# Chapter 7.    Recommendations

The analysis conducted for Reading's Comprehensive Parking Program has demonstrated that there is plenty of parking supply in the downtown to support all existing uses as well as a substantial amount of future growth. However, this ideal scenario is only possible through the efficient management and sharing of all parking resources in public and private hands. While it is not likely that all existing parking resources can be utilized to their maximum extent during all hours of the week, many communities in America have made great strides at sharing this valuable land resource among a variety of users.

Inherent to improved sharing is an improved parking management program. The analysis of Reading's downtown parking supply makes it clear that significant parking resources that are available to the general public are entirely underutilized during periods of peak demand. Even if the cost of a new parking structure were not prohibitive, simply increasing off-street supply would not eliminate the persistent parking problems experienced by Reading's residents, employees and visitors today. Reading does not have an undersupply of parking; it has a supply management problem.

## Parking and Transportation Demand Management

Some of the most successful small downtowns in America are benefitted by a mixed-use core with a welcoming walking environment that allows residents, employees and visitors alike to experience most of the downtown's services and entertainment by parking only once and walking between destinations. Even in communities where parking is mismanaged and visitors are forced to search for spaces or park remotely, walking connections are welcoming, well-signed and safe. This creates an environment that people enjoy being a part of – even if they must walk a couple minutes to get to their destination. In communities that manage their parking well, visitors easily find convenient parking spaces, helping to encourage activity while minimizing traffic congestion created by the hunt for parking.

Communities like Reading that seek to boost economic activity in their downtowns can learn a lot from the experiences of communities that manage their parking well. The recommended parking management program below includes several best practices from around the United States that can serve Reading's goals very well. These best practices include some of the most progressive transportation demand management (TDM) programs available, which have helped to significantly reduce parking demand and congestion while improving the attractiveness of walking, biking and transit. These elements are designed to meet several goals:

- Provide shoppers, employees and residents with sufficient parking, in a manner that is convenient and cost-effective.

- Provide additional transportation choices, including transit, carpool, bicycle and pedestrian facilities and services.

- Advance the broader goals of Reading by creating a neighborhood that is genuinely oriented towards transit, walking and bicycling.

It is important to keep in mind that parking and transportation policies have powerful effects not merely on parking demand, but on development feasibility, housing affordability, the amount of traffic produced by new developments, the quality of urban design, and many other fundamental aspects that make downtown Reading a place.

## Phased Implementation Plan

The following recommended programs and policies have been organized in a phased action plan with short, medium and long term actions. This organization recognizes that certain changes to policy or infrastructure can take some time to plan, finance and/or implement. However, several short-term actions have been identified that could be implemented immediately by the Town, resolving critical issues while creating some momentum for further action.

## Short-Term Actions

The following actions are recommended to be implemented within the next 6 months. They are grouped into parking management and TDM actions.

**Parking Management:**

### 1) Expand the Employee Parking Permit Program

Today, residents of Reading who work in downtown can park at over 350 on-street resident-only spaces with their $25 per year Community Access Sticker – in addition to any private off-street parking privileges they may have. However, most employees come from other communities. The Town provides a $20 per month, or $240 per year, Employee Parking Permit that allows these employees to park in 70 on-street and 27 off-street spaces in downtown (see Figure 73). This program is oversubscribed, with all available permits sold-out by the beginning of the calendar year. Heavy utilization of many employee permit parking spaces was observed. However, some areas, such as eastern Haven and Chapin, are underutilized. The parking survey and interviews revealed that the majority of employees do not know that this program exists, but they were very interested in obtaining these permits in the future.

Therefore, based on the rapid sell-out of existing permits and the evident latent demand, the number of employee permit permits should be increased to meet demand as soon as possible. The Town should also consider expanding employee permit parking locations, depending on the utilization of existing spaces and the feedback of employees who are not using the underutilized spaces today.

## Figure 73: Employee Parking Permit Areas

*Careful Expansion of Regulation*

Likely locations for converting existing on-street regulations to the "2-Hr Parking or All-Day With Employee Permit" regulation include areas where daytime on-street utilization is low. In the commercial areas of downtown, this includes Ash Street between Washington and Haven, Sanborn Street between Woburn and Haven, and Woburn Street west of Sanborn. These areas have low demand from other users and have no direct impact on primarily residential streets. This would add another 88 spaces to the employee permit parking program and at least another 100 or more permits, depending on the average daily vacancy rate the Town chooses to employ.

Other areas on the edge of the commercial core of downtown Reading have private residences with tenants and homeowners frequently needing to park on-street. These areas tend to be an untapped resource for downtowns, even though there is a fear of negative impacts on residents. Most of the time, residents are entirely unaffected by daytime employees parking on residential streets for two basic reasons: 1) if a resident commutes to work by car, their on-street space is vacant for employee use during the day, and the employee has usually left before the resident returns home; and 2) if a resident remains at home or stores a car on-street, their vehicle is usually occupying the space early in the morning before any employees would arrive to park.

There are a large quantity of residential on-street spaces within a short walk of downtown businesses that stay vacant throughout the workday. These represent a great opportunity for the Town to expand its employee permit program in pace with demand. Residents at workshops held during this study encouraged this activity if it would help the Town's parking problems, as long as there was protection against losing a place to park when residents returned home. For instance, the unregulated stretch of Green Street east of Main is a likely candidate for this regulation.

This resident-employee dynamic changes when restaurant workers are included, who often work night shifts after residents are home. Fortunately, the number of available on-street spaces in commercial areas opens up dramatically after 5PM, so employee permit parking on residential streets can easily be limited to daytime work hours only.

*Increase Outreach and Visibility*

The Town has the potential to greatly increase the effectiveness of its employee permit program while resolving many of the observed parking utilization problems in the downtown. By working with the business community to market the availability of employee permits and the areas where they can be used, enrollment could increase dramatically in a short time. Simple employer notices, information on the Town's website, and outreach from the Chamber of Commerce can reach most of Reading's employees who do not know about the program today.

*Evaluate Permit Cost*

The current cost of $20 per month or $240 per year should cover all administrative costs, but it is unclear whether this also covers the Town's enforcement costs. It may be prudent for the Town to evaluate the labor cost per parking space that is enforced today by the Town's parking control officer to determine if this fee is adequate to cover the enforcement cost for the portion of downtown spaces that are regulated for employees. Adjustments to the permit fee may be warranted.

Nonetheless, $20 per month (or approximately $1.00 per workday) is a fairly low parking cost in the greater Boston area, where off-street parking is generally available starting at $50 per month[2]. If demand for employee permits continues to remain strong after the quantity of permits and spaces is increased, permit prices should be increased.

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[2] Based on a review of parking spaces for rent in the greater Boston area on craigslist.com.

*Annual Reporting*

Municipal fees are often met with opposition from many residents and employees, regardless of their justification. The Town would be greatly benefitted by revealing the costs and revenues of their permit program on an annual basis in order to deflect complaints that the system is a "money grab" or something to "pad the general fund." More importantly, any surplus revenues should be clearly identified and dedicated to improvements or programs that benefit the business community in downtown Reading. This has the effect of showing that the Town is giving back to its employees a benefit for their fee, which may include measures such as sidewalk improvements, façade improvements, marketing and signing, or future parking facilities. Details of a comprehensive benefit program like this can be found in Recommendation 2 below.

## 2) Establish a Parking & Transportation Fund

Surplus revenues from the employee permit program and other additional revenue sources, such as additional ticket revenue (see Recommendation 4) or in-lieu of parking fees (see Recommendation 11), should fund public improvements that benefit the downtown. If downtown parking revenues seem to disappear into the General Fund, where they may appear to produce no direct benefit for downtown businesses, there will be little support for parking policies that may ultimately benefit business, such as increased permit fees, installing parking meters, or adjusting regulations. When Reading's merchants and residents can clearly see that the monies collected are being spent for the benefit of their downtown, on projects that they have helped to choose, they become willing to support parking policies that generate revenue for the Town. If experience from other cities is any guide, many will become active advocates for the concept.[3]

To develop support for parking regulation changes, and to build support for charging fair market rates for permits, it is crucial to give local stakeholders a strong voice in setting policies for the downtown, deciding how downtown parking revenues should be spent, and overseeing downtown investments to ensure that the monies collected from employees and customers are spent wisely.

