

REGIONAL FREIGHT TRANSPORTATION PLAN UPDATE

TRUCK PARKING INVENTORY AND TRUCK RESTRICTIONS



OCTOBER 2022

Regional Freight Transportation Plan Update

Truck Parking Inventory and Truck Restrictions

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1 INTRODUCTION

The Coastal Region Metropolitan Planning Organization (CORE MPO) region serves as a gateway for global trade and for freight movement in the Southeast USA, due in large part to the Port of Savannah – the nation’s 4th largest container port. In addition to the Port of Savannah, the region contains a comprehensive multimodal network of freight railroads and railyards, major highways, cargo-serving airports, as well as a substantial warehousing/distribution/logistics industry to manage freight movements over that network. In addition, the region is an emerging manufacturing hub for businesses looking to create and ship a diverse portfolio of finished products to clients around the globe. Overall, goods movement in the Savannah region has a major impact on the regional and state economy.

In support of the region’s multimodal freight network and the people and businesses that rely on it, the CORE MPO is conducting an update of its Regional Freight Transportation Plan. The study area is the Savannah Metropolitan Statistical Area which comprises of Chatham, Bryan and Effingham Counties. The purpose of this technical memorandum is to develop an inventory of truck parking and to review and discuss the various truck parking restrictions and regulations imposed by county and municipal governments in the CORE MPO region. These are critical aspects of the region’s multimodal freight network as they impact the safety of roadway users and the quality of life of the region’s residents.

2 TRUCK PARKING

2.1 Why Truck Drivers Need to Park

Truck drivers need to park for different reasons and there are unique challenges for various types of parking needs (see Figure 2.1). Drivers must adhere to Federal hours of service (HOS) regulations that place specific time limits on driving and rest intervals. Drivers almost always need to park and wait for delivery windows at shippers and receivers, and sometimes are impacted by unexpected road closures or congestion. Finally, truck drivers are essential workers, who need to take personal breaks for rest and safety.

FIGURE 2.1 REASONS TRUCK DRIVERS PARK



Source: Cambridge Systematics, Inc.

2.2 Laws and Regulations

This section of the report focuses on laws and regulations that impact the need and availability of truck parking. It describes laws and regulations implemented at the federal and local levels. Though there are state laws and regulations that impact truck parking, federal mandates on when and for how long drivers are allowed to operate is a major driving force behind the need to address truck parking as part of regional freight planning. Local laws and regulations have a significant impact on the availability of truck parking as land use is controlled by local governments. For these reasons, this section focuses on federal and local laws and regulations.

Federal Laws and Regulations

Moving Ahead for Progress in the 21st Century (MAP-21)

One of the key provisions in the Moving Ahead for Progress in the 21st Century (MAP-21) transportation bill was the Jason's Law Truck Parking Survey ("Jason's Law").¹ Named for Jason Rivenburg, a truck driver who was killed at an abandoned gas station while waiting for a nearby delivery site to open, this bill began the process to address the shortage of long-term parking for commercial vehicles on the National Highway System (NHS) and seeks to improve safety for truck drivers nationwide. Jason's Law requires the USDOT to evaluate the nation's capability to provide adequate truck parking and rest facilities for safe parking of commercial motor vehicles (CMV), address the volume of CMV traffic in each state, and develop a method to measure the adequacy of CMV parking in each state.²

As directed by MAP-21, the Federal Highway Administration (FHWA) completed a survey on truck parking issues in August 2015. State DOTs, commercial motor vehicle safety enforcement agencies, truck drivers and fleet managers, and truck stop owners and operators comprised the survey respondents. The purpose of the survey was to evaluate the capability of states to provide adequate parking and rest facilities for commercial motor vehicles engaged in interstate transportation. Key indicators used in the Jason's Law report included lack of capacity (shortages), unauthorized parking, number of spaces in relation to vehicle miles traveled (VMT), and number of spaces in relation to National Highway System (NHS) miles (e.g., number of parking spaces per 100 miles of NHS, number of parking spaces per 100,000 daily truck VMT, etc.). By all indicators included in the 2015 survey results, nearly every state in the country, including Georgia, indicated a need for more truck parking.

As MAP-21 required USDOT to make periodic updates to the Jason's Law Truck Parking Survey, a new survey was conducted in 2019. Though a full report was not released, a high-level summary of the results was made publicly available.³ In addition to the original entities surveyed, the 2019 survey was expanded to include port authorities. The survey results indicated a modest increase in truck parking capacity between 2014 and 2019, a 6 percent increase in public truck parking spaces and an 11 percent increase in private truck parking spaces. Despite the reported increase, the 2019 survey results determined that truck parking shortages remain in areas originally identified in the 2015 survey.

Hours of Service (HOS) Regulations

Commercial motor vehicle (CMV) labor regulations are under the purview of the U.S. Federal Motor Carrier Safety Administration (FMCSA). FMCSA propagates rules to increase safety on the road. For CMVs – broadly defined as vehicles used as part of a business, involved in interstate commerce, weighing 10,001 pounds or more, or transporting certain commodities or passengers – the mandatory hours of service (HOS) regulations have the greatest impact on truck parking. The most recent HOS regulations, updated in September 2020, are outlined below in Table 2.1.

¹ MAP-21; P. L. 112-141, Section 1401 (c).

² FHWA Office of Freight Management and Operations, "Jason's Law Commercial Motor Vehicle Parking Survey and Comparative Analysis," 2015, https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/jasons_law/truckparkingsurvey/ch1.htm

³ FHWA Office of Freight Management and Operations, "Jason's Law Commercial Motor Vehicle Parking Survey and Comparative Assessment," December 1, 2020, Presentation to the National Coalition on Truck Parking, https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/workinggroups/2020/mtg/nctptpwnmtg12012020.pdf

TABLE 2.1 SUMMARY OF HOURS-OF-SERVICE RULES FOR PROPERTY-CARRYING DRIVERS

Regulation	Description
11-Hour Driving Limit	May drive a maximum of 11 hours after 10 consecutive hours off duty.
14-Hour Limit	May not drive beyond the 14th consecutive hour after coming on duty, following 10 consecutive hours off duty. Off-duty time does not extend the 14-hour period.
30-Minute Driving Break	Drivers must take a 30-minute break when they have driven for a period of 8 cumulative hours without at least a 30-minute interruption. The break may be satisfied by any non-driving period of 30 consecutive minutes (i.e., on-duty not driving, off-duty, sleeper berth, or any combination of these taken consecutively).
60/70 Hour Limit	May not drive after 60/70 hours on duty in 7/8 consecutive days. A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off duty.
Sleeper Berth Provision	Drivers may split their required 10-hour off-duty period, as long as one off-duty period (whether in or out of the sleeper berth) is at least 2 hours long and the other involves at least 7 consecutive hours spent in the sleeper berth. All sleeper berth pairings must add up to at least 10 hours. When used together, neither time period counts against the maximum 14-hour driving window.
Adverse Driving Conditions	Drivers are allowed to extend the 11-hour maximum driving limit and 14-hour driving window by up to 2 hours when adverse driving conditions are encountered.
Short-Haul Exception	A driver is exempt from the requirements of §395.8 and §395.11 if: the driver operates within a 150 air-mile radius of the normal work reporting location, and the driver does not exceed a maximum duty period of 14 hours. Drivers using the short-haul exception in §395.1(e)(1) must report and return to the normal work reporting location within 14 consecutive hours, and stay within a 150 air-mile radius of the work reporting location.

