CONSTRUCTION IMPACTS

CHAPTER SEVEN

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The following text is written in a question and response format. The questions are those generated by the Public Hearing and Public Comment Period held for the Draft Environmental Impact Statement. Due to the many changes to the plan identified in the Executive Summary some comments may no longer apply to the proposed project. The response to comments in this chapter relate to the SEIS plan with 112 units and the two access points to Route 105.

Construction Impacts Comment #1

> *Test borings drilled in areas where cuts were required according to the grading plan indicated the presence of shallow bedrock at two locations. At boring B-8, drilling was advanced to 25-ft, 2-in. while the grading plan indicated a cut of approximately 26-ft would be required; it is unknown whether bedrock is present at 26-ft below natural grade. Drilling for boring B-9 encountered refusal at 11-ft, 6-in. but a cut of approximately 25-ft is shown on the Grading Plan, suggesting that bedrock blasting would be necessary. (PH 3/1/05)*

Response: Based on the composition of the rock, hydraulic excavation can be used in deeper cut areas with rock. Blasting is not expected.

Construction Impacts Comment #2

> *There is no discussion as to the choice of measurement times. The morning peak hour would have been a good choice, since the local ordinance allows construction to begin at 7:00 am and that is when you can expect to see the most increase in project related traffic and construction noise. Also, since the ordinance allows construction until 9:00 pm, ambient neighborhood noise levels should have been measured at 7:00 am and 9:00 pm because the project could result in the most increase in ambient noise levels at these times of day. (LMS 6/10/05)*

Response: There were no noise measurements conducted related to construction equipment noise, the discussion of construction related noise impacts was qualitative based on the well-documented equipment and activity sources provided in the EIS and referenced in the appropriate Tables. Construction related noise impacts are controlled solely by the local ordinance by the time restriction when such activities can occur. The documentation in the EIS merely provides estimates of the high noise levels that can be expected near the site based on the type of construction activity and various

construction equipment. The contractor has the right to conduct such activities during the hours permitted by the local ordinance. As suggested, additional operational measures to reduce potential offsite impacts during construction such as restricting site access or prohibiting unnecessary activity near sensitive areas may be incorporated into the contract specifications if desired by the Town. However, since the nearest residences are over 750 feet away from the center of the proposed construction activity, the effect of construction activities on these off-site receptors is not expected to warrant site specific mitigation beyond the hours of operation controlled by the Town.

Construction Impacts Comment #3

> *There is no discussion as to where specifically the measurements were taken. The noise measurement locations at the three receptors are usually at the residential property boundary. This is the location where the measurement needs to be taken if comparing to any guidance value. Along the boundary of the neighboring Kingsville Estate property would be a suitable sampling point. (LMS 6/10/05)*

Response: The noise measurements were taken at the property line of the selected residences described in the text and figures. The maps only provide the approximate measurement location along the roadways and not the addresses since the receptor locations were intended to be representative of any of the residential receptors along the characteristic stretch of roadway.

Construction Impacts Comment #4

> *The interval (i.e., 20 seconds, 30 seconds) between noise level measurements is usually provided along with tables listing each of the individual measurements and how the Leq was calculated. (LMS 6/10/05)*

Response: The CEL 493 is an integrating sound level meter (SLM) described in the EIS text which calculates the Leq automatically for the specified monitoring time period. Fast and slow time-weighted settings are available for the 1-second Leq average. For this project, the SLM was set to "fast response" (125 milliseconds per sample) based on the fluctuating source of noise from variable and random source highway traffic where fast time-weighting is preferred. However, for an integrating sound level meter the time-weighting setting does not affect the time-average sound level of Leq (Handbook of Noise Control, Harris, 1991).

Construction Impacts Comment #5

> *Road improvements are mentioned in the Construction Operations section, but the types of improvements are not mentioned. If there are any turning lanes,*

shoulders, etc. this could bring the noise source closer to a receptor (residence). (LMS 6/10/05)

Response: On-site road improvements are limited to typical residential roadway construction.

Construction Impacts Comment #6

The discussion of construction-related noise levels is very brief. There is no projection or estimation as to what the noise level generated by the loudest construction equipment would be at the site boundary with the nearest residence. The discussion simply indicates that there would be a temporary increase in noise levels due to construction activities. (LMS 6/10/05)

Response: Noise generated by residential construction activities proposed for this project are not typically a major concern for surrounding properties due to significantly reduced equipment needs after site clearing. Using the site construction noise levels provided for typical office building construction, the maximum Leq of 84 dBA at 50 feet for site clearing operations, would result in a maximum Leq noise level of 60 dBA at the nearest residence (Site 3 identified near Route 17 and Larkin Drive) 750 feet from the center of the project site. Ambient Leq noise levels at Site 3 ranged from 65-66 dBA due primarily to traffic sources during the daytime hours when most construction activity would take place. Therefore, as stated in the EIS, site clearing activities on the project site, the noisiest phase of site construction activities, would not be expected to have a significant noise impact on the surrounding community.

