

ORDINANCE NO. 401C

AN ORDINANCE OF DELAWARE TOWNSHIP, PIKE COUNTY,
PENNSYLVANIA,
ESTABLISHING SPEED LIMITS ON CHILDS PARK 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 Childs Park 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 Childs Park 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 _____, 2017, as follows:

SECTION 1
SPEED LIMITS

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

All vehicles operating on Childs Park Road or portions of Childs Park Road shall also abide by any and all applicable Pennsylvania Department of Transportation (PENNDOT) regulations and requirements.

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.

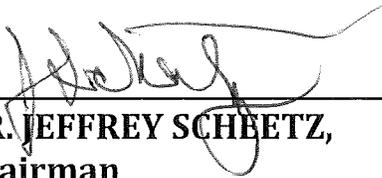
The appropriate officials of Delaware Township, Pike County, Pennsylvania, are further authorized to post any and all additional warning signs hereby enacted with the Pennsylvania Vehicle Code, the applicable sections of the Pennsylvania Code, and Pennsylvania Department of Transportation (PENNDOT) regulations.

SECTION 5
EFFECTIVE DATE

This Ordinance shall become effective five (5) days from the date hereof.

ENACTED AND ORDAINED THIS 22 DAY OF February,
2017.

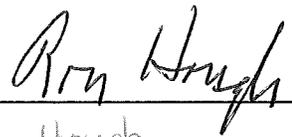
DELAWARE TOWNSHIP, PIKE COUNTY,
PENNSYLVANIA
BOARD OF SUPERVISORS:



DR. JEFFREY SCHEETZ,
Chairman



JOHN HENDERSON
Township Supervisor



Ron Hough
Township Supervisor

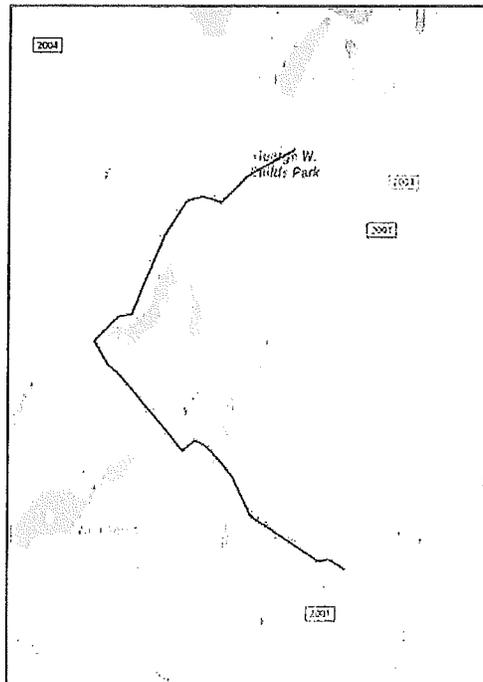
ATTEST:



KRISTA N. PREDMORE
Township Administrator/Assistant Treasurer

EXHIBIT "A"

Engineering and Traffic Study
Childs Park Road
Delaware Township
Pike County, Pennsylvania



Prepared by:



Boucher & James, Inc.

CONSULTING ENGINEERS

Corporate Headquarters
1456 Ferry Road, Building 500
Doylestown, PA 18901
215.345.9400

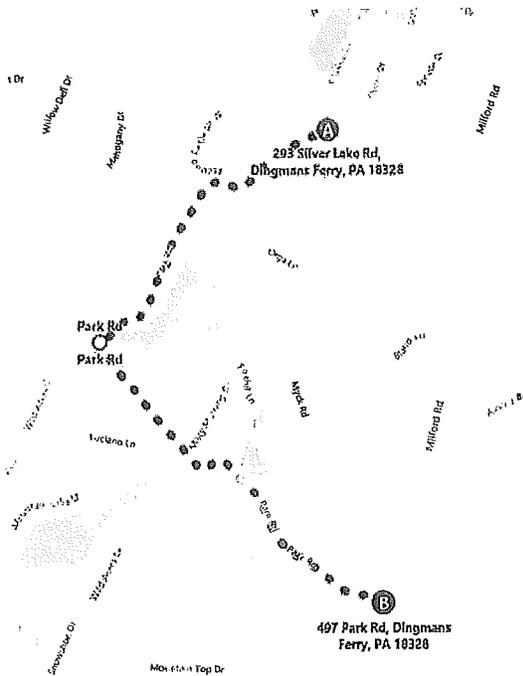
Regional Office
2738 Rimrock Drive
Stroudsburg, PA 18360
570.629.0300

