

January 9, 2018
Rev. 1 – January 22, 2018

Keystone Associates
58 Exchange Street
Binghamton, NY 13901

Attn: Ken Ellsworth, P.E.

Re: New Pines Villas, Laurel Avenue,
South Fallsburg

Dear Mr. Ellsworth,

Please see the following related to your review letter of December 5, 2017 regarding the above-noted project. We have reprinted your comments in italics, followed by our corresponding responses. Updated plans and related information as referenced herein are attached.

Title Sheet (Sheet No. T1 of 20)

- 1. Provide the approved Planning Board waiver request for the parking.*

Please refer to parking table notation on this sheet regarding a waiver request for a reduction of site parking from 278 spaces required to 255 spaces provided = 23 spaces less. The applicant will formally request this waiver at the next planning board meeting we will be attending.

- 2. Provide a telephone number for the property owner/developer.*

Refer to applicant's phone number added on sheet #T-1.

- 3. It is our understanding that the aerial survey provided by Robinson has not been accurate for final design in heavy wooded areas. Will additional ground topography survey be completed?*

No additional ground topography will be performed, the RAS topo map had minimal "obscured" areas on this property, such that no additional field surveys are required at this time.

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4. *Provide a wetland delineation report.*

James Bates of Ecological Analysis will be providing the wetlands report for the ACOE Wetlands located at the southerly side of the project site. The ACOE wetlands at the northerly side is on the adjacent property of Fallsburg Estates, LLC.

5. *Coordinate sheet titles with the List of Drawings.*

The updated list of drawings on this sheet conforms with the current plansheets in the set.

6. *Provide SBL numbers.*

SBL number have been added to this sheet at the zoning table.

7. *Show computations for recreation and lot coverage.*

Refer to new computations tables on this sheet for lot coverage and recreation areas.

Preliminary Survey Map (Sheet No. S-1)

1. *Provide a stamped boundary and topographic survey. Include the R.O.W. on Laurel Avenue and provide the 50' R.O.W.*

The project boundary map and topo survey is currently being prepared by project surveyor Anthony Siciliano, L.S. This includes the 50' R.O.W. from the project parcel out to Laurel Avenue.

Overall Site Plan (Sheet No. 1)

1. *Are there development plans for Lot No. 2 (41.0 ac.) that will interface with this development?*

No development plans currently exist for Lot #2 which is the remaining half of the original project site. That parcel has road frontage on NYS Route 42 such that any future development pursued for that property will be accessed from that highway.

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2. *Will the trees in the center be removed similar to Tribeca Estates? If so, please include in SWPPP.*

There is no intent to clear the vegetation inside the homes/road loop by the developer. If the future HOA considers this in the future, it is understood that the SWPPP must be revised to address any changes.

Duplex Development Site Plan (Sheet No. 2)

1. *Is the compactor large enough to support this size development? It also appears to be in a difficult location for access.*

The refuse compactor will have a 30 c.y. capacity and has been relocated to a site adjacent to the caretaker's home so it can be better monitored and accessed by the residents. (See detail on sheet #14 and revised location on Site Plan.)

2. *Multiple site items are located within the 110' undisturbed buffer. What is the intent of the buffer?*

The 110' buffer shown between the project homes #27-46 and the common propertyline lying between this project and the adjacent Tribeca Estates project is a self-imposed separation to remain as undisturbed as possible to provide some privacy to the closest residents in both projects. A small area of guest parking, the sewage pump station and some stormwater facilities encroach into that space. It is not a town zoning imposed buffer.

3. *Sheet No. 1 indicates a two-way road and this sheet indicates one-way. From past comments, it appears the Town would prefer a two-way road.*

All roadways in this development are two-way with a minimum 20' pavement width, as previously requested by the planning board.

Utilities Plan – West (Sheet No. 3)

1. *Provide adequate valve spacing at a maximum spacing of 800 ft.*

The mainline water valves have been adjusted on the Utilities Plan as necessary to provide a maximum 800' spacing.

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- 2. Provide an easement for the water meter.*

We have added a 50' wide x 100' long utility easement off Laurel Avenue for town access to the water meter at that location.

- 3. Provide North arrow.*

North arrow added to this sheet.

Utilities Plan – East (Sheet No. 4)

- 1. Provide pipe lengths and slopes on all sewer and storm lines.*

Refer to sewerline information on all pipe runs between manholes on this sheet.

- 2. Provide sewer and water laterals for each unit, shul, and men's and women's pool.*

4" diameter PVC sewer laterals and ¾" diameter poly. water service lines have been shown to all units on this plan.