Potential uses for Parking and Transportation Fund revenues include:

- Landscaping and streetscape greening
- Increased frequency of trash collection
- Street cleaning, power-washing of sidewalks, and graffiti removal
- Parking, transit, pedestrian, and bicycle infrastructure and amenities
- Additional parking enforcement
- Marketing and promotion of Reading's merchants
- Additional programs and projects as recommended by downtown stakeholders and approved by the Board of Selectmen

A number of different organizational structures can be used to establish and oversee a Parking and Transportation Fund. The fund can be managed by a quasi-public entity, similar to a Business Improvement District. Alternatively, the fund can be established as simply a financial entity (somewhat like an assessment district), which would require by ordinance that parking revenues raised within the downtown be spent to benefit the downtown. Under this arrangement, the fund would be managed and housed within an existing Town department, such as the Department of Public Works.

## 3) Adjust Time-Limits

Many downtowns suffer from a common problem. The most visible and most convenient parking spaces are frequently entirely full, while simultaneously, parking spaces just behind a building or a block away sit largely vacant. The result is often a perceived parking shortage, even when a

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[3] Parking Benefit Districts are currently in place in Pasadena, Boulder, San Diego, Austin, Seattle, and Aspen.

downtown as a whole has hundreds of vacant parking spaces available. In many downtowns, employees occupy the best spaces, even when time limits are instituted to try to reserve these spots for customers. As one downtown merchant describes the situation in his town, "Parking is a problem for businesses because employees park on Main St. and side streets and prevent customers from parking…We need parking management and enforcement strategies to prevent employees from doing the '2-hour shuffle' downtown."

The most common mechanism that communities use to create vacancies in prime parking spaces is to set time limits and give tickets to violators. Time limits, however, bring several disadvantages: enforcement of time limits is labor-intensive and difficult, and downtown employees, who quickly become familiar with enforcement patterns, often become adept at the "two hour shuffle", moving their cars regularly or swapping spaces with a coworker several times during the workday. Even with strictly enforced time limits, if there is no price incentive to persuade employees to seek out less convenient, bargain-priced spots, employees will probably still park in prime spaces.

For customers, strict enforcement can bring "ticket anxiety" – the fear of getting a ticket if one lingers a minute too long (for example, in order to have dessert after lunch). As Dan Zack, Downtown Development Manager for Redwood City, CA, puts it, "Even if a visitor is quick enough to avoid a ticket, they don't want to spend the evening watching the clock and moving their car around. If a customer is having a good time in a restaurant, and they are happy to pay the market price for their parking spot, do we want them to wrap up their visit early because their time limit wasn't long enough? Do we want them to skip dessert or that last cappuccino in order to avoid a ticket?"

While on-street pricing is the preferred mechanism to turn-over spaces, even in small downtowns like Needham's, it is a difficult measure to implement without a lot of political support and extended education. In the long-term, on-street pricing is entirely appropriate for Reading, since it would solve many of the problems that exist today. However, time-limits are the tool of choice in Reading today.

Establishing the best time-limit that accommodates customers conveniently while encourages adequate turnover is an inexact science. While some parkers may be satisfied with the existing time limit, many others are not. Lengthening a time limit may induce some parkers to stay longer; attract new parkers who appreciate the added time; and push away short-term parkers who can't find a space as conveniently. Shortening a time-limit may drive some employees out of customer spaces but also drive away some customers who want to stay longer. Reading's most predominant time-limit throughout downtown is 2-hours. While this time may have some historical precedent, it is most defendable as a common value used in most Massachusetts downtowns.

The data supporting a better time limit is mostly inconclusive. The user survey revealed a wide spectrum of parking durations in downtown, as shown in Figure 74.

# Figure 74    Surveyed Length of Stay
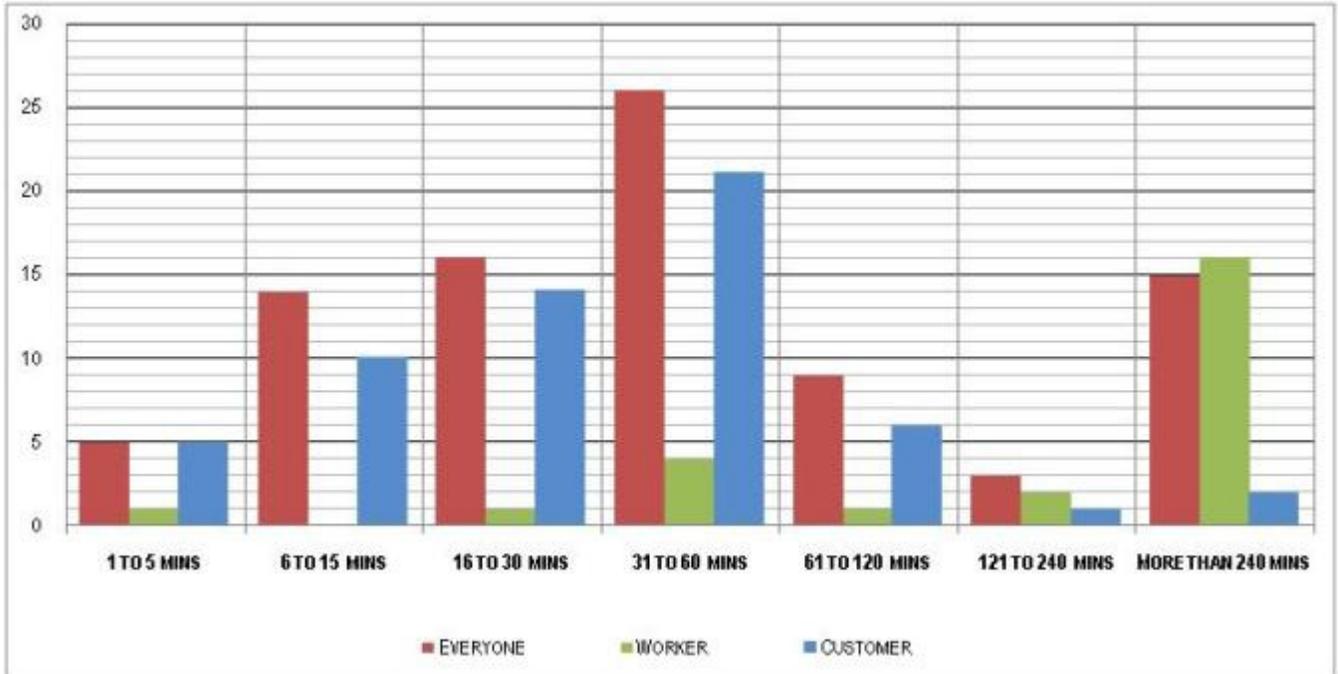


While customers tend to have shorter stays and employees longer, the turnover studies of two prime customer areas on upper Haven (Figure 75) and in front of CVS (Figure 76) demonstrate that the average stay per car in a customer parking area is nearly 3-hours throughout the entire day. The predominant length of stay that satisfies 85-percent of parkers (the 85th-percentile) exceeds 4-hours. On upper Haven it approaches 7 hours during work hours. It should be noted that both areas have 2-hour time limits.

