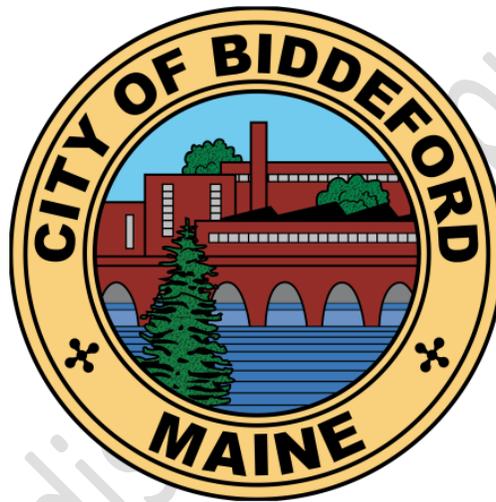


Biddeford Public Parking:

An Analysis of the Real Costs of Free Parking

and

Implications on Downtown Design



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Executive Summary

Downtown revitalization is complex. There is an effective role for municipal government in the process. When successfully done, the policy decisions made by municipal leaders will help guide and shape the private sector investments. Those policy decisions will shape the economics of downtown especially who pays and who benefits from the policies.

Parking policy is one of the main influences on downtowns. Contrary to popular belief, 'free parking' is anything but free. Free parking is free to the consumer of the space. It is not free at all to the ones that pay the bills in the community. In the case of Biddeford, it is the property taxpayers. Every penny of the estimated cost is paid for by property taxpayers, whether or not, the taxpayer ever parks their vehicles in downtown or not. At the same time, the out of town employees that park in the downtown are indeed getting the parking space free of charge.

Parking policy goes beyond dollars and sense. Many do not understand the complex relationship between parking, pedestrians, and traffic within a downtown. All of these either help to create energy, excitement and a unique experience for the visitor or they take away from those items. No matter how hard the community or private sector tries, surface parking lots will never be a contributor to the downtown experience. It is the experience that will make Biddeford's historical downtown the envy of so many others or just another mill community's downtown. Policy decisions will significantly determine the future.

The City has invested significantly in previous reports to determine the *demand* of parking in the future. The two principle reports are found on the City's web site in their entirety. For the purpose of understanding the long term costs associated with meeting the projected demand, those numbers were assumed to be accurate. The costs, both in terms of economics and design implications, whether done by the private sector or the public sector, are essentially the same. The ability to reduce and guide the impacts appropriately when combined with the economic return to the City from property tax revenues, makes the municipality the more efficient and appropriate entity to address parking demand.

Summary of Previous Reports

Since 2006, the City has commissioned two different studies regarding parking challenges within the community. In November of 2006, Gorrill-Palmer Consulting Engineers issued their final report '*Downtown Parking & Traffic Study.*' In October 2012, Rich & Associates, Parking Consultants issued their final report '*Downtown Parking Study.*' These studies are available on the City's website.

The later study broke the report into two main study areas. The first was the so-called 'mill district'. The second consisted of the balance of the downtown area.

The methodology of the 2012 (Rich) report was to analyze parking from both an occupancy and turnover basis. It also determined the future demand, based on the changes

that were ongoing in the two respective areas. A customized demand list was developed based on square foot usage and by types of usage. That customized demand list resulted in less parking requirements than City Code. A copy of the comparison between the two can be found in Appendix A. Restated, by using this approach, the projected demand was decreased when compared to the current City Codes.

The report further broke down the demand for parking in the identified downtown area by city blocks. Based on the analysis, there were blocks that had more available parking than demand. There were other blocks that had excessive demand for the available spaces. Combined, the report projected a surplus (in the downtown area only, excluding the mill development) of 200 vehicles. Based on a growth rate of xxx, it predicted in 5 years the surplus would be reduced to 141 spaces in five years and 81 in ten years. The exact location (based on the block by block analysis) can be visually represented in Appendix B.

The mill district analysis is quite the opposite. Based on the forecasted growth, in five years (2017) 1,203 spaces would be needed. The report identified 456 spaces that were available, leaving a shortfall of 753 new parking spaces. For total build out, a total of 2,572 spaces would be needed.

