



TOWNSHIP of HOPEWELL
MERCER COUNTY

201 WASHINGTON CROSSING – PENNINGTON ROAD
TITUSVILLE, NEW JERSEY 08560-1410

PROJECT / APPLICATION

BLOCK:

LOT:

ADDRESS:

PROJECT NAME:

CORRESPONDENCE

MidAtlantic

Engineering Partners

November 27, 2023

APR-2203

Via FedEx

Township of Hopewell
Planning Board
201 Washington Crossing Pennington Road
Titusville, NJ 08560

Attention: Ms. Linda Barbieri, Assistant Community Development Coordinator, Planning

**Reference: Preliminary/Final Major Site Plan
Heritage at Hopewell
25 Pennington Road - Block 78, Lot 17
Township of Hopewell, Mercer County, New Jersey**

Dear Ms. Barbieri,

On behalf of the applicant, American Properties at Hopewell II LLC, MidAtlantic Engineering, LLC is hereby submitting revised documents ahead of our Planning Board hearing scheduled for Thursday, December 14th. Included in this package are the following items:

- One (1) signed and sealed copy of the “Preliminary/Final Major Site Plan”, last revised on 11/22/2023, prepared by MidAtlantic Engineering Partners LLC;
- One (1) copy of the “Tree Location Survey”, last revised on 11/22/2023, prepared by MidAtlantic Engineering Partners, LLC;
- One (1) copy of the “Stormwater Management Report”, last revised on 11/22/2022, prepared by MidAtlantic Engineering Partners, LLC;
- Soil Erosion Certification; and
- One (1) USB containing all submission documents.

In response to Ferriero Engineering, Inc Review #1 dated October 20, 2023, we offer the following itemized responses, which are in **bold** below:

I. Zoning

The property is located within the Inclusionary Multi-Family – 1 (IMF-1) Zoning District, and is required to comply with §17-173 of the Hopewell Township Land Use and Development Ordinance (LUDO). Compliance with the applicable sections of the zoning district is as follows:

Response: Informational.

II. Variances

A. *The proposed development does not seek variance relief from any of the bulk requirements of §17-173.*

Response: Informational, no response required.

B. *The following is noted with respect to compliance with Article VI, Design Standards, of the LUDO based on the current proposal depicted on the plans:*

1. *§17-89.c.2: The applicant should provide a calculation to demonstrate that the proposed landscaping meets or exceeds the ratio of 10 shrubs and one (2-1/2 inch minimum caliper) per*

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1971 Highway 34, Suite 201
Wall Township, NJ 07719
732.722.5899

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Media, PA 19063
610.565.0020

26 Washington Street, 3rd Floor
Morristown, NJ 07960
973.715.8652

each 1,000 square feet of development is met or exceeded. We recommend that the applicant provide the necessary planting to meet this requirement, alleviating the need for the board to grant relief from this requirement.

Response: A Tree Replacement Table has been provided on the Tree Location Survey, sheet 1 of 1. The proposed landscaping meets and exceeds the requirement for trees to be planted (253 required, 258 provided). The proposed landscaping does not meet the requirement for shrubs (2,533 required, 672 provided). Applicant will request relief from this requirement.

2. *§17-106.d.7& 8: The proposed site identification sign is located within the NJSH Route 31 right of way, approximately 14 feet from the highway edge of pavement. The placement of the sign proximate to the Route 31 roadway will require relief for placement within the right of way, subject to approval from the NJDOT.*

Response: The proposed site identification sign has been relocated 15 feet from the right of way and no closer than 10 feet to the proposed curb line, therefore this waiver is no longer required.

3. *§17-106.f. 8: The applicant will require relief from this requirement, which permits development signs when the number of units exceeds 150 dwelling units. In addition, this standard requires the sign structure to be outside of any public right of way.*

Response: The applicant is requesting relief from this requirement; however, the sign has been relocated outside of the public right of way.

- C. *We defer to the Board's Planner for additional relief from the LUDO that may be required.*

Response: Informational.

III. Site Plans

- A. *Title Sheet (Sheet 1)*

1. *The revision dates listed for the individual sheets within the sheet index should be revised to match the latest revision dates published on the individual sheets. Several of the revision dates on the individual sheets are obscured with double text and should be clarified. A uniform revision date for all of the sheets is recommended for recording/documentation purposes. Sheets with no changes for a specific revision date can be noted as such.*

Response: The revision dates have been updated to reflect a uniform revision date, as shown on the Sheet Index found on the Title Sheet, sheet 1 of 24.

2. *The applicant's and property owner's information should be indicated on the Title Sheet.*

Response: The applicant's and property owner's information has been included in the General notes found on the Title Sheet, sheet 1 of 24.

- B. *Existing Conditions and Demolition Plan (Sheet 2)*

1. *A number of trailers and portion of a gravel path on the easterly portion of the property, within the stream corridor buffers, are identified on the plan as existing with no notations to indicate if they will be removed as part of the development. The treatment of these features needs to be clarified.*

Response: Existing trailers and gravel paths within the stream corridor buffers have been noted to be removed and area restored, as shown on Existing Conditions & Demolition Plan, sheet 2 of 24, and approved based on the NJDEP wetlands permit (previously submitted on 11/06/2023).

