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Maine's Park & Ride Lots

Evaluating and Strengthening the System



Prepared for

Maine Turnpike Authority



and

Maine Department of Transportation



HNTB

13 January 2004

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Section 1 – Executive Summary

OVERVIEW OF THE STUDY

The Maine Turnpike Authority (MTA), in conjunction with the Maine Department of Transportation (MaineDOT), has undertaken a study of the state’s Park & Ride lots. This study had five primary purposes:

1. To create an updated statewide inventory of the lots;
2. To help prioritize improvements to existing lots;
3. To identify areas in which new lots might be needed;
4. To gather information on “unofficial” Park & Ride lots; and
5. To initiate an ongoing process by which all Park & Ride lots are reviewed and evaluated on a regular basis.

This study used two primary tools for gathering the data needed to support these purposes. The first tool was an **on-site inspection**. MaineDOT and MTA personnel visited each lot, documenting its usage and other key characteristics such as pavement condition, lighting, and proximity to services. The second tool was a **mailback patron survey**. During the on-site inspections, a postpaid survey card was placed on the windshield of each vehicle using the Park & Ride lots. These cards asked patrons to respond to 11 questions on a variety of Park & Ride issues, ranging from origin-destination data to trip purposes to user fees.

KEY FINDINGS

The results of the on-site inspections, as well as the feedback from the surveys, yielded a wealth of information concerning the state’s Park & Ride system. Some of the key findings are summarized in the bullets below:

- **Revised inventory of lots.** A total of 54 Park & Ride lots were identified at the beginning of the study. However, during the course of the study, 7 of these lots were removed from the inventory for various reasons, while 3 others were added. At present, there are **50** active Park & Ride lots in the state—15 located along the Maine Turnpike, and 35 located on other major roadways. Forty-eight of the lots were directly observed during the study, while two others were identified too late to be considered as part of the study.
- **Overall lot usage.** The study found that a total of **2132** spaces were available in the 48 observed lots. A total of **989** spaces were occupied, yielding an overall usage rate of **46%**.
- **Turnpike usage vs. non-Turnpike usage.** The number of spaces in the Park & Ride system is fairly equally divided, with 1112 spaces in the Turnpike lots and 1020 spaces in the non-Turnpike lots. However, the usage rate among Turnpike lots was significantly higher. Turnpike lot usage stood at about **55%**, compared to **37%** for the non-Turnpike lots.
- **Lot amenities.** All 15 of the Turnpike lots were paved, striped, and lit, as compared to about half of the non-Turnpike lots. Half of all lots (both Turnpike and non-Turnpike) have services such as food and gas within sight.
- **Pavement condition.** There did not appear to be a direct connection between a lot’s usage and its pavement status. Some unpaved lots (e.g. Bath, Waldoboro, and Lisbon Falls) had usage rates over 80%, while some paved lots (e.g. Gray, Lyman, Shapleigh-2) were virtually unused. Nevertheless, the most common comment made by patrons using unpaved lots was, “Please improve the surface of the Park & Ride lot.”

- **Common destinations.** About **40%** of the vehicles using Maine's Park & Ride lots are headed to either Bath Iron Works or to Portsmouth Naval Shipyard. About **3%** are destined for the casinos in Connecticut.
- **Connecting vehicles.** As one would expect, the most common type of connection taking place at the Park & Ride lots is the **carpool**. These accounted for **42%** of all connections. Another **30%** of the connections were to buses, while **22%** were to vanpools. The significance of this was that *large vehicles (i.e. vans, buses, trains) account for over half of the connections made at Maine's Park & Ride lots*. Thus, Park & Ride lots are proving to be an efficient means of reducing trips, in that they provide a convenient venue for three or more vehicles to consolidate into a single, larger vehicle. About half of all Park & Ride users connect to vehicles carrying 5 or more passengers.
- **Lots to watch.** The site inspections and mailback surveys identified eight lots that appear to be approaching capacity. Most of these lots are located along the Turnpike. They include:
 - **Biddeford** (Me Tpk Exit 4, on Route 111)
 - **Lewiston-1** (Me Tpk Exit 13 NB, on Plourde Pkwy)
 - **Lewiston-2** (Me Tpk Exit 13 SB, on Plourde Pkwy)
 - **Saco** (I-195 Exit 1, on Industrial Park Rd.)
 -

- **Frequency of usage.** A majority of respondents to the survey indicated that they use the Park & Ride lots “5 or more” times per week. However, over 25% of the respondents indicated that they are “occasional” users—that is, they use the lots one or fewer times per week. This has implications for lot capacity. Lots that are near capacity on an average day could be routinely pushed over the limit by an influx of occasional users.
- **Overnight parking.** Currently, Park & Ride lot users are discouraged from parking their vehicles overnight. However, about one out of four patrons responding to the survey indicated that they have an occasional need to use the lots for overnight parking.
- **Informal lots.** The study revealed the presence of a significant number of “informal” or “unofficial” lots. These lots are loosely defined as locations that function as Park & Ride lots, yet which have no formal agreement with or sanctioning by the state. Most such lots are privately-owned facilities (e.g. convenience stores, grocery stores, truck stops, churches), and they tend to be located on major roadways not presently served by the Park & Ride system. The most commonly observed locations for informal lots were Route 4 (between Auburn and Wilton), Route 26 (between Oxford and Bethel), I-95 west of Bangor, and US-1A east of Bangor. It is interesting to note that Bangor—the state’s second largest metropolitan area—has only one official Park & Ride lot.

RECOMMENDATIONS

In order to take concrete steps toward improving the state’s Park & Ride system, this report makes the following recommendations:

1. **Survey the lots on a regular basis.** This study should be the starting point for a regular review of Park & Ride lot conditions and usage. A reasonable goal may be to assess lot usage twice a year. The lots that are consistently full should be considered for expansion, while those that are consistently empty should be considered for closure.
2. **Monitor the busier lots more closely.** The “Key Findings” section identified eight lots that appear to be close to capacity. These lots should be evaluated on a monthly basis over the next six months, to see if expanding these lots should be pursued more aggressively.
3. **Improve signage at the low-usage lots.** The “Key Findings” section also identified seven lots that are virtually unused. All of these locations were either unsigned or poorly signed. Before these lots are considered for closure, some roadside signage should be placed in order to inform motorists of their availability.
4. **Consider closing one of the Shapleigh lots.** Shapleigh currently has two lots located a half-mile apart, and neither is being used at this time. One should be closed, with signing improved at the second location. The most likely candidate for closure would be Shapleigh-1 (across from the fire hall), since it is unpaved and unlit.
5. **Pave selected lots.** The most common comment made by users of unpaved lots was, “Pave the lot”. The following four lots should be a priority—**Bath** (Old Bath Rd.), **Lisbon Falls** (Route 196), **Waldoboro** (US-1, top of south hill), and **West Peru** (Route 108 & Hammond Ferry Rd.). All of these lots were over 50% full, and all served more than 10 vehicles.
6. **Contact key employers to find out about other possible needs.** The Key Findings section noted that BIW and Portsmouth Naval Shipyard account for 40% of all Park & Ride lot users. These employers may know of other locations where Park & Ride service is needed but not yet provided.
7. **Contact local and county law enforcement officials regarding patrolling the lots.** Many patrons expressed concern that the lots were not adequately patrolled. Local and county police might be willing to routinely pass through these lots, during both daylight and nighttime hours.
8. **Establish a policy governing overnight parking.** MaineDOT and the MTA should jointly develop a policy governing the use of Park & Ride lots for overnight parking. The policy should focus on limiting the overall duration of time for which a vehicle is parked, rather than limiting the number of consecutive nights for which a vehicle may be parked. In other words, the policy should state, “Vehi-

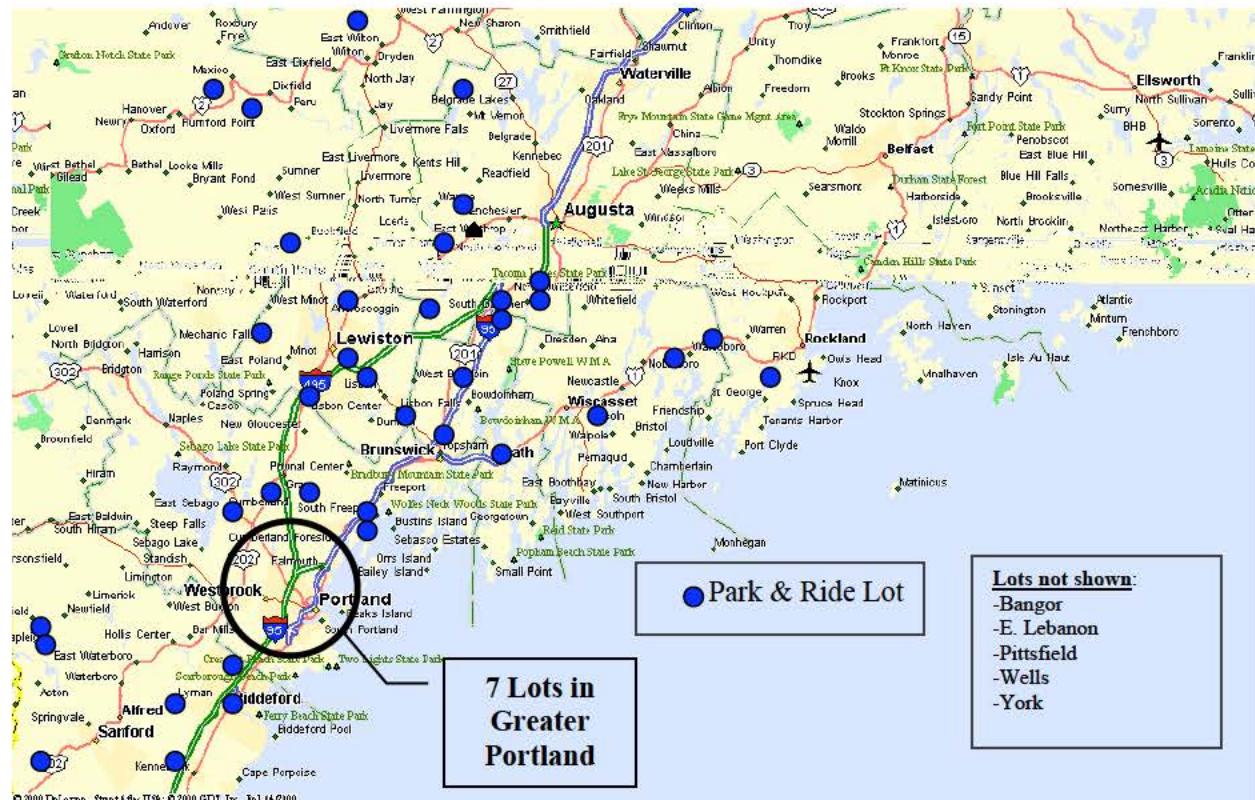
cles may be left for no more than X consecutive days,” rather than stating, “Vehicles may be left for no more than X consecutive nights.” This wording makes it clear that third-shift commuters who use the lot every night (but vacate the lot every morning) will not be restricted in their usage.

