



December 5, 2024

Elk Township Planning/Zoning Board
680 Whig Lane
Monroeville, NJ 08343

Attn: Ann Marie Weitzel, Board Secretary

Re: D.R. Horton Inc., NJ (Aura III Redevelopment Area)
Preliminary and Final Major Subdivision and Preliminary & Final Major Site Plan
Block 31, Lots 2.02, 5.02, 7 & 22; Block 32, Lots 1 & 2; Block 58, Lot 1
Richwood Aura Road (CR 667)
C2 – Highway Commercial Zoning District
Review #2 – Technical Review
Elk Township Planning Board Application SD-24-03
Bach Associates Proj. # ET2024-14

Dear Chairman Afflerbach and Members of the Board:

The applicant for the above referenced development has submitted an application to the Elk Township Planning Board for Preliminary and Final Major Subdivision and Preliminary and Final Site Plan review for approval of the construction of 962 residential housing units consisting of 685 single-family age-restricted units and 276 multi-family residential units. The development is divided into three (3) sections, The Willows, The Carriages and The Reeds. The Willows at Orchard Glen consist of 186 single family age-restricted detached dwellings. The Carriages at Orchard Glen consist of 250 active adult single family detached dwellings and 250 active adult twin dwellings (34 of which are affordable). The Reeds Apartments are garden style apartments that consist of 276 units (76 of which are affordable).

The development is within the Aura III Redevelopment Area, and therefore subject to the Amended Aura III Redevelopment Plan (February 2024). A fully endorsed redevelopment agreement was adopted per Resolution R-88-2024 on June 18, 2024, and determined to be materially consistent with the Redevelopment Plan. The application was deemed complete at the September 18th, 2024 Planning Board meeting.

The site is located on Aura Road and Whig Lane, bound to the east by State Highway 55. The current property is approximately 335 acres in size. The majority of the parcels are agricultural in nature. The zoning districts included within the Aura III Redevelopment Area are R Rural Residential and RE Rural Environmental Residential. The current uses range from agricultural to vacant. The subject area can generally be described as rural with residential and agricultural uses.

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We have received the following materials in support of this application:

1. Cover letter prepared by Stephen R. Nehmad, dated July 15, 2024.
2. Elk Township Land Development application, received July 17, 2024.
3. Escrow agreement
4. W-9 form.
5. Authorization of contract purchaser
6. Affidavit of applicant
7. Land Development Checklist
8. Amended Aura III Redevelopment Plan dated February, 2024
9. Redevelopment Agreement.
10. NJDEP Flood Hazard Area Verification Approval dated March 14, 2024.
11. NJDEP Water Storage Tank Permit, dated October 27, 2022.
12. Freshwater Wetlands Letter of Interpretation: Line Verification dated January 23, 2023.
13. Phase I Environmental Site Assessment, prepared by Brown and Caldwell, dated March 10, 2022.
14. Environmental Impact Statement prepared by DuBois and Associates, LLC, dated June 28 2024.
15. Operation and Maintenance Manual prepared by Hammer Land Engineering, dated July 1, 2024.
16. Stormwater Management Report prepared by Hammer Land Engineering, dated July 1, 2024.
17. Report of Geotechnical & Stormwater Basin Area Investigation, prepared by Dynamic Earth, dated June 21, 2024.

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18. Aura III Sewage Pump Stations Technical, prepared by Kiely Engineering, Inc., dated July 2024.
19. Aura III Sewage Pump Stations Engineer Report, prepared by Kiely Engineering, Inc., dated July 2024.
20. Aura III Sewage Pump Stations Plan Set (10 sheets), prepared by Kiely Engineering, Inc., dated July 2, 2024.
21. NJDEP Treatment Works Approval dated 2-27-2024.
22. Supplemental Infiltration Testing, prepared by Earth Engineering Inc., dated May 23, 2024, last revised June 26, 2024.
23. Traffic Engineering Assessment prepared by Shropshire Associates, LLC, dated June 27, 2024.
24. Site Photo Report, prepared by Hammer Land Engineering, dated July 1, 2024.
25. Plans entitled "Preliminary & Final Major Subdivision and Site Plan for The Willows at Orchard Glen, The Carriages at Orchard Glen, The Reeds Apartments, Block 31, Lots 2.02, 5.01, 7 & 22, Block 32, Lot 1 and Block 58, Lot 1, Tax Map Sheets 14, 15 & 30 Township of Elk, Gloucester County, New Jersey" prepared by Hammer Land Engineering:

<u>Sheet</u>	<u>Title</u>	<u>Date/Last Revision</u>
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Overall Plans:

1	Cover Sheet	7-1-24 / None
2	General Notes & Zoning	7-1-24 / None
3	Existing Conditions Removals & Tree Protection	7-1-24 / 11-04-24
4	Land Use, Circulation & Open Space Plan	7-1-24 / None
5	Overall Layout Plan	7-1-24 / None
6	Phasing Plan	7-1-24 / None

The Willows at Orchard Glen:

7-10	Enlarged Layout Plan	7-1-24 / None
11-14	Enlarged Grading Plan	7-1-24 / None
15-18	Enlarged Drainage Plan	7-1-24 / None
19-22	Enlarged Utility Plan	7-1-24 / None

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23-26	Enlarged Soil Erosion and Sediment Control Plan	7-1-24 / None
27-30	Enlarged Landscaping Plan	7-1-24 / None
31-34	Enlarged Lighting Plan	7-1-24 / None
35-40	Storm Sewer Profiles	7-1-24 / None
41-43	Sanitary Sewer Profiles	7-1-24 / None
44-46	Road Profiles	7-1-24 / None
47-51	Lot Dimensional and Plot Plan	7-1-24 / None

The Carriages at Orchard Glen:

52-59	Enlarged Layout Plan	7-1-24 / None
60	Clubhouse Plan	7-1-24 / None
61-68	Enlarged Grading Plan	7-1-24 / None
69-76	Enlarged Drainage Plan	7-1-24 / None
77-84	Enlarged Utility Plan	7-1-24 / None
85-92	Enlarged Soil Erosion and Sediment Control Plan	7-1-24 / None
93-100	Enlarged Landscaping Plan	7-1-24 / None
101-108	Enlarged Lighting Plan	7-1-24 / None
109-121	Storm Sewer Profiles	7-1-24 / None
122	Sanitary Sewer Profiles	7-1-24 / None
123-129	Road Profiles	7-1-24 / None
131-138	Lot Dimensional and Plot Plan	7-1-24 / None

The Reeds Apartments:

139	Enlarged Layout Plan	7-1-24 / None
140	Enlarged Grading Plan	7-1-24 / None
141	Enlarged Drainage Plan	7-1-24 / None
142	Enlarged Utility Plan	7-1-24 / None
143	Enlarged Soil Erosion and Sediment Control Plan	7-1-24 / None
144	Enlarged Landscaping Plan	7-1-24 / None
145	Enlarged Lighting Plan	7-1-24 / None
150	Lot Dimensional and Plot Plan	7-1-24 / None

Overall Plans:

151-152	Enlarged Grading Plan	7-1-24 / None
153-154	Enlarged Soil Erosion and Sediment Control Plan	7-1-24 / None
155-156	Vehicle Circulation Plan	7-1-24 / None

157	Model Home and Construction plan	7-1-24 / None
158-162	Construction Details	7-1-24 / None
163-164	Landscaping Details	7-1-24 / None
165	Lighting Details	7-1-24 / None
166	Soil Erosion and Sediment Control Notes and Details	7-1-24 / None

26. Preliminary Plan of Lots entitled "Willows at Orchard Glenn (Section A) Block 31, Lots 2.02, 5.01 & 7 Elk Township Gloucester County New Jersey," prepared by Taylor Wiseman & Taylor, dated July 3, 2024, no revisions (5 sheets).
27. Preliminary Plan of Lots entitled "Reeds Apartments (Section D) Block 58, Lot 1 Elk Township Gloucester County New Jersey," prepared by Taylor Wiseman & Taylor, dated July 3, 2024, no revisions (1 sheet).
28. Preliminary Plan of Lots entitled "Carriages at Orchard Glenn (Section B) Block 32, Lot 1 Elk Township Gloucester County New Jersey," prepared by Taylor Wiseman & Taylor, dated July 3, 2024, no revisions (9 sheets).
29. Topographic Survey entitled "Aura III Block 31, Lots 2.02, 5.01 & 7, Block 32, Lot 1 and Block 58, Lot 1, Township of Elk Gloucester County New Jersey," prepared by Taylor Wiseman & Taylor, dated July 3, 2024, no revisions.
30. Plans entitled "New Jersey American Water Utility Extension Plans Elk Township, Gloucester County, New Jersey" (28 Sheets) prepared by TWT, dated 7/2/2024.
31. Preliminary/Final Site Plans entitled "Elk Township 750,000 Gallon Elevated Water Storage Tank Elk Township, Gloucester County, New Jersey Block 58, Lot 1" (10 Sheets) prepared by TWT, dated 7-09-2024.
32. Plan entitled "Elk Township Park Concept Sketch" prepared by Bohler, not dated.
33. DRH Exterior Color Schemes (18 sheets), last revised 8-08-2024
34. DRH 24004 Aura III Twins Exterior Color Schemes (9 sheets), prepared by Holliday Architects, Inc., dated April 25, 2024.
35. The Reeds Apartments Floor Plans and Elevations (5 sheets), prepared by Thomas J. Brennan Architects, dated May 20, 2024.
36. The Bristol Freedom Elevations and Floor Plans (2 sheets), not dated.

