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April 3, 2024
File: 195113533

Attention: Mr. Tim D'Arcy
Candia Planning Board
74 High Street
Candia, NH 03034

Dear Mr. D'Arcy,

Reference: 669 High Street - Major Site Plan Review#1
Candia Tax Map 405 Lot 48 – Candia Planning Board Case#24-002

In accordance with the request of the Town of Candia, NH Land Use Office we have reviewed the following submitted information, received by email thru Wednesday, March 25, 2024, by Jones and Beach Engineers, Inc. for the referenced proposed Major Site Plan application in Candia, NH:

- Major Site Plan, entitled Multi-Family Development "Beaver Meadows", prepared by Jones and Beach Engineers, Inc., 31-page plan set, dated January 22, 2024.
- Waiver Request Letter, prepared by Jones and Beach Engineers, Inc., dated March 21, 2024 (4-page letter)
- Drainage Analysis, Sediment and Erosion Control Plan, prepared by Jones and Beach Engineers, Inc., dated March 22, 2024 (158-page report)
- Response Letter & Special Use Permit Criteria Response, prepared by Jones and Beach Engineers, Inc., dated March 21, 2024 (22-page letter)

The project submission was reviewed for conformance with the Town of Candia Zoning Ordinances (Ordinances) and Major Site Plan Regulations (Regulations), as well as other applicable state and local rules and regulations and accepted engineering practices.

Based on our review of the submitted documents we offer the following comments for your consideration:

PROJECT DESCRIPTION

The plans propose the development of an existing 87.8-acre lot, with a 550 linear cul-de-sac common drive roadway proposed intersecting with High Street, across from Donovan Road; with three proposed multifamily buildings (6-units in total), a proposed barn, associated clearing, drainage, utilities, and site improvements. The units will be serviced with an on-site shared well and individual septic systems.

Comments from our February 15, 2024, review letter that have been addressed by the submitted revisions or additional information have been removed, comments that remain unresolved or that require a decision by the

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Board are indicated in *italics* and new comments based on the additional information provided are indicated in **bold**. We offer the following comments:

1. *The plans specify that 99,000 SF will be disturbed for the proposed improvements; however, based on our review of the proposed improvements the disturbance areas that are specified are unrealistic and the proposed improvements as shown will disturb more than 100,000 SF and will require a NHDES Alteration of Terrain (AoT) permit.*

Comment not addressed; disturbance associated with the trenching that is required to install an electrical service to the proposed barn is not considered but should be included in disturbance square foot area; accounting for this additional unaccounted-for disturbance, the project requires an NHDES AoT permit.

5. *The plans show a proposed shared private well to provide the domestic water supply for the three buildings (6 housing units) but no details were submitted with the application regarding the existing hydrogeological information that was obtained for the design of the well or details and no details of the proposed well have been provided by the applicant and/or included on the plans. Additional information and details are required to be specified on the plans and submitted for review to confirm that the proposed well location is suitable, and the yield is sufficient for the proposed anticipated domestic and fire protection system(s) demands.*

Comment not addressed; the applicant's engineer has responded that the (well) yield "should" be suitable for the proposed domestic services; this must be confirmed. Additionally, it required that it be confirmed that a 1.5-inch water line is sufficient to provide water supply to the 6 building units.

6. *The specified limits of clearing of the existing/proposed woods trail to the proposed barn appear to be insufficient to provide fire apparatus access to and around the proposed barn. We defer to the Fire Chief on whether the proposed access to and around the proposed buildings are sufficient.*

Comment not addressed; the existing 8-foot-wide trail width does not meet the New Hampshire Fire Code or Town of Candia requirement for a minimum 10-foot-wide driveway surface with a minimum of 3-feet of clear area on both sides of the driveway and a minimum of 12-foot vertical clearance as specified in Regulation Section 19.14-C.

9. *The plans specify a plan scale of one-inch equals fifty feet (1" = 50') but are required to be provided at a minimum of one-inch equals twenty feet (1" = 20'), as specified in Regulation Section 4.03-E, it should be noted that the Applicant has requested a waiver for this regulation.*

Comment requires a determination by the Board.

10. *The plans only provide a partial boundary, physical conditions, and topographical survey for part of the lot but are required to provide a survey of the entire parcel including the lot perimeter, boundary survey, as specified in Regulation section 4.03-F, 4.03-G and 4.03-I. It should be noted that the applicant has requested a waiver to provide a partial survey for and in proximity to the proposed improvements.*

Comment requires a determination by the Board.

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11. *The plans are required to specify the location, size, and material of all existing and proposed public and private utilities, as specified in Regulation Section 4.03-L.*

Comment not addressed; the proposed utilities to the barn are not specified on the plans and there is a detail for a proposed utility trench with a gas service, but no gas services are shown on the plans.