9. **Place garbage cans in the lots.** Many patrons complained about trash in the lots. MaineDOT and/or the MTA should contract with someone to place clearly-marked garbage cans or dumpsters in the lots, and service them on a regular basis.
10. **Improve the intersection of the Exit 4 Park & Ride and Route 111.** This lot is the busiest Park & Ride lot in the state. During the morning and evening peak hours, it is evident that (a) eastbound patrons on Route 111 have difficulty turning left into the lot, and (b) patrons seeking to exit the lot occasionally have an insufficient amount of “green time”. The MTA, in conjunction with MaineDOT, should look at some basic intersection improvements such as adjusting signal timing and phasing, and—if possible—adding a turn lane.
11. **Provide incentives for private parties to join the Park & Ride system.** Currently, there is very little incentive for private landowners to make their lots available as a Park & Ride site. MaineDOT should consider funding a program that would provide modest reimbursement on an annual basis for owners who make their lots available for Park & Ride users. Such programs should provide landowners with the option of withdrawing from the system if the program yields some unforeseen problems.
12. **Explore the possibility of incorporating church parking lots into the system.** Since church parking lots are not typically used during commuter periods, some churches might be willing to allow their lots to be used for Park & Ride purposes. A financial incentive might encourage some churches to participate in this manner.
13. **Consider creating new Park & Ride lots in the following locations:**
 - a. On Route 4 (between Auburn and Wilton) and Route 26 (between Oxford and Bethel). The informal lots that currently exist on these roadways indicated that there is a regional demand for Park & Ride services that is not being met. AVCOG could take the lead in studying this issue in more detail and identifying potential new locations.
 - b. In the Bangor area. Currently, there is only one official Park & Ride lot in the entire Bangor metropolitan area. MaineDOT should consider either building some new lots in the area, or consider working with private landowners (e.g. Dysart’s) to see if they might be willing to designate part of their property as a Park & Ride lot.
 - c. In Gorham. The Town of Gorham is a residential village sitting at the junction of three major commuter routes—US-202, Route 114, and Route 25. As a result, a significant volume of commuting traffic either originates from or passes through the town. MaineDOT should consider working with private landowners in the downtown area (such as Hannaford) to see if part of their parking areas could be designated as a Park & Ride lot.
 - d. In the Sanford area. Sanford is the sixth largest city in the state, virtually identical in size to Biddeford. However, Sanford and its surrounding towns are not currently served by any Park & Ride lots. One possible location for a new lot in the area is the intersection of Route 111 and Route 4 in Alfred. These two roads link Sanford commuters with the Greater Portland area as well as the Biddeford-Saco area.
 - e. In the region to the west of Greater Portland. The towns of Buxton, Hollis, Standish, Limington, and Waterboro are among the fastest growing communities in the state, yet there are no Park & Ride lots in any of them. One location that could effectively serve many commuters from this region would be the intersection of Route 22, Broadturn Rd., and Portland Rd. in Buxton. Another possible location would be at the corner of Route 5 and Route 4 in Waterboro. This intersection, which is the site of a Hannaford store, already functions as an informal lot; perhaps Hannaford would be willing to designate part of the parking area as an “official” Park & Ride lot.

Section 2 – Purpose and Overview

The Maine Turnpike Authority (MTA), in conjunction with the Maine Department of Transportation (MaineDOT), has undertaken a study of the state's Park & Ride lots. The locations of these lots are illustrated graphically in Figure 1.

Figure 1 – Park & Ride Lot Overview



This study of the state's Park & Ride system had five primary purposes:

1. To create an updated statewide inventory of the lots;
2. To help prioritize improvements to existing lots;
3. To identify areas in which new lots might be needed;
4. To gather information on "informal" Park & Ride lots (that is, lots that function as Park & Ride lots, yet which have no formal agreement with or sanctioning by the state); and
5. To initiate an ongoing process by which the Park & Ride lots are reviewed and evaluated on a regular basis.

The fifth and last purpose is perhaps the most important. The authors of this report recognize that it only represents a "snapshot" of the condition of the state's Park & Ride lots. The report will not identify the hourly, daily, and monthly variations in lot usage, and it may not highlight concerns that are unique to particular seasons (such as plowing). However, the establishment of a regular review process will, over time, shed important light on how Park & Ride lots fit into the fabric of the state's transportation system. This in turn will assist transportation planners in targeting future improvements and expansions.

This report will proceed in the following fashion:

- Section 3 will describe the manner in which the study was conducted
- Section 4

Section 3 – Conduct of the Study

The study utilized the help of regional planning agencies to gain more insight into local areas and issues. The Southern Maine Regional Planning Commission (SMRPC), the Androscoggin Council of Governments (AVCOG), and the Greater Portland Council of Governments (GPCOG) were all represented, as well as GO Maine, the statewide commuter service. HNTB Corporation, the MTA's engineering consultant, was hired to analyze the data and create a report.

The process started with a kickoff meeting of all the agencies. At this meeting, the group identified two methods of collecting data.

- The first method would be an on-site inventory, where an inspector would visit each lot, note its physical condition, and identify the number of vehicles using it.
- The second method would be a mailback survey. This survey would consist of a postcard containing several questions of interest to the agencies. These postcards would be distributed on each vehicle's windshield during the on-site inventory, and they would prompt the patron to simply respond to the questions and mail the card back.

The content of the survey cards was a major topic of discussion at the kickoff meeting. Figure 2 presents the format that was selected at the conclusion of the kickoff meeting.

The kickoff meeting also provided an opportunity to review historical data at each lot. The MTA, Go Maine, and MaineDOT each identified the lots for which they had historical documentation. This information was consolidated into a single database, whose contents would be verified during the on-site surveys.

After the initial meeting, MTA and MaineDOT personnel surveyed their respective facilities. During these inventories, the surveyor conducted physical research at each lot. This consisted of six basic tasks:

- First, the accuracy of the historical data (mentioned above) was validated.
- Second, the number of parking spaces available was identified, as well as the number of spaces occupied.
- Third, the different physical features of each lot were identified. For instance, the surveyor looked for bike racks, telephone booths and any alternative transportation mode pickups that may take place there.
- Fourth, a survey card was placed on the windshield of each vehicle parked in the lot. Each card had a unique ID number. The inspector identified the card numbers distributed at each lot; this way, when a card was returned in the mail, it was possible to determine the lot from which it came.
- Fifth, digital photos were taken of each lot, documenting its condition, aesthetics and overall occupancy.
- Sixth, any final observations were written down regarding overall impressions or problems identified during the inspection process.

Answered surveys were sent to Maine Turnpike Headquarters at 430 Riverside Street, Portland, Maine. They were subsequently entered in a database and sent to the consultant, HNTB Corporation, for analysis.

Section 4 – Condition of the Lots

The on-site surveys provided some important information concerning the physical condition of the state's Park & Ride lots. The following sections provide some summary data revealed by the survey

ACTIVE VS INACTIVE LOTS

The kickoff meeting identified 54 different Park & Ride lots throughout the state—15 located along the Turnpike, and 39 located along other major roadways. However, after further review, it was discovered that seven lots are no longer active. Those lots include:

- **Portland** – *Sewall St., near the Portland Transportation Center.* This parking lot is indeed owned by MaineDOT. However, MaineDOT has leased this property to Langdon Street Real Estate, Inc., and Concord Coach Lines, Inc. Therefore, it is not part of Maine's Park & Ride system.
- **Portland** – *Marginal Way at Preble St.* This lot has been leased to the University of Southern Maine and is no longer open to the public.
- **York** – *Route 91 Extension.* No Park & Ride lot was found in the vicinity of Route 91 in York.
- **Windham** – *US-302, at Windham Mall.* Previous reports had identified this lot as part of the system, but no formal agreement exists with the state. It is therefore not considered an official lot.
- **West Peru** – *Route 108, near Routes 2 and 142.* There is only one official lot in West Peru, located at the intersection of Route 108 and Hammond Ferry Rd.
- **Gorham** – *Route 25 at New Portland Rd.* This intersection is very busy, serving as home to a gas station, a bagel shop, and a shopping center. No official Park & Ride lot resides here.
- **Gorham** – *Route 25, behind town hall.* No formal agreement exists with the state concerning this lot.

The study also found that

Table 1 – Summary of Active Park & Ride Lots

Turnpike Lots

Town	Location	Owner	Spaces	Vehicles	% Full
Auburn	Me Tpk Exit 12, on US-202	MTA	137	75	55%
Biddeford	Me Tpk Exit 4, on Route 111	MTA	155	114	74%
Gray-1	Me Tpk Exit 11, on US-202	MTA	74	41	55%
Kennebunk	Me Tpk Exit 3 SB, on Route 35	MTA	52	22	42%
Lewiston-1	Me Tpk Exit 13 NB, on Plourde Pkwy	MTA	62	41	66%
Lewiston-2	Me Tpk Exit 13 SB, on Plourde Pkwy	MTA	27	23	85%
Portland-1	Me Tpk Exit 7A SB, adj to toll plaza	MTA	68	8	12%
Saco	I-195 Exit 1, on Industrial Park Rd	MaineDOT	135	94	70%
Scarborough	Me Tpk Exit 6, adj to toll plaza	MTA	23	13	57%
So Portland	Me Tpk Exit 7, on Route 703	MaineDOT	111	42	38%
Wells	Me Tpk Exit 2, adj to Wells Trans Ctr	MTA	100	32	32%
Westbrook-1	Larrabee Rd, near Me Tpk Exit 7B	MaineDOT	91	46	51%
W Falmouth	Me Tpk Exit 10, adj to toll plaza	MTA	19	15	79%
W Gardiner	Me Tpk Exit 14A, near Route 126	MTA	32	28	88%
York	Chases Pond Rd / US-1 Connector	MaineDOT	26	16	62%
Turnpike Total:			1112	610	54.9%

Non-Turnpike Lots

Town	Location	Owner	Spaces	Vehicles	% Full
Bangor	Off I-95 Exit 45B	MaineDOT	50	11	22%
Bath	Old Bath Rd	MaineDOT	50	43	86%
Bowdoinham	Off I-95 Exit 25, on Routes 125 / 138	MaineDOT	24	8	33%
Buckfield	Routes 117 & 140	MaineDOT	15	5	33%
Dixfield	US-2, near Town Office	MaineDOT	10	7	70%
E Lebanon	US-202 & Little River Rd	MaineDOT	50	4	8%
Edgecomb	US-1 & Dodge Rd				

LOT USAGE

One of the primary purposes of the on-site inspection was to identify the extent to which these lots were being used. The following subsections will summarize the overall usage rate, and they will identify some of the most heavily-used and lightly-used lots. The results will be subdivided into two categories—lots that are located along the Turnpike, and those that are not.

