ORDINANCE NO. 2

AN ORDINANCE OF DELAWARE TOWNSHIP, PIKE COUNTY,
PENNSYLVANIA,
ESTABLISHING SPEED LIMITS ON DOOLAN ROAD

WHEREAS, in general, speed limits within Pennsylvania are set by the Pennsylvania Vehicle Code, which provides at 75 P.S. § 3362 (a):

(a) General Rule – Except when a special hazard exists that requires lower speed for compliance with Section 3361 (relating to driving vehicle at safe speed), the limits specified in this section or established under this subchapter shall be maximum lawful speeds and no person shall drive a vehicle at a speed in excess of the following maximum limits:

(1) 35 miles per hour in any urban district.
(1.1) 65 miles per hour for all vehicles on freeways where the department has posted a 65-miles-per-hour speed limit.
(1.2) 25 miles per hour in a residence district if the highway:
   (i) is not a numbered traffic; and
   (ii) is functionally classified by the department as a local highway.
(2) 55 miles per hour in other locations.
(3) Any other maximum speed limit established under this subchapter; and

WHEREAS, pursuant to the Pennsylvania Vehicle Code, 75 P.S. § 3363, On highways under their respective jurisdictions, local authorities..., upon the basis of an engineering and traffic investigation, may determine that the maximum speed permitted under this subchapter is greater or less than is reasonable and safe under the conditions found to exist upon any such highway or part thereof and establish a reasonable and safe maximum limit; and
WHEREAS, pursuant to the Pennsylvania Vehicle Code, 75 P.S. § 3363, Delaware Township has had an Engineering and Traffic Study performed on Doolan Road, Delaware Township, Pike County; and

WHEREAS, the above referenced Engineering and Traffic Study is attached to this Ordinance as Exhibit "A"; and

WHEREAS, the above referenced Engineering and Traffic Study based upon 75 P.S. § 3362 and 3363 concludes the speed limits on the above referenced road should be 35 miles per hour; and

WHEREAS, the Board of Supervisors of Delaware Township has determined that to ensure the safety and well-being of the citizens of the Township and other persons traveling on Doolan Road, the Board of Supervisors desires to establish speed limits upon and along the road as recommended in the Engineering and Traffic Study which is attached to this Ordinance as Exhibit "A".

NOW, THEREFORE, BE IT ORDAINED AND ENACTED, by the Board of Supervisors of Delaware Township, Pike County, Pennsylvania, after public hearing duly advertised and held on the ____ day of ________________, 2016, as follows:

SECTION 1
SPEED LIMITS

The following vehicle speed limit is established upon Doolan Road. All vehicles operating on Doolan Road or portions of Doolan Road shall operate at or below the speed limit established hereunder which said speed limit shall be 35 miles per hour.
SECTION 2
PENALTY

Any person who shall violate any provision of Ordinance shall be subject to fines and penalties as are established under the Pennsylvania Vehicle Code, Pa. C.S.A. Title 75, as amended.

SECTION 3
SEVERABILITY

If any sentence, clause, section, or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance.

SECTION 4
POSTING

The appropriate officials of Delaware Township, Pike County, Pennsylvania, are hereby authorized to post the speed limit restrictions hereby enacted in accordance with the Pennsylvania Vehicle Code and the applicable sections of the Pennsylvania Code.

SECTION 5
EFFECTIVE DATE

This Ordinance shall become effective five (5) days from the date hereof.
ENACTED AND ORDAINED THIS 12 DAY OF October, 2016.

DELWARE TOWNSHIP, PIKE COUNTY, PENNSYLVANIA
BOARD OF SUPERVISORS:

[Signatures]

DR. JEFFREY SCHEETZ,
Chairman

THOMAS M. RYAN,
Vice-Chairman

JOHN HENDERSON
Township Supervisor

ATTEST:

[Signature]

KRISTA N. PREDMORE
Township Administrator/Assistant Treasurer
EXHIBIT "A"
BACKGROUND

The Board of Supervisors of Delaware Township in Pike County, Pennsylvania is concerned that vehicles are traveling on Doolan Road at unsafe speeds. Currently, there is no posted speed limit on Doolan Road, making the de facto legal speed limit 55 miles per hour (mph). Accordingly, the Board has asked Baeder & James, Inc. to conduct an engineering and traffic study to determine the most appropriate safe legal speed limit for Doolan Road. The Pennsylvania Vehicle Code Title 75, Section 6109(a) (10) gives municipalities the authority to establish speed limits on Township roads as authorized in Subchapter F of Chapter 35 of said Title.

