

# FINAL REPORT ON THE BROOKLINE TAXI INDUSTRY

## I. INTRODUCTION

This report to the Town of Brookline is pursuant to the work order issued in P-11-09 to broadly address the issues involved in converting the current taxi licenses in the Town to taxi medallions. This first phase addressed each of the following threshold issues:

- 1) The current operating statistics of Brookline cabs;
- 2) The current make-up and financial evaluation of the license owners;
- 3) The current value of the proposed Brookline taxi medallion;
- 4) A structure plan for introducing medallions into the Brookline cab market;
- 5) An evaluation and discussion of potential implementation issues of the structural plan.

Further work, nominally phase two of this project will include the detailed implementation of the preferred plan and the process by which medallions are introduced to the open market.

## II. EXECUTIVE SUMMARY

Currently, there are 185 active licenses for cab service in Brookline divided among five operating companies:

Bay State Taxi	77 licenses and 12 associates
Hello Taxi	25 licenses
Hazira Taxi	3 licenses
Red Cab	40 licenses and 8 associates
Town Taxi	20 licenses

All operating companies provide radio services for the drivers to whom they lease cabs on a weekly basis. Cabs are generally leased to a single driver for the week ("solo") or to two drivers who share the cab during the week ("semi-solo"). There is also a small amount of daily leasing ("shifting").

The operation of each of the Brookline cabs was studied through the period January through June of 2011<sup>1</sup> during which the meters were read to measure the revenues

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<sup>1</sup> The cab meters were read on January 18-19, February 15-16, March 29-30, May 21, and June 4 & 11.

from fares, the number of trips, fare miles and total miles driven each cab. While there was a significant variation among companies as well as individual cabs, there was a high center-weighted distribution which showed the typical revenue from a Brookline taxi to be, on average, \$230/day or roughly \$84,000/year. Similarly, on average, a Brookline taxi can expect to service 17 trips per day totaling 57 fare miles. Lease rates paid by drivers range from \$625 - \$725/ week for a solo an \$375- \$450 for semi solo with various discounts available from time to time. Including drivers expenses and gasoline at \$4.00/gallon, a fulltime driver's weekly earning is approximately \$500.<sup>2</sup>

The operating companies are currently all profitable although earnings vary significantly among companies. There is also a direct relationship between the size of the operation and the total and per cab earnings. On average, the industry earns annually, after all expenses, about \$6,400 per cab or \$123/cab/day. Industry per cab earnings are suppressed due to the number of companies, and the industry's current configuration has resulted in significant under-capitalization. Scale economies, however, appear to be easily within reach.<sup>3</sup>

Putting aside the industry's inability to raise capital, the cash flow of the cab operations (particularly with some company consolidation) imply a medallion value of \$68,000 - \$70,500. Viewed from the perspective of a new entry (i.e., a driver purchasing a medallion and avoiding the lease payments), the implied valuation is \$69,000 - \$71,500. Thus, a current realistic value of having an operating medallion in Brookline is \$70,000. The valuation, however, presumes that the industry is able to provide a level of collateralization very well above its present level.

From these underlying statistics, to capture the inherent value in the industry, a transition plan would need to do the following:

- 1) Provide long term stabilization of the industry;
- 2) Create a new source of capitalization within the industry;
- 3) Generate new revenues for the Town; and
- 4) Recognize the service of current providers.

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<sup>2</sup> There is significant variation in earnings among companies and drivers. This average is based on a six-day, 48 week driving year and excludes tips and off-meter fares. Top end drivers can earn in excess of \$750/week.

<sup>3</sup> Presently, Bay Sate Taxi is the only company which would be able to finance a transition from licenses to medallions and that only partially.

These criteria, while sometimes conflicting are essential to a successful transition. The stability and capitalization of the industry are pre-requisite to the ability to finance the new medallions. Absent sufficient collateralization, financing would not be available and the inherent value of the medallion could not be realized. Similarly, the current service providers are central to the transition because they have developed the level of business through brand name and service contracts which support the level of revenue experienced by the drivers<sup>4</sup>. Absent this business creation, it is likely that the number of taxis required for Brookline service would amount to, roughly, only 25% - 30% of the current number of licenses.

The transition from the current license system to a medallion system, then, needs to create a capital base. Other than personal resources of the companies' owners or investors, the capitalization will come from financial institutions, thus requiring collateral. Presently, there is no such collateral in the industry, so the most likely source of value is in the medallions themselves. This suggests a transition plan which will move from the current licenses to a medallion system which has a verifiable market value.

The transition plan should then be considered in steps;- steps which begin with the current licenses and end with medallions being purchased and sold at their market value. Within this transition, the medallions would need to be issued in such a manner that the earlier issued medallions can collateralize the later ones.

A transition plan which meets these criteria is a three step (or "tiered"), phase-in of the medallions. Structurally, the plan should first reserve a number of medallions for the Town and then begin to issue medallions for industry use. These Town medallions will be referred to as the Town's "retainage" or "inventory". This retainage is an essential element of the plan because first, the current number of medallions is relatively high compared with the year-round demand, second, the number of licenses not immediately issued as medallions for purchase by the industry will create an inventory for the Town to auction in a pre-determined way, and third an auction will establish a market price for Brookline medallions which is both critical to the transition plan and intended to replace the initial administrative valuation at the earliest time.

After the initial Town retainage, all remaining licenses will be converted to medallions and issued in one of three Tiers as follows:

1) Tier I: These licenses will be converted to medallions and made available to current owners. The number of medallions made available to each owner in Tier I will be pro-rata to the number of licenses currently held. The cost to the owners for Tier I medallion will be nominal. e.g., a \$500 to \$1,000 administrative fee.

Tier II: These licenses will be sold by the Town to current license holders, pro-rata to their current holdings at the medallion valuation. The owners will receive an

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<sup>4</sup> There are sufficient financing options if the threshold capitalization can be established within the industry. Also, the underlying medallion values are a direct function of the industry's success in creating business since Brookline has very few natural transportation hubs such as airports, convention centers, large hotels, professional ballparks, and minimal street hail demand.

option to purchase Tier II medallions which they can elect to exercise or turn back to the Town. The valuation price per medallion as noted is \$70,000.

Tier III: These licenses will be sold by the Town to current license holders, pro-rata to their current holdings, at the market value. The market value will be determined by an auction of medallions from the Town's inventory. The owners will receive an option to purchase Tier III medallions which they can elect to exercise, sell to others or turn back to the Town. The going forward market price for this discussion is assumed to be \$125,000 per medallion<sup>5</sup>.

