



Jacobson

February 4, 2013

Supervisor Tony Hay and
Town of Southeast Town Board
1360 Route 22
Brewster, NY 10509

Re: Crossroads Route 312, LLC
Draft Environmental Impact Statement
Review for Completeness
Revised Submission
NLJ #0001-0911

Dear Mr. Hay and Members of the Board:

As requested, we have reviewed the following information received for the subject project at our office through January 14, 2013:

- Item 1: Report entitled "Crossroads/312, A Commercial Development, NYS Route 312, Southeast NY, Draft Environmental Impact Statement Volumes 1, 2 and 3, undated, prepared by LADA, P.C., Land Planners.
- Item 2: Bound set of fifty (50) drawings entitled "Crossroads 312, LLC, RT 312, Town of Southeast, Putnam County, New York", scales as noted, latest revision date shown 01/10/13, prepared by LADA, P.C., Land Planners.

Our comments presented herein have been generated from our review of the revised materials referenced above. As with our initial comments concerning the Draft Environmental Impact Statement (DEIS), which were forwarded to you in an August 3, 2012 letter, our comments at this time are intended to primarily address the completeness of the DEIS and its consistency with the Final SEQRA Scoping Document. As such, they are not intended to constitute a comprehensive technical review of the project and we understand the project plans and reports are not fully developed to the point that would allow such a review. With the exception of some general comments regarding the organization or presentation of materials, our comments are focused on technical aspects of the project within our purview as Town Engineering Consultants. More specifically, and most relevant to this project due to the extensive regrading and earthwork proposed, this includes the Geology, Sanitary Sewer and Stormwater Chapters. We defer to the Town Planner with respect to the Chapter concerning Traffic and Transportation.

At this time we have the following comments:

GENERAL

1. We previously noted that DEIS contained numerous maps and figures reflecting various aspects of the proposed development, but that those maps were not consistent as to the basic layout of the proposed site improvements. The revised submission has generally eliminated



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those inconsistencies. However, we note that Volume I contains multiple maps and plans within each section. Some of those specific maps and plans are included redundantly in multiple sections. The document would more concise if it included only one copy of each map and/or plan in the relevant section or included all the maps in one section with references as appropriate in the text sections.

2. We previously noted that the full size plans submitted with the initial DEIS did not represent a complete set of site drawings. While the drawings are significantly more developed than the previous submission, we did identify some elements that were lacking which we feel are necessary to fully evaluate the impacts of the project. Those items are discussed in the relevant sections below. Also we noted the following fundamental information that should be included on the plans :
 - A. Names of abutting property owners.
 - B. Contour labels on existing conditions plans.
 - C. Proposed zoning setbacks.

GEOLOGY

1. As we have previously noted, to support the development of the site as proposed and as allowed in the proposed zoning amendment, waivers to the requirements of The Town of Southeast Zoning Code §138-12 (ridgeline protection) and §138-15 (height of retaining walls and length and grade of manufactured slopes) are required. We previously noted that there were inconsistencies between the main text, geotechnical report and plans with regard to the type and extent of retaining walls and slopes proposed. With the exception of the comments discussed herein, those discrepancies have generally been resolved. The layout and nature of manufactured walls and slopes have been revised from the initial submission and we briefly summarize the nature of those changes, as it is relevant to the level of detail required in the DEIS to evaluate the environmental impacts:
 - A. The fill slopes along the easterly portion of the site necessary to support the lower access and retail pad are proposed to be constructed with boulder rock retaining walls and manufactured slopes above at 1½H:1V (1½ horizontal to 1 vertical). The height of these walls and slopes vary, with a typical section being a 44 foot high graded slope above two 20 foot high walls for a total change in elevation of 84 feet.



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- B. The cut slope just west of the upper access road is proposed to be a natural rock slope created from blasting. This slope is shown to extend up to 55 feet in height at a 1H:2 V slope with a 15 foot wide area at the base to serve as a rock fall zone. A smaller rock face is shown in the cut area west of the proposed hotel.
 - C. Retaining walls up to 20 feet in height are shown south of NYS Route 312 between the two site access drives to allow for the lower retail parking pad.
2. As we have previously noted, the design of retaining walls is generic at this point, and the only detail provided on the plans is for a typical interlocking modular retaining wall. As no details are provided for the boulder retaining walls it cannot be verified if sufficient rock quantities of the nature required for the proposed walls will result from the bedrock blasting operations on the site.
 3. We question if there are sufficient probes in the area of the proposed bedrock slope separating the hotel from the lower retail area to confirm that the bedrock grades as shown on the grading plans can be achieved. Encountering soil over bedrock to below design elevations may require earth slopes that could impact the limits and extents of these slopes. It is recommended that further probes or borings be conducted in this area to confirm that the bedrock grades, as shown on the grading plans, can be achieved. In this regard, a probe spacing of no greater than 100 feet is recommended. Also, the nature (competence) of the bedrock should be determined since weathered bedrock to below design elevations could have a similar effect if the bedrock is not competent enough to safely conform to the proposed steep face.
 4. We previously noted that while there will be rock cuts of up to 69 feet, the potential impacts and mitigation relative to blasting operations were only minimally discussed in the DEIS Narrative. While the revised document has expanded this discussion, the DEIS should address whether there are any nearby water supply wells. A bedrock blasting management plan will need to be developed which should be protective of groundwater quality.
 5. As we have previously noted, given the extent of rock slopes, manufactured slopes and retaining walls that the project will require, the DEIS should specifically indicate that the geotechnical engineer will be on site during these activities to monitor construction and to certify to the acceptability and conformity of construction upon completion.