Source: <https://www.fmcsa.dot.gov/regulations/hours-service/summary-hours-service-regulations>, September 29, 2020.

HOS regulations are strongly enforced by state agencies, and penalties can be high. Motor carriers that exceed driving-time limits may be fined up to \$15,691 for each violation. Drivers may be fined up to \$3,923 for each violation. Motor carriers and drivers that exceed driving-time limits by more than three hours are deemed to have committed an egregious violation with FMCSA being able to levy penalties up to the maximum permitted by law.⁴ To avoid these steep fines, drivers are under pressure to find parking as quickly and efficiently as possible to avoid violating HOS regulations while trying to make pick-ups/deliveries as efficiently as possible.

Electronic Logging Device (ELD) Regulations

In order to increase compliance with HOS regulations, most CMV drivers are required to track their HOS with an electronic logging device (ELD) as described **Error! Reference source not found.**⁵ An ELD is technology that automatically records a driver's driving time and other HOS data. An ELD monitors a vehicle's engine to capture data on whether the engine is running, whether the vehicle is moving, miles driven, and duration of engine operation (engine hours). Though most CMV drivers are required to have an ELD, there are exceptions:

⁴ 49 CFR Part 386 Appendix B, https://www.ecfr.gov/cgi-bin/text-idx?SID=c84cf37b8194f6d754cfa649af3a6ee2&mc=true&node=pt49.5.386&rgn=div5#ap49.5.386_184.b, March 30, 2021.

⁵ Federal Register, Vol. 80, No. 241, December 16, 2015.

- Drivers who use paper logs no more than 8 days during any 30-day period;
- Driveaway-towaway drivers (transporting a vehicle for sale, lease, or repair), provided the vehicle driven is part of the shipment or the vehicle being transported is a motor home or recreational vehicle trailer; and
- Drivers of vehicles manufactured before model year 2000.

This approach to HOS monitoring replaced a paper version which provided drivers with some leeway in finding parking within the HOS limits. With the full implementation of the ELD mandate in December 2019, time and location is now tracked much more precisely. This allows for closer enforcement of existing HOS regulations which makes finding parking within allowable time limits even more critical.

Interstate Rest Areas – Commercial Use Restrictions

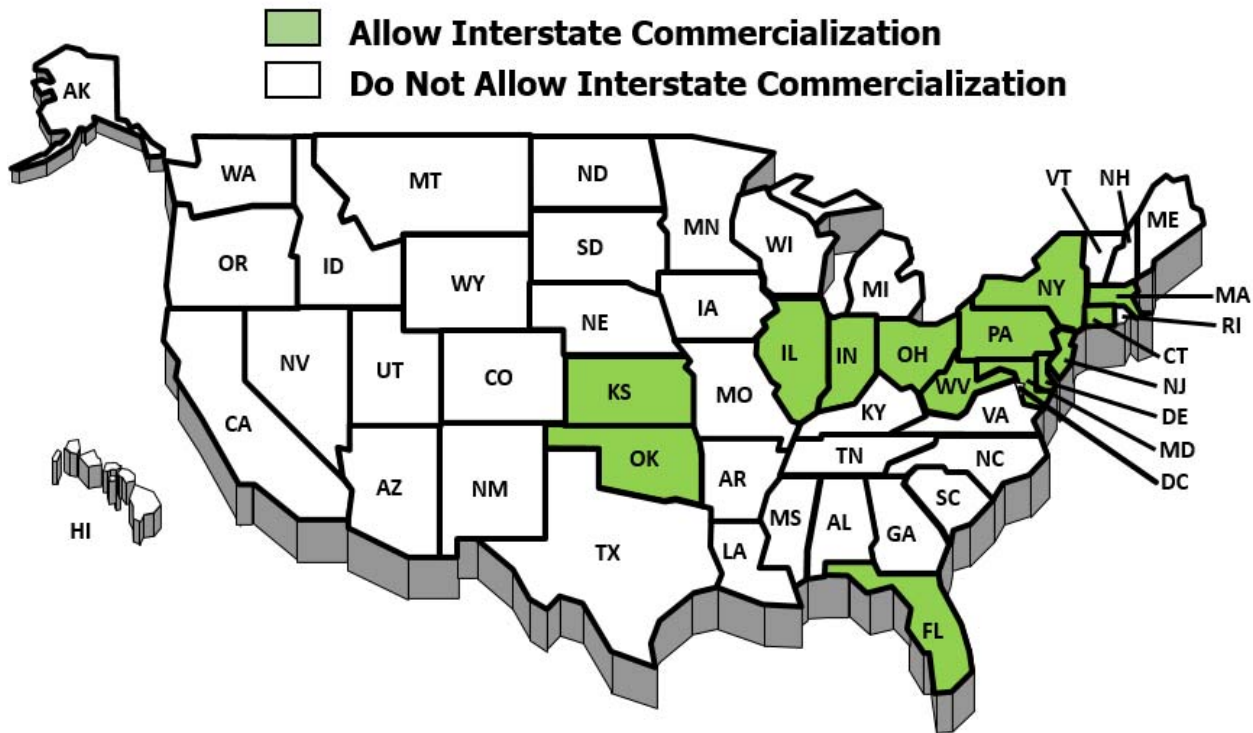
The availability of amenities (e.g., food, showers, fuel, etc.) is viewed as an important factor in the utilization of truck parking. In the 2015 Jason's Law survey results, drivers indicated that they are hesitant to park at rest areas because they do not have amenities.⁶ In most states in the U.S., the sale of food, fuel, and most other commodities at Interstate rest areas is not allowed. This is due to a 1956 prohibition on commercializing Interstate rights-of-way which states, "No charge to the public may be made for goods and services at safety rest areas except for telephone and articles dispensed by vending machines."⁷ Tolloed segments of highways in 14 states (shown in Figure 2.2) are exempted from the ban because they were operating commercialized rest areas prior to 1956.⁸

⁶ FHWA Office of Freight Management and Operations, "Jason's Law Commercial Motor Vehicle Parking Survey and Comparative Analysis," 2015, https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/jasons_law/truckparkingsurvey/ch3.htm#s36

⁷ 23 CFR 753.5(g)

⁸ NATSO. "Rest Area Commercialization and Truck Parking Capacity: Commercialization is Not the Answer to Truck Parking Needs." February 2010. Note that Connecticut allows commercialization at all interstate rest areas.

FIGURE 2.2 STATES ALLOWING INTERSTATE COMMERCIALIZATION



Source: Texas Department of Transportation, “Truck Parking State of the Practice, Laws and Regulations Memo,” March 27, 2019.

Parking of Trucks Transporting Hazardous Materials

Trucks carrying hazardous materials such as explosives, radioactive material, and various gases and flammable liquids are subject to additional parking regulations as defined in 49 CFR Part 397.7.⁹ Motor vehicles containing hazardous materials in Division 1.1 (Mass Explosive Hazard), Division 1.2 (Projection Hazard) or Division 1.3 (Mass Fire Hazard) may not be parked on or within five feet of the traveled portion of a public street or highway. They are also not permitted on private property (including private truck stops) at any time without consent from the property owner or manager and are restricted from parking within 300 feet of bridges, tunnels, residential dwellings, offices, or other areas where people assemble. These additional restrictions provide significant challenges for this segment of the trucking community.