The specifics of the of the transition plan, i.e., the timing and amounts of medallions are, of course, material to each of the stakeholders. To this end, several alternative transition plans were considered and a preferred plan which met a broad range of objectives was chosen as the most reasonable structural plan. The preferred plan was further modified to provide a more stable revenue to the Town and provide a greater equity among current owners. Of the plans considered, four seemed to reasonably meet the overall objectives. These four are "Presentation Plan" which set the initial template for the implementation of the tiered conversion. The "Industry Plan" which was developed by the owners after being introduced to the 3 tiered conversion plan. The "Equi-Proportional Plan" which attempts to place approximately the same number of medallions in each tier. The "Center-Weighted Plan" which places 60% of the medallions in Tier II and the remainder equally in Tiers I and III. The specific medallion allotments for each case are as shown below.

CONVERSION PLAN	Current # of Licenses	Retained by the Town	Remaining Medallions	TIER I	TIER II	TIER III
PRESENTATION CASE	185	36	149	37	68	44
INDUSTRY PROPOSAL	185	22	163	56	59	48
EQUI-PROPORTION CASE	185	27	158	51	63	44
CENTER WEIGHTED CASE	185	22	163	34	95	34

While each conversion plan has some desirable aspects which the Town should consider, a reasonable set of criteria for selecting the best plan should include:

<sup>5</sup> The ultimate market price which will be established by the industry capitalization and execution of the tiered transition is not now determinable. Nevertheless, a quantified discussion of the plan will require an assumption of the market value. Based on the limited number and the value to the few higher end drivers, an ultimate market price of \$125,000 is realistic and consequently will be used for all calculations of the transition plan(s).

- 1) the amount of revenue to the Town;
- 2) the cost to the industry;
- 3) the level of collateralization provided to the industry;
- 4) the lowered reliance on the uncertain value of TIER III medallions;
- 5) the number of medallions retained by the Town; and
- 6) the similarity of total average cost per medallion among the companies.

Significant importance was given to maximizing the level of collateralization within the industry since this is likely to provide the greatest stability to the plan and encourage intra-industry consolidation as well as providing a stable revenue base for the Town.

The Presentation Plan satisfied the greatest range of, sometimes conflicting, criteria and provided the best basis for developing a final plan. The Recommended Plan makes a number of modifications to the Presentation plan which have the effect of reducing the cost to the industry, increasing the collateralization in the industry, minimizing the difference in the cost per medallion to the large owners and improving the revenue stream to the Town. The allocation of the medallions in each Tier for each current owner is as follows:

#### RECOMMENDED CASE

COMPANY	Current # of Licenses	20% Give Back to Town	Remaining Medallions	TIER I @ 25%	TIER II @44%	TIER III @31%
Bay State Taxi	77	15	62	15	27	20
Holly Cab	5	1	4	1	2	1
Modern Ride	3	1	2	1	0	1
JH Hill	1	0	1	0	1	0
Josedon	1	0	1	0	1	0
Onegie	1	0	1	0	1	0
Brookline Taxi	1	0	1	0	1	0
Red Cab	40	8	32	8	14	10
Dauphin	5	1	4	1	2	1
ADI	3	1	2	1	0	1
Hello Cab	25	5	20	5	9	6
Town Taxi	20	4	16	4	7	5
Hazira	3	1	2	1	0	1
<b>TOTALS</b>	<b>185</b>	<b>37</b>	<b>148</b>	<b>37</b>	<b>65</b>	<b>46</b>

The Recommended Plan provides for 37 licenses to be withheld by the Town for future auctions. This number is sufficient to allow for two auctions as well as giving both the Town and industry the ability to better consider the actual number of medallions needed at this time. Providing for two separate auctions should improve the ultimate market value of the medallions thus further strengthening the industry's balance sheet. The Town's retaining of fewer than 30 medallions would constraint these objectives. On the other hand, the Town's retaining of greater than, say, 40 medallions would remove too many operating licenses thus risking reducing service in Brookline or making it difficult for existing cab companies to efficiently service their contracts.

The Recommended Plan improves the costs to the industry over the presentation plan by requiring less debt, a lesser cash requirement, a lower per medallion cost<sup>6</sup> and importantly a greater collateralization for the industry. The total revenue expected to be generated for the Town is the same in the Recommended plan as in the Presentation Plan.

The following sections discussion each of the main topics in more detail.

## II. DISCUSSION

### A) Brookline Taxi Operations

A survey of each of the Brookline cabs, by company, was performed for the period January through June 2001. The survey involved reading the meters of each cab (as available) on January 18 & 19, February 15 & 16, March 29 & 30, May 21, June 4 and June 11<sup>7</sup>. The data read from the meters were fare revenue (\$), number of trips, fare miles and total miles. With the successive reads the per day value for each of these statistics could be determined.

The results showed a marked variation between companies and also between individual cabs. To determine the best use of data, both the average and median values for each statistic, for each company was computed. The company and industry data is shown in Table 1.

The computation showed that the median and average values were comparable, so subsequent analyses adopted the average values for each statistic, .i.e., the average daily fare, number of trips and number of fare miles were taken to be \$230.00, 17.0, and 57.0 respectively.

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<sup>6</sup> The cost per medallion is lower for owners purchasing their allotment (options) in all three Tiers as well as those purchasing only their allotments in Tiers I and II.

<sup>7</sup> All operating cabs had at least two readings, most had four readings except three Hazira cabs which were not read but entered into the overall industry statistic at the industry average

**TABLE 1**

Statistics per Cab per Day: January - June 2011									
	Number	Number	Total	Fares (\$)		Number Trips		Fare Miles	
	Cabs	Associates	License Number	Average	Median	Average	Median	Average	Median
Town Taxi	20	0	20	\$178	\$183	14.10	13.60	47.00	49.00
Red Cab	40	8	48	\$233	\$236	16.60	17.50	60.00	61.00
Hello Taxi	25	0	25	\$190	\$201	15.90	14.30	56.00	56.00
Bay State Taxi	77	12	89	\$251	\$243	18.10	18.20	58.00	56.00
Industry	162	20	182	\$230	\$229	17.03	16.97	57.04	56.55

Based on this survey data, the average annual revenue per cab is \$83,950, completes 6,200 trips and drives 20,800 fare miles. Overall, the Brookline cab industry generates revenue of \$15,500,000, provides 1,147,000 customer trips with 3,850,000 fare miles<sup>8</sup>.

#### B) Brookline Cab Company Overview

The Town of Brookline has five operating cab companies with radio service. Two of the companies Bay Sate Taxi and Red Cab have associate members of 12 and 8 respectively. The primary income for the operating companies is cab leasing. Typical leasing is by the week to one individual ("solo") or two ("semi-solo") drivers. There is a small amount of daily leasing ("shifting") when there are idle cabs. Typical lease rates run between \$650 and \$750 for solo and between \$375 and \$450 for semi-solo. The occasional shift is roughly \$85. Both Bay State Taxi and Red Cab provide radio service to associate members at \$125 and \$100 per week respectively. Both offer repair service to associates.

