

Peer Review Planning and Zoning Commission

Project Name: Gales Ferry Intermodal

Location: 1737 and 1761 Connecticut Route 12, Ledyard, CT

Applicant: Gales Ferry Intermodal, LLC
c/o Heller, Heller & McCoy
549 South Steet
Quincy, MA 02169

Site/Civil Engineer: Loureiro Engineering Associates, Inc.
100 Northwest Drive
Plainville, Connecticut 06062
(860) 747-6181

Transportation Engineer: F.A. Hesketh & Associates, Inc.
3 Creamery Brook
East Granby, Connecticut 06026
(860) 653-8000

Surveyor: CME Associates, Inc.
101 E. River Drive
East Hartford, Connecticut 06108
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Documents Reviewed: Exhibit 3 - Site Plans: Industrial Site Preparation Plans (dated March 28, 2024)
Exhibit 2 – Traffic Investigation (dated June 2022)

Review Completed: October 10, 2024 **Reviewed By:** Doug Ostler, PE, PTOE

Weston & Sampson has performed a traffic engineering peer review of the submitted site plans, traffic investigation, and related submittal documents for the proposed development, "Gales Ferry Intermodal" located at 1737 and 1761 Connecticut Route 12, Ledyard, Connecticut. This review has been provided at the request of the Town of Ledyard for consideration by the Town of Ledyard, Planning & Zoning Commission of the submitted applications for Special Permit, Site Plan Approval, and Coastal Site Plan Review. The following comments are provided with respect to the traffic study and transportation elements of the site:

SUMMARY

The traffic study was performed by F. A. Hesketh & Associates, Inc. on behalf of the Applicant. The paragraphs below include a summary of key considerations.

New Trips – The traffic study examined the proposed conditions of the site and projected vehicle trips generated by the site. The site is indicated that it will generate a maximum 50 truck trips in and 50 truck trips out during a typical weekday. The traffic study evaluated 13 truck trips during the peak hours, along with 30 trips from staff and 8 trips from customers. Combined with staff and visitors, the study evaluates the site to generate 41 trips in and 10 trips out during the AM peak hour and 10 trips in and 41 trips out during the PM peak hour. The study recorded traffic in/out of the driveway, Dow Chemical Road – 10 trips during the AM peak hour and 13 trips during the PM peak hour. Future conditions were evaluated with trips from the project added to the existing trips. Route 12's percentage of truck traffic was recorded as 4.0% in the AM Peak hour and 2.5% in the PM peak hour; with the addition of truck traffic from the project, the projected truck percentage increases to 6.9% during the AM peak hour and 4.9% during the PM peak hour.

Intersection Capacity Analysis – The traffic study evaluated intersection operations of projected 2025 conditions without the project and with the project. The intersection of Route 12 and Dow Chemical Road is anticipated to operate at overall Level of Service (LOS) A during the AM peak hour and LOS B during the PM peak hour with the project. The intersection is currently signalized and has an exclusive turn lane approaching from either direction to enter Dow Chemical Road. The study also evaluated 4 other intersections along Route 12 and noted that Route 12 has "...sufficient capacity to accommodate the increase in traffic...without a significant deterioration in level of service at any studied intersections."

Crash History – The traffic study reviewed 5 years of data which included 28 accidents on or intersecting a segment of Route 12 just under 2 miles in length. Of the accidents, there were 2 fatalities, and 1 crash with a serious injury, 7 with minor or suspect injury, and the remaining 19 property damage only crashes.

Speed – The posted speed limit adjacent to the site is 45 mph. The traffic study included recording speeds on Route 12 over a week. In the northbound direction, the average speed was 45 mph, the 85th percentile speed was 51 mph, and the 10 mph pace speed was 41-50 mph. In the southbound direction, the average speed was 49 mph, the 85th percentile speed was 54 mph, and the 10 mph pace speed was 44-53 mph.

TRAFFIC COMMENTS

1. Conclusions and Recommendations, page 8, second paragraph – This conclusion relates to the Level-of-Service (LOS) of a school driveway, which is included within the traffic analysis but is not a part of the proposed project. The school driveway approach operates at LOS E with or without the proposed project. It is not expected that the project would take part in potentially reviewing the school's circulation plan.
2. Conclusions and Recommendations, page 8, third paragraph – The crash data provided in the attachments does not indicate if speeding was an influencing factor for any of the crashes. Per the *Manual on Uniform Traffic Control Devices, 11th Edition* (MUTCD), Section 2B.21 Paragraph 6 an engineering study is required prior to changing the speed limit. The MUTCD does not suggest reducing a speed limit in order to lower the 85th percentile speed. See Paragraphs 7, 8, and 10 regarding the 85th percentile speed, speed zones, and roadway context.
3. Some minor inconsistencies were noticed in the report that are not anticipated to alter the traffic recommendations. If the traffic report is revised, it is recommended to review the following:
 - a. The narrative that discusses crash history includes a sentence that indicate differing collision manner totals. A change to this text is not expected to alter any recommendations.
 - b. The sum of volumes of Figures 4 and 9 for the AM peak hour southbound right turn volume at Route 12 and Dow Chemical plant does not equal the total volume shown in Figure 10 that was analyzed. A potential change to the traffic analysis at this intersection by 4 right turning vehicles is not expected to have a large impact to the intersection's operation.

SITE PLAN COMMENTS

1. The traffic study recommends adding an emergency signal for the existing fire station. Consider the addition of a W11-8 "Emergency Vehicle" sign and W11-2P "Emergency Signal Ahead" plaque ahead of the existing W3-3 "Signal Ahead" sign.

CONCLUSIONS

The study indicates that in addition to staff and visitor trips, there is an expected maximum of 50 truck trips in and 50 truck trips out per day. Trips could be distributed throughout the expected 10 hours of daily operation (average 10 truck trips per hour). The traffic study evaluated 13 truck trips during the peak hours (approximately 1 truck trip every 5 minutes), along with 30 trips from staff and 8 trips from customers. The trip generation expected seems reasonable and is distributed 50% to/from the north and 50% to/from the south of the site. The additional traffic does not appear to have a significant effect on Route 12 based on the analysis of delays and queues. Additional deliveries are expected to occur via barge and rail.

The existing driveway, Dow Chemical Road, is signalized and provides turn lanes on Route 12's approaches. The traffic signal will facilitate the new trips by the site. According to the provided traffic analysis reports and summary, the trips added to Route 12 are within operating capacity of the roadway and do not cause sizable changes to the Level-of-Service of intersection operations based on typical traffic engineering practice.