Turnpike Lots

The following statistics summarize usage characteristics of the 15 lots located along the Maine Turnpike:

1. Overall Turnpike lot usage

- a. Total number of parking spaces available – 1112
- b. Total number of vehicles observed – 610
- c. Overall occupation rate – 54.9%

2. Most frequently used lots

- a. Biddeford (Me Tpk Exit 4, on Route 111) – 114 vehicles
- b. Saco (I-195 Exit 1, on Industrial Park Rd.) – 94 vehicles
- c. Auburn (Me Tpk Exit 12, on US-202) – 75 vehicles

3. Lots with highest percentage usage

- a. W. Gardiner (Me Tpk Exit 14A, near Route 126) – 88%
- b. Lewiston (Me Tpk Exit 13 SB, on Plourde Parkway) – 85%
- c. W. Falmouth (Me Tpk Exit 10, adj. to toll plaza) – 79%

4. Least-used lots

- a. Portland-1 (Me Tpk Exit 7A SB, adj. to toll plaza) – 12% (8 vehicles)
- b. Wells (Me Tpk Exit 2, adj. to Wells Transportation Center) – 32% (32 vehicles)
- c. So. Portland (Me Tpk Exit 7, on Route 703) – 38% (42 vehicles)

Non-Turnpike Lots

The following statistics summarize usage characteristics of the 33 observed lots **not** located along the Maine Turnpike:

1. Overall lot usage

- a. Total number of parking spaces available – 1020
- b. Total number of vehicles observed – 379
- c. Overall occupation rate – 37.2%

2. Most frequently used lots

- a. Portland-2 (I-295 Exit 7, Marginal Way @ Franklin Arterial) – 114 vehicles
- b. Bath (Old Bath Rd.) – 43 vehicles
- c. Randolph-2 (Intersection of Routes 27 & 226) – 25 vehicles
- d. Lisbon Falls (Route 196) – 19 vehicles

3. Lots with highest percentage usage

- a. W. Bath (Old Bath Rd.) – 86%
- b. Dixfield (US-2, near town office) – 70%
- c. Waldoboro (US-1, top of south hill) – 65%
- d. Lisbon Falls (Route 196) – 63%

4. Least-used lots

- a. Edgecomb (US-1 & Dodge Rd.) – 0 vehicles
- b. Gray-2 (Route 26, at Gray Shopping Plaza) – 0 vehicles
- c. Lyman (Route 35, @ Lyman Community Church) – 1 vehicle

- d. Rome (Routes 27 & 225) – 0 vehicles
- e. Shapleigh-1 (Across from Fire Hall) – 0 vehicles
- f. Shapleigh-2 (Next to Town Hall) – 0 vehicles
- g. Winthrop (10 Lake St., owned by Catholic Church) – 0 vehicles

Observations

In reviewing the usage characteristics, four observations may be made.

1. The Maine Turnpike lots tend to be more heavily used. Though the MTA and MaineDOT own virtually the same amount of parking spots, the MTA's lots serve an average of 200 more vehicles per day.
2. Of the 12 lots that served 25 or more patrons, nine were located along the Turnpike.
3. Nevertheless, the popularity of a particular lot is not necessarily determined by its proximity to a highway. The Randolph and Lisbon Falls lots are each located a few miles from the interstate, yet are over two-thirds full. The lot at Maine Turnpike Exit 7A, on the other hand, is virtually empty, despite being located at an interstate access ramp.
4. It appears that signage is related to lot usage. It is interesting to note that the MTA's lots, which are located along the Turnpike, tend to be more heavily used than those located off the Turnpike.

Table 2 summarizes of the characteristics, services, and amenities associated with each observed lot.

Table 2 – Summary of Amenities

Turnpike Lots

Town	Location	Characteristics			Services		Amenities		
		Paved	Striped	Lit	Dist.	Visible?	Racks	Shelter	Phone
Auburn	Me Tpk Exit 12, on US-202	x	x	x	< 1 mi	Yes			
Biddeford	Me Tpk Exit 4, on Route 111	x	x	x	< 1 mi	Yes		x	
Gray-1	Me Tpk Exit 11, on US-202	x	x	x	< 1 mi	Yes	x		
Kennebunk	Me Tpk Exit 3 SB, on Route 35	x	x	x	< 1 mi	Yes			
Lewiston-1	Me Tpk Exit 13 NB, on Plourde Pkwy	x	x	x	< 1 mi	No	x		
Lewiston-2	Me Tpk Exit 13 SB, on Plourde Pkwy	x	x	x	< 1 mi	No			
Portland-1	Me Tpk Exit 7A SB, adj to toll plaza	x	x	x	>1 mi.	No			
Saco	I-195 Exit 1, on Industrial Park Rd	x	x	x	< 1 mi	No		x	
Scarborough	Me Tpk Exit 6, adj to toll plaza	x	x	x	< 1 mi	No			x
So Portland	Me Tpk Exit 7, on Route 703	x	x	x	< 1 mi	Yes			
Wells	Me Tpk Exit 2, adj to Wells Trans Ctr	x	x	x	< 1 mi	Yes			
Westbrook-1	Larrabee Rd , near Me Tpk Exit 7B	x	x	x	< 1 mi	Yes			
W Falmouth	Me Tpk Exit 10, adj to toll plaza	x	x	x	< 1 mi	Yes	x	x	x
W Gardiner	Me Tpk Exit 14A, near Route 126	x	x	x	>1 mi.	No			
York	Chases Pond Rd / US-1 Connector	x	x	x	< 1 mi	No			

Non-Turnpike Lots

Town	Location	Characteristics			Services		Amenities		
		Paved	Striped	Lit	Dist.	Visible?	Racks	Shelter	Phone
Bangor	Off I-95 Exit 45B	x	x	x	< 1 mi	Yes			x
Bath	Old Bath Rd				< 1 mi	Yes			
Bowdoinham	Off I-95 Exit 25, on Routes 125 / 138	x	x	x	> 1 mi.	No			
Buckfield	Routes 117 & 140	x			< 1 mi	Yes			x
Dixfield	US-2, near Town Office	x	x	x	< 1 mi	Yes			x
E Lebanon	US-202 & Little River Rd				< 1 mi	Yes			x
Edgecomb	US-1 & Dodge Rd				> 1 mi.	No			
Farmington	Routes 2 & 4, and Intervale Rd	x	x	x	< 1 mi	Yes			x
Freeport-1	I-95 Exit 19, 0.2 mi S of Desert Rd	x	x	x	< 1 mi	Yes			x
Freeport-2	I-95 Exit 19, 1.7 mi S of Desert Rd	x	x	x	> 1 mi.	No			x
Gardiner	I-95 Exit 27, on US-201	x	x	x	> 1 mi.	No			
Gray-2	Route 26, at Gray Shopping Plaza	x			< 1 mi	Yes			x
Lewiston-3	US-202, at Marden's	x	x	x	< 1 mi	Yes			x
Lisbon Falls	Route 196			x	< 1 mi	Yes			x
Lyman	Route 35, @ Lyman Community Church	x	x		> 1 mi.	No			
Mechanic Falls	Route 121, W of Rtes 11 / 121 / 124	x	x	x	< 1 mi	Yes	x	x	x
Monmouth	US-202, next to Fish & Game				> 1 mi.	No			
Nobleboro	US-1, next to Town Office			x	> 1 mi.	No			x
Pittsfield	I-95 Exit 38 (Somerset Plaza)	x	x	x	< 1 mi	Yes			x
Portland-2	I-295 Exit 7, Marginal Way @ Franklin Art	x	x	x	< 1 mi	No		x	
Randolph-1	S of Route 226				< 1 mi	No			
Randolph-2	Intersection of Routes 27 & 226	x	x		< 1 mi	Yes			x
Rome	Routes 27 & 225				> 1 mi.	No			
Sabattus	Route 126 & Sawyer Rd	x	x	x	> 1 mi.	No			
Shapleigh-1	Across from Fire Hall				> 1 mi.	No			
Shapleigh-2	Next to Town Hall	x			> 1 mi.	No			
Thomaston	US-1, behind business block	x	x		< 1 mi	No			x
Topsham	I-95 Exit 24 (near Topsham Fair Mall)	x	x	x	< 1 mi	Yes			x
W Peru	US-1, top of south hill				< 1 mi	Yes			x
Waldoboro	US-302 (Four Seasons Bingo)				< 1 mi	No			
Westbrook-2	Route 108 & Hammond Ferry Rd	x	x	x	> 1 mi.	No			
Winthrop	10 Lake St	x	x		< 1 mi	No			
Yarmouth	I-95 Exit 17 (at Information Center)	x	x	x	< 1 mi	No	x		x

A few interesting observations may be drawn from a review of Table 1 and Table 2.

- There does **not** appear to be a strong correlation between a lot's pavement status and its usage. To illustrate, three of the four non-Turnpike lots with the highest percentage usage (Bath, Waldoboro, and Lisbon Falls) are actually unpaved. Conversely, three of the seven non-Turnpike lots with the lowest percentage usage (Gray, Lyman, and Shapleigh-2) are paved.
- The non-Turnpike lots tend to provide greater access to public telephones. This is because these lots often are placed in communities and town centers, whereas the Turnpike lots tend to be located outside the communities.
- Very few lots actually contain bike racks. Any follow-up work to this study should evaluate the extent to which these existing racks are used. At this time, it appears that the Park & Ride system almost solely supports automotive travel; bicycle usage appears to remain an area of future potential growth.

Section 5 – Origin-Destination Patterns

The previous section of this report was based on information gathered during the on-site inspections performed by MTA and MaineDOT personnel. These inspections provided important information on the physical condition of each lot, and they provided a snapshot of lot usage. However, in order to understand **how** the lots are being used, it was necessary to augment the inspections with a patron survey. As noted in Section 2, this took the form of a mailback survey card that was placed on the windshield of each vehicle parked in the Park & Ride lots.

SURVEY RESPONSE SUMMARY

Overall, a total of 989 cards were distributed, and a total of 205 cards were returned. This equates to a response rate of about **21%**. Table 3 provides a lot-by-lot summary of the number of cards distributed and the number of cards returned.¹

¹ If an active lot was empty, then no survey cards were distributed. Therefore, some active lots will not appear in Table 3.