During the January, February and March meter reads, the host companies provided detailed description of their operations and provided financial information<sup>9</sup>. After normalizing the companies' revenue and expense data, the relative profitability varies

<sup>8</sup> These totals exclude tips and off-meter rides. Using a reasonable estimate of 10% tips and 3% off meter rides, the industry revenue may be better estimated at about \$17,500,000.

<sup>9</sup> The financial information was provided pursuant to a confidentiality agreement with the contractor.

significantly by company and in direct proportion to size. The annual income per cab for the individual companies ranged from \$4,200 to \$6,000 (\$12/cab/day to \$16/cab/day). The difference in gross operating margins was not as wide since the larger companies had, despite more sophisticated dispatch services, lower per cab dispatch costs.

The financial analyses showed, however, very low capitalization with asset values ranging only from about \$8,000 to \$22,000 per cab. Also, residual debt from earlier cab company transactions showed relatively large amount of debt relative to this capitalization.

Essentially, the Brookline cab companies, while stable or reasonably good on a cash basis, have no ability to collateralize new debt for upcoming medallion purchases. While there may be personal wealth among the owners or willing investors, the current companies' financial position would not allow them to borrow the millions of dollars to finance even a small portion of the value of new medallions.

Consolidation among the existing companies would greatly improve their operations and cash flow but would not materially improve the undercapitalization issue. A conversion plan to bring the existing licenses to a medallion based system at roughly market prices in one (or a series of successive) sale(s) is beyond the financial reach of the existing companies. Consequently, an essential part of a medallion conversion plan will be to establish far better capitalization within the industry.

### C. Valuation of New Medallions

The establishment of a medallion system will give rise to a new asset within the industry. As with most any asset, its value is tied to the income able to be derived from its use. In the case of the new medallions, one of the several important issues is the going forward cash flow of existing companies<sup>10</sup>. The other dimension to valuing a new medallion is the new entries to the Brookline cab ownership market. Considering for example, current drivers of Brookline cabs who wish to stay in the business and are now paying \$ 700/week (\$35,000 for 50 weeks of leases) for use of a cab. So the first set of considerations are the amount of new debt service which the existing companies can carry and the portion of the illustrative \$35,000 annual lease costs which can be directed to debt service by a new entry. Lastly, presuming the industry is able to be

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<sup>10</sup> Note this is different to the capitalization limitations. The cash flow will establish the level of debt which can be carried. The capitalization limitation, i.e., lack of collateral, however makes it unattractive to lenders despite the adequate cash flow.



sufficiently capitalized, the value of a medallion is highly influenced by the available financing terms<sup>11</sup>.

Considering the cash flow of the industry which at the high end is \$6,000 per cab per year plus other income (estimated at 10%). Additionally, consolidation within the industry can add significantly to cash flow. For example, with little increase in overall cost to the provider, a cab joining as an associate for radio service can add \$5,000 - \$6,000 of revenue. While, this efficiency should not be fully built into the initial value, the value should provide some economic incentive for such consolidation. This analysis considers the present company per cab cash flow enhanced by 5 additional associates.

Lastly, the valuation is based on financing 75% of the new medallion cost at 8.5% for ten years<sup>12</sup>. Given this current financial position of the industry and assuming the conversion plan provides for its ability to borrow, the implied value of a medallion would be \$67,500 to \$70,600.

From the new entry viewpoint, the medallion value would be largely based on the forgoing the lease rate less incurring the costs of the vehicle, insurance, repairs, radio and associated costs. The revenue available to the new entry would be, at least, the same as the current driver and measurable from the meter data<sup>13</sup>. The revenue per day of \$230 less the normal driver expenses (gasoline, fees/licenses, credit card/voucher expenses and various charges) result in a net revenue of \$200/day. At a 49 week, 6 day/week work year, the new entry will have net revenue of \$58,800. Reserving \$30,000 for the new entry's income target, the available amount for debt service on the medallion would be roughly \$10,400/year:

Net Revenue	\$58,800
less income target	\$30,000
Available for Operations	<u>\$28,800</u>

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<sup>11</sup> There is a generally accepted understanding that the recent robust growth in value for many urban medallions was in large part due to lower interest rates and longer repayment terms.

<sup>12</sup> These are typical industry values at this time. Lenders, with appropriate security, lend up to 80% of the medallion cost and typical rates are about 8%. Further, terms can be extended past ten years with longer term amortizations and balloon payments. Given the newness of the market in Brookline, the analysis considers only a average term with a slightly higher interest rate (8.5%) and slight lower loan to value (75%).

<sup>13</sup> A new entry to the market would likely be at the higher end of revenue earnings and time on the road since the sooner the medallion loan is paid the sooner the owner would see a large increase in earning or the ability to add purchase another medallion. Nevertheless, the analysis assumes a 49 week work year and average daily earnings.

## Expenses

Insurance	\$5,000
Vehicle (1/3)	\$2,500
Maintenance	\$4,260
Radio	\$4,900
Equipment	\$ 250
Fees/Taxes	\$ 500
Other Expenses	\$1,000
Total Expense	<u>\$18,410</u>
Net Available for Debt	<u>\$10,390</u>

The debt (loan) amounts which can be carried at a self amortizing loan at 8.0% and 8.5% respectively are \$71,350 and \$69,850.<sup>14</sup>

Taken together, the industry range of valuation is \$67,500 - \$70,600 and the new entry range of valuation is \$69,850 - \$71,350. Thus, a reasonable valuation for a new Brookline medallion can be set at \$70,000.

### D) Elements of the Conversion Plan

The proposed transition plan is a multiple step transition which can simultaneously give substantial weight to each of stated transition objectives. Specifically, the proposal is a three-tiered system which will move from an initial award (or grant) of medallions to a sale of medallions at the \$70,000 administrative valuation to an auction purchase at full market price. The Town and the industry have been briefed on this approach and the industry has put forth a proposal which details the timing and number of medallions available in each Tier.

Putting aside the specifics of timing and number of medallions in each Tier, the structural recommendation is composed of three Tiers with these characteristics:

The total number of medallions issued in the three Tiers will be less than the current number of licenses. These medallions will be referred to as the Town's "retainage" or "inventory". This retainage is an essential element of the plan because first, the current number of medallions is relatively high compared with the year-round demand, second, the number of licenses not immediately issued to the industry as medallions will create an inventory for the Town to auction in a pre-determined way, and third it will establish a market price for Brookline medallions which is both critical to the transition plan and intended to replace the administrative valuation at the earliest time.

