

North Jersey Truck Rest Stop Study

Freight Initiatives Committee Meeting

October 19, 2009



Eng-Wong, Taub & Associates



North Jersey
Transportation
Planning Authority



Presentation Outline

- Truck Parking Activity Update
- Truck Parking Requirements (Private/Public)
- Coordination Opportunities
- Options for Reduced Demand
- Economic Benefit Example
- Truck Parking Summit



Update of Truck Parking Activity and Refinement of Model (2009)



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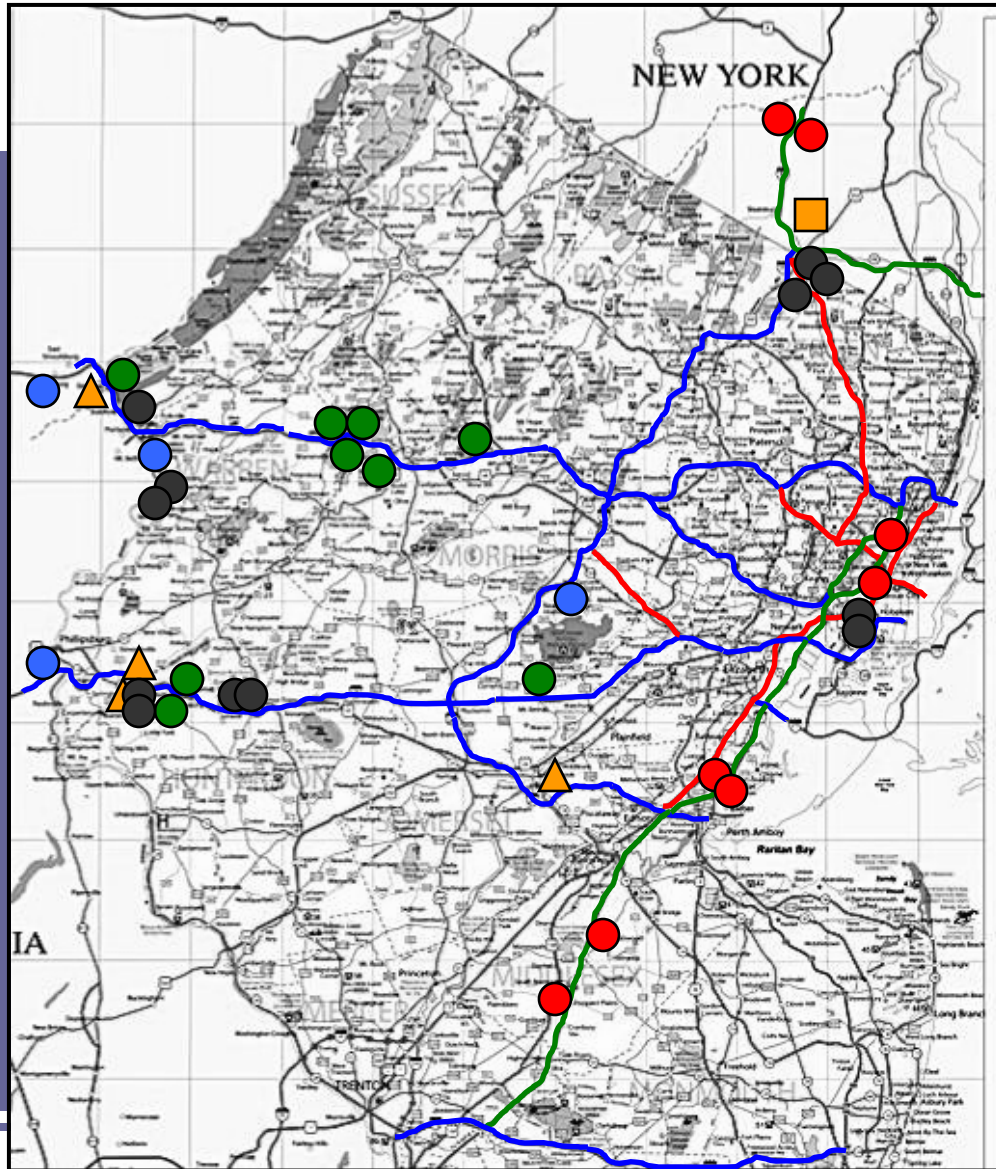