Clean Air Act

The 1990 Clean Air Act regulates air pollution in the U.S. The transportation sector as a whole is a major contributor to air pollution, responsible for more than half of nitrogen oxide¹⁰ and approximately 28 percent of greenhouse gas emissions in 2018.¹¹ Heavy truck diesel engines are a prime emission source, estimated to

⁹ <https://www.fmcsa.dot.gov/regulations/hazardous-materials/how-comply-federal-hazardous-materials-regulations>

¹⁰ <https://www.epa.gov/transportation-air-pollution-and-climate-change/smog-soot-and-local-air-pollution>

¹¹ <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

account for about 24 percent of total U.S. transportation sector carbon dioxide emissions and equal to nearly 9 percent of total U.S. energy-related carbon dioxide emissions in 2019.¹²

Specific to parking, trucks that are idling their engines in order to provide temperature control or power are a source of air pollution. To counter this, alternative fuels such as compressed natural gas, liquid natural gas, and propane, as well as plug-in electric vehicles are increasing in number. These options typically have fewer fueling locations and may have higher cost (depending on prevalent oil and gas prices), which can be an issue for drivers who do not have a set daily route or routinely return to a depot.

Another set of solutions to reduce emissions from idling trucks is the use of onboard or external equipment that provides services, such as heating and cooling, which are otherwise powered by engine idling.¹³ Examples of onboard equipment include auxiliary power units (vehicle-mounted systems that provide power), cab or bunk heaters, and battery-electric air conditioners, among others. External equipment to reduce truck idling generally refers to truck stop electrification. Truck stop electrification usually takes one of two forms: single-system or dual-system electrification. Single-system truck stop electrification provides heating, ventilation, and air conditioning (HVAC) directly to the truck via a gantry- or pedestal-mounted duct (see Figure 2.3). Dual-system electrification provides plug-in power for a truck's auxiliary electric HVAC system and accessories.

FIGURE 2.3 TRUCK STOP ELECTRIFICATION – KNOXVILLE, TN



Source: <https://www.fhwa.dot.gov/publications/publicroads/05mar/02.cfm>.

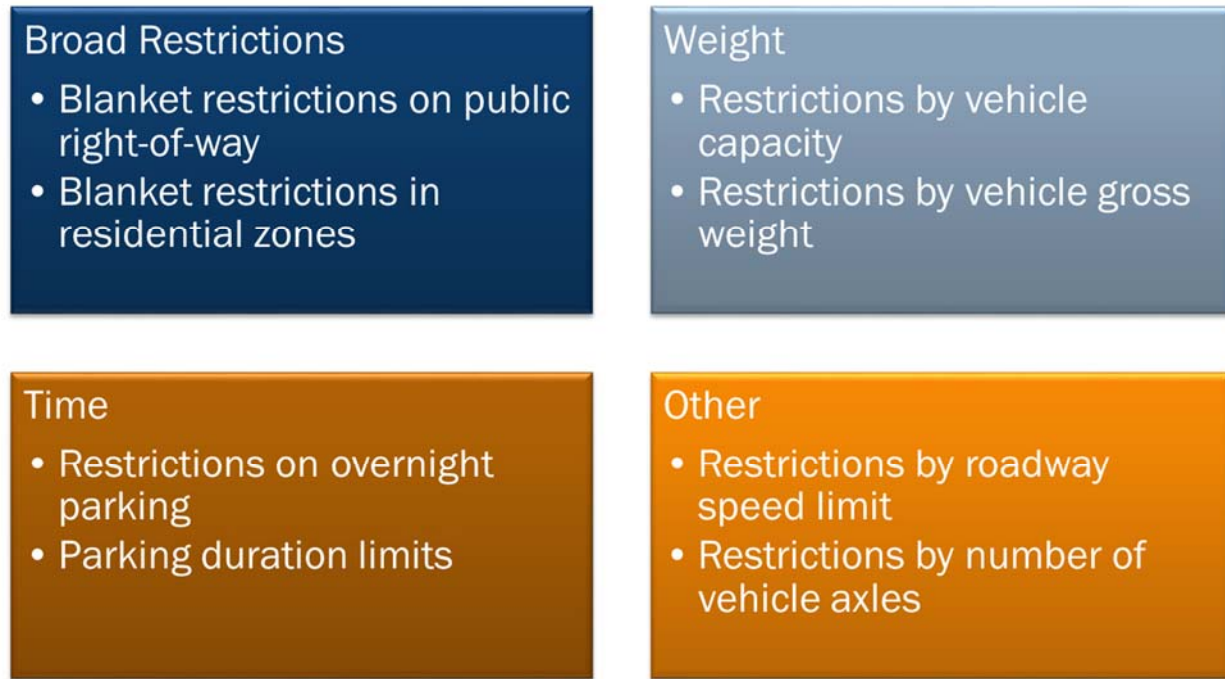
¹² <https://www.eia.gov/energyexplained/diesel-fuel/diesel-and-the-environment.php>

¹³ https://afdc.energy.gov/conservation/idle_reduction_equipment.html

Local Laws and Regulations

Truck parking in urban areas has been noted as a struggle for commercial motor vehicle operators across the U.S. Municipalities often view truck parking as incompatible with residential areas and not the highest and best use of valuable land area. Several local governments in the region have regulations for truck parking. Types of regulations commonly enacted by local governments are shown in Figure 2.4.

FIGURE 2.4 TYPES OF LOCAL TRUCK PARKING REGULATIONS



Source: Cambridge Systematics, Inc.

These ordinances are meant to improve safety and quality of life and protect against some of the negative externalities associated with truck parking. Examples include the City of Springfield prohibits truck parking within the city limits except for construction activity and for making pick-ups or deliveries to businesses. The City of Port Wentworth prohibits trucks from parking or standing in right-of-way, except for pick-ups or deliveries, for longer than 1 hour.¹⁴ The City of Rincon also prohibits parking, standing of any truck or other freight carrying vehicle on any street or right of way except loading and unloading materials.¹⁵ Furthermore, the City of Rincon regulates parking of truck used for transportation of hazardous or highly flammable solids, liquids or gas in the city limits.¹⁶ Trucks with more than 6,000 pounds are prohibited on streets except for delivery activities. The City of Port Wentworth has similar ordinances that generally prohibit trucks from parking on city streets and places greater restrictions on those transporting hazardous materials. Table 2.2 summarizes frequently occurring truck parking ordinances across the region.

¹⁴ City of Port Wentworth, Code of Ordinances, Chapter 13 – Motor Vehicles and Traffic, Section 13-2. – Parking trucks in street.

¹⁵ City of Rincon, Code of Ordinances, Chapter 78 –Traffic, Section 78-8. - No parking of trucks in the street.

¹⁶ City of Rincon, Code of Ordinances, Chapter 78 –Traffic, Section 78-9. - Trucks carrying hazardous substances.

TABLE 2.2 MOST COMMON TRUCK PARKING ORDINANCES IN THE CORE MPO STUDY AREA

City or County	Broad restrictions for public ROW or residential zones	Weight	Time	Other
Bryan County	●			●
Chatham County	●			
Effingham County	●			
Bloomington	●			
Garden City	●	●		●
Pooler	●	●		
Port Wentworth	●	●	●	●
Richmond Hill	●	●	●	●
Rincon	●	●	●	
Savannah	●	●	●	
Springfield	●	●	●	
Thunderbolt		●		

Source: Cambridge Systematics, Inc.

