



martin and martin, incorporated

37 South Main Street • Suite A • Chambersburg, Pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
Website: martinandmartininc.com

AUG 4 2016

August 1, 2016

Lower Saucon Township
Ms. Leslie Huhn, Manager
3700 Old Philadelphia Pike
Bethlehem, PA 18015

RE: IESI PA Bethlehem Landfill
Traffic Report by Pennoni Dated 7/30/16
Our file: b/1162.3/2016/a

Dear Ms. Huhn:

Pursuant to the conditions of the Lower Saucon Township Council and Zoning Hearing Board approvals, attached is the Analysis of Accidents and Evaluation of Curves/Signage along Applebutter Road, as prepared by Pennoni Associates.

If you need anything more, please let me know.

Very truly yours,
MARTIN AND MARTIN, INCORPORATED

Richard M. Bodner, P.E.

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ROUTING

- Council
- Manager *orig.*
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C enclosure: Pennoni July 30, 2016
- P & R cc: Bethlehem Landfill
- LAW
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other

Web

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July 30, 2016

MMTN 1101

Rick Bodner

RE: IESI Bethlehem Landfill Expansion: Lower Saucon Township June 15, 2016 Condition of Approval

Dear Mr. Bodner,

We offer the following response to the Lower Saucon Township June 15, 2016 condition of approval:

General

- A. IESI shall review available accident history for Applebutter Road to identify crash patterns attributable to truck traffic, and evaluate the adequacy of roadway signage on Applebutter Road for additional truck traffic generated by the Southeastern Realignment, particularly advance warning signs for roadway curvatures.**

After reviewing the available crash data, there does not appear to be any crash patterns attributable to truck traffic, particularly truck traffic associated with landfill activity along Applebutter Road (SR 2012) within the study area in Lower Saucon Township and the City of Bethlehem. A summary of the crash data is attached with this response.

In 2011-2012, PennDOT improved the signage along Applebutter Road, such that the existing signage is consistent with PennDOT standards, including advance warning signs for roadway curvatures. Nevertheless, Pennoni conducted a field view of Applebutter Road (SR 2012) on February 2, 2016 to verify the type of warning signs and their location in addition to the pavement markings along the corridor. Table 1.A identifies the type of sign and its position along Applebutter Road (SR 2012).

As can be seen in the table, there are many warning signs located along this section of Applebutter Road (SR 2012) including curve warning signs, advisory speed signs, and chevrons. In addition to the signage, there is a double yellow centerline, white edgelines, and SLOW/ARROW pavement markings at key locations. PennDOT has also installed centerline rumble strips along Applebutter Road (SR 2012) to assist motorists traveling the roadway.

While the vast majority of the signs are properly located, we offer the following suggestions to improve signing on the roadway. It should be noted that the field view of Applebutter Road (SR 2012) extended beyond the Lower Saucon Township boundaries into the City of Bethlehem. The suggestions noted in SR 2012 SEG 0010 below are located in the City of Bethlehem and the suggestions noted in SR 2012 SEG 0030 below are located in Lower Saucon Township.

- The existing Stop Ahead (W3-1) sign could be relocated east on Applebutter Road (SR 2012) so that it is a minimum 250ft from the intersection of Shimersville Road (SR 2014) near SR 2012

SEG 0010 OFF 250 to provide adequate advance warning of the stop sign in accordance with Pub 236.

- Additional Chevron Alignment (W1-8) signs could be installed on the sharp turn on Applebutter Road (SR 2012) near SR 2012 SEG 0010 OFF 1000 in accordance with the MUTCD Figure 2C-2 to supplement the Large Single Arrow (W1-6) signs.
- A Slow Curve Arrow could be painted in the eastbound lane of Applebutter Road (SR 2012) in advance of the sharp turn at approximately SR 2012 SEG 0010 OFF 2000 in accordance with Pub 111 Pavement Marking Standards TC-8600.
- A Right Clearance Marker (OM-3R) could be placed in the westbound shoulder on Applebutter Road (SR 2012) near the pipe culvert crossing at SR 2012 SEG 0030 OFF 1580.

These suggestions related to signage and pavement markings should be review and approved by PennDOT's traffic unit before any changes are made.

If you have any questions or comments, or require additional information, please do not hesitate to contact me.

Sincerely,

PENNONI ASSOCIATES INC.



Earl W. Armitage III, P.E.
Transportation Division Manager

Enclosures