

**TOWNSHIP OF UPPER SAUCON  
LEHIGH COUNTY, PENNSYLVANIA  
ORDINANCE NO. 176**

**AN ORDINANCE OF THE BOARD OF SUPERVISORS OF UPPER SAUCON  
TOWNSHIP, LEHIGH COUNTY, PENNSYLVANIA, PROVIDING A  
DEFINITION OF CONSTRUCTION TRUCKS AND MOTOR CARRIER  
VEHICLES, PROHIBITING THE OPERATION OF CONSTRUCTION TRUCKS  
AND MOTOR CARRIER VEHICLES ON A SEGMENT OF WEST HOPEWELL ROAD,  
AND PROVIDING FOR SIGNS AND PENALTIES**

**A. LEGISLATIVE FINDINGS.**

**WHEREAS**, a certain segment of West Hopewell Road (T-443) in Upper Saucon Township (hereinafter, "Township"), running between Lanark Road (SR 2039) and PA Route 309 for a distance of approximately 1,300 feet (0.25 miles), is a 2-lane east/west road serving primarily a residential area (hereinafter, "WHR"); and

**WHEREAS**, Section 320 of the Township Zoning Ordinance classifies WHR by default a local road; and

**WHEREAS**, WHR intersects numerous driveways and local streets serving primarily residential neighborhoods; and

**WHEREAS**, WHR primarily provides access by local motorists to State highways; and

**WHEREAS**, there are no primary truck destinations or originations along WHR; and

**WHEREAS**, State-owned and maintained roadways provide safer, alternative truck routes; and

**WHEREAS**, due to ongoing development, concerns have been expressed about the ability of WHR to safely handle truck traffic; and

**WHEREAS**, because of these concerns, the Township engaged its engineer, Hanover Engineering Associates, Inc. (hereinafter, "Engineer"), to perform an engineering and traffic study of WHR to determine whether a truck traffic restriction should be imposed; and

**WHEREAS**, the Engineer issued a report, dated December 2021, a copy of which is attached hereto as **Exhibit A**; and

**WHEREAS**, the Engineer determined, among other things, that a) adjacent residential land uses create truck safety concerns on a roadway with limited width and without shoulders or sidewalk, b) the pavement is of inadequate structural capacity and may be seriously damaged by truck use and c) there exists inadequate turning radii and horizontal width to support truck traffic; and

**WHEREAS**, the Engineer concluded that a truck prohibition is justified for WHR and that appropriate signage be installed; and

**WHEREAS**, the Pennsylvania Vehicle Code, 75 Pa.C.S.A. Section 101, et. seq. (hereinafter, "Vehicle Code") at Section 4902 authorizes the Township Board of Supervisors (hereinafter, "Supervisors") to place restrictions (with appropriate exemptions) on the weight or size of vehicles operated on certain roadways consistent with the results of an appropriate engineering and traffic study; and

**WHEREAS**, Pennsylvania Department of Transportation Publication 212, at Section 212.117(b), authorizes prohibitions on the weight, kind, size or class of vehicles operated on certain roadways in accordance with the conclusions of such studies; and

**WHEREAS**, the Supervisors find that the placement of restrictions on the class, weight and size of trucks on WHR is consistent with the recommendations contained in **Exhibit A**, PennDOT warrants, site conditions and the public health, safety and general welfare.

**IT IS HEREBY ENACTED AND ORDAINED** by the Board of Supervisors of Upper Saucon Township, Lehigh County, Pennsylvania, as follows:

**B. SUBSTANTIVE PROVISIONS.**

**Section 1: Definitions**

(a) Except where the context clearly indicates to the contrary, the following words and phrases when used in this Ordinance shall have the following definitions.

Construction Truck. A three or four axle truck engaged in construction operations.

Local. With respect to local deliveries, pickups or services, the term "local" shall mean properties to which access is gained from WHR.

Motor Carrier Vehicle.

(1) A truck, truck tractor or combination having a gross vehicle weight rating, gross combination weight rating, registered gross weight, registered combination weight or actual gross weight of 17,001 pounds or more.

(2) A truck, truck tractor or combination engaged in interstate commerce and having a gross vehicle weight rating, gross combination weight rating, registered gross weight, registered combination weight or actual gross weight of 10,001 pounds or more.