Some cities and counties have notable truck parking regulations in terms of development standards and in identifying more specific (as opposed to broad or general) locations where truck parking is prohibited. Codified development standards for truck parking are important as these impact the cost-effectiveness and feasibility of developing parking in certain jurisdictions. Often, the explicit prohibition of truck parking on specific routes is an indicator of where unauthorized truck parking has been a challenge for local governments. Examples of notable truck parking regulations in the CORE MPO study area include the following:

- The City of Richmond Hill does not allow vehicles exceeding 10,000 lbs. to be parked on city streets.¹⁷ Section 66-3 generally prohibits truck parking in residential districts and specifically identifies SR 25 as a corridor on which truck parking is prohibited. The city's official code also specifies development standards for truck stops, which are distinct from service stations, in its Unified Development Ordinance. Among other requirements, Section 13.7 H of its Unified Development Ordinance requires a minimum lot size of 2 acres, a minimum width of 200 feet on an arterial street, and that no driveway be closer than 600 feet from an interchange on- or off-ramp. The Unified Development Ordinance also sets truck parking minimums for cartage, express, parcel delivery facility, and freight and intermodal terminal developments. These facilities must provide two truck spaces per truck berth or loading dock (Section 14.3 Table 14-3). The Unified Development Ordinance also prohibits the overnight parking of trucks in parking lots that have not been specifically approved for that purpose (Section 14.4 E).

¹⁷ City of Richmond Hill, Code of Ordinances, Chapter 66 –Traffic, Section 66-4. – Load limit on designated streets.

- Effingham County prohibits parking in deceleration or acceleration lanes in Section 74-4 of its official code.¹⁸ It also prohibits trucks from county roads that are not designated as truck routes unless they are performing a pickup, delivery, or some other service.¹⁹ In the County's official code, trucks are defined as Federal Highway Administration (FHWA) class 6 through 13 vehicles according to the FHWA 13-vehicle classification scheme included in Appendix C of the agency's Traffic Monitoring Guide publication.²⁰
- Bryan County generally prohibits the parking of large trucks in residential zoned districts (Section 114-713), but its official code does not contain language to address parked trucks in public right-of-way.²¹ Exceptions are made for residential districts with large lots (e.g., 1.5 acres or more). Section 114-747 establishes development and operating standards for truck stops. It requires a minimum parcel area for new truck stops or travel plazas of ten acres with at least 200 feet of direct road frontage on a collector or arterial road. The parcel on which the truck stop/travel plaza is located must be within 2,000 feet of the centerline of the nearest interstate highway exit/entry ramp. If the parcel on which the truck stop or travel plaza is located is within 1,320 feet of a residential zoning district, then a noise impact study must be prepared and include mitigation measures to ensure that noise levels at the boundary of the residential zoning district will not exceed 60 A-weighted decibels (dBA) between the hours of 10:00 p.m. and 7:00 a.m. The study must also propose idling time restrictions and a plan for compliance. Overnight parking is not allowed at newly developed truck stops/travel plazas unless it is electrified. The code requires that electrified parking spaces be installed for each overnight space to allow truck drivers to provide power to necessary systems (e.g., heating, air conditioning) without idling the engine.
- In addition to general restrictions based on residential zones, weight, and time, Garden City and the City of Port Wentworth have specific parking restrictions for routes that carry high volumes of freight. Garden City prohibits parking on SR 21, SR 25, and US 80 within its limits.²² The City of Port Wentworth specifically prohibits parking on Traveler's Way, which is just north of the SR 21/I-95 interchange and proximate to a truck parking facility.²³

2.3 Truck Parking Inventory

The inventory of truck parking facilities covers both public and commercial facilities. Public facilities include rest areas, weigh stations (as Georgia allows overnight truck parking at these facilities), and welcome centers which are state-owned and are located adjacent to state highways to provide temporary parking for rest and access to restrooms, vending machines, and other basic services. They do not provide food, fuel, or other commercial amenities. Data on the location and capacity of public truck parking facilities was gathered from GDOT, the Georgia Department of Economic Development, and FHWA.

Commercial truck parking facilities are private businesses that provide fuel, and often offer food, rest, and other services for truck drivers. Because of federal limitations on the types of amenities that may be offered

¹⁸ Effingham County, Code of Ordinances, Chapter 74 –Traffic, Section 77-4. – Parking in deceleration or acceleration lanes prohibited.

¹⁹ Effingham County, Code of Ordinances, Chapter 74 –Traffic, Section 77-8. – Designated truck routes.

²⁰ Federal Highway Administration, Appendix C. Vehicle Types, *Traffic Monitoring Guide*, 2013, https://www.fhwa.dot.gov/policyinformation/tmguidetmg_2013/vehicle-types.cfm.

²¹ Bryan County, Code of Ordinances, Subpart B, Chapter 114, Article VII, Division 2, Section 114-713. - Storage or parking of vehicles and major recreational equipment and commercial vehicles.

²² Garden City, Code of Ordinances, Appendix B – Traffic Schedule, Article IX – Parking Prohibited at all Times.

²³ City of Port Wentworth, Code of Ordinances, Chapter 13 – Motor Vehicles and Traffic, Section 13-13. - On-street parking prohibited on Traveler's Way.

at public facilities, drivers often prefer commercial truck stops. Data on the location and capacity of commercial truck parking facilities was gathered from FHWA, third-party websites (e.g., AllStays.com, truckstopsandservices.com), company websites (e.g., Pilot Flying J, Loves Travel Stops).