To calculate the spaces needed, the study used a basis of 2.08 spaces per 1,000 square feet of new/redevelopment in the downtown area. For the mill district, the factor was 1.65 spaces per 1,000 sq. ft. As a reference, at the time of the report, it was estimated that 52,609 vacant square feet existed in the downtown area. The estimate for the mill district was 660,000 sq. ft.

Update of Vacant Space

Since the publication of the Rich report, a number of properties that were previously vacant are no longer. As of the time of this report, City staff is estimating that the current vacant square footage is xx for the downtown and xx for the mill district.

Downtown Development: Why Parking Matters

Biddeford residents have a chance to do something that so few communities ever have the opportunity to do: **redefine the image of the community based on their downtown.** A critical contributor to the new image will be parking policy.

There is no need to revisit the core foundation of the most recent image of Biddeford's downtown (and hence, a significant component of the overall City's reputation). The giant smoke stack from the former Maine Energy facility reminds the community of the impact that operation had on the City for the nearly three decades it existed.

Prior to the Maine Energy plant, the dominance of the century and half of the brick mills along the Saco River provided the foundation of Biddeford's framework; a very close

community of hard-working, family-oriented and community based village. It is well accepted that a strong mill presence equated to a sense of familiarity among the community. For all of the challenges that the millwork might have brought, a sense of place existed.

The decline of the mills and continued presence of the trash incinerator changed the lens used by the outside world to view the strong men and women of Biddeford and the place they were proud to call home. Gone were the economic advantages.

The vast majority of people that worked in the mills during the peak walked to work. Our downtown grew up based on the ability to move people on foot, not in automobiles. Our more seasoned residents will talk about the 'good ole days' of downtown when 'the sidewalks were filled with people'. Most would agree that this is not a statement based on utopia view of yesteryear but a factual observation.

Experts have been arguing for years that downtowns that focus on automobiles and not the people will be far less successful. In her writing for the April 1958 Fortune Magazine, Jane Jacobs wrote *"The user of downtowns is mostly on foot, and to enjoy himself he needs to see plenty of contrast on the streets."* Her essay 'Downtown is for People' is still being used for the insight it provided into the planning and design for successful downtowns. *'The removal of the cars is important only because of the great opportunities it opens to make the streets work harder and keep downtown activities compact and concentrated,'* she commented.

While this report is not designed to capture all of the important aspects of downtown design and successful revitalization, parking policy and more to the point, *how that parking policy dictates land use and vehicle movement*, may be the most important contributor to a downtown's success. When considering *'...what makes a city center magnetic, what can inject the gaiety, the wonder, the cheerful hurly-burly that make people want to come into the city and linger there...'* parking policy can, and will make or break the downtown. As such, it will influence the future of Biddeford's new refined image.

Successful downtowns have understood the importance of:

- using streets and alleys as part of the visible activity of downtowns; closing secondary narrow roads to become pedestrian havens (such as Franklin and sections of Federal Streets);
- the creation of downtown squares with distinct identity and 'local color';
- recognizing the importance of 'two shift' downtowns (and related foot traffic) that encourages night life economic activity as well as the day time office crowd; such integration increases vibrancy and safety;
- impacts the neighborhoods significantly around them;
- secure a residential base in the downtown, often argued to be in the 5% of the total community population;

- encourages multi-functional downtowns, where the mixer of economic activity and the people involved keeps the downtown economical viable and safe (more eyes on the street);
- encourages a strong arts presence;
- leverages the heritage resources of the downtown; finds ways to reinvest into the underutilized buildings that are unique that provides a certain energy and feel that newer construction cannot replace;
- captures the natural beauty and exposes those that live, work, play and visit the downtown to those resources, much like the planned river walk;
- become unique statements of the place and the community that people love being part of, even if it is only for the limited time that they visit;
- creates a sense of energy in all that chose to enter its boundaries; and
- creates a dynamic and organic sense of continuous activities and change while holding true to the unique features that make duplication impossible.

Biddeford's downtown is blessed with so many gifts. It contains:

- historically significant structures that go beyond the significance of the mill district;
- city blocks of different shapes and sizes;
- a growing residential presence that includes a social-economic mix that is necessary to achieve downtown resilience and economic vitality;
- a riverfront, including the majestic falls, which are being reintroduced to the community through the river walk plans;
- a growing 'arts' presence;
- an economic upturn that is encouraging investment and making difficult restoration projects viable; and
- significant property owned by the city that will become a signature and catalytic project; the 'tipping point' for accelerated private investment within the downtown and the adjacent neighborhoods.