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<sup>14</sup> While the loan will not be in excess of 80%, this calculation assumes that the new entries' equity is invested in the cab operation at the same carrying charge as the loan interest.

After the initial Town retainage, all remaining licenses will be converted to medallions and issued in one of three Tiers as follows:

1) Tier I: These licenses will be converted to medallions and made available to current owners. The number of medallions made available to each owner in Tier I will be pro-rata to the number of licenses currently held. The cost to the owners for Tier I medallions will be nominal. e.g., a \$500 to \$1,000 administrative fee.

Tier II: These licenses will be sold by the Town to current license holders, pro-rata to their current holdings at the administrative valuation. The owners will receive an option to purchase Tier II medallions which they can elect to exercise or turn back to the Town. The valuation price is \$70,000 per medallion.

Tier III: These licenses will be sold by the Town to current license holders, pro-rata to their current holdings, at the market value. The market value will be determined by an auction of medallions from the Town's inventory. The owners will receive an option to purchase Tier III medallions which they can elect to exercise, sell to others or turn back to the Town. The going forward market price for this discussion is assumed to be \$125,000 per medallion.

The recommended plan consists, first, converting existing licenses to medallions with the Town withholding a number of medallions. A reasonable range for the Town to withhold is between 10% - 20%. Roughly, this would have the Town's medallion inventory at 20 to 40 medallions. This inventory will provide the medallions to be auctioned to establish a market price. The Town will determine the number and timing of the auctions but at a minimum should hold at least two separate auctions, one of which should be within a 6 month period after the creation of medallions. This first step accomplishes the conversion, creating their Town's inventory, enabling the Town to adjust the number of medallions more finely to taxi demand, establishing a market valuation for pricing certain medallions for sale to current owners and ultimately creating a fully market based system. As noted, this initial retainage is crucial in launching the new system.

## TIER I

The Tier 1 medallions will be awarded to current owners prorata to their current share of licenses<sup>15</sup>. These medallions will be essentially awarded with only a nominal fee. This step is important because it satisfies two of our objectives:- a quick capitalization of the industry and a recognition of the investment and experience of current owners. Currently, there is minimal capitalization in the industry particularly when compared to the ultimate value of the new medallions. In short, while there may be some personal wealth among the owners, there are no cab companies which have a balance sheet sufficient to finance medallions equal to even a minor fraction of their current licenses.

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<sup>15</sup> Simply, if an owner has 5% of the current licenses, the Tier I award will be 5% of the number of medallions determined for Tier I. Some administrative adjustments are needed for the single to three license owners but this does not represent a material problem.

The Tier I award provides, in concert with the other Tiers, the basic capitalization of the industry.

As an example, of the implementation and effect of Tier I, consider a current cab operating company with 10 cabs. Typically, a Brookline cab company of this size would have a small radio operation, small garage with shared mechanics and facilities and 10 -11 vehicles. The balance sheet of such an operation would be \$90 - \$100,000 with a going forward value of perhaps twice that, say \$200,000. If the Town simply converted the licenses and sold the medallions at the administrative value of \$70,000, the owner would need to invest about \$140,000 and raise about \$560,000<sup>16</sup> in financing. With a balance sheet of \$200,000 mostly in weak collateral (older cars, specialized radio equipment, car parts), there is no real way, other than personal wealth, to continue the business. Thus, an immediate move from the current system to a medallion-for-sale system would scatter or drastically reduce most if not all of the current companies creating a large and uncertain period within the industry. Moreover, incentivizing a reduction in the size of the current companies is counterproductive to the stability objective which should encourage consolidation; - fewer, larger companies.

Thus Tier I would award a pro-rata number of licenses to existing companies which would have several effects:

- 1) The awarded medallions would create a marketable balance sheet;
- 2) There would be an incentive to consolidate;
- 3) There would be an orderly transition from the current company configurations;
- 4) There would be protections or prohibitions from cash-out potential, and
- 5) In concert with the other Tiers, the Town would not have a significant reduction in potential revenues from the medallion sales.

## TIER II

Simultaneously with the award of Tier I medallions, the Town should offer options for additional medallion purchases (pro-rata with current holdings) at the present valuation (nominally the "administrative valuation") of \$70,000. The owners will have a certain period to exercise their options during which they are permitted to operate the cab under its medallion number. The owners may sell, purchase or turn Tier II medallions back to the Town. The period of the option should be sufficiently long to allow consolidation, restructuring, and arrange financing. Most importantly, the option period should be long enough to hold at least one medallion auction. The owners may exercise their option at any point during this period which, practically, should be no shorter than 6 months and no longer than one year. During this period the medallion price would

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<sup>16</sup> If the 10 medallions sold for \$70,000 each and were financed at 80%, the owner would need to borrow \$560,000 ( $0.8 \times 70,000 \times 10$ ). Similarly, the owner would need to invest a minimum of \$140,000. ( $0.2 \times 70,000 \times 10$ ).

begin at the administrative valuation, \$70,000, and adjust to the market results from the one or two auctions. While the purchase option of Tier II medallions remains at the valuation price, it is reasonable to assume that the market value of a medallion would rise because the industry transition is now largely completed, the medallion supply is limited and the price of medallions in the Boston metro area is currently higher. The results of the auction are, at this point, speculative but it would be realistic to estimate the actual market price of a Brookline taxi medallion to settle between \$100,000 - \$150,000. For the purposes of further analyses, the market price during the Tier II option period will be assumed to be \$125,000.

Returning to our illustrative 10 cab company with a \$200,000 balance sheet and award of Tier I medallions and an option for Tier II medallions at \$70,000 apiece, the owner will decide to consolidate, merge or acquire and finance the Tier II medallions. During this Tier II option period, the price of the medallion is moving from the administrative value to the market (auction) value, i.e., from \$70,000 to, say, \$125,000. Thus, the 10 cab company balance sheet has increased by up to \$125,000 times the number of the Tier I award. The owner electing to purchase the Tier II medallions would, conservatively, be able to finance the Tier I medallions at about 75% - 80% of their value. So, the owner would have roughly \$90,000<sup>17</sup> in collateralized assets for each medallion awarded in Tier I. Roughly, in this example, the owner would be able to purchase roughly 4 Tier II medallions with an award of 3 Tier I medallions.