Table 3 – Survey Response Summary

Turnpike Lots

Town	Location	Surveys Response Info		
		# Distributed	# Responses	% Responses
Auburn	Me Tpk Exit 12, on US-202	75	12	16%
Biddeford	Me Tpk Exit 4, on Route 111	114	31	27%
Gray-1	Me Tpk Exit 11, on US-202	41	2	5%
Kennebunk	Me Tpk Exit 3 SB, on Route 35	22	4	18%
Lewiston-1	Me Tpk Exit 13 NB, on Plourde Pkwy	41	5	12%
Lewiston-2	Me Tpk Exit 13 SB, on Plourde Pkwy	23	6	26%
Portland-1	Me Tpk Exit 7A SB, adj to toll plaza	8	1	13%
Saco	I-195 Exit 1, on Industrial Park Rd	94	20	21%
Scarborough	Me Tpk Exit 6, adj to toll plaza	13	2	15%
So Portland	Me Tpk Exit 7, on Route 703	42	12	29%
Wells	Me Tpk Exit 2, adj to Wells Trans Ctr	32	7	22%
Westbrook-1	Larrabee Rd, near Me Tpk Exit 7B	46	6	13%
W Falmouth	Me Tpk Exit 10, adj to toll plaza	15	3	20%
W Gardiner	Me Tpk Exit 14A, near Route 126	28	3	11%
York	Chases Pond Rd / US-1 Connector	16	5	31%
Totals:		610	119	19.5%

Non-Turnpike Lots

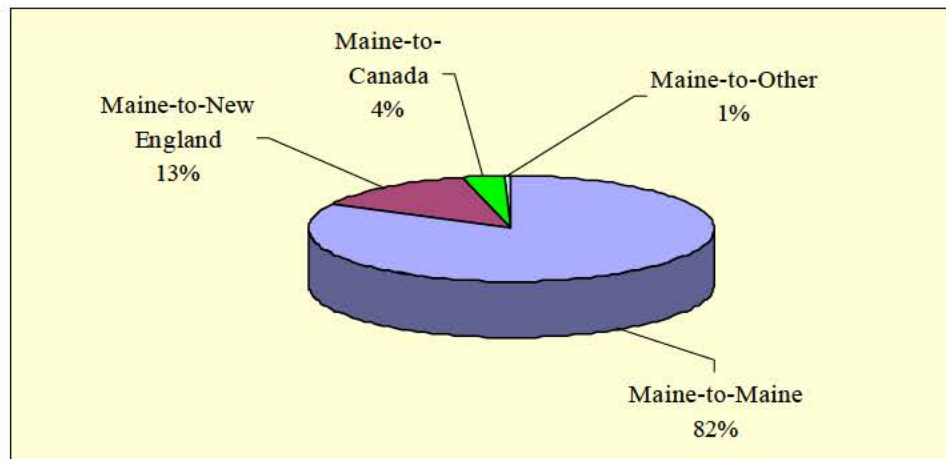
Town	Location	Surveys Response Info		
		# Distributed	# Responses	% Responses
Bangor	Off I-95 Exit 45B	11	5	45%
Bath	Old Bath Rd	43	11	26%
Bowdoinham	Off I-95 Exit 25, on Routes 125 / 138	8	3	38%
Buckfield	Routes 117 & 140	5	2	40%
Dixfield	US-2, near Town Office	7	1	14%
E Lebanon	US-202 & Little River Rd	4	1	25%
Farmington	Routes 2 & 4, and Intervale Rd	7	1	14%
Freeport-1	I-95 Exit 19, 0.2 mi S of Desert Rd	9	0	0%
Freeport-2	I-95 Exit 19, 1.7 mi S of Desert Rd	7	4	57%
Gardiner	I-95 Exit 27, on US-201	10	0	0%
Lewiston-3	US-202, at Marden's	6	2	33%
Lisbon Falls	Route 196	19	2	11%
Lyman	Route 35, @ Lyman Community Church	1	0	0%
Mechanic Falls	Route 121, W of Rtes 11 / 121 / 124	5	1	20%
Nobleboro	US-1, next to Town Office	10	3	30%
Pittsfield	I-95 Exit 38 (Somerset Plaza)	12	3	25%
Portland-2	I-295 Exit 7, Marginal Way @ Franklin Art	114	17	15%
Randolph-1	S of Route 226	3	1	33%
Randolph-2	Intersection of Routes 27 & 226	25	12	48%
Sabattus	Route 126 & Sawyer Rd	8	2	25%
Thomaston	US-1, behind business block	8	1	13%
Topsham	I-95 Exit 24 (near Topsham Fair Mall)	11	3	27%
Waldoboro	US-1, top of south hill	13	5	38%
Westbrook-2	US-302 (Four Seasons Bingo)	5	1	20%
W Peru	Route 108 & Hammond Ferry Rd	11	4	36%
Yarmouth	I-95 Exit 17 (at Information Center)	17	1	6%
		379	86	22.7%

As Table 3 illustrates, the Turnpike lots and the non-Turnpike lots had similar response rates. The Turnpike lots averaged slightly less than 20%, while the non-Turnpike lots averaged slightly over 20%. By way of comparison, a 1998 origin-destination survey conducted by the Maine Turnpike Authority had a response rate of about 12%.

ORIGIN-DESTINATION RESPONSES

The first two questions posed to the Park & Ride patrons concerned their points of origin and points of destination. Figure 3 provides an overview of the trip patterns exhibited by Park & Ride patrons.

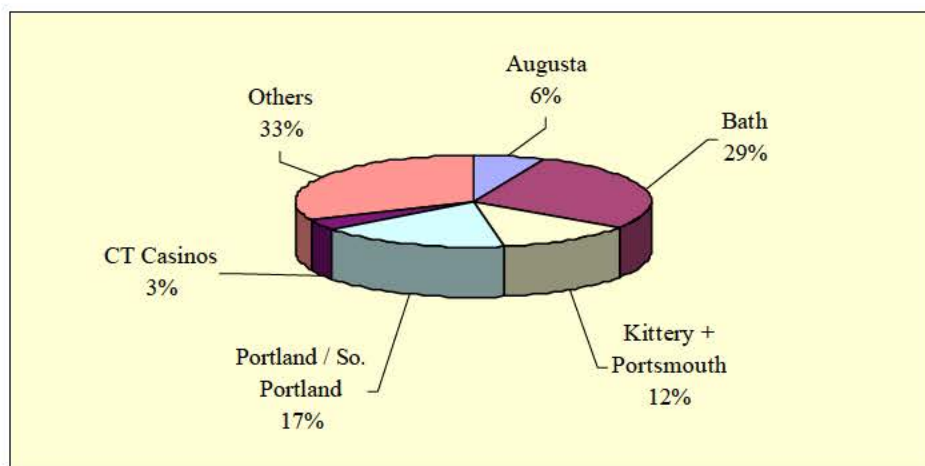
Figure 3 - Origin-Destination Patterns



As Figure 3 illustrates, Park & Ride lots are primarily used to support in-state trips. Only 1 out of every 6 vehicles using these lots has a destination that is outside the state. And only 1 out of every 20 vehicles has a destination that is outside of New England.

A closer look at the data reveals that five destinations account for over two-thirds of the users of Maine's Park & Ride lots. These key destinations are summarized in Figure 4.

Figure 4 - Common Destinations for Park & Ride Patrons



Four important observations may be drawn from Figure 4:

1. It appears that over 40% of the vehicles using Maine's Park & Ride lots are headed to either Bath Iron Works in Bath or to Portsmouth Naval Shipyard in Kittery/Portsmouth.
2. Although the Greater Portland area serves the greatest number of employees of all the destinations listed, only about one in six Park & Ride users is actually destined for Greater Portland.
3. Augusta accounts for about 1 in 16 users of Park & Ride lots.
4. A small segment of the Park & Ride population uses these lots as a launching point for recreational trips to Connecticut casinos. In other words, Park & Ride lots are used to support excursion trips as well as work trips.

In short, Maine's Park & Ride lots primarily serve in-state trips, and the vast majority of these trips are destined for Portsmouth Naval Shipyard, Bath Iron Works, or various destinations in Augusta or Greater Portland.

The next section will review answers to specific questions posed by the mailback survey.

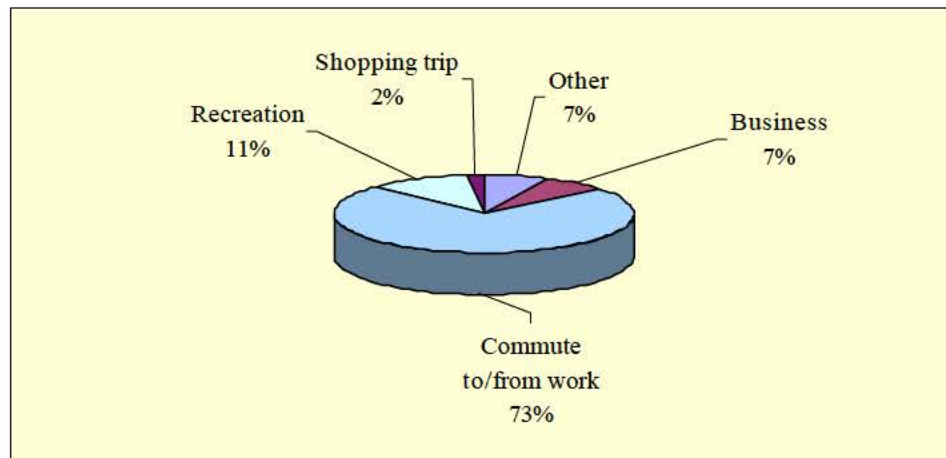
Section 6 – Survey Responses

As the survey card depicted in Figure 2 illustrates, patrons were presented with 9 specific questions concerning various aspects of their experience with the Park & Ride lots. The subsections which follow will present an overview of the responses to each of these questions.

QUESTION 3 – TRIP PURPOSE

This question asked patrons to identify the purpose for which they used the Park & Ride lots. Patrons were given five options: commute to work, business, shopping trip, recreation, or other. Their responses are summarized in Figure 5.

Figure 5 – Trip Purposes



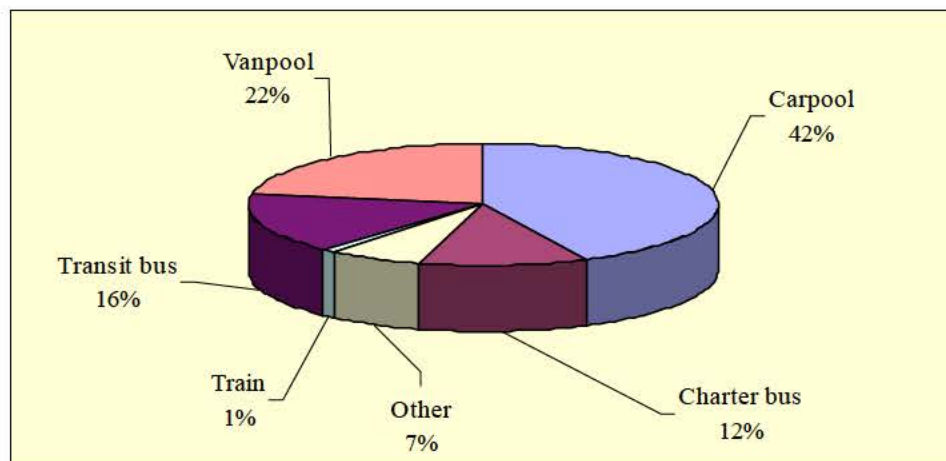
As Figure 5 illustrates, four out of every five Park & Ride patrons use the lots to support work-related trips. Most of these are simply commuting trips to work, but a significant proportion of patrons also use the Park & Ride lots to support longer, business-related trips.

It is also evident that a sizeable minority uses the Park & Ride lot to support non-work trips. About one in every 7 patrons uses the lot en route to either a recreational or a shopping trip. A closer look at the data indicates that many of the “recreational” trips involve connections to buses, as the discussion of Question 4 will highlight.

QUESTION 4 – CONNECTION TYPES

This question asked patrons to identify the type of connection that they typically make at the lot. Six different options were presented—carpool, charter bus, transit bus, train, vanpool, and other. Figure 6 summarizes the responses to this question.

Figure 6 – Connection Types



As Figure 6 illustrates, the state's Park & Ride lots support a variety of connections.