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37. The Clifton Elevations and Floor Plans (2 sheets), not dated.
38. The Dover Elevations and Floor Plans (2 sheets), not dated.
39. The Lismore Elevations and Floor Plans (2 sheets), not dated.
40. The Neuville Elevations and Floor Plans (2 sheets), not dated.
41. The Reeds Apartments Clubhouse Elevations and Floor Plans (1 sheet), not dated.
42. Aura 3 Clubhouse Elevations and Floor Plans (3 sheets), prepared by Feinberg & Associates, PC, dated 5-09-21.

SITE INFORMATION:

Applicant: D.R. Horton, In., NJ
2040 Briggs Road, Suite A
Mount Laurel, NJ 08054
609-314-9105

Owner: Aura Investors, LLC
101 E. Main Street, Suite 204
Moorestown, NJ 08057

COMPLETENESS:

The following Land Development Checklist items were not provided and were addressed in our review of September 13, 2024:

- #66 requires a written commitment from the Elk Township Municipal Utilities Authority of sufficient capacity to provide sewer and water service for the project when completed (if within sewer service area). **Waiver granted for completeness only. The applicant shall provide will serve letters from New Jersey American Water as part of compliance review.**
- #78 requires where there is potential future development of adjacent parcels or undeveloped portions of the subject lot, locations of future pedestrian and vehicular connections. **Waiver granted for completeness only.**

It shall be noted that requirements noted above as "**waived for completeness only**" have been waived to allow the application to be deemed complete.

REDEVELOPMENT PLAN:

Design Standards

1. Per the Redevelopment Plan, *“Water and Sewer Infrastructure shall be provided per the executed shared infrastructure agreement between Aura and Silvergate.”* The Applicant shall provide testimony regarding this agreement to the Planning Board.
2. Bulk Requirements. Development in the Redevelopment Area shall conform to the bulk standards provided in the Redevelopment Plan (Schedule A) and Township Code. Where a standard in the Plan differs from a standard in the Elk Township Land Development Code, the standard in the Plan shall supersede.
3. In accordance with the redevelopment Plan Section III.H. Landscaping, *“A comprehensive landscape plan which provides for shade, buffering to adjacent uses, planting beds within parking areas, foundation plantings adjunct to buildings, and other landscaping elements designed to complement and enhance the overall site and building design.”* Provided.

Open Space and Recreation

1. Per the Redevelopment Plan Section II.B. *“Open Space. Land is to be set aside as open space. Access to and through this open space with linkages to the various sections will be required to be shown in the concept plan that is attached to the redevelopment agreement or approved by the Redevelopment Entity prior to submission of site plan applications to the Planning Board.”*

In accordance with Section III.C. of the Redevelopment Plan, *“An open space plan shall be provided showing the proposed land area and uses proposed as open space. The plan shall include a general description of improvements to be made thereon, including a plan for the operation and maintenance of the landscaped and recreational areas.”*

The applicant shall provide this information.

2. Per the Open Space definition in Section 96-5. Definitions, Common Open Space is *“A parcel or parcels of land or an area of water, or a combination of land and water within the site designated for a planned unit development or a cluster development, and designed and intended for the use or enjoyment of residents and owners of the planned unit development or cluster development. Common open space excludes land areas within the rights-of-way of streets to be located within a planned unit development unless exclusively designed for access to open space. A legally constituted organization of the property owners with authority to place liens on property shall be formed for the maintenance of the common areas and facilities, or*

this common open space may be deeded to the Township if accepted by the Township for use by all residents of the Township.”

The Open Space Plan (SP-04) provided shall be revised, all areas that do not comply with the definition of open space must be removed. HOA Documents and / or deeds, covenants and restrictions shall be provided evidencing legal authority for ownership and maintenance of the common areas.

3. Open Space for multi-family apartments shall be provided in accordance with Section 96-55 of the Township Code. In accordance with Section 69-55.A.(8)(a), a 276 unit apartment shall require three (3) tot lots, one (1) multipurpose field and three (3) other recreation facilities are required.
4. A clubhouse with one (1) swimming pool and one (1) tot lot is proposed for the apartments. The applicant shall provide testimony and a plan for the remainder of the required active recreation facilities listed above.
5. The applicant proposes a 6,084 sf clubhouse for the age-restricted portion of the development (Willows and Carriages). This area includes active recreation opportunities, including two (2) pickleball courts and one (1) swimming pool.

Affordable Housing:

1. Per the Redevelopment Plan, Township’s Housing Element and Fair Share Plan, and Settlement Agreement with the Fair Share Housing Center, this application is an inclusionary project. *“Twenty percent (20%) of all residential for-sale units or 15% of all rental units shall be set aside for low and moderate income households as set forth in the Settlement Agreement between the Township and the Fair Share Housing Center and in accordance with the New Jersey Uniform Housing Affordability Controls and Elk Township Land Development Code Article I. Affordable Housing Requirements.”*

Per the Redevelopment Plan, the redeveloper is permitted to retain a 5% affordable set-aside for the initial 464 residential units, regardless of rental or for-sale housing types. This amounts to 24 affordable units. For the remaining 498 units, the required set-aside is calculated at 20% for for-sale units and 15% for rental units, which amounts to 86 additional affordable units required. This equates to 110 required affordable units being required for the development.

The applicant is proposing a total of 110 affordable units, 34 attached twin units and 76 units in the apartments.

2. All units shall be in accordance with Chapter 40 of the Elk Township Code, Affordable Housing.
3. In accordance with Section 40-5., the phasing schedule for construction of affordable units shall be as follows:

Maximum percentage of market rate units completed (Cos Issued) (total units 962 units)	No. Units with CO	Minimum percentage of Low and Moderate Income units completed (Cos Issued) (affordable units 77 apartments, 34 twins)	Required No. Affordable Units with CO
25	240	0	0
25+1	241	10	11
50	481	50	55
75	721	75	83
90	865	100	110

4. Bedroom distribution and low, moderate and very low income units must be provided in accordance with 40-6A. and the Settlement Agreement. Thirteen percent (10 units) of the affordable apartments must be very low and the remainder of the units shall be split between low and moderate units.

The Willows at Orchard Glen:

1. No affordable units are proposed in this section of the development.

The Carriages at Orchard Glen:

1. 34 units are proposed in this twin section of the development. The applicant shall confirm that these are to be for-sale units.
2. The applicant shall denote on the Plans where the affordable twin units will be located.

The Reeds Apartments:

1. 76 affordable units are to be located in the Reeds Apartments.

