this condition, which shall be subject to the review and approval of Planning Board staff.
  
- iii. Sheet CS1004 of the engineering site plan identified an 8 foot high fence around the loading areas serving Buildings D1 and D3. Given the high visibility of both areas (D1 loading area as seen

from the gateway entrance to the project and D3 as seen from the Route 1 exit ramp and College Road West), both fence installations shall be replaced with 8 feet high decorative masonry screen walls pursuant to the staff screening and landscaping recommendations in this memo [see 6) iv. and v. on page 25]. The portion of fence around the D3 Building loading area that staff recommends be replaced may be limited to the south and east facing portions closest to the Route 1 exit ramp, with the balance being screened by an eight foot high fence as recommended by staff [see 6) ii, page 25].

- iv. Two parking areas (14 spaces and 9 spaces) that will serve the future grocery store in Building D3 are located close to the Route 1 exit ramp. Due to the extreme grade conditions (rise of several feet from the ramp to the parking area) that will result in an elevated parking area in close proximity to the roadway ( $\leq 30$  feet), staff is concerned about the effectiveness of the proposed landscape plantings to significantly screen these two parking areas from the Route 1 exit ramp and College Road West. **Staff recommend** the proposed split rail fence located just inside the proposed retaining wall along these parking spaces be replaced by a four to six foot tall privacy fence as shown on Sheet L-26, detail 13 of the landscape plans. **Staff recommend** this screen fence be placed on the back side of the proposed retaining wall, allowing the retaining wall to protect the fence from vehicles entering the parking spaces.

In addition to the screen fence, the applicant is encouraged to intensify the plantings in these areas and to select plantings that are both suitable for such locations and fast growing. After the landscaping has been installed, Planning Board staff inspect such installation and determine if additional plantings are necessary to achieve the desired level of buffer screening.

- v. Per Ordinance Section 101-142.H and Princeton Nurseries Design Guidelines, 6.2.a, The Applicant's Landscape Architect shall provide additional buffer trees to ensure the proposed grocer loading area will be sufficiently screened. The Applicant's Landscape Architect shall reduce the number of shrubs provided in order to increase the quantity of evergreen and shade trees.

4) Signage Issues

- i. As has been discussed with the Applicant and as noted in the Design Guidelines compliance section of this memo, a comprehensive signage plan shall be prepared and reviewed by staff based on the guidance provided by the GDP Design Guidelines (Part 7 Signage & Public Art) and subject to the approval of the Planning Board. Given the importance of the signage program to fostering a unique identity and sense of place for the proposed development, **Staff recommend** that the Applicant's sign program be prepared by a sign design consultant experienced in preparing comprehensive sign programs for similar mixed-use developments. The applicant agrees with this recommendation.
- ii. Sheet L-17 of the landscape plan submission identifies four identification/district branding project signs for the Princeton Nurseries development, including two signs for the Applicant's two residential development partners, Pulte Group and NRV Inc. The first two signs, which are the project gateway monument signs and a freestanding project pylon sign, are shown on Sheets L-5 and L-6 of the landscape plans. The gateway signs are located at the main entrance to the project at the intersection of Nursery Road and College Road West and Seminary Drive. The project identification pylon sign is located just north of College Road West where the access ramp from Route 1 meets College Road West.
- iii. The two residential monument signs proposed by Pulte and NVR are located, respectively, at the corner of Roads D and O near the Pulte clubhouse (see Sheets L-9 and L-29) and near the intersection of Road E and Seminary Drive at the main entrance to the NVR portion of the project containing townhouses and single-family detached homes (see Sheets L-13 and L-29). **Staff recommend** the Applicant amend the plan by shifting the Pulte sign back from the edge of the sidewalk and, if surrounded by lawn area, to provide a mow strip around both signs to prevent damage to the signs from lawn maintenance equipment.

5) Grading, Drainage, and Stormwater Management Issues

- i. The Applicant's Engineer shall provide stormwater management calculations and updated drainage area maps demonstrating stormwater management for Future Buildings E1 and E2 has been

provided as part of this site plan application. Staff notes that the Engineering Report narrative section states stormwater management is provided as part of this application for Future Buildings E1 and E2.

- ii. Pretreatment via the use of Green Infrastructure MTDs or other approved Green Infrastructure BMPs must be provided for runoff entering subsurface infiltration basins UGB 22, UGB 54, and UGB 61. All stormwater runoff inflow points discharging into subsurface infiltration basins shall be pretreated. Refer to NJ Stormwater BMP Manual – Chapter 9.8 for guidance.

6) Construction Issues

- i. The pools, recreational facilities, retaining walls, and all structures are subject to the review of the Township Construction Code Official.
- ii. Barrier Free Sub-code compliance is subject to Construction Code Official review and approval.
- iii. The barrier free accessibility requirements, including the number of handicapped parking spaces, shall be as determined by the Township Construction Official. All sign details for handicapped parking spaces shall be consistent with the current sign design details applicable to the Princeton Forrestal Center.

7) Affordable Housing

- i. Proposed Mixed-Use Buildings A and B contain a total of 44 affordable housing units. Building A contains 16 such units (3 on 2<sup>nd</sup> floor, 5 on 3<sup>rd</sup> and 4<sup>th</sup> floors, and 3 on 5<sup>th</sup> floor) and Building B contains 28 such units (6 on 2<sup>nd</sup> floor, 8 on 3<sup>rd</sup> and 4<sup>th</sup> floors, and 6 on the fifth floor). All the units in Buildings A and B are dispersed within each of the building floors on which they are located.

8) Miscellaneous Issues

- i. The loading and service areas at the rears of Buildings A and B, as well as on portions of Buildings D1 and D3, are shown in the architectural plans prepared by Minno Wasko as having roll-up doors. **Staff recommend** that such roll-up doors be a medium-dark

color that complements the colors used on each of the buildings. The applicant agrees with this recommendation.

- ii. The Applicant's plan for the proposed hotel/restaurant facility, as well as the Clubhouse north of Building D1, do not show any designated loading areas. The Applicant indicates that loading areas will be depicted on the plan and that testimony regarding access, loading operations will be provided and subject to Planning Board staff review and approval.
- iii. The one-way driveway serving Building D2 has been widened to 24 feet to accommodate loading operations for the tenants in the building. This addresses a previous staff concern when no loading facilities were shown on the plan for this building.

## **C. EAST RESIDENTIAL AREA**

### **1) Design Guidelines Issues**

- i. Under Section 4.5b of the Applicant's conformance document dealing with Townhouse type residential units, reference is made to the Guidelines recommendation that each of the townhouse units shall be provided with private or semi-private outdoor space, which may include lawn, deck, patio or terrace, breezeway, or all-season room, and may be located at ground level or on an upper floor. All the proposed "traditional" townhouse units in Pulte's East residential area are provided with such outdoor space (rear decks or patios). The buildings which contain stacked units, which Pulte refers to as "stacked-townhouse units," are not actually traditional townhouse units, which are independent side-by-side units that occupy all floors of the building and share one or two building walls with a neighboring unit. Traditional townhouse units lend themselves to providing rear decks. Stacked units, because of the way they are internally organized, do not lend themselves to providing individual unit decks for all units. The Applicant has provided decks for some portion of the market rate units located on second-floor levels only.