(b) If any word or phrase used in this Ordinance is not defined herein, but is defined in Section 102 of the Vehicle Code, such word or phrase shall have the same meaning as ascribed therein.

**Section 2: Restrictions on Vehicle Size**

Pursuant to the authority granted by Section 4902 of the Vehicle Code, it shall be unlawful for any person to operate a Construction Truck or Motor Carrier Vehicle on any part of the 0.25-mile segment of West Hopewell Road running between southbound State Route 309 and Lanark Road (SR 2039).

**Section 3: Exclusions from Prohibition**

The following vehicles shall be exempt from the restrictions imposed under Section 2 of this Ordinance:

- (a) School buses,
- (b) Emergency vehicles, and
- (c) Construction trucks or motor carrier vehicles making local deliveries or pickups or providing local services.

**Section 4: Notice of Restrictions**

Appropriate signs shall be erected and maintained along WHR to provide notice of the truck restriction. Signage type, size and location shall be in accordance with **Exhibit A**.

**Section 5: Violations and Penalties**

Any person convicted of a violation of this Ordinance, or any supplement or amendment hereto, shall be liable to pay a penalty and costs of prosecution (including legal fees) as set forth in the Vehicle Code.

**Section 6: Effective Date**

This Ordinance shall become effective five (5) days after passage.

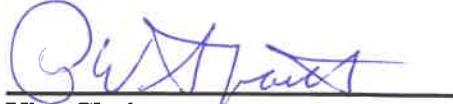
**ENACTED AND ORDAINED** this 14<sup>th</sup> day of February, 2022, by the Board of Supervisors of the Township of Upper Saucon, Lehigh County, Pennsylvania, in lawful session duly assembled.

[Signatures Follow]

**UPPER SAUCON TOWNSHIP  
BOARD OF SUPERVISORS**



**Chairman**



**Vice Chairman**



**Supervisor**

**ATTEST:**



**Secretary**



**Supervisor**

**Supervisor**

# Exhibit A

# **Engineering and Traffic Study**

**For a Truck Restriction on  
West Hopewell Road, T-443**



**In  
Upper Saucon Township  
Lehigh County**

**Prepared by:**

**Hanover Engineering Associates, Inc.  
252 Brodhead Road, Suite 100  
Bethlehem, PA 18017-8944  
(610) 691-5644 Fax: (610) 691-6968**

**December 2021**

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## INTRODUCTION

This Engineering and Traffic Study has been prepared by Hanover Engineering Associates, Inc., as Township Engineer for Upper Saucon Township, to investigate the need for a truck traffic restriction along West Hopewell Road, T-443, from SR 309 southbound to Lanark Road, SR 2039, in Upper Saucon Township, Lehigh County.

West Hopewell Road, in the study area, connects Route 309 (SR 0309) to Lanark Road (SR 2039). West Hopewell Road is a 25 mph, 2-lane east/west roadway within a residential area, approximately 1,300 feet (0.25 mile) in length. A small medical office building is located in the northwest quadrant of the intersection with SR 309. This roadway is owned and maintained by Upper Saucon Township. Upper Saucon Township is concerned about truck traffic using this road as a cut-through to the State-owned facilities of SR 0309 and SR 2039.

A truck traffic restriction should be considered where either the existing roadway conditions and/or the existing traffic conditions are poorly suited for trucks. **This study was prepared in accordance with Pennsylvania Department of Transportation (PennDOT) Publication 212, Official Traffic Control Devices, Subchapter B, Section 212.117 Weight, size and load restrictions.** As part of this report, a review of the existing roadway and traffic conditions includes an evaluation of pavement condition, roadway alignment, roadway geometry, compatibility with surrounding land use and the availability of alternative routes were performed for West Hopewell Road to determine if through trucks should be prohibited for the protection and safety of the public. Applicable references and supporting data are provided at the end of this report

## EXISTING ROADWAY CONDITIONS

Regarding highway conditions, the grounds for a truck restriction under state law and regulation must meet the following criteria.

