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A CHANGING BRIDGE FOR CHANGING TIMES: THE HISTORY OF
THE WEST BOSTON BRIDGE, 1793-1907

A Thesis Presented

by

DALE H. FREEMAN

Submitted to the Office of Graduate Studies and Research, University of Massachusetts
Boston, in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

June 2000

History Program

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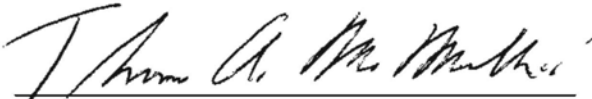
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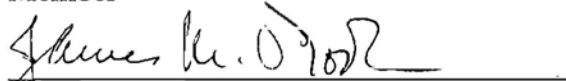
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ABSTRACT

A CHANGING BRIDGE FOR CHANGING TIMES: THE HISTORY OF THE WEST BOSTON BRIDGE, 1793-1907

June 2000

Dale H. Freeman, B.A., University of Lowell
M.A., University of Massachusetts Boston

Directed by Professor Thomas A. McMullin

This thesis examines the building of the West Boston Bridge in 1793, which was the first bridge to cross the Charles River between Cambridge and Boston, as well as the building of its successors at the same location in 1854 and 1907. It is a study of how these bridges brought change to both Boston and Cambridge which resulted not only in commercial development and urban settlement, but greatly assisted in opening up avenues to public transit for a growing urban population. It also examines the influences on the bridges of the historical periods when each was built: the first in an age of vested privilege, the second in an age of urban growth and expanding commercialization influenced by Jacksonian-Democratic principles, and the third, in an age of the modern metropolis.

ACKNOWLEDGEMENTS

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A special thanks goes to Kit Rawlins, Charles Sullivan, and Susan Maycock of the Cambridge Historical Commission. They were extremely helpful with my research needs and additional questions about the original West Boston Bridge. To find a more pleasant research environment, one would be hard pressed. A special note of thanks also goes to Sean Fisher, archivist of the Metropolitan District Commission for his preliminary guide to the Cambridge Bridge Commission and his assistance in directing me to additional information on the Cambridge Bridge Commission. Also, I am grateful for the excellent and helpful personnel at the Massachusetts State Archives, the Cambridge Public Library, the Boston Public Library, the Society for the Preservation of New England Antiquities, Central Reprographics at the University of Massachusetts Boston, and the Massachusetts Historical Society.

I wish to thank my co-worker, Elizabeth Mock of the University of Massachusetts Boston Archives, for her archival advice and the liberal use of several brittle and ancient histories of Cambridge and Boston. These works provided much on the early histories of Cambridge and Boston. In addition, a very grateful thanks goes to my friend, Diane D'Arrigo of the Graduate College of Education at the University of Massachusetts Boston, for reading several drafts of my early chapters. Her encouragement regarding style and content was priceless, and provided much needed motivation through several difficult chapters.

On a personal note, I wish to thank my mother Daphne, and my parents-in-law, Gunars and Inara Andersons, for their never-fading interest in the story of the West Boston Bridge. The greatest thanks however, I give to my wife Andra, for all her love and support in seeing me complete this thesis. Her patience and interest in this history never faltered and many times, kept this project alive in me. It is in recognition of all she has given to me, including a beautiful newborn daughter Liana, that I dedicate this thesis to her. Without her, this thesis could not have been researched or written.

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INTRODUCTION

Isaac Livermore, the President of the Hancock Free Bridge Corporation wrote in 1858, in An Account of Some Bridges over the Charles River that, Cambridge has been intimately connected with the existence of its bridges. The same can be said of Boston, yet the topic of bridges and the urban change they initiated, is a topic that has been overlooked by historians. Although the importance of Boston's bridges is cited in several histories, building details, their urban contributions, as well as how they were rebuilt to adapt to urban growth and utilize new technologies, have been sadly missing. This thesis attempts to do exactly that in considering the West Boston Bridge of 1793, and its successors of 1854, and 1907.

The first West Boston Bridge, built in 1793, was a remarkable accomplishment for its time. The wooden structure extended 7,189 ½ feet across the Charles River to connect present day Central Square in Cambridge to the West End of Boston. Built by the West Boston Bridge Corporation, a company of stockholders, the West Boston Bridge changed the routes of travel between Boston and Cambridge forever. This toll bridge would shorten travel extensively between surrounding communities and Boston, lead to the settlement, as well as the development of Cambridgeport and to a lesser extent West Boston. It would also provide a route for public transportation which is in use even

today, and set in motion the building of roads and turnpikes to accommodate this new structure.

Two more bridges would follow at the same site of the original bridge of 1793. In 1846, with the intention to make it a free bridge, the Hancock Free Bridge Corporation sold shares, and purchased the original bridge. Eight years later, the bridge was completely rebuilt, and with all debt paid off, the Hancock Free Bridge Corporation fulfilled their intention making the bridge free in 1858.

By the end of the nineteenth century, the second bridge was already worn and outdated, and both Cambridge and Boston pressed for a new modern bridge for a modern age. The result was the steel and granite Cambridge Bridge, known also to its contemporaries, as the West Boston Bridge or the Cambridge Bridge. The bridge was constructed from 1900 to 1906, was dedicated in 1907, and was renamed the Longfellow Bridge by a legislative act in 1927.

In the following thesis, particular emphasis will be placed on how these three bridges, all known as the West Boston Bridge in name, were each products of three specific time periods: the first bridge was a product of the age of vested privilege; the second bridge echoed Jacksonian-Democratic economic values backed by local commercialization, thus culminating in its becoming a free bridge in 1858; and the present bridge, was the direct result of Cambridge and Boston entering the age of modern metropolization. This thesis will also examine the 1793-1907 history of the three bridges in relation to: public transportation, turnpike and road development, landfill in both Cambridge and Boston, developments in technology, and commercial and community settlement along established roads.

The first chapter of this thesis will explore how travel between Boston and Cambridge was accomplished prior to November of 1793, when the first West Boston Bridge opened. It will take into account the two routes available prior 1786: that of the Boston neck and the Charlestown ferry, and after 1786, the Charles River Bridge between Charlestown and Copp's Hill in northern Boston. Also within this chapter, the several legislative attempts and failures to have a bridge built over the Charles River between Boston and Cambridge will be discussed.

In the second chapter, attention will be focused on the landscape of Cambridge while noting its openness and its potential for growth intended by the Proprietors of the West Boston Bridge Corporation. A biography of Francis Dana, president of the bridge corporation, will be presented in connection with his role in the development in Cambridge. The topography of West Boston will also be briefly considered highlighting the changes which it had experienced through the eighteenth century, up to the building of the West Boston Bridge.

After establishing the local geography prior to 1793, the third chapter will examine the history of the West Boston Bridge Corporation and how after their legislative success, the first bridge over the Charles River between Cambridge and Boston became a reality. The focus of this chapter will be the building and opening of the bridge in 1793 and its financial management by the West Boston Bridge Corporation. The chapter will also look at how the bridge brought change to the surrounding landscapes of Cambridge and Boston and played an important role in the establishment of a stage line between Old Cambridge (present day Harvard Square area) and Brattle Street in Boston.

Chapter four will examine the keen rivalry between the West Boston Bridge Corporation and that of Andrew Craigie and his Lechmere Point Corporation, established in 1808. The crux of this chapter will be to note the extensive growth, despite the rivalry of the two corporations, that their competition produced in West Boston, Cambridgeport and East Cambridge. Also examined are the financial setbacks of the West Boston Bridge Corporation, and the Charles River Case in 1837, which more than anything, culminated in the selling of the West Boston Bridge to the Hancock Free Bridge Corporation in 1846.

Chapter five encompasses the changing popular attitudes with regard to vested rights and the free bridge movement. The rebuilding of the West Boston Bridge in 1853, the freeing of the bridge in 1858, the population growth of both cities of Cambridge and Boston, and the beginnings of a small commuting population will be examined. Technological developments in public transportation such as the horse car, the use of the steam engine for construction and the draw bridge, and new developments in road surfacing will be considered in this chapter as well.

The formation of the Cambridge Bridge Commission in 1898 for building a new bridge will be covered in chapter six. This chapter will focus on politics behind the plans for this bridge, and the details of the construction of the bridge from 1900 to 1907, and its dedication in 1907. It will discuss several issues that resulted in the building of the Longfellow Bridge: the failure of the old bridge to meet modern needs, the necessity for a new form of public transportation and its aesthetic role in the development of the Charles River Basin as a metropolitan park.

CHAPTER ONE

THE ROUTES TO BOSTON

Boston was essentially an island. It is hard to imagine today given the large amount of landfill Boston has experienced, but prior to 1786 when the Charles River Bridge was built connecting Boston and Charlestown, the strip of land known as the Boston Neck was the only connection the original Shawmut peninsula had with the mainland. Other than that vital land bridge, Boston was completely surrounded by water, and its historic destiny as one of the most important ports in British North America would be due to that surrounding water. On the peninsula's northeastern side, the Charles River empties out into the Atlantic after its circuitous eighty-mile journey from its starting point at Echo Lake in Hopkinton, Massachusetts. Surrounding the peninsula on its southern and eastern side, is the Atlantic Ocean forming the inner harbor.

The first detailed map of Boston, Captain John Bonner's map of 1722, clearly shows Boston's shape as an island, except for its thin Neck connecting it to Roxbury. The historian Lawrence W. Kennedy writes of the importance of this single road during the seventeenth and eighteenth centuries. The road over the neck between Roxbury and Boston was the only existing way, other than by water, to travel to and from the town. In bad weather conditions, or if the tide was high, the neck would prove useless as it would be flooded over and cut off travel to and from Boston, thus turning Boston into an island.¹

Thus, the only traveling routes to Boston other than by ship into the harbor were the existing Boston Neck, the only land route to the town, and the Charlestown Ferry, established by the governing Massachusetts Court of Assistants in 1631.

The Neck offered something of a road, depending on the weather and tide, from all points to the growing town and its markets. Traveling from a Medford farm to Boston would encompass passing roughly thirteen miles through Cambridge, Brookline, and Roxbury then onto the Neck into town. Walter M. Whitehill wrote of what one might expect to see approaching Boston by land, around the time of Bonner's map in 1722:

Coming from the Roxbury mainland we would cross the narrow neck, a mangy kind of natural causeway, soggy at high tide and sprayblown in a storm, that leads to a fortified gate at what is now Washington and Dover Streets. This is the only means of approaching by foot or horse. All other routes require boats.²

As early as 1636, the first order regarding the Neck as an access route stated, "there shall be a sufficient footway made from William Colburn's field unto Samuel Wilbore's field end next Roxbury."³ In 1664, a new roadway was set up through several properties. Mrs. Colburn, Henry Phillips, William Talmage, Major-General Leverett and Richard Bellingham received compensation for the use of their property from the town.⁴ In 1710, Captain Nathaniel Uring noted in his diary, "the neck of land betwixt the city and the country is about forty yards broad and so low that the spring tides sometimes wash the road, which might with a little change be made so strong as not to be forced."⁵ At the expense of the town and some private money, the year 1758 saw the improvement of the road from Boston to the fortification and this road, when in need of repair, would receive funds from the town. As early as 1708, the roadway to the Neck was known as

Orange Street until George Washington's historic visit to Boston in 1789, when it became Washington Street. The road extended roughly one mile in length from the center of town to the fortification. Describing the Neck beyond the fortification, chronicler Thomas Pemberton wrote in 1794:

The neck which joins Boston with Roxbury, included within the limits of Boston is one mile and thirty yards to the Fortification. The Fortification was built of brick with a deep ditch on the side next to the Neck. It had two gates through one of which foot passengers and the other carriages passed. It began where Orange Street ends and extends to the end of town where Roxbury begins.⁶

This fortification was erected on the Neck quite early after Winthrop's arrival in 1630 for protection against possible native attacks. On May 25, 1631, he wrote, "we beganne a Court of garde. upon the necke betweene Rocksbery & Boston, whereupon should allwayes resident an officer & 6: men."⁷ This fortification would later fall into disrepair as the threat of native attacks faded away, but was eventually rebuilt in 1710, stronger than the first, also with two gates as described by Pemberton. Dams on each side of the road would be added in the eighteenth century to create a barrier for the tidal floods, but they would eventually become useless, as the neck's unique shape would disappear in the early part of the nineteenth century with landfill. So too would the neck's monopoly on being the only land route into Boston change with continued land-filling, and with the building of the Charles River Bridge in 1786.

As noted, the only other route to Boston, other than the Neck was by way of the Charlestown Ferry. Established by the Court of Assistants on June 14, 1631, it was noted that "Edward Converse hath undertaken to set up a ferry betwixte Charlton & Boston, for

which he is to have 2*d.* for every single person, and 1*d.* apiece if there be two or more.”⁸

This ferry began operation as a private enterprise, operating between Ferry Way at the bottom of Prince Street at Copp’s Hill in the North End, and Charlestown. The distance of the crossing was about a half mile. The same year, a second ferry was established by Thomas Williams on the Charlestown side for transporting passengers and goods to Winnissinnet which was a section of present day Chelsea. Into the 1640s, other ferries operated from Winnissinnet to Boston, between Dorchester and Braintree on the Neponset River, and between Salem and Newbury.

As one of the two main routes to Boston, the Charlestown Ferry played an important role in the transportation network, evident by a ten shilling fine imposed on Edward Converse in 1641 for neglecting his ferry.⁹ A year earlier, in 1640, the rights of operation were handed over to Harvard College by the General Court of Massachusetts to assist needy students with the costs of their tuition.¹⁰ The ferry operated under the college’s direct control until 1701, when the college leased the operation to private individuals. The historian Stanley Kutler wrote of the arrangement between the leasing company and the college. It appears that the college would pay costs to maintain the ferry, while also noting that the ferry operated with little or no financial profit from 1775 and 1781.¹¹

Boston, being surrounded by water, took to the use of ferries early in its history. Besides the ferry linking Charlestown with Boston, and Charlestown with Chelsea in 1631, there was a ferry between Watertown and Cambridge established in 1633, and two years later in 1635, a ferry between Cambridge and Brighton, known then as Little

Cambridge. This crossing of the Charles at a narrow creek was at the foot of present day Dunster Street and was the start of the old highway through Roxbury to the Boston Neck. From Harvard Square, to the ferry, to the old highway, a traveler would reach Boston after an eight mile journey.