**Figure 75    Turnover and Utilization on Upper Haven Street**

**Figure 76     Turnover and Utilization in Front of CVS**
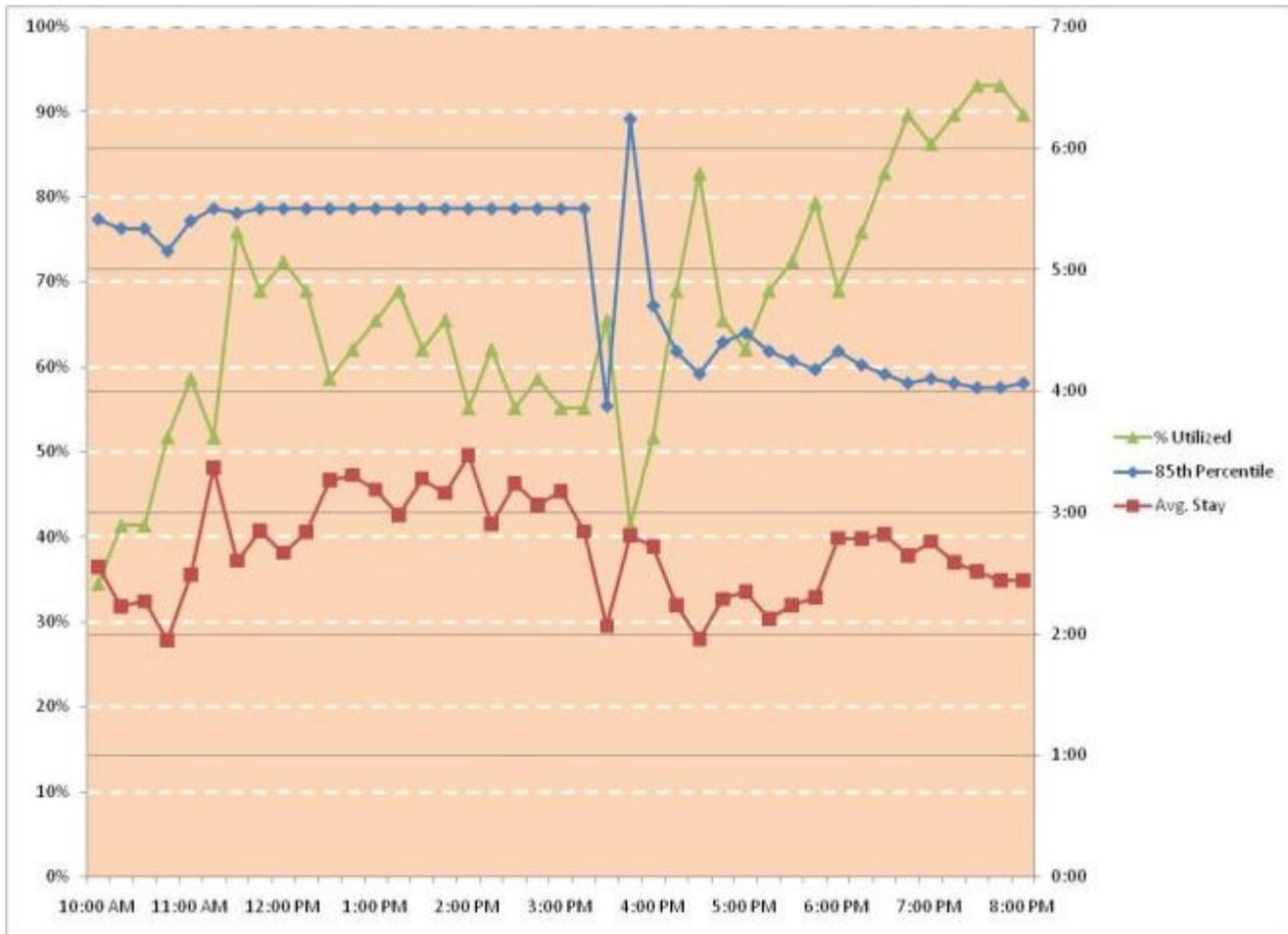


While the ultimate effect of changing time-limits cannot be predicted well due to induced parking activity, the turnover data suggests that a longer time-limit (3-hours or more) would match the average duration of more parkers in front of the CVS. This would be a very customer-friendly approach that reduces complaints, and it would not impact availability significantly during daylight hours when utilization is low. A three or more hour limit would also accommodate more parkers on upper Haven, though many parkers would still be exceeding the time-limit each day (note the 85th percentile line).

However, lengthening time-limits in areas of relatively high demand is counter-intuitive. Only on upper Haven after 1PM would longer time limits work well since utilization drops off significantly. In areas of high demand, this policy would essentially reward those who seek to park for longer periods in locations that should be dedicated to shorter-term parking. Therefore, the turnover data is most valuable for understanding the duration preferences of parkers within an entire district, as opposed to the given block face where data is recorded. The data from upper Haven and Main Street in front of CVS indicate that a longer time-limit would be valuable, but not necessarily in these specific locations where turn-over and availability can benefit the shorter-term visits of nearby retail and banking customers. Likely target areas for increasing time limits to accommodate those staying over 3-hours are lots and on-street parking with lower demand that are further from these key destinations.

The most heavily utilized 2-hour zones in downtown Reading are:

- Upper Haven, especially during midday
- Main Street, in front of CVS in the late afternoon and evening
- Lower Haven, in front of the Atlantic Market all day

Both municipal lots are within a short walk of these locations and experience lower utilization throughout daytime hours. These would be ideal locations to attract longer-term parkers who might be more willing to walk the extra minute or two, freeing up availability for shorter-term parkers on-street. Especially if combined with the signing Recommendation 5, the time-limits in each of these lots should be extended to at least 3-hours if not 4-hours. Utilization of the lots and on-street spaces should be closely monitored for at least 30 days after implementation. If on-street availability does not increase, time-limits at these high-demand spaces should be reduced to 1-hour, as long as appropriate signing for the longer-term lots is in place.

*Extend Hours of Regulation*

The data from the parking in front of CVS illustrates another key parking dynamic that occurs due to the current time-limits in Reading. Shortly before as well as after the end of time-limited parking at 6PM, utilization of this parking spikes to nearly 100-percent. This also occurs in the public lot behind CVS. Without a fear of penalty, parkers quickly occupy these spaces, which happen to be those closest to prime dining destinations. While an intercept survey of these motorists was not within the scope of this study, it is evident that restaurant employees and patrons are occupying these prime spaces.

If the time span for time-limited parking (and appropriate enforcement) were extended through dining hours in these locations, longer-term parkers would have to find spaces that were more accommodating, leaving these prime spaces available for customers and restaurant patrons. As long as clear employee parking spaces are designated nearby between the hours of 6PM and 10PM (see Recommendation 1), the more valuable spaces – in front of the CVS, on upper Haven and on the end of Woburn close to Main – can have their time-limit regulations extended until 10PM. From 6PM until 10PM, the time-limits in these areas would better serve restaurant patrons if they were extended to 3-hours.

## 4) Expand Parking Enforcement Hours

The Town of Reading has a very limited budget for parking enforcement today. Enforcement occurs only 5 days per week for less than 5-hours each day. With only one staff person, it is focused on the downtown core almost exclusively. At current budget levels, it is not expected that this level of enforcement can be increased.



Nonetheless, enforcement is an essential part of supporting parking regulations. As structured today, enforcement hours and activity is mostly penalizing those who dominate downtown parking during midday weekday hours: employees and merchants. Given the current set of regulations, this enforcement program is necessary. However, it targets the community most responsible for economic activity in Reading. As the Town works to improve its economic climate and attract business, it would be appropriate to change the enforcement focus – especially given the observations supporting Recommendations 1, 2 and 3.

If more employee permit parking is advertised and provided to employees in mutually agreeable locations, time-limit violations in higher-demand areas will drop, since most daytime customers do not stay more than 2-hours today. Midday enforcement will become far less necessary. Meanwhile, some of the biggest parking complaints come during evening dining hours and Saturdays when customers are trying to find spaces for dinner, errands and shopping. Enforcement of existing Saturday and new evening regulations would help relieve this problem for customers. By shifting existing enforcement hours strategically, the Town can improve enforcement revenue and value to the community without increasing costs.

The most valuable hours for enforcement to occur are: Saturdays between 10AM and 1PM and between 6PM and 10PM; and weeknights (especially Thursday and Friday) between 6PM and 10PM. It would also be appropriate to continue midday/lunchtime enforcement at least one day per week. Hypothetically assigning enforcement personnel to cover these hours results in the schedule shown in Figure 77.

## Figure 77    Key Enforcement Hours

| | |
|---|---|
| Saturdays between 10AM and 12PM | 2 hours |
| Saturdays between 6PM and 9PM | 3 hours |
| Thursday and Friday between 6PM and 9PM | 6 hours |
| One random weekday between 10AM and 2PM | 4 hours |
| Total | 15 hours per week |

While greater enforcement should be considered in the future, this focused schedule would help maximize enforcement revenue and value.

### 5)  Improve Parking Signing

While regulatory signing for parking regulations is prominent and plentiful in Reading, signing that helps direct parkers to available parking areas is very limited. With only one small parking sign per lot entrance, there is no clear indication to visitors – or welcoming reminder to regulars – that convenient off-street parking exists (see Figure 78). As Reading seeks to attract new business and customers, greater ease of finding parking spaces is important.

## Figure 78    Existing Parking Signs in Reading



Many communities employ a clear and consistent signing system that helps direct visitors to off-street parking easily (see examples in Figure 79). Given Reading's desire to resolve utilization issues in on-street spaces during high demand times in the evening and on Saturday's, clear signing to the existing municipal lots is an important component of the time-limit changes in Recommendation 3.

# Figure 79    Parking Signs in Framingham



Another important part of a signing system that communities frequently overlook is directing departing motorists to exits and nearby arterials. While finding an exit to Reading's municipal lots is not a difficult task, simple signs in the lots and at critical turns on surrounding streets that direct motorists to Route 28 and Interstate 93 can be very helpful and make a customer's experience in Reading more accommodating – hopefully increasing the chance that they will return. Combined with a downtown wayfinding system, departure signs can help keep cars on preferred commercial roads and keep them away from residential neighborhoods.

