



**ENGINEERING AND TRAFFIC STUDY FOR RESTRICTIONS AS TO WEIGHT, SIZE, KIND OR CLASS, OR TYPE OF LOAD BASED ON HIGHWAY, BRIDGE, OR TRAFFIC CONDITIONS**  
PLEASE TYPE OR PRINT ALL INFORMATION IN BLUE OR BLACK INK

**NOTE: TE-109 FORM IS TO BE COMPLETED AND APPROVED BY A PROFESSIONAL ENGINEER**

<b>A - LOCATION INFORMATION</b>			
COUNTY:	MUNICIPALITY:		
STREET NAME:			
LOCAL ROAD #:	STATE ROAD #:		
POSTED SPEED LIMIT (PROVIDE SPEED LIMIT RANGE IF VARIES):	ADT (PROVIDE ADT RANGE IF VARIES):		
RESTRICTED BETWEEN: SEGMENT:	OFFSET:	TO SEGMENT:	OFFSET:
LOCATION:		TO LOCATION:	

<b>B - REFERENCE INFORMATION</b>	
REFERENCE: Chapter 212	SECTION(S): 212.117(a), (b), (c), (d)
REFERENCE: MUTCD	SECTION(S): 2B.49
REFERENCE: PUB 46	SECTION(S): Chapters 2.4, 11.7.2, and 11.7.3
REFERENCE: Vehicle Code Title 75 Pa. C.S.	SECTION(S): § 4902(a), (b) and 6109(a)(7)(13)
REFERENCE: PA Code Title 67 Pa. C.S.	SECTION(S): Chapters 189, 191, and 193
REFERENCE: PUB 23	SECTION(S): Chapter 15.2
REFERENCE: PUB 238	SECTION(S): Chapter 4
REFERENCE: BRIDGE MGMT. SYSTEM	SECTION(S): Items 4A02, 4A10, 4A15, VP02, VP03, VP04, VP05

<b>C - STUDY ELEMENTS</b>		
<b>FROM PUB 212 APPENDIX:</b>		
<input type="checkbox"/> Crash Analysis (1)	<input type="checkbox"/> Pavement Analysis (11)	<input type="checkbox"/> Traffic Volumes (20)
<input type="checkbox"/> Geometric Review (8)	<input type="checkbox"/> Speed Data (17)	<input type="checkbox"/> Other _____
<input type="checkbox"/> Past Experience (10)	<input type="checkbox"/> Structural Analysis (18)	

<b>D - ATTACHMENTS LISTING</b>		
<b>CHECK THOSE THAT APPLY AND ATTACH TO THIS FORM IN THE ORDER LISTED BELOW:</b>		
<input type="checkbox"/> 1. 10-Day Response Letter	<input type="checkbox"/> 8. Crash Rate	<input type="checkbox"/> 15. STAMPP Identification Data
<input type="checkbox"/> 2. Letter or Memo Requesting Study	<input type="checkbox"/> 9. Collision Diagram Plot	<input type="checkbox"/> 16. Speed Limit
<input type="checkbox"/> 3. Location Map	<input type="checkbox"/> 10. Speed Study	<input type="checkbox"/> 17. Traffic Signal Permit Plan
<input type="checkbox"/> 4. Straight Line Diagram	<input type="checkbox"/> 11. Warrant Analysis	<input type="checkbox"/> 18. Structural Analysis
<input type="checkbox"/> 5. Photographs	<input type="checkbox"/> 12. Multi-Way Stop or Truck Restriction Worksheet	<input type="checkbox"/> 19. Other _____
<input type="checkbox"/> 6. Field View Notes Drawing or Condition Diagram	<input type="checkbox"/> 13. Pavement Analysis	
<input type="checkbox"/> 7. Crash Extract	<input type="checkbox"/> 14. Traffic/Pedestrian Volumes	

**Confidential - Traffic Engineering and Safety Study**  
(For Department Use Only)

This document is the property of the Commonwealth of Pennsylvania, Department of Transportation. The data and information contained herein are part of a traffic engineering and safety study. This safety study is only provided to those official agencies or persons who have responsibility in the highway transportation system and may only be used by such agencies or persons for traffic safety related planning or research. The document and information are confidential pursuant to 75 Pa. C.S.3754 and 23 U.S.C. 407 and may not be published, reproduced, released or discussed without the written permission of the Pennsylvania Department of Transportation.