Although these ferries provided a needed service, they had their limitations. The General Court, discussing the ferry and the building of a bridge between Cambridge and Little Cambridge, noted on October 12, 1670 that, “passage there secured by a ferry, as heretofore, which is not so safe, convenient or useful as a bridge, for a ferry is altogether useless in Winter, and very inconvenient to transport horses and not at all accomodable [sic] for carts or droves of cattle.”¹² Giving up his lease as a ferry operator in 1691, Francis Hudson, whose name would be associated with Hudson Point on the eastern corner of the North End, had complained to the General Court in 1648 that many passengers crowded into the boats and attempted not to pay their fare.¹³

Thus ferry service not only presented problems for the ferry operators, but as the General Court had noted, was very inconvenient and hardly accommodating to passengers. In 1782, the future Marquis Francois Jean, while traveling in Boston, crossed the Charles River from Winnisimmet recording in his diary:

It is just eighteen miles from Salem to the ferry, where we embarked in a large scow, containing twenty horses; and the wind, which was rather contrary, becoming more so, we made several tacks, and were near an hour in passing. The landing is to the northward of the port, and to the east of Charles-Town ferry.¹⁴

The General Court had passed several laws over the years with regard to ferries dealing with some of the problems previously noted as safety and convenience, but delays

in crossing, and fines for those delays, seem to stand out in recorded legislation. In 1695, a fine was imposed for any delay of transporting mail. It read, "if any ferryman shall be complained of, and duly convicted before any justice of the peace, for delaying any post, and not forthwith ferrying of him over, he shall forfeit the sum of twenty shillings unto their majesties for and towards the support of the government."¹⁵ Another fine was imposed in the same year for any delaying of members of the General Court, who also, traveled free of charge. In 1719, a law was passed requiring boats to always be passing each other on the water, thus never having all boats on one side of the crossing. It read:

that two of the three boats appointed for the service of the said ferry shall be always passing on the water from side to side, the boat on the contrary side shall be obliged to put off, unless the weather be stormy, or not safe for the passengers, nor shall any persons who want a passage cross said ferry, when to the number five, be delayed under penalty of twenty shillings.¹⁶

Larger fines appear later for not keeping boats in good repair. In 1760, a financial penalty of five pounds was to be charged for not keeping the boats in good working order.¹⁷

Another law, pressing the importance of each town maintaining operators of ferries, made it clear to the towns and districts that if they did not maintain individuals to keep ferries running and in good order, they would be obliged to pay the state ten pounds per month, until the situation was corrected.¹⁸

It is clear that ferries played a vital role in transportation to and from Boston and the surrounding areas, yet they proved useless in winter, unsafe at times, and inconvenient for certain types of transport. As noted, there was also the question of the dependability of ferries. Given their need for repairs, the possibility that there were not enough boats

operating, or even that someone was operating them at all, getting to one's destination seemed a rather chance-based endeavor. Change, in the form of a 1,503 foot wooden bridge, would soon bring about an end to the Charlestown Ferry.

Building a bridge over the Charles River had been accomplished as early as 1648 in Watertown. The structure, built over a narrow width of the Charles, was known as the Mill Bridge and replaced an early footbridge built in 1641. The historian, Lewis M. Hastings wrote of the Mill Bridge being constantly out of repair. The bridge's early history was one hampered by lack of funding and poor construction. The Mill Bridge was rebuilt in 1667 and again in 1681. It was destroyed in 1694, and eventually rebuilt in 1716, this time, it was maintained with financial assistance from the government.¹⁹

In Cambridge, there existed the "Great Bridge" built in 1663 that connected Cambridge with "Little Cambridge," or today's Brighton. This first bridge of Cambridge was an important part of the old road to the Boston Neck. A stone marker (fig. 2) in Harvard Square, Cambridge still stands noting the beginning of this old road and informing the traveler, Boston 8 Miles 1734. This Great Bridge replaced the ferry that had operated across the Charles at the same location since 1635. In 1656, along with some private contributions, the town of Cambridge had voted two hundred pounds to assist in its building and had later ordered it to be, "laid in oyle and lead."²⁰ Just seven years after its construction in 1670, the bridge, perhaps due to the extremely heavy use, was in need of repairs. The same year saw the General Court record, "which bridge being now decayed and by reason of the danger is presented to the County of Middlesex, and

the town of Cambridge being not able to repair it, so that of necessity it must be pulled up and slighted, and the passage secured with a ferry.”²¹

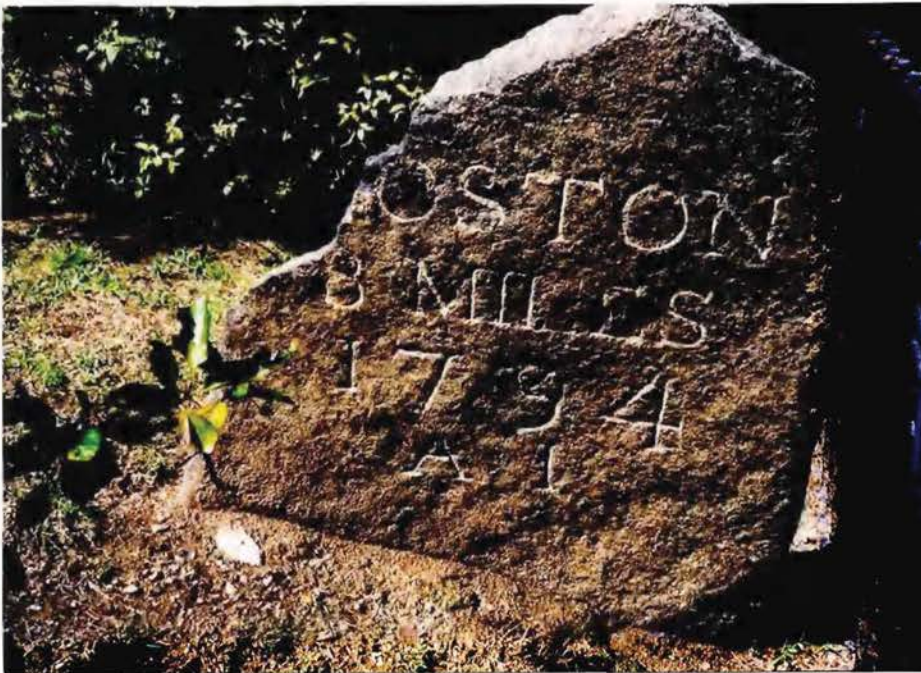


Fig. 2. Mile Marker to Boston, 1734

It is hard to speculate on how long the replacement ferry operated given contradictory sources, but by 1690 the Great Bridge had been rebuilt. It operated briefly as a toll bridge, but clearly the tolls were not enough to maintain the bridge in good order. Costs of repair would come to be shared by several surrounding communities. The Great Bridge was again rebuilt in 1715 after it had been destroyed by ice, and again in 1734 with the assistance of three hundred pounds from the General Court. The town of Cambridge voted thanks to the Court and thanks to Jacob Wendell, Esq., and Mr. Cradock for their own financial assistance, as well as their assistance in collecting from

other local financiers.²² The historic “Great Bridge would continue to be used, repaired, and rebuilt into the nineteenth and twentieth centuries.

The Great Bridge and other smaller bridges were public bridges, and for the most part, neighboring communities would, with some assistance from the General Court now and then, contribute to repairs and occasional rebuilding. The key factor to understand is that these bridges spanned short distances and they could be maintained by public money. To build a bridge larger and longer would require substantial funding, and to build a bridge from Charlestown to Boston in the eighteenth century, would involve serious technical, as well as financial risks. Only private enterprise could afford to take such risks.

The first interest in building a larger bridge over the Charles was in 1713. The General Court requested that the proposed builder, Dr. Clarke, meet with Harvard College. The meeting was suggested based on Harvard College’s protests concerning potential loss of ferry tolls, if Clarke was to build a bridge over the Charlestown Ferry route. Negotiations regarding this bridge building attempt are not left in evidence, but the proposal seems to have not brought any action at the time.²³ Seven years later in 1720, inspired by another proposal at a Boston town meeting, the idea again appeared in the General Court. In his History of the Colony and Province of Massachusetts Bay, future Royal Governor Thomas Hutchinson recorded with a subtle distaste for the idea. He wrote that, “many schemes of public expense were projected, and, among the rest, a bridge over Charles river broader and much deeper than the Thames at London or Westminster.”²⁴ According to Boston historian Walter Muir Whitehill’s research,

Thomas Pemberton believed that Hutchinson regarded the idea as a Quixote enterprise.²⁵ Sixty-five years would pass before two more proposals came before the General Court, and this time, one of them would succeed.

In the year 1785, the General Court received two petitions to build a bridge over the Charles River. One of the petitions was from John and Andrew Cabot, merchants in Beverly. The other petition was from Thomas Russell of Boston, a prominent merchant involved in trade with Russia. The Cabots were interested in building a toll bridge from Lechmere Point in Cambridge to Barton's Point on the northwest tip of Boston. Russell was interested in constructing a toll bridge as well, but from Boston to Charlestown, thus replacing the inefficient Charlestown Ferry. Russell also had strong backing from Charlestown representatives. A petition was sent to the General Court from Charlestown in support of Russell's proposal and openly hostile to the Cabots'. As Kutler observed, the Charlestown petition set forth the idea that Charlestown's trade and progress were stalled undoubtedly because of the inadequate service of the ferry. The supporters of Russell's petition, many of whom were local Charlestown businessmen, felt the Cabots' proposal would damage particularly northern Boston and especially the towns of Medford and Malden. The Charlestown group's power in the legislature, with the voting power of local politicians from Medford, Malden, and Charlestown, which at the time was almost double that of Cambridge, would be the strongest influence for the new bridge venture.²⁶

On March 9, 1785, the General Court incorporated Russell along with such Boston notables as, John Hancock, Nathaniel Gorham, Eden Parsons, and James Swan, as the Proprietors of the Charles River Bridge. Their charter set toll rates (double on

Sunday), set a minimum width, stipulated that Harvard should receive two hundred pounds annually which would replace the income from the Charlestown Ferry, required a toll draw bridge to be lifted for all boats passing, and that forty whale oil lamps would keep the bridge well lighted at night. The charter would be in effect for forty years and then pass to the state. All profits from tolls, after Harvard received its annual two hundred pounds, would belong to the proprietors. The projected profits appeared to outweigh the risks.²⁷

With one hundred and fifty shares sold at one hundred pounds each, the building of the Charlestown Bridge began in June of 1785 under the direction of architect Samuel Sewall and Master Workman Lemuel Cox. The bridge would be 1,503 feet long, forty-two feet wide and have a thirty-foot draw bridge in the center. On each side of the bridge, there would be a railed six-foot walkway, illuminated from dusk to midnight by twenty whale oil lamps. Also there would be four critically placed wharves, secured in the Charles with stone, to strengthen the oak piers. The seventy-fifth and last oak pier was driven in on the thirty-first of May, 1786, and the bridge opened the next month for passengers on the historic anniversary of Bunker Hill Day, June 17, 1786.²⁸

The opening day celebration was attended by an estimated twenty-thousand citizens from both Boston and Charlestown. Cannons fired salutes from Copps Hill, Bunker Hill, and Castle Island, and the bells of Christ Church and others in Charlestown rang in celebration. A large parade of dignitaries formed at the Old State House and marched northward to Prince Street. At the foot of Copps Hill, they crossed the new

Charlestown Bridge into Charlestown Square, and proceeded to Bunker Hill, where a dinner was to be served. Nathaniel Shurtleff wrote:

...dinner was served in great style to about eight hundred persons, who were seated at two great tables of three hundred feet each in length, united by a semi-circle, and who remained in festivity until six o'clock in the evening. The joy on this occasion was unbounded, and it is said that the arrangements on that day far surpassed any that had ever been known in the neighborhood before.²⁹

Thus the capital had been raised and the risks had been taken by Russell and the Charlestown Bridge Proprietors. The bridge, as well as the profits, seemed secure. One interested skeptic, the soon to be well-known architect Charles Bulfinch, wrote to his father from London upon hearing of the completion of the Charles River Bridge on December 12, 1786, that "I have seen Capt. Cushing, who informs me the bridge is in great forwardness. I hope it will stand till I return, as I should like much to see it, but I am not sure whether I would venture to pass over it."³⁰ Bulfinch's skepticism must have disappeared after seeing and using the new bridge. In a matter of just six years, Bulfinch himself would not only be buying five shares, but he would be on the board of directors of the new West Boston Bridge Company, that would set out to build a 3,483 foot bridge between Cambridge and West Boston.

This chapter has examined the two main routes to Boston from the early seventeenth century to just prior to the building of the West Boston Bridge in 1794: the Boston Neck and the Charlestown Ferry, replaced by the Charles River Bridge of 1786. With the building of the Charles River Bridge, it is clear that change had begun for Boston. The long thirteen-mile journey from a Medford Farm to Boston had been

shortened to five. Over the bridge between Boston and Charlestown, travel and commerce were strong, and the distance that information traveled to and from Boston had now been shortened.³¹ The inconveniences of travel, with regard to Boston's geographical limitations, would play a decisive role in fostering these changes. As this chapter has examined, the other key factor needed to implement these changes were those who were willing to take substantial financial risks, while also intending to gain a substantial profit. In 1792, across the Charles in Cambridge, several people were interested in duplicating the financial and technological successes of the Proprietors of the Charles River Bridge. However, some serious challenges presented themselves. Cambridge's side of the Charles River was completely undeveloped and filled with marshland, in addition, the span was more than twice the distance of the Charlestown Bridge. For such a project, the financial risk would be great, as well as the physical challenge of building such a bridge. However, in this period of risky speculation, the timing was perfect.

CHAPTER TWO

FROM THE PEST HOUSE TO PELHAM'S ISLAND

The building of the Charles River Bridge in 1786 had made Boston more accessible. The limitations presented by Boston's original geography had been overcome to some extent by the Proprietors of the Charles River Bridge and now two land approaches existed: by way of the new Charlestown Bridge, and that of the original road through the Boston Neck. The building of a second bridge from Cambridge to Boston in 1793, would significantly contribute to this new accessibility of Boston. In addition, it would end forever the physical separation of Cambridge from Boston, and begin a trend of extensive development of a previously empty landscape.

The settlement of Old Cambridge, although only two and a half miles straight across the Charles from Boston, was quite isolated from the busy port town. Accessible from Boston by either the six-mile Charlestown road or the eight-mile Neck Road, Old Cambridge was the only developed area. It was the center of town, the location of Harvard College since 1638, and home to the majority of the population of Cambridge numbering roughly 2,100 by 1793. The travel routes to Boston and to other surrounding communities all began in this part of Cambridge and beyond these boundaries, toward the banks of the Charles River, not much existed other than pasture land, salt marshes, or swamps.