*Pedestrian Signing*

The most commonly overlooked signing need for parking facilities is pedestrian signing to and from the parking facility. Especially in compact vernacular downtowns like Reading's, visitors can easily confuse which street or alley to use to get back to their parked car. Regulars to a downtown may not even know the best access routes. And signs that direct new arrivals to prime streets or destinations help to increase the overall accommodation of downtown Reading as a place to shop and do business.

Fortunately, pedestrian wayfinding signs are very inexpensive to design, purchase and install. The investment can be very worthwhile and improve the overall walkability of the downtown. Many simple examples exist in the region, and they can be coordinated with parking signs for motorists to keep a consistent memorable message (see Figure 80).

# Figure 80    Pedestrian Signs in Framingham



If time-limits are extended into the evening near restaurants, pedestrian signing to and from the CVS lot will be important. These should help parkers find driveway and walkway connections to and from Haven, Main and Woburn Streets.

Similarly, connections to and from the "Atlantic" lot should be clearly signed along Haven, Chute, Woburn and Linden Streets.

The Walgreen's lot would also be benefitted by pedestrian signing to and from Main, Pleasant and Woburn Streets.

## 6) Incentivize Sharing of Private Parking

As Reading seeks to grow its downtown and encourage economic development, parking will become a significant obstacle under the current operating and regulatory framework. While some shared municipal parking exists that can serve multiple uses, the vast majority of off-street spaces are locked up in private hands. Even though the utilization study clearly demonstrates that these spaces are poorly utilized throughout the entirety of the day, there is little incentive to increase their efficiency by sharing these spaces across different parcels or landowners.

With the standard practice of building individual private lots or garages for each building in place in Reading, the result is a lack of welcome for customers: at each parking lot, the visitor is informed that his vehicle will be towed if he or she visits any place besides the adjacent building. When this occurs, nearby shopping malls gain a distinct advantage over a district with fragmented parking. Mall owners understand that they should not divide their mall's parking supply into small fiefdoms: they operate their supply as a single pool for all of the shops, so that customers are welcomed wherever they park.

The compactness and mixed-use nature of downtown Reading lends itself to this kind of "Park Once" strategy. Operating the downtown parking supply as a single shared pool results in significant savings in daily vehicle trips and required parking spaces, for three reasons:

1. **Park once.** Those arriving by car can easily follow a "park once" pattern: they park their car just once and complete multiple daily tasks on foot before returning to their car (see Figure 81).

2. **Shared Parking among Uses with Differing Peak Times.** Spaces can be efficiently shared between uses with differing peak hours, peak days, and peak seasons of parking demand (such as office, restaurant, retail and downtown apartments).

3. **Shared Parking to Spread Peak Loads.** The parking supply can be sized to meet *average* parking loads (instead of the *worst-case* parking ratios needed for isolated buildings), since the common supply allows shops and offices with above-average demand to be balanced by shops and offices that have below-average demand or are temporarily vacant.

## Figure 81 "Park Once" District
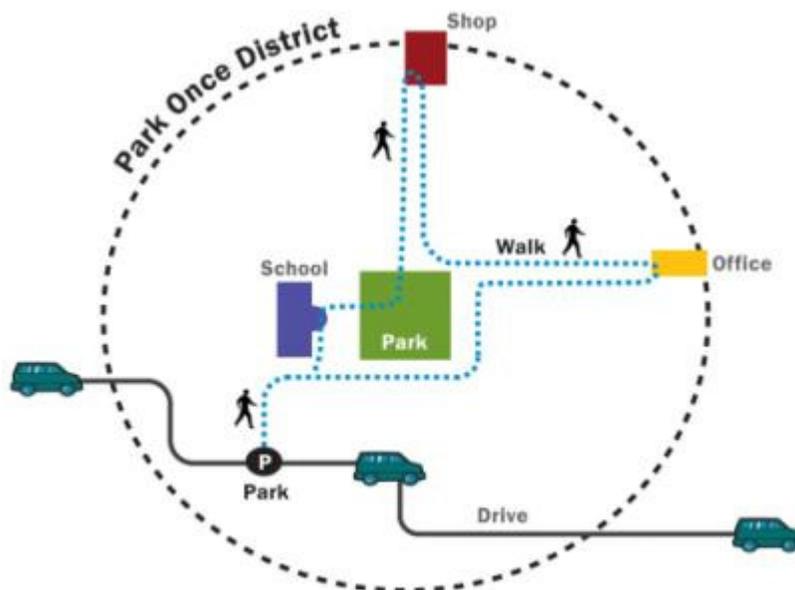


Based on an original illustration by Walter Kulash.

The most successful "Park Once" districts manage parking as a public utility – just like streets and sewers – with public parking provided in strategically-placed lots and garages. Development is

prohibited (or strongly discouraged) from building private parking. Tenants that require a guarantee of a certain number of spaces at particular hours (e.g., Monday through Friday, 9 a.m. to 5 p.m.) can lease those spaces in a public lot or garage, with the exclusive right to use them during the hours required. As described above, such arrangements leave the parking available during evening and weekend hours for other users (e.g., the patrons of restaurants), resulting in an efficient sharing of the parking supply and lower costs for all.

In the long term, a fully implemented "Park Once" strategy:

- Is more welcoming of customers and visitors (fewer "Thou Shalt Not Park Here" signs scattered about).

- Allows for fewer, strategically placed lots and garages, resulting in better urban design and greater development opportunities.

- Enables construction of larger, more space-efficient (and therefore more cost-effective) lots and garages.

Reading cannot achieve this ideal system in the short-term. However, many initial policies can begin to improve the efficiency of the downtown parking system, enabling much more development to occur without the cost and urban design impacts of new parking:

1. Incentives to encourage participation by existing parking facility owners and operators need to be in place. These can take the following forms:

   a) Increased regulatory flexibility to encourage sharing. At the very least, this means the elimination of the 300-foot distance requirement for accessory parking in the downtown; elimination of any use stipulation on shared parking; implementation of a ULI shared parking model to allow reduced minimums; and elimination of any code-based requirements that discourage public access, merging of lots, etc.

   b) Identification of available pooled liability protection whereby multiple parking facility owners can purchase a replacement joint policy to allow public access for lower rates than existing policies.

   c) Creation of a parking authority or other public-private entity that manages the shared off-street (and on-street) parking supply. This entity can offer greater economies of scale than individual parking operators can afford, greatly reducing labor, security, insurance, maintenance, and other related costs, while also allowing greater purchasing power. Under Massachusetts law, the Town's limited liability exposure allows it to manage this supply and absorb any private liability concerns. The Town can offer a guaranteed lease payment to the landowner that exceeds what revenues that landowner may now be receiving from the lot. The Town can give the landowner a guarantee of accessing a minimum quantity of spaces in that or adjacent shared lots when needed, while leasing the remainder of spaces throughout the entire day to other users. Even if the Town charges no more per space than it pays the landowner, there will be increased revenues simply on account of more parkers being able to share the spaces that went unutilized at other times of day. The Town can use this revenue to maintain and improve the lot, further increasing the appeal to landowners to participate in the program.

2. The parking supply for the retail, office and residential users in downtown Reading should be shared among all users, with the following exception: residents and employees who are willing to pay a premium rate for exclusive, assigned spaces should be allowed to do so (residents of market rate units are most likely to take advantage of this option.) To implement this policy, parking leases in lots owned or managed by the Town can be structured in the following manner:

   a) Under the *standard lease rate*, the parking permit holder is guaranteed that a parking space will be available within the shared pool of spaces for him or her to use, but no particular space is marked with his or her name.

   b) Under the *premium rate* for assigned spaces, the parking permit holder has a particular space designated (with signs and markings) for his or her use.  For example, an assigned residential

space may be marked "Reserved for Unit #101", while assigned employee spaces may be marked reserved for an individual permit holder ("Reserved for Permit #81"). Two types of premium spaces should be made available. The most expensive option is a space that is reserved 24 hours per day, seven days a week for the permit holder's exclusive use. The less expensive alternative is reserved for the permit holder's exclusive use only during the hours when the space is typically needed. For example, a typical retail tenant may wish to choose a space that is reserved for his or her firm's use only when the business is open -- say, from 9 a.m. to 5 p.m. on Monday through Friday, in the case of a realtor's office. (With this latter alternative, the retail tenant saves money by having the space assigned for their use only part-time, and the space becomes available for other users -- such as restaurant patrons -- on evenings and weekends).

3. As future properties are developed, their parking supplies should also become part of the Park Once district. This may be accomplished either by creating additional new joint public parking facilities as part of development agreements for each site or through conditions of approval that require that the privately-owned parking supply be made available for public use.