Doolan Road is considered a Local Collector Road providing a direct route between Silver Lake Road and S.R. Route 799. It is a two-lane road, and runs generally in an east-west direction. Along its 1.7-mile length are 15 intersecting, minor roads providing access to single family residential developments. Also, there are single-family dwellings taking direct access to Doolan Road. The travel way of Doolan Rd is about 22 feet in width, and there are no shoulders. The alignment is through wooded mountainous terrain. Road grades are moderate in nature for most of the road length, with the exception of the intersections with Silver Lake Road and S.R. Route 799. Doolan Road approaches each intersection street at a steep decline.

PennDOT's Publication 212, Subsection 212.108D sets forth the requirements for engineering and traffic studies. Requirements include analysis of accident patterns, measurement of safe sight distance, and a determination of safe running speeds.
SAFE RUNNING SPEED

As per PennDOT's Publication 212, Subsection 212.108(b), the initial step taken in this study was to determine the safe running speed from one end of Doolin Road to the other in both directions. This was done in lieu of determining the 85th percentile of the actual travel speed of motorists. The subsection goes on to say the speed limit should be within 5 miles per hour of the average 85th percentile speed or the safe-running speed on the section of highway, except the speed limit may be reduced up to 10 miles per hour below either of these values if one or more of the following conditions are satisfied:

1. A major portion of the highway has insufficient stopping sight distance if traveling at the 85th percentile speed or the safe-running speed.

2. The available corner sight distance on side roads is less than the necessary stopping sight distance values for through vehicles.

3. The majority of crashes are related to excessive speed and the crash rate during a minimum 12-month period is greater than the applicable rate in the most recent high-crash rate or high-crash severity rate table included in the appendix of Official Traffic-Control Devices (Department Publication 212). Crashes related to excessive speed include those crashes with causation factors of driving too fast for conditions, turning without clearance or failing to yield right-of-way.

Section 17(3) in the Appendix of PennDOT Publication 212 was used to outline the steps to collect safe-running speed data. In accordance with this criterion, test runs for Doolin Road were conducted on August 29th, 2015 to determine a safe running speed. Weather conditions were dry and clear. There were two instances not inherent to road conditions that caused an impediment to unimpeded traffic movement. In both of these instances, the driver was slowed by either a car or pickup truck moving slowly in front. As a result, these two runs were not utilized in determining the safe running speed.

Travel times were measured using a stop watch. The entire length of the road was driven at a safe running speed considering road geometry, sight distance, road conditions, and intersections and driveways. The tabulated results are presented in the following table.
<table>
<thead>
<tr>
<th>ROAD</th>
<th>DIRECTION</th>
<th>SECTION</th>
<th>LENGTH (MILES)</th>
<th>TIME (SECONDS)</th>
<th>SPEED (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doolan Road</td>
<td>West - East</td>
<td>S.R. Route 799 to Silver Lake Road</td>
<td>1.7</td>
<td>145.3</td>
<td>43</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>West - East</td>
<td>S.R. Route 799 to Silver Lake Road</td>
<td>1.7</td>
<td>151.1</td>
<td>41</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>West - East</td>
<td>S.R. Route 799 to Silver Lake Road</td>
<td>1.7</td>
<td>144.8</td>
<td>42</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>West - East</td>
<td>S.R. Route 799 to Silver Lake Road</td>
<td>1.7</td>
<td>129.5</td>
<td>40</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>West - East</td>
<td>S.R. Route 799 to Silver Lake Road</td>
<td>1.7</td>
<td>143.7*</td>
<td>NA</td>
</tr>
</tbody>
</table>