In 1793, only one road known as the way to Pelham's Island, ran south-easterly towards the Charles River with several smaller roads heading off to various locations. Named after Herbert Pelham, a seventeenth-century settler, Pelham's Island was roughly twenty acres of land and one of three higher ground areas known for its excellent pasture and farm land. Wigwam or Little Neck, consisting of forty-fives acres, was off the road to Pelham's Island and closest to the settlement of Cambridge traveling in a south-easterly direction, and the five-acre Captain's Island was further down this way to Pelham's Island, but in a south-westerly direction. The roads carried simple but useful names as, the highway to Little Neck, or the highway to Oyster bank. One would only travel these roads to bring animals to pasture, load up on salt hay, or gather oysters at Oyster Bank along the Charles River. Early in Cambridgeport's history, parcels of various sizes were purchased, but not with the intention of settlement. These areas of land were considered additional farm land, while the roads that developed to these areas were simply a means of travel to and from the settlement of Cambridge. Towards the end of the third quarter of the eighteenth century, only three farms were located in this area: the Inman estate, the Bordman farm, and Soden farm, and facing the Charles River on the southeastern corner, was a Revolutionary battery known as Fort Washington. The majority of this land however, was still quite undeveloped.¹ In this later part of the century, one name in particular stands out with regard to acquiring extensive property in this undeveloped area of Cambridge: that of Francis Dana. He would be the primary force behind the rapid development of this area, and of the soon-to-be-built West Boston Bridge.

Francis Dana was born in Charlestown on June 13, 1743 and was the great-grandson to one of the original founders of Cambridge, Richard Dana, who had come to Cambridge from England in 1640. Educated at the Boston Latin School and graduated from Harvard College in 1762, Francis Dana soon entered into a career of law with his uncle, Judge Trowbridge, who was regarded at the time as, “the luminary of the common law.”² After passing the bar in 1767, Dana was married six years later in 1773 to Elizabeth Ellery, daughter of William Ellery, the signer of the Declaration of Independence from Newport, Rhode Island. Ellery would later describe Dana as a man of “laudable ambition,” and one who employed, “honest means to acquire and maintain a fair reputation.”³ Dana’s career proved extremely successful, as well as eventful. He had traveled to England in 1774 and remained there two years while representing the Massachusetts patriots; he was elected a member of the Massachusetts Council in 1776; that same year he was chosen as a Massachusetts representative to the Continental Congress; and in 1778, Dana was one of the signers of the Articles of Confederation. Success followed success as Dana was appointed secretary of legation by Congress of a special committee to Paris in 1779 with John Adams as minister plenipotentiary. He served again in 1780 with Adams on a congressional mission to Holland to raise loans in Europe and was appointed minister to Catherine the Great’s Russia from 1781 to 1783.

In December of 1783, after having accomplished much for the new United States of America, Dana returned to his wife and son who had been living at his uncle’s house in Cambridge and was again, elected to serve as a delegate to the Continental Congress. Two years later in 1785, he resigned from Congress and was appointed as a judge to the

Supreme Court of Massachusetts by Governor John Hancock. Dana would decline appointment to the Constitutional Convention in 1787, although he would be one of those ratifying the document the following year. From 1791 to 1806, Dana would serve as Chief Justice of Massachusetts, during which time, he would decline a presidential appointment from John Adams to serve on a special mission to France in 1796. It appears, based on Dana's actions, that much of his national work was coming to a close, although, he remained quite interested in these affairs. It seems clear he felt it was time to settle into a life at home and involve himself with local legal work as well as, local politics.⁴

Francis Dana had purchased most of the former Soden farm in Cambridge on his return from England in 1777 and two years later, with the death of his father Richard in 1779, he inherited several more acres. After his retirement from Congress and his appointment as a judge to the Supreme Court of Massachusetts, he began building a house on his new property acquisitions. Family biographer Henry W. L. Dana wrote, "he had built in 1785 a large and impressive mansion on the top of what was from then on called Dana Hill." From his large home, the "Chief Justice⁵ commanded an extensive view over the whole region of what is today Cambridgeport and, as he gradually succeeded in acquiring most of the land to the east of Harvard College, he was in a sense monarch of all he surveyed."⁶ Henry Dana also recorded that, "from Dana's House the Charles River could be seen in seven different directions and that in storms the spray from the river reached the house."⁷

After moving into his new residence in 1786, several additional acres were purchased by Dana in 1789 from his uncle Judge Trowbridge extending his property to the south side of the present Massachusetts Avenue. Around this time, Dana also bought ten acres north of the way to Pelham's Island from Leonard Jarvis who owned two large lots of the former Inman Estate. Trowbridge's death in 1793 brought still more property to Dana as he inherited his uncle's entire estate. The same year, he would purchase the area surrounding Fort Washington, south of the way to Pelham's Island or the road eventually to be known as Massachusetts Avenue. Dana would continue through the last decade of the eighteenth and early nineteenth century, with the Proprietors of the West Boston Bridge Corporation, to buy up remaining pieces of the land south of Massachusetts Avenue and the present Main Street towards Pelham's Island. By the end of 1791, Francis Dana along with business partners Oliver Wendell, James Sullivan, Henry Jackson, Mungo Mackay, and William Wetmore were ready to move forward with their plans of building a bridge between Cambridge and Boston.⁸

In the Columbian Centinel dated January 7, 1792, a notice appeared stating, "a number of gentlemen have proposed to open a new subscription, for the purpose of building a Bridge, from West Boston to Cambridge-at such place as the General Court may be pleased to direct. A subscription for Two Hundred shares in the proposed Bridge will this day be opened, at Samuel Cooper's Office, North side of the State House."⁹ Four days later on January 11, 1792, the Columbian Centinel reported that these two-hundred shares had sold within three hours. In the same newspaper, it was announced that a survey had been completed that measured the distances from the Pest House in

West Boston over the Charles River “through the marsh in the lower part of Cambridge, and up the road by the late Mr. Inman’s house,” and closed noting that, “this survey was made by order of the gentlemen who contemplate presenting a petition to the Legislature for liberty to build a bridge in that direction.”¹⁰

On March 6, 1792, the petition was presented to the Massachusetts General Court, and three days later, on March 9, Governor John Hancock signed the act of incorporation of the West Boston Bridge Corporation making Francis Dana, Oliver Wendell, James Sullivan, Henry Jackson, Mungo Mackay and William Wetmore the Proprietors of the West Boston Bridge Corporation. The proprietors were given the power to build a new bridge over Charles River, starting in the western part of Boston, near the Pest House, crossing the Charles River, over Pelham’s Island, and onto the Cambridge shore.¹¹

The primary provisions in the act of incorporation were concerned with the proprietors and noted that any three proprietors could call a meeting by advertisement in any two Boston newspapers, and that a clerk would be chosen at the next meeting and would be sworn into his office. It was also noted that the proprietors, “may also chuse [sic] and appoint any other officer or officers of the corporation that they may deem necessary.”¹² The importance of keeping written records was clearly noted in that, “all rules regulations and votes of said corporation shall be fairly and truly recorded by their said Clerk in a book or books for that purpose provided and kept, which book or books shall be subject to the inspection of any person or persons for that purpose appointed by the Legislature.”¹³

Financial provisions included in the act of incorporation were the setting of the rates of tolls, “for the purpose of reimbursing the said proprietors...and indemnifying them for their risque [sic].”¹⁴ The amount of these tolls varied from two thirds of a penny for a passenger on foot, to one shilling (twelve pence) for all “coaches, chariots, phaetons and curricles.”¹⁵ Another monetary stipulation for the proprietors was the allocation of three-hundred pounds to be paid annually to Harvard College. This amount was reduced to two-hundred pounds annually by June of 1792 which would establish at Harvard, two tutors for life.¹⁶ By 1799, it appears that some of the selected tutors for life were less than proficient as the legislature approved a change noting that, “the said permanent Tutor or Tutors, shall or may be displaced for inability, insanity or any other incapacity, or for any other just and reasonable cause.”¹⁷

In the act of incorporation of the West Boston Bridge Corporation, the General Court was also clear about how the bridge was to be built. The bridge was to be no less than forty feet wide, “well covered with plank or timber suitable for such a bridge,” and have, “sufficient rails on each side for the safety of passengers,” and was to be, “kept accommodated with a number of lamps according to the length of the said bridge...which shall be well supplied with oil and lighted in due season and kept burning untill [sic] midnight.”¹⁸ Other stipulations required a draw bridge of at least thirty feet which ships could pass through, a watch house in which, “some proper person shall continue and reside from the sun setting to sun rising through the year,” and at the, “several places where the said toll shall be received there shall be...a board or sign with the rates of toll and of all the tollable articles fairly and legibly written thereon in large or capital

letters.”¹⁹ The General Court required that, “the said Corporation shall also lay out and make or cause to be laid out and made a good road from Pelham’s Island aforesaid in the most direct and practicable line to the nearest part of the Cambridge road.”²⁰ The Cambridge road, known today as Massachusetts Avenue, would be connected to the West Boston Bridge by a causeway roughly 3,344 feet long. This causeway, which would eventually be known as Main Street, would be a raised roadway over the wet marshland leading to the bridge from Cambridge. It would be forty feet wide and constructed of earth taken from two ditches dug on each side of the new roadway. A final note from the legislature made clear that, “if the said corporation shall refuse or neglect for the space of three years after the passing of this Act to build and comleat [sic] the said bridge, then this Act shall be void and no effect.”²¹

On March 13, 1792, in the Records of the Proprietors of West Boston Bridge, it was recorded that a notice had gone out to several Boston newspapers declaring that a meeting would be held at the Bunch of Grapes Tavern in Boston on the following Wednesday, the twenty-first of March, “to choose a clerk or other officers they may think proper,” and, “to agree on a method for calling future meeting.”²² On March 21, at six o’clock in the evening, the Proprietors of the West Boston Bridge Corporation met at the Bunch of Grapes Tavern on the corner of State and Kilby Streets in Boston to select officers of the new corporation. The Honorable Francis Dana was chosen as the chairman, Harrison Gray Otis was voted as clerk, and Mungo Mackay, Esquire was voted as treasurer.

In addition to the original 200 shares sold, another 280 had been sold by this first meeting, bringing the complete total of purchased shares to 480 involving 113 people. Charles Davis, Samuel Parkman and Samuel Cooper were voted to be, "a committee to ascertain the present holders and proprietors of the fund, and to examine the credentials of those who have purchased shares since the original subscription."²³ The list to be examined of shareholders included such prominent local capitalists as: Peter C. Brooks, Thomas Dennie, Thomas H. Perkins, and such familiar Bostonian names as Appleton, Thorndike, Bulfinch, Brattle, Brewster, Cabot, Coolidge, Eliot, Scollay, and Winthrop.

A committee of five, consisting of Francis Dana, Oliver Wendell, Perez Morton, Caleb Davis, and Harrison Gray Otis, was also chosen to establish a system of bylaws for the Corporation.²⁴ There would be a second meeting on the following day, at eleven o'clock in the morning, for the choosing of, "twelve directors to manage the prudentials of the Corporation," and, "that the Clerk give public notice of a meeting for this purpose, to be held in the front chambers of the Bunch of Grapes Tavern, the poll to be open from eleven o'clock untill twelve and no longer."²⁵ It was also noted that Henry Jackson, Caleb Davis, Samuel Cooper, and Thomas Dennie would act as a committee to sort and count the votes. On this setting of the next day's agenda, the meeting was adjourned. The following day the twelve directors were chosen to be: Francis Dana, Oliver Wendell, James Sullivan, Perez Morton, Charles Bulfinch, Samuel Parkman, Joseph Blake, Henry Prentiss, Caleb Davis, John Derby, John Winthrop, and Jonathan L. Austin. On March 23, 1792, the twelve Directors of the West Boston Bridge Corporation met at eleven o'clock at the Bunch of Grapes Tavern and twenty-four bylaws were recorded, setting the

rules and regulations of the corporation. In addition to the bylaws, a committee consisting of Wendell, Morton and Bulfinch was established to, “design a Common Seal for the Corporation and to procure the cutting and engraving the same.”²⁶

It is important to note that before the incorporation of the West Boston Bridge Corporation in 1792, serious protests were raised by the Charles River Bridge Corporation. The Charles River Bridge Proprietors complained to the legislature that a new bridge would seriously limit their profits by cutting them in half, thus doing severe damage to the stockholders and the corporation itself.²⁷ The Proprietors of the Charles River Bridge protested to the legislature that the costs of their bridge over the next seven years, including maintenance, would approximate \$80,000. They complained that the new West Boston Bridge would clearly create difficulties in reducing this debt. The protest resulted in a resolution by the General Court extending the original 1785 charter of the Charles River Bridge Corporation to seventy years, when it had been forty years, and noted that Harvard College would continue to receive two-hundred pounds annually.²⁸ This legislative action brought about a strong reaction by the Proprietors of the West Boston Bridge according to the historian S.S. Simpson. Simpson wrote that the some members of the legislature visited the West Boston Bridge Proprietors and found it odd they had “not proceeded” with their plans. These members of the General Court discovered that the proprietors were now unhappy with their charter, as it only extended for thirty years. They felt that their charter, like the Charles River Bridge charter, should also be extended to enable them to retire their debt.²⁹ It seems clear that objections were raised by the Proprietors, as the General Court extended the West Boston Bridge’s

original charter on June 30th, 1792 to seventy years. It was also clear there also would be no double standards as the General Court reduced the annual contribution to Harvard from three-hundred pounds to two-hundred pounds, matching that of the charter of the Charles River Bridge. The General Court had abolished the double toll collected on Sundays by the Charles River Bridge and thus, did the same for the West Boston Bridge in June.

The Directors of the West Boston Bridge met on July 7, 1792, and Mungo Mackay and Henry Prentiss were appointed to:

superintend the whole labor of completing a road over the marsh and the building of the bridge and abutments, to procure laborers, and manufacturers for the purpose, and make contracts with individuals for materials of all kinds, and for their labors, submitting however all contracts of importance to the sub-committee of Directors for confirmation.³⁰

Mackay and Prentiss accepted the appointment and it was noted that, "it being understood that said Mackay and Prentiss, (if they undertake the business,) shall devote their whole time, or the whole time of one of them to the business aforesaid."³¹ Soon after, a model built by Samuel Blodgett for the causeway was rejected and the commissioners were instructed to, "engage Zenas Whiting as a master workman, to build a piece of the bridge over the creek on Cambridge marsh," and that, "Whiting may be willing to contract for that only, but if not to build the entire bridge."³² The proprietors were clear in their instructions for this bridge over the marsh noting that it, "should be painted stone color and that eighteen posts should be erected on the causeway."³³ The building of this causeway would begin seven days later and the West Boston Bridge was underway.