2) Parking Issues

- i. Under Section 5.0 of the Guidelines dealing with Circulation, mention is made that residential parking areas may be restricted to owners, tenants, or guests. While most of the townhouse units (traditional side-by-side and stacked units) include unit garage parking, the affordable units proposed by Pulte (stacked units) do not include garage parking. For such units convenient, nearby "reserved" parking will be provided for each such unit based on the RSIS parking standards. The Applicant has provided a plan sheet entitled "Affordable Housing Parking Allocation." Each of the parking spaces serving these units will be convenient to the units, with signage reserving the space for a specific unit, subject to the review and approval of Planning Board staff.
- ii. The proposed non-mixed-use East residential area consists of 51 traditional townhouse units, 114 stacked townhouses (20 affordable), 31 age-restricted carriage townhouse units, and 72 age-restricted apartments (referred to as flats) require 609 parking spaces per the RSIS. Per the parking table depicted on the plans, 523 off-street parking spaces and 169 on-street parking spaces are proposed. However, the plans indicate only 439 off-street parking spaces and 169 on-street parking spaces are proposed. The residential driveways in the carriage area only measure 19-feet wide and result in 62 off-street parking spaces. The parking allocation figure indicates 108 off-street parking spaces. Additionally, the stacked area indicates 119 off-street parking spaces and the parking allocation figure indicates 157 off-street parking spaces. The Applicant's Engineer shall revise the driveway widths to 20'.

3) Pedestrian Circulation Issues

- i. The proposed alleys shall include a two and one-half (2½) foot wide pathway on both sides of the alleys to accommodate the limited pedestrian traffic within the alleys and to visually differentiate the vehicle travel way portion of the alleys from the pedestrian pathway and the adjoining unit driveways (engineering site plan Sheet CS6007). Given the presence of pervious pavement in these alleys and driveway areas of the project, **staff**

**recommend** the Applicant work with Planning Board staff to address this issue in a manner that is found acceptable to Planning Board staff.

- 4) Landscaping, Screening, and Fence Issues
  - i. See reference to the rear alley decorative masonry screen walls under the Landscaping and Screening Issues of the Project Wide Issues section of this memo.
- 5) Construction Issues
  - i. The pools, recreational facilities, retaining walls, and all structures are subject to the review of the Township Construction Code Official.
  - ii. Barrier Free Sub-code compliance is subject to Construction Code Official review and approval.
  - iii. The barrier free accessibility requirements, including the number of handicapped parking spaces, shall be as determined by the Township Construction Official. All sign details for handicapped parking spaces shall be consistent with the current sign design details applicable to the Princeton Forrestal Center.
- 6) Affordable Housing Issues
  - i. In the East residential area, the Applicant has proposed to provide 20 affordable housing units located in six stacked-townhouse unit buildings. The exterior of the buildings looks nearly identical to the attached market-rate stacked-townhouse units buildings, with the only distinction being rear balconies/decks and parking garages. Regarding the balconies/decks issue, see comments above under Design Guidelines Issues, and regarding the parking garages, see comments above under Parking Issues.
- 7) Miscellaneous Issues
  - i. The elevation drawings prepared by Minno Wasko architects for Pulte for the proposed age-restricted multifamily buildings show roll-up doors for access/egress to the parking beneath the

buildings. **Staff recommend** that such roll-up doors be a medium-dark color that complements the colors used on each of the buildings. The applicant agrees with this recommendation.

## D. WEST RESIDENTIAL AREA

### 1) Design Guidelines Issues

- i. As noted above for the East residential area, the GDP Design Guidelines recommend that townhouse units provide some type of private or semi-private outdoor space, typically in the form of a balcony or patio. All the townhouse units in NVR's West residential area are provided with an outdoor space (rear decks or patio).
- ii. In Section 4.5.3 of the Guidelines, mention is made that garages off rear alleys are preferable to front loaded garages. The Applicant indicated that, to preserve as much useable rear yard as possible, they have proposed attached front-loaded garages. The Guidelines note that where front-loaded garages are proposed, they should not be a dominant design element on the streetscape. In response to this, the architects for NVR (Wade Architecture) shifted the proposed front-loaded garages back and introduced front porches or covered stoops on both of their proposed single-family models (Tyler and Westport models).
- iii. In an effort to diversify and prevent repetitive single-family house elevations from locating next to one another along the proposed single-family street, and as noted on the cover sheet of the architectural plan set for the NVR homes (see Note 1 under General Notes), no proposed single-family detached home model with its variant (e.g., Tyler A, B, F or K; Westport F or K) shall be located directly adjacent to the same model and variant.
- iv. Under Section 4.5 of the Guidelines, little guidance is provided regarding setbacks for accessory structures on single-family lots (e.g., garden sheds, pergolas, gazebos, cabanas) other than to note that such structures should be in accordance with applicable building setbacks. The applicant proposes that such structures be handled in accordance with the applicable zoning and building code regulations administered by the Township. Given the small size of the single-family lots proposed by the Applicant ( $\pm 7,200$  sq.

ft.), **Staff recommend** the requirements in the R-85 Zone, which allow such structures to be as close as 5 feet from a property line versus the 10 feet required under the general zoning regulations (§101-13), be used here. However, where such structures involve residential storage sheds, such structures shall be required to include exterior siding that matches the quality and color of the siding on the house on the lot.

2) Parking Issues

- i. Under Section 5.0 of the Guidelines dealing with Circulation, mention is made that residential parking areas may be restricted to owners, tenants, or guests. While all the townhouse units proposed by NVR, including both market rate and affordable, include garage parking, NVR is also proposing a six-unit affordable stacked-unit building (Johnson/Turner units) that does not include garage parking. As noted above for the East residential area, where units are proposed that do not include garage parking, **staff recommend** that convenient, nearby “reserved” parking be provided for each such units based on the RSIS parking standard for such units. The Applicant has agreed to this and has provided a plan sheet entitled “Affordable Housing Parking Allocation.” Each of the parking spaces serving these units shall be convenient for the units, with signage reserving the space for a specific unit, subject to the review and approval of Planning Board staff.
- ii. The proposed non-mixed-use West residential area consists of 20 single-family detached houses, 224 traditional townhomes (26 affordable) and 6 stacked townhomes (all affordable) that require 580 parking spaces per RSIS. Per the table on the plans, the driveways and on-street parking provide 812 off-street parking spaces and 145 on-street parking spaces. Staff takes no exception to the non-mixed-use Western Residential parking space requirement.

3) Pedestrian Circulation Issues

- i. The proposed alleys shall include a two and one-half (2½) foot wide pathway on both sides of the alleys to accommodate the limited pedestrian traffic within the alleys and to visually differentiate the vehicle travel way portion of the alleys from the

pedestrian pathway and the adjoining unit driveways (engineering site plan Sheet CS6007). Given the presence of pervious pavement in these alleys and driveway areas of the project, **staff recommend** the Applicant work with Planning Board staff to address this issue in a manner that is found acceptable to Planning Board staff.

4) Landscaping, Screening, and Fence Issues

- i. See reference to the rear alley decorative masonry screen walls under the Landscaping and Screening Issues of the Project Wide Issues section of this memo.
- ii. The NVR townhouses include a decorative picket fence located between individual unit driveways. The Applicant indicates in their latest comments that a detail of this picket fence is shown in the revised landscape plans (Sheet L-26, detail 13). The fence detail shown on the revised landscape plans is not of a picket fence (though it's mislabeled as such) but is the solid privacy fence intended for general screening purposes as noted in the staff comment on **page 25, 6) ii. Staff recommend** that the landscape plans be further revised to include a detail of the vinyl picket fence to be used for the NVR townhouses, as referenced on the NRV rear elevation drawings.

5) Sanitary Sewer and Solid Waste Issues

- i. The Applicant shall clarify who will own and operate the Pump Station.
- ii. The Applicant shall discuss how odors will be controlled within the Pump Station.

6) Construction Issues

- i. The recreational facilities, retaining walls, and all structures are subject to the review of the Township Construction Code Official.
- ii. Barrier Free Sub-code compliance is subject to Construction Code Official review and approval.