Parking Policy: Does It Encourage or Discourage Pedestrians?

Most accepted that the core mission of a parking policy for a downtown is to encourage those that elect to travel to the downtown by personal vehicle the opportunity to do so. Some would argue that it is the sole purpose. The empirical argument has been made that a key to downtown is pedestrians. One could conclude that the secondary and more strategic goal should be to examine how that policy impacts pedestrians.

Biddeford's parking policy is one that can be best described as *laissez faire* or no direct local government involvement. That policy worked for many years. Other than the demand by owners of converted mill housing, there was little pressure to be involved. The multi-unit apartment buildings with no available parking were only attractive to tenants that did not own

a vehicle. In the last couple of decades, a limited number of surface parking lots have been created to help address that market. However, with rare exception, the creation of the lots probably was driven by the appalling condition of the existing structures on the property than any other factor. Those lots were created as free parking and remain so today.

Parking remains free in the community, at least free to the consumer of the space. Some parking is limited by time. Compliance with time restrictions is done through enforcement. The current and growing shortfall is forcing businesses to remove structures to create parking. The negative perception of parking challenges is growing. That perception (and reality) is providing a damper to the growth in the mill district and downtown area.

'The High Cost of Free Parking'

It is often said that there is no such thing as a free lunch. Public parking is clearly an example of that. Ironically, Donald Shoup's (UCLA Professor) 2005 book *'The High Cost of Free Parking'* was so popular that it got released in paperback. The 750 page highly critical analysis of how municipal governments generally and Planners specifically, approached the challenge of dealing with parking issues is considered the bible in dealing with urban parking issues.

Shoup's book is based on research that he conducted. There are several points that are relevant to the Biddeford policy discussion. Shoup's research demonstrated that:

- in 2002, the 'cost' of free parking was estimated between \$127 billion and \$374 billion; as a comparison, the 2002 federal Medicare expenditure was \$231 billion
- 945,000 miles were driven by vehicles circulating around looking for free curbside parking places in one 15 block section of Los Angeles *over a 1 year period* (the equivalent distance of driving around the world 38 times)
- Converting the costs to a per mile driven basis, the estimate is that it costs the average driver between \$0.05 and \$0.14 for every mile driven to subsidize free parking.
- land use regulations (as it relates to parking) is often based on limited or no actual analysis to determine the real need. This reality will lead to:
 - increased cost of development;
 - removal of structures to create parking lots;
 - diminishes economic viability of a downtown;
 - decreases the available housing in a downtown area;

Shoup's work is based mostly on much larger and more urban communities on the west coast. The vast difference between our community and those studied certainly will allow critics to argue the relevance. A great sound bite will be *'can you believe the City is trying to say that San Francisco and New York City parking issues should be the basis to make parking decisions for Biddeford?'* Hence, staff had to justify the local cost factors.

Biddeford's Costs for Free Parking

Staff has analyzed the costs associated with parking in the community. Given that all parking is free in the community (except for parking along the community's ocean beaches in the summer), the costs represent the impact on the City's property taxpayers. It should be noted that the costs are strictly developed for the downtown area of the community.

There are broadly two categories of costs. The first is the cost of maintaining existing spaces. The second is the actual construction of new spaces.

The cost to maintain spaces includes signs, painting, mowing, sweeping, winter maintenance, and repairs. The annual estimated budget for these items is \$32,125. Of significance in these numbers is the fact that sweeping and snow removal for the on street spaces *is not included*. The total estimated area for all city parking is 154,675 sq. ft. The total annual cost for maintenance is therefore \$0.21 per square foot for public parking. Translating these costs into new surface lots would result in the following annual costs:

# Spaces	Dimensions (ft)	Maint. Cost/Yr
20	128 x 100	\$ 2,688
55	164 x 140	\$ 4,822
226	418 x 216	\$ 18,960
296	418 x 276	\$ 24,227
1,904	1,284 x 532	\$143,448
1,926	1,176 x 592	\$146,200

One can argue that the downtown area would receive those services regardless if on street parking existed or not. Others can argue that it is only because of the on street parking that such service is rendered. We will let the readers decide. The average annual cost for snow removal over the last five years has been \$228,997. The on street parking inventory was estimated to be 267 in the 2012 Rich study. Even using half of the snow removal budget would increase the total, it would add annually \$428.66 of city costs to each on street parking space.