ZONING REQUIREMENTS:

The Willows at Orchard Glen:

1. Active adult single family detached homes are a permitted use in the Redevelopment Area.
2. Off-street parking facilities, cluster mailboxes, retaining walls, fences, decks and patios, signs, stormwater management structures, trash enclosures, outdoor furniture, utilities, hot boxes, and transformers are all permitted accessory uses in the Redevelopment Area.
3. The following table sets forth the bulk standards for the Redevelopment Plan and the proposed dimensions and setbacks for single family detached dwellings:

Single Family Detached (Active Adult) Requirements	Required:	Proposed:	Complies:
Min Lot Size (sf)	5,000	6,050	Yes
Lot Width at Building Setback (ft)	50	55	Yes
Lot Depth (ft)	100	110	Yes
Setbacks (ft)			
Front (Without Garage)	15	N/A	N/A
Front (With Garage)	20	20	Yes
Side	5	8	Yes
Side Aggregate	15	16	Yes
Rear	20	20	Yes
Max Height (ft)	35	16.8	Yes
Max Floors	2.5	2	Yes
Max Impervious Coverage (%)	70	53	Yes

The Carriages at Orchard Glen:

1. Active adult single family detached homes are a permitted use in the Redevelopment Area.
2. Twin homes are a permitted use in the Redevelopment Area.
3. Off-street parking facilities, cluster mailboxes, retaining walls, fences, decks and patios, signs, stormwater management structures, trash enclosures, outdoor furniture, utilities, hot boxes, and transformers are all permitted accessory uses in the Redevelopment Area.

4. The following table sets forth the bulk standards for the Redevelopment Plan and the proposed dimensions and setbacks for active adult single family detached homes:

Single Family Detached (Active Adult) Requirements	Required:	Proposed:	Complies:
Min Lot Size (sf)	5,000	6,050	Yes
Lot Width at Building Setback (ft)	50	55	Yes
Lot Depth (ft)	100	110	Yes
Setbacks (ft)			
Front (Without Garage)	15	N/A	N/A
Front (With Garage)	20	20	Yes
Side	5	8	Yes
Side Aggregate	15	16	Yes
Rear	20	20	Yes
Max Height (ft)	35	19.5	Yes
Max Floors	2.5	2	Yes
Max Impervious Coverage (%)	70	53	Yes

5. The following table sets forth the bulk standards for the Redevelopment Plan and the proposed dimensions and setbacks for twin homes:

Twin Home Requirements	Required:	Proposed:	Complies:
Min Lot Size (Combined) (sf)	9,900	9,900	Yes
Lot Width at Building Setback (Combined) (ft)	90	90	Yes
Lot Depth (ft)	100	110	Yes
Setbacks (ft)			Yes
Front (Without Garage)	15	N/A	Yes
Front (With Garage)	20	20	Yes
Side	10	17	Yes
Side Aggregate	25	34	Yes
Rear	30	31	Yes
Max Height (ft)	35	19.2	Yes
Max Floors	2.5	<2	Yes
Max Impervious Coverage (%)	70	44	Yes

The Reeds Apartments:

1. Multifamily dwellings are a permitted use in the Redevelopment Area.

2. Off-street parking facilities, cluster mailboxes, retaining walls, fences, decks and patios, signs, stormwater management structures, trash enclosures, outdoor furniture, utilities, hot boxes, and transformers are all permitted accessory uses in the Redevelopment Area.
3. The following table sets forth the bulk standards for the Redevelopment Plan and the proposed dimensions and setbacks for multifamily dwellings:

	Required:	Proposed:	Complies:
Min Lot Size (sf)	N/A	17.82	Yes
Lot Width at Building Setback (ft)	100	1,111.40	Yes
Lot Depth (ft)	100	872.30	Yes
Setbacks (ft)			
Front	50	50	Yes
Side	20	43.3	Yes
Rear	20	97.7	Yes
Accessory Setbacks (ft)			
Side	5	65.4	Yes
Rear	5	5	Yes
Max Height (ft)	45	39	Yes
Max Floors	3	3	Yes
Max Impervious Coverage (%)	80	36	Yes

VARIANCES:

1. The applicant is not requesting any variances for the development.

DESIGN WAIVERS:

1. The applicant is not requesting any design waivers for the development. However, design waivers may be required as denoted in this review. Testimony shall be provided and any waivers requested shall be lot specific.

PARKING:

The Willows at Orchard Glen:

1. The applicant proposes 653 parking spaces for the Willows at Orchard Glen where 466 spaces are required per Residential Site Improvement Standards (RSIS). The calculations are as follows:

Required parking:
 186 Single-Family Detached (4 Bedroom) @ 2.5 spaces/unit = 465 spaces
 Electric Vehicle (EV) Parking = 1 space
 Total Required = 466 spaces

Proposed parking:
 186 Two -car garage and driveway @ 3.5 spaces/unit = 651 spaces
 Electric Vehicle (EV) Parking = 2 spaces
 Total Proposed = 653 spaces

The Carriages at Orchard Glen:

- The applicant proposes 1,458 parking spaces for the Carriages at Orchard Glen where 1,140 spaces are required per Residential Site Improvement Standards (RSIS). The calculations are as follows:

Required parking:
 250 Single Family Detached (4 Bedroom) @ 2.5 spaces/unit = 625 spaces
 250 Twin Dwellings (4 Bedroom) @ 2.0 spaces/unit = 500 spaces
 Clubhouse Parking (6,084 SF) @ 1 space/400 SF = 16 spaces
 Electric Vehicle (EV) Parking = 3 spaces
 Total Required = 1,144 spaces

Proposed parking:
 250 Two-car garage and driveway @ 3.5 spaces/unit = 875 spaces
 250 One-car garage and driveway @ 2.0 spaces/unit = 500 spaces
 Clubhouse Parking = 80 spaces
 Electric Vehicle (EV) Parking = 3 spaces
 Total Proposed = 1,458 spaces

The Reeds Apartments:

- The applicant proposes 641 parking spaces for the apartments where 648 spaces are required per Residential Site Improvement Standards (RSIS). The calculations are as follows:

Required parking:
 276 Units (2 Bedroom) @ 2.0 spaces/unit = 552 spaces
 Clubhouse Parking (4,100 SF) @ 1 space/400 SF = 11 spaces
 Electric Vehicle (EV) Parking @ 15% Required Parking = 85 spaces
 Total Required = 648 spaces

Proposed parking:	
276 Units (Bedroom)	= 546 spaces
Clubhouse Parking	= 11 spaces
Electric Vehicle (EV) Parking	= 84 spaces
Total Proposed	= 641 spaces

2. The parking schedule shown on the plans shall include the number of handicap parking spaces and confirm compliance with ADA requirements.

PHASING:

1. Temporary cul-de-sacs shall be provided and the end of any roadway for Phases 3 and 5 that do not provide an improved roadway predicated on the phases being built in sequential order. Testimony shall be provided.

TRAFFIC:

1. The Traffic Engineering Assessment (TEA) indicates the proposed Aura Road residential developments are proposed on existing undeveloped farmland in three (3) clusters along northbound and southbound Aura Road (County Route 667), westbound Whig Lane (County Route 619), and westbound Clems Run (County Route 623). The TEA indicates Cluster A will consist of 186 age-restricted single-family homes, Cluster B will consist of 250 age-restricted single-family homes, 250 age-restricted duplex units, and Cluster D will consist of 76 affordable apartments and 200 market rate apartments. The TEA was prepared in accordance with typical traffic engineering standards and consistent with Township Ordinance requirements. The TEA concludes that traffic generated from the proposed developments will have a minimal impact on the adjacent roadway network.
2. The TEA conclusion that traffic generated by the proposed development will have a minimal impact on the adjacent roadway network is based on offsite roadway improvements being completed in the form of the installation of all-way stop-control at the Aura Road / Whig Lane intersection possibly including an overhead beacon to supplement the ground-mounted signage. Without the all-way stop-control improvement, the traffic impact would be much more substantial. The Applicant shall indicate if the process of installing the referenced all-way stop-control has been started including Gloucester County approvals and / or a fair share analysis conducted.