2. *The plan does not indicate the location of the well and septic system that served the prior dwelling, and should be indicated on the plan.*

Response: The existing location of the well and septic system has been added to the plans, as shown on the Existing Conditions and Demolition Plan, sheet 2 of 24.

3. *The removal/abandonment of the septic system and decommissioning of the well will be subject to the approval of the Township Health Department.*

Response: Acknowledged.

4. *Demolition notes 7 & 8 refer to cutting back sanitary sewer laterals and utilities to the property line and should be revised, as applicable, to reflect the on-site water and septic services.*

Response: Demolition notes #7 and #8 have been revised accordingly, as shown on Existing Conditions & Demolition Plan, sheet 2 of 24.

5. *The demolition plan depicts a total of 97 trees that will be removed to accommodate the proposed development. Ten of the trees are either dead or under the 10" caliper requirement to qualify under §12-4, Forest Management and Tree Removal, of the township's tree ordinance. The applicant will be required to obtain a Tree Removal Permit and meet the tree replacement requirement with the proposed planting schedule. See additional comments under the heading Tree Removal Plan.*

Response: Acknowledged. The applicant will obtain a Tree Removal Permit and the replacement schedule is shown on the Tree Location Survey, sheet 1 of 1.

6. *Several trees within the regulated areas on the easterly side of the property are labeled as dead and are not identified for removal. The applicant should clarify if all dead trees within the environmentally regulated areas will be removed.*

Response: All dead trees within the limit of disturbance are to be removed. Any dead trees outside of the limit of disturbance are to remain.

C. *Overall and Detailed Geometry, Signage & Striping Plan (Sheets 3, 4 & 5)*

1. *The side yard setback dimension to Building No. 2 should be adjusted to be dimensioned from the edge of the covered porch on the northern end of the unit, as front and side yards are measured from all open roofs and porches, as per §17-181 of the LUDO.*

Response: The side yard setback dimension to Building 2 has been adjusted accordingly, as shown on the Geometry, Signage, and Striping Plans, sheets 3 and 5 of 24.

2. *Building to building dimensions should be shown, where applicable, as measured from the open roofs/porches.*

Response: The building to building dimensions have been measured accordingly and added, as shown on the Geometry, Signage, and Striping Plans, sheets 3 to 5 of 24.

3. *Provide setback dimensions from the footprints of the various buildings to the nearest curb line.*

Response: Setback dimensions from the footprints of the buildings to the nearest curbs have been added, as shown on the Geometry, Signage, and Striping Plans, sheets 3 to 5 of 24.

4. *The configuration of the parking access for the temporary sales trailer relative to the dividing island on the main site access drive prevents vehicles from directly exiting the site.*

Response: The dividing island on the main site access drive has been pulled back towards the lot frontage to allow vehicles to directly exit the site, as shown on the Overall Geometry, Signage, and Striping Plan, sheet 3 of 24.

5. *The applicant should discuss the adequacy of three parking spaces for the sales trailer area.*

Response: The applicant will provide testimony regarding the parking spaces for the sales trailer area.

6. *The access walks to the gang mailboxes are required to be handicapped accessible. The applicant should modify the width and layout of the access as necessary to verify that ADA requirements are met.*

Response: The access walks to the cluster mailboxes have been modified to show they are ADA compliant, as shown on the Grading Plans, sheets 6 to 8 of 24.

7. *The plan depicts an area of permeable pavement at the easterly end of Proposed Road "C," directly in front of the proposed refuse enclosure. The permeable pavement is generally not recommended in areas of heavy vehicle loading. The applicant should consider utilizing conventional pavement in areas subjected to frequent heavy vehicle loading.*

Response: Acknowledged. Applicant will review.

8. *The plans illustrate two encroachment areas into the NJDEP-regulated lands at the easterly end of the property. One is intended for the stormwater discharge pipe from the site, and the other is intended for the proposed utility connection to the sanitary sewer. With respect to the two encroachment areas:*

- a. *Easements will be required to be established for each of the encroachments to enable access for maintenance of the utilities.*

Response: Applicant will comply.

- b. *A stabilized access should be provided between the constructed improvements on the site and the utility extensions within the regulated areas.*

Response: Applicant will comply.

- c. *A gate should be provided at the access to the stormwater drainage extension for maintenance access.*

Response: A gate has been proposed at the access to the stormwater drainage extension, as shown on the Geometry, Signage, and Striping Plan, sheet 4 of 24.

- d. *The configuration of the trash enclosure access does not provide space for refuse trucks to turn around without encroaching parking spaces or the driveway adjacent to the enclosure area.*

Response: Garbage Truck Turning Plans, sheets 5 and 6 of 6, have been previously provided on 11/06/2023.

- e. *The encroachment into the Township Stream Corridor Buffer will require approval under §12-4 of the Ordinance.*

Response: Acknowledged. Applicant will comply.

9. *While the overall parking provided on the site exceeds the RSIS and ordinance requirements for the number of required parking spaces, there is a limited number of parking spaces adjacent to the affordable housing building. We recommend that a minimum of one space for each affordable unit be provided adjacent to the building, with the additional required resident and visitor spaces located on proposed Road "B".*

Response: The parking lot adjacent to Building 5 has been revised to provide one space per affordable unit for a total of 12 parking spaces.