## 7)  Establish Valet Parking Regulations

Valet parking has been suggested in workshops as a possible solution for limited parking availability in the evenings near busy restaurants. While the time-limit and enforcement recommendations above should help to alleviate the problem, valet parking can still be valuable and should be accommodated in downtown Reading.

Valet parking allows the most effective use of out-of-the-way parking spaces and can increase the effective parking supply by allowing for parking of additional vehicles in parking aisles and in tandem parking arrangements. If well-written licensing regulations are established, valet operations can greatly improve the appeal of downtown to visitors while improving the overall image of the downtown for the community.

Several key elements should be a part of any valet parking regulation in Reading:

- Applicants should clearly describe the entire valet operation in writing to the Town, including hours of service, number of valets, number of valet spaces needed, valet sign mock-up, location of remote parking, walking and driving route and times to and from remote parking, form of communication between valets and valet manager, and current insurance coverage.

- The valet space should be located so as to provide the maximum amount of safety to passing motorists and pedestrians. This includes finding a location with clear sightlines, lighting and ADA access to the destination.

- The driving route to remote parking and the return valet trip by foot should take only an acceptable amount of time at posted driving speeds or brisk walk speeds. If the round-trip time exceeds a minimum threshold (typically 2-minutes), additional valets should be working.

- Staging and temporary standing must be regulated.

- A Town phone number for complaints should be clearly posted at the destination.

- The license should be held by the destination (restaurant), not the valet company. The license should require a nominal fee and be renewable annually, allowing the Town to review operations, implement changes as necessary or revoke the operation.

It should be noted that valets are an excellent means for maximizing the use of a parking facility while providing convenience to certain customers. However, they are not an appropriate solution for solving downtown parking availability problems – even though that is what many businesses and communities resort to before trying to fix their curb regulations.

## 8)  Expand On-Street Parking Supply

The parking utilization study shows that Reading has an abundance of available parking spaces in downtown at all times of day. The parking demand projections demonstrate that a large amount of

development can occur without building any new parking. Therefore, Reading should not attempt to increase on-street parking supply as a tool to increase availability.

However, on-street parking has a great benefit to urban form and the walkability of downtowns. Some of America's most walkable downtowns are lined with on-street parking. Meanwhile, many pedestrian-only streets or malls have not fared well. Planners generally believe this irony is due to two strong effects of on-street parking: 1) the act of entering and exiting a car provides a base level of pedestrian activity that is lost without on-street spaces; and 2) parked cars provide a visual, sound and safety buffer from traffic, helping to make sidewalks more enjoyable for walkers. In fact, numerous studies have demonstrated that one of the most effective ways to "calm" traffic speed is to install on-street parking adjacent to travel lanes, causing a degree of perceived "friction" to motorists, which slows traffic. Therefore, increasing on-street parking can be very beneficial in many regards.

In Reading, a few key streets that must be regularly crossed by pedestrians are wide and deserving of traffic calming, including lower Haven, High, and Main Street. While all of these streets already have on-street parking, the introduction of angled parking can serve to greatly reduce speeds while significantly increasing on-street capacity. This solution is unlikely on Main Street, which is a state route. However, High Street is a prime candidate for this solution.

The use of reverse-angle parking (see Figure 82) in commercial districts has proven successful at increasing on-street supply up to 40%, calming traffic speeds, increasing the ease of parking, and improving safety for cyclists. Backing into a reverse angle space is easier than parallel parking and safer than backing out of a traditional forward-angle space. The position of the parked car allows the driver to see approaching cars and bicycles before exiting; the direction of opening doors protects passengers (particularly children) from entering the street; and the trunk of the car is conveniently at the curb.

## Figure 82　　Reverse Angle Parking



Reverse angle parking is still new in the United States, though its use is escalating dramatically due to its safety benefits[4]. Installing the spaces should be preceded by an outreach and education campaign, complete with posters, flyers, signs (Figure 83) and variable message boards in the weeks before implementation.

## Figure 83　　Reverse Angle Parking Signing



Figure 84 and Figure 85 illustrate how reverse angle parking would look on High Street near the train station. It is estimated that over 20 new spaces could be added on High Street, helping to alleviate some of the demand by commuters to park on residential streets. More significantly, the treatment can reduce vehicle speeds in this important

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[4] Reverse angle parking is in use in Arlington VA, Birmingham AB, Charlo... Honolulu HI, Knoxville TN, Salt Lake City UT, Vancouver WA, Kelowna BC, Baltimore, Wilmington DE, Seattle WA, Washington DC, Montreal QC, Portland OR, Pottstown PA, Salem OR, Indianapolis IN, New York City, Conshohocken PA, Penticton BC, Emeryville CA, Knoxville TN, Bethlehem PA, Plattsburgh NY, Birmingham AL, Ventura CA, Burnaby Canada, Olympia WA, Marquette MI, and Ketchum ID.

pedestrian area. Coupled with appropriate curb extensions, the pedestrian realm can be greatly enhanced.

**Figure 84      High Street Reverse-Angle Parking – Plan View**



**Figure 85      High Street Reverse-Angle Parking – Perspective View**

## 9) Reduce Minimum Parking Requirements

The traditional method of managing the supply of off-street parking in communities across the country has been to set minimum standards that require a minimum number of spaces per unit, square foot of building area, employee, etc. for each and every possible land use. Most minimum parking requirements were adopted to "alleviate or prevent traffic congestion and shortages of curbside parking spaces." For half a century, virtually every modern city has had minimum parking requirements, and yet not only has traffic congestion gotten worse, it is projected to steadily worsen.

### *History of Minimum Parking Requirements*

The essential concept of minimum parking requirements was that if each destination provided ample parking, with enough spaces available so that even when parking was free there would be plenty of room, then there would be plenty of spaces at the curb. Motorists would no longer need to circle the block looking for a space, and so traffic congestion would be lessened.

Minimum parking requirements, however, had unintended consequences for traffic. Communities set minimum parking requirements that were simply high enough to satisfy the demand for parking even when parking was given away for free. The predictable result was that roads were overwhelmed with excess traffic induced in large part by free parking.

However, if prices for curb parking are set correctly to ensure at least one or two vacancies per block, off-street minimum parking requirements are not needed to prevent shortages of on-street parking. Instead, they only act to worsen traffic, and to discourage developers, employers, residents and other property owners from implementing strategies that reduce traffic and parking demand.

The communities with the strongest records of reducing vehicle trips and traffic congestion, such as London, have eliminated minimum parking requirements entirely (in fact, nationwide). The great majority of these communities instead now have maximum parking requirements (that is, they *limit* the number of spaces allowed at each building). They now regard maximum parking requirements - the opposite approach - as an essential tool for preventing traffic congestion.

### *Reading's Parking Requirements*

Reading has taken a fairly progressive approach to minimum parking requirements in its downtown with the mixed-use overlay district requirements. While Chapter 1 demonstrates that Reading's base zoning requires far more parking per use than the highest demand modeled by the conservative ITE approach, the mixed-use overlay district is generally in-line with or below ITE's requirements. However, given true utilization data by use from throughout the northeast as well as the parking utilization data collected in downtown Reading, the Town should lower these parking minimums much further – especially if it intends to encourage investment in downtown and reduce traffic impacts:

- Residential requirements should not exceed 1 space per unit, regardless of the size of the unit. Hundreds of parking spaces go unused in downtown Reading every night and weekend.

- Office requirements should not exceed 2 per 1000. The Town's employee permit program and plenty of reserve on-street capacity can accommodate a couple hundred thousand square feet of new office space.

- Retail requirements should be eliminated in the downtown. While shared parking incentives (Recommendation 6) will enable most residences and offices to find minimum parking supplies in the downtown, retailers operate on tight margins in this market area. With ample on- and off-street parking for customers, retail should have no minimum parking requirement.

## 10) Establish an In-Lieu of Parking Payment

Parking in-lieu fees have been in place in dozens of communities throughout America for years. By making a payment to the municipality, new developments can waive their minimum parking

requirements. The fee is usually utilized for transportation improvements, particularly shared public parking facilities. An in-lieu fee has a number of advantages, as summarized by Donald Shoup[5]

1) Enables developers on constrained sites to build less parking.

2) Encourages development of shared parking facilities financed by in-lieu fees. A public parking facility shared by many users requires fewer total spaces than multiple individual developments due to the inherent overlap of peak demand times.

3) Shared public parking facilities financed by in-lieu fees can be placed strategically to serve many while reducing the potential impact to pedestrian and bicycle movements. This also frees up development parcels to create appropriate urban streetscapes without curb cuts and garage entrances.