3. The TEA indicates access will be accomplished via newly constructed full-movement site driveways along Aura Road, Whig Lane, and Clems Run which are all under Gloucester County jurisdiction. Gloucester County access review and approval will be necessary.
4. The TEA also indicates left-turn lane warrant analyses were conducted for each proposed site driveway. The warrant analyses indicated left-turn lanes are not warranted.
5. As noted in comment #4 above, left-turn lanes are not warranted per the submitted TEA; however, the Enlarged Layout Plans illustrate proposed left-turn lanes for access into the proposed development. Our office has no objection to the proposed left-turn lanes.
6. The Enlarged Layout Plans illustrate 28 foot wide cartway widths and 50 foot wide right of way (ROW) widths along all internal roadways with the exception of Benton Drive which has a 28 foot wide cartway width and 60 foot wide ROW between Denali Drive and Teton Court and has median-divided one-way 20 foot wide cartway widths and 68 foot wide (ROW) width between Teton Court and Aura Road. Per Residential Site Improvement Standards (RSIS), the interior roadways would classify as either a low intensity Residential Access, Residential Neighborhood, or Minor Collector (Benton Drive) with no on-street parking. The proposed cartway widths and ROW widths meet the minimum requirements per RSIS.
7. As the plans propose a 28' wide cartway, parking will only be permitted on one side of the roadway. The plans shall be revised to provide 'no parking' signs on one side of all roadways with a 28' wide cartway.
8. The Phasing Plan illustrates the different phases by which the development is to be constructed. The applicant shall provide testimony as to whether it is anticipated the different phases will be occupied prior to completing additional phases. Also, if this is the case, the applicant shall ensure any occupied section of the development shall comply with RSIS prior to additional phases being completed, including but not limited to, providing temporary turn around areas for temporary dead-end streets between constructed phases.
9. County roadway plans shall be provided to this office as a condition of approval.

GENERAL:

1. The applicant shall provide testimony regarding any proposed homeowners association (HOA). All HOA documents are required to be submitted for review and approval by this office and the Board Solicitor and Township Solicitor as a condition of any approvals granted by the Board.
2. The applicant shall provide all proposed deeds, covenants, easements and restrictions (including legal descriptions) for review and approval by this office and the Board Solicitor and Township Solicitor as a condition any approvals.
3. Demolition plans shall be included in the plan sets and shall not exceed a scale of 1"=50'. No proposed improvements shall appear on the Demolition Plans.
4. A copy of the plans submitted and approved for the NJDEP Flood Hazard Verification shall be provided as indicated under General Note #7 on sheet SP-02.
5. A copy of the plans submitted and approved for the NJDEP Letter of Interpretation shall be submitted as indicated under General Note #7 on sheet SP-02.
6. The General Notes shall include the hours of construction.
7. The proposed development names shall appear on the Land Use Circulation & Open Space Plan.
8. There are numerous test overwrites on the Lot Dimension Plans. Text overwrites shall be eliminated from the plans.
9. Graphic scales shall appear on all plans per §96-32.B(3).(a).
10. The applicant shall coordinate cluster mailbox locations with the United States Postal Service (USPS). Documentation shall be provided confirming approval from the USPS of the proposed mailbox locations.

SITE PLANS/ENLARGED LAYOUT PLANS:

The Willows at Orchard Glen

1. Block 31.03, Lot 11 the porch extends beyond the setback.
2. Per § 96-66M(6)(g) driveways are not permitted within 50 feet of the tangent of the tangent of two intersecting roads: The following Lots do not meet this requirement and the plans shall be changed or lot specific waivers requested:

- a. Block 31.01
 - i. Lots 1 and 23
 - b. Block 31.02
 - i. Lots 1 and 13
 - c. Block 31.03
 - i. Lot 9
 - d. Block 31.04
 - i. Lot 13
 - e. Block 31.05
 - i. Lot 12
 - f. Block 31.06
 - i. Lots 2, 76 and 82
3. No proposed patios shall encroach into the front yard of any proposed roadway. The patio on proposed Lot 6 on sheet SP-07 shall be relocated out of the front yard setback of Jasper Drive.
4. On Sheet SP-33 the linework is out of alignment on the southwesterly side of Richwood Auro Road.

The Carriages at Orchard Glen

1. Per § 96-66M(6)(g) driveways are not permitted within 50 feet of the tangent of the tangent of two intersecting roads: The following Lots do not meet this requirement and the plans shall be changed or lot specific waivers requested:
 - g. Block 32.01
 - i. Lots 2, 26, 29, 77, and 96
 - h. Block 32.02
 - i. Lots 1 and 14
 - i. Block 32.03
 - i. Lot 1 and 16
 - j. Block 32.04
 - i. Lots 1, 8, 9, and 16
 - k. Block 32.05
 - i. Lots 10 and 11
 - l. Block 32.07
 - i. Lots 1 and 25
 - m. Block 32.09
 - i. Lots 1, 10, and 18
 - n. Block 32.10
 - i. Lots 1, 10, and 22

- o. Block 32.11
 - i. Lots 1 and 8
 - p. Block 32.12
 - i. Lot 7 and 14
 - q. Block 32.13
 - i. Lot 14
 - r. Block 32.14
 - i. Lots 1, 19, 22, and 100
1. Block 32.01, Lot 90 is incorrectly labeled as Lot 97 on the Lot Dimension Plan (SP-138).
 2. Block 32.01, Lot 17 is not labeled on the Lot Dimension Plan (SP-131).
 3. Additional dimensions for the proposed clubhouse and associated site improvements shall be shown on the Enlarged Layout Plan SP-52 and the Clubhouse Plan SP-60.
 4. The width of all proposed concrete islands shall be noted on the plans.
 5. The trash enclosure dimensions shall be shown on the plan.
 6. The cartway width of Saguaro Drive at station 3+00 shall be revised to accurately reflect 28' wide.

The Reeds Apartments:

1. The plans shall provide a dimension from Building #1 to the closest face of curb and to the right of way line of Whig Lane.
2. The plans shall provide the width of all concrete islands.
3. The plans shall provide the width of all concrete sidewalk.
4. All proposed handicap ramps shall be labeled.
5. The pool area and tot lot shall be dimensioned.
6. The proposed trash enclosure shall be dimensioned.
7. A detail of the proposed transformers shall be shown on the plans. If the transformers exceed 30" in height then sight triangles shall be shown or the transformers shall be relocated.

8. On the northern most part of the proposed parking lot on the Enlarged Layout Plan (SP-139) the number of parking spaces is incorrectly labeled and shall be revised.

All Sections:

1. Sidewalk shall be provided along the entirety of all existing roadway frontages.
2. A minimum 10' wide clear area shall be provided from any proposed building to any proposed basin, basin fence, or basin landscaping.

SIGNAGE:

The Willows at Orchard Glen:

1. All approaches at the intersection of Yosemite Drive and Kruger Drive are controlled by stop signs (R1-1) and should have an All Way (R1-3P) plaque mounted below each stop sign as per MUTCD § 2B.05(4).

The Carriages at Orchard Glen:

1. The Stop Sign (R1-1) at the intersection of Bryce Drive and Denali Drive are not labeled on the Enlarged Layout Plan (SP-55).
2. A Stop Sign (R1-1) at the intersection of Denali Drive and Buffalo Drive should be proposed and labeled on the Enlarged Layout Plan (SP-56).
3. Four (4) Stop Signs (R1-1) at the intersection of Cascade Drive and Buffalo Drive should be proposed and labeled on the Enlarged Layout Plan (SP-56).

STORMWATER:

The Willows at Orchard Glen

1. The 100-year projected storm elevation within Basin 6100 exceeds the grate elevations of inlets 6103 and 6104. The 100-year projected storm must not exceed the grate elevations.
2. Outlet control structure data for Basin 6200 must be added to Enlarged Drainage Plan SP-18.

3. The outlet control structure grate elevation within the calculations for Basin 5900, differs from the elevation indicated on the Enlarged Drainage Plan.
4. The diameter of storm manholes 5105, 5105A and 5106 must be verified due to the size of the connecting storm pipes.
5. The inverts shown on the plan for Inlets 5404, 5901A and 5901 does not match the calculations.
6. There are multiple discrepancies between the Drainage Plans and the stormwater pipe calculations. The plans and/or calculations must be revised.
7. All stormwater structures and piping shall be shown on the Road Profiles.

The Carriages at Orchard Glen

1. Wet pond #1 dead storage within the calculations indicates bottom of basin at elevation 127.00, whereas the Drainage Plan indicates a bottom contour elevation of 126.00. The plan and/or calculations must be revised.
2. Wet pond #1 safety ledge elevations within the stormwater report does not match the Drainage Plan. The plan and/or calculations must be revised.
3. Rip rap apron/scour hole bottoms must be flat. It must be clarified how the aprons within the wet ponds will be constructed with current basin grading.
4. The 2.5" diameter orifice for Basin #1800 must be encoded within the calculations or the Drainage Plan revised to reflect the calculations.
5. The 3" diameter orifice for Basin #1700 must be labeled on the Drainage Plans.
6. The primary outlet device for Basin #2000 differs between the calculations (24" dia.) and the Drainage Plan (48" dia.). The plan and/or calculations must be revised.
7. The outlet structure information for Basin #3500 differs between the calculations and the Drainage Plan. The plan and/or calculations must be revised.
8. The size of the inlet box for B Inlet #13002 must be checked as four – 48" diameter pipes are proposed to connect into the box. Any structure needing an oversized or special box or manhole must be noted as such on the Drainage Plan.
9. The grate elevation for E Inlet # B-12002 is lower than the 100-year storm peak in wet pond #2. The 100-year storm peak elevation must be contained within the basin.

