



**NJDOT Commercial Vehicle Size and Weight Guidebook
FINAL REPORT**

March 2024

Submitted by

Christopher Lamm
Principal
Cambridge Systematics, Inc.

NJDOT Research Project Manager
Stefanie Potapa

In cooperation with

New Jersey
Department of Transportation
Bureau of Research

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16. Abstract The New Jersey Department of Transportation (NJDOT) engaged Cambridge Systematics (CS) to perform research on recent changes to the Federal and State regulations that govern commercial vehicle size and weight limits in New Jersey, assessing “best practice” communication techniques to share information with industry, and developing updates to NJDOT’s Commercial Vehicle Size and Weight Guidebook and accompanying Reference Guide brochure. The newly updated Guidebook and Reference Guide will be posted on NJDOT’s online permitting website, https://nj.gotpermits.com/ .			
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EXECUTIVE SUMMARY

The New Jersey Department of Transportation (NJDOT) engaged Cambridge Systematics (CS) to assist with the development of updates to the NJDOT Commercial Vehicle Size and Weight Guidebook and accompanying Reference Guide.

Federal and New Jersey State regulations that govern the maximum allowable dimensions and weights for commercial vehicles can be difficult for motor carriers to understand and comply with. New Jersey offers several types of permits that motor carriers can request to allow them to carry certain types of overdimensional and overweight loads. The permits have specific requirements regarding applicability and use. To help motor carriers understand the regulations and to learn more about how to acquire and use permits, NJDOT published a Commercial Vehicle Size and Weight Guidebook in 2017. NJDOT desires an updated version of the Commercial Vehicle Size and Weight Guidebook and Reference Guide that corresponds to current rules and regulations and addresses the needs and inquiries of the motor carrier industry.

The goal of this research task was to help NJDOT produce an updated Commercial Vehicle Size and Weight Guidebook and companion Reference Guide that addresses current Federal and State rules and regulations, incorporating best practices from other states, and input from subject matter experts in New Jersey.

This research utilized a literature review of relevant Federal and State rules and regulations that govern commercial vehicle size and weight. A scan of guidance documents and websites produced by other states on size and weight regulations and permitting requirements to identify common features and best practices was conducted and included in the literature review document. Interviews with key states and organizations conducted by CS helped the research team learn more about effective communications strategies. CS worked with a group of representatives from NJDOT, FHWA, and the New Jersey State Police to develop updated versions of the NJDOT Commercial Vehicle Size and Weight Guidebook and accompanying Reference Guide.

The findings of the research and engagement with the working group informed the development of an updated version of the NJDOT Commercial Vehicle Size and Weight Guidebook and the NJDOT Commercial Vehicle Size and Weight Reference Guide. Key features of the updates include:

- Updates to the truck diagrams, tables, and text to account for the weights and dimensions allowed by the FAST Act.
- New document layout, color scheme, and cover.
- Conversion of the Reference Guide from a trifold brochure to a wall-size map with tables, graphics, and explanatory text on the opposite side.

- Recommended “next steps” to help ensure that the motor carrier industry can find and effectively use these guidance materials to operate safely and legally in New Jersey.

BACKGROUND

Federal and New Jersey State regulations that govern the maximum allowable dimensions and weights for commercial vehicles can be difficult for motor carriers to understand and comply with. To carry certain types of loads that exceed the size and weight limits on state roads and highways, New Jersey offers several types of permits that motor carriers can request. There are also special permits available during specific types of state or national emergencies.

The permits have specific requirements regarding applicability and use. Motor carriers often contact NJDOT to ask questions about size and weight limits, which permits to apply for, how to apply, and how to use permits. Information regarding registration of certain trailers and equipment is also desired. To help motor carriers understand the regulations and to learn more about how to acquire and use permits, NJDOT published a Commercial Vehicle Size and Weight Guidebook in 2017 (See Figure 1). The Guidebook was accompanied by a trifold “Reference Guide” brochure (See Figure 2), with summary-level information about weights, dimensions, and available permits. These guidance materials are available on the New Jersey “GOTPERMITS” website.¹

Since the publication of the Guidebook and Reference Guide, Federal regulations have been amended, and a few other issues have been identified as needing clarification and further guidance. NJDOT desired a review of best practices from other states in communicating size and weight regulations and permitting requirements with the motor carrier industry. This review contributed to the development of an updated version of the Commercial Vehicle Size and Weight Guidebook and Reference Guide that corresponds to current rules and regulations and addresses the needs and inquiries of the motor carrier industry.

OBJECTIVES

The goal of this research task was to help NJDOT produce an updated Commercial Vehicle Size and Weight Guidebook and companion Reference Guide that addresses current Federal and New Jersey State rules and regulations, and addresses issues that the motor carrier industry often find to be confusing or unclear. This goal was achieved by performing research to accomplish the following objectives:

- Identify relevant changes in Federal and New Jersey State regulations and statutes that necessitate updates to the Commercial Vehicle Size and Weight Guidebook and Reference Guide (See Table 1).
- Learn from other states and organizations what messages and information the motor carrier industry needs to know and how best to communicate it with them.

¹ <https://nj.gotpermits.com/#!>

- Work with a working group of NJDOT and FHWA representatives to develop an updated version of the Commercial Vehicle Size and Weight Guidebook and accompanying Reference Guide.

