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Memorandum

To: Town of Philipstown Planning Board

From: AKRF, Inc.
Ronald J. Gainer, PE, PLLC, Planning Board Engineer

Date: October 20, 2021

Re: Hudson Valley Shakespeare Festival (HVSF) Project

cc: Steve Gaba, Planning Board Attorney
HVSF Applicant Team

AKRF, Inc. (AKRF) and Ronald J. Gainer, PE, PLLC (RJG) have reviewed the following documentation submitted on October 7, 2021 for the above referenced application:

- Annotated Response to the September 15, 2021 AKRF and RJG comment memorandum on the Part 3 of the Expanded Full Environmental Assessment Form (Part 3 FEAF), prepared by Kellard Sessions Consulting and dated October 7, 2021, including the following Appendices A-K:
 - Appendix A: AKRF/RJG Comment Memorandum dated September 15, 2021
 - Appendix B: Revised FEAF Exhibits 22, 46A, 47, 48, 49, 50, and 63
 - Appendix C: Amended Zoning Petition with Schedule
 - Appendix D: Part 3 FEAF Section III-D, Vegetation and Wildlife & Ecological Assessment
 - Appendix E: Technical Traffic Memorandum prepared by Kimley-Horn
 - Appendix F: Dam Inspection Report
 - Appendix G: Vehicle Movements (Sheet 9 of 9 of the Site Development Plan)
 - Appendix H: Air Quality Analysis and Impact Review
 - Appendix I: Noise Study
 - Appendix J: Phase II Environmental Site Assessment
 - Appendix K: Preliminary Stormwater Pollution Prevention Plan

PROJECT DESCRIPTION

Garrison Properties, LLC and Hudson Valley Shakespeare Festival (HVSF) (the “Applicant”) is seeking approval of several actions (the “Proposed Action”) including a zoning text amendment to the Garrison Golf Club Planned Development District (GCCPDD) and the Rural Conservation (RC) district, as well as subdivision, site plan, and special use permit approval to allow the HVSF to relocate its facility from Boscobel (also in Philipstown), to The Garrison (the “Proposed Project”). HVSF's long-term plan includes the installation of a permanent theater tent and accompanying structures (back of house structure, welcome center, concessions, and restrooms); parking expansion; creation of meadows and gardens; on-site lodging for artists and guests; a year-round theater building; rehearsal barn; and pavilion. The existing restaurant and banquet hall at The Garrison would remain; however, the 18-hole golf course will be eliminated. The application includes the relocation of the Snake Hill Road access driveway, improvements to the intersection of the site driveway and Route 9, and upgrades to the Route 9 and Snake Hill Road intersection. Modifications may be needed to the existing earthen dam located at the existing Snake Hill Road access drive. The Proposed Action also includes a 3-lot subdivision whereby the HVSF use will be contained to one (1) ±97.26 acre lot, a separate ±29.5 acre lot would be developed as a private residence, and a third ±17.28 acre lot will be created and conveyed to a conservation organization, resulting in a total of ±73.83 acres to be permanently preserved; this includes the portion of the existing golf course located on the west side of Snake Hill Road and north side of Philipse Brook Road.

The proposed zoning text amendment to the GGCPDD and RC district requires approval by the Philipstown Town Board. The proposed subdivision, site plan, and special use permit requires approval by the Philipstown Planning Board. The Philipstown Planning Board is serving as Lead Agency for review of the Proposed Action/Proposed Project under the State Environmental Quality Review Act (SEQRA). The Town Board is serving as an Involved Agency under SEQRA and will rely on the Planning Board’s SEQRA findings in their review of the proposed zoning changes. Other local, state, and federal agencies involved in the review of the Proposed Action/Proposed Project include the Town of Philipstown Conservation Board, Putnam County Department of Health, Putnam County Planning Board, New York City Department of Environmental Protection (NYCDEP), New York State Department of Environmental Conservation (NYSDEC), New York State Department of Transportation (NYSDOT), and the United States Army Corps of Engineers (USACOE).

SUMMARY OF PREVIOUS REVIEWS

On July 14, 2021, AKRF and RJG provided a memorandum to the Planning Board summarizing (in tabular format) a review to determine whether the July 2021 version of the Part 3 FEAF analysis generally followed the “Scope Outline” accepted by the Planning Board at the June 17, 2021 meeting, and whether all relevant information was presented and analyzed in a complete and understandable format.

On September 3, 2021, the Applicant submitted a revised Part 3 FEAF addressing the comments provided in the July 14, 2021 memorandum. Additional studies and correspondence completed since the July 2021 submission were also provided, including a noise study, correspondence with SHPO on historic resources, Phase I/II environmental site assessments, etc.

The July 14, 2021 AKRF/RJG memorandum also noted that substantive comments on the accuracy and responsiveness of the materials presented in the July version of Part 3 FEAF and in the technical studies to the requirements set forth in the Scope Outline will be provided in a subsequent memorandum.

On September 15, 2021, AKRF and RJG provided a memorandum containing the initial substantive review of the September 2021 (revised) version of the Part 3 FEAF narrative report, exhibits, and appendices. In addition, at the September 16, 2021 Planning Board meeting, AKRF and RJG verbally outlined those comments believed to be most critical to informing the Planning Board’s determination of impact significance.

COMMENTS ON APPLICANT'S OCTOBER 7, 2021 SUBMISSION

All 93 comments from the September 15, 2021 memorandum are included below in *italicized* text. New or follow-up comments, based on AKRF and RJG's review of the Applicant's Annotated Response to Comments submission dated October 7, 2021, are shown in **bold** text.

FEAF PART 3**II. Project Summary**

1. *Page 4, under Hudson Valley Shakespeare Festival / Project Description – Within these introductory sections, consider summarizing some operational details of HVSF's existing operation at Boscobel and how they would compare to those at The Garrison. These details are provided on page 12 "HVSF Use and Operations" including the duration of the outdoor (and future indoor performance seasons), the number of seats the existing Boscobel tent compared to the new tent proposed at The Garrison, etc.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

2. *Page 6, under Project Phasing – While the Applicant has repeatedly indicated that the future date by which the complete master plan for the Main Parcel would be operational is difficult to estimate at this time, AKRF agrees with the Applicant's use of a 2027 "build year" for purposes of SEQRA, as it represents a conservative approach for technical areas such as traffic impacts.*

Comment noted by the Applicant. No response required.

3. *Page 6, under Project Phasing, Phase 1 – Based on information provided by the Applicant in previous Planning Board submissions, as well as the HVSF website and newspaper articles, it seems more appropriate to indicate that Phase 1 will be completed by 2024, as opposed to in 2024. This distinction is important because, based on the HVSF website, the Applicant plans to move the existing seasonal tent structure from Boscobel to The Garrison and construct the new parking lot for the first theatrical season (planned for summer 2022). Would construction of the new, permanent tent (with back of house structure) then commence and be complete for the following season? Where within the 2022-2024 timeframe would the intersection and signal improvements at Route 9/Snake Hill Road be completed? These details are not entirely clear in the current narrative. The 2022-2024 timeline for Phase 1 should be broken down further to indicate what components are currently planned (by year, if known) for what has been described by the Applicant as the most certain/concrete near-term buildout.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

III-A. Land Use, Zoning, and Layout

4. *Pages 10 and 11, under Existing Zoning, Scenic Protection Overlay District – Town Code Sections 175-15F through 15K are referenced, which correspond to standards applicable to site plan and special permit approvals sought in the Scenic Protection Overlay District. However, the Applicant does not provide any discussion of how this application complies with each of the standards. An explanation similar to what is provided for the Open Space Conservation and Aquifer Overlays should be provided.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

5. *Page 12, under Existing Zoning, Aquifer Overlay District – The first sentence of the third paragraph in this section should be revised to read "The uses to be facilitated by the proposed action do not qualify as prohibited or special permit uses as defined in Section 175-16E of the Zoning Code."*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