**PennDOT Publication 212 Section 212.117(b)** *Traffic on a highway may be prohibited or restricted by weight of vehicle, or kinds or classes of vehicles when warranted by an engineering evaluation. Engineering evaluation may be based on structural analysis, testing, engineering judgment or a combination thereof. A restriction is warranted when one or more of the following conditions are present:*

- (1) *The highway pavement or shoulder have inadequate structural capacity or have been weakened due to deterioration, high traffic volumes or climatic condition, and may be seriously damaged unless a restriction is imposed.*
- (2) *An engineering evaluation of previous similar climatic condition on the highway or on similar highways indicates that vehicles over a certain weight should have been prohibited.*

**PennDOT Publication 212 Section 212.117(c)(2)** *A highway has inadequate turning radii, horizontal width or creates concerns for vehicles with low ground clearance at one or more locations.*

West Hopewell Road is a local road that currently consists of a bituminous surface in fair condition; however, base course and sub-grade are of unknown materials, with “alligator” cracking prevalent in some areas of roadway, most likely due to base failure from poor roadway base drainage. West Hopewell Road is approximately 20 to 22 feet wide with +/- 10 to 11 feet wide travel lanes without shoulders. Pavement markings are limited to a double yellow center line. As currently constructed, West Hopewell Road predominantly does not meet the minimum criteria for urban or rural local roads as set forth in PennDOT Publication 13M, Design Manual Part 2 (DM-2).



Design standards generally require a minimum travel lane width of 10 feet with 5 feet wide shoulders for local roadways with limited traffic and a speed limit of 25 mph. In addition, the intersection radii at the intersections with Lanark Road and SR 309 range between 10 feet and 25 feet. The combination of limited roadway width and tight intersection radii make turning maneuvers difficult, if not impossible, for larger vehicles using the roadway to remain in their lane.

## EXISTING TRAFFIC CONDITIONS

Regarding traffic conditions, the grounds for a truck restriction under state law and regulation must meet the following criteria:

**PennDOT Publication 212 Section 212.117(d)** *Traffic on a highway or bridge may be prohibited or restricted by weight or size of vehicle, or kinds or classes of vehicles when, an engineering evaluation of the horizontal and vertical alignment, prevailing traffic speeds, compatibility of the various types of traffic, history of vehicle crashes or vehicular characteristics, indicates that the movement of certain vehicles constitutes a safety hazard. Restrictions may include weight; height, width or length of vehicles or their loads; types of cargo; speed or gearing; stopping requirements; specified travel lanes; and hours of operation.*

## ROADWAY GEOMETRICS AND LAND USE

The width of the roadway, lack of shoulders and residential community land use were reviewed as part this study to determine if roadway geometrics and conditions along Hopewell Road support a truck prohibition.

The horizontal and vertical alignment of the roadway is unremarkable; however, the constrained roadway width and lack of shoulders creates conflicts within the roadway clear zone, consisting of utility poles, trees and vegetation. Adjacent land use is predominantly residential, with “Watch Children” warning signage posted in both directions. The lack of sidewalk or shoulders promotes concerns for pedestrians and bicyclists required to use the cartway area of the roadway. Three residential roadways intersect West Hopewell Road in this area, including Apple Lane, Orchard Drive and Cherry Lane. Limited roadway width and tight intersection radii along West Hopewell Road precludes trucks from making turning maneuvers without encroaching upon opposing lanes of traffic. The following pictures show current roadway conditions along West Hopewell Road.

**PICTURE #1** - Shows pavement distress, no shoulders, tight radii and vehicular off-tracking.



**PICTURE #2** - Shows pavement distress, no shoulders, tight radii and vehicular off-tracking.



**PICTURE #3** - Shows pavement distress, no shoulders and pavement repair.



**PICTURE #4** - Shows pavement distress, no shoulders and pavement repair.



**PICTURE #5** - Shows residential neighborhood with “Watch Children” warning sign, no shoulders, pavement distress/repair and proximity of trees/vegetation close to roadway.



## ALTERNATIVE ROUTES

A review of the highway network was conducted to determine if an alternative route or routes exist if trucks are prohibited on West Hopewell Road. Where feasible, truck traffic should be directed towards roadways that have the ability to better accommodate these additional traffic volumes without an excessive increase in the overall trip length, as it relates to the study area roadway.

Establishment of an alternative route is based on the following criteria.