- iii. The barrier free accessibility requirements, including the number of handicapped parking spaces, shall be as determined by the Township Construction Official. All sign details for handicapped parking spaces shall be consistent with the current sign design details applicable to the Princeton Forrestal Center.

7) Affordable Housing Issues

- i. There are 230 townhouse units proposed for the West residential area, of which 32 are proposed as affordable housing units located in twelve separate buildings. One of the buildings is a stacked-townhouse unit building containing six units (Johnson/Turner model). The other 26 affordable units are located within one of eleven traditional townhouse buildings that are three stories in height and contain units that are either 24 feet (McPherson model) or 16 feet (Clarendon model) in width. Of the 16-foot-wide units, only four are currently proposed to be market-rate units. The eleven buildings that contain these affordable townhouse units are interspersed among the 34 townhouse buildings in the project.

The exteriors of all the affordable and market-rate buildings look very similar, with most being three stories in height and containing rear balconies or patios and a rear garage. The six proposed stacked affordable units do not include garages, but rather reserved parking is proposed in front of or next to the units. See comments above under Parking Issues, regarding parking for these stacked units.

## **VI. AGENCY APPROVALS AND OTHER REQUIREMENTS**

- A. The Applicant shall discuss the need for approvals or amended approvals by all outside agencies, including the following:

- 1) New Jersey DEP
- 2) New Jersey DOT
- 3) State Historic Preservation Office
- 4) Delaware and Raritan Canal Commission
- 5) Freehold Soil Conversation District
- 6) South Brunswick Township
- 7) Middlesex County Planning Board

- 8) Princeton University Real Estate Office
- 9) All other agencies having jurisdiction

B. Copies of applications and approvals, certifications, waivers or letters of no concern as may be required by all agencies having jurisdiction, shall be provided as a condition of final approval and prior to the site disturbance and/or construction.

C. The Applicant shall reconcile any inconsistencies in the plans prior to approval and release of the final plans and all conditions of approval shall be addressed to the satisfaction of Planning Board staff.

D. Township offices and staff that have review jurisdiction involving this application or improvements related thereto, include:

- Planning and Zoning Department: Ron Yake, Planner and Zoning Officer  
609-799-0909, ext. 1503
- Planning Board Engineer's Office: Louis Ploskonka, CME Associates  
732-727-8000
- Code Enforcement/Building Div: Brian Miller, Construction Official  
799-0909, ext. 2545  
Bill Gorka, Fire Official  
609-799-0909, ext.1208

E. Any approval shall be conditioned upon the submission of revised plans in accordance with the above comments; proof of approval or waivers from all other agencies having jurisdiction; the construction of offsite improvements, if deemed necessary by the Township Committee; the payment of any outstanding escrow fees; compliance with all applicable state and local affordable housing requirements; and the Applicant's engineer providing an estimate for the cost of improvements to the Township in order that performance guarantees and inspection fees can be calculated.

**MLUL Clock:**

<b>Application Completeness:</b>	<b>February 1, 2025</b>
<b>Planning Board Action:</b>	<b>June 16, 2025 (time ext. from 5/7/2025)</b>

## APPENDIX TO

# APPLICATION P24-03

DRC REVIEW MEMO

FOR

PRELIMINARY & FINAL MAJOR SITE & SUBDIVISION PLAN

WRV Nurseries Plainsboro Owner, LLC  
Block 102, Lots 5 and 6; Block 106 Lot 1  
PMUD Planned Unit Development Zoning District  
Princeton Nurseries General Development Plan, Approved 2020

May 12, 2025

### A. Project Wide Issues

1. Site Plan and Subdivision Comments

- a. Staff has the following comments related to the Preliminary Final Major P.M.U.D. Subdivision Plat:
  - i. Proposed lot and block numbers approved by the Plainsboro Tax Assessor shall be provided.
  - ii. Per Resolution P00-19, Closure reports for all proposed lots, easements, roads, alleys, and dedications shall be provided for plan/map comparison.
  - iii. Per NJSA 46:26B-2.b.(16), A Clerk's affidavit stating that the Township has approved the streets, avenues, roads, and lanes or alleys shall be provided.
  - iv. A condominium, townhouse, manor and/or building plan with metes and bounds, dimensions, and offsets shall be provided.
  - v. Legal descriptions for all proposed lots, easements, roads, alleys, and dedications shall be provided.
- b. The Applicant's Engineer shall revise the limit of disturbance to encompass all areas of demolition, including tree clearing, consistent with sheet CS0501.
- c. The proposed contours depicted on the Soil Erosion and Sediment Plan – 5 tie into the existing contours beyond the limits of the proposed silt fence. The Applicant's Engineer shall revise the silt fence to ensure the entirety of the proposed grading does not occur beyond the erosion control measures.
- d. The limit of disturbance depicted on the Soil Erosion and Sediment Control Plans 1 thru 5 shall be revised to encompass the silt fence.
- e. The Basins Outlet Structures Detail on plan sheet Soil Erosion and Sediment Control Notes and Details – 2, CS1807, shall be revised to remove the 3/4-inch clean stone from within the structure and provide 6-inches of 3/4-inch clean stone beneath the foundation of same.
- f. The Sanitary Sewer Details Sheet 1, CS6001, shall be amended as follows:
  - i. The Sanitary/Water System Crossing Detail shall be revised to provide NJDOT Class 'B' concrete, 4,500 psi.
  - ii. The Sanitary Frame & Cover Detail shall be revised to remove the duplicate details depicted overtop of one another on the plan.
- g. The Stormwater Details Sheet 1, CS6002, shall be amended as follows:
  - i. The Precast Drainage Manhole Section 4'-0" Diameter Detail and Precast Drainage Manhole Section 5'-0' or 6'-0" Diameter Detail shall be revised to be AASHTO HS-25 loading within paved areas for the proposed castings.
  - ii. The Precast Drainage Manhole Section 4'-0" Diameter Detail, Precast Drainage Manhole Section 5'-0' or 6'-0" Diameter Detail, NJDOT Type 'A' – Shallow Inlet Base & Riser Detail, and (Flared) End Sections For Concrete Pipe Detail shall be revised to provide 4,500 psi concrete.

- h. Utility Easements shall be provided for all private utilities as required by the utility providers. Copies of same shall be submitted to Staff when filed.
- i. The Typical Alley Section (Residence Driveways On Both Sides) on Site Details Sheet 7, CS6007, shall be revised to match the layout on the proposed site plans.
- j. The Applicant's Engineer shall depict the soil profile pit locations on the Overall Soil Erosion and Sediment Control Plan, sheet CS1800.
- k. The water observation level shall be depicted within the test pit and boring logs of the Preliminary Geotechnical Investigation Report where seasonal high-water table was encountered.