6. *Page 12, under HVSF Use and Operations – Based on the description provided for the outdoor and indoor performance seasons, is it fair to assume that peak operations of the fully built master plan would occur for 9 months out of the year (March-October, plus December holiday programming)? Or is it more accurate to assume a year-round, all-season operation due to the planned hotel and additional dining options? The anticipated seasonal fluctuations in operations on the property should be clearly explained, and compared with what is experienced with the current golf course and banquet facility operations (since golf is seasonally dependent whereas banquets are not).*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

7. *Page 13, under HVSF Use and Operations – There seems to be some public concern about the nature of the lodging and potential demand on community services. The two paragraphs describing the artist and guest lodging operations should specifically indicate if those artists residing on-site for several months would be joined by family members and/or children attending local schools.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

8. *Page 14, under Proposed Zoning – The Applicant's petition to the Town Board to amend the underlying RC and GGCPDD should be included as part of Appendix C. If the Applicant has drafted a project-specific schedule of bulk and dimensional standards to be incorporated into the amended PDD, it should be attached to the petition, so the Planning Board can fully understand the Town Board's role in the zoning amendments.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

9. *Page 15, under Consistency with the Comprehensive Plan: The explanation of consistency provided in 1(b) and 1(c) could also acknowledge that in addition to a residential development permitted under the RC zoning, the property has an approved but unbuilt PDD that pre-dates the 2006 Comprehensive Plan.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

10. *Page 16, under Consistency with the Comprehensive Plan: The explanation of consistency provided in 3(a) could also acknowledge that the HVSF has been a fixture in the Philipstown community for 33 years and the goals of the proposed action include providing a permanent home for the performing arts venue, centralize operations, and provide additional local jobs.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

11. *Pages 21-22, under Description of Proposed Buildings, Artist/Guest Lodging – The description of the artist/guest lodging facilities states that "these units would be utilized during the theatrical season by artists engaged by the HVSF as is a requirement of the union. During months that are not part of the theatrical season, the rooms would be rented to the public and visitors." It is not clear if this arrangement would still apply following completion of the year-round theater, which extends the theatrical season.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

III-B Geology and Soils

12. *No additional comments. Refer to comments on Construction and Vegetation/Wildlife.*

Comment noted by the Applicant.

III-C Topography and Slopes

13. *No additional comments.*

Comment noted by the Applicant.

III-D Vegetation and Wildlife

14. *Page 41, in the first and second sentences of the first paragraph, the use of “RES” as an acronym for “Applied Ecological Services” should be changed to “AES”. This correction should also be made on pages 45, 46, 47 and 50.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

15. *Pages 41 and 42 Table 11: A description of the ecological values assigned to the Management Units and a description of how these values were assigned should be provided in the text of the EAF Part 3.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable. However, reference to “Table 1” in the paragraph cited below should be changed to “Table 11” as follows:

“No identified onsite ecological communities are recognized federally or by the state of New York as rare or imperiled. Dominant forest types are iconic to the Hudson Highlands region, such as chestnut oak ridge forest and mesic sloped oak-tulip tree forest. Ecological values in Table 11 are based on RES’s professional opinion and are derived from a combination of sensitivity, average diversity of plants and animals supported, and how common (or uncommon) the habitat is in New York.”

16. *Page 45, under Proposed Disturbance: The total land disturbance acreage should be consistent; it is currently represented as 49.5 acre and 45.9 acres.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

17. *Page 46, under Proposed Disturbance: Language in the fourth paragraph on this page is taken from a previous version of the Appendix D AES report. This should be corrected and the remainder of the Vegetation and Wildlife section should be checked for consistency with the revised Appendix D AES Report.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

18. *Page 46, under Proposed Disturbance: Language should be added to document any habitat fragmentation that may occur.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

19. *Page 49, under Indiana Bat: In the first sentence of the second paragraph, the word “maternity” should be inserted before “...colonies or roosting individuals.”*

This comment was not addressed.

20. *Page 50, under Indiana Bat: The last sentence in the last paragraph of this section located at the top of page 50 should be rewritten. This sentence currently reads the applicant will observe tree cutting during the tree removal window and not the tree clearing window restrictions will be observed/complied with.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

21. *Page 50, under Bog Turtle: The words “moot issue” at the end of the second to last sentence in the first paragraph should be removed and language indicating whether the proposed project development will impact this species should be added.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

22. *Page 50, under Bog Turtle: The last sentence of the first paragraph should be rewritten; it is awkward.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

23. *Page 50, under Bog Turtle: According to the USFWS, streams that connect wetlands with bog turtle habitat serve as corridors for their travel. This section of the EAF Part 3 should include discussion of whether the small tussock sedge dominated seepage wetland noted is connected by a stream to another wetland(s) displaying potential bog turtle habitat. If there is a surface water connection from the noted wetland to another wetland(s) with suitable bog turtle habitat, then discussion of the series of wetlands should be discussed and potential impacts identified.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

24. *Page 51, under USFWS Birds of Concern: The word “significantly” should be removed the last sentence of the first paragraph located at the top of page 51. The word “greatly” should be removed from this sentence, it could be replaced with “generally” – “This habitat type is greatly missing from most landscapes in the region.”*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

25. *Appendix D: A previous version of this document included restoration opportunities for each MU. The applicant should provide the reasoning for why this information was removed.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

26. *Appendix D: Tables titled “Plant species observed in or at margin of pond the Garrison on August 18, 2021” and “Observed Plant Species by management Unit at The Garrison/Future HVSF Site and Surrounding Parcels” are both labelled as “Table 4”. The latter should be labelled as “Table 6”. The new “Table 6, Observed Plant Species by management Unit at The Garrison/Future HVSF Site and Surrounding Parcels” should referenced in the text of the report.*

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

27. *Appendix D: Similar to “Table 8. Potentially Present (but not confirmed) Reptiles and Amphibians at the Garrison in Addition to Confirmed Species Listed Above” tables listing potentially present birds and mammals should be added to this Appendix. These lists should be based on species distribution and habitat type preferences compared with the project location and habitats observed on the project site respectively.*

With the inclusion of Appendix 1, eBird Field Checklists, the Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

However, on Page 47 of the Part 3 FEAF, for ease of reference and to better understand the dozens of additional bird species that may be present on the project site, language should be added to direct the reader to Appendix 1, eBird Field Checklists, of Appendix D.

28. *Appendix D: On page 28 in the first sentence of the first full paragraph, reference is made to “Appendix I”. This appendix is not included with the report.*

With the inclusion of Appendix 1, eBird Field Checklists, the Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

III-E Wetlands and Watercourses

29. Page 53, under III-E Wetlands and Watercourse: *The results of the wetland boundary line inspection performed by Mr., Garfinkle should be included at the end of the first paragraph.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

30. Page 53, under 2. Forested Wetland A: *The surficial area of Wetland A should be included.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

31. Page 53, under 3. Forested Wetland B: *The surficial area of the portion of Wetland B that is present on the project site should be included. On Exhibit 22, the Wetland B area should be highlighted using the same blue as is used to depict Wetlands A and D.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

32. Page 54, under 4. Small Reed Marsh: *On Exhibit 22, the Wetland C area should be highlighted using the same blue as is used to depict Wetlands A and D.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

33. Page 54, under 5. Perennial stream (Tributary to Philipse Brook): *The approximate linear footage of the portion of the stream that flows across the project site should be included. It should be noted that the southern one third of the stream was not delineated in the field.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

34. Exhibit 22: *There is wetland flagging (F1 to F34) depicted on Exhibit 22. A brief description of this area should be provided similar to intermittent stream E 1 to E19.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

35. Page 54, under Wetland Jurisdiction: *A brief discussion of how federal wetland jurisdiction will be established should be included in this section.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

36. Page 54, under Wetland Jurisdiction: *Indication of the specific sections and acts the federal permits would be sought should be included in this section.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