The change that the West Boston Bridge would bring to Cambridge and also to West Boston would be significant. The landscape of Cambridge would be transformed from remote pasture and farmland, to a busy and growing settlement along the main thoroughfare to and from Boston. West Boston would soon experience much of the same change in the form of commercial development along Cambridge Street, along with an increased amount of settlement in the same area.

Previously, the area of West Boston had been relatively quiet in the eighteenth century. On Bonner's map of 1722, it is virtual empty area of only ropewalks, a copperworks, and a windmill with scattered settlement. Between 1722 and 1743, extensive change is visible. West Boston is now filled in with nearly twenty new streets, and increased settlement extending along the new Cambridge Street. The Lynde Street Meeting House was built in 1737, giving incentive to parishioners to settle nearby. In the period from 1743 to 1769, a slower change is evident in comparing two of William Price's maps of Boston to each other. In twenty six years, only two new streets have extended off Cambridge Street: Temple Street and Middlecot Street. With the coming of the West Boston Bridge in 1793, West Boston would witness consistent development of new roads southerly off Cambridge Street extending to Beacon Street, and rapid growth of the Beacon Hill area.³⁴

The risk taken by Francis Dana and the other shareholders of the West Boston Bridge Corporation was one that would reap its reward in the physical development of the area, while changing the way people thought about Boston and Cambridge. It is fair to say that the isolation of Cambridge from Boston was disappearing as the building of this

bridge and the development of roads serving it moved forward. In addition, the new bridge would prove to be a much used connection for local traffic and almost immediately, a new route for public transportation between Harvard Square and Bowdoin Square in Boston via stagecoach. The West Boston Bridge would not just be a connection between Boston and surrounding communities, it would prove to be an important connection to the future of a rapidly developing urban geography.

CHAPTER THREE

OF GRACEFUL DESIGN, LIGHTSOME AND ELEGANT

As the new wooden structure made its way across the salt marshes and eventually the Charles River to Boston, the bridge's opening and details regarding collection of the tolls were addressed by the Directors of the West Boston Bridge. The twelve directors had agreed on March 23, 1792 that they would meet at least once a month until the bridge opened, and then after, once every quarter. The proprietors or stockholders, on the other hand, would meet annually on the first Tuesday of July, unless it fell on the celebration of the fourth of July. In such case, they would meet on the following day.¹

The final meeting of the proprietors before the bridge opened had been held on Friday, July 19, 1793 and was recorded in the hand of a new clerk, Joseph Blake, Jr. Items addressed were the elections of the directors, treasurer and clerk for the year and the setting of wages for the latter two. Mungo MacKay was unanimously chosen for treasurer with a salary of ninety pounds for the year, and Joseph Blake, Jr. was chosen as clerk with a salary of twenty-four pounds for the year. The meeting adjourned from the Bunch of Grapes Tavern with the directors, clerk and treasurer chosen to "remain and continue until the first Tuesday of July 1794."²

In the last few months before the opening of the West Boston Bridge on November 23, 1793, the directors met several times at the house of James Vila, usually at

seven o'clock in the evening, to vote on a few final and important details. On October 9, 1793, they voted that, "Zenas Whiting be directed to build two Toll houses agreeably to the Plan reported by the Committee for that purpose," and, "that Zenas Whiting be directed to raise one or both draws every Saturday, to remain open on Sunday."³ As the bridge was almost finished, some problems were addressed during the same meeting and the resolutions appeared in the Columbian Centinel on the following Saturdays, October 12 and 19, 1793. The article read, "the Directors of the West Boston Bridge, have ordered the Overseer thereof, to discharge any workman employed in the same, who shall ask, or receive from any passenger, any money as Toll," and that these workmen, "are much impeded in their business, by the frequent interrogation of persons who are walking on the Bridge, and by the loss of their tools."⁴ The directors decided that the only solution was to close off the bridge until opening day. Their decision was announced in several local newspapers stating, "the Directors therefore, in duty to their trust, think themselves obliged to place such obstructions, as will render it impossible (with safety) to pass the Bridge for a few weeks, when they hope to be able to advertize [sic] to the public, that there is safe passing the West Boston Bridge."⁵

At the next meeting on October 23, 1793, Isaac Whyman was chosen by ballot to be the toll collector on the Boston side, and Joseph Brown to collect tolls on the Cambridge side. On November 9, David Knapp was chosen as an alternate toll collector. The directors also voted, "that on the day of the opening of the Bridge, a dinner be provided for all the workmen at the discretion of the Superintending Committee and that the Bridge be decorated," and at the following meeting of November 20, "that the Bridge

be opened on Saturday next and that the Clerk advertise the same in all Papers.”⁶ The Cambridge Chronicle had anticipated the bridge’s opening by writing, “the last pier of this extraordinary and beautifully constructed piece of machinery, was drove in Thursday last,” and that, “the elegance of the workmanship, the convenience and economy in the construction, is thought to be the greatest master-piece of mechanical ingenuity, that was ever executed in this country.”⁷

The West Boston Bridge (fig. 3) was finally opened to all traffic on November 23, 1793. The total cost of building the bridge had been about twenty-three thousand

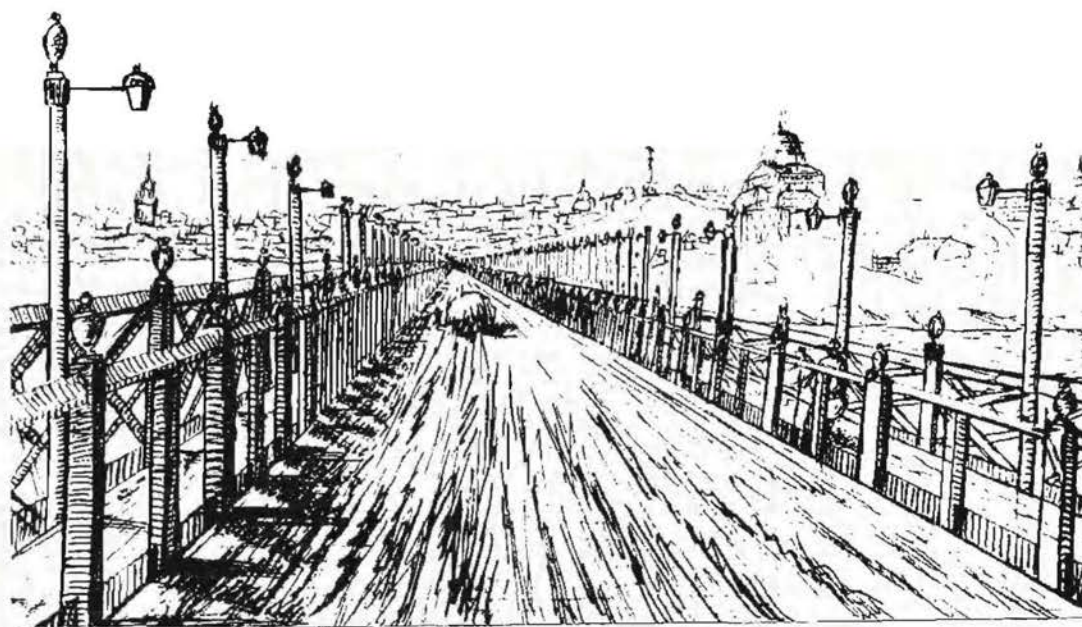


Fig. 3. West Boston Bridge, 1797

pounds and its entire length was 7,189 $\frac{1}{2}$ feet. This length consisted of the bridge proper at 3,483 feet, the causeway measuring 3,344 feet with a small bridge of 275 feet over a creek near the present intersection of Main, Harvard, and Sixth Streets, and the abutment

securing the bridge to the Boston side at 87 ½ feet. The Columbian Centinel noted that, “the elegance of the workmanship, and the magnitude of the undertaking, are perhaps unequaled in the history of enterprises,” and added, “we hope the Proprietors will not suffer pecuniary loss, from this public spirit.”⁸ A visitor from Europe, Henry Wansey, described the bridge as, “a most prodigious work for so infant a country; a work...worthy of the Roman Empire.”⁹ The Cambridge Chronicle recorded that, “this bridge for length, elegance and grandeur, is not exceeded by any in the United States, if in any part of the world.”¹⁰ The Columbian Centinel closed its article noting, “they [the directors] have claims on the liberality and patronage of the government; and to these claims government will not be inattentive.”¹¹

With the opening of the West Boston Bridge, the directors and proprietors now concentrated on the collection of tolls from passengers using the new bridge. Like the Charles River Bridge Company before them, the tolls were the primary method that the West Boston Bridge Company sought to regain its expenditures and the directors had been meticulous in setting up the collection system. On December 11, again at the house of James Vila, the directors met and the regulations that had been decided for the tollmen and watchmen were recorded. The two tollmen would arrive at the bridge at sunrise and would remain on their respective sides until ten o’clock at night. The directors were strict in noting that, “excepting such time as they are relieved by the watchmen, and they are not to leave their stand ’till they are relieved.”¹² There would be one tollman on Sundays located on the Boston side and he would be responsible for the tolls of people coming off the bridge, as well as going on. Everyday, at precisely seven o’clock in the morning, the

tollman on the Cambridge side was allowed half an hour to, “get his breakfast and count the money he took the preceding day, which he is to wrap up in a paper, and mark it with his name, and the day it was taken, and send it by the watchman with his book to the tollman on the Boston side, who is to carry it with his own money to the Treasurer.”¹³ Both tollmen would receive a half an hour for dinner around one o’clock and another half an hour around eight o’clock for their supper.

The two watchmen appointed would have the duty to, “clean, trim, and light the lamps; to relieve the tollmen at breakfast, dinner, and supper, precisely at the time mentioned in their duty; to receive the toll when they are absent, and pay to them on their return, to watch on the bridge from 10 o’clock in the evening, ’till sunrise, and receive the toll of all passengers in the night, and pay the same to the tollmen in the morning; to assist in raising the draw, and sweeping the bridge.”¹⁴ One of the watchmen would remain “on guard” on the Boston side, but in good weather he, “shall walk backward and forward on the bridge, to prevent any injury or disturbance which may happen,” also there would be, “two suitable poles provided for the watchmen’s defence [sic], to be always carried by them when on guard, and to be used when necessary.”¹⁵

The annual July meeting of the proprietors in the following year of 1794, saw a change in three directors and the continuation of Joseph Blake, Jr. as Clerk, receiving twenty-fours pounds for the year, as well as Mungo MacKay as Treasurer, receiving ninety pounds for the year. This year also saw the General Court deny a request by the Company to double the tolls on foot passengers. The proprietors also voted that, “a house the expense of which is not to exceed 350 pounds be built on the west side of the Canal

near the toll house for the better accommodation of the Tollman.”¹⁶ The corporation appears to have concern for the fair treatment of the tollmen. In 1797, the directors voted, the principal tollmen an annual salary of \$333.33 and within a few years, a grant of \$166.66 was added to the original salary. The proprietors would from time to time, based on faithful service and cost increases in provisions and fuel, include gratuities of fifty dollars.¹⁷

It is clear that the tollmen played the important role for the West Boston Bridge Corporation and they were treated well throughout the corporation’s ownership of the bridge. Livermore also noted that, “therefore, what with the salary, the grant, and the gratuity, the tollmen obtained a very respectable income.”¹⁸ Fairness and generosity were also accompanied by a strictness, as when the corporation voted that the tollmen were prohibited, “to credit any person for more than one week unless they held themselves responsible for any deficiency.”¹⁹ Inefficiency in the collection of tolls would not be tolerated either. On December 2, 1797, information about one of the tollmen came before the proprietors citing that, “a complaint has been made to them of his neglecting to receive the toll on the Boston side, and leaving the collection of the toll on Thanksgiving day to a lamplighter,” and that, “if any similar complaints are made, the Directors will advertise for another toll-gatherer.”²⁰ By the next meeting of the proprietors on February 9, 1798, it was voted to place an advertisement in the local papers seeking a new toll-keeper. Interested parties were requested to contact the treasurer, Mungo MacKay and at the meeting of February 24, William Cutter is noted as the newly hired tollman.²¹

It was a rare occurrence when someone would not pay the required toll, but when it did happen, as in 1796, it was a very serious matter and one that would be recorded by the corporation. A letter, presented to the proprietors by the Cambridge side tollman, Joseph Brown addressed a violation noting, "I inform you that the Evening before last Four Sleys ran by Me & would not pay their Tolls. I have the Names of two Persons that were in one Sleigh & shall obey your further Directions. I am Sirs, your Humble Servant, Joseph Brown."²² At the same meeting of the proprietors, it was recorded that, "the Treasurer be and hereby is directed to prosecute any Person or Persons who have passed the Bridge without paying Toll."²³ An unusual incident involving one of the tollman took place two years later in July of 1798, when the proprietors recorded that a, "certain Rheuben White, of Boston, butcher, had abused and assaulted him (the tollman), in the performance of his duties."²⁴ The directors immediately voted to prosecute the said White, and "any other person that shall hereafter be guilty of the like offense."²⁵ Legal action would always be supported, and recommended at meetings where issues of property and especially toll collection were concerned.