10. The grate elevation for B Inlets #3401 and #3402 are lower than the 100-year storm peak in basin #3400. The 100-year storm peak elevation must be contained within the basin.
11. Outlet control structure data for Basin #800 does not match the data in the stormwater report. The plan and/or calculations must be revised.

The Reeds Apartments

1. Label for OCS-602C, 48" RCP invert (out) elevation does not match the stormwater calculations.
2. Label for OCS-603B, invert (out) elevation and pipe size does not match the stormwater calculations.
3. Pipe lengths on the plans from I-101 to HW100 does not match the pipe calculations within the Stormwater Report.
4. Pipe sizes from I-216 to I-212 and I-212A on the plans do not match the pipe calculations within the Stormwater Report.
5. Pipes connecting into Inlets 503 and 506 must be checked. The angle of the pipes entering the inlet box may not be constructible.
6. There are multiple discrepancies between the Drainage Plans and the stormwater pipe calculations. The plans and/or calculations must be revised accordingly.
7. All primary outlet control structure data, invert elevations, pipe sizes and lengths must match between the Drainage Plans and stormwater report. There are multiple discrepancies. The plans and/or calculations must be revised accordingly.

All Sections:

1. Existing contours are illegible on the Present Drainage Area Map. The time of concentration flow paths could not be verified. The plan must be revised.
2. Impervious sheet flow calculations must utilize an "n" value (0.011) for paved surfaces.
3. Forebays or other forms of pretreatment must be incorporated into the design of any BMP that utilizes exfiltration as part of the storm routing.
4. A note should be added to the basin labels on the Drainage Plans noting the water surface elevations indicate the projected rainfall.

5. It must be clarified if the wet ponds are proposed as green infrastructure or non-green infrastructure BMP's.
6. For wet ponds to be considered green infrastructure BMP's they must have a reuse component (Ref. NJDEP BMP Manual, Chapter 10.5) and a 10' wide native vegetative area along 50% of the basin. Green infrastructure wet ponds can be utilized for water quality with a waiver or variance from N.J.A.C. 7:8-5.3.
7. If the wet ponds are being proposed as non-green infrastructure BMP's they can be used for quantity reduction and water quality only with a waiver or variance from NJAC 7:8-5.3 (Reference NJ BMP Manual, Chapter 11.6).
8. Wet pond safety ledges must be located 1-foot to 1.5-feet above permanent pool and approximately 2.5-feet below permanent pool. Wet pond 1 safety ledges must be revised on the plan. Safety ledges for all wet ponds must be checked.
9. Existing and proposed current rainfall sheet flow calculations utilize a 2-year rainfall depth of 3.92 inches (P2 value), which a projected rainfall depth. A 2-year rainfall depth of 3.45 inches must be utilized for the current rainfall sheet flow P2 value.
10. Calculations must be provided to show how for the duration of infiltration (t) for the Groundwater Mounding Analysis was calculated. The duration of infiltration must be calculated in accordance with Chapter 13, NJ BMP Manual.
11. All primary outlet control structure data, invert elevations, pipe sizes and lengths must match between the Drainage Plans and stormwater report. There are multiple discrepancies. The plans and/or calculations must be revised accordingly.
12. The diameter of all storm manholes must be verified due to the size of the connecting storm pipes. Any structure needing an oversized or special box or manhole must be noted as such on the Drainage Plan.
13. The one-foot separation from seasonal high water to the bottom of stone for the basin underdrains must be provided at the lowest invert elevation of the underdrain.
14. Invert elevations must be labeled on the lowest point of the underdrain system.
15. The dBMPu values in the GRS-32 spreadsheet for vegetative BMP's must have a negative value (ref. NJ BMP Manual, Chapter 6). The calculations must be revised accordingly.
16. The normal Manning's n value for RCP storm sewer pipe is 0.015 (ref. RSIS 5:21-7.3, Table 7.2). The calculations should be revised accordingly.

17. A table should be created for the Wet pond detail indicating the permanent pool elevation and bottom elevation. The detail currently indicates a 75-foot depth of permanent pool.
18. The Bioretention Basin Outlet Control Structures reference a table for the size and inverts of the weir and pipe inverts. The table must be provided on the plans.
19. Contours must be labeled on the Drainage Plans for all basins.
20. The grading on all scour holes and rip rap shall be revised to be such that the bottom area has a zero slope (flat).
21. Additional spot elevations shall be provided at all rear yard property corners.
22. Roadway station elevations shall be shown on the plans.
23. Grate elevations shall be added to all inlets on the Grading Plans.

Operation and Maintenance Manual

1. A contact person's name and phone number must be included in the Maintenance Manual.
2. Northing and eastings for all stormwater management areas must be included in the Maintenance Manual.
3. The design drain time for the maximum design storm runoff volume must be indicated in the maintenance manual for all basins.
4. The following must be added to sections that include infiltration, "If the actual drain time is longer than the design drain time, the components must be evaluated and appropriate measures taken to return the small-scale infiltration basin to the original tested as-built condition".
5. The following must be added to the Infiltration Basin section, "If the small-scale infiltration basin fails to drain the WQDS within 72 hours, corrective action must be taken and the maintenance manual revised accordingly to prevent similar failures in the future. Note that annual tilling of the sand layer, using lightweight equipment, may assist in maintaining the infiltration capacity of a surface type system by breaking up clogged surfaces".

6. The following must be added to the Bioretention Basin section, "If the bioretention system fails to drain the Water Quality Design Storm within 72 hours, corrective action must be taken and the maintenance manual revised accordingly to prevent similar failures in the future" and "Vegetative cover must be maintained at 85%; damage must be addressed through replanting in accordance with the original specifications".
7. All proposed basins and basin fencing shall be a minimum of ten (10') feet from any proposed building. Small scale Basin #3 shall be revised to comply.

GRADING/DRAINAGE:

The Willows at Orchard Glen:

1. The following Block and Lots do not meet the minimum 2% swale slope as per Elk Township Ordinance § 96-66M(5)(b):
 - a. Block 31.02: Lots 6 & 7, 7 & 8, 8 & 9, and 9 & 10
 - b. Block 31.03: Lots 10 & 11
 - c. Block 31.06: Lots 20 & 21, 25 & 26, 38 & 39
2. The following Block and Lots do not meet the minimum 5% lawn slope for the first 10 ft from a foundation wall as per Elk Township Ordinance § 96-66M(5)(b):
 - a. Block 31.01: Lots 3, 5, 6, 12, 21 and 22
 - b. Block 31.02: Lots 6, 7, and 8
 - c. Block 31.06: Lots 3, 4, 9, 10, 11, 12, 19, 20, 59, 66 and 75
3. The following Streets do not meet the minimum 0.5% grade as per the Residential Site Improvement Standards (RSIS) § 5:21-4.19:
 - a. Jasper Drive:
 - i. STA 4+75 – Left gutterline
 - ii. STA 9+75 – Left gutterline
 - iii. STA 10+25 – Right gutterline
 - iv. STA 10+50 – STA 12+65 – Right gutterline
 - v. STA 16+75 – Right gutterline
 - vi. STA 23+67 – STA 24+47 – Right gutterline
 - vii. STA 31+18 – STA 31.90 – Right gutterline
 - b. Glacier Drive:
 - i. STA 3+25 – Right gutterline

- c. Sequoia Drive:
 - i. STA 3+50 – Right gutterline
 - d. Yosemite Drive:
 - i. STA 11+50 – Right gutterline
 - e. Kruger Drive:
 - i. STA 78+00 – Right gutterline
4. The following Block and Lots exceed the maximum 3:1 allowable slope as per Elk Township Ordinance § 96-66M(5):
- a. Block 31.06: Lot 25
5. On Block 31.03, Lot 12 the garage is missing grade callouts.