INTRODUCTION

NJDOT engaged Cambridge Systematics (CS) to identify the technical content of the Commercial Vehicle Size and Weight Guidebook and Reference Guide that need to be updated in order to accurately account for current Federal and State rules and regulations, develop new or revised content that addresses common questions and helps motor carriers to avoid misunderstanding size and weight rules and permit requirements, and to produce updated versions of the Commercial Vehicle Size and Weight Guidebook and the Reference Guide. This effort included: a literature review, focused on Federal and State regulations and statutes that address commercial vehicle size, weight, and operations; a scan of guidance materials available in other states; interviews with representatives from other states and organizations to identify communications strategies and best practices; and collaboration with a “Working Group” of representatives from NJDOT and FHWA to develop an updated Guidebook and Reference Guide.

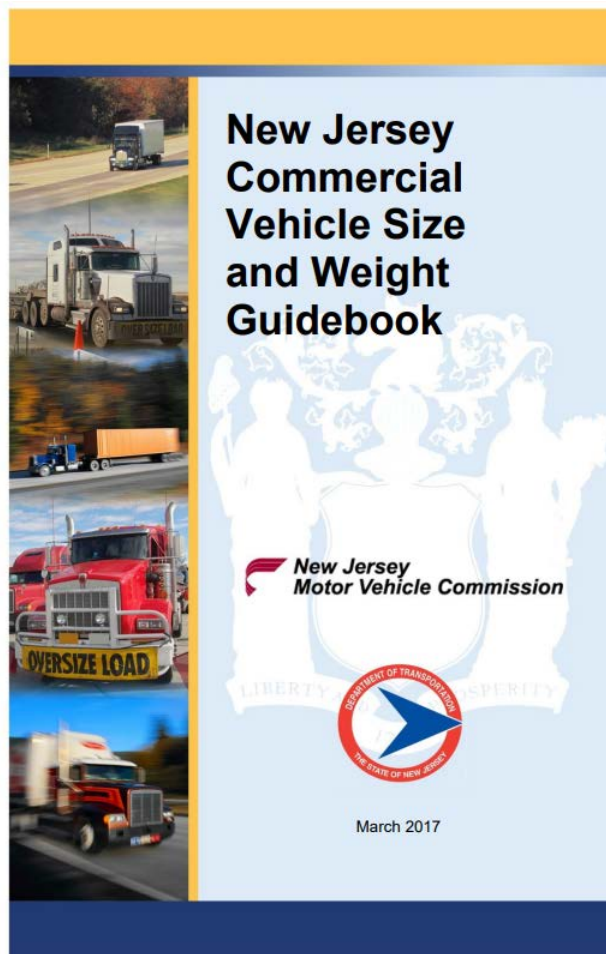



Figure 1. 2017 NJDOT Commercial Vehicle Size and Weight Guidebook Cover

Size and Weight Permits

Commercial vehicles, and vehicle combinations, operating on highways within the State of New Jersey must operate within the size and weight limitations outlined in Title 39 of New Jersey State Statute, specifically [N.J.S.A. 39:3-84](#). All commercial vehicles exceeding the legal size and weight limitations in the State of New Jersey require the carrier to obtain an oversize/overweight (OS/OW) hauling permit. These permits allow for a carrier hauling qualifying loads to temporarily exceed size and weight limitations outlined in N.J.S.A. 39:3-84. The permit must be in the possession of the operator of the vehicle for which the permit was issued. The authority to issue these permits is outlined in the [New Jersey Administrative Code \(N.J.A.C. 13:18\)](#).

In order to obtain an OS/OW hauling permit, the vehicle, or load being carried must be "non-divisible". A "non-divisible" load is a load that cannot be dismembered, dismantled or divided in such a manner, so that the weight and dimensional limitations prescribed in N.J.S.A. 39:3-84 are not exceeded. This provision is outlined in [N.J.A.C. 13:18-1.0](#).

Nondivisible Loads (Can Permit)	Divisible Loads (Cannot Permit)
Construction Equipment, Mobile/Modular Homes, Large Generators, etc.	Sand, Gravel, Garbage, Mulch, Fuel, Stone, etc.



Permit Types

There are four different types of OS/OW permits available for hauling loads above legal size and weight limits. They are as follows:



1. Single-Trip Permit (5 day): Used for the transport of any non-divisible OS/OW load.
2. Code 23 Overdimensional Trailer Permit (Lifetime): Used for the movement of oversized Code 23 trailers up to certain dimensional limits: (8-10 feet wide; 55-70 feet long)
3. Code 23 Permit (30 day): traditionally used for the transport of heavy construction equipment or machinery. No excess weight fees apply.
4. Ocean Borne Container Permit (Annual): Used for the transport of sealed ocean borne containerized cargo.

The New Jersey Department of Transportation (NJDOT) is now issuing oversize and overweight permits on behalf of the New Jersey Motor Vehicle Commission. Carriers may apply for permits on-line 24 hours a day, 7 days a week, by visiting NJDOT's OS/OW permit web site <http://nj.gov/permits.com>. Permits also can be obtained on the carrier's behalf through a permit service company. A list of permit service companies currently registered with NJDOT's OS/OW permitting system can be found on this website. Further information on the permitting process and associated fees can also be found in the "Commercial Vehicle Size and Weight Guidebook." For further information on legal hauling size and weight limitations, please refer to the statute or the "Commercial Vehicle Size and Weight Guidebook."

Contact

Bureau of Freight Planning and Services
New Jersey Department of Transportation
1050 Parkway Avenue, Trenton, NJ 08625
Phone #: 609-530-6089
Email: Superload.Permits@dot.state.nj.us
Website: <http://nj.gov/permits.com>

New Jersey Oversize/ Overweight Permit Reference Guide

Legal Hauling Limits

The following tables outline the statutory size and weight limits in the State of New Jersey.