2. Traffic, Parking, Signage, Pedestrian, and Circulation Comments

- a. The Vehicle Maneuvering Plan, sheet CS0901, shall be amended as follows:
  - i. The Applicant's Engineer shall confirm the largest proposed vehicle to enter the site is a WB-62.
  - ii. The vehicle movement plan shall be split so that the paths of only one design vehicle is shown per sheet in order to perform an adequate review.
- b. The design and placement of all traffic signs and striping shall follow the requirements specified in the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," (MUTCD) published by the U.S. Department of Transportation and adopted by the N.J. Department of Transportation. Staff takes no exception to the first note provided within the General Traffic Notes on Sheet SP-14. However, the note on Sheet 74 in the Traffic Signal Details shall be revised to indicate the current edition of the MUTCD.
- c. The Applicant's Engineer shall provide intersection sight distance triangles whose lengths conform to the latest AASHTO (American Association of State Highway and Transportation Officials) guidelines as published in the current edition of A Policy on Geometric Design of Highways and Streets for each intersection and non-residential driveway. These intersection sight distance triangles shall be provided for a left turn and a right turn at each site intersection. The Applicant's Engineer shall review the sight triangles to verify that no existing or proposed objects will obstruct the sight triangles. Per AASHTO guidelines, the design speed is 5 mph over the posted speed limit.
- d. The Applicant's Engineer shall design all proposed curb ramps, sidewalks, and crosswalks, to meet the latest ADA requirements and shall provide turning spaces before and after proposed ramps as necessary at the required slopes. The locations of proposed detectable warning surfaces shall be clearly indicated on the plans. This ADA compliance issue shall be reviewed relative to all curb ramps, sidewalks, and crosswalks currently proposed under this project.

3. Grading, Drainage, and Stormwater Management Comments

- a. The time of concentration pathway for 'EDA-1 Pervious' does not appear to be the most hydraulically distant flow path within the drainage area of same and shall be amended accordingly. The Applicant's Engineer shall provide the amended pre-developed drainage area map for the Township's review in order to verify the path as modelled in the time of concentration calculation.
- b. The Pre-Developed Drainage Area Plan shall be amended to show sub catchment areas EDA-6 Imp and SBruns-6 Per. Additionally, the narrative section of the Stormwater Management Report shall be amended to mention these sub catchment areas.
- c. The Post Developed Drainage Area Plan shall be amended to clearly show and label all of the sub catchment areas as analyzed in the site runoff analysis. Time of concentration flow paths, pervious and impervious areas, and curve numbers shall be provided on same and the legend shall be revised to match the linework on the plan.
- d. The Applicant's Engineer shall provide a separate inlet drainage area plan for review.
- e. The outlet control structure for all proposed basins shall be amended to set the first orifice elevation at the Water Quality Design Storm maximum water surface elevation.
- f. When exfiltration is included in the routing calculations, the groundwater mounding calculations must account for the total discarded volume via exfiltration for the maximum design storm (in this case the 100-year projected design storm) when calculating the duration of the infiltration period. When exfiltration is not included in the site runoff analysis, the volume to be used is the entire Water Quality Design Storm. The groundwater mounding calculations shall be amended accordingly. Refer to NJ Stormwater BMP Manual – Chapter 13 for guidance. The provided mounding analyses has been amended to reflect the discarded stormwater volume for the 100-year project design storm for basins with exfiltration included, however there are still inconsistencies between the exact volume modelled in the basin routing computations and same. The tables and computations shall be amended for consistency.
- g. The Applicant's Engineer shall provide soil test results in accordance with Chapter 12 of the NJ Stormwater BMP Manual, particularly for all green infrastructure BMPs greater than 500 square feet in area. It is not clear how the estimated seasonal high-water table was determined for most of the proposed basins that are not situated within a soil test pit/boring location. Refer to NJ Stormwater BMP Manual – Chapter 12 for guidance.
- h. The maximum and minimum design permeability rate to be used in all design calculations is to be 10 in/hr and 0.5 in/hr respectively. The design permeability rate to be used is to be based upon the tested permeability rate with a factor of safety of

2 applied. All design calculations, particularly the groundwater mounding calculations, shall be amended accordingly.

- i. Per the 'County-Specific New Jersey 24-Hour Rainfall Frequency Data' and the 'Future Precipitation Change Factor' tables provided in Appendix G of the Engineering Report, the Projected 2-year design storm depth shall be amended to 4.0-inches for the site runoff analysis and the Water Quality Design Storm computations.
- j. The proposed basin surface areas and storage volumes utilized in the site runoff analysis, the groundwater mounding analyses, groundwater recharge analyses, and the grading and drainage plans shall be all amended for consistency.
- k. The 'Stormtech SC-740 Chamber Systems', 'Stormtech SC-310 Chamber Systems', and 'Aquabox' construction details shall be amended to only propose geotextile filter fabric on the top and sides of the stone storage course.
- l. Soil replacement to the depth of suitable soil shall be proposed beneath all green infrastructure basins designed to infiltrate in the subsoil that have a test permeability rate of less than 1-inch/hour.
- m. All subsurface basins shall be amended to provide inspection ports on the Site Drainage Plans. Additionally, the Applicant's Engineer shall provide cleanout and invert elevations of same. Refer to NJ Stormwater BMP Manual – Chapter 9.8 for guidance.
- n. The stabilized basin access area shall be shown for each proposed surface basin in order to demonstrate conformance with the access roadway requirement for same. Refer to NJ Stormwater BMP Manual – Chapter 9.8 for guidance.
- o. The site runoff analysis and Basin Schedule table within the Stormwater Management Report references Infiltration Basin 8. However, same is not indicated on any of the Site Drainage Plans. Additionally, the report indicates that Infiltration Basin 8 is depicted on the Site Grading Plans near future Building E1. However, upon review of the plans the location and grading of same is not depicted on same. The Applicant's Engineer shall amend the plans and report for consistency.
- p. The site runoff analysis shall be amended to include all areas within the limit of disturbance shown on the Site Soil Erosion and Sediment Control Plans. The proposed roadway improvements on Seminary Drive and College Road West shall be included within the site runoff analysis. The Applicant's Engineer shall provide the pre- and post-development drainage area maps for the Township's review.
- q. Staff notes that the contributory drainage area for stormwater basins includes the inflow areas that are attenuated and ultimately discharged from upstream basins that are in series with same. If the contributory drainage area is greater than 2.5-acres, the basin is subject to the requirements of a large-scale basin which only permits use

for stormwater quantity control. Therefore, the groundwater recharge and water quality calculations shall be amended accordingly to exclude any basins deemed large-scale. The Applicant's Engineer shall revise the water quality and groundwater recharge analysis to only include proposed basins that are demonstrated to meet the contributory drainage area requirements for a small-scale basin and determine the applicability of same based upon the definition of 'contributory drainage area' as defined in Section II of the Township's Stormwater Control Ordinance.

- r. The basin volume calculations for all underground basins shall be amended to accurately reflect the storage course volume as indicated by the top of stone elevation within the Basin Schedule chart for same.
- s. There appears to be two subsurface infiltration basins labeled UGB 56 on Site Drainage Plan – 4. Additionally, the Basin Schedule Table within the report and the site runoff analysis only reference one UGB 56. The Applicant's Engineer shall revise the plans and report.
- t. All proposed pervious paving systems and details shall be amended to be in conformance with the green infrastructure requirements. Refer to NJ Stormwater BMP Manual – Chapter 9.6 for guidance. Groundwater mounding analyses shall be provided for pervious paving systems designed to infiltrate into the subsoil. All pervious paving systems shall be designed with an outlet control structure. The first orifice shall be set at the Water Quality Design Storm water surface elevation and an overflow structure shall be provided to provide safe, stable discharge of stormwater runoff in the event of an overflow.
- u. The Applicant's Engineer shall provide calculations demonstrating that all porous pavement areas do not exceed the maximum area of additional inflow. Refer to NJ Stormwater BMP Manual – Chapter 9.6 for guidance. Several of the porous asphalt areas as indicated in the provided 'UGB Pretreatment' exceed the maximum area of inflow requirements. All inflow areas to each porous asphalt system shall be determined within the water quality calculations. We note that the proposed MTDs to be used as pretreatment do not offset the maximum area of inflow requirements for the porous asphalt systems.
- v. All inspection ports and underdrain piping associated with the proposed porous pavement systems shall be shown on the Site Drainage Plans. Additionally, the Applicant's Engineer shall provide cleanout and invert elevations of same. Refer to NJ Stormwater BMP Manual – Chapter 9.6 for guidance.
- w. It is not clear based upon the Drainage Plans and the provided construction details how the areas of porous pavement will convey runoff to downstream stormwater conveyance systems and stormwater management basins. The Applicant's Engineer shall provide testimony regarding same.