Additionally, the plans are required to specify the proposed fuel that will be provided to the proposed buildings. Propane tanks appear to be shown on the septic plans but are not called out or specified on them or any other plan sheet. The proposed intent should be clarified on the plans.

14. *The plans specify a 'proposed development sign' but no additional details are provided with the application, the Applicant is required to submit, for review and approval, details for the proposed signage for the property, as specified in Regulation Section 4.03-M, in conformance with Ordinance section 8.01 and Specification section 8.03.*

Comment not addressed.

17. *The plans are required to provide vehicle turning movements for a WB-67, into, around and exiting the site without potentially impacting other vehicles or pedestrian traffic, as specified in Regulation section 4.03-V and section 8.03-A-2.*

Comment not addressed; the plans show turning movements for a Fire truck and SU-30 but both movements show the vehicles crossing the centerline into the opposite lane exiting the site, travelling West. Additionally, it should be noted that the applicant is seeking a waiver for the requirement to provide turning movements with a WB-67.

19. *The proposed improvements require the submittal to and approval by the ZBA, NHDOT driveway permit (and/or amendment to the existing permit), NHDES subsurface disposal systems permit, NHDES Alteration of Terrain (AoT), NHDES Dredge and Fill permit and USACOE permit based on the proposed improvements. It is required that a copy of all necessary permits for the project be submitted with the application to the Town in conjunction with the application and that the required permit approval numbers be listed on the cover sheet of the plan set for reference, as specified in Regulation section 4.05.*

Comment partially addressed; permits for the project are unsubmitted and pending at this time.

20. *The site is required to be provided with a designated and striped space for delivery vehicles, as specified in Regulation Section 8.03-A-2.*

Comment not addressed; however, it should be noted that the applicant is seeking a waiver for this requirement.

21. *The plans specify that a private driveway is to be built to Town standards, but the access drive, as proposed, does not meet Town roadway standards, we recommend that this note be updated, as appropriate, for clarity or that the design be upgraded to meet town standards.*

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Comment pending discussion from the Board; if the Town prefers that the proposed driveway be assigned a private road name, it is recommended that the applicant obtain a waiver from building the road to Town standards.

23. *The proposed access drive, barn and parking spaces are provided with less than 0.2 horizontal foot candles; lighting is required to be provided with a minimum of 0.2 horizontal foot candles with an average uniformity ratio of 4:1 and minimum color ratio index of 50 for common space, shared space and parking spaces, as specified in Regulation section 8.03-D.*

Comment not addressed; however, it should be noted that the applicant is seeking a waiver for this requirement.

24. *The Applicant is required to provide the Planning Board with architectural renderings, including side elevations, proposed materials, and colors for construction for the proposed buildings, as specified and in conformance with the requirements of Regulation Section 8.03-G. No renderings have been submitted for the proposed barn and some of the required architectural rendering information was not submitted with the application for the proposed duplex units.*

Comment partially addressed; we defer to the Planning Board as to whether the submitted architectural renderings and associated information provided is sufficient for the proposed buildings.

25. *The proposed multi-family structures are required to be provided with a fire alarm system and Knox Box, as specified in Regulation section 8.04-E; it is recommended that a note be added to the plans specifying these requirements.*

Comment not addressed; we defer to the determination of the Planning Board and the Fire Chief on the requirements for the proposed improvements.

28. *The proposed access drive culverts are specified as twelve-inch HDPE culverts, but are required to be a minimum of fifteen-inch RCP for open drainage systems, as specified in Regulation section 8.06-K and 8.06-Q.*

Comment not addressed; however, it should be noted that the applicant is seeking a waiver for this requirement.

31. *The landscaping plan is required to be designed by a qualified landscape designer with proposed buffers to mitigate impacts to neighboring properties, as specified in Regulation section 8.14-B and 8.14-C. In general, the proposed landscaping does not appear to satisfy the requirements of Regulation section 8.14.*

Comment not addressed; we defer to the Planning Board on whether they view the proposed landscaping as sufficient for the proposed improvements.

32. *The construction of the proposed access driveway will require an NHDOT driveway permit (and/or permit amendment) and temporary traffic signage for construction, it is required that the plans included and specify temporary maintenance and protection of traffic signage plans and details for construction, as specified in Regulation section 8.16.*

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Comment not addressed.

46. *The swale, down stream of the proposed 18-inch head wall outlet, is proposed with a slope greater than 5-percent, rip rap is required to be provided in/for this swale to prevent erosion.*

Comment not addressed.

49. *Additional details and/or deed occupancy restrictions are required to ensure that the proposed well is not being proposed as or could potentially serve a small community system; for a water supply of 25, or more, people the well would be considered a small community system and would be subject to the requirements of NHDES Env Dw 305. If deed restrictions are not put on the property maximizing the number of occupants, then we recommend that the proposed community well be submitted to NHDES for review and approval as a small community well system.*

Comment not addressed; the response letter references note#24 on plan sheet C2, but this note is not on the plans.