Axle Grouping	Maximum Allowable Weight
Overall Gross	80,000 lbs.
Single Axle	22,400 lbs.
Tandem Axle	34,000 lbs.
Other Axle Configuration	Apply Federal Bridge Formula

Maxi-Cube: combination vehicle consisting of a straight truck and trailer unit, both designed to carry cargo.

Truck: is a single unit motor vehicle designed, used or maintained for the transportation of property.

Tractor: a motor vehicle primarily used for drawing other vehicles and not so constructed as to carry a load other than a PART of the weight of the vehicle and load so drawn.

Trailer: a vehicle with or without motive power, designed for carrying property, being drawn by a motor vehicle, and so constructed that no part of its weight rests on the towing vehicle.

Semitrailer: is a trailer constructed so that SOME part of its weight and its load rests upon or is carried by another towing vehicle.

Tandem Trailer: two connected trailers with no load weight resting upon the towing vehicle.

Traditional Automobile Transporter: is an automobile transporter wherein the fifth wheel is located on the frame of the truck tractor over the rear axle(s).

Stinger Steer Automobile Transporter: an automobile transporter consisting of a truck tractor-semitrailer wherein the fifth wheel is located on a drop frame behind and below the rearmost axle.

Dimension	Vehicle Type/Combination	Dimensional Limit	Conditions	Example
Width	All	8' (96")	All Highways (Ref. N.J.A.C. 16:33)	
	All	8'6" (102")	Designated network routes (Ref. N.J.A.C. 16:32)	
Height	All	13'6"	All Highways	
	Truck (Straight Truck)	40' 50'	All Highways When hauling a non-divisible load	
Length	Truck-Semitrailer	62'	All Highways	
	Truck-Trailer	62'	All Highways	
	Tractor-Trailer	No Limit	All Highways	
	Tractor-Semitrailer	No Limit	All Highways	
	Trailer	48'	All Highways	
	Semitrailer	53' (41' kingpin)	All Highways	
	Maxi Cube Vehicle	65'	34' maximum cargo box	
	Tandem Trailer	28'	Maximum of two trailers	
	Traditional Automobile Transporter	65'	All Highways	
	Stinger Steered Automobile Transporter	75'	All Highways	

Figure 2. 2017 NJDOT Commercial Vehicle Size and Weight Reference Guide (Front and Back)

SUMMARY OF THE LITERATURE REVIEW

This section documents the literature reviewed to identify necessary updates or other changes to the Guidebook and Reference Guide in order to accurately represent Federal and State rules, regulations, and requirements. Relevant Federal and State regulations and rules are found in the following documents:

- Fixing America's Surface Transportation (FAST) Act (2015).²

² Fixing America's Surface Transportation (FAST) Act, U.S. Congress, 2015. Available from: <https://www.congress.gov/114/plaws/publ94/PLAW-114publ94.pdf>

- Infrastructure Investment and Jobs Act (IIJA), a.k.a., Bipartisan Infrastructure Law (BIL), (2021).³
- Title 49 of the U.S. Code of Federal Regulations.⁴
- Title 39 of the New Jersey Revised Statutes.⁵
- Title 13 of the New Jersey Administrative Code.⁶

Fixing America’s Surface Transportation (FAST) Act, 2015

The Fixing America’s Surface Transportation (FAST) Act was signed into law on December 4, 2015. The FAST Act provided more than \$305 billion in funding for surface transportation infrastructure planning and investment, and developed the regulations and guidance needed to implement those investments. Among the regulations established by the FAST Act are several provisions addressing commercial vehicle size and weight limits across the country. Table 1 summarizes the key commercial vehicle size and weight provisions in the FAST Act.

Table 1 – FAST Act Provisions for Commercial Vehicle Size and Weight

RELEVANT FAST ACT PROVISION	IMPLICATIONS FOR NJDOT SIZE AND WEIGHT GUIDEBOOK
<p>The FAST Act amends 23 U.S.C. 127(a) to establish that a vehicle carrying fluid milk products shall be considered a load that cannot be easily dismantled or divided (non-divisible). States may, therefore, issue permits for such vehicles, in accordance with State law, to exceed the gross weight limit of 80,000 pounds or the maximum weight allowed by the Federal Bridge Formula. [23 U.S.C. 127(a)(13)]</p>	<p>The 2017 Guidebook and Reference Guide do not list fluid milk as an example of a non-divisible load. The Guidebook should note the FAST Act provision and include fluid milk as an example of a non-divisible load.</p>

³ Infrastructure Investment and Jobs Act (IIJA), U.S. Congress, 2021. Available from: <https://www.congress.gov/bill/117th-congress/house-bill/3684>

⁴ Title 49, U.S. Code of Federal Regulations. Available from: <https://www.ecfr.gov/current/title-49>.

⁵ Title 39, New Jersey Revised Statutes. Available from: <https://law.justia.com/codes/new-jersey/2019/title-39/>.

⁶ Title 13, New Jersey Administrative Code. Available from: <https://advance.lexis.com/container?config=00JAA5OTY5MTdjZi1IMzYxLTQxNTEtOWFkNi0xMmU5ZTViODQ2M2MKAfBvZENhdGFsb2coFSYEAfv22IKgMT9DIHrf&crd=ea45e563-0abc-4c34-ba8c-36e03c290329&prid=c390b4fa-9c48-4a5c-ba18-be8c36321341>.