### Tier III.

During the time of the granting of the options for Tier II medallions, the Town should grant an option for the Tier III medallions. These medallions which can be operated by the owner during the option period, can be sold, purchased or returned to the Town. The price of these medallions will be the actual market price at the time of purchase. The Tier III option period will be roughly coterminous with the Tier II option period. The number of Tier III medallions available will be the number of the current licenses less the Town retainage, less the Tier I award and less the Tier II option. At this point, the medallion market will have moved to a market based system. The Town will price all Tier III medallions at the market price which is assumed here to be \$125,000. All Tier III medallions not claimed during the option period will be reclaimed by the Town and available for auction at the Town's discretion. The owners, if exercising their full Tier III option, will return to their original number of licenses less the Town's retainage. Owners are also able to bid into the auctions to acquire additional medallions up (at least) to the number of their current licenses prior to the Town's retainage.

Again considering the 10 cab company;- it has been awarded Tier I medallions, financed Tier II medallions, and would now arrange financing for Tier III medallions presuming it had sufficient cash for the equity portion (20%-25%) and adequate credit. At this point the market price will have been established and the lenders have become familiar with the Brookline market to provide financing for new medallion purchases as they do elsewhere. The owner could sell the option (which would have little value since

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<sup>17</sup> The lender valuing the medallion at \$125,000 would finance \$87,500 at 70% and \$93,750 at 75%. In a fully stabilized market, the collateral value of a medallion is typically 80%.

the buyer would only get the rights to pay the current market price) or turn any unclaimed Tier III options to the Town. The options exercised in Tier III, in our example, would require new debt of about \$93,750 (75% of \$125,000) and cash of \$31,250 (25% of \$125,000) for each medallion.

The proposed system of a retainage for the Town and a multi-tiered transition plan certainly raises the question of why this level of complexity. The answer in general is that the objectives for a transition and the current state of the industry lead to a piece-wise transition. In specific, a nominally, simpler plan such as an administrative valuation and an immediate sale or a full medallion auction would seem to have some appeal. Both however appear to have fatal flaws. In the case where the valuation is made and the owners are allowed (or required) to purchase at that price would drive most current owners from the field since most of the existing companies have neither the cash flow nor the asset base to finance a transition. Since financing by the Town is not considered a viable option, the owners would need to exit the business taking with them valuable institutional knowledge. Also, such a plan would not get the medallions to a market basis and would not necessary result in more income for the Town.

An immediate auction of the new medallions has many inherent problems, not the least of which is a major and uncontrollable restructuring of the Brookline cab industry within a short period of time. Similarly, without an underlying industry, the initial offering price could be very disappointing since lenders would not have the benefit of any quantifiable asset basis. A failed auction would have a long term detrimental effect on the industry and Town.

In most locations, the issuance of new medallions has generally been incremental, i.e., in addition to some existing number. Thus the likely auction value and lender's valuation had a firm and verifiable basis on which to proceed since medallions were regularly bought and sold. In the case of Brookline, the medallions are being created from existing licenses and *are not incremental to current supply*. It is incumbent then to have a transition which simulates a historical price basis and has a verifiable earning level from existing companies<sup>18</sup>.

These constraints point to a step by step approach to stabilize the industry, capitalize the industry, lower uncertainty in the Town expected revenue and move quickly to a market basis. And while there is a sense that eliminating, say, the Tier I awards would substantially raise the Town's likely revenue, a closer analysis does not bear that out. This is because stabilizing the industry and making at least some of the companies financeable infuses a great deal of new capital into the industry thus raising the medallion price. Absent this financability (and continued stable operating expectations) the market may not attribute significant value to the new medallions. In short, the conversion process must seed the value in the industry.

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<sup>18</sup> Brookline has very little in the way of cab centers. Therefore much of the value of the business resides in service contracts and name recognition held by the existing companies. The service contracts are the primary support of the medallion price and as such it is critically important not to disrupt this flow of business.

Overall, the Town appropriately has an interest in the value derived from the medallion sales for at least two reasons; - first, the Town has an obligation to its residents and tax payers to transfer any Town asset to a private interest at fair market, and second to transfer the asset such that it does not ultimately create a windfall for a private interest which would otherwise have been public funds. The first criterion, a transfer at fair value, is an argument for a conversion which creates value and capitalization within the industry before and during the sale. As an example, even if the industry were sufficiently capitalized to immediately absorb the current valuation of \$70,000 per medallion, the Town would realize about \$12,950,000 (185 medallions @ \$70,000/medallion). Setting aside the unlikelihood of that scenario, the Town with a three tiered conversion (of, say, 1/3 the total number of medallions in each tier and ignoring the value of the Town's retainage) would realize about \$12,090,000 (61 medallions @ \$0, 62 medallions @ \$70,000 and 62 medallions @ \$125,000)<sup>19</sup>. The dollar difference in these choices is small compared with maintaining a phased control over the process.

An immediate auction (or a series of successive auctions) would be quite unpredictable and, arguably, highly undesirable since there is little capital within the industry, there is little collateralable value in the industry, there is no historical basis for a lender to assess the security of loans made for purchasing the newly created medallions. The greatest likelihoods then would be a highly undervalued medallion price and consequently low medallion sale revenues or an influx of new speculative purchasers entering the Brookline market without the name or phone number recognition and lacking the service contracts and contacts of held by the current owners (- or a combination of these two outcomes). Lastly, and perhaps most importantly from a public policy perspective, the Town would face an immense regulatory burden in a short period of time and likely lose a great deal of control over new market entries.

The second concern, that of creating a private windfall with public rights, is equally important. A full, at value or market, sale does eliminate this concern, but at the risk lower overall medallion sale revenues since the stabilizing and capitalizing of the industry is what will create the highest value. Thus, with a tiered system using some medallions to start the capitalization and attract lenders, owners will receive medallion awards at a small or zero cost whose value will quickly rise to tens of thousands of dollars. Since the objective here is capitalizing the industry, not enriching private owners, the conversion plan needs to dis-incent quick sales ("flips") of Tier I medallions. There are several different ways this can be done but at this point it should be considered as an essential part of the plan. While flipping will not necessarily depress the ultimate price of the medallions, it will transfer some monies from the Town to private companies. Among the options to penalize flipping are: 1) Place a residual deferred price on Tier I medallions; - say 1/2 the valuation or about \$35,000 - \$40,000 if the medallion is sold within a specified period, - 5 to 10 years. Note that the Town

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<sup>19</sup> This example is not intended to suggest a recommendation of 1/3 of the medallions in each Tier. Also, the \$125,000 market value is an assumption and depends a good deal on the proper execution of the first two Tiers. Similarly, a successful execution of the plan could result in a much high market price for the medallions.

would need to subordinate their deferred claim to the first lien holder to avoid the undesirable consequence of lowering the collateral value of the medallion; 2) Prohibit the sale of the Tier I medallions for some period of time; - again 5 - 10 years. This prohibition, however, will need to be again be subordinated (or released by the Town) so as not to destroy the collateral value of the Tier I medallion; or 3) The Tier I medallion can only be made available only to owners exercising options on Tier II medallions.