4) Eliminates the need for zoning variances, fairly leveling the playing field for all developers and allowing planning boards to focus on design features as opposed to parking quantities.

5) Allows for historic preservation by enabling redevelopment of buildings without adding new parking.

In-lieu fees can be an effective method for cost-effectively providing parking in remote locations out of the control of individual land owners. By using fees to subsidize remote parking at locations with cheaper construction or leasing costs, communities can facilitate development financing while establishing a means to encourage appropriate development standards for participating developers. When fees are set appropriately, more efficient and better quality designs can be enabled while appropriate parking is provided off-site.

In more progressive communities, the success of in-lieu fees has evolved into the lowering of minimum parking requirements. Dozens of communities in the United States have completely removed minimum residential and commercial parking requirements in downtown districts, including Eugene, OR; Fort Myers, FL; Fort Pierce, FL; Los Angeles, CA; Milwaukee, WI; Olympia, WA; Portland, OR; San Diego, CA; Seattle, WA; Spokane, WA; and Stuart, FL.

*Program Details*

The majority of communities in America that employ in-lieu fees have a consistent standard for all new projects. However, the motivation for specifying a rate varies considerably. In many communities with excessive parking supplies, the fee is low to reduce the growth of parking. Other communities have a moderate rate that is designed specifically to contribute to a shared parking facility. Several communities have arbitrarily high fees that permit yet discourage the practice. In downtown Reading, the primary goals of an in-lieu fee is to: 1) remove the cost and design complexity of building parking in downtown, while also 2) enabling the development of cheaper remote parking or alternative transportation systems through payments to the parking and transportation fund (Recommendation 2). Therefore, it is important to give a cost savings to developers while having a fee high enough to support a robust fund. Based on estimated garage construction prices of at least $20,000 per space, it is estimated that an average fee of $10,000 per space be implemented – annualized as a payment to the fund of approximately $800 per year for 35 years (the industry-standard lifespan of a parking structure).

The specific fee for a particular project may vary in direct proportion to the number of required spaces. Smaller projects that only require a few spaces may not see much incentive to reduce parking at $10,000 per space. A fee of only $2,500 may be appropriate. Larger projects with dozens of spaces are likely to have more substantial financing that is prepared to build expensive underground parking spaces that cost over $45,000. Such projects may see great benefit paying as much as $15,000 per space to avoid the complexity of structured parking. Therefore, the final in-lieu payment schedule would be best expressed as a rate that increases with the number of total spaces required for a project.

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[5] "In Lieu of Required Parking," Donald Shoup.

## 11) Provide Zoning Relief for Parking Unbundling

Parking costs are generally subsumed into the sale or rental price of housing for the sake of simplicity, and because that is the more traditional practice in real estate. But although the cost of parking is often hidden in this way, parking is never free. The expected cost for each space in new residential parking garage is over $20,000 per space. Given land values in the area, surface spaces will be at least as valuable.

Looking at parking as a tool to achieve the Town's goals for more affordable housing and less traffic requires some changes to status quo practices, since providing anything for free or at highly subsidized rates encourages use and means that more parking spaces have to be provided to achieve the same rate of availability.

For both rental units and condominiums, the full cost of parking should be unbundled from the cost of the housing itself by creating a separate parking charge. This provides a financial reward to households who decide to dispense with one of their cars and helps attract that niche market of households who wish to live in a walkable, transit-oriented neighborhood where it is possible to live well with only one car (or even no car) per household. Unbundling parking costs changes parking from a required purchase to an optional amenity, so that households can freely choose how many spaces they wish to lease. Among households with below average vehicle ownership rates (e.g., low income people, singles, single parents, seniors on fixed incomes, and college students), allowing this choice can provide a substantial financial benefit.

It is important to note that construction costs for residential parking spaces can substantially increase the sale/rental price of housing. This is because the space needs of residential parking spaces can restrict how many housing units can be built within allowable zoning and building envelope. For example, a study of Oakland's 1961 decision to require one parking space per apartment (where none had been required before) found that construction cost increased 18% per unit, units per acre decreased by 30% and land values fell 33%.[6]

As a result, bundled residential parking can significantly increase "per-unit housing costs" for individual renters or buyers. Two studies of San Francisco housing found that units with off-street parking bundled with the unit sell for 11% to 12% more than comparable units without included parking.[7] One study of San Francisco housing found the increased affordability of units without off-street parking on-site can increase their absorption rate and make home ownership a reality for more people.[8] In that study, units without off-street parking:

- Sold on average 41 days faster than comparable units with off-street parking

- Allowed 20% more San Francisco households to afford a condominium (compared to units with bundled off-street parking)

- Allowed 24 more San Francisco households to afford a single-family house (compared to units with bundled off-street parking)

Charging separately for parking is also the single most effective strategy to encourage households to own fewer cars and rely more on walking, cycling and transit. According to one study, unbundling residential parking can significantly reduce household vehicle ownership and parking demand.[9] These effects are presented in Figure 86.

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[6] Bertha, Brian. "Appendix A" in *The Low-Rise Speculative Apartment* by Wallace Smith UC Berkeley Center for Real Estate and Urban Economics, Institute of Urban and Regional Development, 1964.
[7] Wenyu Jia and Martin Wachs. "Parking Requirements and Housing Affordability: A Case Study of San Francisco." University of California Transportation Center Paper No. 380,1998 and Amy Herman, "Study Findings Regarding Condominium Parking Ratios," Sedway Group, 2001.
[8] Ibid.
[9] Litman, Todd. "Parking Requirement Impacts on Housing Affordability." Victoria Transport Policy Institute, 2004.

**Figure 86     Reduced Vehicle Ownership with Unbundled Residential Parking**
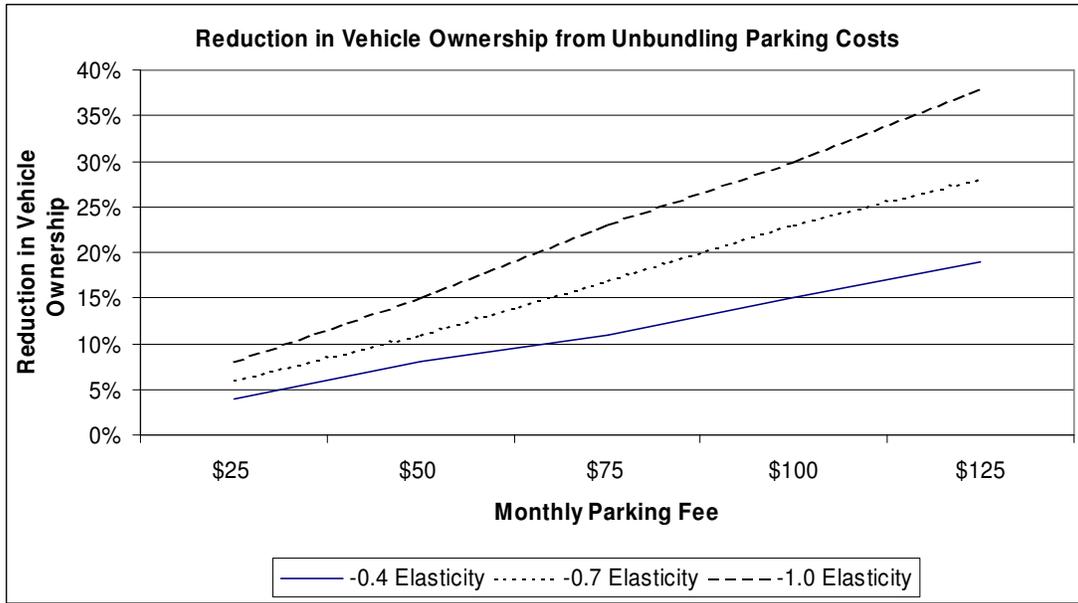


*Source*: Litman, Todd. "Parking Requirement Impacts on Housing Affordability." Victoria Transport Policy Institute, 2004.

*Program Details*

Instituting a parking unbundling program is a simple matter of requiring that any approved parking within downtown Reading have its own lease or deed that is rented or purchased separate from the cost of housing.

For rental units, unbundling parking costs is straightforward: the fees charged for the parking spaces will cover the full cost of providing the parking spaces. Then rents for the housing can be reduced up to an amount equal to the amount of parking revenue collected.

In the case of for-sale condominium units, the title to the property should give the owner the right to lease at least one parking space (and these owners will have first priority for leasing parking spaces in a garage). However, as with renters, owners would not be required to lease any parking spaces and could rent as many or as few as they choose. The resulting parking revenue should be used to reduce the amount of the condominium owners' association dues that the owners would otherwise have to pay.