A more serious threat to the West Boston Bridge Corporation had come in 1796, when a petition by Robert Pierpont to the General Court asked to build a new bridge from Boston to Pierpont's Farm in Roxbury. Opposition was clear from the start, and at the February 13 meeting of the proprietors at the Bunch of Grapes Tavern, it was recorded by the new Clerk, John Haskins, that, "a Bridge from Boston to Pierpont's Farm in Roxbury will essentially injure the Proprietors of the West Boston Bridge and that it is the Duty of the Proprietors to oppose the granting of the prayer of Robert Pierpont's Petition by all

the Means within their Power.”²⁶ A committee of five, consisting of James Sullivan, Leonard Jarvis, George Minot, Aaron Dexter and William Spooner, were appointed to “attend on the General Court or its Committee to support the Rights of this Corporation - To employ Council and take any other Measures that They may think proper for the Interest of the Corporation.”²⁷ The five men were successful in halting the petition of Pierpont. Livermore wrote of the proprietors influence in the legislature and with such lobbying powers, it seems understandable that Pierpoint withdrew his petition.²⁸ Livermore continues that the financial lobbying on behalf of the West Boston Bridge Corporation played more than an occasional role in swaying legislative opinion, noting that “by the Treasurer’s account, it appears that seventy-five dollars on one occasion was paid to Hon. Harrison Gray Otis, and one hundred dollars on another was paid to Rufus G. Amory, for advice, and attending a committee of the General Court.”²⁹

A final meeting for the year of 1796 was held by the proprietors at William Joseph Taylor’s Room, State Street on October 7. The special meeting’s agenda recorded that legal action would be taken in cases when their property was trespassed upon. It read, “the Directors be and They hereby are authorized to prosecute at Law all Trespassers on the Lands or Bridge belonging to the Proprietors, and to take any such other Steps as They shall be advised to take by Council, learned in the Law, to defend the Rights of the Proprietors against any such Trespassers.”³⁰ It is perhaps not hard to understand the corporation’s concern with protecting their investment, but what caused the immediate reaction against trespassers can be found in the Director’s Records in the previous month. It is clear that attempts have been made to steal material off the bridge as the directors

note, "that the Toll Gatherers be enjoined to give Information of all or any Persons attempting to take away any Gravel, Lumber or any other Property belonging to the Corporation, without a written vote of the Directors signed by the Clerk."³¹

By July of 1797, an interesting note is that at the yearly meeting of the proprietors held at the Hall of the Branch Bank on State Street, it is the first time that salaries for the Treasurer and Clerk are recorded in dollars and not pounds. The elected Treasurer, Mungo MacKay was voted two hundred dollars for the year and the Treasurer, John Haskins, Jr. was voted fifty dollars. Previously, at the yearly meeting in 1795, it had been voted that, "the Directors be empowered to apply to the Legislature to obtain an Alteration in the Toll from Pence to Cents."³² Although the use of dollars and cents began to be used in the records by 1797, Livermore writes of the collection of cents instead of pence for payment of tolls did not take place until the Hancock Free Bridge Company bought out the West Boston Bridge Company later in 1846.³³

In the closing years of the eighteenth, and the early years of the nineteenth centuries, it was evident that the amount of travel over the West Boston Bridge was quite extensive. Repairs were seriously needed, yet the finances to fund them were very thin. After four years of use, the director's requested the treasurer to "make a contract for any Quantity of Plank which He may think necessary for repairing the Bridge," and "that Samuel Dennie, William Spooner, and Thomas Dennie be appointed as a Committee to repair the Bridge as fast as can be done consistent with Economy and Prudence."³⁴ Livermore cites an accident on the West Boston Bridge that appears in the Records of the West Boston Bridge Company. Livermore writes, "the Board receives an application for

damages from John Ridgeway, on account of the accident he sustained in passing the bridge, by his horse slumping through.”³⁵ Livermore adds, “and Messrs. Dunn and Mackay were authorised [sic] to allow Ridgeway such compensation as they thought proper.”³⁶ Two pages later in the Directors’ Book, it is recorded that Asa Nichols of Cambridge sued for the loss of his “horse &c” on the bridge. The Directors, however, elected not to pay compensation this time and meet Nichols in court. By 1798, it is recorded that \$2,984.53 had been paid out by the Treasurer for, “Plank, Timber, and Carpenters Work in new covering” for the bridge, and that S. Parkman, “be requested to procure Gravel sufficient to fill up the hollow places leading to the Bridge.”³⁷

It was not long after the bridge opened that an interest in increasing the tolls appeared in the corporation’s records. The legislature would not grant an increase, and due to this, there is an increasing tone of seriousness regarding this increase from the West Boston Bridge Company. At the meeting of the Directors of the West Boston Bridge Company in July of 1799, they noted that “the extraordinary expence [sic] of the last quarter arose from the necessity of purchasing a great number of Oak posts to replace those which have been destroyed by worms, and the purchasing of planks sufficient to cover the Bridge on the Eastside of the Drawer.”³⁸ This damage was due to the use of pine instead of oak for the bridge’s piers. The same month the Proprietors applied to the General Court to raise the toll and extend their grant, but it was met with no success. A special meeting was called in September and the question arose of widening Cambridge Street on the Boston side. The response clearly indicated the financial state of the West Boston Bridge Company. The Proprietors Records noted that, “it is inexpedient under

present circumstances of the Bridge, to make any grant for widening the said Street,” while the Treasurer informed the Proprietors that, “it appears that the Toll is not adequate to the payment of the repairs necessary for the Bridge.”³⁹ The Directors were “authorized to borrow such a sum of money as will enable them to complete said repairs.”⁴⁰ Even by the close of the year in December of 1799, the Directors were still interested in an estimate of the total amount necessary to thoroughly repair the Bridge.

With the new century, the corporation’s finances, along with the physical state of the bridge were still far from perfect. The first matter on the agenda of the annual meeting of the Proprietors in 1800 was, “to apply to the General Court, for raising the Toll, and extending the Grant, (agreeably to the Note of the Proprietors at their Annual Meeting 2d July 1799) report, that the Legislature would not grant their prayer of Petition,” and thus the Proprietors then voted, “to make another application to the Legislature for the increase of Toll, and any other Aid that may in their Judgement [sic] be beneficial to the Proprietary.”⁴¹ It was at this meeting as well, that a note was made about the state of the road near the bridge on the Boston side. A committee was appointed to approach the town of Boston selectman, “to urge the necessity of having it immediately repaired,” and by the year 1801, the Directors were authorized to, “apply to the Legislature for a Grant of West Boston Bridge in Fee to the present Proprietors, and their successors, or for any other aid that they in their Judgement may deem beneficial to the proprietary.”⁴²

The financial struggle of the West Boston Bridge Company would continue into the nineteenth century and eventually reach a climax in the selling of the bridge to the

Hancock Free Bridge Corporation in 1846. However, before this would take place, the greatest threat to the desired income of the West Boston Bridge Company would occur in 1807 with the incorporation of the Canal or Craigie Bridge, connecting the West End in Boston to Lechmere Point in what would later become East Cambridge. Although the building of this bridge would create much rivalry between the two companies, it would also serve to increase the building of roads through much of East Cambridge and Cambridgeport. The West Boston Bridge, despite its financial problems, had brought undeniable change to Cambridge and West Boston.

From 1793, to the beginning of the nineteenth century, several key changes were evident and were directly related to the building to the West Boston Bridge. The first change was the development of a main road between Boston and Old Cambridge. Noted in the Survey of Architectural History in Cambridge, Report Three: Cambridgeport, “the ‘way to Pelham’s Island’ became a main thoroughfare to Boston, and, despite the surrounding salt marsh, the causeway to the bridge (Main Street) was immediately recognized as an important commercial location.”⁴³ It was clear that with the opening of the West Boston Bridge in November of 1793, the areas of the West End, Bowdoin Square, and Cambridge Street developed quickly and soon became the primary route between Boston and Cambridge.⁴⁴

On the Cambridge side, Frances Dana along with Leonard Jarvis, a share holder with the West Boston Bridge Company, attorney, and property owner, began as early as 1793 setting up plots for houses and businesses. Together, Dana and Jarvis would be involved in many of the early property transactions on the sides of the new road that

approached the bridge. Several streets were planned in the area near the bridge, and both Dana and Jarvis had a dike built in 1797 to keep salt water out, and two canals to drain the water on the land that they were developing. Royal Makepeace and Robert Vose, were two businessmen operating in the South End of Boston, and in 1794, after the bridge had been open one month, they relocated their grocer shop to Cambridge to capitalize on the new route. They built the first store near the west end of the causeway, which was at that time the first framed building between Cambridge and Boston. Makepeace would become one of the most important figures in the development of Cambridgeport, along with two others, Josiah and Daniel Mason into the next century. The Mason's would operate a tannery, store, and a wharf, near the bridge.⁴⁵

Holmes noted that, "the following year, a large house designed for a tavern was built by Leonard Jarvis, Esq., and soon after were erected six other houses and stores,"⁴⁶ but by 1798, events had taken a turn for Jarvis. Dana's partner had found himself in the uncomfortable situation of being indebted to the United States for exactly \$39,692.21 for money borrowed, with an additional \$14.20 for the cost of the lawsuit against him. The judgment on July 6, 1798 was against Jarvis and he lost his entire estate, approximately two hundred and forty-five acres of "upland and marsh," and several buildings to the government.⁴⁷ The Cambridge historian Paige wrote, "but what at first seemed utterly disastrous, proved in the end to be beneficial. In January, 1801, this estate, having been divided into fifty-four lots, varying in size from a few thousand square feet to forty-seven acres was sold at public auction."⁴⁸ Paige quoted Dr. Holmes from his "Memoir of Cambridgeport," which was appended to a sermon at the ordination of Rev. Thomas B.

Gannett on January 19, 1814. Paige wrote, “from this time, says Dr. Holmes, commenced a rapid settlement. Several large stores were erected the next year, and soon after dwelling houses. In the space of about five years, upwards of a hundred families have settled on the spot; and the number of inhabitants is estimated at more than one thousand.”⁴⁹

Across the river, on the Boston side, development took place along Cambridge Street, the main thoroughfare to the West Boston Bridge, Cambridge and beyond. As previously noted, the proprietors of the West Boston Bridge were interested in widening Cambridge Street in 1799, but were unable to commence with the work, due to needed repairs on the bridge. The widening would take place in 1851, however it would be the city of Boston that did the work, not the proprietors. But for now, the new route brought settlement and most with an eye for profit. Whitehill, noting that Charles Bulfinch had built a house for Joseph Coolidge near Bowdoin Square, wrote that such building was an indication of movement to the West End of the more prosperous.⁵⁰ In 1796, Harrison Gray Otis had Bulfinch build him a three-story brick house at the intersection of Cambridge and Lynde Streets, and in 1810 at the corner of Cambridge and Green Streets, Bulfinch built a brick market for Samuel Parkman. By far, the largest amount of land purchased was by Parkman and Otis jointly: three lots on the southern side of Cambridge Street totaling 300,000 square feet, valued at \$25,000. It is clear that Cambridge Street was becoming an important location for development, as there was growing land ownership along this new and popular route.⁵¹ A mile marker (fig. 4), still visible today in the Old Cambridge cemetery on the corner of Massachusetts Avenue and Garden

Street, notes the shortness of distance to Boston via the new West Boston Bridge. It notes, 2¼ Miles Cambridge New Bridge 1794, a significant shortage in length from previous routes to and from Boston.



Fig. 4. Mile Marker to Cambridge New Bridge, 1794

Another important development in 1795 was the establishment of a stage coach line traveling the new route from Cambridge to Boston via the West Boston Bridge. The establishment of the stage line, owned by Nathaniel Stimson and Joseph Seaver, ran this new route between Old Cambridge and Brattle Street in Boston.

By 1797, Jonathan Hersey purchased the stage company from Stimson and Seaver and ran it for about eight years. Around 1806, James Read purchased the line and eventually sold to Ebenezer Kimball from 1826 to 1828. Historian Henry Binford wrote, Kimball “a young migrant, ran a tavern in Cambridgeport, bought land, joined the fire

company, purchased a pew in the First Baptist church, and invested in Northern Cambridge cattle market, but vanished before 1840.”⁵² Kimball began running the first Cambridge “hourlies” in 1826 from Harvard Square to Bowdoin Square in Boston, yet success brought imitation and competition and by 1834, along this route, ran the first omnibus in New England. Binford wrote that the early omnibuses, “resembled elongated stage coaches, but featured a door at the rear and seats placed along the sides instead of crosswise,” and, “for the courageous, more seats were placed on the roof, bringing total capacity to about twenty.”⁵³ As the bridges replaced the early ferries, so too, would new modes of transportation replace the coaches and omnibuses along these new and busy routes. These new modes of travel and their connection with the West Boston Bridge will be further examined.

From 1793 to 1800, the West Boston Bridge had directly changed the landscape on both sides of the Charles River. Homes and especially businesses had been built along this new route and as it was the shortest route between Boston and Cambridge, it was a road extensively traveled by many including the new public transit companies. Many changes would continue to come to Cambridge and Boston in direct relation to the West Boston Bridge.

A very important point to consider is that the West Boston Bridge had also significantly brought the towns of Cambridge and Boston closer to each other. Soon Boston, then Cambridge would become cities. By that time, the growing population, as Binford’s study showed, was starting to live outside the city and travel to Boston each day to work.⁵⁴ This clearly denotes a developing metropolitan topography and the West

Boston Bridge played a predominant role for this growing metropolis, and its requirement to travel. The amount of travel over this bridge would necessitate constant repairs, eventual rebuilding, construction of rails for new horsecars, and eventually come face to face with the building public pressure to end the collection of tolls.

This new bridge, with all the changes it helped make possible, was above all a masterpiece of construction, utility, and beauty. To the eyes of contemporaries, it appeared as such. One observer, a Polish visitor to Boston in the closing years of the eighteenth century wrote, "I strolled in the evening on the bridge which crosses the Charles River to Cambridge. The bridge, is one and a half English miles in length; it is called the West Boston Bridge and is of graceful design, lightsome and elegant....never before in any country have I seen a bridge so beautiful, and of such broad expanse."⁵⁵

CHAPTER FOUR

GREAT ACCOMMODATION AND CRAIGIE'S BRIDGE

Through the first quarter of the nineteenth century, the West Boston Bridge was functioning as an important link between Cambridge and Boston. It had brought change in the form of new roads while inspiring business development along increasingly traveled routes in Cambridge and in Boston's western end. With increased traffic over the bridge however, it appears that the proprietors found it a constant battle to keep the bridge in good condition. It also appears that financially, much to their dismay, they were expending more capital than they were taking in. The corporation would continue to pursue ways of augmenting its struggling treasury through the first quarter of the nineteenth century, and most of the time, with very limited success. In addition to the collection of tolls, and ownership and rental of property, the proprietors were continually interested in the purchasing and the building of roads, as these would directly or indirectly, lead to the West Boston Bridge. Livermore wrote of the proprietors interest in bringing the community to their bridge through public improvements, purchasing sections of turnpikes, and the construction roads and bridges in order to generate toll capital from travelers.¹

As early as 1796, a survey was supported by the proprietors for a road running west to Mendon. By 1800, Livermore recorded that the proprietors had received a letter

from Seth Hastings of Mendon stating, “that the towns of Milford, Holliston, Natick, and Newton, were desirous of shortening and repairing the Road which passes from Mendon through these towns over Watertown Bridge to West Boston Bridge, and to put it in such order as to induce travelers to come that way in preference to the new Turnpike Road from Dedham to Boston.”² One hundred and fifty dollars were provided by the West Boston Bridge Corporation for this purpose. Much of this aiding, building, and purchasing would become competitive after the appearance of Andrew Craigie’s petition for a new bridge between Cambridge and Boston in 1804. It was clear that competition for bridge traffic and access routes was the last thing hoped for by the West Boston Bridge Corporation, but this new challenge would be unavoidable.