Phase II Team Efforts

- Conducted additional 24-hour data collection at I-87/I-287/NJ-17 location in Mahwah, NJ
- 24-hour “control” data collection at Thomas Edison and Grover Cleveland Service Areas on NJ Turnpike
- Documented peak overnight truck parking activity at sample locations in region



Regional Parking Facilities





Parking Activity, 2006-09

Table 1: North Jersey Truck Parking Utilization Comparison, 2006 vs. 2009
Sample Parking Facilities

Facility	Location	Utilization (parking spaces used)				Parking Capacity	Capacity Pct.
		2006	2009	Change	Pct.		
Bethlehem (I-78 EB) Parking Area	Bethlehem, NJ	28	20	-8	-28.57%	11	182%
Bethlehem (I-78 WB) Parking Area	Bethlehem, NJ	20	16	-4	-20.00%	10	160%
Pilot Travel Center #280	Bloomsbury, NJ	27	24	-3	-11.11%	21	114%
NJ Turnpike Vince Lombardi Service Area	Ridgefield, NJ	346	365	19	5.49%	256	143%
NJ Turnpike Grover Cleveland Service Area	Woodbridge, NJ	62	82	20	32.26%	53	155%
NJ Turnpike Thomas Edison Service Area	Woodbridge, NJ	77	96	19	24.68%	53	181%
Harding Township (I-287 NB) Rest Area	Harding, NJ	35	32	-3	-8.57%	23	139%
TOTALS		595	635	40	6.72%	427	149%





FHWA Model, 2006 vs. 2009

Table 2: NJTPA Daily Truck Parking Demand Comparison, 2006 vs. 2009

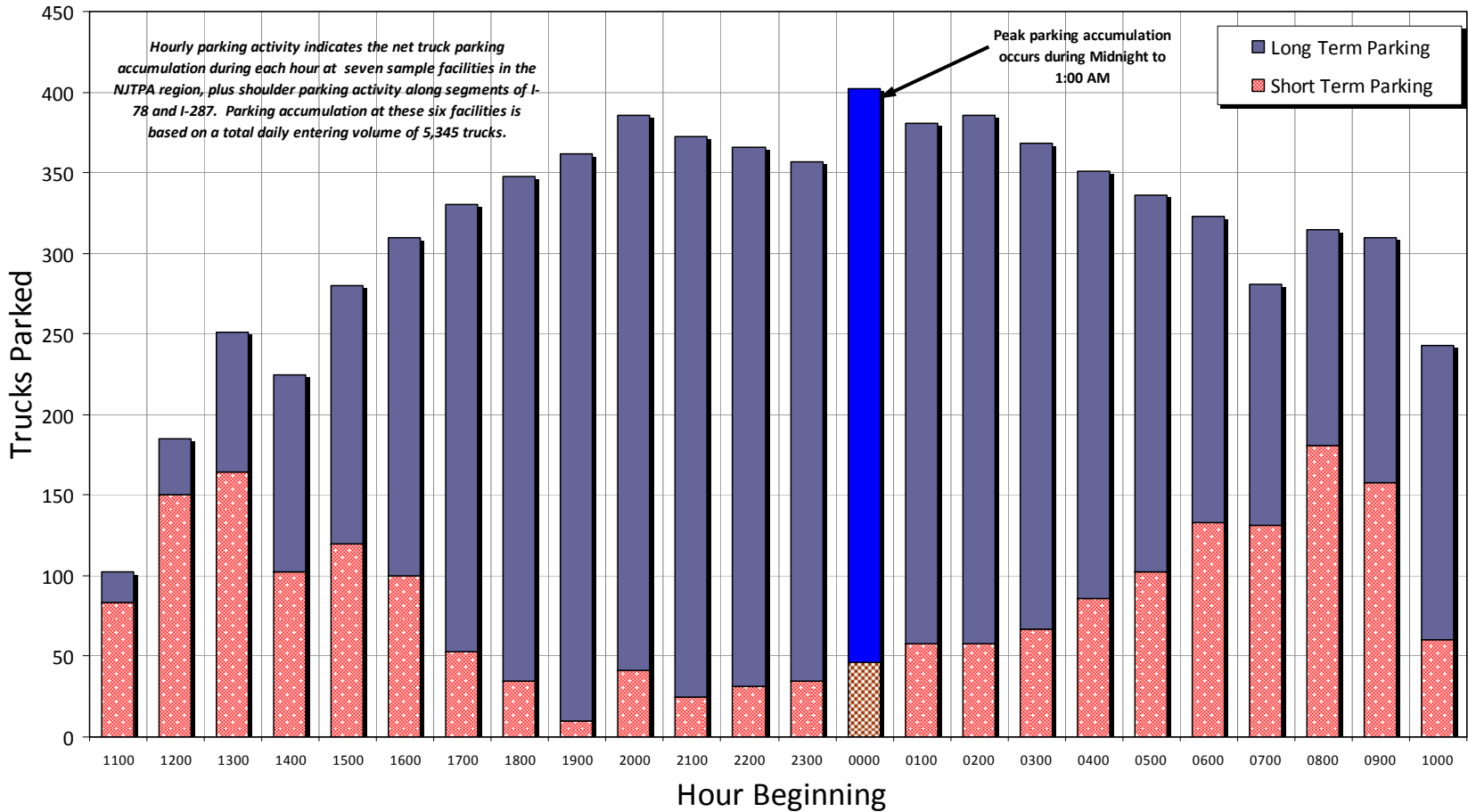
Phase / Baseline Year	
Phase I (2006) Total Calculated Demand	2,195
Phase II (2009) Total Calculated Demand	1,990
Change (2006 vs. 2009)	-205
Pct. Change (2006 vs. 2009)	-9.34%