RELEVANT FAST ACT PROVISION	IMPLICATIONS FOR NJDOT SIZE AND WEIGHT GUIDEBOOK
<p>Covered Heavy-Duty Tow and Recovery Vehicles – A "Covered Heavy-Duty Tow and Recovery Vehicle" means a vehicle that is transporting a disabled vehicle from the place where the vehicle became disabled to the nearest appropriate repair facility; and has a gross vehicle weight that is equal to or exceeds the gross vehicle weight of the disabled vehicle being transported. The weight limitations under 23 U.S.C. 127 do not apply to a covered heavy-duty tow and recovery vehicle. [23 U.S.C. 127(m)]</p>	<p>This is a new provision not discussed in the 2017 Guidebook. The Guidebook should note this exception.</p>
<p>Emergency Vehicles – A State shall not enforce against an emergency vehicle a vehicle weight limit (up to a maximum gross vehicle weight of 86,000 pounds) of less than— 24,000 pounds on a single steering axle; 33,500 pounds on a single drive axle; 62,000 pounds on a tandem axle; or 52,000 pounds on a tandem rear drive steer axle. An "emergency vehicle" means a vehicle designed to be used under emergency conditions: to transport personnel and equipment; and to support the suppression of fires and mitigation of other hazardous situations. [23 U.S.C. 127(r)]</p>	<p>This is a new provision not discussed in the 2017 Guidebook. The Guidebook should note this exception.</p>
<p>Natural Gas Vehicles – A vehicle, if operated by an engine fueled primarily by natural gas, may exceed any vehicle weight limit (up to a maximum gross vehicle weight of 82,000 pounds) under 23 U.S.C 127, by an amount that is equal to the difference between: the weight of the vehicle attributable to the natural gas tank and fueling system carried by that vehicle; and the weight of a comparable diesel tank and fueling system. [23 U.S.C. 127(s)]</p>	<p>This is a new provision not discussed in the 2017 Guidebook. The Guidebook should note this exception.</p>

RELEVANT FAST ACT PROVISION	IMPLICATIONS FOR NJDOT SIZE AND WEIGHT GUIDEBOOK
<p>Section 5520 Automobile Transporter – The FAST Act amends 49 U.S.C. 31111(a) by striking the word "specifically" from the definition of "automobile transporter." The FAST Act further provides that an automobile transporter shall not be prohibited from the transport of cargo or general freight on a backhaul, so long as it complies with weight limitations for a truck tractor and semitrailer combination. "Backhaul" means the return trip of a vehicle transporting cargo or general freight, especially when carrying goods back over all or part of the same route. Section 5520 also mandates that a State may not prescribe or enforce a regulation of commerce that imposes a vehicle length limitation of less than 80 feet on a stinger-steered automobile transporter with a front overhang of less than 4 feet and a rear overhang of less than 6 feet. The previous limitations were 75 feet for the overall length, and 3-foot front and 4-foot rear overhangs.</p>	<p>The Guidebook noted the previous limitations. The Guidebook should be updated to include the length and overhang limits newly prescribed by the FAST Act.</p>
<p>Section 5523 Commercial Delivery of Light- and Medium-Duty Trailers – The FAST Act amends 49 U.S.C. 31111(a), to include the term "trailer transporter towing unit," which means a power unit that is not used to carry property when operating in a towaway trailer transporter combination. "Towaway trailer transporter combination" means a combination of vehicles consisting of a trailer transporter towing unit and 2 trailers or semitrailers with a total weight that does not exceed 26,000 pounds; and in which the trailers or semitrailers carry no property and constitute inventory property of a manufacturer, distributor, or dealer of such trailers or semitrailers. A State may not prescribe or enforce a regulation of commerce that has the effect of imposing an overall length limitation of less than 82 feet on a towaway trailer transporter combination. [49 U.S.C. 31111(b)(1)(H)]</p>	<p>This is a new provision not discussed in the 2017 Guidebook. The Guidebook should note this provision for towaway trailer transporter combinations.</p>

Infrastructure Investment and Jobs Act (IIJA), a.k.a., Bipartisan Infrastructure Law (BIL)

The Infrastructure Investment and Jobs Act (IIJA), which is also referred to as the Bipartisan Infrastructure Law (BIL), was passed into law in 2021. The BIL replaces the FAST Act as the current surface transportation funding and policy law at the Federal level. This document was reviewed to determine if any additional provisions are detailed therein, which may require additional updates or revisions to the NJDOT Commercial Vehicle Size and Weight Guidebook and Reference Guide.

BIL includes several new provisions for freight transportation, including new grant funding opportunities and new eligibility guidance for freight-dedicated formula funding through the National Highway Freight Program. The only new specifications related to commercial vehicle size and weight are exemptions to Federal weight limits on specific highway segments in the states of North Carolina and Kentucky. BIL does not include any provisions that necessitate further revisions to the NJDOT Commercial Vehicle Size and Weight Guidebook and Reference Guide.

Title 49 of the U.S. Code of Federal Regulations

Two sections of Title 49 of the U.S. Code of Federal Regulations are relevant material for inclusion in the NJDOT Commercial Vehicle Size and Weight Guidebook, both of which are related to the use of lights, flags, and related devices on commercial vehicles carrying over dimensional loads.

Section 393.11 addresses requirements for lamps, reflective devices, and associated equipment by the type of commercial motor vehicle. This section was last updated in 2016, and the material included in NJDOT's guidebook is consistent with the current version of the regulation.

Section 393.87 requires commercial vehicles transporting a load that extends beyond the sides by more than 4 inches, or more than 4 feet beyond the rear, to have warning flags. The section specifies requirements regarding the color, size, and position of the flags. This section was last updated in 2005, and the summary contained in the 2017 NJDOT Commercial Vehicle Size and Weight Guidebook is consistent with the regulation.

Title 39 of the New Jersey Revised Statutes

Title 39 of the New Jersey Revised Statutes (N.J.R.S.) includes several specifications that apply to the movement of commercial vehicles in the State of New Jersey. Most of the relevant sections of Title 39 have not been changed since 2017 or earlier, and thus there are not many changes required in order to be consistent with the current specifications of Title 39. Specifically, the following sections are referenced in the 2017 Guidebook:

- 39:3-20, Commercial motor vehicle registrations; fees. Unchanged since before 2017, no updates to the Guidebook are required.