By 1804, the West Boston Bridge Corporation had worked with Cambridge land owner Royal Makepeace giving him one thousand dollars towards, “making a road in direct line from the Causeway of the Bridge to Milk Row,” and in addition to the money, it was recorded that, “the Directors may convey or assign for that purpose only, so much of the Proprietors land adjoining the North side of the Causeway as they may think for half the width of the Road, and Makepeace giving the other half.”³ This road would be vital to the proprietors, as it would connect their bridge to Jeduthun Wellington’s Concord Turnpike, first chartered on May 5, 1803. An additional charter, granted in March of 1805, gave Wellington rights to connect the ending of his turnpike to the causeway of West Boston Bridge.⁴ On the Boston side of the river, another road was soon to be built. Charles Bulfinch, Esq. had written a letter on July 5, 1804, to the West Boston Bridge Corporation regarding his interest in constructing a new street:

I intend to immediately carry a street on the Eastern line of my flatts to the Bridge, & as fast as the Season will allow to fill out an extent of nearly 300 feet. In doing this I shall fill up ten feet in width along side of the Bridge, the whole extent of my line, which will be public highway, and as this will be mutually advantages to the Proprietors & myself I now request that you would furnish me with, free of expense with the timber & plank that may be necessary, from the old materials of the Bridge.⁵

The following day, it was voted that, "old timber, delivered to Charles Bulfinch for the purpose of making a new street at the bottom of the Common, towards West Boston Bridge, be given, as the Subscription of the Proprietary, for the purpose aforesaid."⁶

Encouraged by Harrison Gray Otis, Bulfinch's intention was to eventually offer these lots of his own land along this new road for sale to realize "great profits."⁷ This new street would be completed by 1807, and would connect Pleasant Street, south of the Common, to the bridge and eventually become known as Charles Street. It is also interesting to note that in that same year, the proprietors removed fifty-five feet of railings to allow access across the bridge to the Third Baptist Society, to their parish in the vicinity of Pleasant Street. It was recorded that, "foot passengers be allowed to pass the Bridge to, & from, the New Street, into the town free from Toll, on Sundays only, for the year ensuing."⁸ In addition to helping to create new land areas, the Proprietors on July 2, began to "fill up with Earth, the space between the Bridge, & the upland on the Boston side."⁹

On January 11, 1805, the hopes of many speculators, and most certainly the members of the West Boston Bridge Corporation, were realized when a Congressional Act designated "Cambridgeport" as an official U.S. port of delivery. Much activity was created by this act. Several lumber yards were set up along the banks of newly dredged

canals and the prices of dock property increased dramatically. Along Broadway, clear restrictions were imposed on large areas of available land. The restrictions noted that buildings must be constructed of either brick or stone, and could be no less than three stories in height.¹⁰ In approximately seven years, from 1800 to 1807, the small and growing population of Cambridgeport went from roughly one hundred people to about one thousand. However, the success of this new port was sadly short-lived, as a result of Jefferson's Embargo of all American shipping and trading in 1807. Eighty percent of all American trade was destroyed within a year and soon, an economic depression, not seen since the years of the Revolution, settled on New England. Shipping had been severely damaged and with this disruption, all along the stretch of Atlantic coastal ports, New Englanders and southerners found themselves unemployed.¹¹ In Cambridgeport, property values crashed and by the time that war was finally declared in 1812, the tragedy of the local economy was evident in its rotting wharves.¹²

The Cambridgeport response to the embargo was in the form of an address to President Jefferson. At a town meeting on August 25, 1808, a committee consisting of Francis Dana, Samuel P. P. Fay and Royal Makepeace (all with financial interests in Cambridgeport) reported their displeasure with the Jefferson administration. The committee wrote the President that they were, "constrained to confess to your Excellency that we, in common with our fellow citizens of the Eastern States, suffer a severe and increasing distress from the operation of the laws," and "could we see a termination of our sufferings, we would submit in silence. But with consternation we observe that this is not a temporary measure, but imposed by perpetual laws."¹³ They continued that, "the

laws which shut us out from the ocean, the better part of our inheritance, palsied all our enterprise,” and “the farmer gathers his harvest with a heavy heart, while he has no hope of vending his surplus, and the mechanic, sailor, and fisherman, find that their willing industry will no longer enable them to supply their daily wants.”¹⁴ Jefferson’s position was unyielding, and in his letter of September 10, 1808, he wrote, “I should with great willingness have executed the wishes of the inhabitants of Cambridge, had peace, or a repeal of the obnoxious Edicts, or other changes, produced the case, in which alone the laws have given me that authority; and so many motives of justice and interest lead to such changes that we ought continually to expect them. But while these Edicts remain, the Legislature alone can prescribe the course to be pursued.”¹⁵ Thus Congress was the only vehicle to change the course of New England’s shipping economy. The concerns of the businessmen on the East Coast and in Cambridgeport went unchanged, and with the outbreak of war with England a few years later in 1812, property value plummeted, and many met financial ruin. Through this financial depression, the West Boston Bridge Corporation survived, but for the Dana family, who had invested heavily in the development of the port, would not escape serious financial problems. The role of the West Boston Bridge would become vital, now more than ever, for travel to Boston markets and the economic preservation of smaller inland farming communities. Of this renewed importance, Livermore wrote that, “but it is also certain that the erection of the Bridge, by facilitating the communication with Boston, necessarily afforded the city greater opportunity to draw towards it the larger share of the country trade; that trade on which the Port depended for its growth and subsistence.”¹⁶ In addition, he records that,

“[the war] was of some service to this bridge, as the Directors received from the ‘Board of War’ the sum of \$118, for the use of the bridge ‘for soldiers, baggage, &c.’”¹⁷ The building of roads and the selling of land would continue to receive increasing attention from the West Boston Bridge Corporation.

From the beginning of the corporation in 1792, land transactions had taken place without much concern that the legislature accepted the transactions as legal. The Proprietors clearly believed that their vote was sufficient enough and legal, when they wished to exchange or sell off holdings. They had voted in July of 1803 that the Directors be authorized and empowered to exchange and dispose of land with Samuel Whittemore, and again in 1806, the corporation voted that the, “Directors be authorized to exchange any lands with Royal Makepeace, Rufus Davenport, or any other person when they deem it for the interest of the Proprietors, also to purchase or sell any lands, and execute deeds to pass the right of title of the Proprietors to the same for consideration & order such Conditions and Limitations as the Directors may think proper.”¹⁸ The need to tighten up any legal loose ends was close at hand. Perhaps with the legislative success of Andrew Craigie and his associates’ second petition in 1807, and with the opening of the Craigie Bridge in 1809, the West Boston Bridge Corporation had developed a new interest in the legality of their property transactions. In February of 1810, the corporation held a special meeting noting the, “intent of the Proprietors to Sell Land in Boston on the South side of the Bridge, & on or near Cambridge Street.”¹⁹ At the same meeting, they applied to the General Court for the purpose of, “obtaining an Act authorizing the Proprietors to Sell, or to exchange, any Land belonging to them,” and more importantly,

“to confirm any conveyances which have already been made.”²⁰ The following month on March 6, 1810, an Act of the Legislature confirmed their ability, past and present, to sell and exchange real estate.

Around this time, the West Boston Bridge Corporation was involved in a venture with the Brighton Bridge Corporation. In 1808, Mr. Jonthan Austin and Samuel W. Pomeroy of the Brighton Bridge Corporation had requested assistance from the West Boston Bridge Corporation, “in building a Bridge over Cambridge River [the Charles River], in a direct line to Brighton Meeting House.”²¹ While this new bridge would aid the development of commercial enterprise in Brighton, it would also encourage travel to the West Boston Bridge. The Directors of the West Boston Bridge responded that, “whereas it appears that such a Bridge, & a Road to the Worcester Turnpike, would be very beneficial to this Corporation,” one thousand dollars was voted to be given to the Brighton Bridge and Road Corporation.²² By February of 1810, the bridge and road were ready to be built, but the request had risen to four thousand dollars. The sum was put before the West Boston Bridge Directors and approved. An additional five hundred dollars was voted towards, “the keeping in repair the Bridge & Roads, agreed to be erected by the Directors of the Brighton and Cambridgeport Bridge Corporation.”²³

It became clear that the flow of capital was not so easy to channel into new projects. By July, the West Boston Bridge Corporation voted the Directors to, “be authorized to borrow such a sum of Money as they may think necessary to meet the engagements of this Corporation to the Brighton Bridge Corporation.”²⁴ The West Boston Bridge Corporation also purchased a portion of the recently chartered Middlesex

Turnpike. The early part of the century had witnessed a string of turnpikes being laid out, and the West Boston Bridge Corporation, keen for any profitable opportunity, paid one thousand dollars for a portion of the Middlesex Turnpike.²⁵ This new turnpike began in Tyngsborough, passed through the towns of Chelmsford, Billerica, Bedford, Lexington, Menotomy (present day Arlington), and ended up in Cambridge, connecting with the Concord Turnpike and eventually the West Boston Bridge. Many avenues led to the West Boston Bridge, yet struggles for new roads and access rights would soon appear with the coming of Andrew Craigie's bridge. In 1807, the decision by the General Court to allow Craigie to build his bridge from East Cambridge to West Boston would have significant consequences for the development of roads and the future of the West Boston Bridge.

The first trace of a petition by Andrew Craigie had gone before the legislature in 1804, and Craigie together with William Tudor, Joseph Barrell and others, were hoping to secure incorporation from the legislature as the Proprietor of the Canal Bridge. Craigie had secretly purchased much of the land in East Cambridge along with the former Phips estate. If incorporated, the Canal Bridge or Craigie Bridge would extend from Leverett Street in the West End of Boston, to Lechmere's Point in East Cambridge with an additional connection to Barrell's Point in Charlestown. The Canal Bridge would be in direct competition with the West Boston Bridge for traffic between Cambridge and Boston. As to the history of Craigie's petition, Susan Maycock notes that the petitioners of the Craigie Bridge initially began as three separate petitioners. Between 1805 and 1807, the Middlesex Canal Corporation and the Newburyport Turnpike proprietors

desired to build bridges at the same location. After several discussions, they eventually petitioned the General Court together desiring a single bridge built, but not without concern that Craigie's intentions in this joint project seemed clearly biased to his interests. Much controversy and debate would later surface about Craigie's project, but more particularly, about his methods and motives.²⁶

The proprietors reaction to Craigie's first petition was recorded in the Records of the Proprietors of West Boston Bridge on May 22, 1804. It read, "that the Directors be a Committee to Oppose the petition of William Tudor & others, & the petition of Joseph Barrell & others, for erecting Bridges across the Charles River and they are hereby empowered, & instructed, to engage Counsel, appear before the Committee of the Honorable General Court, & elsewhere, and to take such other measures as they may think expedient to protect the property of this Corporation."²⁷ Two months later, at the proprietor's annual meeting on July 3, it was again noted that, "the Directors be empowered to take all legal measure, to prevent the erecting of any Bridge between West Boston Bridge, & Charles River Bridge, & they are hereby instructed to employ Counsel, to appear before Committees of the General Court, & elsewhere, as they may think expedient to protect the property of this proprietary."²⁸

Three years later and after several legislative frustrations, Andrew Craigie along with John C. Jones, Loammi Baldwin, Aaron Dexter, Benjamin Wild, Joseph Coolidge, Jr., Benjamin Joy, Gorham Parsons, Jonathan Ingersol, John Beach, Abijah Cheever, William B. Hutchins, and Stephen Howard were incorporated by the legislature as the Proprietors of the Canal Bridge, as it would be known, as it would be built near the

entrance to the Middlesex Canal. It had taken Craigie three years, and a re-alignment with more legislative friendly partners, to have his act of incorporation passed on February 27, 1807. The new corporation would build their bridge, starting in Boston from the northwest end of Leverett Street and cross the Charles River to Lechmere's Point, in Cambridge. A smaller bridge from the Canal Bridge would cross to Barrell's Point in Charlestown and thus connect Charlestown with Cambridge. With the Newburyport Turnpike ending in Charlestown, the turnpike investors hoped that this connection would encourage traffic, and more importantly, a return in their invested capital.²⁹

As a small benefit to the West Boston Bridge Corporation, the General Court specified that the Canal Bridge Corporation would split the yearly stipend that was paid to Harvard College by the West Boston Bridge Corporation. It read, "the said corporation [the Canal Bridge] shall be holden [sic] to pay to the proprietors of West Boston bridge, three hundred and thirty-three dollars and thirty-three cents, for each and every year that both said corporations shall exist."³⁰ Another small benefit the legislature afforded the West Boston Bridge Corporation was an extension of their charter for another seventy years from the opening of the Canal Bridge. But such small offerings did little to assist the West Boston Bridge Corporation in a time of serious financial need.

From 1799 to 1802, and from 1805 to 1807, the West Boston Bridge Corporation had been unable to make several of its quarterly dividend payments to its shareholders. In 1796 and through the early part of the new century, the proprietors could clearly see their expenditures were competing against their profits considerably. They had remarked to

the General Court in 1796 that, "they [the proprietors] beg leave to state that the Expenses of the Bridge have been very great and much beyond the first Calculation of the Proprietors and the Profits have been but little more than the simple Content of their Capital."³¹ It was noted in 1805, in the second quarter that, "the extensive repairs which has been made does not admit of any Dividends at this time."³² In the second and third quarters of 1806, it was recorded that, "expenditure exceeds income," and for the same quarters in 1807, it was noted with regards to the balance due the treasurer that, "as there is some expensive repairs to be completed on the Bridge, the Committee recommends that the Balance be applied to that purpose."³³ The financial activity of the Directors' book indicates that the West Boston Bridge Corporation was operating with little profit if any. Desperate times were giving rise to desperate measures.