50. *It is required that a statement from the Candia Tax Collector indicating whether the property is under current taxation status or not be received for the project, as specified in Regulation section 10.06m.*
Comment not addressed.

55. *It appears that, based on the proposed grading, that guardrail is required from STA 1+60 to STA 2+70 on the right side of the road.*

Comment not addressed; guardrail is required where side slopes exceed 4-feet horizontal and 1-foot vertical for vertical drops greater than 5-feet as specified in Regulation Section 8.17.

58. *It is recommended that the Board discuss whether the proposed cul-de-sac road should be designated as a private road with an associated street sign and property address numbers to minimize potential confusion from future first responders.*

Comment partially addressed; we recommend a discussion by the Board regarding this topic.

59. *The plans specify/reference an assumed vertical and horizontal bearing, given the shallow ground water and proximity to wetlands it is recommended that a horizontal and vertical datum be established and specified on the plans for construction.*

62. **The width, length and depths for the proposed drip edges vary in the stormwater calculations; we recommend that a chart be provided with the detail summarizing these dimensions for construction.**

63. **The drip edges storage areas are modelled in the stormwater calculations with a 0.3 in/hr an exfiltration rate and 40% voids in 3/4-inch stone; it is required that documentation be provided confirming these values are appropriate.**

64. **Only the outlet structure for the cul-de-sac detention pond is modelled, but all of the proposed culverts are required to be modelled in hydroCAD to determine the proposed flow depth and velocity for determining rip rap sizing.**

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65. The proposed cul-de-sac storm water detention pond creates a stormwater impoundment adjacent to the roadway; the 100-year detention pond water level is required to be a minimum of 25-feet from the edge of pavement, as specified in Regulation Section 8.06L.
66. The proposed cul-de-sac detention pond is required to be designed for the 100-year storm event with 1-foot of freeboard, as specified in Regulation Section 8.06I-d.
67. Existing wetlands areas are modelled in the drainage calculations as a stormwater storage area with associated infiltration rates; these infiltration rates are required to be confirmed for the use in the drainage calculations.
68. Reference is made on the plans that the proposed Inlet Trash Rack shall be submitted to the Town for review; the requirement would require additional fees by the Town for Engineering Services during construction.
69. Units 5/6 and 3/4 show proposed grading from the corners of the building towards the driveway that appear to create ponding areas at the edge of the proposed driveways.
70. The specified plunge pool to the Northeast does not appear to coincide with the detail and appears to be a level spreader; this reference and detail should be updated as appropriate.
71. The soils legend on the plans does not match the Hydrologic soil groups in the Stormwater Management report; the discrepancy should be corrected and/or clarified as appropriate.
72. The following plan sheet C4 notes are required to be modified as follows:
 - a. Note#16: the owner shall apply to the Planning Board for review and approval for proposed facility signs.
 - b. Note#21: this should be expanded to also require Town of Candia Planning Board submission for review and approval, for clarity.
 - c. Note#24: this requirement regarding the maximum number of occupants is required to be put in dead restrictions for the property in addition to specifying on the plans.
73. The plan reference notes regarding standards and requirements that specify "should" are required to be revised to "shall".
74. It is required that the proposed culverts be shown in the road profile on plan sheet P1.
75. The typical roadway section details and pipe specify "suitable clean fill" or "suitable backfill material", but this specified material is required to specify a NHDOT material specification for clarity.
76. The plans specify 4-inches of loam and seed but are required to specify 6-inches of loam and seed in conformance with Site Plan Regulation Section 8.06-P and 8.06-W.

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77. **The typical inlet trash racks are specified as welded wire fabric on #5 rebar frame; the intended wire fabric specifications are unclear. Provide additional information and confirm that the welded wire fabric is sufficient for this application.**
78. **For the Multi-Stage Discharge Outlet Structure, we offer the following comments:**
- a. **ID#1 indicate 0.75" for the discharge culvert, which is specified elsewhere as 15-inches in diameter; this discrepancy is required to be corrected.**
 - b. **The proposed orifice and notched inlets have less than 2-inches of separation between them; a minimum of 3-inches between pre-cast concrete structure openings is typical and recommended.**
 - c. **Note#5 indicates that all exposed rebar shall be painted at the discretion of the contractor; this is required to be revised to all rebar and shall be provided as epoxy coated.**

These comprise our comments at this time. We invite the Engineer and Applicant to meet with us to discuss these comments and other design related topics, which may affect the project and the associated design. We reserve the right to make future comments based on proposed revisions and additional submissions.

If you have any questions or need any additional information, please feel free to contact us.

Respectfully,

Stantec Consulting Services Inc.



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