37. Page 55, under Wetland and Wetland Buffer Disturbance: *The first sentence of the first paragraph provides wetland and buffer disturbance as a percent of the total project area. This section should also include the wetland and buffer disturbance as a percent of the total wetland and buffer are present on the project site.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

38. *Page 55, under Wetland and Wetland Buffer Disturbance: The future bridge design should not impact the bed or banks of the stream and provide sufficient area/volume to convey the appropriate flood volumes. Reference to the mitigation section on page 56 where additional bridge design information is provided could be made here.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

39. *Page 55, under Wetland and Wetland Buffer Disturbance: If possible to determine, both permanent and temporary/construction related wetland and buffer impacts should be provided in this section.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

40. *Page 56, under Existing Dam: It is noted that this section discusses an assessment performed on the existing dam, however, the document does not include the technical report within an appendix so that its findings could be reviewed. This evaluation was previously requested and should be provided.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

III-F Stormwater Management

41. *Section III-F includes several references to a SWPPP which is intended to document the adequacy of the stormwater management facilities to be developed on site to mitigate the impacts of the overall site improvements which are planned. Proposed stormwater controls are generically illustrated on the large-scale plan of the "Overall Site Plan" (Sheet 6 of 9), while an abbreviated "preliminary" SWPPP is included as Appendix K. While it was acknowledged that the development of a full-scale SWPPP would not be necessary until later in the design process, the document provided fails to confirm the general locations and sizing of these necessary facilities which is required to evaluate the adequacy of the stormwater controls planned for the site. It is suggested that the SWPPP be expanded to the extent necessary to clarify the general locations and sizing of these facilities so that it can be confirmed that sufficient areas are available for them.*

This comment has not yet been addressed. The revised SWPPP included as part of the October 7, 2021 submission still does not provide sufficient information to establish that the layout and sizing of the stormwater practices proposed will sufficiently mitigate the project improvements planned for the site. However, the Planning Board Engineer been working directly with the Applicant's consultant to resolve this issue. It is expected that revised stormwater calculations to be submitted will adequately resolve this concern.

IV-G Utilities (Water Supply, Sanitary Sewer, Energy)

42. *Page 65, Putnam County Department of Health Compliance: Address whether a pumping test will be required to meet Putnam County Department of Health regulations?*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

43. *Page 66, Groundwater Budget: Relative to assessing impacts, please confirm that testing and permitting will include a pumping test (as previously discussed) in accordance with State standards. A water budget is a qualitative review completed as a first step to determine the feasibility of a water withdrawal plan. The quantitative confirmation is confirmed through testing and data collection. Testing is necessary due to the dynamic of the bedrock fracture system relative to the overburden area receiving the recharging groundwater, the previous documented off-site impacts from water usage, the increase in demand from the existing uses, and the fact that new wells will be drilled and installed, which can present different interactions with the bedrock fracture system.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

44. *Page 67, Natural Recharge: The text considers that upland areas would contribute to groundwater recharge which could be available to further support water withdrawals from the proposed HVSF on-site wells. It would be beneficial if a figure were included to illustrate how this upland contribution was established.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

45. *Page 71, Mitigation: See above. Quantitative testing is considered as the means to determine whether mitigation measures are needed for the new well system. If the County will require this as part of permitting, it should be noted as a measure already built-in to the project's development.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV-H Traffic, Transportation, and Parking – Appendix F (Kimley-Horn Traffic Impact Study)

46. *The following comments are on the Traffic Impact Study (TIS) included as Appendix F. Where applicable, the FEAF Part 3 report should be revised to reflect any changes made to the TIS as a result of these comments.*

Comment noted by the Applicant.

47. *The Applicant should include the Town on all correspondence with NYSDOT and provide the Town with meeting minutes documenting the points discussed and the decisions made resulting from coordination with the State. The Town should be copied on all correspondence and design drawings for the proposed new traffic signal at Route 9 and Snake Hill Road. In addition, the Town should be invited to all meetings that take place with NYSDOT regarding the signal.*

Comment partially addressed. It is still not clear if meeting minutes were ever provided to the Town, and this should be documented. In addition, the correspondence provided in Appendix E only references the Synchro/HCM6 issue and does not cover any other issues.

48. *The queuing analysis only presents length of queues and does not compare queues against available storage capacities.*

The revisions made to the TIS in response to this comment are acceptable.

49. *The auto turn analysis does not identify the type of vehicle modeled (e.g., WB-40) and the turning paths modeled do not cover all entry and exit maneuvers at each driveway. In addition, the truck modeled appears to enter the Route 9 Site Driveway and traverse portions of the internal roadways in the opposing lane of travel. The analysis did not include modeling of a fire truck.*

The revisions made to the TIS partially address this comment. The turning maneuvers at Location 7 from the driveway onto Snake Hill Road (see attachment, highlighted in red) are incomplete and need to be shown.

50. *Where vegetation clearing is required to achieve acceptable ISD or SSD, please provide more specifics regarding the location(s) where vegetation removal will be required.*

The revisions made to the TIS partially address this comment. If the referenced area is the area marked as "Departure Sight Triangle" on Sheet 9 of 9 of the Site Development Plans, "Vehicle Movements", it should be clearly labeled as "Area of Vegetation Removal Required."

51. *Provide backup that shows the source(s) of the Peak Hour Factors, % Heavy Vehicles, and lane widths utilized in the Synchro analysis. Provide justification for the use of '0%' as the % Heavy Vehicles for those movements coded as 0%.*

The revisions made to the TIS in response to this comment are acceptable.

52. *Please expand the summary of the crash data to provide the number of crashes at each location on an annual basis and identify any High Accident Locations (HALs) from the crash data based on the number of crashes per year.*

The revisions made to the TIS in response to this comment are acceptable.

53. *The volume figures provided demonstrate how the volumes were developed. However, the text should note that the project generated trip figures also take into account the reduction in trips from the removal of the golf course.*

The revisions made to the TIS in response to this comment are acceptable.

54. *Please provide documentation from NYSDOT stating that the reporting of the Synchro/Percentile Delay results (rather than the HCM6 results) for the unsignalized intersections is acceptable to NYSDOT for this study.*

Since this issuance of the September 15, 2021 memorandum to the Planning Board, AKRF has reached out to NYSDOT on behalf of the Town regarding this issue and they have since responded (see attached email correspondence). NYSDOT is in agreement with AKRF that the HCM6 results should be presented for this study. Based on preliminary review by AKRF of the HCM6 output data within Synchro, utilizing the HCM6 methodology for the reporting of results may potentially identify new traffic impacts not currently disclosed in the TIS.

IV-H Traffic, Transportation, and Parking (Appendix H – Air Quality Report)

55. *The following comments are on the Air Quality Report included as Appendix H. Where applicable, the FEAF Part 3 report should be revised to reflect the changes made to Appendix H as a result of these comments.*

Comment noted by the Applicant.

56. *Page 4, 4th paragraph under Proposed Action: The text references a 72-seat restaurant for the 2005 PDD, which should read as “97-seat restaurant with 25 bar seats.”*

The revisions made to the Part 3 FEAF and Appendix H (Air Quality Report) in response to this comment are acceptable.

57. *Page 5, under Existing Conditions: In this section and throughout the report, please replace “State Ambient Air Quality Standards (SAAQS)” with “New York State Ambient Air Quality Standards (NYAAQS).”*

The revisions made to the Part 3 FEAF and Appendix H (Air Quality Report) in response to this comment are acceptable.

58. *Page 5, under Existing Conditions: Please reference the highest one-hour value for CO at monitoring station 36-005-0133 from 2019 rather than 2020. In our experience with several reviewing agencies, they are requesting 2019 rather than 2020 to capture more typical pre-COVID conditions.*

Comment partially addressed. In reviewing the revised Appendix H report, we recommend the 2nd paragraph at the top of page 6 of the report be revised as follows, in order to specify that the 1-hour NO₂ background concentrations cited represent a three year average:

“The one-hour average of the 98th percentile over the last 3 years (2018-2020) for NO₂ is 50.5 ppb, with the highest value in 2020 recording at 60.2 ppb. The one-hour average for the 98th percentile averaged over 2017-2019 is 53.4 ppb, with the highest value in 2019 recording at 61.4 ppb. Thus, values were below the one-hour NO₂ standard for the average of 98th percentile for last 3 years not to exceed 75 ppb.”

