

STATE OF NEW HAMPSHIRE
INTRA-DEPARTMENT COMMUNICATION

DATE: December 29, 2020

FROM: Nick Sanders, P.E.
Traffic Research Engineer

NBS

AT (OFFICE):
Department of Transportation
Bureau of Traffic

SUBJECT: Traffic Study

TO: Alex Thompson, PE
NHDOT District 1

Name of Facility	<u>Granite State Landfill Development</u>
Location	<u>NH 116, Dalton</u>
Consultant	<u>T.Y. Lin International</u>
Report Date(s)	<u>September, 2020</u>
Received by Traffic	<u>November 13, 2020</u>

This section has completed its review of the above referenced Traffic Study. This review pertains only to the methodology and adequacy of the projected traffic volumes, and does not imply approval of the proposal. You (District) and/or Highway Design will be reviewing the mitigation, site access plans and other submitted elements pursuant to this study.

Traffic volume projections for this traffic impact study are:

- Acceptable, and may be used for Design purposes
- Acceptable, and may be used for Design purposes; however, the comments below should be noted by the District and/or Design.
- Not acceptable. The consultant should respond to the comments below.

Opening year and opening year plus 10 No Build and Build (peak month) traffic volumes at all study area intersections (Douglas Drive at NH 116 in Bethlehem and NH 116 at US 3 in Whitefield) are required. Traffic volumes must be adjusted to represent peak month conditions (NHDOT practice for private development projects). Seasonal adjustment factors can be found on the Bureau of Traffic's document library. In this case, both US 3 and NH 116 are classified as recreational highways; therefore, the Group 5 average is likely the best indicator of seasonal trends for this evaluation. Supporting data is located at: <https://www.nh.gov/dot/org/operations/traffic/documents.htm>

Traffic volumes projections at the intersection of Douglas Drive at NH 116 should be based on actual traffic counts at this location, ideally when the existing facility is operational. Permitted operations at the existing site should be accounted for in the No Build traffic volumes. Volumes on NH 116 at US 3 do not necessarily represent volumes on NH 116 at Douglas Drive. Any additional traffic data collected during the pandemic would need to be adjusted with a COVID19 factor to represent non-pandemic conditions. This is typically accomplished by reviewing trends at nearby continuous count sites on similar facilities and comparing them to pre-pandemic conditions (such as 2020 vs. 2019). Bureau of Traffic can provide further assistance or guidance on this effort if necessary.

Trip generation for the proposed Dalton facility is based on July and August 2019 scale data from the existing Bethlehem facility (as shown in Tables 1 and 2 of the Traffic Study) with a 20 percent increased rate. Any available supporting (raw) count data from the Bethlehem facility should be provided to verify the trip generation presented in the Traffic Study as no comparable ITE trip generation data is available for this type of land use. Given the unique nature of this facility, District 1 may want to consider identifying a maximum number of daily trips for the proposed facility in the driveway permit. If and when trucking demands increase beyond the anticipated/permitted levels, a new driveway permit could then be required.

The assignment of truck traffic on the adjacent roadway network is based on the proposed routing plan as identified in the Traffic Study:

- I-93 to/from the north via NH 116, US 3, and US 302 (through Bethlehem I-93 Exit 40) and
- I-93 to/from the south via NH 116, and US 3.

However, there are numerous other possible routes to and from the interstate that truckers may be inclined to use. The Traffic Study states that *“the routing of trucks to and from the site was based on origins and destinations to and from I-93 and most appropriate non-interstate routing considering community impacts and roadway infrastructure constraints”*, but no evaluation of possible trucking routes was presented. The Traffic Study should provide all supporting information on how the proposed truck routing plan was determined.

At the NHDOT February 20, 2020 scoping meeting Casella indicated that they enforce the trucking route to and from the existing NCES facility in Bethlehem and plan to enforce the proposed trucking route for all long haul trucks utilizing the Dalton facility. Casella also indicated that only some smaller local waste delivery trucks would access and egress the site to and from the west along NH 116 through Littleton. The applicant should describe in writing how they will enforce the proposed trucking route(s). District may want to reference this language in the driveway permit to ensure compliance.

Considering that the proposed trucking route to and from the north via I-93 utilizes US 302 through Bethlehem, truck turning diagrams should be provided at the intersection of US 302 and US 3 for the eastbound left-turn from US 302 onto US 3 and the southbound right-turn from US 3 onto US 302.

The need for turn lanes at all study area intersections (Douglas Drive at NH 116 and NH 116 at US 3) along the proposed trucking route should be evaluated with the updated traffic volumes – It is noted that NHDOT typically utilizes the NCHRP 457 spreadsheet tool for turning lane warrant analyses. Capacity analysis at the study area intersection of NH 116 at US 3 should be provided to help determine what, if any, roadway improvements should be provided.

As discussed at the scoping meeting and raised by the North Country Council (NCC) in a letter from Michelle Moren-Grey to Nicholas Sanders, both the physical condition of the roadway and safety were concerns along the trucking route(s). At the scoping meeting the development team indicated that they would utilize classification data and their trucking projections to assess their impacts along the proposed non-Interstate portion of the trucking route(s) as well as to reach out to NHDOT Materials and Research to see what pavement condition data was available. District may want to require that these outstanding concerns are addressed in an updated Traffic Study.

cc: P. Beaulieu, District 1; J. McMahon, District 1; J. Marshall, Bureau of Highway Design;
C. Dobbins, Bureau of Highway Maintenance; J. Butler, Bureau of Highway Design
M. O'Donnell, Bureau of Traffic; J. Mathews, Bureau of Traffic; E. Bell, Bureau of Traffic, & File