Average Speed = 42.6 mph

*Time not utilized due to impediment of traffic movement

<table>
<thead>
<tr>
<th>ROAD</th>
<th>DIRECTION</th>
<th>SECTION</th>
<th>LENGTH (MILES)</th>
<th>TIME (SECONDS)</th>
<th>SPEED (MPH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doolan Road</td>
<td>East - West</td>
<td>Silver Lake Road to S.R. Route 799</td>
<td>1.7</td>
<td>145.8</td>
<td>42</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>East - West</td>
<td>Silver Lake Road to S.R. Route 799</td>
<td>1.7</td>
<td>148.5</td>
<td>41</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>East - West</td>
<td>Silver Lake Road to S.R. Route 799</td>
<td>1.7</td>
<td>142</td>
<td>43</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>East - West</td>
<td>Silver Lake Road to S.R. Route 799</td>
<td>1.7</td>
<td>176.1*</td>
<td>NA</td>
</tr>
<tr>
<td>Doolan Road</td>
<td>East - West</td>
<td>Silver Lake Road to S.R. Route 799</td>
<td>1.7</td>
<td>143.3</td>
<td>40</td>
</tr>
</tbody>
</table>

Average Speed = 40.3 mph

As the data indicates, in both directions, Doolan Road has a safe running speed of 40 miles per hour. The safe running speed should be further analyzed against accident reports and safe stopping sight distances at potential traffic conflicts with intersecting roads, before making a final determination on a safe legal speed limit.
SIGHT DISTANCE

Analysis was performed using topographical information and road geometry from the Pennsylvania Spatial Data Access website. In order to determine a recommended regulatory speed limit, the existing road was analyzed for sufficient safe stopping sight distances and safe corner sight distances for all 15 of the side roads connecting with Doolan Road, as depicted on the table and map below. Also, refer to Figure 1 at the end of this report.

<table>
<thead>
<tr>
<th>Street</th>
<th>Intersection</th>
<th>Available Sight Distance Left</th>
<th>Suggested Speed MPH</th>
<th>Available Sight Distance Right</th>
<th>Suggested Speed MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doolan Road 1a</td>
<td>Unknown Road Name</td>
<td>900</td>
<td>245</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 2a</td>
<td>Girl Scout Road</td>
<td>200</td>
<td>330</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 3a</td>
<td>S. Meath Lane</td>
<td>600</td>
<td>405</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 4a</td>
<td>S. Meath Lane</td>
<td>200</td>
<td>180</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 4b</td>
<td>Main St.</td>
<td>525</td>
<td>810</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 6a</td>
<td>General Trl.</td>
<td>205</td>
<td>305</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 6b</td>
<td>Butlerwood Lane</td>
<td>475</td>
<td>225</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 7a</td>
<td>Hackberry Lane</td>
<td>320</td>
<td>310</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 8a</td>
<td>Cottemore Lane</td>
<td>95</td>
<td>305</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 9a</td>
<td>Cherry Lane</td>
<td>350</td>
<td>490</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 10a</td>
<td>Oak Ridge Lane</td>
<td>270</td>
<td>280</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 11a</td>
<td>Kity Marker Road</td>
<td>40</td>
<td>365</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 12a</td>
<td>Dailey Lane</td>
<td>181</td>
<td>275</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 13a</td>
<td>Benchmark Trl.</td>
<td>365</td>
<td>300</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 14a</td>
<td>Whisperwood Drive</td>
<td>245</td>
<td>310</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Doolan Road 15a</td>
<td>Buttermilk Road</td>
<td>380</td>
<td>245</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

As the table above illustrates, using AASHTO 2001.03.01 "Stopping Sight Distance" criteria, the available corner sight distance on the 15 side roads analyzed warrants speed limits between 30 to 35 miles per
hour. Four locations warrant 30 miles per hour to safely accommodate left turns, and four locations warrant 30 miles per hour to safely accommodate right turns.

ACCIDENT ANALYSIS

Accident data was obtained from PennDOT Crash Data Analysis and Retrieval Tool (CDART) for Doohan Road for the last five years available (2011 to 2015).

This data revealed that there were 15 reported accidents for this period; four accidents were collisions at an angle, eight were collisions with fixed objects, one accident was an opposite direction sideswipe, one accident was a rear end, and there was one unknown type of accident. Out of these 15 accidents, 11 people sustained minor injuries and an additional four sustained injuries of unknown severity. In one accident, one person suffered moderate injury. One injury was classified as unknown.