In any event, the Tier I medallion is the first level of industry capitalization and must simultaneously create asset value (which currently does not exist) as well as guard against gaming possibilities.

#### E) Discussion of Alternative Transition Plans

Several ways of allotting the new medallions to the Town's retainage and the three Tiers have been considered. Since there is no "correct" solution to the question of the number of medallions in retainage and three Tiers, there are almost endless possibilities. There are, however, some important criteria which point to the most effective types of medallion allotments. For example, the retainage to the Town must be large enough to have at least two separate auctions to clearly establish a market value for the medallions since a verifiable market value is essential to the financability of the medallions. Also, the resultant average medallion price to all owners should approximate the valuation price. Next, the number of Tier I medallions needs to be sufficiently large to create substantial collateral for the industry, which should be strengthened through the conversion process<sup>20</sup>. Further, the revenue to the Town needs to be sufficient to provide a wider public benefit as well as administer the transition and its subsequent complexities, and lastly, the system should have strong disincentives for gaming, i.e., transferring public value to private parties without equivalent public value. By bringing together these essential constraints, the quantification of the plan becomes clearer. Four plans were developed and evaluated; -

1) A Presentation Plan or Base Case which retains 36 medallions for the Town and allots 37, 68 and 44 medallions to the three Tiers, respectively;

2) An Industry Proposal which was developed by a through joint discussions with all owners. The owners several modifications, primarily reducing the Town retainage to 22 and increasing the Tier I allotment to 56. Tiers II and III were allotted 59 and 48 medallions , respectively.

3) An Equi-Proportional Case which increases the Town's retainage from the Industry Case from 22 up to 27, reduces Tier to 51 and then attempts to closely balance the Tier II and III medallions as close to equal as possible while maintaining

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<sup>20</sup> As stated, the value of the medallion, particular at the current number, is primarily a function of the industry's ability to attract and maintain service to other than Brookline residents.



about the same average price among the companies<sup>21</sup>. This resulted in an allocation to Tiers II and III of 63 and 44, respectively.

4) An final alternative was considered which weighted the medallion allotment very heavily to Tier II with 95 medallions. This alternative, noted as the "Center-Weighted Case" provided for a minimally sufficient retainage of 22 to cover the medallion auctions and attempted to minimize the number of medallion in Tiers I and III at 34 each.

Each of this plans meet most threshold criteria but have very different impacts. Among the few similarities are that single license owners will receive a Tier II option at the valuation price of \$70,000. Thus the single owner should be relatively indifferent to the particular plan selected.

With this range of alternatives selected the evaluation consisted of two separate measures. The first was how each plan satisfied the criteria; - i.e., revenue to the Town, establishment of capital for the industry, total average medallion cost (including Tier I medallions) to average no less than the initial valuation, the prevention of gaming and a sufficient Town retainage to hold at least two separate auctions. The second was the impact of the uncertainty surrounding the ultimate market price of the medallions.

Since the Town's retainage in each plan under consideration can allow, albeit to different effectiveness, for two auctions and the anti-gaming rules can be applied to any of the plans, the plans were evaluated by the remaining three criterion; - revenue to the Town, average cost of the medallions, and collateralization of the industry. First, for reference, Table 6 shows a summary of the alternative plans.

<b>TABLE 2</b>						
CONVERSION PLAN	Current # of Licensees	Retained by the Town	Remaining Medallions	TIER I	TIER II	TIER III
PRESENTATION CASE	185	36	149	37	68	44
INDUSTRY PROPOSAL	185	22	163	56	59	48
EQUI-PROPORTION CASE	185	27	158	51	63	44
CENTER WEIGHTED CASE	185	22	163	34	95	34

<sup>21</sup> The threshold standard deviation among the average price paid by the companies was limited to \$500. To the extent that the allotment of the medallions resulted in a larger standard deviation, the Tiers were rebalance to bring the deviation to the target limit.

Each of the plans shown in Table 2 are evaluated under the following conditions: 1) All owners purchase all medallions optioned to them in each Tier; 2) The Town ultimately auctions all retained medallions; 3) Auctioned medallions are purchased at an average price of \$125,000; and 4) Town revenues include any deferred payments associated with Tier I calculated at \$40,000 on the sale of all Tier I medallions.

As can be seen in Table 3, the total cost to the industry and the total revenues to the town are in a fairly tight range from plan to plan. Note that the required debt calculated for the industry as well, as the average cost per medallion do not include the deferred payments since this revenues will arise only on a sale and should be viewed as a distribution of proceeds. Also, importantly, the Center Weighted case does not provide sufficient collateral to compete financings for Tier II while the other plans do<sup>22</sup>.

**TABLE 3**

CRITERION	PRESENTATION CASE	INDUSTRY PROPOSAL	EQUI-PROPORTION CASE	CENTER WEIGHTED CASE
Revenue to Town	\$16,295,000	\$15,120,000	\$15,325,000	\$15,010,000
Cost to Industry	\$10,190,000	\$10,130,000	\$9,910,000	\$10,900,000
Cost/Medallion	\$68,851	\$62,147	\$62,722	\$66,871
Tier I Deferred Payments	\$1,480,000	\$2,240,000	\$2,040,000	\$1,360,000
Town Retainage	37	22	27	22
Industry Collateralization	100%	100%	100%	59.65%
Total Industry Debt	\$7,642,500	\$7,597,500	\$7,432,500	\$8,175,000
Industry Cash Requirement	\$2,547,500	\$2,532,500	\$2,477,500	\$2,725,000

<sup>22</sup> The 100% collateralization is computed as the ratio of the Tier I medallions having a collateral value of 75% of \$125,000 v. the Tier II debt requirement of 75% of \$70,000. Thus to meet the collateralization criterion the Number of Tier I medallion x 75% x \$125,000 > the Number of Tier II medallions x 75% x \$70,000

Throughout the analyses, the Tier III medallions have been incorporated in the revenue calculations at the value of \$125,000. This is a reasonable value, but at this time is subject to considerable uncertainty. Thus to measure the sensitivity of this value for the broader evaluation of the plans plan, a Tier III, or auction/market values of \$75,000, \$100,000 and \$150,000 were also considered along with the \$125,000 place mark. Table 4 shows the effects of these different market values on the Town and industry.