The Carriages at Orchard Glen:

1. All proposed driveway arrows are incorrectly shown and shall be corrected.
2. On Block 32.14, Lots 27 and 28, the 143 contour is incorrectly labeled on the Enlarged Grading Plan (SP-61).
3. On Block 32.01, Lot 23, the spot elevation callouts of the structure are below the 145 contour.
4. On Block 32.14, between Lots 22 and 23, a spot elevation callout is below the two (2) 142 contours on either side. The Enlarged Grading Plan (SP-61) should be revised.
5. On Block 32.01, Lots 28 and 29, have spot elevation callouts for the structures that are incorrectly located.
6. On Block 32.01, Lot 1, a contour is incorrectly located between the 137 and 138 contours.
7. On Block 32.01, Lot 48, the 142 contour is missing on the Enlarged Grading Plan (SP-63).
8. On Block 32.14, Lot 40, the 143 contour is missing on the Enlarged Grading Plan (SP-64).

9. Block 32.01, Lots 73 and 74, the 142 contour is missing on the Enlarged Grading Plan (SP-65).
10. Block 32.03, Lot 4, and Block 32.04, Lot 6, the 144 contour is missing on the Enlarged Grading Plan (SP-65).
11. Block 32.05, Lots 3 and 4, the spot elevation callouts of the structure are below the 142 contour.
12. Block 32.06, Lots 25 to 28, the 143 contour is missing on the Enlarged Grading Plan (SP-65).
13. Block 32.12, Lot 2, the 144 contour is missing on the Enlarged Grading Plan (SP-67).
14. The spot elevation between lots Block 32.01, Lots 94 and 95 as shown on sheet SP-68 is shown as a low point and shall be revised to a high point.
15. The 144.57 elevation at Buffalo Drive STA 15+50 right gutterline is a low point and shall be revised.
16. The following Block and Lots do not meet the minimum 2% swale slope as per Elk Township Ordinance § 96-66M(5)(b):
 - a. Block 32.01: Lots 2-13, 17-29, 30-37, 40-44, 46-49, 51-54, 57-60, 62-64, 67, 68, 70-71, 78-81, and 86-94.
 - b. Block 32.02: Lots 1, 2, 6-9, and 11-14
 - c. Block 32.03: Lots 1-7, 9, and 10
 - d. Block 32.04: Lots 3, 4, 7, 8, 14, and 15
 - e. Block 32.05: Lots 2-9, 13, 14, 17, and 18
 - f. Block 32.06: Lots 20, 21, 26-33, and 40-43
 - g. Block 32.07: Lots 12, 13, 30, 31, 38, 39, 42, and 43
 - h. Block 32.08: Lots 12, 13, 18, 19, 26-29, 32-37, 40, 41, and 44-47,
 - i. Block 32.09: Lots 2-7, and 16-18
 - j. Block 32.10: Lots 14 and 15
 - k. Block 32.11: Lots 2, 3, 10, and 11
 - l. Block 32.12: Lots 1, 2, 4, 5, 12, and 13
 - m. Block 32.13: Lots 1-12, 17-20, and 24
 - n. Block 32.14: Lots 1-4, 11, 12, 16-19, 22-26, 29-32, 34-47, 51, 52, 54-71, 74-81, and 83-100
17. The following Block and Lots do not meet the minimum 5% lawn slope for the first 10 ft from a foundation wall as per Elk Township Ordinance § 96-66M(5)(b):

- a. Block 32.01: Lots 5, 6, 9, 10, 14, 16, 22, 25-30, 35, 37, 51-53, 57, 58, 61, 63, 64, 67 68, 70, and 95
 - b. Block 32.02: Lots 1, 8, and 9
 - c. Block 32.03: Lot 3
 - d. Block 32.04: Lots 4, 7, 9, 13, and 15
 - e. Block 32.05: Lots 1, 2, 5, 6, and 9-12
 - f. Block 32.06: Lots 3, 4, 21, 22, 37-40, 43, 44, and 46
 - g. Block 32.07: Lots 9, 10, 15, 16, 33-36, and 42-44
 - h. Block 32.08: Lots 5, 6, 11, 15-18, 35, and 36
 - i. Block 32.09: Lots 13 and 14
 - j. Block 32.11: Lots 6-8
 - k. Block 32.12: Lots 5, and 7-10
 - l. Block 32.13: Lots 2, 4, 9, and 14-23
 - m. Block 32.14: Lots 3, 4, 7-14, 16, 18, 20, 22, 23, 25, 37, 46, 49, 55-60, 65, 66, 68, 72, 73, 78, 80, 81, 83, 90, 91, and 96
18. The following Block and Lots don't meet the minimum 1% slope for all other lawn areas as per Elk Township Ordinance § 96-66M(5)(b):
- a. Block 32.01: Lots 34, 35, 47, 48, 86, and 87
 - b. Block 32.13: Lots 8 and 9
 - c. Block 32.14: Lots 23, 30, 31, 84, and 85
19. The following Block and Lots exceed the maximum 3:1 allowable slope as per Elk Township Ordinance § 96-66M(5)©:
- a. Block 32.01: Lots 2, 3, 8, 9, 17, 18, 20, 21, 30, 31, 34, 35, 37, 39-41, 43, 45, 47-60, 62, 66, 68, 92, 94, and 96
 - b. Block 32.02: Lots 2-4, 6, and 8-14
 - c. Block 32.03: Lots 2-8, 10, 11, 13, 15, and 16
 - d. Block 32.04: Lots 1-3, 5, 6, 8, 10, 11, 14, and 16
 - e. Block 32.05: Lots 12, 14, 16, and 18
 - f. Block 32.12: Lots 2-4, 6, and 9-12
 - g. Block 32.13: Lot 8
 - h. Block 32.14: Lots 2, 3, 5, 14, 15, 17, 21, 25, 50, 54, 55, 57, 58, 61, 62, 66, 71, 75, 76, 80, 86, and 97
20. The following Streets do not meet the minimum 0.5% grade as per the Residential Site Improvement Standards (RSIS) § 5:21-4.19:
- a. Teton Court:
 - i. STA 1+00 – Left gutterline
 - ii. STA 10+00 – Left and right gutterlines

- iii. STA 11+00 – Left gutterline
- iv. End of Cul-de-sac – Driveway of Block 32.01, Lot 15 to Inlet #B-1901

b. Denali Drive:

- i. STA 2+00 – Right gutterline
- ii. STA 3+25 – Right gutterline
- iii. STA 7+75 – Right gutterline
- iv. STA 8+25 – Left gutterline
- v. STA 10+50 – Left and right gutterline
- vi. STA 12+00 – Left gutterline
- vii. STA 14+25 – Left gutterline
- viii. STA 17+00 – Left gutterline
- ix. STA 18+25 – Left gutterline
- x. STA 19+25 to 19+75 – Left and right gutterline
- xi. STA 21+50 – Left gutterline
- xii. STA 22+00 – Right Gutterline
- xiii. STA 23+00 – Left gutterline
- xiv. STA 23+25: Right gutterline

c. Bryce Drive

- i. STA 1+00 – Right gutterline
- ii. STA 3+75 – Left gutterline
- iii. STA 17+00 – Left gutterline
- iv. STA 22+50 – Left gutterline
- v. STA 25+00 – Left gutterline
- vi. STA 26+25 – Left gutterline
- vii. STA 27+00 – Left gutterline
- viii. STA 27+25 – Right gutterline

d. Zion Drive:

- i. STA 3+25 – Right gutterline
- ii. STA 6+75 – Left gutterline
- iii. STA 8+50 – Left and right gutterline

- iv. STA 10+25 – Right gutterline
- v. STA 13+25 – Right gutterline

e. Cascade Drive:

- i. STA 1+25 – Right gutterline
- ii. STA 6+25 – Right gutterline
- iii. STA 10+75 – Left and right gutterline
- iv. STA 20+00 – Right gutterline
- v. STA 21+25 – Right gutterline

- vi. STA 24+00 – Left gutterline
- vii. STA 25+25 – Left and right gutterline

- f. Cumberland Drive:
 - i. STA 4+25 – Left gutterline

- g. Buffalo Drive:
 - i. STA 8+00 to 8+50 – Right gutterline
 - ii. STA 15+50 – Right gutterline (Low Spot)
 - iii. STA 18+50 – Right gutterline
 - iv. STA 24+00 – Left gutterline
 - v. STA 25+50 – Right gutterline

- h. Congaree Drive:
 - i. STA 1+00 – Right gutterline

- i. Acadia Drive:
 - i. STA 4+75 – Right gutterline
 - ii. STA 6+00 – Right gutterline

- j. Saguaro Drive:
 - i. STA 3+50- Left gutterline

The Reeds Apartments:

1. On the northwest side of the proposed parking lot a flat spot is created between the grade callout and the B Inlet #103 grate elevation. The grading shall be revised to eliminate the lot spot.
2. On the north side of the proposed parking lot the 135 contour shall be labeled.
3. On the east side of the proposed parking lot, a low spot is proposed between two BC labels with no drainage structure.
4. At STA 15+25 on Whig Lane the proposed grate elevation of B Inlet # 404F and the proposed BC elevation does not meet the minimum 0.5% grade as per the Residential Site Improvement Standards (RSIS) § 5:21-4.19.