None of the accidents on Doohan Road for the past five years have resulted in fatalities. However, the number of accidents suggests motorists were traveling at unsafe speeds for the road conditions.
CONCLUSIONS AND RECOMMENDATIONS

The engineering and traffic study indicates that the safe running speed for Doolan Road was 40 miles per hour. However, limited corner sight distances suggest the need to reduce the speed limit further. A speed limit of 35 miles per hour is recommended. This speed limit is within 5 miles per hour of the safe running speed and takes into consideration limited sight distances at certain cross streets and residential driveways. The speed limit should be posted in accordance with Chapter 67 of the Pennsylvania Code, Section 212.108 Speed Limits. The basic requirements include:

1. Placing a speed limit sign (R2-1) within 200 feet of turning on to Doolan Road from either Silver Lake Road or S.R. 739.
2. Placing a speed limit sign (R2-1) no further apart than 3/4 mile along Doolan Road for its entire length in either direction.

Our recommendation is to post the speed limit as suggested, and observe the traffic situation over a period of time. If it is determined to be required, additional warnings can be implemented like signs stating "Intersection Ahead" at approaches to cross streets with limited sight distance, similar signs for driveways with limited sight distance, and rumble strips in the pavement approaching the intersections with Silver Lake Road and S.R. 739 to warn of the impending stop conditions.

4/22/2010

[Signature]

4/22/2010

[Signature]
NOTICE OF DELAWARE TOWNSHIP PUBLIC HEARING ON PROPOSED ORDINANCE 401B ESTABLISHING SPEED LIMITS ON DOOLAN ROAD IN THE TOWNSHIP OF DELAWARE, PIKE COUNTY, PENNSYLVANIA.

PLEASE BE ADVISED that the Delaware Township Board of Supervisors will hold a Public Hearing on proposed Ordinance 401B on the 12th day of October, 2016, at 7:15 p.m., at the Delaware Township Municipal Building located at 116 Wilson Hill Road, Dingmans Ferry, Pennsylvania 18328. The purpose of the hearing is to adopt Ordinance 401B establishing speed limits, penalty, posting and effective date on Doolan Road. Ordinance 401B can be reviewed in its entirety at the Delaware Township Municipal Office located at 116 Wilson Hill Road, Dingmans Ferry, PA 18328 between the hours of 8:00 a.m. and 4:00 p.m.

MICHELLE FLEEC
Being duly sworn, according to law, deposes and says that SHE is PUBLISHER of THE NEWS EAGLE, a newspaper of general circulation, established in 1956, and published twice weekly in the Borough of Hawley, Wayne County, Pennsylvania; and that the advertising notice hereto annexed was published in said newspaper on the following dates:

9/26

And he affiant further declares that he is not interested in the subject matter of the notice, and that all of the allegations as to the time, place and character of publications are true and correct.

Sworn to and subscribed before me this 24th day of Sept., 2016.

[Signature]

COMMISSIONER OF NAI, PENNSYLVANIA

Notarial Seal

JANCUE FLEEC, Notary Public

Cherry Ridge Twp., Wayne County

PUBLIC NOTICE
NOTICE OF
DELAWARE TOWNSHIP PUBLIC
HEARING ON
PROPOSED
ORDINANCE 401B
ESTABLISHING
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DOOLAN ROAD IN
THE TOWNSHIP
OF DELAWARE,
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Sue Doty-Lloyd

being duly sworn, according to law, deposes and says that
she is the Publisher of the “Pike County Dispatch,” a weekly
newspaper of general circulation established in the year 1826
and published at No. 105 West Catharine Street, in the Borough
of Milford, County and State aforesaid; and that a printed
notice, an exact copy of which is hereto annexed, was pub-
lished in said newspaper—one time(s), to wit, in its issues of

Sept. 29

A.D. 2016 and the affidavit further states that she is not
interested in the subject matter of this notice or advertisement
and that all of the allegations of the statement as to time, place
and character of publication are true.

Pike County Dispatch

Kelli Doro, Attorney-In-Fact
Sue Doty-Lloyd, Principal

Sworn to and subscribed to before me this 29 day
of September, A.D. 2016

Commission Expires 4-23-2017