- x. Sizing calculations shall be provided for all underdrain piping proposed as part of the porous pavement systems in order to demonstrate same with drain within 72 hours. Refer to NJ Stormwater BMP Manual – Chapter 9.6 for guidance.
- y. The basin routing computations shall be amended to model the outlet pipe for all outlet control structures in order to verify the outlet pipe has adequate capacity to handle the projected 100-year design storm event.
- z. The Applicant's Engineer shall provide construction notes for the proposed Manufactured Treatment Devices.
  - aa. The Applicant's Engineer shall provide a construction detail for the Modular Wetlands GI Manufactured Treatment Devices proposed within the Stormwater Management Report.
  - bb. The Applicant's Engineer shall provide invert elevations at all pipes discharging into proposed basins on the Site Drainage Plans.
  - cc. The Operations & Maintenance Manual shall be amended to include a telephone number for the responsible party and estimated price for vacuuming services of porous pavement systems.
  - dd. The Basin Outlet Structures Detail appears to be specific for all proposed surface basins. The Applicant's Engineer shall revise the Outlet Control Structure and Basin Details to indicate which detail shall be used for each basin system.
  - ee. The hydraulic calculations within Appendix F of the Stormwater Management Report shall be revised to provide the hydraulic grade line and gutter spread calculations for the Township's review.
  - ff. The Applicant's Engineer shall establish the 100-year design storm event surcharge and freeboard elevations of all drainage systems per Ordinance Section 85-28.C of the Township Code.
  - gg. There are several inconsistencies within the Stormwater Management Report narrative section and the proposed stormwater management systems as analyzed in the calculations and shown on the Site Drainage Plans. The Applicant's Engineer shall resolve these discrepancies.
  - hh. The Site Drainage Plans shall be amended to provide pipe and cleanout information (i.e., location, material, size, slope, and invert and cleanout elevations) for all roof drains, leaders, and cleanouts connecting to the proposed stormwater conveyance and stormwater management systems.
  - ii. A roof leader construction detail with an emergency overflow shall be provided for all leaders connecting to downstream stormwater systems.

- jj. The Storm Sewer Profiles shall be amended to provide elevations and callouts for all subsurface basins. Additionally, the subsurface basins shall be accurately depicted on same (i.e., stone base depth, stone cover depth, chamber depth, chamber lengths, etc.).
- kk. The Site Drainage Plans shall be amended to accurately depict the subsurface systems as proposed per their respective construction details (i.e., chamber lengths, chamber rows, side stone width, etc.).
- ll. All proposed storm sewer profiles shall be amended to provide the vertical clearance dimensions for all utility crossings shall also be shown. Concrete encasements, cradles, or support blocks shall be indicated on the plan and profile sheets where vertical clearance between pipes is less than 18 inches. Additionally, same shall be amended to provide the finished grade linework wherever gaps are present within same.
- mm. The grading shall be amended between all proposed buildings in order to demonstrate a minimum slope of 2.0% is provided along pervious areas and away from proposed buildings.
- nn. The Applicant's Engineer shall propose a fence around all proposed surface basins to deter access. The location of the fencing and associated construction detail shall be provided on the proposed plans.
- oo. The site runoff analysis indicates that the stormwater runoff quantity reduction is not met for the Projected 10-year design storm for POI-1. The proposed stormwater management systems shall be amended accordingly.

#### 4. Landscaping Comments

- a. The Applicant's Landscape Architect shall revise the proposed landscaping plans to shift proposed trees away from any hardscaping to reduce future conflicts and upheaval of same. The proposed trees are directly adjacent to sidewalks and curbs, where space exists to shift trees further away from same.
- b. The proposed landscaping plans shall be reviewed and revised as necessary to provide oak species in park and open space areas at a greater quantity than proposed. There are numerous proposed oaks as street trees, with minimal oaks provided in these areas.
- c. The Applicant's Landscape Architect shall revise the proposed plans to provide maintenance requirements for the seed mixes proposed on sheet L-13, to ensure these areas will not be mowed weekly and will be able to properly establish.
- d. The planting details on sheet L-13 shall be revised to indicate rigid, plastic open mesh trunk guards, to protect from buck rub.

- e. Due to the heavy deer pressure of the area, deer deterrents shall be considered for the reforestation plantings. Staff recommends a temporary fence for these areas until trees are large enough that they are above the deer browse line.

5. Lighting Comments

- a. The proposed plans shall be revised to provide the manufacturer's catalog cuts and full ordering information for the proposed light poles.
- b. The Applicant's Landscape Architect shall revise the proposed plans to provide isolux pattern details with a scale and graph for all proposed light fixtures.
- c. The Applicant's Landscape Architect shall indicate proposed colors and finish for all fixtures and poles.
- d. The Tenon Arm Mount Area Light Foundation Detail, Post Top Light Foundation Detail, and Bollard/Column Light Foundation Detail, sheet CS2205, shall be revised to provide NJDOT Class 'B' concrete, 4,500 PSI.
- e. The luminaire schedule on sheet CS2205 shall be revised to include the catalogue cut for XL-02A.

6. Sanitary Sewer and Solid Waste Comments

- a. The Applicant's Engineer shall revise the sanitary sewer main between SAN MH-40 and SAN MH-42 to provide a 0.30% minimum slope between same.

7. Potable Water and Fire Protection Comments

- a. The Applicant's Engineer shall provide a hydrant for flushing purposes at the end of the water mains along Road L, Road N (after the services connections), and Alley 12.
- b. Fire hydrants shall be provided every 800-feet, or as required by the Fire Subcode Official, so that the distance between any dwelling and a fire hydrant does not exceed 400-feet.

8. As-Built Plans

As-built grading plans and stormwater management plans are required to be submitted by the developer to the Township Engineer's Office prior to occupying the site. At a minimum the following shall be provided:

- a. Storm System:
  - i. Pipe sizes, types and classes.
  - ii. Manhole rim and invert elevations.

- iii. Inlet grate and invert elevations.
- iv. Capacity calculations for deficient pipe slopes and velocity calculations for excessive pipe slopes.
- v. Any other pertinent information.
- vi. A certification shall be provided from the stormwater management facilities design engineer indicating that same have been constructed in accordance with the final plans and specifications and that the facilities will function as originally designed prior to site occupancy.

b. Roadway Systems:

- i. Roadway location relative to the Right-of-Way.
- ii. As-Built elevations at 50-foot stations throughout the development (top of curb, gutter, and centerline grades shall be provided).

c. Buildings:

- i. Submit as-built grading plans for each phase of the building(s) prior to the issuance of certificates of occupancy.

d. Parking Areas:

- i. Where parking area slopes are less than 1% provide as-built top of curb and gutter elevations at breaks and angle points and sufficient pavement elevations to establish positive drainage to the nearest storm sewer system.

e. Water Distribution System:

- i. Pipe sizes, types, and classes.
- ii. Three (3) ties to all valves (in-line and services).
- iii. Stationing of all corporations on the main.
- iv. Sizes of services.
- v. Location of all fittings and caps.
- vi. Any other pertinent information.

f. Sanitary Sewer System:

- i. Pipe sizes, types, classes, and slopes.
- ii. Manhole rim and invert elevations.
- iii. Stationing of all tee-wyes.
- iv. Three (3) ties to all cleanouts.
- v. Capacity calculations for deficient pipe slopes and velocity calculations for excessive pipe slopes.
- vi. Any other pertinent information.