10. *Setback dimensions for the proposed site identification sign should be added to the plan. As shown, the sign is currently encroaching the NJSH Route 31 right of way.*

Response: Setback dimensions for the proposed site identification sign have been added to the Geometry, Signage, and Striping Plan, sheets 3 and 5 of 24.

11. *The applicant should indicate if the single trash enclosure, located near the extreme easterly end of the proposed development, is intended to serve the entire development. The applicant should provide testimony on how trash and recycling will be managed on the project.*

Response: The proposed trash enclosure is intended to only serve all 12 affordable units. Each townhouse will be curbside pickup and will store the garbage/recycling cans in their own garage. The applicant will provide testimony on how the trash and recycling will be managed on the project.

12. *The applicant should demonstrate that emergency and refuse vehicles can safely and efficiently circulate through the site.*

Response: The Truck Turning Templates for the firetruck, garbage truck, and ambulance, which have been previously submitted on 11/06/2023, show these vehicles can safely and efficiently circulate through the site.

13. *Sidewalks should be extended along NJSH Route 31 to the limits of the property frontage.*

Response: Sidewalks along NJSH Route 31 have been extended to the limits of the property frontage.

14. *The proposed site driveway and site improvements within the NJSH Route 31 right of way will require an access permit from the New Jersey Department of Transportation.*

Response: The applicant will comply. An application has been submitted to NJDOT and is pending approval.

15. *The proposed site lighting pole located within the NJSH Route 31 right of way should be removed.*

Response: The lighting pole previously shown within the NJSH Route 31 right of way, has been relocated outside of the right of way, as shown on Lighting Plans, sheets 15 and 16 of 24.

16. *The proposed street names should be provided to the Planning Board for review [§17-108.m], and the location of street name signs should be indicated on the plans.*

Response: The applicant will comply.

17. *The plans indicate the Letter of Interpretation has expired. An updated LOI should be provided.*

Response: The freshwater wetlands general permit and transition area waiver

application was submitted to the DEP prior to the LOI expiring. The NJDEP Permit No. 1106-08-0012.1 LUP230001 was issued on 09/22/2023.

D. Overall and Detailed Grading Plan (Sheets 6, 7 & 8)

- 1. Grate and elevation information for the outlet control structure within Bioretention Basin #2 should be shown on the Grading Plans.*

Response: Grading Plans, sheets 6 and 7 of 24, have been revised to show grate and invert elevations for OCS-1A within Bioretention Basin #2.

- 2. Grades and invert elevations should be provided for HW-5A and the scour hole at the drainage discharge point adjacent to the stream.*

Response: Grading Plans, sheets 6 and 7 of 24, have been revised to show grate and invert elevations for Gabion Wall-5A and the scour hole at the drainage discharge point adjacent to the stream.

- 3. The limits of the stream bank should be shown in the vicinity of the proposed drainage discharge pipe (HW-5A). The proposed location appears to require disturbance to the bank which should be avoided.*

Response: The proposed limit of the top of bank is shown on the plans on sheet 7 of 24. The proposed stormwater outfall must discharge at the bottom of the stream bank for stability. This outfall has been reviewed and approved per the NJDEP Permit No. 1106-08-0012.1 LUP230001 on 09/22/2023. Per Special Conditions found on NJDEP, any grading, excavation, or construction within the bank are prohibited between May 1st and July 31st. This permit was previously submitted on 11/06/2023.

- 4. The ramp and stair access to Building #5 should be reconfigured, if possible, to eliminate the need for the steps adjacent to the public sidewalk. As configured, the ramp and stairs will require the installation of handrails to comply with ADA Standards. A configuration that would eliminate the need for handrails is preferred.*

Response: The ramp and stair access to Building #5 has been reconfigured to comply with ADA standards, as shown on Grading Plan, sheet 7 of 24.

- 5. Grades should be provided at the access points to the gang mail boxes to demonstrate compliance with the ADA standards.*

Response: Additional spot elevations have been added to the Grading Plans, sheets 7 and 8 of 24, to demonstrate compliance with the ADA standards.

- 6. The proposed grading at the northerly end of Building No. 2 results in an excessive slope on the walkway and should be revised to be no greater than 2% across the width of the sidewalk.*

Response: Proposed grading at the northerly end of Building 2 has been revised accordingly, as shown on the Grading Plan, sheet 8 of 24.

- 7. The stabilized entrance to Bioretention Basin No. 1 is situated on a slope and contains a manhole structure at a critical band in the access road. The access should be reconfigured to eliminate the crossing through the manhole if possible and be situated on a flatter slope.*

Response: The stabilized entrance to Bioretention Basin #1 has been reconfigured accordingly, as shown on the Grading Plan, sheet 8 of 24.

8. *The proposed construction materials for the retaining wall defining the perimeter of Bioretention Basin No. 1 should be identified. A foundation design for this wall will be required based on the proposed height of the wall.*

Response: The proposed block retaining wall around Basin #1 has been called out on the Geometry, Signage, and Striping Plans, sheets 4 and 5 of 24. Foundation design shall be provided prior to building permit.