59. Page 8, under Proposed Action Analysis, Mobile Screening: Please remove quotes from “air quality screening” in the first paragraph.

The revisions made to Appendix H (Air Quality Report) in response to this comment are acceptable.

60. Page 8, under Proposed Action Analysis, Mobile Screening: Please note that the LOS Screening applies to the Build condition. Please revise the first two sentences of the 2nd paragraph to read as follows: “Per TEM I-1 Level of Service (LOS) Screening, intersections potentially impacted by the Project must be screened for overall Build Level of Service (LOS). If the LOS is A, B, or C, no further analyses are required. If any signalized intersections in the Build condition have LOS predicted D, E, or F, significant vehicle queuing may occur and further analysis may be required for up to the three worst intersections.”

The revisions made to Appendix H (Air Quality Report) in response to this comment are acceptable. The footnote provided at the bottom of page 11 of the revised Appendix H should remain a footnote on page 11, but also added as the last sentence of the first paragraph on page 9.

61. Page 8, under Proposed Action Analysis, Mobile Screening: Regarding sensitive receptors, have sidewalk receptors (and/or other areas with continuous public access) been considered (if applicable)?

The response provided by the Applicant to address this comment is acceptable.

62. Page 13, under Proposed Action Analysis, Build Conditions (2027), Friday PM Peak Scenario: According to TEM procedures, if intersections and roadways impacted by the project are projected to operate with Build LOS D, E, or F, the Capture Criteria are applied to determine if an air quality analysis may be warranted. Please include a Capture Criteria Screening for these locations with Build LOS D or worse. This same comment applies to the Saturday Midday and PM Peak Scenarios on pages 14 and 15.

The response provided by the Applicant, and the revisions made to Appendix H (Air Quality Report) to address this comment are acceptable. It should be noted that on page 13 and 14 of the revised Appendix H, under the “Saturday PM Peak Scenario” on each page (for each of the two No Build Conditions), the first sentence in each of the first two paragraphs of each section describes it as the “existing condition” which appears to be a typo.

63. Page 13, under Proposed Action Analysis, Build Conditions (2027), Friday PM Peak Scenario: Where the proposed traffic signal is discussed (last paragraph on page 13), the addition of queuing lanes would meet one of the Capture Criteria, and the Volume Threshold Screening should be applied per TEM guidance.

The response provided by the Applicant, and the revisions made to Appendix H (Air Quality Report) to address this comment are acceptable.

64. Page 16, under Air Quality Impacts, Construction: Please consider replacing the reference to 40 CFR 92.123(b)(ii) with 40 CFR 93.123(c)(5) which states: “CO, PM10, and PM2.5 hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established “Guideline” methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.” Please also describe the construction duration to address TEM’s consideration for construction diversions or detours lasting 2 years or more.

The revisions made to Appendix H (Air Quality Report) in response to this comment are acceptable.

IV- I Visual Resources and Community Character

65. Page 79, under *Proposed Condition*: The text in the fourth paragraph states that the viewshed studies include both a leaf-on and leaf-off analysis. However, upon review of the referenced exhibits, this only appears to have been done for the distant views 1-5. Simulations of proposed structures were also incorporated into views 1-5 when applicable (Exhibit 45 for example). Views 6-9, which are all from Route 9, do not appear to provide this same methodology. Instead, leaf-on photos, many of which are repeated from the existing conditions photographs earlier in the document, are shown alongside line-of-sight diagrams. While the line-of-sight diagrams are helpful, the analysis would be stronger if the close-in view analysis (Exhibits 47-50) included leaf-off views rather than (or in addition to) leaf-on. It is not clear whether the sections showing visible vs. screened area on the bottom of these exhibits are meant to conclude that the proposed buildings would be screened from views by the trees at the perimeter of the site only during leaf-on season, or during leaf-off season as well - this should be confirmed.

The Applicant's proposed revisions to the Part 3 FEAF and Exhibits in response to this comment are acceptable.

66. Page 82, under *Mitigation*: Pending the outcome of the refined analyses requested in the preceding comment, the Applicant's conclusions appear to state that there would be no significant adverse visual impacts warranting mitigation, since as part of the project the existing perimeter trees providing screening would be maintained (and in some cases enhanced) by the proposed landscaping plan to the maximum extent practicable. Elements of the landscaping plan (types/heights of new trees to be planted, locations and heights of proposed berms, etc.) should be listed as bullet points.

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV-J Noise

67. Page 84: With regard to the six locations where noise levels were measured, the specific locations of receivers are not described as specified in section J(b) of the Scope Outline. Please consider adding the bullet point descriptions from page 9 of Appendix I.

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

68. Page 85, first paragraph: The duration of the noise measurements should be stated. Are these 1-hour Leq levels, or some other duration? This information is also not presented in Appendix I.

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

69. Page 86: first paragraph: Explanation of why Receptor 3 is the "most critical" is not provided and would be helpful. Is this because it is quietest? Is it also closer to any major noise sources than the other receivers?

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

70. Page 89, under *Noise Limits as Determined by Local Ordinance*: According to Appendix I, the source levels for each possible event scenario were modeled based on measurements taken at Boscobel and The Garrison in 2019. The source levels used in the modeling are shown in section 6.3, but the details/specifics of these measurements are not included. Were they previously presented in a public document that is being referenced? If not, more information on these source measurements should be added to Appendix I, including the duration of the measurements, the activities occurring during each, the location of the microphone relative to the source, etc. At present, it is impossible to evaluate the applicability of these source levels.

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

71. *Page 89, under Noise Limits as Determined by Local Ordinance: Regarding the 5.3 dB increase at Receiver 3, a 5 dB increase in Leq is typically referred to as "readily noticeable;" is there a basis for why "slightly exceeded" was used in this case? It is recommended "slightly" be removed.*

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

72. *Page 90, under Noise Limits as Determined by Local Ordinance: Where mitigation for Receiver 3 is first mentioned, the text states that "the Acoustical Study evaluated one of these mitigation options." However, the specific option is not described. This information is also not presented in Appendix I.*

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

73. *Page 91, under Increased Noise from Traffic: The traffic noise analysis in Appendix I appears to assume no change in vehicle mix from the No Build to Build conditions, i.e., that the Proposed Action would not tend to generate a greater proportion of trucks than the existing condition. This seems to be a sound assumption, but it would be best to state it explicitly.*

The Applicant's proposed revisions to the Part 3 FEAF and Appendix I in response to this comment are acceptable.

IV-K Cultural Resources

74. *Page 92: In the time since the last submission of the Part 3 FEAF, the SHPO has provided the Applicant a No Effect letter after reviewing the Applicant's justification for why the site is not archaeologically sensitive. The SHPO's August 2021 letter also covers architectural resources, including those structures cited by the Applicant on page 92. The Applicant has completed a consultation process with the SHPO, as required by the Part 3 FEAF scope outline, and there are no significant adverse impacts anticipated.*

Comment noted by the Applicant.

75. *Page 92: Given the above-referenced conclusion by the SHPO, that last sentence of the last paragraph on page 92 (referencing the Applicant's opinion) should be removed since it is inconsequential.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV-L Open Spaces and Recreation

76. *The Part 2 FEAF makes reference to the project site's listing in the Town's open space index, but there is no further discussion of the open space index in the Part 3 FEAF. The Garrison Golf Club is listed #10 out of 27 sites in the open space index document. According to the document, these sites are "listed according to the priority of acquisition or preservation." While public use of the property for certain passive recreation has historically occurred, and would continue to be permitted with the HVSF project, the project site would remain a privately owned property.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

77. *Page 95, last paragraph: As a suggestion, consider replacing the Applicant's opinion that "the project will result in a positive impact," with "...the project would not result in any significant adverse impacts to open space and recreation and no additional mitigation measures are required."*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV-M Construction

78. Page 96, Phasing: Refer to the comments above under “Project Summary” regarding the phasing plan and the build years identified.