All developments:

1. Access to all basins shall be provided and the grading for the access drive shall not exceed a 12% grade.

2. Proposed slopes shall be provided on all proposed driveways.
3. Depressed curb and aprons shall be provided at all basin access from a proposed roadway.
4. Additional high point elevations shall be provided between inlets in all rear yard swales.
5. There are many contours that do not have an elevation label. An elevation shall be provided for all contours.
6. There are numerous text overwrites on the Grading Plan that make some areas illegible. The text overwrites shall be eliminated.
7. The northwest side of the proposed parking lot a flat spot is created between the grade callout and the B Inlet #103 grate elevation.

UTILITIES:

1. Jasper Drive CDS Profile has a callout for "277 LF 8" PVC @ 0.35%" with no pipe shown on the Road Profiles (SP-44).
2. There are numerous overlaps on the Utility Plans that make the plans illegible in some areas. The text overwrites shall be eliminated.
3. No cleanouts, water valves or utilities valves shall be located within concrete sidewalk, concrete driveways or concrete aprons.
4. Our office defers review of all proposed sanitary sewer improvements and proposed pump stations to New Jersey American Water.
5. Our office defers review of all water infrastructure to New Jersey American Water Company.
6. Utility Note #9 shown on sheet SP-02 shall indicate "a minimum of 18" of clearance. No concrete encasements are permitted within a public right of way.
7. The 'out' invert for Sanitary Manhole 28B is shown higher than the 'in' invert and shall be revised.
8. New Jersey American Water shall be added to the list of utility companies on sheet SP-02.

ROAD PROFILES:

1. The road profiles proposed elevations are incorrectly labeled. The road profiles must be revised.
2. On the Road Profiles (SP-124) at STA 0+75 the pipe label overlaps with the proposed pipe drawing. At STA 14+75 the PR SMH-(11B) label overlaps with the road grade. At STA 33+50 the proposed vertical curve overlaps with Denali Drive Profile. PR SMH-(40B) has an extraneous leader. Type B Inlet #2022 invert is missing an in or out invert.
3. On the Road Profiles (SP-125) at STA 2+25 the PR SMH-(6B) label overlaps with the road grade. At STA 4+75 the PR SMH-(5B) label overlaps with the road grade. At STA 9+75 the pipe label overlaps with the proposed pipe drawing. At STA 14+75 the pipe label overlaps with the proposed pipe drawing. The 34 LF PVC @ 0.39% connecting PR SMH-(61B) and PR SMH-(62B) is missing.
4. On the Road Profiles (SP-126) the vertical curve labels on Zion Drive have been cutoff. At STA 6+50 (Zion Drive) the pipe label overlaps with the proposed pipe drawing. At STA 14+75 (Zion Drive) the vertical curve label overlaps with itself.
5. On the Road Profiles (SP-127) the PR SMH-(64B) label is cutoff by the edge of profile. PR SMH-(72B), PR SMH-(87B) and PR SMH-(101B) have extraneous leaders.
6. On the Road Profiles (SP-128) at STA 0+25 there appears to be an error in the road profile leaving a -6,47598% road grade. On Saguardo Drive a road grade is not labeled. At STA 4+50 the PR SMH-(85B) label overlaps with the road grade. The profile for Cumberland Drive does not extend to STA 13+58 and include PR SMH-(65B).
7. On the Road Profiles (SP-129) at STA 22+75 the PR SMH-(64B) label overlaps with the station label.
8. The grate elevation for Type B Inlet #B-3002 on the Drainage Plan (SP-70) differs from the grate elevation for Type B Inlet #B-3002 on the Storm Sewer Profile (SP-113) and the Road Profiles (SP-125). The plans must be revised to be consistent.
9. On the Road Profile some pipe labels are missing the pipe type callout.
10. On Bryce Drive at Sta 10+00 and STA 25+75 the pipe slope label is 0.00% on the Road Profiles (SP-125). The pipe slope should be revised.

11. On Breton Drive of the Road Profiles (SP-123) at STA 5+75 the pipe label is pointing at what proposed pipe drawing?
12. On Denali Drive of the Road Profiles (SP-124) at STA 18+25 and STA 18+25 to 19+50 the proposed pipes are not labeled.
13. On Bryce Drive of the Road Profiles (SP-125) at STA 13+00 to 13+75 the proposed pipe is not labeled.
14. The following road profiles change in grade exceed the allowable 1%, therefore a vertical curve should be proposed as per Elk Township Ordinance § 96-62I:
 - a. Teton Court:
 - i. STA 3+00
 - ii. STA 6+50
 - b. Denali Drive:
 - i. STA 12+87.34
 - c. Bryce Drive:
 - i. STA 20+00
 - ii. STA 21+25
 - d. Cascade Drive:
 - i. STA 15+75
 - ii. STA 21+25
 - e. Buffalo Drive:
 - i. STA 25+50
15. SP-122 is labeled "SANITARY SEWER PROFILES" on the cover sheet but on SP-122 the drawing title is labeled "FORCE MAIN PROFILE.
16. An extraneous line crosses the bottom of the page on the Sanitary Sewer Profile (SP-42).

BUFFERS/LANDSCAPING/LIGHTING:

In accordance with the redevelopment Plan Section III.H. Landscaping, *"A comprehensive landscape plan which provides for shade, buffering to adjacent uses, planting beds within parking areas, foundation plantings adjunct to buildings, and other landscaping elements designed to complement and enhance the overall site and building design."* Provided.

The Willows at Orchard Glen:

1. The proposed light poles shall be more clearly delineated and labeled on Sheets SP31 through SP-34.

All developments:

1. The applicant has indicated that they will comply with the Tree Removal/Replacement Ordinance. Attached for reference is the approved tree list (Appendix A) per the Elk Township Ordinance. Tree replacement species shall be revised to comply with Appendix A.
2. Landscaping shall be provided along the top of all proposed basins. Any landscaping that appears on a private lot shall provide an easement to the Homeowners Association for maintenance.
3. A landscape management/maintenance specification shall be provided in conjunction with all approved subdivisions as to street trees, common open space, and areas to be dedicated to the public per §96-50.G.(1).
4. It is noted that a copy of the reverse frontage maintenance specifications must be provided to all owners of reverse frontage fee simple lots at time of sale in accordance with §96-50.G.(1).
5. The small dark boxes shown on Sheets SP-93 through SP-100 shall be labeled or removed from the plans.
6. We recommend a series of three (3) foot berms be added to the proposed landscaping along the major road frontages of Whig Lane and Richwood Aura Road.
7. Lighting shall be provided at all common areas, including the clubhouses, pickleball courts, mailbox locations, swimming pools, etc.
8. We recommend removing proposed juniper ground cover and replacing them with alternative native groundcover or low lying evergreen shrubs.
9. A mix of plantings shall be proposed on landscape islands.
10. Solid fencing and or berms as well as additional evergreen trees should be added to the landscaping in the rear property lines of all single family lots backing up to the clubhouse.

SOIL EROSION AND SEDIMENT CONTROL:

1. Our office defers review of Soil Erosion and Sediment Control to the Gloucester County Office of Soil Conservation.

ENVIRONMENTAL IMPACT STATEMENT:

1. The EIS has indicated minimal temporary adverse impact and limited future adverse impacts with proper construction and management of the project.