## E - SITE OBSERVATIONS

### OPERATIONAL CHECKLIST:

1. Do obstructions block a driver's view of pedestrians or approaching vehicles? . . . . .  YES  NO  N/A
2. Do drivers respond correctly to signals, signs, or other traffic control devices? . . . . .  YES  NO  N/A
3. Is there evidence of crashes (*skid marks, property damage, tree/bush damage, broken glass/vehicle parts, etc.*)? . . . . .  YES  NO  N/A
4. Are there violations of parking or other traffic regulations? . . . . .  YES  NO  N/A
5. Do drivers appear confused about routes, street names, or other guidance information? . . . . .  YES  NO  N/A
6. Have you observed the location during peak hours for volume, crash evidence, and traffic operations? . . . . .  YES  NO  N/A
7. Are there traffic flow deficiencies or traffic conflict patterns associated with turning movements? . . . . .  YES  NO  N/A
8. Are there significant delays and/or congestion? . . . . .  YES  NO  N/A
9. Are there vehicle/pedestrians conflicts? . . . . .  YES  NO  N/A
10. Are there other traffic flow deficiencies or traffic conflict patterns? . . . . .  YES  NO  N/A

### PHYSICAL CHECKLIST:

1. Can sight obstructions be removed or lessened? . . . . .  YES  NO  N/A
2. Do the street alignments or widths adequately accommodate the type of traffic using the roadway? . . . . .  YES  NO  N/A
3. Are curb radii adequate for turning vehicles? . . . . .  YES  NO  N/A
4. Are pedestrian crosswalks properly located? . . . . .  YES  NO  N/A
5. Does the usefulness, message, size, and replacement of the traffic signs conform to standards? . . . . .  YES  NO  N/A
6. Does the placement, visibility, glare, number of signal heads, and timing of the traffic signals conform to standards?  YES  NO  N/A
7. Does the location of the pavement markings conform to standards? . . . . .  YES  NO  N/A
8. Is channelization (islands or pavement markings) adequate for reducing conflict areas, separating traffic flows, and defining movements? . . . . .  YES  NO  N/A
9. Does the existing legal parking layout affect sight distance for through or turning vehicles? . . . . .  YES  NO  N/A
10. Does the pavement condition display any signs of base pushing, cross section deterioration, surface failure (potholes, washboard, slick surface, etc.), or shoulder damage? . . . . .  YES  NO  N/A
11. Does the highway have adequate turning radii, horizontal width, or under clearance? . . . . .  YES  NO  N/A

## F - SITE DATA

DATE DATA COLLECTED:	PERSON CONDUCTING STUDY:	TITLE:
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### HIGHWAY RESTRICTION: THIS RESTRICTION IS BEING PLACED FOR THE REASON(S) INDICATED:

(Non-applicable criteria shall be indicated by N.A. in the space provided.)

- Geometric Review - The highway has inadequate turning radii, horizontal width, or under clearance at one or more locations and certain vehicle classes, loads or sizes should be prohibited.
- Past Experience- An analysis of highways under similiar climatic conditions indicated that certain weight vehicles should have been or should be prohibited from the highway.
- Pavement Analysis- A pavement analysis and/or engineering judgement indicated either existing physical deterioration due to heavy vehicle use or expected future heavy vehicle use requires that certain weight vehicles be prohibited.

Pavement Type: \_\_\_\_\_ Thickness: \_\_\_\_\_  
 General Condition: \_\_\_\_\_ Adequacy of Drainage: \_\_\_\_\_  
 Base Pushing: \_\_\_\_\_ Cross Section Deterioration: \_\_\_\_\_  
 Moderate/Severe Fatigue Failure of Surface: \_\_\_\_\_ Shoulder Damage: \_\_\_\_\_  
 Other: \_\_\_\_\_

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**F - SITE DATA (CONTINUED)**

Traffic Generators- One or more of the following traffic generators exits or is in the planning and/or development stage and can only be reached by this road:

- Coal Strip Mining       Horizontal Well (i.e. Marcellus Shale)       Vertical Gas Wells       Water Withdrawal
- Quarry Operation       Manufacturing or Assembly Plant       Shopping Mall       Water Treatment Facility
- Warehouse       Trucking Terminal       Logging
- Other \_\_\_\_\_

Since pavement analysis, engineering judgement and/or past experiences of like or similar roadways have indicated that certain weight vehicles have or are likely to seriously damage the roadway and/or shoulders, it is likely that one or more of the following type of damage may be incurred:

Base Pushing: \_\_\_\_\_ Cross Section Deterioration: \_\_\_\_\_

Moderate/Severe Fatigue Failure of Surface: \_\_\_\_\_ Shoulder Damage: \_\_\_\_\_

Other: \_\_\_\_\_

**EXISTING BRIDGE RESTRICTION AS PER PUBLICATION 238 (See Note Below):**

Does the bridge have poor alignment, or substandard horizontal or vertical clearance? . . . . .  YES     NO     N/A

(NOTE: All bridge analysis and restrictions are conducted by the Bridge Unit. Contact District Bridge Unit for verification.)

**G - REMARKS**

Empty box for remarks.

**H - ENGINEERING JUDGEMENT**

Empty box for engineering judgement.

**I - APPROVAL**

<p><b>CONDUCTED &amp; APPROVED BY PROFESSIONAL ENGINEER:</b></p> <p>NAME (PRINT): _____</p> <p>TITLE: _____ DATE: _____</p> <p>SIGNATURE: _____</p>	<p><b>PROFESSIONAL ENGINEER SEAL:</b></p>
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