- 3. Provide another clean out on sanitary service from the pools.*

A second cleanout was added in the 4" pools backwash pipe, behind the caretaker's home.

- 4. Bends may be required on the water line in lieu of the degree of deflection shown. Please review.*

We have updated and added a total of 8 bend fitting notations on plansheets #3 and 4.

- 5. Provide a match line between sheets. The sheets do not currently overlap.*

The east and west sheets have been adjusted so that they overlap at their borders.

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6. *Provide North arrow.*

A north arrow is shown on this sheet.

Grading and Drainage Plan – West (Sheet No. 5)

1. *The grading indicates runoff from a large drainage area directed along the entrance drive to Laurel Avenue. Can Laurel Avenue accept this flow? A culvert under the entrance is required.*

The entrance drive from Laurel Avenue has been regraded between that road and station 6+00 to eliminate the extensive earthwork along the steep slope that encroached onto the adjoining property on the original plan. This change has resulted in a revised drainage ditch along the entrance road and significantly reduced that drainage area that was previously directed to Laurel Avenue. The majority of the previous plan drainage is currently directed to a new culvert pipe crossing the new road at station 7+50. An 18" diameter culvert pipe has also been added at the Laurel Avenue entrance.

2. *Grading is shown beyond the R.O.W. limit. Who will be responsible for maintaining the slope? Provide agreement from adjacent landowners.*

Refer to response #1 above, no grading disturbances are required on the adjoining property, all will remain within the 50' wide R.O.W.

3. *Runoff is directed toward the court areas, please review.*

In accordance with the regrading and drainage modifications noted in items #1 and 2 above, the old Pine Hotel courts will not be affected by the proposed entrance road.

4. *Provide North arrow.*

Refer to North arrow shown on this sheet.

Grading and Drainage Plan – East (Sheet No. 6)

1. *Provide a FFE on the Community Building/Shul.*

The first floor and basement floor elevations have been added to the community building on this plan.

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2. *Provide spot elevations indicating 2% or less in all directions at accessible spaces.*

Spot elevations have been added at the community building handicap spaces to indicate a 1.5% maximum slope across those spaces.

3. *Please provide swales in-between homes.*

Refer to next item #4.

4. *Verify the ARB elevations correspond with the grading plan.*

The Grading Plan sheet #6 has been updated to indicate finish floor elevations with a maximum foundation reveal of 5', with finish grade elevations shown around the homes. These will comply with the ARB home elevations submitted.

5. *The existing drainage swale north of the Community Building/Shul is not addressed.*

The existing intermittent drainage swale shown on the north side of the community building will be eliminated since it will be intercepted by the new drainage ditch along the westerly side of the roadway opposite homes #65/66. That flow will then be conveyed in a northerly and northeasterly direction away from the project site.

6. *The detention basins do not appear to be constructed in accordance with the design manual. Please provide safety bench, aquatic bench, forebay, etc. Access for pond maintenance must also be provided and identified on the plan set.*

Detention basin details #4/7 and #5/7 on sheet #7 have been updated to indicate design manual details along with access drives.

7. *Minor grading revisions suggested at several bioretention areas. Please provide contour data.*

Bioretention basins #S1, S2, S3, S4, N1, N2 and N3 have been revised to indicate proper grading contours and elevations.

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8. *It does not appear the South Basin provides 12 inches of freeboard from the Top of Berm as the 100 year storm's peak elevation is 1231.59. Please provide.*

Refer to revised detention basin #1, detail #4/7. The new top of berm elevation is 1234.0' such that 2.4' of freeboard is provided for the 100 year storm.

9. *Please confirm in the SWPPP that the runoff directed toward Tribeca Estates meets the SWPPP criteria of Tribeca Estates.*

Stormwater discharges from this project in an easterly direction toward Tribeca Estates includes (1) the south detention basin outfall following several bioretention basins, which discharges to the existing ACOE wetland and drainage ditch flowing southeast to a culvert pipe under the Tribeca entrance drive, which continues in an easterly direction to a culvert under Route 42 and on to the Neversink River; also (2) the north detention basin which discharges to the northeast into an existing drainage swale to the adjacent property to the north, ultimately flowing under Route 42 toward the Neversink River. No project discharges will enter or utilize any Tribeca Estates stormwater practices.

10. *There appears to be a swale, west of Unit No's. 65 and 66 that should be directed to the new roadside swale.*

Refer to the note added opposite units #65/66 requiring the existing swale to be connected to the new roadside ditch. (Also see prior comment #5.)