Updated Parking Profile

Figure 5: 2009 24-Hour Parking Accumulation Profile



Truck Parking Facility Requirements (Private & Public)



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Typical Needs of Travel Center Retail Model

- Heavy traffic volumes . . . preferably long distance travelers
- Highway exposure
- Highway access (indirect)
- Complementary local land uses
- Additional revenue streams
 - tractor and/or trailer storage
 - terminal support services
 - parking fees (!)





Metro Area Challenges

- Land Acquisition Costs
- Competition from Public Facilities
- “NIMBY” Concerns (Pilot experience in Clinton Township and Mahwah, NJ)
- Potential Extensive Permitting Process
- Competition for Labor
- Non-Traditional Customer Base



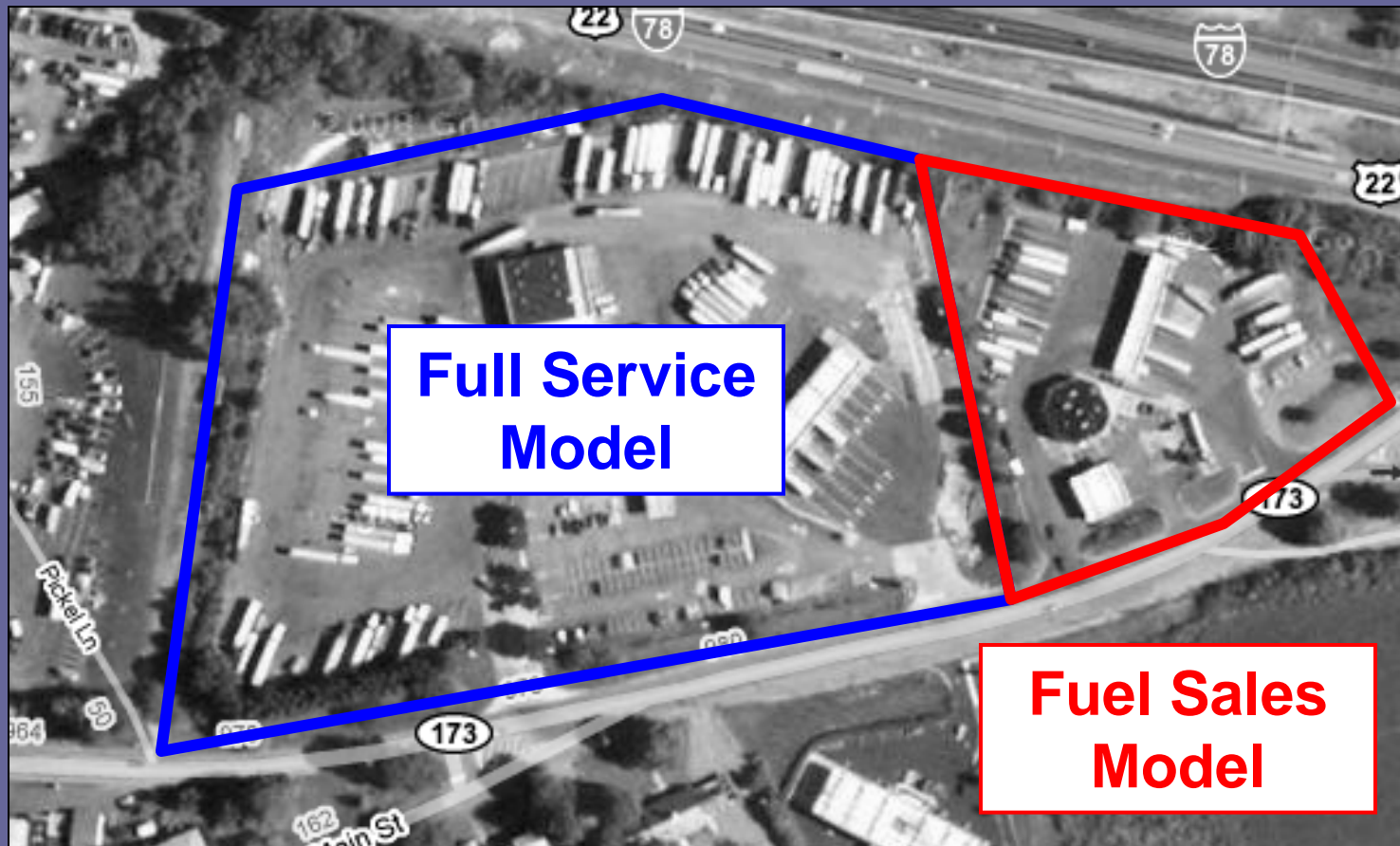


Economics of Land Use

- Substantial land requirement for truck parking (1 acre for every 10-15 spaces).
- Small building relative to parcel size.
- Low level of commercial activity compared to other land uses.



Business Model Comparison





Public Sector Issues

- Employment Base (# and type)
- Tax Revenue (could include property, sales, payroll taxes, etc.)
- Complementary Land Uses
- Environmental/Aesthetic Concerns
- Public Safety
- Efficient Traffic Operations
- Overall Freight Mobility Needs



Coordination Opportunities



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Public-Private Coordination Opportunities

- Land Acquisition
- Land Use & Construction Permit Process
- Tolling/Privatization of Interstates
- Incorporation of Truck Parking Needs in Highway Improvements
- Access Improvements
- Promotion of Pooled Truck Parking