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610.419.9407

CHILDS PARK ROAD TRAFFIC STUDY
JANUARY 10, 2017

BACKGROUND

The Board of Supervisors of Delaware Township in Pike County, Pennsylvania is concerned that vehicles are traveling on Childs Park Road at unsafe speeds. Currently, there is no posted speed limit on Childs Park Road making the de facto legal speed limit 55 miles per hour (mph). Accordingly, the Board has asked Boucher & James, Inc. to conduct an engineering and traffic study to determine the most appropriate safe legal speed limit for Childs Park 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 33 of said Title. Childs Park Road is considered a Local Collector Road providing a direct route between Milford Road (S.R. 2001) and Silver Lake Road. It is a two-lane road, and runs generally in a north-south direction. Along its 3.4-mile length are 10 intersecting, minor roads providing access to single family residential developments. Also, there are single-family dwellings taking direct access to Childs Park Road. The travel way of Childs Park Rd. varies from 20 to 24 feet in width, and there are no shoulders. The alignment is through wooded mountainous terrain. Road grades are moderate to steep in nature for most of the road length. Also,

there are areas of sharp bends with limited visibility.

PennDOT's Publication 212, Subsection 212.108(b) sets forth the requirements for engineering and traffic studies. Requirements include the determination of safe running speeds, measurement of safe sight distances, and an analysis of accident patterns.

SAFE RUNNING SPEED

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 Childs Park 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(iii) 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 Childs Park Road were conducted on December 2, 2016 to determine a safe running speed. Weather conditions were dry and clear. There were three instances not inherent to road conditions that caused an impediment to unimpeded traffic movement. In these instances, the driver was slowed by a car moving slowly in front and once by a line stripping truck moving slowly in front. Thus, these three 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.

SAFE RUNNING SPEED ANALYSIS					
ROAD	DIRECTION	SECTION	LENGTH (MILES)	TIME (SECONDS)	SPEED (MPH)
Childs Park Rd	North-South	Milford Road to Silver Lake Rd	3.4	314.1	38.97
Childs Park Rd	North-South	Milford Road to Silver Lake Rd	3.4	315.2	38.83
Childs Park Rd	North-South	Milford Road to Silver Lake Rd	3.4	306.8	39.90
Childs Park Rd	North-South	Milford Road to Silver Lake Rd	3.4	316.7	38.65
Childs Park Rd	North-South	Milford Road to Silver Lake Rd	3.4	329.1*	NA

Average Speed = 39.09 mph

*Time not utilized due to impediment of traffic movement

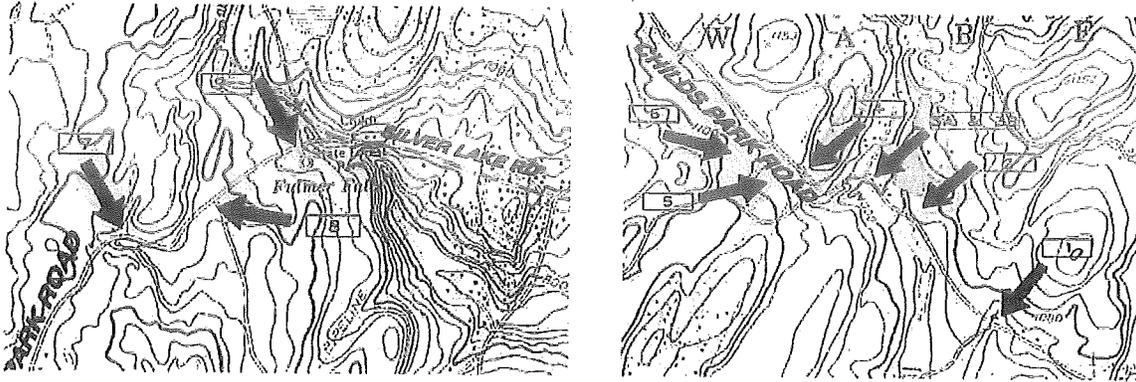
SAFE RUNNING SPEED ANALYSIS					
ROAD	DIRECTION	SECTION	LENGTH (MILES)	TIME (SECONDS)	SPEED (MPH)
Childs Park Rd	South-North	Silver Lake Road to Milford Rd	3.4	319.4	38.32
Childs Park Rd	South-North	Silver Lake Road to Milford Rd	3.4	398.6*	NA
Childs Park Rd	South-North	Silver Lake Road to Milford Rd	3.4	312.3	39.19
Childs Park Rd	South-North	Silver Lake Road to Milford Rd	3.4	304.6	40.18
Childs Park Rd	South-North	Silver Lake Road to Milford Rd	3.4	331.2*	NA