Construction Impacts Comment #7

The discussion should include projected noise levels at the site boundary from the loudest equipment and construction activities and how these levels compare with the existing ambient noise conditions at these locations. Since the Town of Monroe does not have a level-specific noise ordinance, this makes it more difficult to determine what would be considered an adverse impact. However, if an increase of 3 dB over existing, ambient noise levels is perceptible, and the construction activities increase the noise levels at the nearest receptors 3 dB or more, this should be discussed and mitigation should be proposed, if necessary. (LMS 6/10/05)

Response: As discussed in Comments #2 and #6, above, no mitigation is proposed due to low levels of construction activities. The tree removal phase, the noisiest will have ambient Leq noise levels of 65-66 dBA, mostly attributed to traffic. After tree removal is completed, noise levels are expected to drop significantly. Given the distance from proposed construction, noise levels at adjacent properties will be minimal.

No mitigation is proposed for construction activities proposed only during the time periods allowed by the Town ordinance for weekdays versus weekends.

Construction Impacts Comment #8

> *The statement in the third paragraph on Page 11-6 "Traffic generated by construction activities would be minimal and is not expected to have a significant effect on local noise levels" is rarely the case. (LMS 6/10/05)*

Response: In the project setting surrounded by major traffic sources such as the busy local roadway, Freeland Street, and the state highway, Route 17, the amount of site traffic generated by project construction activities is order of magnitudes smaller in comparison to existing traffic volumes on affected roadways that influence existing noise levels at both the site and surrounding receptors evaluated. The range of noise levels generated at any receptor by construction traffic is expected to fall within the range of noise levels at the same receptors due to similar existing vehicles on the affected access roads. Therefore, the statement in question in the above comment is accurate that construction related traffic noise effects at receptors along adjacent roadways will be insignificant.

Construction Impacts Comment #9

> *The construction-related traffic often generates many noise-related complaints from local residents. Heavy delivery trucks and specialty vehicles, back-up warning signals, and other noises not associated with typical neighborhood truck traffic should be considered. (LMS 6/10/05)*

Response: See response to comments #2, #6, and #7, above. Noise levels associated with construction activities will be low given the distance of construction to the adjacent properties.

Construction Impacts Comment #10

> *Also, since the Town ordinance allows construction between 7:00 am and 9:00 pm, the trucks that show up at 6:45 am and idle cause problems with the residents. (LMS 6/10/05)*

Response: The comment deals with a hypothetical situation that construction activities violate the local ordinance. Construction activities are restricted prior to 7:00AM and after 9:00 PM and can be enforced by the local police subject to issuance of an appropriate summons. The contractor's adherence to good management practices for construction activity will prevent such occurrences.

Construction Impacts Comment #11

These two items above need to be discussed as part of the mitigation. I.e., no deliveries will occur before 7:00 am, trucks will not be allowed to idle on the street outside of the construction site, etc. (LMS 6/10/05)

Response: See response to Comment #10.

Construction Impacts Comment #12

The statement midway through the first paragraph under the Proposed Mitigation Measures section "The partial clearing of the site and related vegetation loss will not affect existing traffic noise levels affecting the residences in the study area" has no basis. There is no information as to how this was determined; no discussion of what loss of vegetation equates to in terms of noise increase. Vegetation can provide significant attenuation and the loss of such should be quantified; or at least estimated. (LMS 6/10/05)

Response: The statement that vegetation provides significant noise attenuation is incorrect and a common misconception. Trees and shrubs are known to be very poor noise barriers and provide very little noise attenuation as a result of shielding receptors from the source (Handbook of Acoustical Measurements and Noise Control, 3rd Edition, Cyril Harris, 1991). The existing vegetation on the gradually elevated site provides no mitigation to the major source of traffic noise, Route 17, in direct line of site to the affected residences surrounding the site. Only several hundred feet of dense evergreen vegetation would have somewhat of an effect on traffic noise ($\pm$3dB) provided it entirely screened the existing residences from the highway. The type of existing vegetation onsite is not evergreens and does not provide such a buffer to the elevated residences near the project site. Therefore, any trees and bushes removed from the site will not affect traffic noise levels at nearby receptors.

Construction Impacts Comment #13

It is mentioned that the nearest residences are over 750 feet from the center of construction activity. That is not relevant unless all construction activity will occur at the center of the site. For clearing activities, what is the distance from a perimeter location (not the center of the site) to be cleared to the nearest residence? That is the noise impact that should be discussed and mitigated, if required. (LMS 6/10/05)

Response: Construction activity is allowed under the Town ordinance between 7:00AM and 9:00PM. Perimeter clearing is minimal due to site development buffers required and such activities would not occur near the property lines for extended periods of time. Construction activities are evaluated as an average Leq exposure level because such

activities are not stationary operations, these activities move around the site and were evaluated for typical construction projects based on the information provided in the Appendix Tables within Chapter 4 of the SEIS. The information provided in the SEIS provides reasonable estimates of average noise levels expected to occur at nearby receptors due to typical construction activities anticipated on the project site which are allowed by the Town ordinance. See other response to Comments #2 and #7.

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