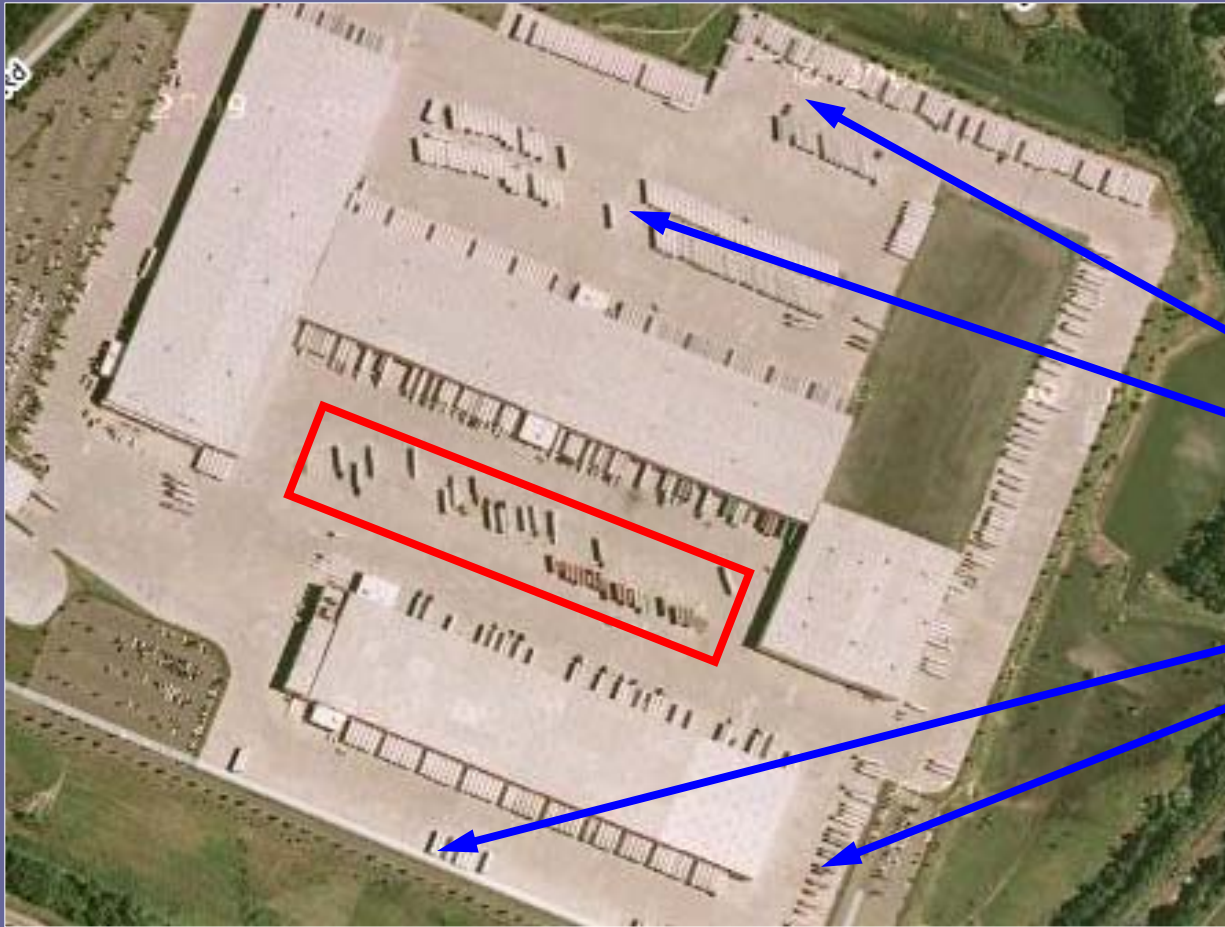
Pooled Parking Concept



**Truck
Parking /
Layover
Area**

**Trailer
Storage
Areas**

Pooled Parking Concept



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Pooled Parking Concept



Can these warehouse/distribution functions be consolidated at nearby off-site locations? Can excess capacity be used for general truck parking?

Options for Reduced Demand



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How Can We Manage – or Reduce – Demand?