Average Speed = 39.23 mph

As the data indicates, in both directions, Childs Park Road has a safe running speed of approximately 40 miles per hour. The safe running speed must 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 10 of the side roads connecting with Childs Park, as depicted on the table and map below. Also, refer to Figure 1 at the end of this report.



CORNER SIGHT DISTANCE ANALYSIS DELAWARE TOWNSHIP – CHILDS PARK ROAD					
Street	Intersecting Drive	Available Sight Distance Left	Suggested Speed MPH	Available Sight Distance Right	Suggested Speed MPH
Childs Park Road 1-	Bowker Lane	224	30	291	40
Childs Park Road 2-	Lake Shore Drive	237	35	165	25
Childs Park Road 3A-	Fawn Lake Drive	217	30	225	35
Childs Park Road 3A-	Fawn Lake Drive	210	30	178	30
Childs Park Road 4-	Misty Morning Drive	220	30	608	65
Childs Park Road 5 -	Wild Acres Road	250	35	130	25
Childs Park Road 6 -	Luciano Lane	217	30	154	25
Childs Park Road 7 -	Juniper Terrace	353	45	342	45
Childs Park Road 8 -	Myck Road	256	35	312	40
Childs Park Road 9 -	Creek Lane	300	40	254	35

As the table above illustrates, using AASHTO Exhibit 3.1 “Stopping Sight Distance” criteria, the available corner sight distance on the 10 side-roads analyzed warrants speed limits between 20 to 65 miles per hour. Four locations warrant 30 miles per hour to safely accommodate left turns, and three locations warrant 25 miles per hour to safely accommodate right turns. Limiting legal speed limits to those speeds suggested by safe sight distances should not be the only consideration. They should be analyzed along with the other applicable criteria to make a final determination of a legal speed limit. If there are instances where safe sight distance suggests a safe speed less than the posted legal speed limit, the Township should consider posting those locations with advisory, black on yellow, warning signs.

ACCIDENT ANALYSIS

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

This data revealed that there were 32 reported accidents for this period; two accidents were collisions at an angle, 27 were collisions with fixed objects, two accidents were categorized as “non-collision,” and there was one unknown type of accident. These accidents were classified by crash severity as follow; one accident resulted in major injury where one person sustained major injuries, 10 accidents resulted in minor injury where 12 people sustained minor injuries, one person sustained moderate injuries, and one person sustained injury of unknown severity, two accidents were unknown if injured, and an additional 19 accidents resulted in property damage only.

None of the accidents on Childs Park 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.