- The most common type of connection is the **carpool**, which serves about two out of every five users.
- The second most common type of connection is the **bus**. Nearly 30% of Park & Ride users connect either to a transit bus or a charter bus. These buses serve a variety of functions. Some patrons connect to the ZOOM buses, which serve various destinations in Greater Portland. Other patrons connect to buses that serve specific places of employment, such as Bath Iron Works or Portsmouth Naval Shipyard. And still others connect to excursion buses headed for locations such as Foxwoods or Mohegan Sun.
- The third most common type of connection is the **vanpool**, serving 22% of Park & Ride users. These vanpools tend to serve large employers, such as BIW, Portsmouth Naval Shipyard, or the state offices in Augusta.

It is interesting to note that less than half of the users of Park & Ride lots actually use it for the traditional carpool. The “typical” view of a Park & Ride lot is that it is a place where two cars meet, with passengers combining into one vehicle. However, the reality is that over half of the users make a connection to a van, bus, or train. This indicates that Park & Ride lots are a very efficient means of reducing trips, in that they provide a venue for several vehicles to consolidate into a single, larger vehicle.

QUESTION 5 – NUMBER OF PASSENGERS IN CONNECTING VEHICLE

This question asked the patron to identify the number of people (including himself) that rode in the vehicle to which he connected. The responses are summarized in Figure 7.

Figure 7 – Numbers of Passengers in Connecting Vehicle

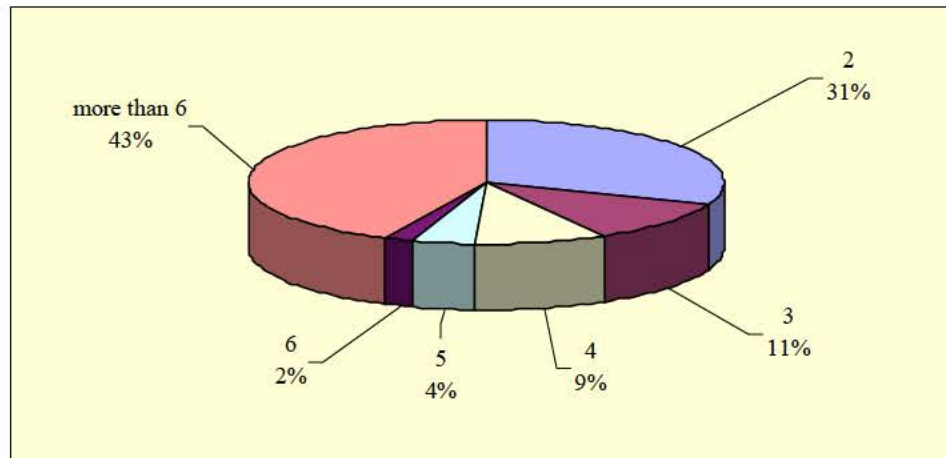


Figure 7 confirms the observation made in the previous subsection—that Park & Ride lots are often used to consolidate several vehicles into one, larger vehicle. In fact, the most common type of connection taking place in Maine Park & Ride lots is to a vehicle carrying more than 6 passengers. Overall, about half

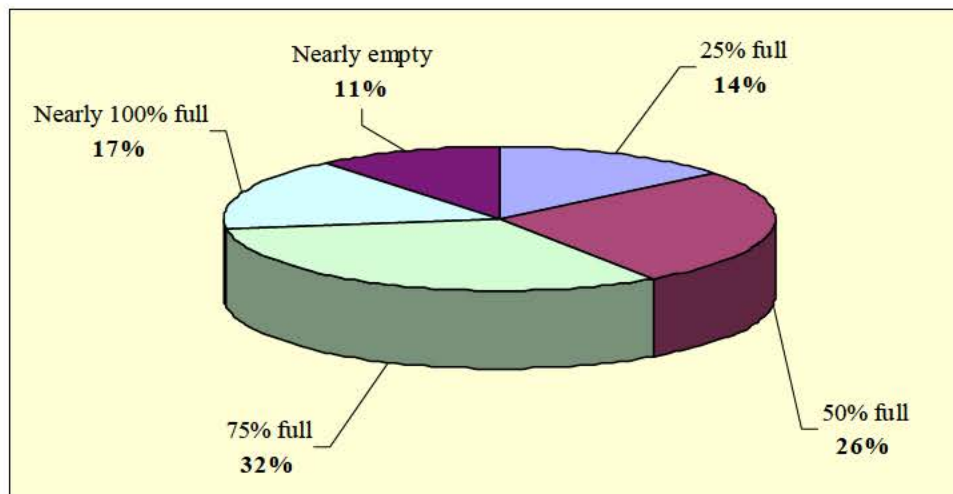
Figure 8 illustrates that patrons connecting to high-passenger vehicles (such as buses and vanpools) tend to be concentrated at selected lots. Five of the most popular lots are located just off an interstate, indicating that connections to buses are most easily made at (or near) an interchange. The Park & Ride lots off the Maine Turnpike in Biddeford and Saco were the most common points of connection for high-passenger vehicles. This may be attributed to the fact that the ZOOM bus serves both of these lots.

QUESTION 6 – LOT USAGE

This question asked patrons to estimate how full the Park & Ride lot is when they typically use it. The purpose of the question was compare our “snapshot” view of lot usage (documented in Section 4 of this report) with the level of usage perceived by the patrons.

Figure 9 provides a summary of the responses to question 6.

Figure 9 – Lot Usage, as Reported by Patrons



It is interesting to compare Figure 9 with the lot usage statistics reported in Section 4. The actual lot inspection process indicated that, on average, the lots were less than 50% full. More specifically, in the 48 observed Park & Ride lots, a total of 989 total vehicles were parked in the 2132 available spaces—an occupation rate of 46%. By contrast, about three-fourths of the patrons who responded to the survey indicated that the lots were *at least* 50% full at the time that they parked their vehicle.

Three observations follow from this apparent discrepancy between perceived and actual usage:

- There is a need for continuing monitoring of the state’s Park & Ride lots. Usage likely varies from day to day, and a one-day “snapshot” may not be a good representation of the degree to which certain lots are used.
- The activity that goes on in a Park & Ride lot may give patrons the impression that the lot is fuller than it actually is. In the morning, for every vehicle that enters the lot, there is another vehicle that must enter the lot and provide a connection. Therefore, the number of *parked* vehicles makes up only a portion of the total number of vehicles that actually use the lot.
- The significance of this is that Park & Ride lots must do more than simply provide a sufficient number of parking spaces; they must also provide adequate maneuvering room for both parking and connecting vehicles.

A closer look at the perceived and observed usage data indicates that at least 8 lots are in need of close monitoring, due to the fact that they appear to be approaching their capacity. These lots meet two criteria: (1) the inspection indicated that the lot was at least 66% full, and (2) four-fifths of the people responding to the survey indicated that the lot was 50% full or greater. These eight lots are listed in Table 4.

Table 4 – Lots Approaching Capacity

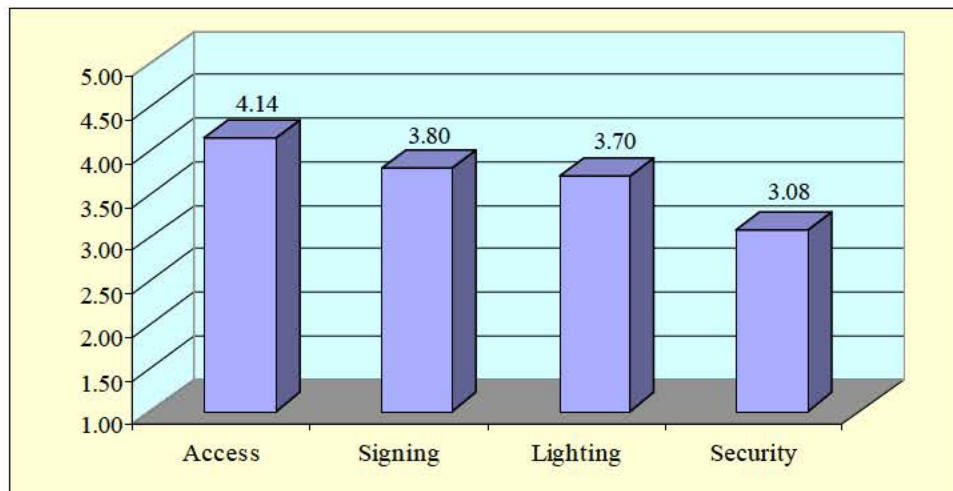
Town	Location	Observed Usage	% of Patrons estimating usage of at least 50%
Biddeford	Me Tpk Exit 4, on SR-111	74%	87%
Lewiston-1	Me Tpk Exit 13 NB, on Plourde Pkwy	66%	100%
Lewiston-2	Me Tpk Exit 13 SB, on Plourde Pkwy	85%	83%
Saco	I-195 Exit 1, on Industrial Park Rd.	70%	95%
W. Falmouth	Me Tpk Exit 10, adj. to toll plaza	79%	100%
W. Gardiner	Me Tpk Exit 14A, near SR-126	88%	100%
Dixfield	US-2, near Town Office	70%	100%
Bath	Old Bath Rd.	86%	91%

QUESTION 7 – RATINGS ON ACCESS, SIGNING, LIGHTING, AND SECURITY

Question 7 asked patrons to rate their Park & Ride lot in terms of access, signing, lighting, and security. Patrons were prompted to rate each of these characteristics on a scale of 1 to 5. A rating of 1 indicated “poor”, a rating of 3 indicated “average”, and a rating of 5 indicated “good”.

Figure 10 summarizes the average rating that each characteristic received.

Figure 10 – Average Rating for Selected Characteristics



Two observations may be drawn from Figure 10.

- All four characteristics had an average rating above 3.0. This indicates that, on the whole, patrons are satisfied with the access, signing, lighting, security provided by the state’s Park & Ride lots.
- However, one characteristic—security—scored noticeably lower than the others. This indicates that security may be one of the foremost concerns of Park & Ride lot users.

A closer look at the data indicates that over one-third of the survey respondents rated security as “below average”. In fact, there were eight lots at which **more than 50% of the respondents** rated security as below average. Three of these lots were located along the Turnpike, while the other five were located on state and local routes. These lots include:

Turnpike Lots

1. **Lewiston-1** (Me Tpk Exit 13 NB, on Plourde Pkwy)
2. **Saco** (I-195 Exit 1, on Industrial Park Rd.)
3. **York** (Chases Pond Rd. / US-1 Connector)

Non-Turnpike Lots

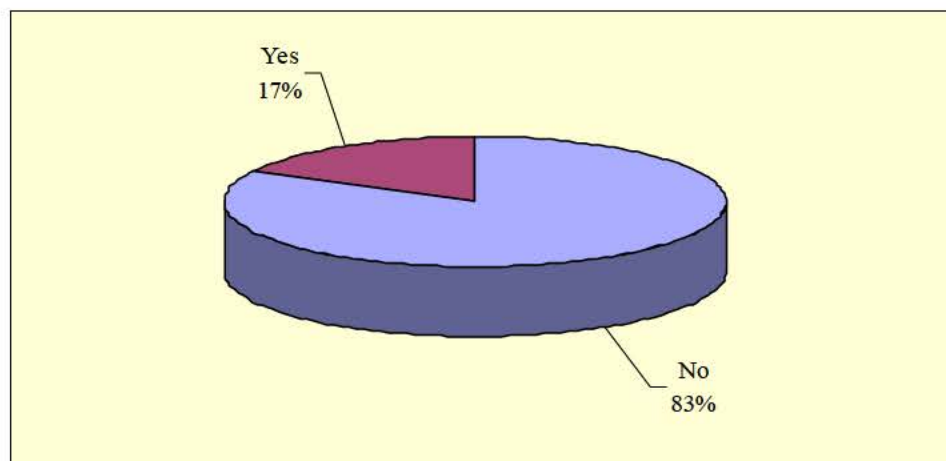
1. **East Lebanon** (US-202 & Little River Rd.)
2. **Lewiston-3** (US-202, at Marden's)
3. **Nobleboro** (US-1, next to town office)
4. **Randolph-1** (Intersection of Routes 27 & 226)
5. **W. Peru** (Route 108 & Hammond Ferry Rd.)