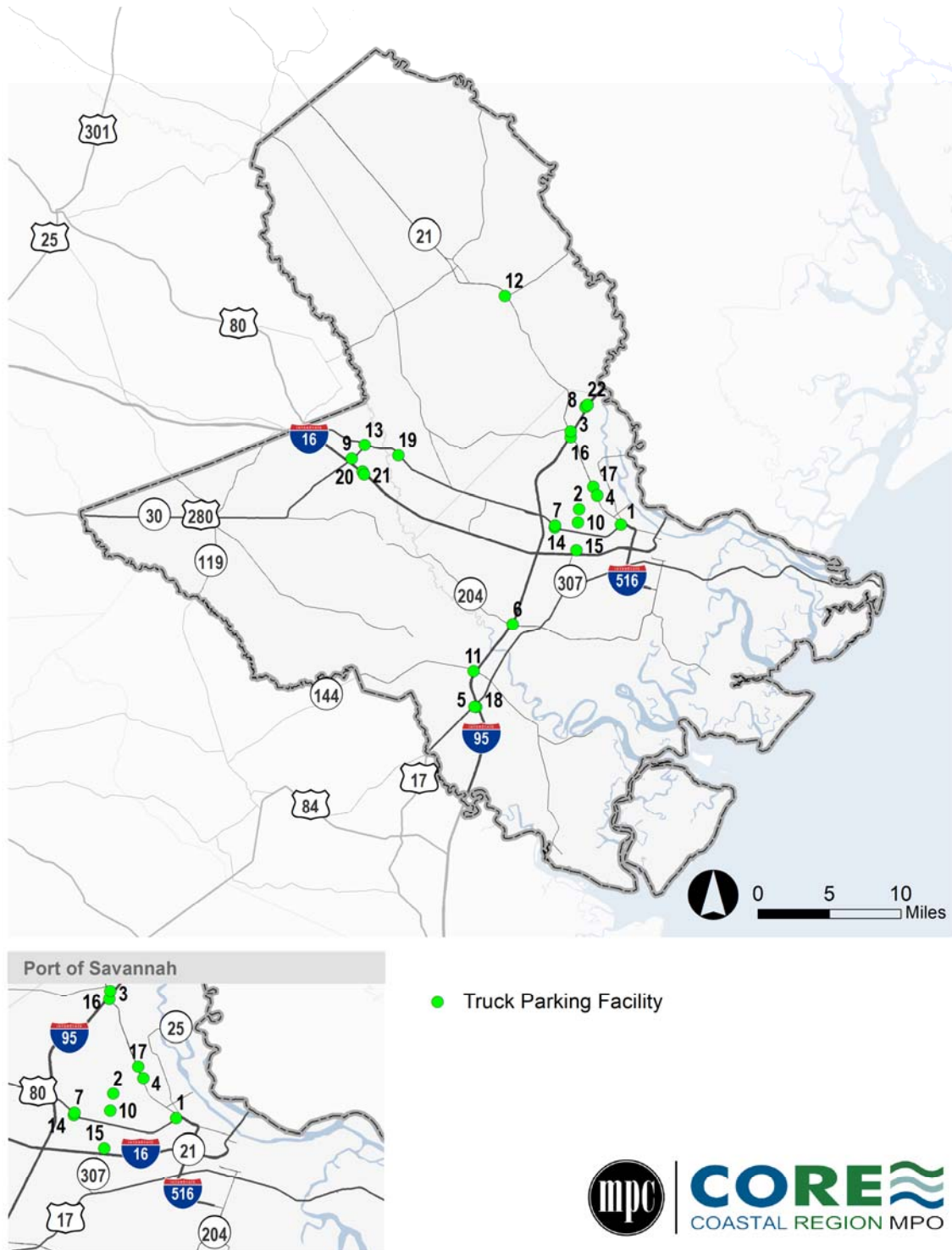
Table 2.3 and Figure 2.5 show the results of the truck parking inventory. In total, there are 22 truck parking facilities - 4 public and 18 commercial. Smaller facilities, such as those with 10 or fewer spaces, work to meet drivers' needs for short-term parking. Short-term parking is needed so that drivers may take mandated 30-minute rest breaks, eat a meal, and access restrooms as examples. These facilities also are likely used for staging. Often, shippers do not provide space for drivers to wait on site ahead of scheduled pickup or delivery windows. When this occurs, drivers are forced to park in unauthorized locations (e.g., ramps, local streets, retailer parking lots) to wait for their scheduled window unless there is parking facility nearby.

TABLE 2.3 TRUCK PARKING FACILITIES AND NUMBER OF PARKING SPACES, 2022

Map ID	Facility Name	Facility Type	Number of Spaces
1	80 Quik Stop – Garden City	Commercial	2
2	Circle K - Garden City	Commercial	8
3	Circle K - Port Wentworth	Commercial	10
4	Circle K - Savannah	Commercial	26
5	El Cheapo - Richmond Hill	Commercial	2
6	El Cheapo - Savannah	Commercial	2
7	Enmarket - Pooler	Commercial	25
8	I-95 Southbound Welcome Center	Public	88
9	Love's - Ellabell	Commercial	146
10	Love's - Garden City	Commercial	97
11	Love's - Richmond Hill	Commercial	140
12	Love's - Rincon	Commercial	74
13	Parker's - Ellabell	Commercial	10
14	Parker's - Pooler	Commercial	20
15	Parker's - Savannah	Commercial	16
16	Pilot - Port Wentworth	Commercial	112
17	Port Fuel Center – Port Wentworth	Commercial	50
18	TA Travel Center – Richmond Hill	Commercial	222
19	Wildwood Truck Stop - Bloomingdale	Commercial	25
20	Georgia Weigh Station - I-16 West	Public	35
21	Georgia Weigh Station - I-16 East	Public	35
22	Georgia Weigh Station - I-95 South	Public	18
Total			1,163

Source: Cambridge Systematics, Inc.

FIGURE 2.5 TRUCK PARKING FACILITIES IN THE SAVANNAH REGION, 2022



Source: Cambridge Systematics, Inc.

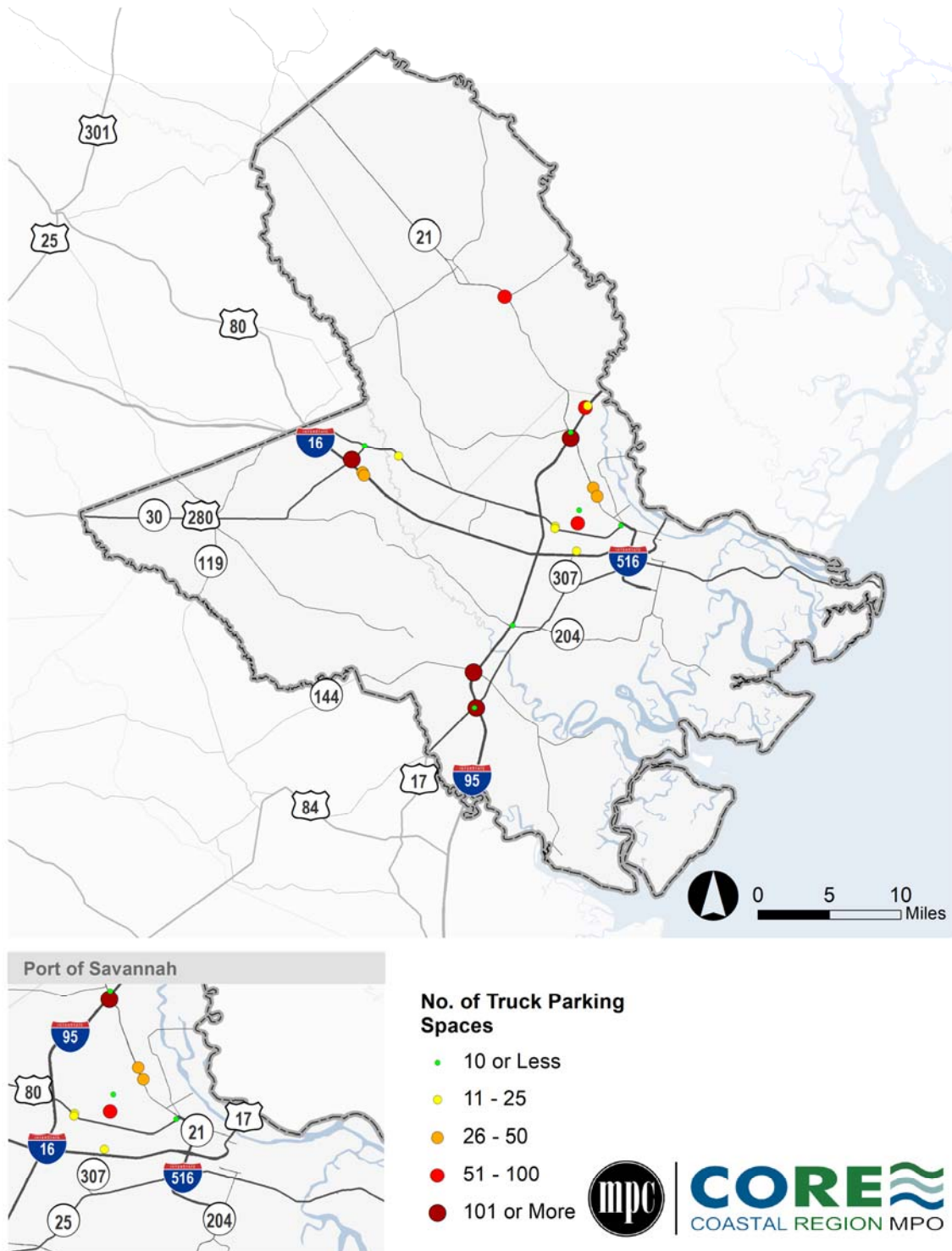
Table 2.4 summarizes the amount of truck parking by county in the CORE MPO study area. The region's 22 facilities provide an estimated 1,163 truck parking spaces. Just over 50 percent of capacity in terms of total spaces is located in Bryan County. Chatham County provides nearly 41 percent of the region's capacity with the remainder in Effingham County. Figure 2.6 shows truck parking facilities along with their estimated capacities.