## **B. Non-Residential/Mixed Use Area**

### **1. Traffic, Parking, Signage, Pedestrian, and Circulation Comments**

a. Site Layout Plan – 3, sheet CS1003, shall be amended as follows:

- i. We defer to the Construction Code Official for review and approval of the proposed hotel canopy entrance height.

- b. Site Layout Plan – 4, sheet CS1004, shall be amended as follows:
  - i. The Applicant's Engineer proposes parking spaces in the vicinity of various stop lines within the Mixed-Use Development. The Applicant's Engineer shall consider eliminating those parking spaces as access to these parking spaces could conflict with vehicles in queue of the proposed stop line. Parking is not permitted under NJSA 39:4-138 within 50-feet of a stop sign unless modified by a municipal ordinance as indicated in NJSA 39:4-138.6.
  - ii. The Applicant's Engineer shall propose a by-pass lane through the proposed drive-thru.
  - iii. The Applicant's Engineer proposes a Stop Sign (MUTCD Sign Designation R1-1) and a Do Not Enter Sign (R5-1) on the same sign post exiting the proposed drive-through driveway opposite Alley 10. The proposed Do Not Enter sign cannot obscure the proposed Stop Sign as per MUTCD Section 2A.05, paragraph 3. The Applicant's Engineer shall address same.
- c. Vehicle Maneuvering Plan, sheet CS0901, shall be amended as follows:
  - i. The WB-62 vehicle path at the proposed Roundabout of Nursery Road / Road A and Road B / Road C traverses the central circular apron and the islands on each side. The Applicant's Engineer shall modify the plans to size the proposed roundabout appropriately, so the WB-62 does not encroach on the circular apron.
  - ii. The WB-40 vehicle path shall be revised to eliminate the encroachment into the parking spaces along Road D near the northeast corner of the grocer.
  - iii. The WB-40 vehicle path shall be revised to eliminate the encroachment into the parking spaces along Road D, travelling eastbound along the southerly portion.
  - iv. The WB-62 vehicle path shall be revised to eliminate the encroachment into the parking spaces along Road D near the egress from the grocer.
  - v. The WB-62 vehicle path shall be revised to eliminate the encroachment into the parking spaces along Road P south of future Buildings E1 and E2.

## 2. Grading, Drainage, and Stormwater Management Comments

- a. The Applicant's Engineer shall provide documentation showing adherence to the requirements for a dam in accordance with N.J.A.C. 7:20 for proposed surface basin BIO 25 and Ex. Basin 6 as same are proposed to impound water five feet or more above the downstream toe-of dam.
- b. The Top of Structure 'F' column in the outlet control structure detail table on sheet CS1807 does not match Site Drainage Plan – 1, sheet CS1601, for the basin UGB 17. The Applicant's Engineer shall revise the table and plan for consistency.

- c. The Applicant's Engineer shall provide top of curb and bottom of curb spot elevations at all points of tangency, points of curvature, where curb changes direction horizontally, and where proposed curb ties into existing curb.
- d. Spot elevations shall be provided where proposed pavement meets existing curb.
- e. Additional spot elevations shall be provided in all grassed islands and paved islands in proposed parking lots to demonstrate minimum slopes of 2.0% for pervious surfaces and 0.50% for impervious surfaces.
- f. The grassed area within Future Buildings E1 and E2 shall be amended to demonstrate 2.0% minimum slopes along all pervious surfaces.
- g. The grading/inverts shall be amended at outfalls FES-(586) and FES-(595) as same are proposed approximately 7 feet above grade.
- h. The storm sewer model shall be amended for the following items inconsistent with the Drainage Plan:
  - i. The Applicant's Engineer shall include structures STM MH-(420) and STM MH-(449) in the storm sewer calculation.
  - ii. Structures I-147, I-158, and I-582 are provided in the hydraulic calculations. However, same are not depicted on the Site Drainage Plans. The Applicant's Engineer shall revise the plans and hydraulic calculations for consistency.
  - iii. The pipe data for following pipe lengths are inconsistent with the Drainage Plan:  
I-533 to UGB 57, I-285 to UGB 62, OCS-529 to MH-332, OCS-486 to MH-487, MH-334 to MH-335, MH-335 to MH-336, MH-336 to MH-338, MH-338 to MH-212, I-502 to UGB 32, MH-419 to UGB 32, I-319 to MH-323, I-227 to I-228, I-410 to I-411, I-411 to I-412, I-389 to UGB 55, I-576 to I-2, I-5 to MH-6, MH-6 to UGB 22, I-147 to I-149, I-158 to I-150, I-452 to I-163, I-163 to I-164, I-264 to I-265, I-265 to I-169, I-169 to I-164, I-164 to I-165, I-170 to I-165, I-166 to I-171, I-171 to MH-469, UGB 17 to I-176, MH-469 to I-296, I-296 to MH-580, I-581 to I-582, I-582 to I-167, I-167 to MH-580, MH-580 to EX BASIN 6, I-280 to I-281, I-275 to I-276, I-276 to MH-585, I-295 to I-294, I-294 to BASIN 25, and OCS-589 to FES 588.
  - i. Storm sewer profiles shall be provided for the missing pipe runs of the following storm sewer structures: B Inlet-(150) to B Inlet-(451), B Inlet-(451) to B Inlet-(452), B Inlet-(452) to B Inlet-(163), B Inlet-(163) to B Inlet-(164), B Inlet-(264) to B Inlet-(265), B Inlet-(265) to B Inlet-(169), B Inlet-(169) to B Inlet-(164), B Inlet-(164) to B Inlet-(165), B Inlet-(165) to B Inlet-(166), STM MH-(469) to B Inlet-(296), B Inlet-(296) to 60" MH-(580), B Inlet-(244) to UGB 62, B Inlet-(411) to B Inlet-(412), and B Inlet-(412) to B Inlet-(17)..
  - j. The storm sewer profiles shall be amended for the following items:

- i. The pipe length between MH-(580) to MH-Structure – (593) within the profiles is inconsistent with Site Drainage Plan – 2, sheet CS1602. The Applicant's Engineer shall revise the plan and profile for consistency.
- k. The basin routing for Existing Basin 6 shall be revised to account for the stone spillway feature, as the water surface elevation is modelled above same in post-development conditions. Spot grades shall be added to the spillway section to specify the elevation of same and computations shall be provided that demonstrate no erosion will occur at the spillway and downstream of same during all design storm events. Additionally, a note shall be added to the plans that the existing riprap along the spillway and forebay of same is to remain.
- l. The outflow flow pipe for the outlet control structure of Existing Basin 6 is modelled with an incorrect slope and the site runoff analysis should be revised accordingly.

## C. **East Residential Area**

1. **Traffic, Parking, Signage, Pedestrian, and Circulation Comments**
  - a. Site Layout Plan – 2, sheet CS1002, shall be amended as follows:
    - i. The proposed plan shall be revised to indicate a Turn Sign and then a 10 mph advisory speed plaque at the signage located around the curvatures.
  - b. Site Layout Plan – 4, sheet CS1004, shall be amended as follows:
    - i. The proposed plan shall be revised to indicate a Turn Sign and then a 10 mph advisory speed plaque at the signage located around the curvatures.
    - ii. The proposed plans shall be revised along Road B and Road C to include W16-7 arrow plaques at each crosswalk.
    - iii. There is a stop line proposed on Road D to the east of Nursery Road / Road A. The Applicant's Engineer shall clarify the proposed intersection controls here and provide pedestrian signage and advanced warning signage per MUTCD requirements.
    - iv. The proposed plan shall be revised to indicate a Turn Sign and then a 10 mph advisory speed plaque at the signage located around the curvatures.