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

79. Page 96, Phasing: The scope outline calls for the assessment of construction to identify the anticipated “intensity and duration of impacts through the buildout of the proposed action.” The 2024 completion year for the initial phase provides some detail (although there are questions left to address), and the Town Code requirements for hours of construction are identified. However, estimates on the anticipated construction duration of the components making up the subsequent phases (5–15-year window) are left vague. General estimates could be provided for some of the major components, such as the year-round theater, hotel, artist lodging and traffic signal. For example, how many months of construction are anticipated to construct the theater building, hotel, and artist lodging based on their size and type of construction involved? A general estimate for how long a traffic signal project typically takes from start to finish would also be helpful to include.

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

80. Page 98, under Construction, Noise: The Applicant states the following: “Given the applicant’s phasing plan, size of the subject property, its variable terrain, and the distance between construction areas and surrounding residences and other noise receptors, noise levels during and after construction would be significantly attenuated by the time they are experienced by the receivers.” It would be helpful if approximate distances and variations in terrain were quantified between the limits of disturbance/construction area and the sensitive receptors referenced (homes on north side of Snake Hill Road and east side of Route 9).

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV- N Community Services and Economy

81. Page 100, under Community Services – Please include an introductory statement that indicates which service providers (from the list/map already provided) currently serve the Boscobel HVSF venue, and that based on the correspondence and feedback documented in this section, the incremental demand from the operations proposed at The Garrison are not expected to be a concern.

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

82. Pages 103 and 104, Tables 25 and 26 – In Tables 25 and 26, please provide totals for each taxing jurisdiction column, in addition to the total provided for all taxing jurisdictions.

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

83. Pages 103 and 104, Tables 25 and 26 - Either as part of Tables 25 and 26, in a separate new table, and/or in text, please provide the total budgets and/or revenues generated through property taxes for the affected taxing jurisdiction. This will help to show that the estimated reductions in tax revenue represent a very small percentage of overall budget/tax revenues for the affected taxing jurisdictions. For example, the proposed 2020-2021 school budget was ~\$11.4 million, meaning that the ~\$45,000 reduction in tax revenue represents less than one-half of one percent of the total budget.

The Applicant’s proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

84. *Pages 103 and 104, Tables 25 and 26 - Either as part of Tables 25 and 26, in separate new table, and/or in footnote(s) to Table(s), please provide tax rate assumptions for each taxing jurisdiction.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

85. *Page 104, Table 26 – As a footnote for Table 26 and/or in the text, please provide existing tax parcel information for the project components to be separated through proposed subdivision, so that a reader can understand, for example, which existing tax parcels identified in Table 25 comprise the proposed HVSF Hospitality portion of the project.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

86. *Page 104, Table 26 - Tax Parcel 60.-1-64 is presented in Table 26 but does not appear in Table 25, or any other section of the FEAF Part 3. If this is a typo and is meant to represent 60.-1-63, please revise accordingly.*

The Applicant's response provided to address this comment is acceptable.

87. *Page 103 and 104, Table 26 - Please provide a brief explanation of the methodology used to estimate the assessed value of the private residence (\$1,338,000).*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

88. *Page 103, 2nd paragraph - The text states "The applicant's team would like the opportunity to review this analysis and the assumptions made with the Town Tax Assessor to confirm these findings." Since it is typically not common to involve the Assessor in SEQRA-level analyses, it is recommended that the Applicant use the following disclaimer prior to presenting the preliminary findings: "Estimated tax payments are for the purpose of environmental review and are not binding. Actual tax levy would be determined by the Town Tax Assessor at a later date."*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

IV-O Human Health/Site Assessment

89. *Phase I and II Methodology: Both the Phase I and Phase II reports were provided as appendices. The Phase II report indicated that the investigation was completed in accordance with the agreed upon scope of work, and there are no further comments on said scope of work.*

Comment noted by the Applicant. Minor changes were made to the Phase II report (Appendix J) as a result of the comments below.

90. *General Comment: Where construction commitments/further actions are offered by the Applicant, these should be identified in a "Mitigation Measures" section of the FEAF Part 3, separate from the reporting of results.*

The Applicant's proposed revisions to the Part 3 FEAF in response to this comment are acceptable.

91. *Testing Results, HVSF Site (Commercial SCO): Horizontal delineation on greens is needed, in addition to vertical delineation, to determine lateral extent of soil that exceeds commercial soil cleanup objectives (SCOs). Since only 3 of 18 greens were tested, sampling of additional greens could yield varying results, including expanded areas of contamination. The plan to isolate/cap the soil that exceeds the designated SCOs is acceptable and consistent with State remediation programs, but soil areas requiring capping should include all development areas not capped by asphalt/roads/buildings, etc., not just areas with "significant potential of contact."*

The Applicant's proposed revisions to the Part 3 FEAF and Appendix J in response to this comment are acceptable.

92. *Testing Results, HVSF Site (Commercial SCO): It is premature to indicate that no action is recommended for the golf course green areas that exceed groundwater SCOs prior to delineating the nature and extent of the contamination areas, especially since only 3 of 18 greens were tested. The statement that the greens represent a minor contribution to the potable well capture zones is made prior to quantifying the remaining 15 greens and understanding the lateral extent of contamination at each green. Also, Irrigation well #8 was not sampled due to access issues, it is not clear if Well #5 (collected from upstairs kitchen sink) was sampled after treatment measures (particulate filters, etc.), and sampling of the proposed new wells, which may intercept different fractures, may reveal pesticide detections, so it is premature to indicate that there are no pesticide impacts to groundwater. Can a review be provided to determine whether the groundwater SCO exceedances be can addressed by managing the commercial SCO exceedances?*

The Applicant's proposed revisions to the Part 3 FEAF and Appendix J in response to this comment are acceptable.

93. *The preparation of a Soils Management Plan (SMP) and Community Air Monitoring Plan (CAMP) during construction is acceptable, and can provide the means for confirming the means for addressing the soil contamination areas, as described in the comments above.*

Comment noted by the Applicant. The Applicant's proposed revisions to the Part 3 FEAF and Appendix J in response to this comment are acceptable.

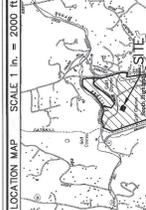
RECOMMENDATIONS

At the October 21, 2021 Planning Board meeting, AKRF recommends that the Applicant and their consultants be provided an opportunity to briefly summarize the annotated response to comments submission made on October 7, 2021, including updates made to the leaf-off visual simulations from Route 9 and any other new information presented. The Planning Board Attorney, Engineer and AKRF can follow with a discussion of the procedural steps to come for the application (including the requirements to be met for a public hearing to occur) and the adequacy of the responses and proposed revisions provided by the Applicant for the Part 3 FEAF. As noted above, aside from some minor editorial recommendations, the majority of the comments provided on the Applicant's Part 3 FEAF and related studies have been adequately addressed. However, there are outstanding issues related to the Applicant's SWPPP and traffic study which warrant further discussion, and possibly additional work by the Applicant to finalize the conclusions that would allow the Planning Board to evaluate impact significance.

As noted in Comment #41 above, the Planning Board Engineer expects to receive information from the Applicant's consultants in a subsequent submission which should help address the outstanding comments on the layout and sizing of proposed stormwater management features.

The two main issues related to traffic impacts are as follows:

- The potential for new traffic impacts not previously disclosed (see Comment #54 above).
- The appropriate vehicle occupancy rate corresponding to theater event guests (1.7 vs. 2.1), as discussed in previous Planning Board meetings.