Four months after the incorporation of the Canal Bridge, a remonstrance letter was presented to the General Court signed by Samuel Parkman, the President of the West Boston Bridge Corporation. It was read on June 9 in the Senate, and the following day in the House of Representatives conveying that, "it is with great reluctance they [the proprietors] again appear before this Honorable Court to oppose the unceasing attempt of said Craigie to erect a bridge from West Boston to Cambridge taking precisely the same course of travel, and comprising the same objects of communication that were expressly contemplated in the grant to the said proprietors, and this without the least pretence [sic] of diminishing the distance or improving the road."³⁴ The remonstrants also wrote that the Craigie Bridge, when built, would be "highly detrimental" to their interests and that Craigie's location as to where to place his bridge was, "desired only for the improvement

of his estate.”³⁵ In one particular section of the remonstrance, the West Boston Bridge Corporation, due to their severe financial dilemma, offered to sell, or to have the West Boston Bridge moved to Craigie’s proposed bridge location. The text of the remonstrance reads, “they [West Boston Bridge Corporation] are perfectly willing to sell their Bridge to Mr. Craigie at a fair appraisement, and if the public will be better accommodated, they are all willing to remove their Bridge to Lechmere’s point,” and they continue, “--but to erect a new Bridge to Cambridge without benefiting the public travel without indemnity to the remonstrants would be highly unjust.”³⁶ In the document, the corporation’s financial status is openly disclosed by Parkman revealing that, “West Boston Bridge has not yet paid simple interest on its cost,” and, “the expenses of supporting it are very heavy, being more than two thirds of its income.”³⁷ The remonstrants closed reminding the legislature that their bridge had, “afforded great accommodation to the Public,” and that their enterprise, “might rather be encouraged and protected by the Government than sacrificed to the interest of any individual.”³⁸

Did the West Boston Bridge Corporation really intend to sell their bridge to Craigie, or move it down river? Or was this a tongue-in-cheek suggestion, that was asking the legislature to notice the desperate situation the West Boston Bridge Corporation was being placed in? Perhaps a combination of both is the answer. The West Boston Bridge Corporation could have been exploring desperate options, as it was a difficult financial time for them, while appealing to the state legislature in the spirit of “anything, but not this new bridge,” much like the reaction of the Charles River Bridge to

the West Boston Bridge in 1792. The West Boston Bridge Corporation could see their scant profits slowly fading away with the building of Craigie's new bridge.

Craigie's response was to show no interest at all in the proposed purchase, nor the suggested relocation of the West Boston Bridge. It appears that Andrew Craigie was interested in operating for himself, regardless of what the West Boston Bridge Corporation wanted, and perhaps, less concerned with affording "great accommodation" to the public. What were Craigie's motives regarding the West Boston Bridge? These are not easily deciphered and thus some speculation is necessary. Did Andrew Craigie originally wish to be part of the West Boston Bridge Corporation? As with any speculation, it is difficult to know whether Craigie originally wished to be included in the membership of West Boston Bridge Corporation, but with an inventory of his actions regarding his own bridge, as historian Maycock refers to, one cannot help believe that the West Boston Bridge Corporation had left him seeking retribution somehow.³⁹ If this is the case, why was Craigie not accepted into the corporation formed in 1792? Several reasons for the exclusion of Craigie could have been his reputation for questionable methods and motives. Robert Morris, an associate of Craigie described him as a quick, sly, sensible and penetrating [man who] will try to discover your business and conceal his own.⁴⁰ Binford raised the possibility of another reason for lack of interest in Craigie as a partner by the West Boston Bridge Proprietors. They might have seen Craigie from the beginning as an outsider. Although Craigie's secretive methods seem the predominant reason for any lack of association, the fact that Craigie had no ancestral connection within

Cambridge and that he was Episcopalian and not Congregationalist, may have played an additional role in the proprietors' estimation of him.⁴¹

The conclusion that Craigie originally wanted to be part of the West Boston Bridge Corporation seems to appear sound, as his own bridge plans can be interpreted to first; gain personal profit for himself, and secondly; to frustrate and take profit away from the West Boston Bridge Corporation. Further examination reveals that from the late eighteenth century, Craigie had been buying land in East Cambridge, secretly and deceptively.⁴² Why had he bought this land secretly? Through these clandestine operations, much as he used the new partners to help him mobilize incorporation for his bridge, he eventually owned most all of East Cambridge. Paige wrote that, “the earliest transactions were conducted by Mr. Craigie with much skill and secrecy. His own name does not appear on the records until the whole scheme was accomplished.”⁴³ Did Craigie, perhaps bitter at being rejected as a partner, now want to compete with the West Boston Bridge Corporation? This seems to make sense. Maycock sheds light on this subject in East Cambridge, noting that Craigie had written to a business partner on January 31, 1792, revealing, “I shall be pleased on other than merely selfish accounts if my idea is thought by the wise men a proper one and if I am allowed to carry it into effect on liberal principles.”⁴⁴ This letter came just a few weeks after the notice for the subscription of shareholders for the West Boston Bridge in the Columbian Centinel, January 7, 1792. It may be that Craigie, obviously seeking an unhampered financial profit regarding his newly acquired real estate, also wanted to deal a blow to the West Boston Bridge Corporation with the added desire to compete. With speculation it is difficult to be sure;

however it seems to make sense. The lines had been drawn between the Canal Bridge Corporation and the West Boston Bridge Corporation. The key struggle now would be for access routes to the respective bridges. The West Boston Bridge Corporation was clearly dismayed over the prospect of losing more profit and the legislature's lack of support. The "great accommodation" for the public seemed to be in the hands of the legislature.

The West Boston Bridge Corporation was not the only party that was dismayed with Craigie's venture across the Charles. Several of Craigie's own partners from the Newburyport Turnpike Corporation and the Middlesex Canal Corporation submitted a remonstrance to the General Court that was read on June 9, 1807, the same day as the remonstrance from the West Boston Bridge Corporation. Maycock wrote, "other groups and individuals also opposed Craigie, saying that he had changed the proposed location of the Cambridge end of the bridge to enhance the value of his own property without regard for the public interest," also, "still other questioned Craigie's secretive methods of enrolling shareholders and refusing to submit his list of subscribers to public scrutiny, as the Middlesex Canal and Newburyport Turnpike proprietors had done."⁴⁵ John C. Jones, Joseph Coolidge, Gorham Parsons, and Benjamin Joy, all members in Craigie's venture of the Canal Bridge Corporation, complained to the legislature that Craigie had not shared his list of shareholders and, "after repeated promises and evasions, he at last refused to cooperate with the other members of the Committee in any measures of that kind," leaving them, "apprehensive that the associates of said Craigie might suffer from his perverse and obstinate refusal."⁴⁶ Craigie must have had much to say about his partners,

as the remonstrants finish their statement, noting their wish to fully explain to the legislature the details of the situation, and trust that the facts will, “be sufficient to repel the unfounded charges and the unjust and very improper insinuations.”⁴⁷ The legislature would soon act.

On February 26, 1808, an addition to the original act incorporating the Canal Bridge was recorded by the state legislature. It was an attempt by the state to respond to the complaints and to sort out the seemingly unclear geographic location of the Cambridge end of Craigie’s bridge, where a new road was to be constructed, and the rights of access for his partners. It began:

whereas, doubts and controversies have arisen among the persons claiming rights under an act entitled, an act for incorporating certain persons for the purpose of building a bridge over Charles River, by the name of The Canal Bridge, and for extending the interest of the proprietors of West Boston Bridge, respecting the construction of the same act, and the location of the Canal Bridge, and the objects proposed by the legislature in passing the said act may be defeated, unless some further Legislative provision shall be made respecting the same.⁴⁸

The Legislature gave clarity to the rights of the Craigie’s partners. It was again stated that the shares would be, “equally divided between the several proprietors of the respective corporations aforesaid,” thus noting the previous non-disclosure of shares by Craigie.⁴⁹

They also voted that, “[the Middlesex Canal Corporation] shall have a right, if at any time hereafter they shall see fit, to cut and make a canal and towing path, between the water in Miller’s River, (so called,) and the waters of the Charles River, across the land at Lechmere’s Point.”⁵⁰ In addition, a committee was appointed to visit the actual location of the bridge, confer with all interested parties, then “determine upon, and fix the most

westerly abutment of said bridge, in such place as will best accommodate the public interest.”⁵¹ John Phillips of Andover, Timothy Childs, Charles Turner, Samuel H. Wheeler, and Silas Holman were appointed by the legislature as the committee, and issued their report a month later on March 29, 1808. It read, “we do award, determine upon, and fix the most westerly abutment of the Canal Bridge, at a red cedar stake, standing in the marsh, near the mud flat, on Lechmere’s Point, six feet northwesterly of which stake is a flat stone, on which is marked the letter B, said stake is marked on the southwest side with the letters W A B, and on the easterly side, marked W B.”⁵² The committee made their final decision after having, “duly considered their [Craigie’s partners] respective applications, claims and demands, to have the place of the westerly end of said Canal Bridge, fixed and determined at or about the grounds aforesaid.”⁵³

The question regarding the westerly terminus of Craigie’s bridge had been brought about in part by Craigie’s new street, Cambridge Street. It would run from the Canal Bridge, through much of Craigie’s property then on to Cambridge Common. Craigie’s goals were twofold: first, Craigie wanted this road made a public highway by the General Court; secondly, he wanted to have this road connect with the proposed new street coming from Watertown, thus connecting to Brattle Street, which was almost directly in front of his house. Paige wrote, “such a road would continue the connection with Mason Street, over which and Cambridge Street, already projected, [it] was designed to conduct travel toward Lechmere’s Point.”⁵⁴

One problem that existed for Craigie’s new street was that a section of land, measuring about an eighth of a mile, prevented a direct line from the bridge to Cambridge

Common. William Winthrop, Henry Hill, Rufus Davenport and Royal Makepeace, all of whom had interests in Cambridgeport and had worked in the past with the West Boston Bridge Corporation, owned parts of this eighth of a mile section. After repeated attempts by Craigie with the assistance of Colonel Thomas Handasyd Perkins, the town of Cambridge voted in favor of Cambridge Street on July 10, 1809, but the eighth of a mile strip in question had been detoured slightly to the north. Not pleased with the town's decision to detour the eighth of a mile section, Craigie protested the next day. He petitioned that, "a road might be laid out from the west end of the Canal Bridge in a straight line through the lands of Andrew Craigie, Henry Hill, Aaron Hill, Rufus Davenport, Royal Makepeace, William Winthrop, Harvard College, and John Phillips."⁵⁵ By August 1, 1809, a committee appointed by the town approved the straight and direct route of Craigie's Cambridge Street through the eighth of a mile section in question. Another appointed committee saw fit to grant land damages amounting to \$1,3027.00 to Craigie for using his own property, and \$292.00 to William Winthrop, as the road cut directly through his land. The town felt that Craigie should not be compensated for using his own land and petitioned the Court of Sessions in December of 1809 to impanel a jury. The decision was eventually reached four years later in 1813, when the jury found Craigie and Winthrop entitled to no damages, as they found the benefits gained of a public road through one's property was equal compensation for the original loss.⁵⁶ An important legal precedent had been set concerning private and public property rights: compensation to private individuals, when it concerned use for public access, had been called into question.

When it became evident in February 1807 that the Canal Bridge would be built, competition between Craigie and the West Boston Bridge Corporation for access roads to their respective bridges had begun in earnest. Of this Paige wrote, “whenever either party desired to open a new avenue to its bridge, it was resolutely opposed by the other party, as adverse to its own interest.”⁵⁷ In addition to Cambridge Street, the greatest struggle between the two bridge corporations was regarding the road between Cambridge and Watertown. The key point of the struggle revolved on the terminus of the proposed Watertown Road. Craigie favored Brattle Street, while the West Boston Bridge Corporation favored a terminus to the west of it. The West Boston Bridge Corporation sought to have the Watertown Road, now known as Mount Auburn Street, connect “from the garden of the Hon. Elbridge Gerry to the garden of the late Thomas Brattle, Esq.”⁵⁸ Town meetings continued to battle the issue back and forth, but on May 2, 1808, the town of Cambridge voted 104 to 65 favoring the West Boston Bridge Corporation’s plan. Mount Auburn Street was completed with the town contributing three thousand dollars to aid in its construction. Craigie and his supporters protested. It appears that the protesting was so strong that a town meeting was called and a committee was set up for, “the purpose of prosecuting Andrew Craigie and others, for trespasses committed, or which may hereafter be committed by him or others upon the road.”⁵⁹ Mount Auburn Street now ran straight from Watertown, into Harvard Square, connecting with the current Massachusetts Avenue, and onto Main Street which was the causeway leading directly to the West Boston Bridge. Craigie would eventually get his connection to Watertown via

his new Cambridge Street, but only as a county road. The West Boston Bridge Corporation finished their Watertown Turnpike in 1824 at the cost of \$36,188.09.

As Craigie wanted his bridge built, the state had also thought it timely to include an additional stipulation for him to abide by. The stipulation was based on Craigie's belief that he should be compensated by the state for an imperfect title issued to him regarding a section of property formerly owned by the Lechmere family that he now possessed. The final ruling by the General Court stated that as Craigie had been allowed to build his bridge, that that was clearly enough compensation and they would invalidate his charter if he did not cease in pressing his claim for compensation. Craigie would comply, and construction of the Canal Bridge began later in 1808.⁶⁰

The Canal Bridge finally opened to traffic on August 30, 1809. The Columbian Centinel wrote, "one of the handsomest structures of the kind in the U. States, will be passable this day for carriages. The road from the Bridge to the College is straight, smooth, and firm; and we doubt not that convenience as well as novelty will induce much travel on this avenue."⁶¹ Unfortunately for the West Boston Bridge Corporation, it did induce much travel. As Binford noted, Craigie's land dealings had put together a line of properties on either sides of his road. On these soon appeared a hay scale, a brewhouse, and a blacksmith shop to draw traffic over the new bridge and away from the West Boston Bridge.⁶² For the first time since the West Boston Bridge had been built, there was a considerable loss in tolls after the Canal Bridge opened. Even with the first year of the Embargo, tolls had slightly increased for three out of four quarters from 1807 to 1808 (fig. 5).⁶³

	<u>1807</u>	<u>1808</u>	<u>1809</u>	<u>1810</u>
Jan.-Mar.	\$3,469.64	\$3,672.24	\$3,461.83	\$3,261.54
Apr.-June	\$4,175.17	\$4,391.51	\$4,720.12	\$3,921.61
July-Sept.	\$5,626.37	\$5,829.86	\$5,391.77	\$4,261.36
Oct.-Dec.	\$5,278.88	\$4,893.12	\$4,209.66	\$4,159.16

Fig. 5. Record of Tolls Collected on the West Boston Bridge, 1807-1810

The third quarter for the West Boston Bridge, had always been the busiest and had increased every year since the bridge's opening. With the opening of the Canal Bridge in August of 1809, the third quarter decreased from \$5,829.86 to \$5,391.77. The tolls would not be equal to the figures of 1808 until 1829, when they reached the July to September quarter at \$5,868.94. The new Canal Bridge had provided a shorter means of travel to Boston for the communities across the Charles and north of Cambridge, as well as a new area for settlement in East Cambridge. Craigie's Lechmere Point Corporation would soon begin extensive development of East Cambridge as an industrial area. The days when the West Boston Bridge Corporation held onto exclusive rights were waning. The option of being purchased would manifest itself: first by the state, then twice by a private corporation. Over the next several years, the West Boston Bridge Corporation would seriously consider the offers.