- 39:3-61.4, Overhang loads; placement and use of red lamps and flags. Unchanged since before 2017, no updates required.
- 39:3-8, Registration fee for passenger automobile; other vehicles. Updated in 2017, but the changed language does not apply to the portions referenced in the NJDOT Commercial Vehicle Size and Weight Guidebook, therefore no updates are required to maintain consistency with the statute.
- 39:3-84.1, Application of weight limitations. Updated in 2017 to include reference to the natural gas vehicle exception specified in the FAST Act. The Guidebook will have to be updated to represent the FAST Act provision and update to 39:3-84.1.
- 39:3-87, Unchanged since before 2017, no updates required.
- 39:4-26, Unchanged since before 2017, no updates required.
- 39:4-30, Unchanged since before 2017, no updates required.

Title 13 of the New Jersey Administrative Code

Title 13 of the New Jersey Administrative Code (N.J.A.C.) addresses law and public safety regulations. Title 13 includes rules and regulations related to the safe operation of commercial vehicles in the State of New Jersey. Several portions of Title 13 are relevant to the guidance provided in the NJDOT Commercial Vehicle Size and Weight Guidebook, including:

- 13:18-1.7, Liability for damage; application requirements; insurance. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.9, Permits generally. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.12, Escort vehicle requirements. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.13, Warning signs. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.14, Warning flags. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.15, Headlamps and taillamps. Unchanged since 2010, no updates to the Guidebook are required.
- 13:18-1.16, Oversize private utility or house-type trailer or semitrailer. Unchanged since 2010, no updates to the Guidebook are required.
- 13:20-38.4, Automobile transporter; load overhang. This section was updated in 2017 to account for the new provisions in the FAST Act. The Guidebook will have to be updated to acknowledge this change.
- 13:20-38.5, Drive-away saddle mount vehicle transporter combinations; drive-away saddle mount with full mount vehicle transporter combinations; overall length. This section was updated in 2017 to account for the new provisions in the FAST Act. The Guidebook will have to be updated to acknowledge this change.

SUMMARY OF WORK PERFORMED

The literature review submitted as a deliverable for this research effort produced a list of elements of NJDOT's Commercial Vehicle Size and Weight Guidebook and Reference Guide that needed to be updated in order to maintain consistency with current Federal and State laws and regulations. In addition, NJDOT representatives/SMEs (subject matter experts) recognized that some of the 2017 Guidebook and Reference Guide contents were not as clear and concise as they possibly could be. This research included a scan of guidance materials offered by other state DOTs to identify the current state of the practice in offering regulatory guidance to the motor carrier industry. Interviews with key peer states and stakeholder organizations were conducted to learn more about the types of information motor carriers need and how to best present that information to them.

These tasks provided the inputs needed in order to develop an up-to-date and relevant Commercial Vehicle Size and Weight Guidebook and Reference Guide for NJDOT. The research team assembled a working group of individuals from several bureaus of the Department and from the Federal Highway Administration to review and discuss necessary and desired changes to the guidance materials and to review and discuss draft versions of the 2022 Commercial Vehicle Size and Weight Guidebook and Reference Guide.

Assessment of the Current State of the Practice

To determine how well New Jersey's guidance documents compare to guidance offered by other states, Cambridge Systematics conducted a scan across all 50 U.S. states to see how many states have guidebooks, informative websites, training materials, and/or other resources available to educate motor carriers on relevant Federal and state rules and regulations related to size and weight.

Resources offered by other states include guidebooks, brochures or flyers, informational websites, and training materials.

Guidebooks

Fourteen (14) states have published guidebooks that provide information on truck operations, including size and weight requirements and permits. Of these ten guidebooks, Washington and Iowa are particularly strong examples. Washington's guidebook is very long (102 pages), but contains very detailed information about a variety of topics, including size and weight, and enforcement. Iowa's guidebook was also a good example and is updated frequently. The current Iowa version was published in 2021. Maine and Alaska are two states that published guidebooks ten or more years ago, but they have not been updated in many years. The states that have published guidebooks include:

- Iowa
- Washington
- Maryland

- Pennsylvania
- Michigan
- North Carolina
- Virginia
- Illinois
- Maine
- Montana
- Idaho
- Wyoming
- Nevada
- Alaska

Brochures or flyers

Six states have produced brochures, flyers, or handouts that contain useful information for motor carriers regarding size and weight. Michigan's Truck Operators' Map is an example of an informative and visually appealing resource. It contains information about routes that are available to large trucks and lists of clearance and weight restrictions on bridges and other structures throughout the state. States such as Mississippi and New Hampshire have provided documents that simply present weight tables for bridges and/or diagrams that illustrate dimensional limits. The states that have produced brochures and/or flyers include:

- Michigan
- Minnesota
- Mississippi
- Missouri
- Nebraska
- Oregon

Informational Websites

While several of the states listed above have their guidebooks or brochures posted on websites, and in some cases from web pages directed at motor carrier operators, a handful of states offer their guidance entirely through the use of websites and/or web pages. Examples include California's truck weight limitations webpage or New York's permitting website, which includes links to guidance in PDF documents. Some states include helpful tools on their websites, such as Connecticut's website, which includes guidance on highway use fees applicable to commercial vehicles that went into effect in 2023, and North Dakota's website, which includes a truck weight calculator tool. The states which offer "website-only" guidance materials include:

- California
- Texas
- New York
- Colorado
- Kentucky
- Massachusetts
- Alaska
- Connecticut
- New Hampshire (includes links to tutorial videos)

Interviews of Other State DOTs and Key Stakeholders

Interviewees

To gain a deeper understanding of the practices and experiences of other states and the needs of the motor carrier industry, Cambridge Systematics staff identified and conducted interviews with representatives who have permitting responsibilities at several state DOTs, a representative from a multi-state planning and operations organization, and the New Jersey Motor Truck Association. Interviewees are listed in Table 2.