It is critical that residents and tenants are made aware that rents, sale prices and lease fees are reduced because parking is charged for separately. Rather than paying "extra" for parking, the cost is simply separated out, allowing residents and businesses to choose how much parking they wish to purchase. No tenant, resident, employer or employee should be required to lease any minimum amount of parking.

**12) Monitor Parking Utilization**

An important part of maintaining the success of any of these recommendations will be monitoring parking utilization on a regular basis. A recurring annual or biennial monitoring regime can allow the Town to modify its time-limits, zoning requirements, shared-parking incentives and other key policies. Based on the detailed utilization information collected for this study, a much smaller and targeted utilization effort can be conducted (potentially in-house or with the use of students or volunteers) by focusing on area of high demand and only casually observing other areas to confirm the results of this

effort. Where parking patterns appear to change, a more detailed utilization count would be warranted.

## 13) Install Bicycle Racks

In all workshops held for this study, a large portion of residents within walking distance of downtown Reading chose to walk into town versus driving. This is also demonstrated in the user survey data in Chapter 3. These residents help reduce the burden on the parking supply while also eliminating vehicle trips.

The same effect is possible for a much broader radius around downtown Reading by making bicycling more convenient and accommodating in town. There are very few bicycle parking facilities in the downtown today. The simple addition of inexpensive post and ring racks on Main, Haven and other key downtown streets would greatly increase the attractiveness of bicycling to downtown. With the cost of bicycles today, most riders want to be sure they can safely secure their investment. If coupled with smart placement in areas that are shaded and/or sheltered, the Town can truly encourage reduced parking and driving demand.

## 14) Install Bus Shelters

Reading is benefitted by two bus lines that operate on Woburn and High Streets in downtown, providing regular service to and from Wakefield, Melrose and the MBTA's Orange Line. In commute hours, these buses have a combined headway of only 15-minutes – a high level of service for a suburb outside of I-95. Unfortunately, this service is not very prominent in Reading – there are no schedules posted and no bus shelters in the downtown.

These bus routes provide a great commute alternative for employees working in Reading that live in nearby communities or almost anywhere on the MBTA's rapid transit system. The Town and the Chamber of Commerce should work to promote this service, especially as it represents an opportunity to reduce parking demand and vehicle trips in Reading.

While new bus shelters cost over $10,000 apiece, the MBTA offers many programs to share costs. The Town should also explore opportunities with abutting private landowners to incorporate shelter elements into existing building facades – a treatment that adds architectural appeal to many buildings (see Figure 87).

**Figure 87    Integrated Bus Shelter in Belmont**



## Medium Term

### 15) Initiate a New Commuter Permit Program

Reading has had a long history with commuter rail in its downtown. The impact of commuters parking on downtown streets pushed the Town to begin constraining access to the station from outside Reading many years ago. The development of the Anderson RTC station helped alleviate a lot of commuter demand at the Reading Depot, and non-resident commuter spaces at the Depot are few. However, in-town commuters continue to flood available parking around the station today. The utilization study revealed that commuter parking at the station and up several residential streets to the west was fully utilized.

While an expansion of supply (such as Recommendation 8) will help alleviate some pressure on residential streets in the short-term, the high demand for access to commuter rail service will continue to fully utilize all available spaces. As a result of this high demand, choice spaces are available on a first-come, first-served basis, with only the proof of a $25/year community access sticker. As a result, commuters who do not go into work early are often faced with the difficulty of finding parking or a long walk from an available space. An unknown number of would-be rail commuters are discouraged and drive to their jobs.

The Town has an opportunity to provide this park & ride privilege to more people while helping improve the area around the Depot. By implementing a tiered pricing structure at more market-based rates, the Town can allow more residents to have the opportunity to park at the station while encouraging a better commuter profile in town as well as towards Boston. Higher prices would be charged for the closest spaces with one or more tiers of lower priced permits for spaces further from the station.

With the introduction of a limited quantity of higher-priced permits for prime station parking, commuters will be affected in a number of positive ways:

- Spaces close to the station will become available all day long, allowing commuters who avoid the area after the early part of the rush hour to catch a train, as opposed to driving in the more congested mid-morning hours.
- Many existing commuters who pay so little to park will be encouraged to carpool, walk, bike or take the bus to the Depot.
- Commuters who are happy to walk further from their parking space will be rewarded by paying a reduced price to park.

If the Town sets a fair rate that is comparable to the cost of parking at other commuter rail stations in the area (which now charge at least $2 per day, or over $480 per year), it can use the revenues to make improvements to the station area and especially the residential streets where many commuters park today. In turn, if the Town clearly directs surplus revenues at these neighborhoods, these residents will have an incentive to put their own cars off-street when possible, generating even more revenue for their neighborhood.

## 16) Conduct a Paid Parking Pilot

As discussed in Recommendation 4, time-limited parking is a blunt instrument that only satisfies the majority of parkers who happen to complain about time-limits – which is a very small percentage of everyone who parks. Turnover data suggests a wide variety of durations are parked by travelers to downtown Reading. No one time limit can work well.

Pricing through the use of meters or pay stations has been in use in the United States since 1936, and many small communities like Reading use it today, including Needham, Framingham, and Concord. However, meters have a very bad reputation in America, both for the difficulty of finding change to put into them as well as the hassle of getting overtime tickets. Ironically, the concept of paying money to park on-street is actually not as much of a complaint. A recent Redwood City staff report summarizes the results found in downtown Burlingame, California:

> In a recent "intercept" survey, shoppers in downtown Burlingame were asked which factor made their parking experience less pleasant recently... The number one response was "difficulty in finding a space" followed by "chance of getting a ticket." "Need to carry change" was third, and the factor that least concerned the respondents was "cost of parking." It is interesting to note that Burlingame has the most expensive on-street parking on the [San Francisco] Peninsula ($.75 per hour) and yet cost was the least troubling factor for most people.

This is not an isolated result. Repeatedly, surveys of downtown shoppers have shown that the *availability* of parking, rather than price, is of prime importance.

Always available, convenient, on-street customer parking is of primary importance for retail to succeed. To create vacancies and rapid turnover in the best, most convenient, front door parking spaces, the most effective mechanism is to have price incentives to persuade some drivers -- especially employees -- to park in less convenient spaces in lots or on-street parking a block or two away: higher prices for the best spots and cheap or free prices for the less convenient, currently underused spaces.

Motorists can be thought of as falling into two primary categories: bargain hunters and convenience seekers. Convenience seekers are more willing to pay for an available front door spot. Many shoppers and diners are convenience seekers: they are typically less sensitive to parking charges because they stay for relatively short periods of time, meaning that they will accumulate less of a fee than an employee or other all-day visitor. By contrast, many long-stay parkers, such as employees, find it more worthwhile to walk a block to save on eight hours worth of parking fees. With proper pricing, the bargain hunters will choose currently underutilized locations, leaving the prime spots free for those convenience seekers who are willing to spend a bit more.

After new time-limits, permits, and signing programs are in place, the Town should watch its parking monitoring results in a year to 18-months – particularly on Main Street in front of CVS. If utilization continues to be high and availability of spaces is a complaint of customers or businesses, the Town should consider a pricing pilot for these prime spaces. Not only is this location in prime need of availability for customers, its location is relatively confined – customers who seek the adjacent destinations are not likely to go further down Main or up Woburn Street to find free parking.

*What is the right price for on-street parking?*

If prices are used to create vacancies and turnover in the prime parking spots, then what is the right price? An ideal occupancy rate (*on each and every block*) is approximately 85% at even the busiest hour, a rate which leaves about one out of every seven spaces available[10]. This provides enough vacancies that visitors can easily find a spot near their destination when they first arrive. Ideally, parking occupancy for each block of on-street spaces and each garage should be monitored carefully, and prices adjusted regularly to keep enough spaces available. In short, prices should be set at market rate, according to demand, so that just enough spaces are always available. Professor Donald Shoup of UCLA advocates setting prices for parking according to the "Goldilocks Principle":

> *The price is too high if many spaces are vacant, and too low if no spaces are vacant. Children learn that porridge shouldn't be too hot or too cold, and that beds shouldn't be too soft or too firm. Likewise, the price of curb parking shouldn't be too high or too low. When about 15 percent of curb spaces are vacant, the price is just right. What alternative price could be better?[11]*

If this principle is followed, then there need be no fear that pricing parking will drive customers away. After all, when the front-door parking spots at the curb are entirely full, under-pricing parking cannot create more curb parking spaces for customers, because it cannot create more spaces. And, if the initial parking meter rate on a block is accidentally set too high, so that there are too many vacancies, then a policy goal of achieving an 85% occupancy rate will result in lowering the parking rate until the parking is once again well used (including making parking free, if need be).