11. *Provide North arrow.*

North arrow is indicated on plansheet.

Site Plan Details (Sheet No. 7)

1. *As discussed at the work session meeting, a redesign at the intersection at Laurel Avenue and Laurel Park Road needs to be addressed including sight distance.*

Tim Miller Associates has been hired to analyze Laurel Avenue intersection design options, with several options submitted for town staff review. (See copy attached.)

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- 2. Detail 3/7 should show as-built conditions of Tribeca.*

Tribeca Estates as-built mapping has been finalized by the project surveyor and is incorporated into the current project plans.

- 3. Does the easement need to extend past existing manhole No. 9?*

A 20' wide utility easement is shown on detail #3/7 on sheet #7, starting at the common propertyline between New Pines Estates and Tribeca Estates. That easement will continue along the existing sewerline through the Tribeca property to the NYS Route 42 R.O.W. bounds. An Easement Agreement between both projects is being prepared by the project attorney for review by the planning board and their attorney.

- 4. A legal document may be required to allow one development to accept sewage flows from another. Please contact Will Illing and Paula Kay to discuss.*

Refer to response #3 above.

Road Profiles (Sheets No. 8 and 9)

- 1. Provide K and AD values on all PVI points.*

We have added the K and AD values on all vertical curves on these sheets.

- 2. Please review slope to PVI at station 0+36.*

The vertical curve information at station 0+36 has been updated as necessary on this sheet.

Sewerline Profiles (Sheets No. 10 and 11)

- 1. Review the slope between MH7 and MH1.*

The sewerline slope of 5.22% has been checked and found correct.

- 2. We recommend you increase the slope from MH14 to MH15 to the Town's minimum of 0.50%.*

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The invert elevations of manholes #14 and 15 have been adjusted to provide a 0.5% slope.

Road Geometry Plan (Sheet No. 12)

1. *Provide a signage layout and legend. The road speed should be 15 mph based on horizontal alignment.*

The signage and a sign legend table has been added to sheet #12.

Construction Details (Sheet No. 13)

1. *Provide the following details:*
 - a. *Stop sign.*
 - b. *One-Way sign.*
 - c. *No Parking sign.*
 - d. *Grinder.*
 - e. *Sanitary pump station.*
 - f. *Individual unit meters.*
 - g. *Tapping sleeve.*

Sign details have been added on sheet #12. Refer to sheet #20 “Sewage Pump Station & Grinder Manhole”. Refer to sewage pump station #1 details on sheet #20, see meter and Wet Tap Details on sheet #13.

2. *Revise the typical hydrant assembly to note: Fire hydrants are to be ordered yellow from the manufacturer.*

The fire hydrant detail has been updated to note the required yellow color by manufacturer.

3. *The minimum depth of binder course in detail 12/13 should be 2”.*

Detail 12/13 for state road trench crossing has been eliminated since not required.

Construction Details (Sheet No. 14)

1. *Clean up detail 4/14.*

The label text has been corrected in this detail.

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Erosion Control Details (Sheet No. 15)

1. *Provide a construction sequence or reference the SWPPP's construction sequence.*

Refer to "Erosion and Sediment Control" implementation schedule, added to sheet #15.

2. *Provide a construction phasing plan showing less than five (5) acres of disturbance at any one time.*

Refer to new sheet #21, "Construction Phasing Plan".

Lighting Plan (Sheet No. 18)

1. *Another light is needed in the community building parking lot.*

Additional pole light has been added at the community building parking lot.

2. *Adjust the second light pole from Laurel Avenue to avoid more than 1.0 fc over the R.O.W.*

The 2nd pole light in from Laurel Avenue has been relocated to opposite side of road to reduce the light coverage at the R.O.W. bounds.

SWPPP

1. *Show watershed boundaries and Tc paths on Sheet No. PST. A graphic scale should be provided for both the PRE and PST sheets as their scales are incorrect due to print reduction.*

There are not specific Post Tc paths to show on Sheet No. PST. The post time-of-concentration is associated with the use of Green Infrastructure which "Slows down the flow to increase time of concentration and promote infiltration and evapotranspiration" from NYSDEC Stormwater Management Design Manual, Section 3.2.

Graphic scales have been added to the Pre & Post sheets.

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2. *Section I: Refer to January 2015 Design Manual.*

Updated 1st para., page 3 to indicate January 2015 Manual.

3. *Section I: Note that a 5-day NOI submittal is required for electronic applications and 10-day submittals are required for paper applications.*

Completed, 2nd para. on page 3.