Medallion Market Price	REVENUE TO THE TOWN			
	\$75,000	\$100,000	\$125,000	\$150,000
Presentation Case	\$12,245,000	\$14,270,000	\$16,295,000	\$18,320,000
Industry Case	\$11,620,000	\$13,370,000	\$15,120,000	\$16,870,000
Equi-Proportion Case	\$11,775,000	\$13,550,000	\$15,325,000	\$17,100,000
Center Weighted Case	\$12,210,000	\$13,610,000	\$15,010,000	\$16,410,000

As expected the ultimate market value has a material effects on the potential overall revenue to the Town. Thus, in considering the various plans, the number of Tier III medallions and the number retained by the Town will create uncertainty, i.e., the higher these allotments the greater the potential revenue swing. Note, however, that the number retained by the Town must be reasonable large so as to create a transparent market price through the auctions. Conversely, the number of Tier III medallions have less of a critical role in the dynamics of the plan, but add substantially to the upside revenue to the Town if the market price exceeds expectations.

The effect on the cost to the industry is inverse to the Town, i.e., the overall and per medallion costs go down . See Table 5. This is a mixed result, however, since a reduced market price lowers the potential collateral and results in a lower capitalized industry. The latter result can negatively affect other service improvements in the industry.<sup>23</sup>

<sup>23</sup> The reduced collateral from a lower market price will have a much more significant effect on financing Tier II medallions than Tier III since the Tier II medallions carry a fixed price while the Tier III medallion price will fall.

TABLE 5	COST TO THE INDUSTRY			
	Medallion Market Price	\$75,000	\$100,000	\$125,000
Presentation Case	\$7,990,000	\$9,090,000	\$10,190,000	\$11,290,000
per Medallion	\$53,094	\$61,418	\$68,851	\$76,284
Industry Case	\$7,730,000	\$8,930,000	\$10,130,000	\$11,330,000
per Medallion	\$47,423	\$54,785	\$62,147	\$69,509
Equi-Proportion Case	\$7,710,000	\$8,810,000	\$9,910,000	\$11,010,000
per Medallion	\$48,797	\$55,759	\$62,722	\$69,684
Center Weighted Case	\$9,200,000	\$10,050,000	\$10,900,000	\$11,750,000
per Medallion	\$56,442	\$61,656	\$66,871	\$72,086

Considering our primary objectives of collateralizing the industry, maintaining a sufficient Town medallion inventory for at least two auctions and providing revenue for the Town, the Presentation or Base Case is a compelling choice. This case fully collateralizes the industry's purchase of Tier II medallions<sup>24</sup>, provides a large medallion inventory for the Town to establish a market price and results in a strong revenue stream to the Town. Further, the cost to the industry with this approach is not materially different than any of the other conversion approaches.<sup>25</sup>

Selecting the Presentation Case as a preferred plan is an essential step, but the plan should be further evaluated to insure that it meets other, secondary, objectives such as a reasonably equal distribution of Tier I and Tier II medallions among companies and that the average per-medallion price for securing Tier I and Tier II medallion is roughly equal among companies. In considering these further objectives, the plan could be better optimized by changing slightly the medallion distribution between Tier II and Tier III from 67 to 65 and from 44 to 46 respectively.

As shown in Table 6, the Recommended Plan provides for a lower average cost and a lower variance among companies for Tier I and Tier II medallions. While this is not the case when considering all three tiers, the improvement in the economics for Tiers I and

<sup>24</sup> Creating the asset base (collateral) for the industry to exercise its option to purchase all its Tier II allotment is the crucial step in the conversion plan. The purchase of Tier III medallions will be more discretionary and be available at a time when the market is already established.

<sup>25</sup> The higher Town retainage will result in less cab medallions being available to the industry in the three tiers but for any company which would need more cabs to service its business than available in its tier allotments should be able to work out a medallion rental agreement with the Town before the medallions go to auction.

It is preferable since these are more likely to remain with the present companies, while the ultimate disposition of Tier III medallions is more speculative.

	Medallions			Average Cost		Cost Variance	
	Tier I	Tier II	Tier III	Tiers I & II	All Tiers	Tiers I & II	All Tiers
Presentation Plan	37	67	44	\$45,096	\$69,595	\$751	\$388
Recommended Plan	37	65	46	\$44,608	\$68,851	\$262	\$748

The Recommended Plan adequately satisfies each of the established criteria and would create incentives for greater consolidation within the industry. Similarly, it would provide the Town with greater flexibility in the transition than other approaches. The resultant medallion distribution among all owners, presuming each elected to acquire all medallions for which it would be given a first option would be as shown in Table 7:

**TABLE 7**

COMPANY	Current # of Licenses	20% Give Back to Town	Remaining Medallions	TIER I @ 25%	TIER II @44%	TIER III @31%
Bay State Taxi	77	15	62	15	27	20
Holly Cab	5	1	4	1	2	1
Modern Ride	3	1	2	1	0	1
JH Hill	1	0	1	0	1	0
Josedon	1	0	1	0	1	0
Onegie	1	0	1	0	1	0
Brookline Taxi	1	0	1	0	1	0
Red Cab	40	8	32	8	14	10
Dauphin	5	1	4	1	2	1
ADI	3	1	2	1	0	1
Hello Cab	25	5	20	5	9	6
Town Taxi	20	4	16	4	7	5
Hazira	3	1	2	1	0	1
<b>TOTALS</b>	<b>185</b>	<b>37</b>	<b>148</b>	<b>37</b>	<b>65</b>	<b>46</b>

#### IV. CONCLUSIONS

In summary, the conversion of the current license system should be completed at the earliest feasible time since this will generate revenue for the Town sooner and will allow the industry to enjoy the currently low interest rates. While there is some uncertainty as to the ultimate market price for Brookline medallions, there seems to be no down side to the conversion. The transition plan should be completed in stages and result in a market based system. Further, it is essential that the plan have a mechanism for quickly capitalizing the industry. A long term stability of the industry is a prerequisite to gaining and holding the value of the Brookline medallion.

The various plans and ultimately the final recommendation discussed herein are intended to inform the Town as to the essential relationships and conditions in the industry and the requirements for a successful transition. The transition from the current licensing system to a market based medallion system will require a phase-in or tiered approach as recommended. Absent such an approach there does not appear to be a way to maintain a stable transition. Ideally, the Town and industry can fashion a plan along the lines described here which will move the transition along quickly and cooperatively.

If this recommended approach is accepted by the Town, the next phase of the transition will include sequencing the current licenses into discrete medallion numbers, and awarding the medallions not retained by the Town to the current owners. The owners will need to enter into an asset purchase agreement for Tier I and Tier II and be offered a right of first refusal for Tier III medallions.