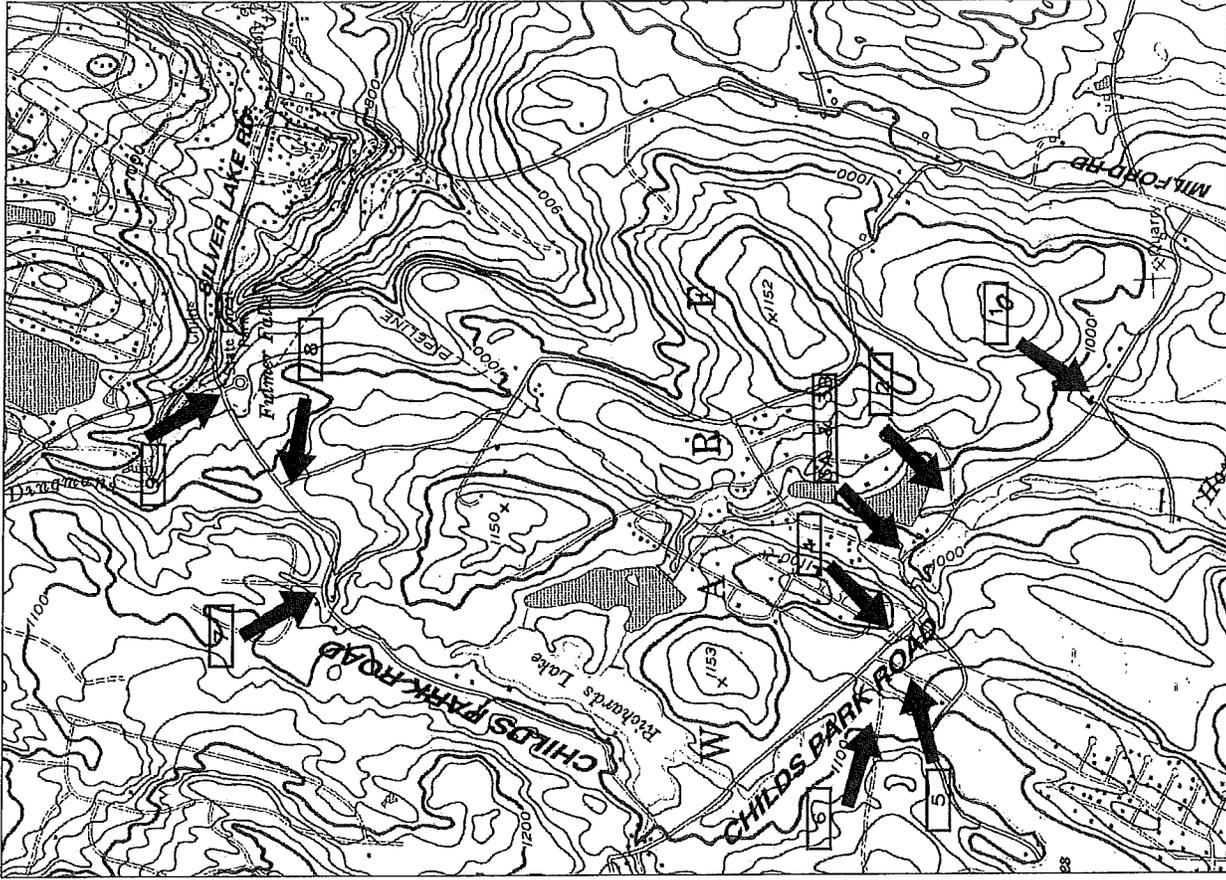
CONCLUSIONS AND RECOMMENDATIONS

The engineering and traffic study indicates that the safe running speed for Childs Park 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(e). The basic requirements include:

- (1) Placing a speed limit sign (R2-1) within 200 feet of turning onto Childs Park Road from either Silver Lake Road or Milford Road (SR 2001)
- (2) Placing a speed limit sign (R2-1) no further apart than ½ mile along Childs Park 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 and similar signs for driveways with limited sight distance



<p>FIGURE 1 TOPO MAP</p>	<p>ENGINEERING AND TRAFFIC STUDY - CHILDS PARK ROAD EDGEMERE USGS QUAD 1"=1000 DELAWARE TOWNSHIP, PIKE COUNTY, PENNSYLVANIA</p>
<p>DELAWARE TOWNSHIP PIKE COUNTY</p>	<p>Boucher & James, Inc. CONSULTING ENGINEERS DOTLESTOWN & STROUBSBURG & LEHIGH VALLEY REGIONAL OFFICE: 2728 BIRCHOCK DRIVE, STROUBSBURG, PA. 15140 VOICE: (717) 825-5350 FAX: (717) 825-5356</p>