4. *The site is primarily composed of Swartswood and Wellsboro/Wurtsboro soils which are "C" type soils yet the site has been modeled as D type, which minimizes the required RRv. Please explain or revise as necessary.*

Swartswood and Wellsboro/Wurtsboro are C/D soils. Per the NRCS the first letter "C" is for drained areas and the second letter "D" is for undrained areas, see soils map in Appendix H. The minimum RRv per the NYS DEC Stormwater manual is:

"RRv (acre-feet) = Reduction of the total WQv by application of green infrastructure techniques and SMPs to replicate pre-development hydrology..."

The pre-development hydrology is undrained, therefore the S used in the RRv calculation was for D soils

If S for D soils is used the minimum required RRv would be 0.21 af.

If S for C soils is used the minimum required RRv would be 0.31 af.

The provided RRv is 0.36 af.

5. *Section I.C. states there is no need for a sensitivity survey yet Figure No. 3 – CRIS Map shows the site is an "open" consultation project. Has written determination been provided? If so, please include.*

The NYS Cultural Resource Information System (CRIS) website indicates that SHPO was contacted in 2014 by a prior owner's consultant or representative, apparently in researching archaeological impacts for a different project. The current project is not in an archeologically sensitive area nor are there any

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historic sites shown on the web map. No written determination has been received to date.

6. *Section I.D.1 areas for Pre-1 and Pre-2 should be changed from 67 acres and 248 acres to 17.3 acres and 7.6 acres, respectively.*

Completed on page 5.

7. *Section I.D.1's DP-2 paragraph indicates the lack of WQv treatment for an 1,150 foot length of road. Please provide the required WQv/RRv treatment via swale or other practice. Since pre conditions exist as compacted roadway, this area could be modeled as "redevelopment" per Chapter 9 of the Design Manual.*

Computations are provided for new drainage area DP-3 along the entrance road. A +900' long dry swale has been added along the entrance road from Laurel Avenue.

8. *In the future, please provide the Summary of Stormwater Hydrology peak flows to two (2) decimal places as provided in the Hydrocad modeling. The Pre-N Tc value should be changed from 32 to 22 cfs as provided in the Hydrology calculations.*

Acknowledged and corrected to 22 cfs on page 11 table.

9. *The SWPPP should reference that no greater than five (5) acres will be disturbed at any one time unless approved by the NYSDEC and appropriate inspection frequencies are maintained. Reference should be made to the Phasing Plan.*

Completed on page 24, added 5 acres maximum disturbance.

10. *Provide Standards and Specifications for all E&SC controls to be utilized on-site.*

Refer to Erosion Control Details sheet #15 and Drainage Details sheet # SW-2.

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11. *The NOI Questions Summary sheet should revise the Q_f from 86 cfs to 84 cfs as provided in the Hydrology calculations.*

Completed, revised Q_f to 84 cfs.

Notice of Intent

1. *Question No. 7 should be yes as the site will require a phasing plan.*

The project's Construction Phasing Plan sheet #21 will show maximum 5 acre construction areas to complete or stabilize prior to expanding to adjacent areas. The overall 74 unit project will be a single phase, completed and occupied during the same period of time, not spread out over multiple development phases. This item has been revised to "yes" to address the construction phasing.

2. *Question No. 4 indicates that 12.0 acres of future impervious area yet a summary of the DP-1 and DP-2 Total WQ_v Worksheets total only 8.75 acres of future impervious areas. Please explain or revise as applicable.*

The 12 acre impervious area was a preliminary estimate, has been corrected to 8.75 acres on current pg. 3 of NOI.

3. *Please verify that Question No. 6 is the NYSDOT and not the Town of Fallsburg.*

Project stormwater flows are conveyed to the existing drainage system along and under NYS Route 42 at the easterly side of the project site, which system is owned and maintained by NYSDOT.

General

1. *Provide a stamped landscaping plan.*

A landscaping plan has been prepared by Landscape Architect Garrett Wasson and included in the current plans as sheets #19a and 19b.

2. *Provide detail and cross sections of the ponds showing construction in accordance with the design manual.*

The ponds are dry detention basins. A detail has been added on sheet SW-2. The only dry detention basin design elements in the NYSDEC Stormwater

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Management Design Manual are in Appendix A: Guidelines for Design of Dams. The proposed detention basins fall below the Dam Permit threshold; therefore, there is not a detail or cross section in accordance with the design manual.