**PennDOT Publication 212 Section 212.117(f)** *An alternate route shall be established whenever vehicles are prohibited under subsection (a) or (b) on either a numbered traffic route or a State-designated highway on the National Highway System, as established by the Federal Highway Administration, when the following apply:*

- (1) A reasonable alternate route exists which is not readily perceived by drivers.*
- (2) The alternate route can legally, safely, structurally and physically accommodate the weight and size of vehicles and their loads that are being detoured.*
- (3) Five or more vehicles per day are estimated to be prohibited from using the original route*

Because West Hopewell Road is not a numbered traffic route or a State-designated highway on the National Highway System, an alternate truck route does not need to be established to

accommodate truck traffic. Although a truck route does not need to be established, we still reviewed the local roadway network to determine if trucks have adequate access and circulation for this area of Upper Saucon Township. As previously discussed, West Hopewell Road is a locally owned and maintained roadway which intersects State owned and maintained roadways at either end. There are no truck origination or destination locations along West Hopewell Road. Currently, trucks may utilize State owned and maintained PA Route 309 (SR 0309) and Lanark Road (SR 2039). Please refer to the location map following this report.

## **CONCLUSIONS / RECOMMENDATIONS**

**In accordance with Pennsylvania Department of Transportation (PennDOT) Publication 212, *Official Traffic Control Devices*, Subchapter B, Section 212.117 a truck prohibition is justified for West Hopewell Road for the following reasons:**

1. Adjacent land use is primarily residential creating safety concerns for truck traffic intermixing with pedestrians or bicyclists along a limited width roadway without adequate shoulders or sidewalk.
2. There are no primary truck originations or destinations along the roadway.
3. Bituminous pavement appears to have inadequate structural capacity and may be seriously damaged unless a restriction is imposed.
4. West Hopewell Road predominantly has inadequate turning radii, horizontal width, and no shoulders creating concerns for large or heavy vehicles along the majority of the roadway.
5. Truck traffic can utilize State owned and maintained roadways for safer alternative routes.

# West Hopewell Road, T-443

Truck Prohibition Signage Plan



**EXCEPT  
LOCAL  
DELIVERIES**



**EXCEPT  
LOCAL  
DELIVERIES**

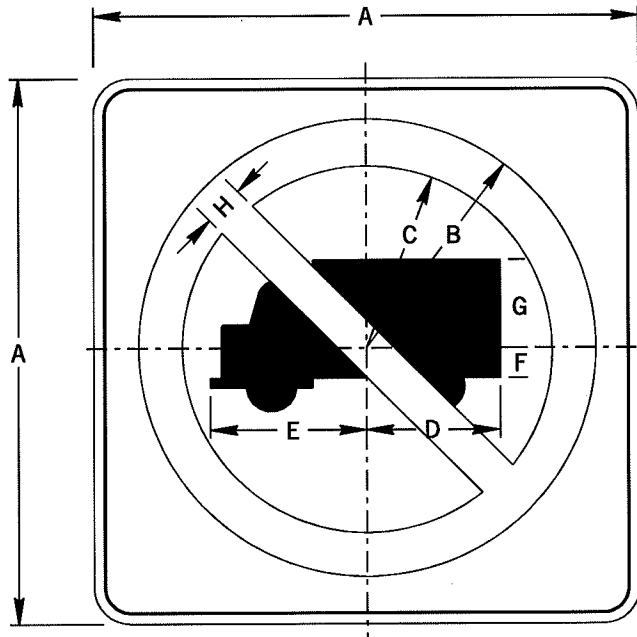


# R5-2

## NO TRUCK SIGN

(a) Justification. The No Truck Sign (R5-2) shall be authorized for use to prohibit trucks, except that such vehicles may be operated thereon for the purpose of delivering or picking up materials or merchandise. When local truck deliveries are permitted, the Except Local Deliveries Sign (R5-2-3) shall be mounted beneath the R5-2 sign.

(b) Size. The standard size of the R5-2 sign shall be 24" x 24".