QUESTION 8 – USER FEES

This question asked patrons if they would be willing to pay a small fee to use the Park & Ride lots, as a means of funding expansions and improvements. Currently, no fees are charged at any of the 48 observed Park & Ride lots.

Figure 11 summarizes the response to this question:

Figure 11 – Willingness to Pay a Fee to Use Park & Ride Lots



As Figure 11 illustrates, only one out of every 6 patrons expressed a willingness to pay a user fee. Many patrons reacted strongly to this question, recording comments such as:

- “Keep it free. Reward those who carpool. Make everyone else pay more.”
- “Keep it free. What a shame it would be to have to pay.”
- “Leave it the way it is. This is a good deal that doesn’t need fooling with.”
- “Don’t start charging a fee—I pay enough taxes already.”
- “Have been parking at Exit 4 for 18 years. One of the few free things left. Please don’t change.”
- “Not willing to pay...Give me a break when I carpool.”

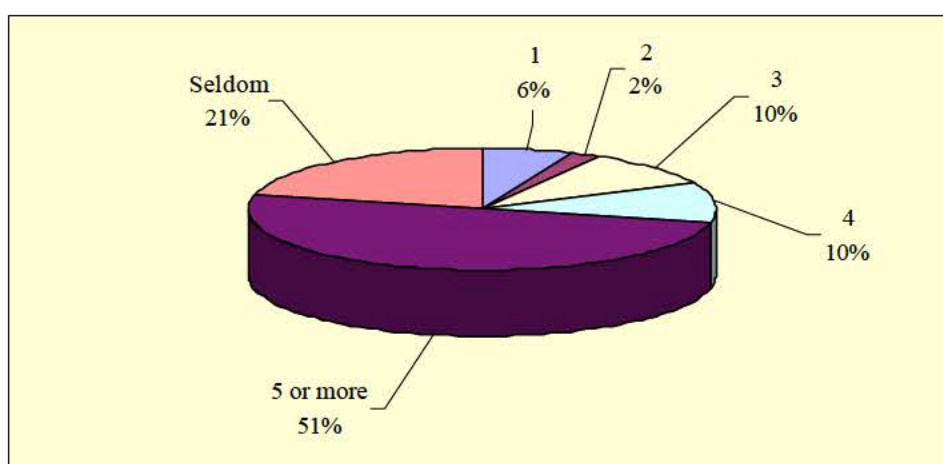
- “I can’t believe you would even consider making people pay for this! You must be joking! People who do not carpool should pay more...”
- “Highest taxed in the nation. We don’t need more fees.”
- “Charge a fee and you will have an empty lot!!!!”

Patrons were, on the whole, strongly opposed to the notion of a user fee. They were not anxious to begin paying for a service that had been free.

QUESTION 9 – FREQUENCY OF LOT USAGE

This question asked patrons to identify the frequency with which they used the Park & Ride system. The overall response to this question is summarized in Figure 12.

Figure 12 – Frequency of Park & Ride Lot Usage



Two important observations may be drawn from Figure 12:

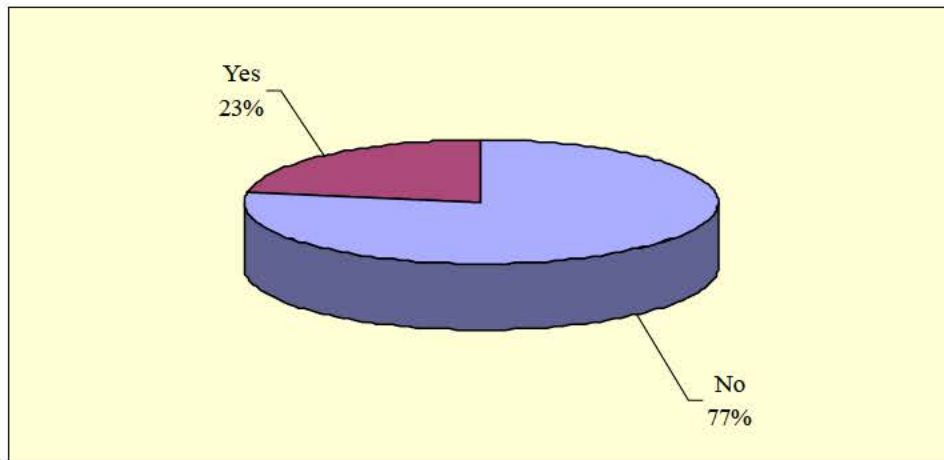
- Park & Ride lot patrons tend to be frequent users. A majority uses the lot five or more times per week; over 70% use the lot at least three times per week. This is consistent with the results of Question 3, which revealed that 73% of Park & Ride patrons use the lot to support their commute to work.
- A significant minority of Park & Ride patrons said that they “seldom” use the lots. In fact, about one out of every four patrons responding to the survey is what may be termed an “occasional user”—that is, someone who uses the lot one or fewer times per week. This has implications for lot capacity. A lot that is “typically” 75% full could occasionally exceed its capacity if it receives an influx of occasional users.

QUESTION 10 – OVERNIGHT PARKING

In the past, many patrons have called Go Maine, MaineDOT and the MTA, asking if overnight parking were permitted at Park & Ride lots. The MTA and MaineDOT reserve the right to tow vehicles that have been unattended for an extended time, but there is no established rule governing the number of days that triggers towing. Currently, the MTA and MaineDOT are working together to forge a policy that will be consistent across all agencies.

Question 10 was designed to gauge the need for overnight parking at the state’s Park & Ride lots. The overall response is summarized in Figure 13:

Figure 13 – Expressed Need for Overnight Parking



It appears from Figure 13 that the vast majority of Park & Ride patrons have no need for overnight parking. This is not surprising, since (a) most patrons use the lots to support their trips to and from the workplace, and (b) most people work during the day.

However, it is interesting to note the nearly one in four patrons **does** have an occasional need for overnight parking. Moreover, it is possible that this survey missed some patrons that are already using the lots for overnight parking. For example, consider a third-shift (i.e. overnight) employee who parks at the lot in the evening, carpools to work, and returns to the lot in the morning. If this employee were to pick up his car before 10am, then he would not have received a survey card. And this employee's need for overnight parking would never have been recorded.

Three conclusions follow from this discussion. First, more research needs to be done to capture the extent to which Park & Ride lots are used by third shift employees. Second, given that at least one-fourth of the patrons have a need for overnight parking, it follows that MaineDOT and the MTA should develop a policy to govern such usage. Third, any policy governing the usage of lots for overnight parking should be *duration*-based (i.e. limiting the number of consecutive hours of usage) rather than *time*-based (i.e. restricting usage of the lots to particular hours of the day).

QUESTIONS 11 & 12 – COMMENTS AND SUGGESTIONS

Questions 11 and 12 were open-ended questions, asking patrons to provide general comments and suggestions for improving the lots. The most common trends in patron feedback are noted in the following bullets.

- **Improve lot security (24 comments).** Many patrons expressed concerns about lot safety. This is consistent with the results of Question 7, where one-third of all patrons rated “security” as below average. Several patrons requested that police patrol the lots more frequently. Others noted that lots occasionally serve as “hangouts” for teenagers, making patrons feel uncomfortable. One patron observed that there were “too many stereos and windows destroyed in daylight”, while another asserted that there were “still too many car break-ins.” Still another wrote that he had witnessed numerous drug deals.
- **Do not charge a fee (23 comments).** As mentioned earlier, many patrons reacted strongly to the possibility of charging a fee to use the lot. Some patrons felt that they should be rewarded for carpooling, not “punished” by being assessed a fee. Others viewed a fee as another form of tax, in a

state that they already consider the highest-taxed in the nation. No one made a comment that they would welcome a fee.

- **Keep the lots cleaner (18 comments).** A significant number of patrons complained about trash in the Park & Ride lots. The most common suggestion was to place more trash cans at the lots, with scheduled pickups for trash removal.
- **Improve the parking lot surface (18 comments).** Several patrons from unpaved lots requested that the lot surface be improved. Some simply requested that the lot be graded more frequently; others recommended that the entrance be paved; still others requested that the entire lot be paved. Concerning the lot in West Peru, one patron wrote, “The holes are so large they cause damage to your car as you go from the main road to the lot.”
- **Correct the adjacent intersection (6 comments).** Many of the patrons using the Biddeford Park & Ride lot on Route 111 complained about poor access to and egress from the lot. Their complaints were twofold. First, they said that the green light during peak hours was not sufficiently long to allow queued vehicles to exit the lot. This ended up creating mobility problems within the lot itself, as queued vehicles from the lower lot blocked the movement of vehicles descending from the upper lot. Second, they said that eastbound vehicles seeking to access the lot from Route 111 should have a green arrow to provide for a “protected” turn into the lot. One patron claimed that there had been “too many accidents” related to vehicles seeking to turn left into the lot.²
- **Install bathroom facilities (5 comments).** A few patrons requested that portable toilets be installed at the lots.

² The Accident Records Section at MaineDOT indicated that 20 crashes were reported at this location between January 2000 and December 2002. This intersection does not currently meet the criteria to be designated as a “High Crash Location”.

Section 7 – Informal Park & Ride Lots

Section 2 through Section 6 of this report focused on various aspects of the state's 48 active Park & Ride lots. However, during the course of the study, it became evident that many "unofficial" or "informal" Park & Ride lots also exist. Though not signed as Park & Ride lots, these informal lots nevertheless serve as important points of connection for the traveling public. This section will summarize some of the study's key observations concerning these lots.

LOCATIONS

Most of the informal lots observed during the study were located in western Maine, though some were discovered in southern Maine and others in the Bangor area. The following three figures provide a geographical overview of the observed informal lots. Any adjacent "official" lots are also noted.

Figure 14 illustrates the southern Maine lots, Figure 15 illustrates the western Maine lots, and Figure 16 illustrates the Bangor area lots. All map locations are approximate.