2. **Grading, Drainage, and Stormwater Management Comments**

- a. The Applicant's Engineer shall amend the outlet pipe from outlet control structure OCS-(522) to be less than the 15.48% provided. Staff recommends the outlet pipe be revised to less than 10.0% for any stormwater conveyance pipe.
- b. The Applicant's Engineer shall provide documentation showing adherence to the requirements for a dam in accordance with N.J.A.C. 7:20 for proposed surface basins BIO 25, INFIL 30, BIO 36, and BIO 45 as same are proposed to impound water five feet or more above the downstream toe-of dam.

- c. The outlet pipe slope in the outlet control structure detail table on sheet CS1807 does not match the routing computations for basin UGB 28. The Applicant's Engineer shall revise the table and plans for consistency.
- d. The Outlet Pipe Size/Slope/Inv 'G' column in the outlet control structure detail table does not match the routing computations for basin UGB 30. The Applicant's Engineer shall revise the table and plans for consistency.
- e. Proposed basin UGB 27 does not appear to have any inlet pipes proposed to same. The Applicant's Engineer shall clarify the drainage area to be attenuated by same.
- f. Pretreatment via the use of Green Infrastructure MTDs or other approved Green Infrastructure BMPs shall be provided for runoff entering subsurface infiltration basins UGB 27, UGB 33, UGB 34, UGB 37, UGB 43, UGB 44, UGB 46, UGB 47, and UGB 50. Refer to NJ Stormwater BMP Manual – Chapter 9.8 for guidance.
- g. Additional spot elevations shall be provided in the vicinity of the proposed clubhouse to demonstrate minimum slopes of 2.0% for pervious surfaces and 0.50% for impervious surfaces away from same.
- h. The outlet pipe from B Inlet-(262) shall be provided on the Site Drainage Plan.
- i. The Applicant's Engineer shall provide hydraulic computations for the existing outlet pipe exiting structure STM MH-(564) in order to verify same has adequate capacity to convey discharge from basins BIO 28 and BIO 30.
- j. The grading shall be amended near structure STM MH-(564) and the upstream pipe shall be amended to provide sufficient cover for same.
- k. Site Drainage Plan – 2, CS1602, appears to provide the incorrect pipe length for the proposed pipe from B Inlet-(235)- GI WQ MTD to STM MH-(478). The Applicant's Engineer shall revise the plan.
- l. The storm sewer model shall be amended for the following items:
  - i. Manhole structure STM MH-(601) shall be included in the hydraulic calculations.
  - ii. B Inlet-(252) and B Inlet-(254) are modelled as connect to basin UGB 35 and modelled incorrectly as being connected to basin UGB 35. However, these inlets are depicted on Site Drainage Plan – 2, CS1602, connecting to UGB 37. The Applicant's Engineer shall revise the hydraulic calculations accordingly.
  - iii. The Applicant's Engineer modelled proposed inlet I-477 within the hydraulic calculations. However, same is not depicted on the Site Drainage Plans. The Applicant's Engineer shall revise the hydraulic calculations and plans for consistency.
  - iv. The pipe data for following pipe lengths are inconsistent with the Site Drainage Plans:

MH-212 to FES-213, I-193 to I-537, I-537 to I-178, I-189 to I-190, I-190 to MH-191, MH-191 to FES-192, I-326 to FES-329, OCS-538 to FES-541, I-278 to UGB 32, I-256 to UGB 34, I-258 to UGB 34, I-262 to UGB 33, I-325 to I-182, I-182 to I-184, I-184 to FES-183, I-242 to I-243, I-180 to FES-181, I-252 to UGB 35, I-254 to UGB 35, I-239 to I-240, I-235 to I-477, I-477 to MH-478, MH-478 to UGB 31, I-219 to UGB 44, I-431 to I-432, I-432 to UGB 43, I-214 to UGB 42, OCS-504 to MH-421, MH-421 to UGB 33, OCS-426 to MH-427, OCS-506 to MH-379, MH-384 to MH-381, OCS-523 to I-200, I-224 to I-225, I-225 to I-413, I-249 to I-248, I-319 to MH-323, I-227 to I-228, I-229 to OCS-230, MH-476 to OCS-230, MH-375 to I-233, MH-212 to FES 213, BASIN 45 to FES 418, BASIN 30 to EXIST, BASIN 28 to EXIST, and OCS-589 to FES 588.

- m. Storm sewer profiles shall be provided for missing pipe runs of the following storm sewer structures;  
72" MH-(384) to 72" MH-(481), OCS-(426) to STM MH-(427), B Inlet-(258) to UGB 34, OCS-(504) to STM MH-(419), STM MH-(419) to STM MH-(421), OCS-(505) to STM MH-(421), STM MH-(421) UGB 33 STM MH-(475) to STM MH-(476), STM MH-(476) to OCS-(230), OCS-(230) to OCS-(524), OCS-(524) to STM MH-(375), STM MH-(375) to B Inlet-(232), B Inlet-(228) to STM MH-(323), B Inlet-(319) to STM MH-(323), B Inlet-(245) to B Inlet-(247), and B Inlet-(318) to B Inlet-(247).
- n. The storm sewer profiles shall be amended for the following items:
  - i. All pipe runs with horizontal elliptical reinforced concrete pipe (HERCP) shall be amended to show the pipe size.
  - ii. The outfall inverts shall be provided on all storm sewer profiles.
  - iii. MH-Structure-(601) shall be depicted on the storm sewer profiles.

## **D. West Residential Area**

- 1. Site Plan & Subdivision Comments
  - a. The Site Layout Plan - 1, sheet CS1001, shall be amended as follows:
    - i. The Applicant's Engineer shall clarify the proposed easement linework in order to verify the type of easement required.
- 2. Traffic, Parking, Signage, Pedestrian, & Circulation Comments
  - a. Site Layout Plan – 1, sheet CS1001, shall be amended as follows:
    - i. The proposed plan shall be revised to indicate a Turn Sign and then a 10 mph advisory speed plaque at the signage located around the curvatures.
  - b. Site Layout Plan – 3, sheet CS1003, shall be amended as follows:
    - i. The proposed plan shall be revised to indicate a Turn Sign and then a 10 mph advisory speed plaque at the signage located around the curvatures.

- ii. The Applicant's Engineer proposes to reduce the width of Road B from Road E to the north. The Applicant's Engineer shall propose Road Narrows warning signs per the MUTCD.
- iii. The Applicant's Engineer shall clarify if left turns are prohibited into Road B and out of Road B. The appropriate no left turn signs and do not block the intersection signs shall be provided as applicable.

- c. Vehicle Maneuvering Plan, sheet CS0901, shall be amended as follows:
  - i. The WB-40 truck vehicle path at the proposed Alley 1 and Alley 4 intersection shall be provided for review.

