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Mr. Nathaniel N. Strosberg, Town Planner
Planning Department
101 Main Street, 2nd Floor
Ashland, MA 01721

November 19, 2015

TEC Ref. T0608.00

Re: Village of the America's, Phase VII - Peer Review
Ashland, MA

Dear Mr. Strosberg:

On behalf of the Town of Ashland, TEC, Inc. reviewed documents as part of the civil engineering peer review for the proposed Phase VII subdivision, buildings 70-82 on America Boulevard. Ashland Chestnut Realty Trust ("Applicant") submitted the following documents, which TEC reviewed for conformance with the Town of Ashland Zoning Bylaws and Chapters 247 and 343, Stormwater Management of the Code of the Town of Ashland:

- "Village of the Americas" Phase VII Site Plan, Buildings 70 through 82, in Ashland, Massachusetts, Site Plans, prepared by Guerriere & Halnon, Inc., dated September 11, 2015, revised November 2, 2015.
- "Village of the Americas", Phase VII, Revised Stormwater Calculations
- Response to Peer Review comments, prepared by Guerriere & Halnon, Inc., dated November 5, 2015.

Upon review of the latest submission, TEC compiled the following list of comments. For consistency, the outstanding original comment numbers have been retained from the most recent TEC review letter dated September 8, 2015. The Applicants response to comments is shown as **bold**; TEC responses are shown as *italic*.

TEC has compiled the following comments for the Town of Ashland Planning Board's consideration:

1. Waivers are marked as "yes" on the application form; however, no other indication or list was shown on the documents received.

Applicant response: No response in comment letter

TEC: Comment addressed. The Applicant indicated at the public hearing on October 22, 2015 that no waivers were requested.

2. Applicant shall confirm that they are proposing a maximum of three stories for each new building.

Applicant response: No response in comment letter

TEC: Comment addressed. The Applicant indicated at the public hearing on October 22, 2015 that the structures were a maximum of three stories.

3. According to Section 8.6.6.3 of the Zoning Bylaws, a minimum of 10% of housing shall be affordable as defined by the Commonwealth. The applicant shall confirm that 10% of the housing is affordable.

Applicant response: No response in comment letter

TEC: Comment addressed. The Applicant indicated at the public hearing on October 22, 2015 that 10% of housing is affordable.

4. According to Section 8.6.9 of the Zoning Bylaws – Walkways: Pedestrian and/or bicycle lanes shall connect various uses and otherwise provide appropriate circulation or continuity to an existing pedestrian or bicycle circulation system. We recommend that the Planning Board consider enhanced pedestrian and bicycle connectivity for a project of this scale.

Applicant response: No response in comment letter

TEC: Comment Ongoing. The Applicant indicated at the public hearing on October 22, 2015 that they were in coordination with Town Staff for appropriate pedestrian connectivity.

5. According to Section 8.6.15.4 of the Zoning Bylaws - Miscellaneous Standards: Special attention shall be given to location and number of access points to the streets, general interior circulation. There appears to be opportunity within the Phase VII development to better align internal access roads and limit user conflicts. The driveways for buildings 74, 75 do not align to the main access drive to buildings 76, 77. Additionally, in the center of the development, three driveways connect to the main drive, the applicant should consider aligning these drives to limit potential user conflicts. Additionally, there appears to be an opportunity to limit the number of curb cuts to the roadways for buildings 80 and 82 by sharing driveways with the adjacent buildings, similar to the other buildings in the development.

Applicant response: The center three driveway connections have been revised. The curb cut access to buildings 78, 80 & 82 has been eliminated and the plans revised.

TEC: Comment addressed.

6. According to Section 8.6.16, items 3 through 12 of the Zoning Bylaws, various analyses are to be prepared and submitted, which not included in the submittal. Town staff and/or the Planning Board should confirm if this information is required for this Phase of the development or if adequate supporting information has previously been developed under previous phases.

Applicant response: No response in comment letter.

TEC: Comment Ongoing. Pending final determination from Town Staff and Planning Board.



7. The width of the driveways and drive aisles are shown as 18' wide. The Town of Ashland Fire Department should confirm if the width is adequate for emergency vehicle apparatus. Based on recent changes to the National Fire Protection Association (NFPA) Code, Section 18.2, the minimum width of access roads to structures is 20', with certain provisions for the type of automatic sprinkler systems installed to determine the adequate distance from the access road to the structure.

Applicant response: The width of the main access drive has been increased to 20'. Applicant is still waiting final comments from the Fire Department.

TEC: Comment Ongoing: Several driveways remain with a width of 18'. The Town of Ashland Fire Department should confirm if the width is adequate.

8. The Fire Department shall confirm if the hydrant locations are adequate and meet the minimum required distance to the structure. The fire hydrant closest to Building 79 is not connected to an access way.

Applicant response: No response in comment letter.

TEC: Comment Ongoing. It appears that the Applicant is still awaiting final comments from the Fire Department.

9. The Applicant should put a fence around the proposed swimming pool area according the applicable building codes.

Applicant response: No response in comment letter

TEC: Comment Addressed. The Applicant indicated at the public hearing on October 22, 2015 that the pool area was eliminated from this phase of the project. The revised plans have eliminated the pool.

10. The Stormwater Management information submitted does not provide adequate information to fully evaluate compliance with the Massachusetts Stormwater Management Handbook, in accordance with, Code of the Town of Ashland, Chap 247-12.B. The Applicant should submit a stormwater study demonstrating conformance with the 10 standards of the Stormwater Management Handbook and provide water quality and water quantity control measures.