Construction of new surface parking lots has several variables to consider. Those include:

- the actual construction of the lot
- cost of land
- cost of any structure on the land
- cost of the demolition of the structure, including any hazardous materials
- lost property tax revenues (if private)

The actual construction of the lot will depend on the underlying land beneath the lot. For the purpose of calculating estimated costs, the engineering assumptions are:

- a flat site
- no bedrock removal

- no irrigation for any landscaping with very limited landscaping
- 10 foot setback for property line
- standard storm water drainage (nothing complex that could significantly increase the cost)

Based on these parameters, the following chart captures the estimated construction costs for various size parking lots:

# Spaces	Dimensions (ft)	Cost/Space	Total
20	128 x 100	\$6,250	\$125,000
55	164 x 140	\$6,250	\$343,750
226	418 x 216	\$6,540	\$1,478,040
296	418 x 276	\$6,540	\$1,935,840
1,904	1,284 x 532	\$5,945	\$11,319,280
1,926	1,176 x 592	\$5,945	\$11,450,070

The following chart is the estimate for the cost of the land to acquire the properties based on the current use of the land:

Spaces	Commercial (\$40.76/sqft)	Industrial (\$25.92/sqft)	Multi-family (\$33.89/sqft)	Residential (\$24.91/sqft)
20	\$ 521,728	\$ 331,776	\$ 433,792	\$ 318,848
55	\$ 935,850	\$ 595,123	\$ 778,114	\$ 571,934
226	\$ 3,680,139	\$ 2,340,265	\$ 3,059,860	\$ 2,249,074
296	\$ 4,702,400	\$ 2,990,339	\$ 3,909,822	\$ 2,873,817
1904	\$ 27,842,667	\$ 17,705,641	\$ 23,149,852	\$ 17,015,722
1926	\$ 28,376,786	\$ 18,045,297	\$ 23,593,947	\$ 17,342,143

The following chart provides the estimates for the demotion of the structures on the property, by current use. The demolition cost is estimated by dividing the estimated tons of debris by 180 tons (estimated 6 loads/day at 30 tons/load) plus one day for mobilization and demobilization, rounded to the nearest full day. As noted below, these estimates do not include any additional charges for such items as lead paint, asbestos or other typical costs found in older structures.

# Spaces	Commercial	Industrial	Multi-family	Residential
20	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500
55	\$ 10,000	\$ 10,000	\$ 10,000	\$ 7,500
226	\$ 30,000	\$ 30,000	\$ 32,500	\$ 22,500
296	\$ 37,500	\$ 37,500	\$ 40,000	\$ 27,500
1,904	\$ 207,500	\$ 200,000	\$ 220,000	\$ 140,000
1,926	\$ 210,000	\$ 205,000	\$ 225,000	\$ 142,500

Tearing down the structure is just one part of the story. The demolition materials need to be disposed of. The following chart provides the estimated cost for demolition disposal. The key assumptions for these estimates are:

- every 50 sq ft of space will yield 1 ton of disposal
- tractor trailer disposal is \$110 per ton
- dumpster disposal is \$160 per ton
- disposal costs are estimated by dividing the total building area by the total land area for each property use to obtain a building to land ratio. The building to land ratio is then multiplied by the surface parking area to obtain a sq ft value for demolition. The demolition value is then divided by 50 sq ft/ton to obtain disposal tons. The tons are multiplied by the lower rate of \$110 to obtain disposal costs.