SITE DATA	
TAX MAP NUMBER	60.
SECTION	80. & 59.3
LOT	59.2 & 59.3
REVISIONS	
DATE	DESCRIPTION
07/26/21	GENERAL NOTES
08/26/21	GENERAL REVISIONS
09/29/21	ADDED LARGER SCALE FIGURES

UNDERGROUND WARNING - NO CODE BULE TIES
 NEW YORK STATE INDUSTRIAL CODE AS REQUIRES
 (SEE REVISIONS FOR ALL REVISIONS - ALLTY LOCATION
 REQUIRES AT LEAST TWO (2) WORKING DAYS BEFORE WORK
 BEGINS. THIS INCLUDES THE TIME TO OBTAIN NECESSARY
 PERMITS AND TO OBTAIN THE NECESSARY MATERIALS AND
 EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR
 OBTAINING ALL NECESSARY PERMITS AND EQUIPMENT.
 NEW YORK. MUST BE OBTAINED BEFORE OPERATIONS
 BEGIN.

WARNING STAMP
 I, _____, a duly Licensed Professional Engineer in the State of New York, do hereby certify that I am the author of the design and drawings herein and that I am a duly Licensed Professional Engineer or Land Surveyor in the State of New York. I have prepared these drawings in accordance with the laws and regulations of the State of New York.

PROJECT LOCATION
 2009-2015 ROUTE 9
 COUNTY OF PUTNAM
 STATE OF NEW YORK

PROPERTY OWNER
 GARRISON PROPERTIES, LLC
 P.O. BOX 348
 GARRISON NY, 10524

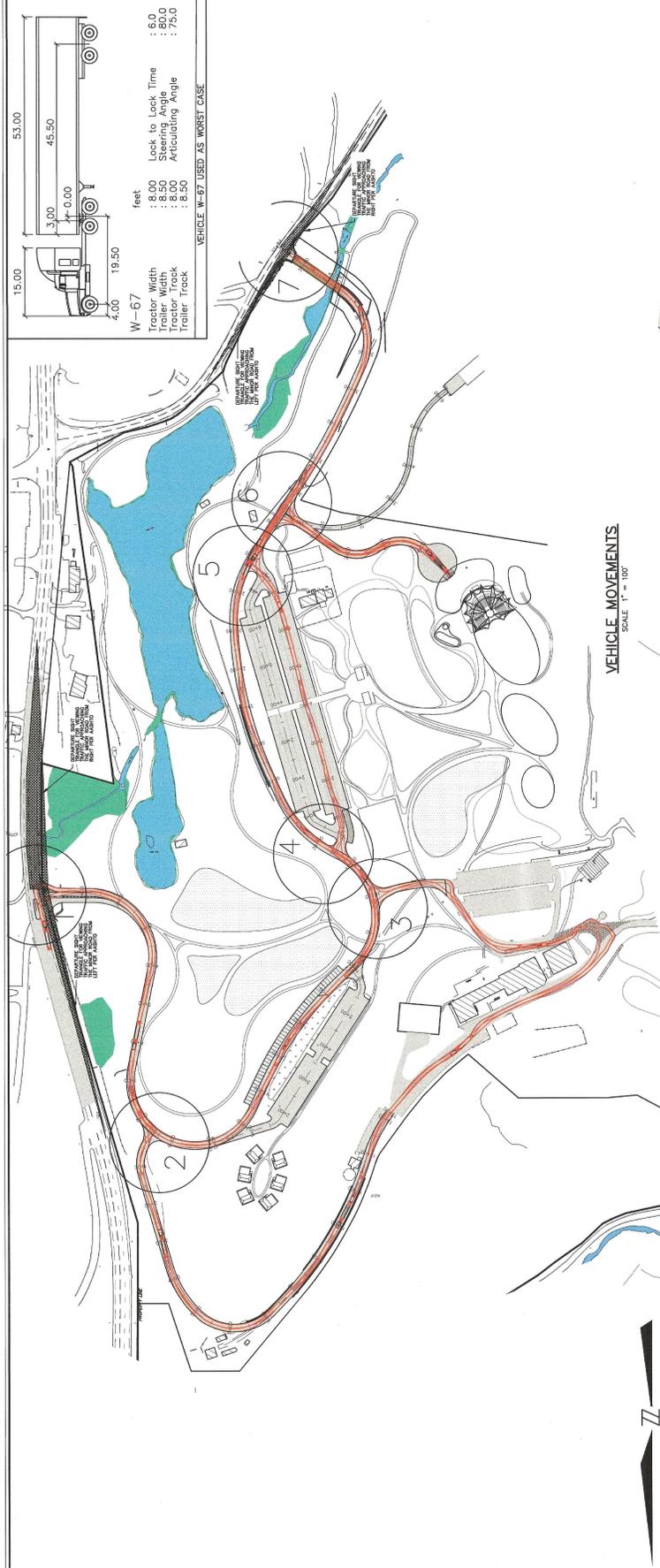
APPLICANT
 GARRISON PROPERTIES, LLC
 P.O. BOX 348
 GARRISON NY, 10524

HUDSON VALLEY SHAKESPEARE FESTIVAL, INC
 &
 HUDSON VALLEY SHAKESPEARE FESTIVAL, INC
 GARRISON NY, 10524

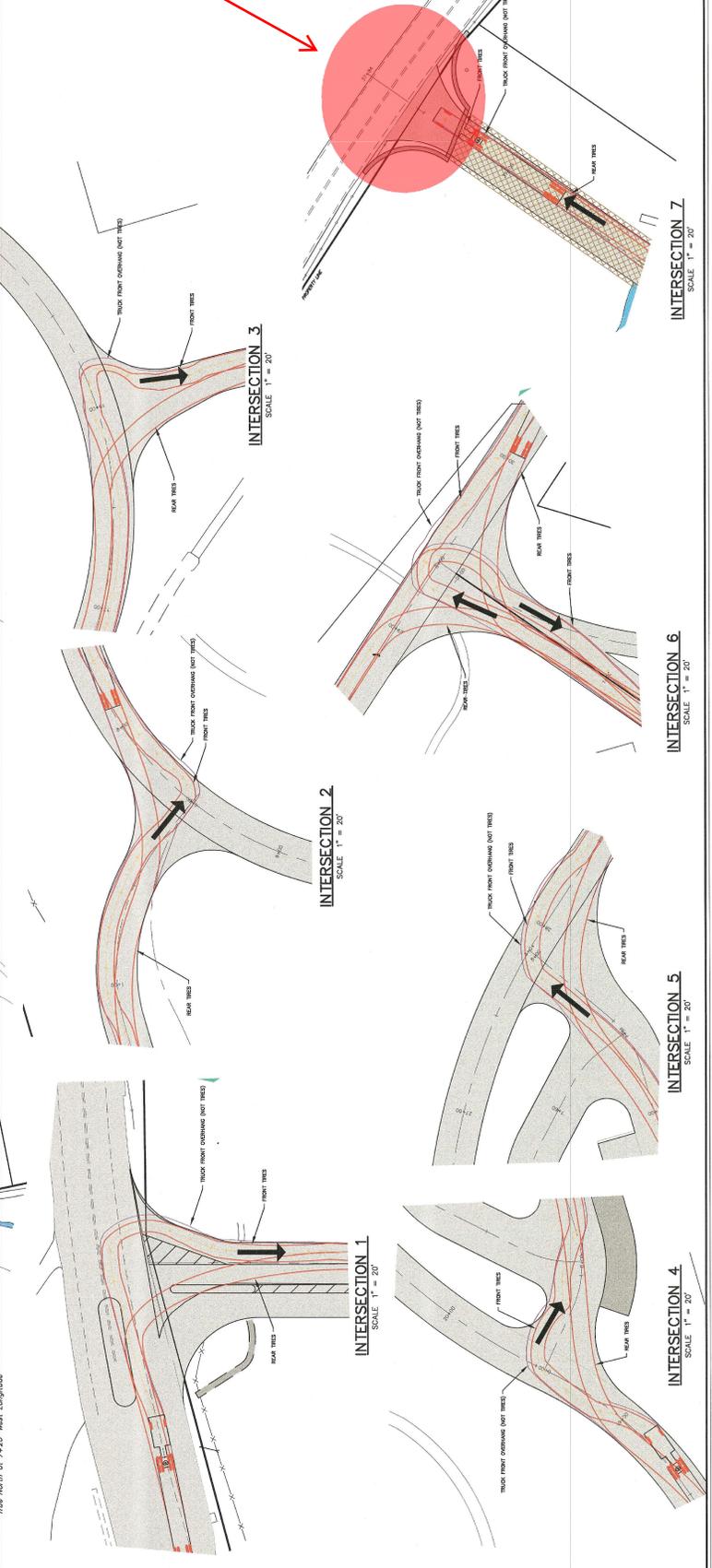
DESCRIPTION OF THE PROJECT
 MODIFICATIONS TO THE GARRISON COUNTY ROAD FOR
 A PERMANENT HOME FOR THE HUDSON VALLEY
 SHAKESPEARE FESTIVAL, INCLUDING AN OUTDOOR
 PATIO AND ADDITIONAL BUILDING
 RESIDENTIAL STRUCTURE, REMOVAL OF THE
 EXISTING RESTAURANT AND
 MAINTAINING THE EXISTING RESTAURANT AND
 BANQUET FACILITY.