The states selected are neighboring states that offer different types of guidance resources regarding commercial vehicle size and weight rules and permits in their respective states. The Eastern Transportation Coalition offers the perspective of a multiple-state organization that works on freight planning and operations issues across multiple jurisdictions that tries to address issues regarding oversize/overweight operations, challenges of the different regulations, and operating rules across state lines. The New Jersey Motor Truck Association represents motor carriers in New Jersey, the target audience for the NJDOT Commercial Vehicle Size and Weight Guidebook and Reference Guide.

Table 2 – List of Interviewees

AGENCY	INTERVIEWEE(S)
Maryland State Highway Administration (SHA)	<ul style="list-style-type: none"> • Tina Sanders, Technical Support Manager, Commercial Vehicle Operations
New York State Department of Transportation (NYSDOT)	<ul style="list-style-type: none"> • John Vannie, Supervisor of the Divisible Load Overweight Permit Unit
New York City Department of Transportation (NYCDOT)	<ul style="list-style-type: none"> • Diniece Mendes, Director, Office of Freight Mobility
Pennsylvania Department of Transportation	<ul style="list-style-type: none"> • Melissa Maupin, District 5 Permits Manager
The Eastern Transportation Coalition (TETC)	<ul style="list-style-type: none"> • Marygrace Parker, Director, Freight Program
New Jersey Motor Truck Association	<ul style="list-style-type: none"> • Gail Toth, Executive Director

Interview Guide

The interview guide included seven (7) core questions, with options to explore the responses in more detail at the interviewer’s discretion. The core questions were:

1. How does your organization share information about truck size and weight regulations, permitting, and/or enforcement with the motor carrier industry (e.g., printed guidebooks, website, brochures, training sessions, social media, presentations to industry groups, etc.)?
2. Do you refer motor carriers to other sites/resources to find size and weight limits/permit information? Are there organizations that have developed guidance materials that should be considered particularly good examples to follow?
3. What are the most important topics or messages to communicate with the motor carrier industry regarding size and weight regulations, permitting, and/or enforcement? What parts of your guidance do the industry find most helpful (if applicable) (i.e., specific chapters, charts, tables, graphics that you have received positive feedback on)?
4. Are there gaps or needs that your communications materials do not presently address?

5. What is the most effective way to share this information with the motor carrier industry (e.g., printed guidebooks, website, brochures, training sessions, social media, presentations to industry groups, other)?
6. How frequently do you update your guidance materials (if applicable)?
7. What advice would you share with a state DOT that is updating its commercial vehicle size and weight guidance materials? Are there other organizations we should talk to?

Interview Findings

The interviewees described a variety of media they use to communicate and educate the motor carrier industry on size and weight regulations and permitting requirements, including websites with information and links, phone numbers for motor carriers to call with questions, or training.

Interviewees generally agreed that owner-operators are the most difficult group of motor carriers to engage and communicate with.

The topics that were frequently mentioned as important topics to provide guidance upon include:

- Length and weight limits for common vehicle configurations.
- Descriptions of available permit types and their uses.
- How to obtain permits.

Other topics mentioned by interviewees, though considered less important than the three listed above include:

- Enforcement, fines, and penalties for violating size and weight regulations.
- Procedures that apply during a state of emergency.

The general consensus among interviewees was that a comprehensive website containing information and links relevant to size and weight regulations and permitting is the best media channel. More than one interviewee suggested that the availability of information on websites or any other media does not guarantee that motor carriers will find and read the material. Interaction through the telephone is still required to help answer motor carriers' questions.

Working Group Engagement

To support the development of contents, layout, and draft versions of the NJDOT Commercial Vehicle Size and Weight Guidebook and Reference Guide, the research team assembled a "working group" of subject-matter experts from various bureaus and offices within NJDOT, New Jersey State Police (NJSP), and the Federal Highway Administration (FHWA). The purpose of the working group was to ensure that the Guidebook and Reference Guide updates included accurate and current information, that the contents adequately addressed relevant issues for oversize/overweight

commercial vehicle operation in New Jersey, and that the layout and presentation of these technical contents were attractive and effective in communicating these complex, often confusing issues and regulations. Members of the working group are listed in Table 3.

Table 3 – List of Working Group Participants

LAST NAME	FIRST NAME	AGENCY
Bal	Harjit	NJDOT
Cheng	Xiaohua	NJDOT
Choborda	Stephen	NJDOT
Clark	Andrew	NJDOT
Clifton	Genevieve	NJDOT
Davis	Kimbrali	NJDOT
Dorrler	Scott	NJSP
Maniar	Nipa	NJDOT
Marino-Doyle	Janice	NJDOT
Mauro	Eric	NJSP
Mintchwarner	Natalie	NJDOT
Najem	Ali	NJDOT
Phomsavath	Ekaraj	FHWA NJ Division
Reddy	Mula	NJDOT
Rishindran	Yasotha	NJDOT
Sprewell	Paul	NJDOT
Szulczewski	Joshua	NJDOT
Thomas	Paul	NJDOT
Tintle	Douglas	NJDOT
Wonski	Louann	NJDOT
Yermack	Eric	NJDOT

The working group met four times during the course of the research project to discuss preliminary findings of the research, review necessary changes and updates, discuss and vote on layout and cover design options, and review draft versions of the documents. In addition, Cambridge Systematics set up a Microsoft SharePoint folder

where draft documents were posted for review, and comments and other feedback from working group members were submitted.