# Spaces	Commercial (ratio 1.0673)	Industrial (ratio 1.0378)	Multi-family (ratio 1.1452)	Residential (ratio 0.7123)
20	\$ 30,055	\$ 29,224	\$ 32,249	\$ 20,058
55	\$ 53,911	\$ 52,421	\$ 57,846	\$ 35,980
226	\$ 212,002	\$ 206,142	\$ 227,475	\$ 141,487
296	\$ 270,891	\$ 263,404	\$ 290,663	\$ 180,789
1904	\$ 1,603,932	\$ 1,559,599	\$ 1,720,999	\$ 1,070,440
1926	\$ 1,634,701	\$ 1,589,518	\$ 1,754,014	\$ 1,090,975

Converting taxable property to public parking surface lots results in a loss of property taxes. Property tax loss is calculated by dividing the total current taxes (assessed value multiplied by \$19.47/thousand) for each property use by the total sqft of each property use to obtain a per sq ft tax rate. The per sq ft tax rate is then multiplied by the various surface parking areas. The tax rates are as follows:

Commercial Cost/Sq Ft	Industrial Cost/Sq Ft	Multi-family Cost/Sq Ft	Residential Cost/Sq Ft
0.7937	0.5047	0.6599	0.4850

The lost taxes by property use and parking lot size are as follows:

Estimated Lost Taxes

Spaces	Commercial (Tax/sqft - 0.7937)	Industrial (Tax/sqft - 0.5047)	Multi-family (Tax/sqft - 0.6599)	Residential (Tax/sqft - 0.485)
20	\$ 10,159	\$ 6,460	\$ 8,447	\$ 6,208
55	\$ 18,223	\$ 11,588	\$ 15,151	\$ 11,136
226	\$ 71,662	\$ 45,568	\$ 59,581	\$ 43,790
296	\$ 91,568	\$ 58,226	\$ 76,131	\$ 55,953
1904	\$ 542,167	\$ 344,755	\$ 450,770	\$ 331,298
1926	\$ 552,568	\$ 351,368	\$ 459,417	\$ 337,653

The total estimated construction cost for surface parking lots is summarized below. As noted throughout the individual calculations that contributed to the final costs summary, it is

more likely than not, that the costs are understated. To support this statement, most of the downtown properties would have some special waste (lead paint, asbestos, etc) involved in the demolition costs because of the era in which the buildings were built. In addition, bedrock issues and storm water issues are more common than not. Notwithstanding those additional costs, the total construction estimates are as follows:

Total Cost - by Parking Area

Spaces	Commercial	Industrial	Multi-Family	Residential
20	\$ 694,443	\$ 499,961	\$ 606,988	\$ 477,614
55	\$ 1,361,734	\$ 1,012,882	\$ 1,204,862	\$ 970,299
226	\$ 5,471,842	\$ 4,100,015	\$ 4,857,457	\$ 3,934,890
296	\$ 7,038,198	\$ 5,285,308	\$ 6,252,456	\$ 5,073,899
1904	\$41,515,545	\$31,129,275	\$36,860,901	\$29,876,740
1926	\$42,224,124	\$31,641,252	\$37,482,448	\$30,363,340

Total Cost - by Parking Space

Spaces	Commercial	Industrial	Multi-Family	Residential
20	\$ 34,722.13	\$ 24,998.03	\$ 30,349.38	\$ 23,880.72
55	\$ 24,758.81	\$ 18,416.04	\$ 21,906.58	\$ 17,641.80
226	\$ 24,211.69	\$ 18,141.66	\$ 21,493.17	\$ 17,411.02
296	\$ 23,777.70	\$ 17,855.77	\$ 21,123.16	\$ 17,141.55
1904	\$ 21,804.38	\$ 16,349.41	\$ 19,359.72	\$ 15,691.56
1926	\$ 21,923.22	\$ 16,428.48	\$ 19,461.29	\$ 15,764.97

These costs do not assume the ongoing maintenance costs or the lost revenue from the removal of current taxpaying properties. Ironically, as the downtown continues its economic transformation, the value of the properties will increase. Even with a flat tax rate, those properties will continue to provide more tax revenues to the City than the current tax bill. As such, the downtown will provide a greater burden of the community's bills, including education. While being true, the loss of tax revenues is held as a constant and not an increasing.