- ITS Applications (I-95 Corridor Coalition)
- Improved Coordination of Supply Chain
- Extended Hours of Operation at Warehouses and Terminals
- Increased Size/Weight Limits
- Financial Incentives for Travel Times (Congestion Pricing)
- Mode Shift / Rationalization



Potential Economic Benefits



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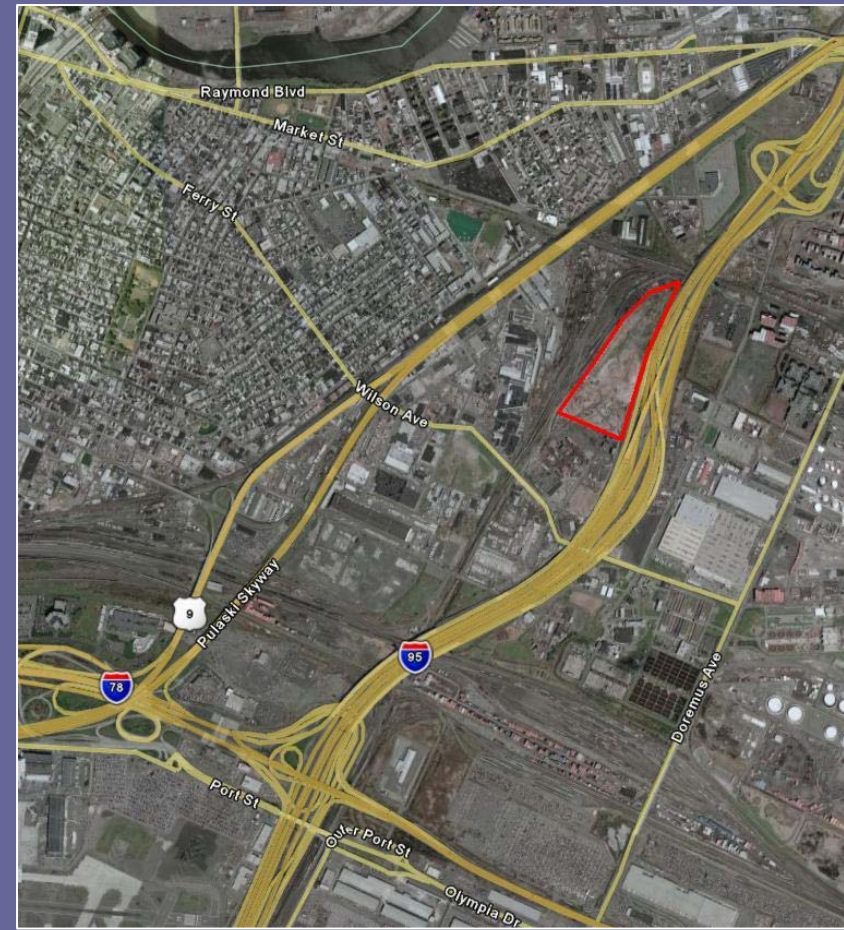


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Hypothetical Case Study

- Vacant Parcel in Newark, NJ – about 40 acres
- Close Linear Proximity to NJ Turnpike and US-1&9
- Local Roadways in Need of Improvement
- Industrial Area
- Assume Truck Stop w/ 30,000 Ft² Building





Hypothetical Case Study

- Estimated annual sales: **\$13.5 million**
- Nearly every dollar of sales subject to some form of taxation (sales, fuel, etc.)
- On-site employment: **120** (32 retail + 88 food service)
- Annual payroll: **\$2.5 million**
- BEA estimate for Newark: **9** “multiplier” jobs and **\$385,000** in payroll





Hypothetical Case Study

- Estimated annual UEZ sales tax revenue: **\$120,000** (based on 25% of sales meeting UEZ criteria)
- Newark payroll tax revenue: **\$30,000** (includes direct and “multiplier” jobs)
- Local property tax revenue: **\$200,000** (based on \$7.5 million added to assessed value of property within the City, at the current property tax rate of 2.599%)



Industry and Agency Outreach



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Truck Parking Summit (April 22, 2009)

- The Truck Parking Summit provided a forum for representatives from 16 different organizations within and beyond the NJTPA Region.
- Participants acknowledged that effective solutions must be addressed in both an intra and inter-regional manner.
- Solutions may include:
 - new federal policies and programs
 - a greater use of technology,
 - operations and logistical changes,
 - providing more parking capacity through a combination of public and private facilities.





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