Notably, Bryan County has about 32 percent of the region's truck parking facilities but over 50 percent of capacity. The facilities in Bryan are generally larger than those in other parts of the region with multiple facilities that contain more than 100 truck parking spaces. These types of facilities tend to be used to meet drivers' needs for 10-hour mandated rest breaks and overnight parking. Chatham County has about 59 percent of the region's truck parking facilities and nearly 41 percent of capacity. It has a mix of small (e.g., 10 spaces or fewer), medium (e.g., 11 to 50 spaces), and large (e.g., 100 or more spaces) facilities. Small parking facilities are important for meeting drivers' needs for short-term parking which includes 30-minute federally mandated rest breaks and staging. The concentration of small parking facilities in Chatham County likely reflects the limited availability of parcels for larger facilities and the prevalence of manufacturing plants, port facilities, and other businesses that would require drivers to stage pick-ups or deliveries.

TABLE 2.4 TRUCK PARKING BY COUNTY, 2022

County	Number of Facilities	Percent of Total Facilities	Number of Spaces	Percent of Total Spaces
Bryan	7	31.8%	590	50.7%
Chatham	13	59.1%	474	40.8%
Effingham	2	9.1%	99	8.5%
Total	22	100.0%	1,163	100.0%

FIGURE 2.6 CAPACITY OF TRUCK PARKING FACILITIES IN THE SAVANNAH REGION, 2022



Source: Cambridge Systematics, Inc.

2.4 Truck Parking Demand

The demand for truck parking was investigated using truck GPS data from INRIX. The GPS data provide information on the origins and destinations of heavy-duty trucks in the state of Georgia for the months of February, August, and October of 2019. These data were analyzed to derive average daily estimates of truck trips to and from truck parking facilities. Specifically, the analysis consisted of the following steps:

- **Geofence Truck Parking Facilities.** A geofence was designated around the region's public and commercial truck parking facilities.
- **Overlay Truck Trips Data.** The truck trip ends were overlayed on the region's truck parking facilities to identify the arrival and departure time of trucks at the facility.
- **Estimate Hourly Utilization.** The hourly arrivals and departures were calculated to estimate the total trucks parked at the region's parking facilities at any given hourly interval. This is the basis for the estimate of the utilization of truck parking spaces.
- **Develop and Apply Expansion Factor.** Because the INRIX data represents a sample of trucks, an expansion factor was developed using classification count data from the GDOT Traffic Analysis Data Application (TADA). INRIX heavy truck counts were compared to GDOT truck counts so that the data may be expanded to reflect the population of heavy trucks. The expansion factor was applied to the hourly utilization of truck parking spaces.

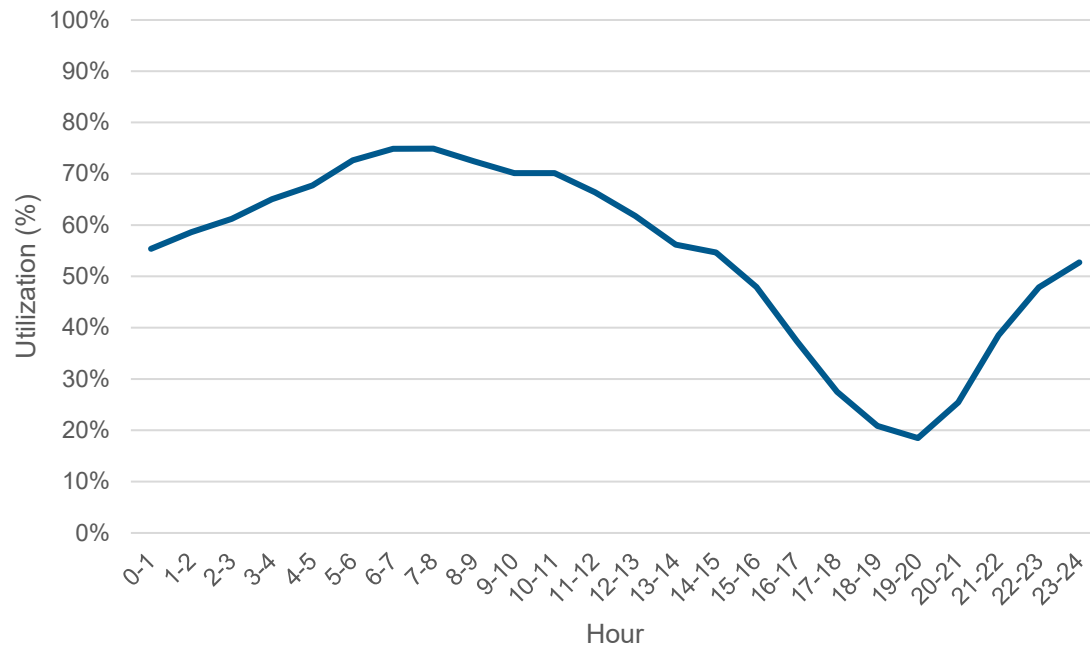
It is important to note that some of the region's truck parking facilities were built after 2019. For example, the Port Fuel Center opened in October 2021²⁴, the Love's Ellabell facility opened in June 2020²⁵, and the Love's Garden City facility opened in November 2021²⁶. As a result, data is not available for these facilities and they are omitted from the remainder of the analysis. Furthermore, while the data provide a real-world look at how trucks use the CORE MPO region's truck parking facilities, it is important to note that the data only represent a sample of trucks and not all trucks.

Overall, the results of the analysis indicate that the demand for truck parking at truck stops, rest areas, and other authorized locations generally does not exceed the region's capacity. Peak demand was estimated to occur at 6 a.m. and during this period about 75 percent of the region's truck parking capacity is consumed as shown in Figure 2.7. However, demand may be higher than what was captured with this analysis as trucks sometimes park in unauthorized locations such as industrial parks, commercial parking lots, roadway shoulders, and on-/off-ramps. Unauthorized locations were not included in the analysis.

²⁴ <https://www.overdriveonline.com/life/article/15065175/new-truck-stop-and-cngpower-push-coming-at-port-of-savannah>

²⁵ <https://www.loves.com/en/news/2020/june/loves-travel-stops-opens-in-georgia>

²⁶ <https://www.loves.com/en/news/2021/november/loves-travel-stops-opens-new-locations-in-ohio-florida-and-georgia>

FIGURE 2.7 AVERAGE HOURLY TRUCK PARKING DEMAND

Source: INRIX; Cambridge Systematics, Inc.

