

Traffic Engineering Solutions, P.C.

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M E M O R A N D U M

DATE: January 27, 2005
TO: Christine Nelson, AICP
Town Planner/Director of Land Use
Town of Old Saybrook
302 Main Street
Old Saybrook, CT 06475
FROM: Bruce Hillson - Traffic Engineering Solutions
RE: Summary Memo Addressing Six Possible Determinations

Traffic Engineering Solutions has prepared several Memorandums addressing the road layout for the Preserve. This memorandum summarizes the information previously submitted to the Town and Planning Commission, but more concisely addresses the six possible determinations outlined by Mr. Branse in his November 17, 2004 memorandum.

Each of my previous memos addressed the roadway system proposed for The Preserve. The first memo addressed the lot count in the Conventional Subdivision and found that approximately twenty lots would be eliminated due to roadway issues. The revised plans address many of the concerns identified by the earlier memos. Review of the revised plans indicates that Road 10 is still not perpendicular for a distance of 100 feet per Subdivision Regulation 6.4.3. No revised grades were provided for review to determine if a vertical curve has been added. It is recommended that Road 10 be eliminated along with Lots 212 through 217 (six lots). The intersection of Road 1 at Ingham Hill Road does not meet any design standards for intersections. It is recommended that Road 1 be extended and realigned across Lots 73 and 79 to eliminate the sharp curve on Ingham Hill Road. This would eliminate Lots 73 and 79 as building lots (two lots).

The remainder of this memorandum focuses on Determinations 3 and 4 which assume an open space subdivision (number of residential units to be determined through review by others). It should be noted that the discussion about access to Route 153 also relates to the Standard Subdivision plan.

The Applicant has submitted an Open Space Subdivision Plan with a roadway system that does not meet current Town standards for roadway design. The roadway system was based on Alternative Road Standards that were approved by the Board of Selectmen for an earlier Application (circa 2000) with an entirely different road layout. The Applicant recognized the need to pursue Alternate Road Standards for the present Application when he submitted Alternative Road

Standards for consideration by the Board of Selectmen during the summer of 2004. It is unfortunate that the Board of Selectmen has not acted on the Alternative Road Standards and more unfortunate that the Applicant has not pursued the issue of Alternative Road Standards with the Board of Selectmen.

Traffic Engineering Solutions, P.C. has had numerous discussions with the Town Planner and Town's Engineer as well as the Commission's Legal Representative regarding the roadway standards by which to review the roadway system. Since no Alternative Standards had been adopted by the Board of Selectmen (and have not been adopted as of the date of this memo), we were advised by Mr. Branse to use the Town's Subdivision Regulations and Design and Construction Specifications as a basis for our review. Our October 27, 2004 memorandum presents the findings of our review based on the existing Town Standards.

Nathan L. Jacobson & Associates, Inc., the Town's Engineer, forwarded a letter to Mr. Pace on December 16, 2004. That letter contained the Alternative Roadway Design Standards recommended by an advisory team which included Selectman Bill Peace, Public Works Director Larry Bonin, Geoff Jacobson (Town Engineer) and Bruce Hillson (Town Traffic Consultant). The information included in the December 16 letter was discussed with Mr. Dennis Goderre of the B-L Companies on November 30, 2004 during a telephone conversation with Mr. Jacobson. Our December 1, 2004 memorandum includes the items addressed in our October 27 memorandum, the Applicants response to the comments and our review commentary of the Applicants response. This commentary accounts for the recommended Alternative Road Standards included in Mr. Jacobson's December 16 letter. Also addressed in the December 1 memorandum are items (in bold type) to be considered by the Commission during their deliberations.

The recommended Alternative Road Standards included in Mr. Jacobson's December 16 letter would most notably impact the design and layout of Road "A", the road that travels between Bokum Road in Old Saybrook to Route 153 in Westbrook. The Applicant has designed this road to include a section with 10 percent grade, several curves with less than 350 foot radius and a right angle turn (less than 350 foot radius), all of which would not be allowed under the recommended Alternative Standards included in Mr. Jacobson's December 16 letter. Below are several samples of how the recommended Alternative Road Standards would affect the layout of Road A.

1. The section of Road A just north of Road J has a sharp curve (250 foot radius) Increasing the radius to 350 feet as recommended in the Alternative Road Standards would shift the apex of the curve approximately 175 feet to the southeast into a wider section of the wetland.
2. The grade on this same curve just north of Road J is 10%. This grade extends for just over 500 feet. The change in grade from the vicinity of Road J to the end of the 10% grade goes from elevation 90± to elevation 140±. Reducing the grade to 6% as recommended in the Alternative Road Standards would change the horizontal and vertical layout of the road. A 6% grade would allow a change in elevation of 30 feet over the same 500 foot section of road. To accomplish this lesser change in elevation would require the elevation at the bottom of the hill to be raised by twenty feet or the elevation at the top of the hill be reduced by twenty feet or a combination of higher elevation at the bottom and lower

elevation at the top to add to the twenty foot difference. Increasing the elevation at the bottom would create a greater impact to the wetlands by requiring a wider embankment than was contemplated by the Applicant. Reducing the elevation at the top would increase the earth/rock cut contemplated by the Applicant.

3. The corner at the northwest corner of the Central Village would not be allowed under the existing or recommended Alternative Road Standards. The 350 foot radius required by the existing and Alternative Road Standards would cause the road to infringe well into the green at the north end of the Central Village.

Relating to the Six Possible Determinations, if the Commission approves an Open Space Subdivision, they should recognize that the roadway system as proposed cannot be constructed under current or recommended Alternative Road Standards. Significant changes to the road layout will be required to bring the roadway system up to current or Alternative Standards. Further, the road system shows connections to Route 153 in Westbrook and to Bokum Road in Old Saybrook near the Essex Town Line and a gated emergency access from Ingham Hill Road. There was considerable discussion during the Public Hearing and in written information submitted to the Commission regarding the ability to connect to Route 153 in Westbrook and to connect to Bokum Road which requires permission (not to be confused with a permit) from the CT DEP to cross the Valley Railroad tracks. If one or both of these connections is not possible, the roadway system will require changes.

Based on the discussion with Mr. Branse, if the Open Space Subdivision is approved by the Commission with or without conditions, the Applicant has six months in which to file the final plans for approval. **Since there are several unresolved issues relating to the roadway system, most notably the nonconformance to Town Standards and lack of reasonable expectation that connections can be made to Route 153 in Westbrook and crossing the Valley Railroad to connect to Bokum Road, it should be demonstrated by the Applicant prior to or at the time of submitting Final Plans, letters from the Town of Westbrook and CT DEP indicating their willingness to provide access to Route 153 and across the Valley Railroad. Additionally, the Applicant must obtain from the Board of Selectmen approval for Alternative Road Standards and the Final Plans should reflect the Standards approved by the Board.**