Figure 14 – Informal Lots in Southern Maine (with adjacent official lots noted)

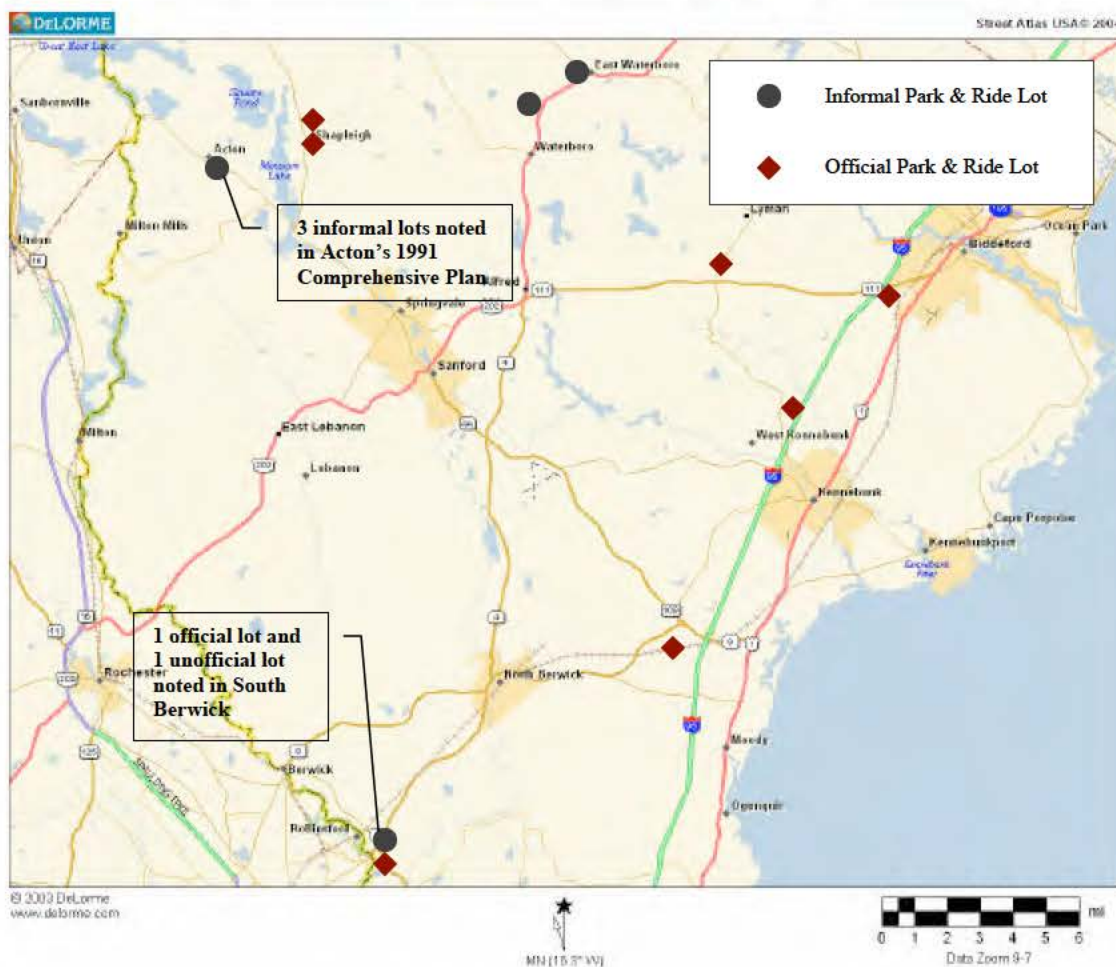


Figure 15 – Informal Lots in Western Maine (with adjacent official lots noted)

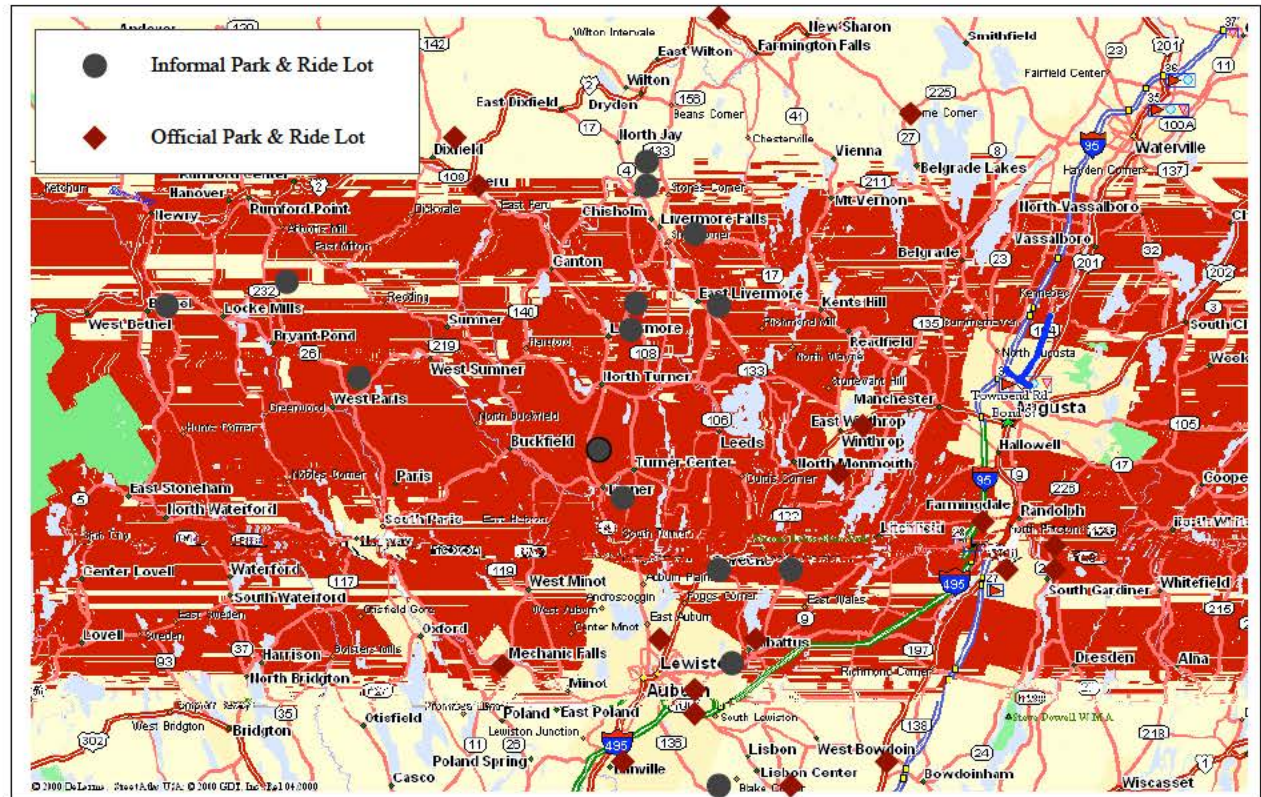


Figure 16 – Informal Park & Ride Lots in Bangor Area (with adjacent official lots noted)



Two caveats should be emphasized when reviewing the preceding three figures. First, evidence of these informal lots is, to some extent, anecdotal. The existence and usage characteristics of these lots should be examined more carefully in future studies. Second, it is very likely that more informal lots exist than are identified here. This study does not represent an exhaustive treatment of informal lots. Rather, it simply intends to raise awareness of their existence, since informal lots can serve as an indicator for where future “official” lots should be located.

KEY CHARACTERISTICS

Based on observations made in the field, as well as observations drawn from the preceding three figures, the following characteristics of informal Park & Ride lots become evident:

1. Most informal lots are privately owned. They are frequently located at facilities such as grocery stores, convenience stores, truck stops, and churches.
2. Some public areas have become de facto Park & Ride lots. Oftentimes, a town hall parking lot with excess capacity can come to function as a Park & Ride lot.
3. Informal Park & Ride lots appear to fill gaps in the state’s Park & Ride system.
4. Informal Park & Ride lots are often located on major routes running to large employers, such as the paper mills in Jay and Rumford.

The third characteristic is perhaps the most important. The “official” Park & Ride system is focused primarily on five major routes: I-95, I-495, US-1, US-2, and US-202. However, there are many roadways that connect to these major routes that are not served by the “official” system. Figure 15 illustrates this point. Routes 4, 26, 132, and 133 are all important commuter roadways that connect to major state and interstate routes, yet there are virtually no official Park & Ride lots on them. As a result, an informal system of lots has developed to help meet the demand for Park & Ride services. On Route 4 alone, at least six informal lots have arisen between Auburn and Wilton.

A similar phenomenon is seen in Figure 16. Though Bangor represents Maine’s second largest metropolitan area, it is served by only one official Park & Ride lot. Consequently, this lot has been augmented by a handful of informal lots located along I-95, I-395, and US-1A. Again, a pattern is evident—in areas where there are many commuters and few official Park & Ride lots, an informal network of carpool connecting places is likely to arise.

Section 8 – Recommendations

In light of the observations made in the previous sections, this report makes the following recommendations:

1. **Survey the lots on a regular basis.** This study should be the starting point for a regular review of Park & Ride lot conditions and usage. If time permits, it would be helpful to assess lot usage twice a year—once in the spring, and again in the fall. The lots that are consistently full should be considered for expansion, and the lots that are consistently empty should be considered for closure.
2. **Monitor the busier lots more closely.** Section 6 noted eight lots that seemed quite close to capacity. These included six lots adjacent to the Turnpike (at Exits 4, 5, 10, 13, and 14), one lot on Old Bath Rd. in Bath, and one in Dixfield. These lots should be evaluated on a monthly basis over the next six months, to see if expanding these lots should be pursued more aggressively.
3. **Improve signage at the low-usage lots.** There were six non-Turnpike lots that were completely empty, and a seventh that served only one vehicle (see Section 4). All of these lots had signing deficiencies. Before these lots are considered for closure, some roadside signage should be placed in order to inform motorists of the lots' availability. The lots may be unused simply because nobody knows about them.
4. **Consider closing one of the Shapleigh lots.** Currently, there are two lots in Shapleigh, spaced about one-half mile apart. No vehicles were found at either lot during the on-site inspection. Perhaps one should be closed, with signing improved at the second location. The most likely candidate for closure would be the lot across from the fire station (Shapleigh-1), since it is unpaved and unlit.
5. **Pave selected lots.** The most common comment made by users of unpaved lots was, "Pave the lot". This is clearly a concern, since unpaved lots are more susceptible to developing potholes, and since vehicle-to-vehicle transfers can be very messy in inclement weather. The problem is compounded by the frequency with which most patrons use these lots; if there is a pothole at the entrance, it must be traversed at least twice a day, five days a week. The following four lots should be a priority—Bath (Old Bath Rd.), Lisbon Falls (Route 196), Waldoboro (US-1, top of south hill), and West Peru (Route 108 & Hammond Ferry Rd.). All of these lots were over fifty percent full, and all served more than 10 vehicles.
6. **Contact key employers to find out about other possible needs.** As Section 5 pointed out, Bath Iron Works and Portsmouth Naval Shipyard account for 40% of all Park & Ride lot users. Perhaps these employers know of other locations where Park & Ride service is needed but not yet provided. They may have some insight concerning where expansions could be helpful.
7. **Contact local and county law enforcement officials regarding patrolling at the lots.** As noted in the previous section, many patrons expressed concern that the lots were not adequately patrolled. Some were aware of theft that had taken place at the lots. It might be a simple matter to request local and county police to routinely pass through these lots, during both daylight hours and at night.
8. **Establish a policy governing overnight parking.** MaineDOT and the MTA should jointly develop a policy governing the use of Park & Ride lots for overnight parking. The policy should focus on limiting the overall duration of time for which a vehicle is parked, rather than limiting the number of consecutive nights for which a vehicle may be parked. In other words, the policy should state, "Vehi-

cles may be left for no more than X consecutive days”, rather than stating, “Vehicles may be left for no more than X consecutive nights.” This wording makes it clear that third-shift commuters who use the lot every night (but vacate the lot every morning) will not be restricted in their usage.³