PHASE I ENVIRONMENTAL SITE ASSESSMENT:

1. The following recommendations have been made in the report. The applicant shall provide testimony regarding the remediation of the issues listed below:
 - There is a capped soil berm on the property should be restricted by Deed Notice and a Soil Remediation Action permit is to be completed.
 - A stormwater pollution prevention plan and environmental permits.
 - Debris on-site should be collected and disposed of in accordance with state and local recommendations.
 - The water well located on the property should be plugged and abandoned in accordance with state and local regulations if future use is not intended.

MAJOR SUBDIVISION COMMENTS:

1. A certification that the new lot number have been assigned by the tax assessor is provided on the plans, any documentation from the tax assessor should be provided to our office for review.
2. In accordance with Title 46 Chapter 26B-2.b.(2) “non-tangent curves and non-radial lines shall be labeled.
3. In accordance with Title 46 Chapter 26B-2.b.(8) “a minimum of three corners distributed around the tract shall indicate the coordinate values.”

4. In accordance with Title 46 Chapter 26B-2.b.(7) “all permanent easements, including sight right easements and utility easements shall be shown and dimensioned.”
5. Legal descriptions for all rights-of-ways and easements shall be submitted to our office for review.
6. Our office recommends the monumentation along Jasper Drive be consistent along the southern right of way line. Please consider eliminating the proposed monumentation located at Block 31.06 Lot 12, Lot 26 and Lot 27 and replacing it with proposed monumentation at the point of curvature and point of tangency at Block 31.02 Lot 14 and Block 31.03 Lot 11 and Lot 24.
7. The Plan shall list a point of beginning for each legal description submitted or to be submitted.
8. Wetlands Area “H” encroaches onto Jasper Drive, any wetlands fill or buffer limits should be shown on the plan and properly labeled and monumented in accordance with the NJDEP permit(s).
9. Many lots are impacted by the Flood Hazard Area line, please list any permits received or fill areas that are proposed. Any deed restricted area should be identified and and legal descriptions provided.
10. All references to the Winslow Township Planning Board should be revised to the Elk Township Planning Board.
11. The house numbers should be coordinated with the post office and emergency services and the plans revised accordingly.
12. Dimensions are recommended for the distance along Yosemite Drive right-of-way for Block 31.01 Lot 24 and Lot 25.
13. A dimension is recommended for the distance along Krueger Drive right-of-way for Block 31.06 Lot 78.
14. Our office recommends the monumentation along Bryce Drive be consistent along the northeasterly right of way line. Please consider eliminating the proposed monumentation located at Block 32.02 Lot 1 and replacing it with proposed monumentation at the point of curvature and point of tangency at Block 31.01 Lot 1 and Lot 50.
15. Our office recommends an additional monument be proposed for the point of tangency along Cumberland Drive at Block 32.12 Lot 6.

16. Block 32.12 is not labeled on the plans.
17. Block 32.04 is incorrectly labeled as Block 32.03 on the plans.
18. Our office recommends an additional monument be proposed for the point of curvature and the point of tangency along Cumberland Drive at Block 32.11 Lot 14.
19. Our office recommends eliminating the proposed monument at the point of curvature along Cumberland Drive at Block 32.08 Lot 33 and replacing it with monuments on the opposite side of the right-of-way for consistency. Monuments should be added to the point of curvature and the point of tangency at Block 32.10 Lot 23.
20. The drainage easement per filed map #4499 within Block 32.01 Lot 1 should be dimensioned and labeled properly.
21. The 10.25 foot wide perpetual road easement within Block 32.01 Lot 1 should be dimensioned and labeled properly.
22. The 10 foot wide drainage easement within Block 32.01 Lot 1 should be dimensioned and labeled properly.
23. The 13.25 foot wide easement dedicated to Gloucester County within Block 32.01 Lot 1 should be dimensioned and labeled properly.
24. There are many text labels for bearings, distances and drainage easements that fall on a match line that should be moved to be legible.
25. The 7.25 foot wide roadway easement within 32.14 Lot 101 (along Ewan-Glassboro Road) should be dimensioned and labeled properly.

All Sections:

1. Lot numbers shall be displayed on all plans.
2. Sheet SP-3 shall be revised to include NJDEP land use element permits.

DETAILS:

1. The overall length of the monument sign is not shown as the same dimension on the front view elevation and the plan view.
2. All water main details shall be approved by New Jersey American Water Company.

3. All pavement striping shall be long lasting epoxy.
4. Black wire mesh shall be added to the Post and Rail Fence Detail and shall be provided around the perimeter of all basins.
5. The “concrete sidewalk detail” shall show a maximum cross slope of 2%.
6. The “post and rail fence” detail shall show a concrete footing for the fence posts.
7. A note shall be added that all crosswalks and stop bars be thermoplastic paint.
8. The “trash enclosure detail” references a reinforced concrete slab detail. That detail shall be added to the plans.

OUTSIDE AGENCY APPROVALS:

This plan set may be subject to the review and approval of the following outside agencies. Evidence of these approvals must be submitted to the Joint Land Use Board and this office prior to the final signature of plans:

1. Gloucester County Planning Board
2. Gloucester County Soil Conservation District
3. Elk Township Fire Official
4. Gloucester County Health Department
5. NJDEP
6. Any other as may be necessary

APPROVAL PROCESS:

Should the Board grant Final Major Subdivision and Final Major Site Plan approval of the proposed application, the following process shall apply prior to any permits being issued by the Township or construction commencing at the site:

9. Provide our office with one (1) full set of revised application documents as well as a digital copy on CD or flash drive. A point by point response letter keyed to this letter shall accompany any revised or additional application materials.
10. Provide our office with all outside agency approvals.
11. Provide any and all NJDEP permits affecting the site.

12. Once final compliance is received from our office the applicant shall provide eight (8) sets of approved plans for endorsement by the Board.
13. Submitting an engineer's estimate of probable costs for all site improvements which shall be utilized in calculating any required performance guarantees and inspection escrows required for the site.
14. Posting of any required guarantee(s).
15. Posting of any required inspection escrow(s).
16. Satisfying any outstanding engineering escrow invoicing.
17. Having a pre-construction meeting with our office.

The applicant shall revise the plans as noted above and per the approving resolution. When revised plans and materials are resubmitted, they are to be accompanied with a point-by-point response keyed to this letter. We reserve the right to make additional comments pending receipt of revised or additional documentation.

Should there be any questions or if additional information is required, please contact the undersigned at (856) 546-8611.

Very truly yours,
BACH ASSOCIATES, PC



Steven M. Bach, PE, RA, PP, CME
President



Candace Kanaplue, PP, AICP
Associate

Cc: Jeffery Cheney, Esq, Board Solicitor
D.R. Horton Inc., NJ, Applicant
AURA Investors, LLC, Owner
Stephen R. Nehmad, Esq., Applicant's Attorney
Joseph D. Hanrahan, PE, Applicant's Engineer
Tiffany A. Morrissey, PP, LLC, Applicant's Planner
Nathan B. Mosley, PE, CME, Applicant's Traffic Engineer
Robert Regazzoni, AIA, NCARB, LEED, AP, Applicant's Architect

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Appendix A

Following is a list of approved replacement trees in the Township of Elk for trees being removed per Chapter XX of the Code of the Township of Elk. The mix, number and location of trees or substitutions shall be reviewed and approved by the Zoning Official. Not all tree species may be appropriate for certain uses, locations, site conditions, and soil types.

Tree Species	Common Name
Acer Rubrum	Red Maple
Acer Negundo	Boxelder
Betula Nigra	River Birch
Carpinus Caroliniana	American Hornbeam
Carya Ovalis	Red Hickory
Cornus Florida	Flowering Dogwood or other dogwoods
Fraxinus Americana	White Ash
Ginkgo Biloba (male)	Ginkgo
Gleditsia Triacanthos Var Inermis	Honey Locust (Thornless)
Liriodendron Styraciflua	Tuliptree
Nyssa Sylvatica	Blackgum
Populus Grandidentata	Bigtooth Aspen
Quercus Alba	White Oak
Quercus Paulustris	Pine Oak
Quercus Rubra	Northern Red Oak
Tilia Cordata	Littleleaf Linden
Ulmus Americana	American Elm Princeton

The planting procedure and season for planting shall follow recommendations from the NJ Shade Tree Federation, "Trees for NJ Streets".

Following is a list of trees that shall not be planted as replacement:

Trees: Sweet Gum
 Bradford Pear