Feedback received from the working group and from the Customers led to several key recommendations and/or contributions to the development of the Guidebook and Reference Guide, including:

- Inspired by the Michigan Truck Operators' Map (see Figure 3) referenced earlier in this report, the customers suggested, and the working group supported, transforming the Reference Guide from a trifold brochure laid out on 8.5x14 paper to a 3-foot by 4-foot wall-sized layout featuring NJDOT's "Large Truck Map"⁷ (see Figure 4) on one side and relevant commercial vehicle size and weight information on the opposite side.

⁷ <https://www.state.nj.us/transportation/freight/trucking/pdf/largetruckmap.pdf>

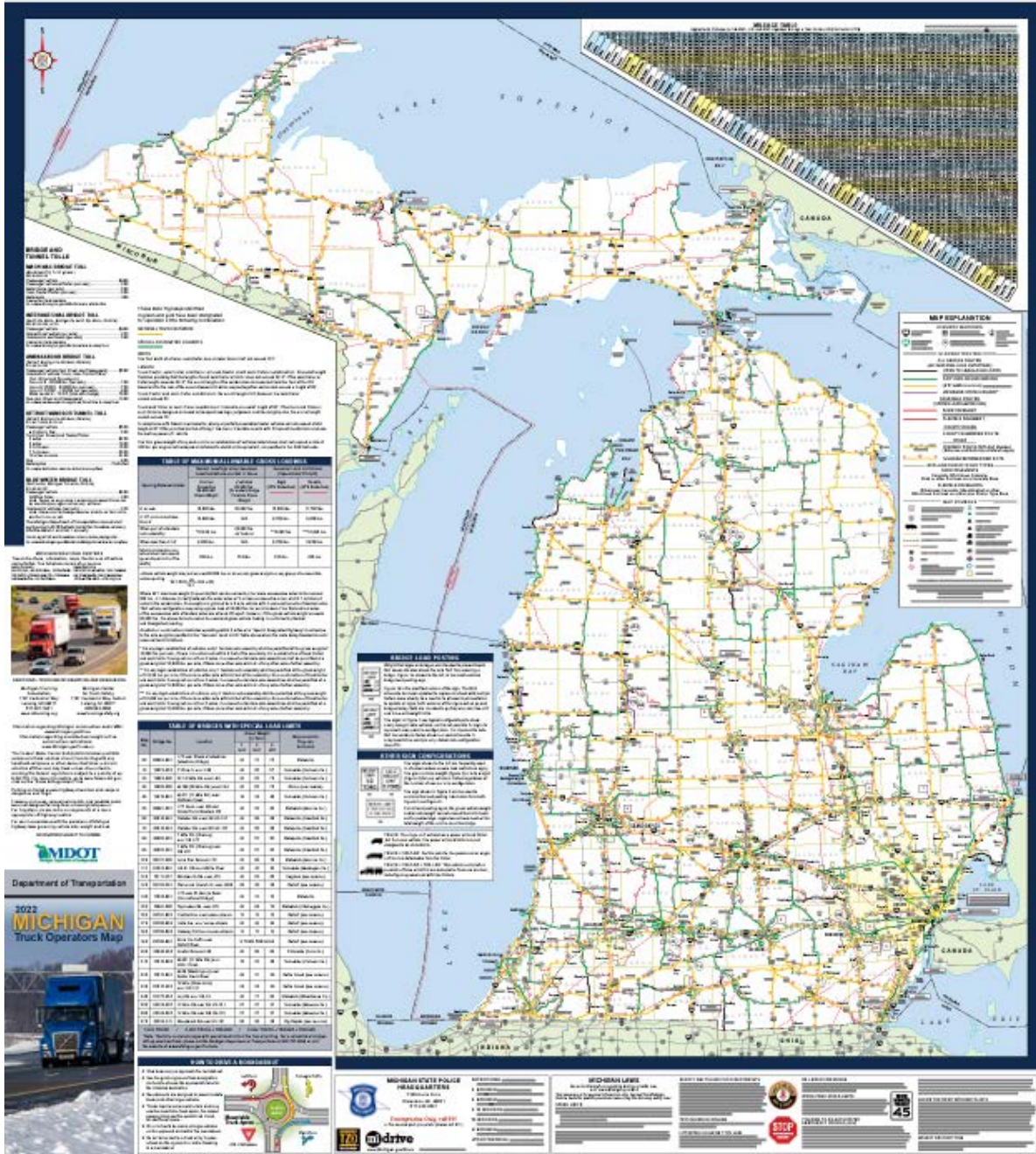


Figure 3. Michigan Truck Operators Map, 2022

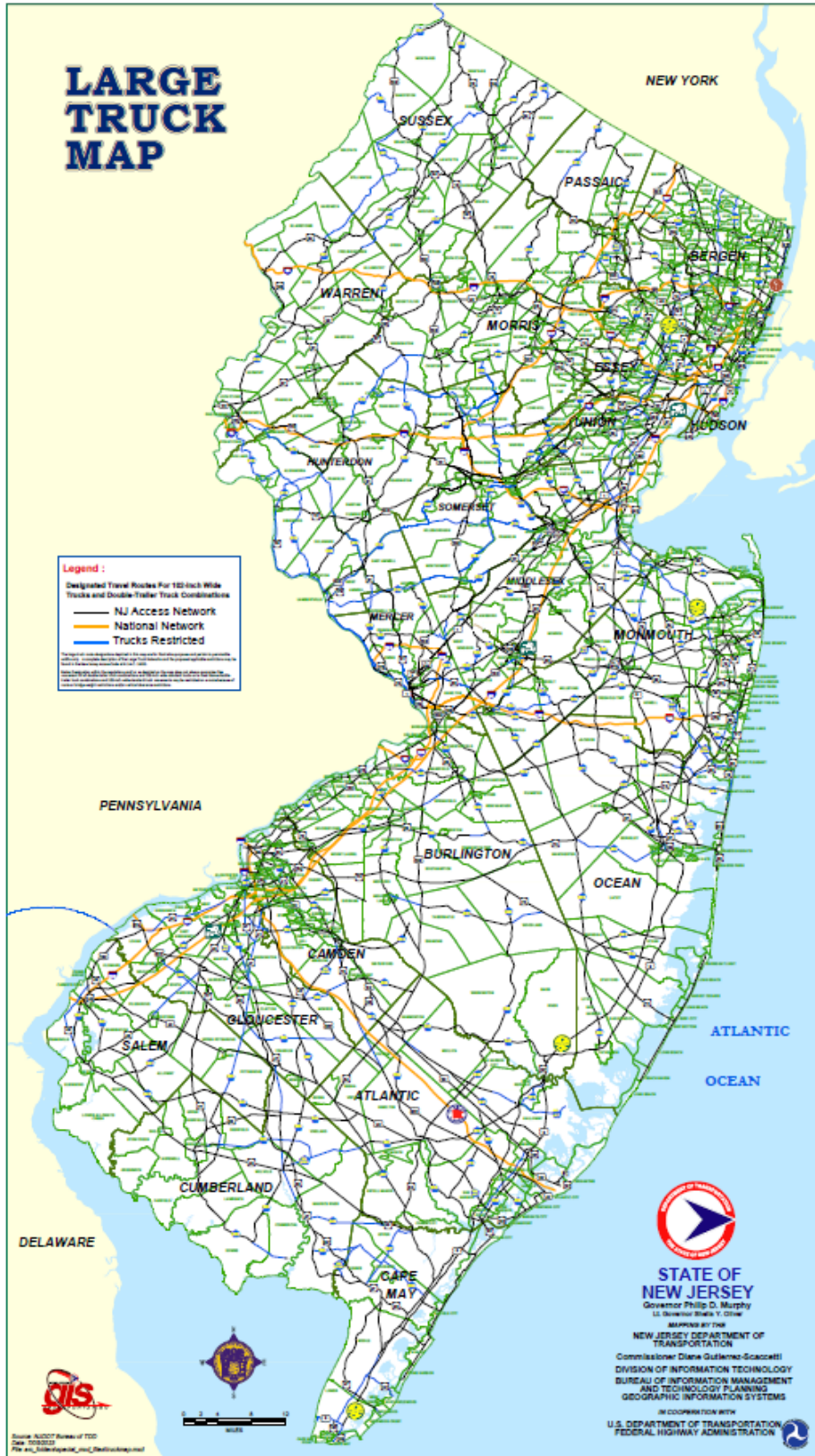


Figure 4. New Jersey Large Truck Map, July 2023 Version

Members of the working group worked with the Cambridge Systematics team to:

- Develop a table of structures with overhead clearance restrictions under 12 feet, 6 inches, to include in the Reference Guide document.
- Supply comments on the accuracy and clarity of the Guidebook contents, to ensure the interpretations presented are correct and to limit the potential for readers to be confused or misled.
- Vote on several potential document layout and cover design options to select the layout and cover that were ultimately used for both the Guidebook and Reference Guide.
- Suggest improvements to some of the diagrams and other graphics elements in the Guidebook.

CONCLUSIONS AND RECOMMENDATIONS

The findings of the research and engagement with the working group informed the development of an updated version of the NJDOT Commercial Vehicle Size and Weight Guidebook and the NJDOT Commercial Vehicle Size and Weight Reference Guide. Key features of the updates include:

- Updates to the truck diagrams, tables, and text to account for the weights and dimensions allowed by the FAST Act.