- 3. Provide a detail of the bioretention areas showing appropriate vegetation, underdrains, outlets, etc. as applicable. Some piping appears to enter and exit the Bioretention Areas S1 and N2 immediately. Please explain or verify these areas will provide sufficient treatment as modeled.*

Typical Bioretention details, cross-section and planting plan are provided on the “Drainage Details”, sheet SW-2. The NYSDEC Bioretention Detail has been added to the plan. The plan provides the minimum area and general shape of the bioretention. The final shape will be per actual field conditions. Biobasin underdrain pipes and outlets to “daylight” or catchbasins are also indicated on Sheet #SW-2.

Per the NYSDEC Stormwater Management Design Manual, Appendix H, “The layout of plant material should be flexible, but should follow the general principals designed in Table H.3. The objective is to have a system which resembles a random and natural plant layout, while maintaining optimal conditions for plant establishment and growth.”

Having a typical detail allows for the flexibility of plant selection to correspond plant availability and to the season when the actual planting will occur. The inundation depth is none except during precipitation with 6” of ponding draining out over 48 hours. This is would be considered between Zone 3 (Regularly inundated) and Zone 4 (Periodically inundated). The bioretention would also experience dry conditions. The plants listed on the detail sheet have been selected by landscape/plant specialist for tolerance in these zones and drier conditions and are native plants.

The catch basin outlet structure information has been added to clarify that the outlet will be 6” higher than basin floor elevation and shortcutting will be prevented. No surface water inflow pipes will connect directly to the discharge structures.

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4. *Provide the listed Sheet No. 's 16, 17, 19, 20 and SW-0 through SW-4.*

The plansheets referenced in this comment are included in the current enclosed plansets, see List of Drawings on Title Sheet T-1.

5. *As noted, permission must be granted from the Town to authorize the planned burial of stumps on-site. Such information should be referenced once it is obtained.*

Four separate stump burial areas have been shown on site plan sheet #2, each approximately 50' x 70' in area. These locations will be discussed with the planning board at the next meeting for approval.

6. *Provide channel design and pipe sizing calculations.*

Pending.

7. *Provide adequate contours for convenient verification of elevations.*

2' contours are indicated on the current plans along with appropriate elevations.

8. *Provide earthwork computations.*

Refer to "Earthwork Computations" attached, these indicate approximately 40,000 c.y. of "Cut" and approximately 20,000 c.y. of "Fill", such that there is no need to import additional fill to the site during construction.

9. *Provide an Engineering Report for the water distribution.*

Refer to attached "Town Water District Map, Plan and Report", dated Revision 1 – December 22, 2017, which includes Water Distribution System Evaluation Report in Attachment #6.

10. *Provide technical specifications.*

Refer to enclosed "Technical Specifications", dated December 22, 2017.

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Map, Plan and Engineering Report

1. *Attachment No. 3 was not included in our copy.*

Attachment #3 was the Sewer District Extension Map, sheet #SD-1, which is enclosed in the current report.

2. *Table 4-5 was not attached.*

Please advised where table #4-5 was referenced in the report or plans.

Planning

1. *Please vary in offset and color the duplex units on site according to Architectural Review Board recommendation.*

Acknowledged.

2. *All anticipated sheds, gazebos, and classrooms shall be depicted on initial site plan.*

Proposed gazebos and storage sheds are indicated on the current Site Plan.

3. *Are there plans for a Homeowner's Association (HOA)?*

A homeowners association is being formed for this project, those documents must be approved by the town attorney prior to filing with the State Attorney General's office.

4. *Please provide proof of submission to Fallsburg Fire Commission.*

Refer to attached correspondence to the Fallsburg Fire Department, dated September 8, 2017. Fire Commissioner Pantel did attend the 9/14/17 planning board public hearing to review their requirements and discuss the project plans, which is in the planning board minutes.

5. *The Planning Board would prefer to not have a gate on the emergency access road.*

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The current determination by the board appears to prefer an emergency gate on the emergency access road near the project's loop road, as indicated on the site plan. There has also been discussion about a second gate being constructed at the end of Gamble Road where the current pavement ends.

6. *Send project to New York State Department of Environmental Conservation to screen for endangered species. Additional onsite walkthroughs may be necessary at the discretion of Planning Board members.*

Ecological Analysis of Middletown, NY is performing a Wildlife Study which will include any endangered or threatened species on or near the project site.

Thank you.

Very truly yours,

Glenn L. Smith, P.E.

GLS/mdc
Encl.

cc: Arthur Rosenshein, P.B. Chairman
Mollie Messenger, CEO
Abe Eisner
Jay Zeiger
Will Illing, P.E.