*Remove Time Limits*

Once a policy of market rate pricing is adopted, with the goal of achieving an 85% occupancy rate, then time limits need not be instituted. With no time limits, much of the worry and "ticket anxiety" for downtown customers disappears. In Redwood City California, where this policy was recently adopted, Dan Zack describes the thinking behind the City's decision in this way:

> *Market-rate prices are the only known way to consistently create available parking spaces in popular areas. If we institute market-rate prices, and adequate spaces are made available, then what purpose do time limits serve? None, other than to inconvenience customers. If there is a space or two available on all blocks, then who cares how long each individual car is there? The reality is that it doesn't matter.*

## 17) Develop a Commuter Benefits Program

Many employers in downtown Reading provide free or reduced price parking for their employees as a fringe benefit. This is a customary practice in most suburban workplaces. Unfortunately, it hides the cost of providing parking, does nothing to reduce parking demand and gives no reward to those who forgo a car in their commute. Therefore, many communities in American who are seeking to reduce parking demand and encourage the use of alternate modes of transportation have begun instituting a "Parking Cash-Out" requirement. Under a parking cash-out requirement, employers can continue to give away their parking to employees *on the condition that they offer the cash value of the parking subsidy to any employee who does not drive to work*. The programs essentially require employers to pay employees who do not drive. While at first take this sounds like an entirely unreasonable burden, it has proven to be so cost-effective that major employers in America are now instituting these programs of their own accord in order to reduce the cost of supplying parking.

The success of parking cash-out has saved large universities and corporations millions of dollars in parking construction or leasing costs, and their employees are much happier because they are getting

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[10] This rate is a widely-accepted industry standard that provides a high level of convenience for parkers and largely eliminates the circling for parking which contributes to increased driver frustration, traffic congestion and collisions.
[11] Shoup, D. (2005) The High Cost of Free Parking. Chicago: Planners Press.

paid for their decision not to drive. The payment is typically less than the cost of leasing or maintaining a parking space, but it is a substantial benefit to employees that is also a cost-saver for business.

Reading should consider working with its employers to offer this benefit to employees. The programs are so successful that they are now in Federal Highway guidance and have become law in California and Rhode Island.

*Benefits of Parking Cash Out*

The benefits of parking cash out are numerous, and include:

- Provides an equal transportation subsidy to employees who ride transit, carpool, vanpool, walk or bicycle to work. The benefit is particularly valuable to low-income employees, who are less likely to drive to work alone.

- Provides a low-cost fringe benefit that can help individual businesses recruit and retain employees.

- Employers report that parking cash-out requirements are simple to administer and enforce, typically requiring just one to two minutes per employee per month to administer.

In addition to these benefits, the primary benefit of parking cash-out programs is their proven effect on reducing auto congestion and parking demand. Figure 88 illustrates the effect of parking cash-out at seven different employers located in and around Los Angeles. It should be noted that most of the case study employers are located in areas that do not have good access to transit service, so that a large part of the reduced parking demand that occurred with these parking cash-out programs resulted when former solo drivers began carpooling.

# Figure 88    Effects of Parking Cash-Out on Parking Demand

| Location | Scope of Study | Parking Fee in $/Month (2006 $) | Decrease in Parking Demand |
|---|---|---|---|
| *Group A: Areas with little public transportation* | | | |
| Century City, CA[1] | 3500 employees at 100+ firms | $107 | 15% |
| Cornell University, NY[2] | 9000 faculty and staff | $45 | 26% |
| Warner Center, CA[1] | 1 large employer (850 employees) | $49 | 30% |
| Bellevue, WA[3] | 1 medium-size firm (430 empl) | $72 | 39% |
| Costa Mesa, CA[4] | State Farm Insurance employees | $49 | 22% |
| Average | | $64 | 26% |
| *Group B: Areas with fair public transportation* | | | |
| Los Angeles Civic Center[1] | 10,000+ employees, several firms | $166 | 36% |
| Mid-Wilshire Blvd, LA[1] | 1 mid-sized firm | $119 | 38% |
| Washington DC suburbs[5] | 5500 employees at 3 worksites | $90 | 26% |
| Downtown Los Angeles[6] | 5000 employees at 118 firms | $167 | 25% |
| Average | | $135 | 31% |
| *Group C: Areas with good public transportation* | | | |
| University of Washington[7] | 50,000 faculty, staff and students | $24 | 24% |
| Downtown Ottawa[1] | 3500+ government staff | $95 | 18% |
| Average | | $59 | 21% |
| Overall Average | | $89 | 27% |

Sources:

[1] Willson, Richard W. and Donald C. Shoup. "Parking Subsidies and Travel Choices: Assessing the Evidence." *Transportation*, 1990, Vol. 17b, 141-157 (p145).

[2] Cornell University Office of Transportation Services. "Summary of Transportation Demand Management Program." Unpublished, 1992.

[3] United States Department of Transportation. "Proceedings of the Commuter Parking Symposium," USDOT Report No. DOT-T-91-14, 1990.

[4] *Employers Manage Transportation*. State Farm Insurance Company and Surface Transportation Policy Project, 1994.

[5] Miller, Gerald K. "The Impacts of Parking Prices on Commuter Travel," Metropolitan Washington Council of Governments, 1991.

[6] Shoup, Donald and Richard W. Wilson. "Employer-paid Parking: The Problem and Proposed Solutions," *Transportation Quarterly*, 1992, Vol. 46, No. 2, pp169-192 (p189).

[7] Williams, Michael E. and Kathleen L Petrait. "U-PASS: A Model Transportation Management Program That Works," *Transportation Research Record*, 1994, No.1404, p73-81.

In addition to promoting parking cash-out, the Town can work proactively with employers to promote ridesharing, transit passes, bicycling, flexible work hours and guaranteed ride home programs.

# Long Term

## 18) Implement Parking Maximums

Maximum parking requirements generally alleviate traffic congestion and reduce auto use through a simple three step process:

1. Maximum parking requirements are set low enough to so that if parking at a location is given away for free, there will be a shortage.
2. Parking at these locations is then provided to the people who use it for a price that covers at least part of the cost to finance and operate the parking, so that the cost is revealed. Alternately, employers and other parking providers find it cost effective to provide strong subsidies for alternative transportation (such as free transit passes or a parking cash out program), rather than incur the cost of building additional parking. Furthermore, providing maximum choice to tenants and customers.
3. Removing parking subsidies (or providing equally strong subsidies for other modes) then brings travel choices into balance, toward public transit, cycling and walking.

Maximum requirements must be complemented by the correct pricing for both on and off-street parking that ensures a 15-percent vacancy rate in all parking facilities, in order to prevent parking shortages (or surpluses).

## 19) Implement Demand-Responsive Pricing

Building upon the success of the parking pricing pilot, Reading should consider a full demand-responsive on-street pricing program as its downtown builds out into its parking supply. Using pay stations on every block, prices would be set at rates that create a 15% vacancy rate on each block (with no time-limits). Ideal hourly parking rates vary according to the time of day. The first 20 minutes may be free but every additional hour is priced according to the best value at that period of time in the day. Morning hours are generally cheaper, lunch hours demand a higher fee, afternoon hours reduce in price, and evening hours – especially on weekends – are likely to demand the highest rates. This rate structure makes parking free or cheap for short-stay visitors (such as retail customers), makes all day parking much more expensive, and creates availability during high demand dining and entertainment hours. Employees and residents are discouraged from parking at the meter spaces that are intended for customers, and are encouraged to purchase a monthly permit. Because of the variable rates, monthly permits (intended for residents and employees) are less expensive than parking all day at the meters.

After an initial trial period, occupancy rates for each block and each parking facility should be reviewed and then adjusted down or up to achieve the 85% occupancy goal, as described earlier. For each block and each parking lot in Reading, the right price is the price that will achieve this goal. This

means that pricing should not be uniform: the most desirable spaces need higher prices, while less convenient spots are cheap or may even be free.

## 20) Expand Walking Network

Ultimately, the success of the best downtowns rides on the ability of visitors, workers and residents to get around easily on foot. Reading already has a robust sidewalk network in downtown. As the downtown grows and progressive transportation and parking policies are implemented, the demand to connect by foot into downtown from a wider and wider radius will grow. Reading should anticipate this need and continue to program walking network expansions outward from downtown in the years to come.