PLAN SET
 PREPARED FOR
 GARRISON PROPERTIES, LLC
 &
 HUDSON VALLEY
 SHAKESPEARE FESTIVAL, INC
 VEHICLE MOVEMENTS

SCALE : AS NOTED
PRELIMINARY PRINTED
 BADLEY & WATSON
 September 7, 2021
 LICENSE NO. 103521
 COMMENT SET BY BADLEY & WATSON, ARCHITECT & ENGINEERS, P.C.



REFER TO COMMENT #49



RE: Synchro Reports Format2.pdf

EMAIL CORRESPONDENCE RELATED TO COMMENT #54

Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>

Wed 10/20/2021 8:03 AM

To: Anthony Russo <arusso@akrf.com>; Alex Auld <aauld@akrf.com>

Morning Anthony,

There might be some misunderstanding on what the NYSDOT is looking for in the synchro report. What we need is the HCM tab in synchro for the results not the actual HCM v6 software analysis. All John has to do for our review is to use the different tab in the model and he will be satisfied what the NYSDOT is looking for. The NYSDOT does not want or need the remodeled study using HCM software just the synchro model.

Jason Brenner

Assistant Engineer

New York State Department of Transportation, Hudson Valley

Traffic & Safety Group

4 Burnett Boulevard, Poughkeepsie, NY 12603

(845) 437-5144 | Jason.Brenner@dot.ny.gov | www.dot.ny.gov**From:** Anthony Russo <arusso@akrf.com>**Sent:** Tuesday, October 19, 2021 10:17 AM**To:** (aauld@akrf.com) <aauld@akrf.com>; Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>**Subject:** Re: Synchro Reports Format2.pdf

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hi Jason,

Following up. We have a board meeting coming up very soon we really would appreciate your feedback.

Thanks

**Anthony Russo**

Vice President

P: 914.922.2359 | arusso@akrf.com | www.akrf.com

34 South Broadway, Suite 300, White Plains, NY 10601

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From: Alex Auld <aauld@akrf.com>**Sent:** Wednesday, October 13, 2021 1:43 PM**To:** Brenner, Jason (DOT)**Cc:** Anthony Russo**Subject:** Fw: Synchro Reports Format2.pdf

Hello Jason,

As per our previous correspondence, please find below for your review Kimley Horn's justification for their presentation of the Synchro Percentile Delay results from Synchro, rather than the HCM6 results from Synchro, for the unsignalized intersections.

As the Town's consultant, we are in the process of reviewing the TIS and have had discussions with the applicant several times regarding this issue. They have also stated going forward, they would utilize the HCM6 results so we are questioning why the applicant would not utilize them now. AKRF reports HCM6 results and from our role as reviewers in other municipalities, other consultants also do the same.

We do not necessarily feel that all of the points made by Kimley Horn below actually apply to the issue at hand (for example, while a specific analysis software package (e.g., Synchro, HCS) is typically specified in a scoping document, the output report format is typically never specified in a scoping document, use of Synchro 10 versus Synchro 11, etc.). However, below is the information provided to us by Kimley Horn in its entirety for you to conduct your review.

Best regards,

Alex Auld

Technical Director - Traffic & Transportation

P: 914.922.2357 | aauld@akrf.com | www.akrf.com
34 South Broadway, Suite 300, White Plains, NY 10601

From: Canning, John <John.Canning@kimley-horn.com>
Sent: Tuesday, October 12, 2021 10:12 AM
To: Anthony Russo <arusso@akrf.com>; Alex Auld <aauld@akrf.com>
Cc: Connell, Andrea <Andrea.Connell@kimley-horn.com>
Subject: FW: Justification for Synchro 10 results HVSF

Good morning Alex, Anthony, below is our justification for not redoing the HVSF traffic study based on the results of the Synchro HCM 6 printouts. Attached is the supporting/corroborating documentation. Please forward to DOT and let them know we will use HCM6 going forward but that, based on the facts below, it would be unfair if not unprecedented to the Applicant to change the traffic study now.

Best and thanks,

j.

John Canning, P.E.
Kimley-Horn | 1 N. Lexington Ave. Suite 505, White Plains, NY 10601
Direct Phone: 914-368-9188
Main Phone: 914-368-9200
Cell: 914-924-4177
Connect with us: [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [Instagram](#)

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Justification for using Synchro 10 Printouts

Official Policy Indicates that, while HCS 6th Edition is an approved software, so is Synchro 10

1. The official NYSDOT Policy, per Table 1 of Engineering Bulletin EB 19-018 (dated April 2019) is that Synchro Version 10 is on the "DEPARTMENT-APPROVED LIST OF TRAFFIC ANALYSIS SOFTWARE".
2. EB 19-018 also lists HCS 7, which follows HCM 6th Edition procedures as an approved traffic software. If NYSDOT wanted Synchro printouts to be in HCM6 format, they could have included that in the "Description/Use" for Synchro 10 or as a footnote in Table 1, but they did not. The only place that HCM 6 is listed is under HCS7 software.

The Request that HCM 6 Printouts was not submitted in a timely manner

1. The Town was provided a Scope of work for the traffic study (dated April 27, 2021) in early May.
2. It simply stated that Synchro 10 Analyses would be used (because that had been the previous norm – see below), and made no mention of HSC 6 analysis.
3. The Town's consultant reviewed the scope and issued a Memorandum, dated May 12, 2021, which made no reference to analysis or printouts to be used.
4. The issue of what software to use for the traffic study was discussed with the Department and AKRF on June 17 and 18, 2021 with no mention of HCS 6.
5. The traffic study was completed in June and submitted on August 23, 2021.
6. No indication was received that HCM 6 analyses might be required to be undertaken until it was referred to in the Town Consultant's September 15, 2021 memorandum.

Synchro 10 printouts have been the accepted standard for intersection analysis

1. While AKRF provided an email from NYSDOT to AKRF dating from February 2018 indicating that HCM 6 analysis results should be used, it is noted that that email was not released to the broader community and not provided to Kimley-Horn until September 29, 2021.
2. The February 2018 email predates the 2019 Engineering Bulletin and, presumably, is superseded by it.
3. The language in the February 2018 email states that HCM 6 analysis is a preference not a mandate.
4. Kimley-Horn has been using Synchro 10 printout for years, without issue, including with the same groups (AKRF and NYSDOT Region 8) that are reviewing the HVSF application.
5. Starting in the Summer of 2020 and finishing September of 2021, Kimley-Horn, AKRF and NYSDOT Region 8 were collaborating on the Rt 6 Palisades Fuels application in Cortlandt using Synchro 10 printouts without any questioning of the results format.