Public truck parking in the CORE MPO region is provided by a welcome center and weigh stations. Parking demand at the I-95 Southbound Welcome Center was estimated to exceed capacity. In some hours, demand was estimated to be as high as 128 percent. Demand in excess of 100 percent implies that trucks are parking along the ramps and other portions of the facility that are not designated for truck parking. For the region's weigh stations, the results indicated that parking demand at those facilities generally do not exceed capacity. However, this may also be reflective of a reluctance of motor carriers to park at these facilities.

Though demand was not found to exceed capacity at authorized parking locations at the region-wide level, continued growth in truck volumes and freight-intensive land uses will contribute to increased long-term demand. Truck shipments exceeding 500 miles traveling into, out of, and through the region are projected to grow at about 3 percent annually. These are the types of trips that could result in a driver needing to park overnight in the region. Among other tools, the FHWA Truck Parking Development Handbook presents case studies that show the relationship between land use and truck parking demand. Commercial and industrial land uses – two types of development that are increasingly prevalent in the region – generated the highest demand. The combination of growing truck volumes along with increasing commercial and industrial development indicate that the long-term demand for truck parking will continue to grow. Furthermore, though the region's truck parking supply does not appear to capacity-constrained, this may change given current trends.

3 TRUCK AND OTHER FREIGHT RESTRICTIONS

While truck restrictions are important for limiting the impact of freight traffic on surrounding communities (e.g., noise, emissions, vibrations, etc.) and also for roadway safety by shifting truck traffic away from roadways that were not designed for heavy vehicles, they can also contribute to increased vehicle miles traveled. In most cases, local city codes and ordinances across the region do not differ from each other substantially, each dealing with the same types of restrictions and nuisance prohibitions. Pertaining to freight transportation, local ordinances in the region include:

- **Trucks to operate only on designated routes or are generally restricted from local routes.** This ordinance requires that commercial vehicles operate only along designated truck routes, or generally restricts vehicles above certain gross weight thresholds from operating on local routes except in the limited cases of local pickups or deliveries.
- **Prohibition of commercial vehicle parking within public right of way.** This was the most prevalent ordinance across the region. There were certain variations on this theme; for example, most provided caveats for loading/unloading, and some limited restrictions only to residential areas.
- **Prohibition on parking commercial vehicles carrying hazardous cargo within public right of way.** Some cities placed further restrictions on truck parking, specifically identifying commercial vehicles transporting hazardous materials.
- **Engine brakes prohibited.** One city included ordinances prohibiting the use of engine or “jake” brakes (i.e., using compressed air), which emit loud noises.
- **Blocking or obstruction of streets by trains prohibited.** Several cities have enacted ordinances that prohibit trains from stopping or standing at crossings beyond specified time thresholds (e.g., 5 minutes, 10 minutes).

These ordinances are meant to improve safety and quality of life and protect against some of the negative externalities associated with freight. Table 3.1 illustrates frequently occurring ordinances across the study area. In general, counties and municipalities across the region have some form of an ordinance that restricts truck parking in public right-of-way.

TABLE 3.1 MOST COMMON FREIGHT TRANSPORTATION ORDINANCES

City or County	Prohibition on truck parking in public ROW	Designated truck routes or local restrictions	Trucks with hazardous cargo are restricted from parking on public ROW	Engine/jake brake prohibited	Trains stopping at at-grade crossings prohibited
Bryan County					●
Chatham County	●	●			●
Effingham County	●	●			●
Bloomington	●	●			●
Garden City	●	●			●
Pooler	●	●		●	●
Port Wentworth	●	●	●		●
Richmond Hill	●	●			●
Rincon	●	●	●		●
Savannah	●	●			●
Springfield	●	●			●
Thunderbolt	●	●			●

Source: Cambridge Systematics, Inc.

Only Effingham County has a designated truck route system to which drivers must adhere.²⁷ The county prohibits the use of medium and heavy-duty vehicles, defined as commercial vehicles Federal Highway Administration class 6 through 13, on routes not listed as designated truck routes. The designated truck routes include:

- SR 21;
- SR 17;
- SR 119;
- SR 30;
- SR 275;
- US 80;
- Old Augusta Road South;
- Old Augusta Central Road;
- I-16; and

²⁷ Effingham County, Code of Ordinances, Chapter 74 –Traffic, Section 77-8. – Designated truck routes.

- I-95.

The Cities of Port Wentworth and Rincon have ordinances that place additional truck parking restrictions on commercial vehicles transporting hazardous cargo. Section 13-3 of the City of Port Wentworth's official code prohibits any tank or tanker or other like truck used for the transportation of hazardous or highly flammable substances to be parked or stopped at any time on any street or right-of-way thereof in the city unless such vehicle is in the charge of an awake and immediately present attendant at all times.²⁸ Section 78-9 of the City of Rincon's official code has a similar prohibition.²⁹

Only the City of Pooler has an ordinance prohibiting engine or "jake" brakes. Engine brake or compression brake is a device used primarily on trucks for the conversion of the engine from an internal combustion engine to an air compressor for the purpose of braking without the use of wheel brakes.³⁰ Section 82-43 of the City's code prohibits the use of these devices. In addition, trucks are specifically prohibited on Old Louisville Road and Pine Barren Road.³¹

For state routes and U.S. highways, cities and counties cannot restrict through trucks from operating on these routes though they can prohibit parking. State routes comprise all of the region's Interstates and principal arterials, and several minor arterials and major collectors as well. Interstates and arterials generally facilitate inter- and intrastate truck travel.

As discussed at the beginning of this section, local routes throughout the region generally have some restrictions on truck traffic. These are typically restrictions on gross vehicle weight and limit the use of local routes for serving a business or accessing a driver's home base. For those reasons, the analysis of truck route restrictions focuses on roadways that are functionally classified as arterials or collectors. Collectors primarily facilitate intra-county travel and funnel traffic from local roads to the arterial network. They often represent the first and last miles for freight shipments. The map in Figure 3.1 summarizes truck restrictions and designated truck routes in the CORE MPO study area.