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6. The Geotechnical Report in the DEIS and the plans are not consistent with respect to the treatment of the 1½H:1V fill slopes. The text indicates they will be rock slopes while the plans indicate they will be seeded. It would seem that seeded slopes at such a steep grade would present problems with soil erosion, turf establishment, stability and maintenance.

WATER RESOURCES AND WETLANDS

We will generally defer to the Town of Southeast Wetland Consultant for review of this Chapter; however, we do have the following comment with respect to potential impacts and the handling of post development stormwater runoff;

1. Page 9-19 of the DEIS contains several statements that are not supported by the project plans developed to date. First, the Document references Stormwater Pollution Prevention Plans that are not included as part of the DEIS submission. Second, it states that these plans illustrate both current stormwater runoff as well as the increased stormwater runoff that is associated with the increases in impervious surfaces proposed for this project. With the exception of showing the location of proposed stormwater basins on the grading plan, no post development stormwater conveyance, treatment or control measures are shown on the plans and, as further discussed below under the Stormwater Chapter, no supporting design calculations are provided. With regards to the treatment of post development stormwater runoff, the DEIS states that the quantity of groundwater recharge will not be reduced, as no runoff will be diverted from the site; and further states that stormwater runoff captured and treated will be returned to the water table and will not be directly discharged into the on and off-site wetlands. These statements imply that all post development runoff will be infiltrated back into the ground and not be discharged from the site. This is not supported by the configuration of site improvements and stormwater controls now shown on the plans, which include over 25 acres of new impervious surfaces and identifies no specific infiltration practices.

SANITARY SEWAGE

1. We previously noted that projected wastewater flows represented in the DEIS were not adequately supported with the identification of similar facilities used as a basis for those flows and water usage data from those facilities. The Document has been revised to include actual usage data for similar retail facilities. However this information is not provided for the restaurant and hotel uses. Specifically, with respect the hotel use, Page 10A-3 indicates a



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projected daily water usage of 72 gallons per room per day and notes that reference data is included in Section 10.F. We could not find reference to another hotel in that section, and we are aware that typical standards for a hotel use are typically more in the range of 100 gallons per room per day.

2. We previously noted that the DEIS discusses the 51,800 gallons per day (GPD) capacity of the Terravest system and the existing users but did not consider what the ultimate usage will be with the projected build out of Terravest, and accordingly if there is adequate capacity to support the combined flows from the proposed project and the Terravest build out. Additional information is presented in the revised DEIS which includes projected flows for additional Terravest sites including T2-Buildings 2, 3 and 4 and T3-Elderly Housing. However these numbers are not consistent with the flows for these uses presented in the Sanitary Sewage Report for Terravest Corporate Park Phases 2 & 3, Final Issue Date March 5, 2004. The projected wastewater flows in that Report for those four uses totals 19,704 GPD and also allows 500 GPD for the Town Park; leaving 21,456 GPD for "T-1 and Contingencies" (the report indicates that contingencies were in response to known problems with several of the properties in Terravest 1, presumably allowing for future connection). The DEIS wastewater generation projected flows for those four uses totals only 9,178 (GPD) and the tabulation does not allow for the contingencies contemplated in the original Report referenced. In this regard, the DEIS should confirm the consistency of projected wastewater flows with the approved /allocated design flows for Terravest.
3. The DEIS should include a statement indicating what the governing regulatory agencies (i.e. NYSDEC/NYCDEP) allow in terms of design wastewater flows based on unit floor allowances or actual flows for similar facilities with application of a safety factor.

STORMWATER

1. As previously noted, with respect to Stormwater Management, the Final Scoping Document is very specific in requiring existing and proposed flow volumes and peaks runoff rates using specific accepted methodologies; and further indicates that calculations must be provided to show compliance with NYCDEP and NYSDEC stormwater requirements. This information is still not included in the DEIS. Notwithstanding the requirements outlined in the Scoping Document, at a minimum the DEIS should provide some basic hydrologic and volumetric calculations to verify that the stormwater ponds and control measures will be adequate to treat the post development stormwater runoff volumes and mitigate peak runoff rates to below predevelopment levels.



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2. In Chapter 10 of the DEIS, stormwater treatment and control measures are addressed only in general terms. References are made to Low Impact Development Practices but none are identified on the plans. This section does indicate that runoff will be captured and treated and discusses mitigating peak discharges which is in contrast to Chapter 9 which, indicates that no runoff will be discharged from the site.
3. Some of the proposed stormwater basins are located in earth fills upgradient of retaining walls and/or slopes. The DEIS should indicate if these basins are designed to infiltrate stormwater. If so, the introduction of additional subsurface flow will need to be considered in the geotechnical stability analysis and design of the retaining structures. Otherwise it is recommended that these stormwater basins be lined and designed as constructed wetlands or subsurface gravel filters.
4. The DEIS references existing NYSDOT and Town drainage discharges onto the site. These locations should be identified on the plans. Ultimately, if the project moves forward easements should be provided.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,

NATHAN L. JACOBSON & ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read 'Thomas H. Fenton'.

Thomas H. Fenton, P.E.

THF:thf

cc: T. LaPerch
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