Annual Maintenance Costs & Lost Taxes

Spaces	Commercial	Industrial	Multi-Family	Residential
20	\$ 12,847	\$ 9,148	\$ 11,135	\$ 8,896
55	\$ 23,045	\$ 16,410	\$ 19,973	\$ 15,957
226	\$ 90,622	\$ 64,529	\$ 78,542	\$ 62,750
296	\$ 115,795	\$ 82,454	\$ 100,359	\$ 80,181
1904	\$ 685,615	\$ 488,203	\$ 594,218	\$ 474,746
1926	\$ 698,768	\$ 497,568	\$ 605,617	\$ 483,853

Public Investment in Surface Lots

According to the 2012 Rich report, the City currently has 276 parking spaces in current surface parking lots. Generally, the lots were created by removing multi-family apartment buildings. By using the calculations of the costs, nearly \$70,000 in annual property tax revenues have been removed in order to provide the spaces or *\$253.62 per space per year*.

In terms of today's costs, the total investment in those spaces would be in excess of \$4,000,000. Repaying that cost on a twenty year note would require an investment of approximately \$1,000 per space per year for 20 years.

Further Example of Impact on Property Taxes

Recently, the Mills at Pepperell tore down one of the historical mills on the complex, primarily for parking purposes. That building was assessed at \$1,719,800 and generated \$33,484.50 in taxes. If that building had been restored to the same level as the other mills on the campus, it is estimated that the new value would have become \$4,768,900. Using the 2015-2016 tax rate, it would have generated \$92,850.48 in annual taxes.

Beyond the property taxes that were lost and the historical structure that was also lost, there are other implications. The property generated jobs, income and economic activity. It further contributed to the downtown energy and environment. Simply put, a parking lot does not contribute to the downtown experience.

Shoup Supporter's Recommendations

Those that believe in the Shoup argument will support the following recommendations that he makes. Those include:

- encourage on street parking for the guests, visitor and shoppers
- encourage employees, service workers and others to use more remote (still within reasonable walking distance) all day parking locations
- establish a premium on street parking to discourage all day parking
- encourage downtown investments to be able to contribute to a parking fund as an alternative to creating private sector parking; will discourage the demolition of buildings and encourage more investment within the community
- shift to the user paying for the parking (or some of the parking costs) instead of the property taxpayers
- consider using some of the parking revenue (if free parking no longer exists) to be returned to the part of the community that generated the costs; for example, if a downtown municipal corporation (downtown district) existed, some of the funds would be earmarked for that group to use for continuous improvement within the district

Conclusion

A thriving and growing downtown is a wonderful thing. Not only is Biddeford's downtown an example but it is also in a transition of significance. It is gained recognition as the

place to invest, to visit and to become part of it. All of this comes with its challenges. The most notable is the community's need to address the parking policy. Ironically, a lack of a parking policy is still a policy. Most will argue that it is worse kind of policy and has terrible implications for the future of the downtown. Some of those implications, such as tearing down buildings by the private sector, are nearly impossible to reverse.

Free parking is anything but free. Whether one looks at the national experts on the issue or simply looks at internally driven numbers for the City of Biddeford contained in the report, the property taxpayers in the community are paying for the privileges of people in the downtown to park free. If you are a property taxpayer and you use one of the free spots on a fairly regular basis, you probably see the current policy as one that works for you. On the other hand, if you seldom park in the downtown and pay taxes in the community, the non-residents that get to park free appreciate your financial contribution to their bottom line.

Parking in the downtown, more specifically, parking policy is more complex than who is paying for the parking. It will dictate whether the private sector will remove structures to create parking. It will determine whether there will be convenient parking for shoppers. It will help to determine the 'flow, feel and fabric' of the downtown. Successful downtowns have figured out that parking needs to be an integral part of downtown design.

Surface parking lots are 'anti-downtown.' People go to downtowns for the energy and excitement. No matter how hard one tries, you cannot create surface parking lot that provides energy and excitement. If they do, it is probably negative energy and excitement. They take away buildings, green space and parks that do contribute positively to the *'experience'*.

A stated parking policy, whatever it might be, should be established. While complex in its implications, a better understanding of the complexities is necessary. Public engagement and better understanding by all stake holders is necessary to develop a policy that will not only serve those in the downtown area but also those that are currently paying for the free parking.

Appendix A
Parking requirements of city code vs 2012 Rich report

Draft for discussion purposes

Appendix B

2012 Surplus/Deficit of Downtown Parking by Block