3. Grading, Drainage & Stormwater Management Comments

- a. The outlet pipe downstream invert and a construction note for the downstream structure shall be provided for outlet control structure OCS-(578).
- b. The Top of Berm Elevation for basin BIO 1 shown on the Basin Schedule table on sheet CS1807 is inconsistent with the elevation provided in the Stormwater Management Report. The Applicant's Engineer shall revise the plans and report for consistency.
- c. The Applicant's Engineer shall amend the basin routing calculations for subsurface basin UGB 3 to provide the pipe storage system embedded within the stone storage course in order to account for the additional basin volume provided.
- d. The Applicant's Engineer shall provide basin volume calculations for proposed subsurface basin UGB 59.
- e. The basin routing calculations indicate that proposed subsurface basins UGB 6 and UGB 11 will overtop during several of the design storms. These basins shall be revised to provide adequate storage without overtopping in any design storm event.
- f. The number of chambers per row for proposed subsurface basin UGB 2 shown on the Basin Schedule table within sheet CS1807 is inconsistent with the basin routing calculations. The Applicant's Engineer shall revise the table and report for consistency.
- g. The labelling for the outlet control structure of proposed subsurface basin UGB 7 has inconsistent labelling between Site Drainage Plan – 1, CS1601, and the outlet control construction detail table on the Soil Erosion and Sediment Control Notes and Details – 2, CS1807. The Applicant's Engineer shall revise the table and plans for consistency.
- h. The Applicant's Engineer shall provide documentation showing adherence to the requirements for a dam in accordance with N.J.A.C. 7:20 for proposed surface basins BIO 1, BIO 12, BIO 35, BIO 51, BIO 52, BIO 53, and BIO 58 as same are proposed to impound water five feet or more above the downstream toe-of dam.

- i. The First Weir Width/EI. 'D' column in the outlet control structure detail table on sheet CS1807 does not match the basin routing computations for basins BIO 1. The Applicant's Engineer shall revise the table and report for consistency.
- j. The Top of Structure 'F' column in the outlet control structure detail table on sheet CS1807 does not match the Site Drainage Plans for basins BIO 1 and UGB 21. The Applicant's Engineer shall revise the table and plans for consistency.
- k. The Outlet Pipe Size/Slope/Inv 'G' column in the outlet control structure detail table does not match the basin routing computations for UGB 35. The Applicant's Engineer shall revise the table and report for consistency.
- l. Pretreatment via the use of Green Infrastructure MTDs or other approved Green Infrastructure BMPs must be provided for runoff entering subsurface infiltration basins UGB 4B, UGB 5, UGB 7, UGB 10, UGB 11, UGB 21, UGB 49, UGB 54, and UGB 55.
- m. Proposed sidewalks on Road F, Road H, Road A, and Road B shall be revised to show spot elevations along same in order to demonstrate a minimum cross slope of 0.5% across same.
- n. Additional spot elevations shall be provided at the residential sections between proposed Road B and Alley 6 in order to demonstrate 2.0% minimum slopes along pervious surfaces and 0.50% minimum slopes for impervious surfaces and away from the proposed buildings.
- o. The grading shall be amended west of proposed Alley 5 between Stations 3+00 and 4+00 in order to demonstrate 2.0% minimum slopes along pervious surfaces and away from the proposed buildings.
- p. The grading shall be amended north of proposed Road F in order to demonstrate 2.0% minimum slopes away from the 104 contour.
- q. The storm sewer model shall be amended for the following items:
  - 1. The Applicant's Engineer shall include structures STM MH-(518), STM MH-(600), B INLET-(48), STM MH-(441-A), E INLET-(441-B), and STM MH-(369) in the hydraulic calculations.
  - 2. Basin 14 appears to be mislabeled as Basin 12 as Basin 14 in the hydraulic calculations. The Applicant's Engineer shall revise plan and hydraulic calculations for consistency.
  - 3. The Applicant's Engineer labeled Structure MH-374 in the hydraulic calculations as an inlet on the Site Drainage Plans. The Applicant's Engineer shall revise the plans and hydraulic calculations for consistency.
  - 4. The pipe data for following pipe lengths are inconsistent with the Drainage Plan:

I-304 to UGB 10, I-76 to UGB 7, I-572 to UGB 7, I-72 to UGB 9, UGB 9 to I-85, I-87 to UGB 6, MH-81 to UGB 5, UGB 7 to MH-520, UGB 5 to MH-460, MH-462 to FES 463, I-300 to UGB 4, I-368 to BASIN 16, I-51 to MH-52, MH-52 to BASIN 15, BASIN 16 to BASIN 15, BASIN 15 to MH-374, MH-374 to I-68, MH-311 to UGB 11, UGB 11 to MH-492, UGB 4A to MH-488, MH-490 to I-104, I-47 to I-112, I-545 to UGB 21, I-21 to MH-22, MH-22 to UGB 41, I-24 to UGB 49, I-26 to UGB 49, I-28 to UGB 48, I-30 to UGB 48, I-32 to UGB 54, I-34 to UGB 54, UGB 21 to MH-12, UGB 20 to MH-440, MH-440 to MH-441, I-309 to UGB 18, UGB 41 to MH-544, MH-342 to MH-434, BASIN 52 to MH-434, UGB 18 to MH-353, BASIN 58 to BASIN 59, I-130 to I-131, I-124 to MH-125, BASIN 59 to BASIN 35, MH-369 to UGB 3, UGB 3 to BASIN 14, BASIN 14 to MH-508, MH-508 to MH-371, MH-371 to BASIN 1, and BASIN 1 to EX MH.

- r. Storm sewer profiles shall be provided for missing pipe runs of the following storm sewer structures:  
OCS-(516) to STM MH-(459), STM MH-(459) to STM MH-(520), STM MH-(520) to STM MH-(460), STM MH-(460) to STM MH-(461), B Inlet-(575) to B Inlet-(87)- GI WQ MTD, B Inlet-(87)- GI WQ MTD to B Inlet-(302), B Inlet-(302) to UGB 4B, OCS-(496) to STM MH-(488), STM MH-(488) to STM MH-(566), OCS-(298) to STM MH-(566), STM MH-(566) to STM MH-(489), STM MH-(492) to STM MH-(490), STM MH-(490) to B Inlet-(104), B Inlet-(104) to STM MH-(108), B Inlet-(72) to UGB 9, B Inlet-(85) to B Inlet-(96), B Inlet-(96) to B Inlet-(97), B Inlet-(569) to B Inlet-(97), B Inlet-(58) to B Inlet-(59)- GI WQ MTD, B Inlet-(59)- GI WQ MTD to B Inlet-(368), B Inlet-(55) to STM MH-(52)- GI WQ MTD, STM MH-(52)- GI WQ MTD to MH-Structure - (600), B Inlet-(47) to B Inlet-(48), B Inlet-(48) to B Inlet-(112), B Inlet-(8) to B Inlet-(545)- GI WQ MTD, STM MH-(440) to STM MH-(441-A), STM MH-(441-A) to STM MH-(441), 60" MH-(353) to 60" MH-(344), 60" MH-(354) to UGB 3, B Inlet-(142) to B Inlet-(38), 60" MH-(343) to 60" MH-(513), 60" MH-(513) to 60" MJ-(353), and B Inlet-(129) to B Inlet-(130).
- s. The storm sewer profiles shall be amended for the following items:
  - a. The Applicant's Engineer shall correctly labeled UGB 4A and UGB 4B within the profiles for consistency with Site Drainage Plan - 1, sheet CS1601.
  - b. The pipe lengths between structures B Inlet-(368) to UGB 16, B Inlet-(24)- Gi WQ MTD to UGB 49, and B Inlet-(131)- GI WQ MTD to UGB 59 shall be revised for consistency with the Site Drainage Plans.
  - c. The top of structure/grate elevations for OCS-(349), OCS-(143), OCS-(360), OCS-(347), and OCS-(433) shall be revised for consistency with the Site Drainage Plans.
  - d. Storm sewer profile OCS373 to B Inlet 68 shall be revised to depict the correct location of UGB 15 and for consistency with the Site Drainage Plans.
  - e. The Applicant's Engineer shall provide all proposed MTD structures on the storm sewer profiles.

- t. Proposed basin UGB 11 does not appear to have any inlet pipes proposed to same. The Applicant's Engineer shall clarify the drainage area to be attenuated by the proposed basin.