9. *Conduit outlet protection, stabilization etc. is subject to approval/certification from the Mercer County Soil Conservation District.*

Response: An application has been submitted to Mercer County Soil Conservation District and is pending approval.

E. *Overall and Detailed Utility Plans (Sheets 9, 10 & 11)*

1. *The general notes on Sheet 9 that reference the construction standards for the sanitary sewer mains should reference the Hopewell Township Sewer Standards. Any notes in conflict the Township Standards should be corrected.*

Response: The general notes found on Overall Utility Plan (sheet 9 of 24) and the sanitary sewer details found on Construction Details (sheets 21 to 24 of 24), have been revised to reference the Hopewell Township Sewer Standards.

2. *Verify the proposed pipe materials for the pipe running along the westerly side of Buildings #1 & #2. The materials are either not listed or conflict with the material labeled on the utility profiles.*

Response: The proposed pipe materials for the pipes running along the westerly side of Building #1 and #2 have been provided, as shown on Utility Plan, sheet 11 of 24.

3. *Proposed B Inlet CB-3A, located near the trash enclosure appears to be in conflict with the fence enclosure. The proximity of the drainage structure to the trash collection area should be reconsidered to minimize the potential for debris and contamination from the trash area into the stormwater system.*

Response: The proposed inlet CB-3A has been relocated to avoid the fence enclosure, as shown on Utility Plan, sheet 10 of 24.

4. *The proposed electric and gas service extensions into the property should be shown on the plans.*

Response: Applicant will comply. Applicant will coordinate with utility providers and provide service extensions locations.

F. *Utility Profiles (Sheets 12 & 13)*

1. *Several discrepancies are noted comparing the published rim and invert elevations on the profiles sheets when compared to the information published on the Grading Plans. The published information needs to be verified.*

Response: Utility Profiles, sheets 12 and 13 of 24, have been revised to show correct rim and invert elevations.

2. *No utility profile is provided for the pipe run from CD-5D to HW-6D.*

Response: Utility Profile for the pipe run from CB-5D to HW-6D has been provided on Utility Profiles, sheet 12 of 24.

G. *Landscape & Tree Replacement Plan (Sheet 14)*

1. *The applicant should provide a summary of the total tree planting on the property to demonstrate that the total tree replacement meets or exceeds the replacement requirements of §12-4 of the Ordinance.*

Response: A summary of the total tree proposed plantings on the property has been provided on the Landscape and Tree Replacement Plan, sheet 14 of 24. The tree replacement requirements of §12-4 of the Ordinance are provided in the Tree Removal and Tree Replacement Charts on the Tree Location Survey. The total number of trees proposed exceeds the replacement requirements.

2. *The proposed supplemental plantings located along the southerly border of the property do not appear to be included in the planting schedule.*

Response: The planting schedule has been revised to include the supplemental plantings, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

3. *The proposed plantings within the drainage pipe extension into the easterly portion of the property appear to be blocking potential maintenance access.*

Response: The proposed plantings have been relocated to the sides of the easement in order to provide maintenance access, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

4. *Additional plantings are recommended between Building 6 & 7 to provide some privacy screening between the back patios of each of the units.*

Response: Additional plantings between buildings 6 and 7 have been provided – six (6) evergreen trees and five (5) flowering trees, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

5. *The wetlands mitigation plants are subject to review and approval of the NJDEP. Approval from the NJDEP for any plantings within the regulated areas should be a condition of any board approval.*

Response: Wetlands plantings have been reviewed and approved under the NJDEP Permit No. 1106-08-0012.1 LUP230001, approved on 09/22/2023, which was submitted on 11/06/2023.

6. *A note should be added to the plans indicating that the seed mixtures and sod types are subject to the approval of the Township Engineer [§17-89.1.e.5]*

Response: Note #32 has been added to the Planting Notes, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

7. *We defer to the Environmental Commission for additional comments on the proposed planting plan.*

Response: Informational.

8. *The plans do not depict any landscaping or other amenities within the area labeled “Park Area” adjacent to Building 5.*

Response: Plantings have been added around the “Park Area”, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

9. *A note should be added to the plan requiring all areas within the limits of disturbance not mulched for planting to be seeded with grass.*

Response: Note #33 has been added to the Planting Notes, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

H. Lighting Plans and Details (Sheets 15, 16, & 17)

1. *We recommend removing the proposed light pole from within the NJSH Route 31 right of way.*

Response: Lighting Pole has been removed from the NJSH Route 31 right of way, as shown on the Lighting Plans, sheets 15 and 16 of 24.

2. *The wall-mounted and ceiling-mounted lights, units B, C, D as depicted on the plans, should be revised to a 2,700 Kelvin color temperature as per §17-90.3.b.1.*

Response: The wall-mounted and ceiling-mounted lights, units B, C, D have been revised to provide a 2,700 Kelvin color temperature, as shown the Lighting Plan, sheet 15 of 24.