The difference between HCM6 and Synchro 10 is not as relevant using a consistent software

6. Both Synchro and HCS 7 are approximations of operating conditions based, primarily, on traffic volumes and assignment of green time. The level of accuracy of either platform for specific locations is not particularly impressive.

7. From a traffic impact perspective, what is more important than using one platform or the other is that you use the same platform to compare the No-Build and Build conditions.
8. The comparative results using either platform will be similar.

Conclusion

While Kimley-Horn respects the Department's recently expressed desire to evaluate traffic operating conditions using the HCM 6th Edition format (and will comply with this recommendation for future projects), we believe that the analyses submitted comply with the official policy and are consistent with recent practices. Further, we believe that AKRF and the Department had ample time between the middle of June and the end of August to request that the analyses results be provided in HCS 6th Edition format. Finally, we believe that the findings of the traffic study will not be substantially different regardless of which format the analysis results are printed out in. Therefore, in this instance, we believe there is sufficient justification to accept the Traffic Impact Study's analysis printouts in the format provided and that there is not sufficient justification to require that the traffic study be revised based on the analysis results in HCM 6th Edition format. It would be unfair to the Applicant to change the methodology of the traffic study effectively after almost all of the work is done and we respectfully request that the analysis results continue to be in Synchro 10 format.

From: Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Sent: Monday, October 4, 2021 3:00 PM
To: Alex Auld <aauld@akrf.com>
Subject: RE: Synchro Reports Format2.pdf

Alex,

I would recommend always using HCM 6th on all intersections. There are times where synchro runs better, but I would ask for a justification for their analysis.

Jason Brenner

Assistant Engineer
New York State Department of Transportation, Hudson Valley
Traffic & Safety Group
4 Burnett Boulevard, Poughkeepsie, NY 12603
(845) 437-5144 | Jason.Brenner@dot.ny.gov | www.dot.ny.gov



From: Alex Auld <aauld@akrf.com>
Sent: Monday, October 4, 2021 11:11 AM
To: Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Subject: Re: Synchro Reports Format2.pdf

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello Jason,

We are just following up to confirm if you have received our email below. Please feel free to respond to me by email or I can be reached at (914) 922-2357 if you would prefer to discuss by phone. Thank you.

Alex Auld

Technical Director - Traffic & Transportation
P: 914.922.2357 | aauld@akrf.com | www.akrf.com
34 South Broadway, Suite 300, White Plains, NY 10601

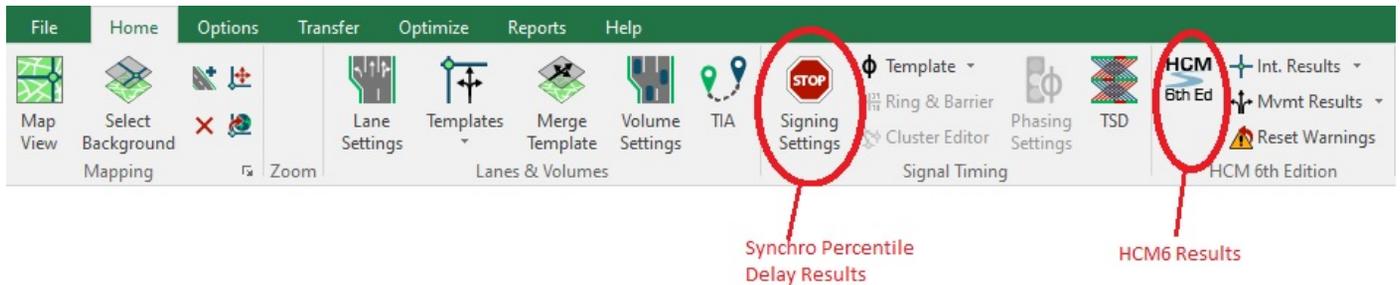
From: Alex Auld <aauld@akrf.com>
Sent: Wednesday, September 29, 2021 5:14 PM
To: Jason.Brenner@dot.ny.gov <Jason.Brenner@dot.ny.gov>
Cc: Anthony Russo <arusso@akrf.com>
Subject: Fw: Synchro Reports Format2.pdf

Hello Jason,

We (AKRF, Inc.) are the Town traffic consultants for the Town of Philipstown conducting the review of the Traffic Impact Study for the Hudson Valley Shakespeare Festival (HVSF) project. Based on our review, we had identified a concern regarding the Synchro outputs that were reported in the TIS. We had requested that John Canning of Kimley Horn (author of the TIS) reach out to you regarding this issue, but it appears that the way the question was articulated to you by John, it did not clearly express our concerns.

Our concern was not whether the use of Synchro 10 versus Synchro 11 was acceptable for use as the traffic analysis tool (which appears to be what John Canning had asked). We have no issue with the use of Synchro 10 for this study.

However, our concern was if the reporting of the Synchro Percentile Delay methodology results (i.e. the standard Synchro results, presented in the Synchro "Signing Settings" Window) in place of the HCM6 methodology results for the unsignalized intersections was acceptable to NYSDOT. The TIS reported the "Synchro Percentile Delay" results, rather than the HCM6 results, for the unsignalized intersections.



However, based on guidance we received from Frank Schumaci, DOT would prefer to see the "HCM6" results wherever possible as outlined the email below that we received from Frank when we inquired which set of results would generally be preferred by NYSDOT:

Schumaci, Frank (DOT) <Frank.Schumaci@dot.ny.gov>

to me, Lee, Anthony, Michael, Marissa

For Synchro 10 we would prefer HCM 6th edition results when possible, if the signal phasing is not supported by NEMA phasing then the traditional standard Synchro results can be used. LOS and delay values use 6th edition when possible, queue lengths can be reported from the standard Synchro results. We prefer that individual approach PHFs were used. Thank you for confirming these parameters moving forward.

Frank J Schumaci, IE
AE, Traffic and Safety Group

New York State Department of Transportation, Hudson Valley Region
4 Burnett Boulevard, Poughkeepsie, NY 12603
(845) 437-5157 | www.dot.ny.gov

Please let us know what NYSDOT's position is on this and if NYSDOT is okay or not with the reporting of the standard Synchro results (rather than the HCM6 results) for the unsignalized intersections in this particular case. We are reaching out to you directly as we have posed this question to Kimley Horn several times and their interpretation appears to be that we are looking for justification for the use of Synchro 10 versus Synchro 11, which is not the case. Thank you in advance for your cooperation.

Best regards,

Alex Auld

Technical Director - Traffic & Transportation

P: 914.922.2357 | auld@akrf.com | www.akrf.com

34 South Broadway, Suite 300, White Plains, NY 10601

From: Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>
Sent: Wednesday, September 29, 2021 3:00 PM
To: Canning, John <John.Canning@kimley-horn.com>
Subject: RE: Synchro Reports Format2.pdf

John,

You may use Synchro 10 printouts for both signalized and unsignalized intersections, as there is no real change to the reporting aspect of the program.

Jason Brenner

Assistant Engineer

New York State Department of Transportation, Hudson Valley

Traffic & Safety Group

4 Burnett Boulevard, Poughkeepsie, NY 12603

(845) 437-5144 | Jason.Brenner@dot.ny.gov | www.dot.ny.gov**From:** Canning, John <John.Canning@kimley-horn.com>**Sent:** Wednesday, September 29, 2021 2:49 PM**To:** Brenner, Jason (DOT) <Jason.Brenner@dot.ny.gov>**Subject:** Synchro Reports Format2.pdf

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Hi Jason, I hate to ask you this again (as you have already answered) but we were directed to confirm that we are permitted to use Synchro 10 printouts for both signalized and unsignalized intersection capacity analyses (for the Hudson Valley Shakespeare Festival project).

As I indicated previously, we have switched to Synchro 11 for all newer projects and there is virtually no difference between Synchro 10 and Synchro 11.

Sorry for the intrusion and thanks,

j.

John Canning, P.E.

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