DIMENSIONS - IN										
SIGN SIZE A x A	B	C	D	E	F	G	H	MAR- GIN	BOR- DER	BLANK STD.
24" x 24"	10.5	8.5	6.5	7.5	1.8	4.3	2	0.4	0.6	B3-24
30" x 30"	13.2	10.6	8.1	9.4	4.7	5.3	2.6	0.4	0.8	B3-30
36" x 36"	15.8	12.8	9.8	11.3	5.6	6.4	3	0.6	1	B3-36
48" x 48"	21	17	13	15	7.5	8.5	4	0.8	1.2	B3-48

COLOR:

SYMBOL AND BORDER:  
BLACK (NON-REFLECTORIZED)

CIRCLE AND SLASH:  
RED (REFLECTORIZED)

BACKGROUND:  
WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION

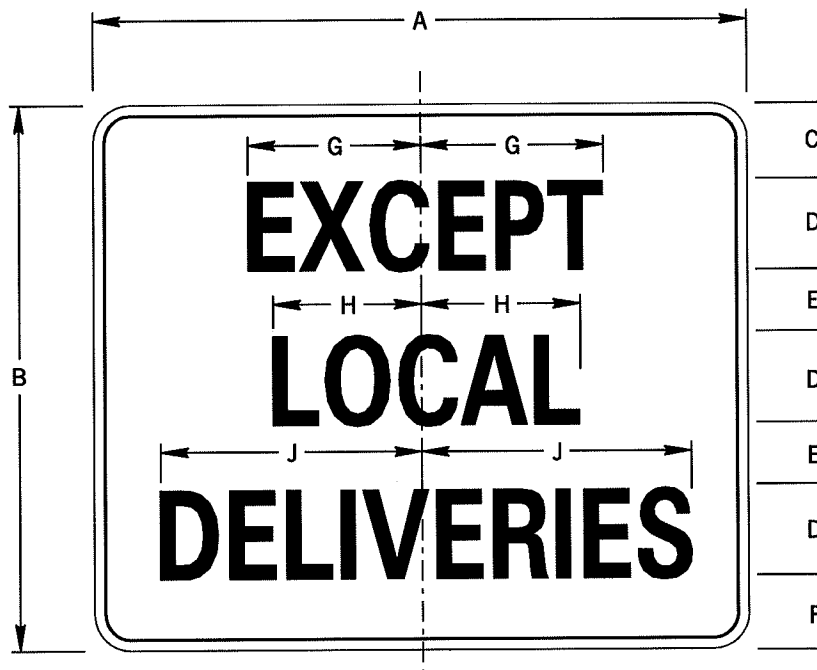
By : *Alan C. Rowe* Date : 02-29-12  
Chief, Traffic Engineering and Permits Section  
Bureau of Maintenance and Operations

# R5-2-3

## EXCEPT LOCAL DELIVERIES SIGN

The Except Local Deliveries Sign (R5-2-3) may be used below the No Trucks Sign (R5-2), Weight Limit ( ) Tons Sign (R12-1), and the Except Combinations ( ) Tons Sign (R12-5A) when kinds or classes of vehicles are prohibited except for local deliveries. Local deliveries are defined as deliveries going to or from a residence, commercial establishment, or farm located on a posted highway or which can be reached only via a posted highway. The R5-2-3 sign shall not, however, be used when a bridge or other structure is not capable of supporting the legal weight limit. The term "RESIDENTIAL" may be substituted for "LOCAL" if there is a commercial development in the area and satisfactory alternate access roadways exist for the commercial development.

When used the R5-2-3 sign shall be mounted below the R5-2, R12-1, or R12-5A sign. The R5-2-3 sign shall be the same width as the sign it supplements.



DIMENSIONS - IN										
SIGN SIZE A x B	C	D	E	F	G	H	J	MAR- GIN	BOR- DER	BLANK STD.
24" x 18"	2.5	3C	2	2.5	6.1	5.1	9.3	0.4	0.4	B5-2418
36" x 30"	4.1	5C	3.4	4.1	10.1	8.4	15.4	0.6	0.6	B5-3630
48" x 36"	5	6C	4	5	12.1	10.2	18.5	0.6	0.8	B5-4836

COLOR:

LEGEND AND BORDER:  
BLACK (NON-REFLECTORIZED)

BACKGROUND:  
WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION

By : Alan C. Rowe Date : 02-29-12  
Chief, Traffic Engineering and Permits Section  
Bureau of Maintenance and Operations