I. Landscaping Details (Sheet 18)

1. *A note should be added to the plan indicating that the planting requirements shall conform to §17-89.1.g and i.*

Response: Note #34 has been added to the Planting Notes, as shown on the Landscape and Tree Replacement Plan, sheet 14 of 24.

J. Soil Erosion & Sediment Control Plan & Details (Sheets 19 & 20)

1. *Snow fencing should be added to the two utility extensions through the regulated areas to ensure that no construction encroaches the environmentally sensitive areas.*

Response: Snow fencing has been added to the two utility extensions through the regulated areas, as shown on the Soil Erosion and Sediment Control Plan, sheet 19 of 24.

2. *The proposed installation locations for tree protection should be added to the plans.*

Response: The installation locations for tree protection have been added to the Soil Erosion and Sediment Control Plan, sheet 19 of 24.

3. *The plan depicts the construction tracking pad at the property entrance constructed over the dividing island. The applicant should identify the sequencing of the construction elements at the driveway entrance, and identify when the island will be constructed.*

Response: The Construction Sequence has been revised accordingly, as shown on Soil Erosion and Sediment Control Details, sheet 20 of 24.

K. Construction Details (Sheets 21 through 23)

1. *The ADA curb ramp details should be modified to define the transition between concrete curb within the flush depressed curb and the Belgian block curb for the balance of the site.*

Response: ADA curb ramp details have been modified accordingly, as shown on Construction Details, sheet 21 of 24.

2. *The location of the proposed bike rack(s) included on the details should be indicated on the plans.*

Response: The location of the proposed bike rack has been indicated on the Geometry, Signage, and Striping Plans, sheets 3 and 4 of 24.

3. *The location of the proposed block retaining wall section included on the details should be indicated on the plan.*

Response: The location of the proposed block retaining walls around Basins #1 and #2 are called out on the Geometry, Signage, and Striping Plans, sheets 3 and 4 of 24.

4. *Clean-outs are recommended on the detail for the roof leader downspout connection detail.*

Response: Roof Leader Downspout Connection Detail has been revised to show a clean-out, as shown on Construction Details, sheet 24 of 24.

5. *The detail of the proposed spillway should be modified to match the proposed basin configuration. The perimeter of the proposed basins is defined by retaining walls on this project. A detail of the emergency spillway at the wall should be shown.*

Response: The details of the proposed emergency spillway have been revised, as shown on the Construction Details, sheet 24 of 24.

6. *The flood elevations within the bioretention basins should be labeled on the inspection ports, and shown on the detail.*

Response: The flood elevations have been added on Utility Plans, sheets 9 to 11 of 24. The Basin Cross Section detail has been revised to include the inspection port, as shown on Construction Details, sheet 24 of 24.

7. *Details should be provided for the Street Signs, which shall conform to §17-109.*

Response: The Street Sign detail has been provided on Construction Details, sheet 22 of 24, which is in conformance with §17-109 of the ordinance.

IV. Architectural Plans

- A. *The applicant should provide the board with a color palette for the proposed buildings within the project.*

Response: Testimony will be provided.

V. Fire Truck Turning Plan

- A. *The applicant should verify and coordinate with the Township Fire Official to confirm that the truck template is consistent with the township's equipment.*

Response: The applicant has verified and coordinated with the Township Fire Official to confirm the fire truck template. The Fire Truck Turning Plans, sheets 1 and 2 of 6, were previously submitted on 11/06/2023.

- B. *The truck turning plan does not depict vehicle circulation through the entirety of the site.*

Response: The turning plans have been revised to depict the vehicle circulation through the entire of the site. Revised Turning Plans were previously submitted on 11/06/2023.

VI. Tree Survey Removal Plan

- A. *The summary of the total tree removal on the property should include a calculation of required tree replacement per §12-4 of the Township Ordinance.*

Response: A summary table of the total tree removal and preservation has been provided on the Tree Location Survey. The tree replacement requirements of §12-4 of the Ordinance are provided in the Tree Removal and Tree Replacement Charts on the Tree Location Survey.

- B. *The tree removal will require a Permit from the Township as per §12-4 of the ordinance.*
Response: Acknowledged. Applicant will comply.