- New narrative text and a table explaining the different types of emergency permits that are available, and the situations in which each can be used.
- Revised text clarifying the Code 23 trailer permit applicability/types.
- Clean-up of references to NJSA/NJRS. Some references were incorrect or out of date. They were changed to be current and correct.
- Replacement of truck dimension diagram vehicle types. One of the working group members suggested changing the diagram of a maxi-cube vehicle to be more representative of the types of vehicles operating in that category.
- New document layout, color scheme, and cover.
- Inclusion of photographs of trucks in New Jersey. The research team deployed a photographer to gather photos from various locations around the state.
- Conversion of the Reference Guide from a trifold brochure to a wall-size map with tables, graphics, and explanatory text on the opposite side.

Recommended Next Steps

Upon approval of the finalized NJDOT Commercial Vehicle Size and Weight Guidebook and Reference Guide version approved by the Manager of Aeronautics and Federal and State Safety Programs, Kimbrali Davis, and her chain of command, the Cambridge Systematics research team recommends the following next steps:

- Post the updated and approved guidebook and reference guide on the New Jersey “GOTPERMITS” website.
- Post the updated version of the “Large Truck Map” on the New Jersey “GOTPERMITS” website.
- Track downloads of the materials in order to estimate whether or not the industry is consuming the information.
- Reach out to organizations such as the New Jersey Motor Truck Association and other industry groups to alert them to the availability of these resources.
- Use QR codes in virtual and in-person presentations and handout materials, directing audiences to the New Jersey “GOTPERMITS” website and the guidance materials.