9. **Place garbage cans in the lots.** Many patrons complained about trash in the lots. Some clearly-marked garbage cans (or dumpsters in the larger lots) could help correct this problem. Of course, the MTA and/or MaineDOT would also need to contract with someone to ensure that the cans and dumpsters were routinely emptied. It might also be helpful to post one or two signs in each lot, reminding patrons to properly dispose of their trash.
10. **Improve the intersection of the Exit 4 Park & Ride and Route 111.** This lot is the busiest Park & Ride lot in the state. During the morning and evening peak hours, it is evident that (a) eastbound patrons on Route 111 have difficulty turning left into the lot, and (b) patrons seeking to exit the lot have an insufficient amount of “green time”. The MTA, in conjunction with MaineDOT, should look at some basic intersection improvements such as adjusting signal timing and phasing, and—if possible—adding a turn lane.
11. **Provide incentives for private parties to join the Park & Ride system.** Currently, there is very little incentive for private landowners to make their lots available as a Park & Ride site. MaineDOT may wish to consider funding a program that would reimburse owners who make their lots available for Park & Ride users. A modest payment of \$500 a year may be sufficient to encourage reluctant owners to participate. Additionally, any agreements should provide landowners with the option of withdrawing from the system if the program yields some unforeseen problems. Individuals will likely be hesitant to participate if a long-term commitment is required.
12. **Explore the possibility of incorporating church parking lots into the system.** Church parking lots are not typically used during commuting periods. Therefore, some churches might be willing to allow their lots to be used for Park & Ride purposes during the week. In fact, this study identified four Park & Ride lots (three official and one informal) that were located at churches. A financial incentive might encourage some churches to participate in this manner.
13. **Consider creating new Park & Ride lots in the following locations:**
 - a. On Route 4 (between Auburn and Wilton) and Route 26 (between Oxford and Bethel). As Section 7 noted, several informal lots have arisen on these key roadways in western Maine. These informal lots indicate that there is a regional demand for Park & Ride services that is not being met by the “official” system. AVCOG could take the lead in studying this issue in more detail and identifying effective locations for new lots.
 - b. In the Bangor area. Greater Bangor represents the second-largest metropolitan area in the state of Maine. Currently, only one “official” Park & Ride lot exists in the area. Consequently, a handful of informal lots have sprung up to meet the demand. MaineDOT should consider either building some new lots in the area, or consider working with private landowners (e.g. Dysart’s) to see if they might be willing to designate part of their property as a Park & Ride lot.
 - c. In Gorham. The Town of Gorham is a residential village sitting at the junction of three major commuter routes—US-202, Route 114, and Route 25. As a result, a significant volume of commuting traffic either originates from or passes through the town. Currently, no official Park & Ride lot exists to serve these commuters. MaineDOT should consider working with

³ MaineDOT has drafted a policy that contains very similar wording. It states, “Vehicles left for more than five (5) consecutive days may be towed at owner’s expense.”

- private landowners in the downtown area (such as Hannaford) to see if part of their parking area could be designated as a Park & Ride lot.
- d. In the Sanford area. Sanford is the sixth largest city in the state, virtually identical in size to Biddeford. However, Sanford and its surrounding towns are not currently served by any Park & Ride lots. One possible location for a new lot in the area is the intersection of Route 111 and Route 4 in Alfred. These two roads link Sanford commuters with the Greater Portland area as well as with the Biddeford-Saco area.
 - e. In the region to the west of Greater Portland. The towns of Buxton, Hollis, Standish, Limington, and Waterboro are among the fastest growing communities in the state, yet there are no Park & Ride lots in any of them. One location that could effectively serve many commuters from this region would be the intersection of Route 22, Broadturn Rd., and Portland Rd. in Buxton. Another possible location would be at the corner of Route 5 and Route 4 in Waterboro. This intersection, which is the site of a Hannaford store, already functions as an informal lot; perhaps Hannaford would be willing to designate part of the parking area as an “official” Park & Ride lot.

Section 9 – Areas for Further Study

This study has identified a variety of approaches for strengthening Maine’s Park & Ride system. However, our understanding of the system is still incomplete. This section will highlight six areas which should be explored in more detail in future studies. If more light can be shed on these areas, then state and regional transportation agencies will be able to more effectively target Park & Ride improvements in the future.

1. **Examine usage of Park & Ride lots by commercial buses.** The mailback survey revealed that 12% of Maine’s Park & Ride patrons connect to charter buses. If these bus services could be identified and contacted, they might be willing to help fund improvements such as bus shelters.
2. **Examine usage of Park & Ride lots on weekends.** Many people in the Park & Ride study group (MaineDOT, MTA, AVCOG, Go Maine, and SMRPC) noted that some lots are extremely busy on weekends. In fact, it is possible that some lots may be under capacity during the week and over capacity on the weekends. This would be especially true for lots that are frequented by commercial bus lines, since these buses travel more frequently on weekends. Thus, a future study that focuses on weekend Park & Ride usage could identify some additional lots that may require expansion.
3. **Better understand Park & Ride lot usage by 3rd shift workers.** The mailback surveys in this study were distributed during the middle of the day. These surveys would have missed most 3rd shift workers, whose usage of the lots would typically occur during the overnight hours. Perhaps a future study could be oriented toward learning about the needs of such workers. Any policy on overnight parking should be crafted to accommodate these needs.
4. **Study usage of lots on the Maine-New Hampshire border.** This study focused exclusively on Park & Ride lots in Maine. However, the Southern Maine Regional Planning Commission (SMRPC) has identified at least five Park & Ride lots in New Hampshire that serve patrons traveling between the two states. A future study could seek to better understand the extent to which Park & Ride lots outside of the state are used to support Maine travelers.
5. **Continue observation of informal lots.** This report took a first step toward documenting the presence of some informal lots. However, as this report noted, many other informal lots exist beyond those noted in Section 7. State and regional transportation officials should make an effort in the coming years to identify more of these lots, since they can serve as an indicator of the need for new “official” lots. One way to learn more about informal lots would be to contact major employers such as paper mills, Bath Iron Works, and Portsmouth Naval Shipyard. It is likely that the various vanpools that serve these employers have on informal network of lots used as pick-up and drop-off points.
6. **Speak to private landowners in areas of proposed Park & Ride expansions.** Section 8 of this report highlighted some areas where new lots should be considered. A future study could examine the needs of landowners whose property could be used for new Park & Ride lots. The study could examine such issues as:
 - a. What are the primary reservations that landowners have toward allowing their property to be used for Park & Ride lots?
 - b. What would it take (financially speaking) to make it worthwhile for landowners to make their property available?

- c. Might MaineDOT consider a flexible policy, whereby private parties would be able to close their lots on occasion? (This would be relevant for locations such as churches and funeral homes, whose lots occasionally have demands for private usage during commuting periods.)
- d. How long should commitments to the state's Park & Ride system last? This question would be relevant to store owners (such as Hannaford) who might be reluctant to make a part of their lot available if it requires a long-term commitment. However, they might be willing to participate on a "trial" basis, such as one or two years.

Appendix

This portion of the report provides photographs of most of the lots that were observed during the study. Part I of the Appendix summarizes the 15 Turnpike lots, while Part II summarizes the non-Turnpike lots.

The lots will be listed in alphabetical order.

PART I – TURNPIKE LOTS



Auburn – Me Tpk Exit 12, on US-202



Biddeford – Me Tpk Exit 4, on Route 111



Gray-1 – Me Tpk Exit 11, on US-202



Kennebunk – Me Tpk Exit 3 SB, on Route 35



Lewiston-1 – Me Tpk Exit 13 NB, on Plourde Pkwy



Lewiston-2 – Me Tpk Exit 13 SB, on Plourde Pkwy



Portland-1 – Me Tpk Exit 7A SB, adj. to Toll Plaza



Saco – I-195 Exit 1, on Industrial Park Rd.



Scarborough – Me Tpk Exit 6, adj. to Toll Plaza



So. Portland – Me Tpk Exit 7, on ROUTE 703



Wells – Me Tpk Exit 2, adj. to Wells Trans Ctr



Westbrook – Larrabee Rd., near Me Tpk Exit 7B



W. Falmouth – Me Tpk Exit 10, adj. to Toll Plaza



W. Gardiner – Me Tpk Exit 14A, near Route 126



York – Chases Pond Rd. / US-1 Connector

PART II – NON-TURNPIKE LOTS



Bangor – Off I-95 Exit 45B



Bath – Old Bath Rd.



Bowdoinham – Off I-95 Exit 25, on Routes 125/138



Buckfield – Routes 117 & 140



Dixfield – US-2, near Town Office



E. Lebanon – US-202 & Little River Rd.



Edgecomb – US-1 & Dodge Rd.



Farmington – Routes 2 & 4, and Intervale Rd.



Freeport-1 – I-95 Exit 19, 0.2 mi. S. of Desert Rd.



Freeport-2 – I-95 Exit 19, 1.7 mi. S. of Desert Rd.



Gray-2 – Route 26, at Gray Shopping Plaza



Lewiston-3 – US-202, at Marden's



Lisbon Falls – Route 196



Lyman – Route 35, at Lyman Community Church



**Mechanic Falls – Route 121, W. of Routes
11/121/124**



Monmouth – US-202, next to Fish & Game



Pittsfield – I-95 Exit 38 (Somerset Plaza)



Randolph-1 – S. of Route 226



Randolph-2 – Intersection of Routes 27 & 226



Sabattus – Route 126 & Sawyer Rd.



Shapleigh-1 – Across from Fire Hall



Shapleigh-2 – Next to Town Hall



Topsham – I-95 Exit 24 (near Topsham Fair Mall)



Winthrop – 10 Lake St.



Yarmouth – 1-95 Exit 17 (at Information Center)

Non-Turnpike lots *not shown*:

- **Gardiner** – I-95 Exit 27, on US-201
- **Nobleboro** – US-1, next to Town Office
- **Portland-2** – I-295 Exit 7, Marginal Way @ Franklin Arterial
- **Rome** – Routes 27 & 225
- **Thomaston** – US-1, behind business block
- **Waldoboro** – US-1, top of south hill
- **Westbrook-2** – US-302 (Four Seasons Bingo)
- **West Peru** – Route 108 & Hammond Ferry Rd.