VII. Stormwater Management Report

- A. *The soil logs were not conducted during the wet season (high water time of year). Direct observation of groundwater needs to be performed during the wet season (January through April).*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- B. *The correct nomenclature needs to be used to describe the soil logs. See Chapter 12 of the NJDEP BMP Manual. The soil color, using the Munsell system of classification which includes an alpha-numeric symbol together with a descriptive color name; Estimated soil textural class, using the USDA system of classification; Estimated volume percentage of coarse fragment, if present. Abundance, size, and contrast of mottles, if present; Soil structural class (soil profile pits only); and soil consistency.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- C. *The soil hydraulic conductivity testing presented does not appear to comply with the requirements of Chapter 12, Section 3 of the NJDEP BMP Manual. The testing identified in the report (Flexible Wall Permeability Test) does not indicate the method used (A,B,C,D,E or F), as required. The samples do not appear to be undisturbed, as defined by the parameters in the manual. The samples were taken on November 9, 2022 from the test pits and the date shown on the testing is 5/23.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- D. *A summary of the permeability testing results was provided in the report but the actual test calculations that the summary was based upon was not included, and should be submitted for review.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- E. *The soil exploration indicated the groundwater was believed to be perched. Additional testing in accordance within Chapter 12 needs to be provided to determine whether the water table is perched.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- F. *The estimated seasonal high groundwater table, ESHGWT, extends into the gravel layer of under-drained bioretention basin #2. Separation to groundwater needs to be provided in accordance with the NJDEP BMP Manual.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- G. *Additional soil testing in accordance with Chapter 12 needs to be provided to determine whether it is feasible for the groundwater recharge to be provided onsite. The applicant shall either demonstrate compliance with Chapter 12 of the BMP Manual for determining the feasibility of providing groundwater recharge on site or request a variance from NJAC in accordance with the provisions of §17-82.4 b & c if the Township Ordinance.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- H. *The source of the 24 rainfall totals being utilized should be provided. The new rainfall totals need to be utilized in accordance with the rule adoption by NJDEP that became effective on July 17, 2023.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001. As this application was deemed administratively and technically complete prior to the new rules adopted on July 17, 2023, the new rules do not apply to this project.

- I. *A copy of the NOAA Type C storm distribution should be provided in the report.*

Response: A copy of the NOAA Type C storm distribution has been provided as part of Appendix E in the revised Stormwater Management Report.

- J. *The Tc calculations provided for the impervious areas in both existing and proposed conditions utilized the Tc flow path for the pervious areas. Separate impervious and pervious Tc calculations need to be provided for each area.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- K. *The Tc sheet flow length used for the drainage areas within existing conditions are less than 100 feet. Chapter 5, page 24 specifies "For the pre-construction condition, the user assumes a sheet flow length of 100 ft. Only when there is something physically in contact with the flow of stormwater runoff to prevent sheet flow from occurring, such as a swale, curb or inlet, should the value used be less than 100 ft." Based on the drainage area map provided, a 100-foot sheet flow length needs to be utilized for each existing drainage areas.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard

Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- L. *Chapter 5, page 24 specifies “For the post-construction condition, the maximum sheet flow length should not exceed the McCuen-Spiess limitation or 100 ft, whichever is shorter.”*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- M. *Some of the post developed drainage areas use a 1.0-minute Tc. Chapter 5, page 27 specifies “There is no longer a minimum or default value that may be used for the time of concentration. Tc for pre- and post-construction conditions must be calculated based on the aforementioned requirements.”*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- N. *The routing of the water quality design storm needs to be provided in the report. The water quality storm distribution should also be included.*

Response: The water quality design and storm distribution have been provided as part of Appendix E in the revised Stormwater Management Report.

- O. *Drainage area map sheet 3 of 3 was not included in the report.*

Response: Inlet Drainage Areas, sheet 3 of 3, has been revised and included as part of Appendix K in the revised Stormwater Management Report.

- P. *The post-development drainage areas map needs to include the individual drainage areas tributary to the two bioretention basins and the two permeable pavement areas.*

Response: Post-Development Drainage Areas, sheet 2 of 3, has been revised and included as part of Appendix K in the revised Stormwater Management Report.

- Q. *An additional analysis point should be provided to the storm sewer system in Route 31 since the entrance/exit roadway drains to the system (verses drainage to design point #1 as indicated in the design). The drainage boundary (DA#2) should be extended to Building 9 based on the proposed grading. All aspects of demonstrating compliance with the rule (quantity, quality, recharge) needs to be provided.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

- R. *Based on the proposed grading, the area along the east side of buildings 4 and 5, and bioretention basin #2, will bypass the drainage system. Revise as necessary.*

Response: All uncollected disturbed areas within the development are directed to follow existing drainage patterns to the north to a wetlands area or Stony Brooks stream tributary. The areas along the east side of Building 4, 5, and Bioretention Basin #2, are intended to bypass the drainage system. However, the previous calculations incorrectly

included these bypass areas as part of the Bioretention #2 contributing drainage area. These proposed subdrainage areas are identified as DA-4 Uncollected and DA-5 Uncollected on the revised Post-Development Drainage Areas, sheet 2 of 3, in the revised Stormwater Management Report.

S. *The following items are noted relative to the proposed permeable pavement system:*

1. *The nomenclature for the permeable pavement areas should be revised to be consistent between the plans and report.*

Response: The plans indicate the proposed permeable areas as areas #1 and #2. A revised stormwater report that shows the correct nomenclature has been included as part of this submission.

2. *The contributing drainage area boundaries for permeable pavement NE (#1) should be verified. The proposed grading depicts the majority of the drainage area directed to only a portion of the permeable pavement, which would violate the maximum 3:1 ratio of additional inflow contributory drainage area to surface area of the pervious paving system limitation in the BMP manual.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

3. *The limits of permeable pavement area # 2 should be confirmed. The plan indicates the surface area as 3,275 sf, while the routing calculation indicates the surface area as 3,024 sf. The drainage area to permeable pavement system SE (#2) would exceed the 3:1 maximum limitation if a surface area of 3,024 sf is used based on an inflow drainage area of 0.30 acres (+/- 13,068 sf)).*

Response: The permeable pavement area labels have been revised to be consistent with the areas graphically depicted. A revised stormwater report that shows the correct pavement areas has been provided as part of this submission.