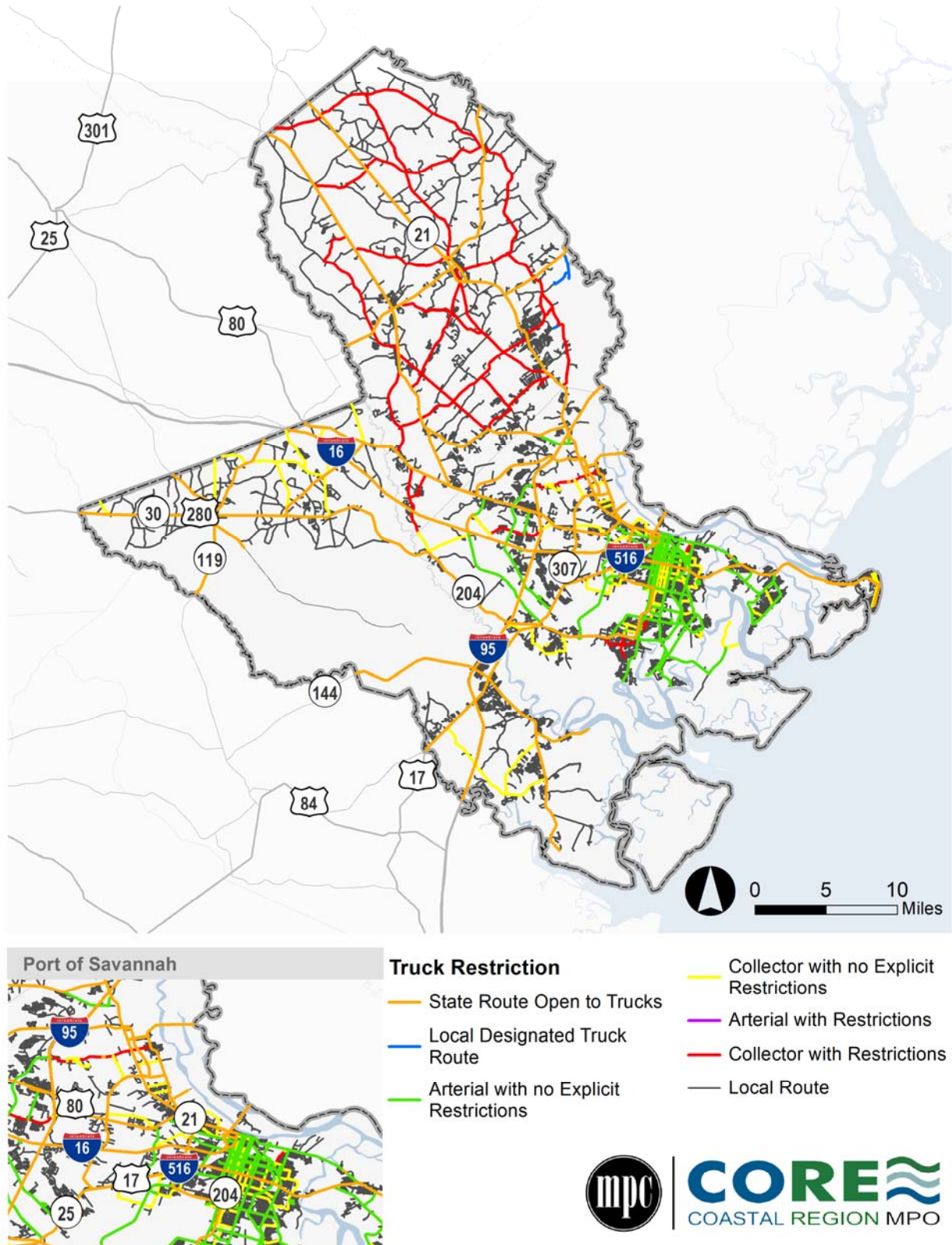
²⁸ City of Port Wentworth, Code of Ordinances, Chapter 13 –Motor Vehicles and Traffic, Section 13-3. - Trucks carrying hazardous substances.

²⁹ City of Rincon, Code of Ordinances, Chapter 78 –Traffic, Section 78-9. - Trucks carrying hazardous substances.

³⁰ City of Pooler, Code of Ordinances, Chapter 82 – Traffic and Vehicles, Sections 82-43. - Use of engine brakes and compression brakes prohibited.

³¹ City of Pooler, Code of Ordinances, Chapter 82 – Traffic and Vehicles, Sections 82-4 and 82-5.

FIGURE 3.1 THROUGH TRUCK ROUTE RESTRICTIONS IN THE CORE MPO STUDY AREA



Source: Cambridge Systematics, Inc.

In Bryan and Effingham Counties, arterials are all on the state's network so they are open to through truck traffic. In Chatham County, arterials are generally not restricted to through truck traffic except for those that traverse downtown Savannah. These include portions of Oglethorpe Avenue, Liberty Street, and Bay Street in the City of Savannah.

Only Effingham County has collectors from which through truck traffic is specifically prohibited due to its official code. These include corridors such as Springfield Road, Clyo-Kildare Road, Stillwell Clyo Road, Blue Jay Road, and Goshen Road. Generally, these routes traverse rural and residential areas of the county and are not proximate to freight-intensive land uses. In the City of Pooler, through trucks are specifically prohibited from Old Louisville Road and Pine Barren Road which are classified as collectors. There are some freight-intensive land uses near the intersection of these two corridors including a truck parking facility. The City of Port Wentworth prohibits through trucks from Gulfstream Road and Airways Avenue. These corridors provide access to the Savannah-Hilton Head International Airport. Collector roadways in Bryan County are not specifically prohibited to through truck traffic as part of its official code.

4 SUMMARY

This technical memorandum developed an inventory of truck parking and reviewed and discussed the various truck parking restrictions and regulations imposed by county and municipal governments in the CORE MPO region. There are a few key insights that can be taken away from the technical memorandum:

- **Local Laws and Regulations Impacting Truck Parking.** Several of the municipalities and counties in the study area have ordinances that impact the availability of truck parking. These include broad restrictions on truck parking in residential zones and public right-of-way, restrictions based on time of day, and restrictions based on vehicle characteristics namely weight and number of axles. Overall, these ordinances are meant to improve safety and quality of life and protect against some of the negative externalities associated with truck parking.

Some local governments have incorporated development standards for truck parking facilities and enacted truck parking minimums as part of their official code. Examples include the City of Richmond Hill and Bryan County. As part of its Unified Development Ordinance, among other requirements the City of Richmond Hill sets a minimum lot size and requires that truck parking facilities be developed along roadways that are functionally classified as an arterial street. It also sets truck parking minimums for freight terminals and facilities based on the number of loading docks. Bryan County has similar development standards for truck parking facilities but also has other requirements related to noise impact studies and truck stop electrification. These types of ordinances can significantly impact the location and availability of truck parking throughout the region as they influence a development's cost effectiveness and feasibility.

- **Capacity of Truck Parking in the Region.** The region has an estimated 1,163 truck parking spaces provided by 22 truck parking facilities – 4 public and 18 commercial. About 90 percent of the region's truck parking capacity is located in Bryan and Chatham Counties. Facilities in Bryan County tend to be larger as it contains only 7 facilities but provides about 50 percent of capacity. The region's largest truck parking facility is in Bryan County and has capacity for 222 trucks. Large facilities are critical for meeting drivers' needs for overnight parking.

Chatham County has a range of small (e.g., 10 spaces or fewer), medium (e.g., 11 to 50 spaces), and large (e.g., 100 or more spaces) facilities. Small parking facilities are important for meeting drivers' needs for short-term parking which includes 30-minute federally mandated rest breaks and staging. The concentration of small parking facilities in Chatham County likely reflects the limited availability of large, cost-effective parcels for developing large truck parking facilities and the prevalence of shippers and receivers that would require drivers to stage pick-ups or deliveries.

- **Local Restrictions on Truck Traffic.** Restrictions on truck traffic are prevalent among the region's municipalities and counties. Generally, these ordinances address the same types of restrictions and nuisance prohibitions such as truck traffic in residential zones and parking in public right-of-way. Only Effingham County has a designated truck route system that is codified as part of its official code. As a result, through truck traffic is restricted from several collector roadways in the county in addition to restrictions on local routes, which are much more prevalent in other parts of the region.
- **Other Local Freight Restrictions.** Several municipalities and counties have restrictions on trains blocking at-grade crossings. These restrictions generally prohibit trains from blocking crossings beyond

certain time thresholds. Some restrictions go further and prohibit trains from performing back-and-forth movements across at-grade crossings. The prevalence of these restrictions throughout the region are indicative of the operational challenges surrounding at-grade crossings.