Applicant response: No response

TEC: The Applicant provided recharge calculations and pipe calculations. At the request of the Town, TEC reviewed the previous stormwater management reports and plans prepared for the overall development. Refer to comments below (#22-#24) that address this matter.

11. It appears that the portion of the proposed project (near structures 72 and 73) was not included within the drainage calculations. The Site Plans should be revised to include this area

and provide adequate treatment onsite prior to running off to the adjacent commercial property (Code of the Town of Ashland, Chap 343-8.1.1).

Applicant response: The stormwater analysis has been revised to include all areas of the proposed development. The drainage design has been revised to include additional structures to collect the runoff from these areas.

TEC: The Applicant has revised the drainage calculations to include this area. However, the drainage structures added to the plan include a drain pipe directly through a sewer manhole (SMH 4). The Plans should be revised to show adequate spacing between the drain pipe and SMH 4.

12. It appears that the Applicant is proposing to modify the existing forebay and detention basin to provide additional pretreatment and storage to mitigate the proposed stormwater impacts for the new development. Additional calculations should be provided to show that the forebay is adequately sized and the detention basin provides adequate peak rate attenuation for the design storms. The Applicant is proposing to construct 2H:1V side slopes for the existing detention basins. The Stormwater Management Handbook recommends a maximum slope of 3H:1V to prevent erosion.

Applicant response: No response in comment letter

TEC: Comment Addressed. The Applicant indicated at the public hearing on October 22, 2015 that the pool area was eliminated from this phase of the project, therefore eliminated the need to modify the forebay and detention basin. The revised plans have eliminated work in the forebay and detention basin.

13. The Stormwater Management calculations should be revised to show that post-development groundwater recharge rates will at a minimum remain equal to pre-development site conditions. (Code of the Town of Ashland, Chap 343-8.1.5)

Applicant response: See attached recharge calculations.

TEC: Comment Addressed.

14. EX-DMH #27 has an existing invert out at elevation 227.60. The new proposed invert in is at elevation 227.26. The Applicant should adjust the proposed invert to be higher than the existing invert out.

Applicant response: The elevations should have been reversed. The plans have been corrected.

TEC: Comment addressed.

15. Perimeter erosion control should be placed along the westerly limits of work to prevent sediment from leaving the construction area.

Applicant response: Additional erosion control has been shown in this area.

TEC: Additional perimeter erosion control is shown on the plans; however, the proposed grading limits extend beyond the limit of erosion control. Erosion controls should be placed at the edge of disturbance along this downgradient edge.

16. Based on a field visit, there does not appear to be adequate sight distance for the westbound America Boulevard approach at its intersection with Chestnut Street. There is an existing fence that currently obstructs sight lines to the north. The Applicant should inquire with the property owner to see there is an opportunity to eliminate a portion of the fence to provide adequate sight distance.

Applicant response: No response in comment letter

TEC: Comment Partially Addressed. The Applicant indicated at the public hearing on October 22, 2015 that they would look into modifying the existing fence at this corner. It is TEC's recommendation that this may be considered as a condition of approval.

Additional Revisions by Applicant:

17. The location of the existing stockade fence has been added to the plans, along with proposed additional fencing to surround the remainder of the site.

TEC: The Applicant has added the stockade fence to the plans. The Applicant should clarify if this is a permanent or temporary fence for the duration of construction.

18. The plans now designate the existing gated entrance on Chestnut Street as the project construction entrance. The previously proposed accesses from the existing development roads have been eliminated.

TEC: No Comment.

19. The plans depicting the proposed alterations to the existing stormwater basin and the construction of a swimming pool have been removed from the plan set and the sheet numbering revised.

TEC: No Comment.

Additional TEC Comments based on the Revised Plans

20. The sewer service from Building 73 is shown directly through proposed CB#10. The Plans should be revised to eliminate this conflict.



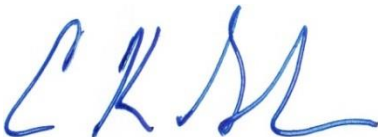
21. The proposed drain pipe in Queen Isabella Way which ties into exist DMH#27 is shown directly thru an existing SMH. The Plans should be revised to eliminate this conflict.

Additional TEC Comments based on review of Overall Stormwater Management Design

22. The Phase VII development appears to be consistent with past Stormwater Management Reports and drainage calculations in regards to total impervious area flowing to the existing forebay and detention basin. However, as the final phases of the project are permitted, these calculations will need to be reviewed for consistency to ensure that the total impervious area is consistent with the initial design intent and forebay and basin sizing.
23. The existing stormwater management system has been in operation since the early phases of the development. The Order of Conditions for the project indicates that there are operations and maintenance forms that are to be maintained and submitted to the Town. To ensure the proper function of the stormwater management system, this documentation should be provided by the Applicant. If maintenance has not recently been performed, TEC recommends that the forebay and detention basin be cleaned/maintained according to the approved plan, as well as upstream catch basins.
24. To achieve Total Suspended Solids (TSS) removal, the Applicant indicates that Street Sweeping is included for a pretreatment Best Management Practice. The MassDEP Stormwater Management Handbook indicates that to obtain 10% TSS removal by way of Street Sweeping, the paved areas should be swept on a monthly average with a high efficiency vacuum sweeper or a weekly average with a rotary broom sweeper.

If you have any questions regarding the peer review, please do not hesitate to contact me at (978) 794-1792. Thank you for your consideration.

Sincerely,
TEC, Inc.
"TheEngineeringCorp.com"



Eric K. Gerade, PE, LEED AP
Senior Civil Engineer