4. *Permeable pavement system SE (#2) is designed to be partially constructed in Road A. The engineer should provide testimony on whether it is suitable for use in the roadway versus limiting its use to the parking area.*

Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.

5. *Correct the gravel bottom layer within the basin cross section detail chart. Based on the graphic depiction of the basin cross section, the invert of the gravel layer would be a minimum of three feet below the basin floor.*

Response: The Basin Cross Section detail chart, shown on sheet 24 of 24, has been revised accordingly.

6. *The permeable pavement detail indicates a 12" stone depth in the main bed area while the stage storage in the routings indicate a 2-foot depth. It does not appear the permeable pavement thickness has been accounted for in the detail to obtain 2-foot bed depth. An extra column in the permeable pavement cross section table should*

be added to include the stone invert below the main bed and the stone invert in the 4' trench. The surface elevation of the porous pavement areas also varies which should be accounted for in the table elevations depicted. The invert of the stone bed and stone trench should be level (consistent with the routings) to ensure the storage volume in the bed will be achieved. Based on the grades currently shown area #1, the inlet grate elevation at the lowest corner of the porous pavement system is too low resulting in overflow before the full storage is achieved in the permeable pavement.

Response: The Porous (Pervious) Pavement Section detail, shown on sheet 24 of 24, has been revised accordingly.

7. *The 4' long weir used in the routing of porous pavement system #1 (elevation 203.70') is above the grate elevation at CB-3A (202.86). The 4' weir elevation (203.85') in system #2 is above the grate elevation at CB-1B.*

Response: The outlet design for the porous pavement area #1 and #2 has been revised so that the weir elevations are not above the nearby grate structures shown on Utility Plans, sheets 9 to 11 of 24. A revised stormwater report has been provided as part of this submission.

8. *Based on the proposed grading, the 100-year routed water surface elevation will be above the pavement surface in both porous pavement areas. The systems should be designed so they do not overtop during the 100-year storm event.*

Response: The systems have been revised so that the 100-year does not exceed the stone storage bed. A revised stormwater report has been provided as part of this submission.

9. *The permeable pavement systems should be provided on the utility profile sheets. A portion of each of the permeable pavement system is downstream of the control structures and therefore will not be adequately accounted for in the storage beds.*

Response: Utility Profiles, sheets 12 and 13 of 24, have been revised to show permeable pavement areas to the utility profiles. These systems are designed to have a minimum of 2 feet of storage. Per the BMP manual, the storage bed is required to be level, therefore, the storage bed may be greater than 2 feet as the surface grade changes. The storage beds are set at an elevation low enough to provide the minimum 2ft depth at the lowest surface elevation. Therefore, the areas downstream of the outlet control structures will be accounted for in the storage bed and will be collected by the underdrain.

10. *The permeable pavement detail needs to include the requirement that the minimum tested infiltration rate of the surface course must be at least 20 inches per hour.*

Response: The Porous (Pervious) Pavement Section detail, shown on sheet 24 of 24, has been revised accordingly.

11. *Drain time calculations need to be provided for the permeable pavement systems.*

Response: The drain time calculations have been provided in Appendix F in the revised Stormwater Management Report.

- T. *The pond hydrographs should depict smaller time increments so that the peaks are captured.*
Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.
- U. *It is not clear how the predeveloped runoff within the project disturbance in table 3 on page 6 is being determined. Clarification is required.*
Response: The allowable runoff is determined by applying reductions to the pre-developed peak flows of the disturbed areas. In Tables 2 and 3 on page 7, column B represents the peak runoff for the undisturbed areas, and column C shows the peak flow within disturbed areas. Reductions (column D) have been applied to the peak flows within disturbed areas (column C) to determine the allowable runoff (column E). The total allowable runoff (column F) has been determined by adding the peak undisturbed flow (column B) and the peak runoff disturbed (column C). Hydrocad printouts are provided on Appendix B – Pre-Development Drainage Analysis (Undisturbed), Appendix C – Pre-Development Drainage Analysis (Disturbed), and Appendix D – Post Development Drainage Analysis, of the revised Stormwater Management Report.
- V. *The outlet pipe inverts are more than 5' deeper than the emergency spillway crest elevations for bioretention basins #1 and #2, and would therefore meet the NJDEP classification of a dam. Under the dam safety requirements, the basins would have to be modified to route the 100-year storm plus 50% through the spillway.*
Response: The stormwater management and design has been reviewed and approved by the NJDEP as part of the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit that were granted approval on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001.
- W. *Bioretention Basin #2 does not contain the minimum one-foot of freeboard above the emergency spillway storm.*
Response: The 100-year water surface elevation was incorrectly labeled on the Grading Plan, sheet 7 of 24, for Bioretention Basin #2. The plans have been revised to show the minimum one foot of freeboard above the emergency spillway storm.
- X. *The storm sewer system has been designed for a 25-year storm event. Since the stormwater management design is based on mitigating runoff from a 100-year design storm, the storm sewer system should be designed for a 100-year storm event to ensure design assumptions will be achieved. Any effect of tailwater needs to be accounted for in the analysis.*
Response: The storm sewer system design has been revised for a 100-year design storm, and the tailwater has been accounted for in the analysis, as shown on Appendix H of the revised Stormwater Management Report.
- Y. *The applicant should provide an update on the status of the verifications and confirm whether the project needs to meet the new flood hazard area control act rules that were adopted on July 17, 2023.*
Response: NJDEP issued the Freshwater Wetlands General Permit and the Flood Hazard Area Individual Permit on 09/22/2023, Permit No. 1106-08-0012.1 LUP230001. A copy of the permit and the Admin Modification Letter dated 09/28/2023 is provided as part of this submission. As this application was deemed administratively and technically

complete prior to the new rules adopted on July 17, 2023, the new rules do not apply to this project.