Lastly, an auction should be set up for, say, 20 (about 1/2) of the Town's 37 retained medallions. Timing of subsequent auctions will be based on the industry needs. The number of medallions in future auctions may be all or a portion of the remaining Town retainage and any Tier III options turned back to the Town.

ADDENDUM:

## THE RATIONALE FOR A MEDALLION SYSTEM

The Town of Brookline has determined to establish a medallion system for its taxi regulation regimen and has received authorization from the Massachusetts Legislature to sell charge an appropriate Town-determined price for taxi medallions. The first phase of this work, established the values and process of allotting or selling each medallion. Of significant importance are the public policy benefits which the Town should expect to be realized.

Paramount among these are:

***Stabilize the industry and allow new investments:*** There is little argument that the current taxi industry is very under-capitalized. A main purpose of the conversion to a medallion system is to eliminate this condition. Most systems which do not have a residual asset value in their operation struggle with modernizing dispatch, having late model vehicles on the road and adapting to new innovations, e.g., GPS, Hybrid, credit card payment, etc. A simple observation of the US cab industry indicates that medallion systems have incorporated these types of improvements most easily. The reason is fundamentally that the medallion value creates a bankable enterprise. Particularly, since productive assets tend to appreciate over time the companies' balance sheet equity grows and allows for more leverage with changing debt/equity ratios.

Specifically, the lack of capitalization in the Brookline cab industry has resulted in less than state of the art dispatch, older cabs vehicles, un-even inspection results and lesser than ideal amounts of garage equipment. The industry has relied, unevenly, on the resources of the owners of the cab companies which vary over time, are subject to other demands and face particular uncertainty in the current Brookline system. Replacing the owners' largesse with an actual corporate balance sheet will both stabilize the industry and provide a secure basis for capitalization. Any undercapitalized industry will have continuing challenges meeting its public service or customer service needs.

***Return the wealth created by the Town to the Town's residents:*** The most prominent criticism of medallion systems is that the public sector grants a right which creates private sector wealth. While there are counter balances to this claim, the Town of Brookline, in implementing the three tier phase-in of medallion, actually produces an opposite effect. The Town is transferring a public right and requiring the private sector to return fair value for that right to the public (essentially the grantee). At current valuation, the public value of the rights being transferred to the private sector is roughly \$12,000,000 and the conversion plan requires a full reimbursement of this amount to the public. This transfer can be analogized to the payment for a franchise; - which is not considered an enrichment of one side at the expense of the other. From a public sector

view, this transfer can be analogized to a public payment for private sector rights such as cable TV rights. The distinction here is that the medallion conversion is a public award of a license to operate a for-profit enterprise and for that the public will be compensated.

Considering the specifics of the conversion plan in this context, the town is offering to defer consideration of the Tier I medallions to assist in the transition as well as recognize the value created by the current owners. The Tier I medallions represent 37 of the total of 185 (20%); while the remainder (80%) is being sold at a computed , i.e., Tier II, 65 medallions (35% of the total) at \$70,000 and the balance, Tier III and the Town's retainage, 83 medallions (45% of the total) at whatever the market value is at the time of the sale. Consequently, far from transferring wealth to the private sector, the Town is capturing the wealth it has created rather than leave it all in the private sector.

***Allow for a new level of entrepreneurial business in the Town:*** The current tax system in Brookline provides limited opportunity for new entrepreneurial activity. Presently, there are only 4 single license holders among the 185 licenses and these are largely tied to a single company. Further 165 of the 185 licenses are held by dispatch companies and there is no easy way for industry entry other than petitioning the Town, which is already at a reasonable maximum of licenses granted, or convince an existing license holder to agree to petition the Town to transfer a license. Further, there is little incentive to become a single owner.

Converting the current license system to medallions provides both opportunity and incentive for new entrepreneurial business. First, at least 37 and as many as 83 medallions will be open for purchase. Second, the medallions when opened for purchase will have established a market value which would allow for private financing and third, the acquisition of the medallion allows the (new) owner to gain business and personal equity over time. In a purely license system, a single or small owner builds no equity over his/her working years. Medallion systems provide a strong incentive for experienced drivers to enter the business since in performing the same function the driver is now building transferable wealth.

Often medallions systems are criticized for adding additional cost the industry which ultimately will be reflected in the price of carriage to the public. There are, however, serious limitations to this argument. It is fundamentally over simplified since there is not a linear connection between the cost of entry and the price of the product. First, the amortization of the entry cost of the medallion is borne by the service provider, second, the appreciation of the medallion price is not reflected in the price to consumers and third, the higher commitment to the industry due to the required investment incent a more active pursuit of cab service business. The cab business has often been described as supply driven, i.e. demand can be created with appropriate supply. This is



particularly true in Brookline where simply servicing the local population would require only a minor fraction of the current licenses. The industry has created business and services to match the amount of licenses available. So the notion of the medallion cost being a simple arithmetic addition to the ultimate consumer price is quite weak.

***Provide the Town with greater enforcement and regulatory control:*** Ultimately, the Town will need to increase its level of regulation under a medallion system. This increase, however, has many benefits over a purely license system. For example, the Town along with its operational regulations will also require approval for medallions sales and financing. This offers a unique ability for the Town to improve both the physical and service areas of the industry since its approval of medallion transfers can be conditioned on reasonable regulatory mandates such as new vehicles. Essentially, the Town can, through regulation, capture some of the medallion appreciation for public good. A new car or handicapped assessable car being more costly than a now typically used older vehicle will reduce the medallion value somewhat. In this way, the Town captures some of the medallion appreciation for newer cars or better equipped cars. Additionally, the Town should also fund its expanded regulatory costs through transfer fees which will pay (some or all) of the additional salary and expense for a broader regulatory structure. The benefits to enhanced regulation are fairly self-evident; - the ability to analyze and monitor the industry, provide for increased safety for drivers and riders, advance testing and training of drivers, greater oversight of radio and dispatch procedures and address industry issues on a timely and regular basis.

***Encourage consolidation and efficiencies among industry members:*** The medallion conversion will ultimately require credit-worthy and profitable operations. Under the current licensing system, dispatch quality and sophistication varies widely. It is likely under a medallion system, operators and smaller companies will seek to consolidate radio operations and possibly mechanical/garage services. There is relatively little incentive to make those changes under the current system. Economically encouraging this sort of consolidation will provide new revenue sources for the larger more sophisticated dispatch/garage operations as well as eliminate the smaller costly ones. The efficiencies gained will allow for , say two or three, larger dispatch operations and lower the dispatch cost per cab throughout the industry.

**In summary, the Town is in a unique position to improve the efficiency of the industry and return the economic value of its grants to the public while avoiding the common complaints of medallion systems through an implementation of the proposed three- tier conversion plan.**