VIII. Stormwater Operations and Maintenance Manual

- A. *The O&M manual submitted contains the requisite elements recommended by the NJDEP Best Management Practices Manual, BMP, Chapter 8, subject to any revisions as a result of final amendments to the stormwater management design.*

Response: Acknowledged.

- B. *The O&M Manual will need to be recorded with the Mercer County Clerk's Office.*

Response: Applicant will comply.

- C. *The Board shall condition any approval granted on a requirement that the designated party responsible for maintenance of the stormwater management system provide copies of the annual maintenance records to the Township Engineer on or before January 31, of each year or on a mutually agreeable annual date.*

Response: Applicant will comply.

IX. Sanitary Sewer Water Report

- A. *No comment.*

Response: Informational.

X. Traffic Engineering Assessment

- A. *The traffic volume projections are consistent with a residential development.*

Response: Informational.

- B. *The assumptions and conclusions in the report are consistent with standard industry practices.*

Response: Informational.

- C. *The proposed driveway construction within the NJSH Route 31 right of way will require an access permit from the NJDOT.*

Response: Applicant will comply. An application has been submitted to the NJDOT and is pending approval.

XI. Environmental Impact Statement

- A. *Section O of the report, pertaining to Solid Waste, should be revised to address the specifics of the proposed development.*

Response: Applicant will comply.

- B. *Tree replacement should be discussed in the report and any non-compliance with the Ordinance requirements for tree replacement, if proposed, should be reconciled.*

Response: Applicant will comply.

XII. Outside Agency Approvals

The applicant shall be responsible, as a condition of any approval granted to submit proof of obtaining the following outside agency approvals prior to advancement of any construction on the site:

1. *NJDEP Freshwater Wetlands and Flood Hazard Area Permit – **Approved. Copy of Permit and Modification Letter attached.***
2. *NJDOT Access Permit – **Pending Approval.***

3. *Delaware & Raritan Canal Commission* – **Pending Approval.**
4. *Hopewell Township Health Department approval (abandonment and decommissioning of the existing on-site well and septic)* – **Applicant will comply.**
5. *Mercer County Soil Conservation District* – **Approved. A copy of the Certification is attached.**
6. *Hopewell Township Tree Removal Permit* – **Applicant will comply.**
7. *Hopewell Township Stream Corridor Activity Permit* – **Applicant will comply.**

Should you require any additional items or responses for completeness, please contact our office at 609-541-7039 or via email jfogler@midatlanticeng.com.

Best Regards,

MidAtlantic Engineering Partners, LLC.



Jason M. Fogler, P.E.

w/enclosure

Cc: Mark Kataryniak, Ferriero Engineering, Inc.
Greg Kanter, American Properties Realty, Inc

JMF/bsu/jca

Mailing Address:
P.O. Box 5404
Princeton, NJ 08543

File No.: 451518-10704

Frank J. Petrino, Esq.
fpetrino@eckertseamans.com
direct: 609-989-5029

May 12, 2023

VIA EMAIL (Letter Only) and HAND DELIVERY

Attn: Linda Barbieri, Assistant Community Development Coordinator
Township of Hopewell Planning Board
201 Washington Crossing Pennington Rd
Titusville, NJ 08560

**Re: Preliminary/Final Major Site Plan Completeness Application
Heritage at Hopewell
2500 Pennington Road - Block 78, Lot 17,
Hopewell Township, Mercer County, New Jersey**

Dear Ms. Barbieri:

Enclosed for filing with you is American Properties at Hopewell II, LLC's Application for Preliminary and Final Site Plan Approval for a new community to be known as Heritage at Hopewell. The Pennington Road/Route 31 property is designated as an inclusionary development in the Township's Housing Element and Fair Share Plan, and referred to as the "Enourato Site." The community will consist of a total of 67 units. The 55 for sale market rate units will all be 3 bedroom townhouse units. The 12 affordable units will be rental apartments. The Applicant is also in the process of applying for approvals from the Mercer County Planning Board, the Mercer County Soil Conservation District, the D&R Canal Commission, NJDEP and NJDOT.

Please call me if any additional information is required for this development application to be deemed complete.

Very truly yours,



Frank J. Petrino

Enclosures

cc: Greg Kanter/American Properties (Via Email – Letter Only)
Ian A. Burton, P.E./MidAtlantic Engineering Partners, LLC (Via Email – Letter Only)
Diane L. Shafer, Paralegal