At the annual Proprietors meeting in July 1827, the Massachusetts General Court along with Royal Makepeace, sent a communication to the West Boston Bridge Corporation, "respecting a contemplated purchase by the Commonwealth, of the Proprietor's right in the Bridge."⁶⁴ It appears that no further effort was put forth by the General Court, and the West Boston Bridge Corporation recorded no continued

communication with the state regarding this possible purchase. The West Boston Bridge Corporation would continue to function for the next decade at a very minimum profit, but still with an attentive watch on their financial situation. In 1827, the ever fiscally-cautious West Boston Bridge Corporation felt it, “not expedient to comply with,” Rufus Davenport’s request, “in consideration of his services in laying out Streets & c in Cambridgeport to grant him, the freedom of the Bridge, for his personal passage, for life.”⁶⁵

On April 16, 1836, the Hancock Free Bridge Corporation was incorporated by the General Court on for the purpose of building a third bridge from Cambridge to Boston. The location for this third bridge was to be between the Craigie Bridge and the West Boston Bridge, beginning on Allen Street in Boston, crossing the Charles River, and connecting near Main Street in Cambridge. The previous year, as the Hancock Free Bridge Corporation began forming, the West Boston Bridge Corporation protested against it. At their annual meeting, now the first Tuesday in April, they voted that the, “Directors be authorized and required to take all suitable means for opposing any petition for another Bridge now pending in the legislature of the Commonwealth what if granted would in this judgment be injurious to this Corporation.”⁶⁶

The act of incorporation of the Hancock Free Bridge Corporation had an additional provision in it that required the new corporation to buy both the West Boston Bridge and the Canal Bridge if all parties would agree to a fairly appraised value of the respective bridges, thus eliminating a third bridge. The legislature’s decision for this added provision was clearly a sign of the times when legislative protection of vested

rights was deferring to what was better for the public. The legislature may have also believed that the future care and maintenance of the two bridges already over the Charles River would prove more practical than a third and unnecessary route over the Charles River. Whatever the reason for this provision may have been, the West Boston Bridge Corporation was interested and voted on May 14, 1836 that, "this Corporation do hereby agree to sell their bridge and their franchise thereof according to the terms of said act."⁶⁷ For the next few years, negotiations for appraising the West Boston Bridge took place, but there was no purchase. Paige refers to the financial disturbances of that year that continued to prevent the project.⁶⁸ Livermore wrote, "the Hancock Free Bridge Corporation owing to the general pecuniary distress which was prevalent in the year 1836, was unable to raise the money by which to conclude the purchase, and the scheme failed for the time."⁶⁹

In February of 1842, a special meeting was called by the West Boston Bridge Corporation, "to consider the proposition of the Legislature as to the terms for which the Corporation will sell to the Commonwealth the Bridge and franchise."⁷⁰ Their response of February 11, lends an interesting insight to the men who made up the corporation, and their stipulations regarding the sale of the West Boston Bridge. It contains much information and deserves to be quoted thoroughly. It began that, "the proprietors are and ever have been disposed to meet the interest and reasonable wishes of the community," and that they would, "surrender the franchise and corporate property to the State receiving therefore such a sum as may be deemed just and equitable to be determined by disinterested persons."⁷¹ They also felt obliged to remind the General Court that, "they

[the proprietors] decree it a duty they owe themselves and many of the original proprietors (not represented at this meeting) to state that the bridge was erected at great expense; that after its completion it was believed that the [sic] and interest of the proprietors would be promoted by making a road to Watertown and purchasing the Middlesex Turnpike; making it a free road; which was done by the proprietors of the West Boston Bridge.”⁷² They continued that, “to effect these objects the Corporation created a heavy debt in the discharge of which and keeping the road and bridge in repair most of the income was absorbed until within about the last ten years during which time they have received a net income of about thirteen thousand dollars annually.”⁷³ In closing their response to the legislature, the proprietors make clear their frustration. They wrote, “the Proprietors make this reply to meet the proposition of the Legislature [to sell their bridge] in the spirit of conciliation the proprietors or a portion of them being fully aware by past experiences that it is in the power of the Legislature to reduce if not destroy their property by granting other charters if they in their wisdom deem that the public convenience require such legislation.”⁷⁴ Again negotiations moved forward, but by March of 1842, the House of Representatives voted to reject a committee that would appraise the West Boston Bridge for state purchase.

Four years later, Isaac Livermore, Charles Valentine, William Reed and several others were incorporated as a new Hancock Free Bridge Corporation. Their incorporation on March 26, 1846, authorized them to build a third bridge across the Charles River, again at the same place stipulated for the first Hancock Free Bridge Corporation. If built, the bridge would begin , “at or near the north westerly end of Allen street, in the city of

Boston, and extending thence to the opposite shore of said river in Cambridge, at some convenient point between the West Boston Bridge and Canal bridge.”⁷⁵ Again there existed the requirement to purchase the West Boston Bridge and the Canal bridge, instead of building a third bridge, if the proprietors of both bridges would sell. It appears that a new bridge was not long contemplated by the Hancock Free Bridge Corporation, as only two months passed before the West Boston Bridge Corporation was prepared to sell their property. No remonstrance against the Hancock Free Bridge Corporation was recorded and at a meeting held on May 21, 1846, the West Boston Bridge Corporation voted to sell their bridge and the franchise “thereof upon the terms and conditions of the Act incorporating the Hancock Free Bridge Corporation.”⁷⁶ The Canal Bridge soon followed. At the meeting of the West Boston Bridge Corporation on June 24, 1846, all proprietors, except for one, voted to sell the West Boston Bridge to the Hancock Free Bridge Corporation. Shurtleff wrote that the incorporation of the Hancock Free Bridge Corporation in 1846, “completely discouraged the proprietors,” and that they were, “glad enough to sell out their franchise.”⁷⁷ On July 24, 1846, the last meeting of the West Boston Bridge Corporation took place at 9 and 10 Gray’s Building for, “the purpose of authorizing the sale, and disposition of the remaining real estate and other property belonging to the Corporation.”⁷⁸ The purchase price agreed upon by all parties would be seventy-five thousand dollars for the West Boston Bridge and sixty thousand dollars for the Canal Bridge. The West Boston Bridge was now owned by the Hancock Free Bridge Corporation.

The General Court authorized the Hancock Free Bridge Corporation to collect tolls at the same rate that the West Boston Bridge Corporation had charged with the intent to reimburse the new shareholders with six per cent interest. Upon completion of that, the new proprietors were required to raise an excess of one hundred fifty thousand dollars which should be used for the care and maintenance of the bridge. The West Boston Bridge would then become property of the Commonwealth of Massachusetts and a free thoroughfare between Cambridge and Boston. That would take another twelve years.⁷⁹

The West Boston Bridge Corporation had sold its bridge and collected what they believed a fair price for their efforts and then, adjourned into history. They had faced many challenges over the years, and above all, the financial challenge was without a doubt, most daunting. Profit was eventually surfacing by the 1830s, in the form of thirteen thousand dollars a year, but given the needs of a growing population in both Cambridge and Boston and the repairs that would be needed to accommodate the ever increasing traffic, contributed to the proprietors believing the timing was right to sell.

More than anything else though, the Hancock Free Bridge Corporation and the proposed third bridge across the Charles seems the strongest factor which contributed to the selling mentality of the West Boston Bridge Corporation. In February of 1837, the United States Supreme Court handed down a decision on the Charles River Bridge Case which had been moving through the courts since 1828. The case began when the Warren Bridge was incorporated by the state in 1828 and connected Charlestown with Boston only ninety yards away from the existing Charles River Bridge. To add insult to injury, the Warren Bridge would become a free bridge in six years. The decision was a battle

between vested interest and public need. The decision favored the Warren Bridge and approved the state's right to incorporate a company based on public need. The West Boston Bridge Corporation had also seen this phenomena with the incorporation of Craigie's Bridge and the Hancock Free Bridge Corporation. Times were changing and it was clear that vested interest could not be protected when it concerned public accommodation. This would prove to be the pattern in the nineteenth century with other bridges, turnpikes, and public transit companies.

Much had changed since the West Boston Bridge had opened in 1793. A contemporary acquaintance of Craigie, Dr. Eustis, had been recorded as saying, "Mr. Craigie's Bridge speculation will be of no advantage to him, the day it was granted to him in his opinion made him a beggar."⁶⁰ Andrew Craigie died in 1819, and as Maycock wrote, "a dreary, sparsely attended funeral marked his passing."⁶¹ Francis Dana had died eight years earlier in 1811, and had been described as, "withdrawn into a mysterious twilight of invalidism. A slender figure, wrapped in his Russian furs, he was still occasionally seen in the streets of Cambridge."⁶² His son had invested much in Cambridgeport and due to the Embargo, had lost a significant amount for the family. It was recorded that, "horses and carriages were sold. Servants were given up. The daughters of the family themselves undertook the household tasks. Little by little the large Dana estate was broken up and sold and sacrificed to pay off the debt and make good the losses."⁶³ Boston had become a city in 1822 and Cambridge followed in 1846. New roads and new bridges, as well as increasing landfill in both Boston and Cambridge had all but eliminated the island geography of Boston and the isolation east of Old

Cambridge. Development, thanks to new roads, had taken place in Craigie's East Cambridge marking the area for industry, and later Cambridge's government offices. New roads with new buildings over the thoroughfare to Boston, like the Charles Street Jail, Massachusetts General Hospital, and the Harvard Medical School helped to fill up a quickly crowding West Boston and to the south of Cambridge Street, Beacon Hill area. The competition between the West Boston Bridge and the Canal Bridge had without a doubt, contributed to growth and development of these areas in achieving an environment welcoming commercial expansion and transport.

CHAPTER FIVE

CHANGING ATTITUDES, TECHNOLOGY, AND A FREE BRIDGE

When the Hancock Free Bridge Corporation purchased the West Boston Bridge in 1846, it was evident that political and public attitudes had changed regarding vested rights. The Supreme Court decision in 1837 had made it legally clear to the Charles River Bridge proprietors, while strongly influencing the West Boston Bridge Corporation into recognizing, that no longer could vested rights be protected when it came to bridges in Massachusetts. The popular outburst against vested rights was growing and becoming stronger, while at the same time, the language of Jacksonian-Democracy spoke for more of an economic balance. The bridge proprietors, constantly seeking methods of increasing their tolls and reducing their debt, were the focus of this popular movement.¹ In addition to this Jacksonian-Democratic populism, the free bridge ideal was also born out of what Binford described as, “manifestations of suburban enterprise.” The Hancock Free Bridge Corporation was a collection of several Cambridge businessmen who sought to free their own business interests from the burdensome toll bridges, as their own access between Cambridge and Boston was a personal economic issue.² Of the early free bridge movement regarding the Charles River Bridge, Binford wrote, “elite leaders using populist rhetoric whipped up support for an extension of the walking city,” and, “its backers consistently portrayed the struggle as one of workers and tradesmen against the

rich proprietors of the Charles River Bridge.”³ Isaac Livermore, the president of the Hancock Free Bridge Corporation had been a dry goods dealer in Cambridgeport and had established himself as a large investor in local real estate, while also a prominent wool merchant, trading with local communities. Thus the shift in political and public attitudes had brought about the conclusion of the Charles River Bridge case, in favor of free bridges.

As the West Boston Bridge Corporation witnessed this shift, the decision to sell their bridge became the only option for them. Faced with current views on vested rights, the imminent construction of a neighboring bridge, and the maintenance cost of their own bridge, certain financial ruin seemed too close for any comfort. The sale of the West Boston Bridge to the Hancock Free Bridge Corporation in 1846, offered at least some compensation to the proprietors, who had long understood that, “it is in the power of the Legislature to reduce if not destroy their property by granting other charters.”⁴ With the Supreme Court endorsing that power, the age of the free bridge had arrived.

Surrounded by the changes of the time, the West Boston Bridge would be directly affected during the 1850s by several factors that had been in part, contributors to this new age. Population growth, industrialization of Cambridge and surrounding communities, and extensive building projects along with commercial development in Boston, were fast creating two busy metropolitan communities. Advances in building and transportation technology would also bring about changes to the bridge that this new metropolitan climate would demand. It was clear that the growing population, commercial development and industrialization had resulted in increased traffic over the bridge,

creating the need for a newer and stronger structure. A part of this increased traffic between the two cities was in the form of public transportation. By 1856, horse-drawn rail cars, better known as horse cars, would eclipse the omnibuses in service between Cambridge and Boston over the West Boston Bridge as the cities' previously limited boundaries began to expand.

Boston's population in 1800 had numbered 24,993 compared to Cambridge's at 2,453. By 1850, Boston's population had risen to 136,881 and Cambridge's rose to 15,215.⁵ This rise in population along with growing commercial exchange between Boston, Cambridge, Watertown and other surrounding towns allowed the Hancock Free Bridge Corporation to retire their debt of \$135,000 plus six percent interest in only ten years. The corporation had completely repaired the Craigie Bridge by 1852 at a cost of over \$30,000 and planned to rebuild the West Boston Bridge by 1854. To repair the bridges was in the corporation's own interest, but it was also their legal responsibility. In the Acts and Resolves of 1846, the state legislature had stipulated that the corporation was liable for, "all the expenses for the repairs upon the same."⁶ Financially, the bridge repairs were quite possible by then, as noted in the Cambridge Chronicle in 1854. It read, "Craigie's Bridge was rebuilt about two years since at an expense of over \$30,000," and, "on the first of January next [1855] the Corporation will probably be entirely free from debt."⁷

By July of 1853, the Hancock Free Bridge Corporation had begun filling up and making solid about 900 feet of the Cambridge end and 75 feet of the Boston end of the bridge. The rebuilt bridge itself would measure roughly 2000 feet and its width would be

extended to fifty feet, instead of the previous forty feet. Walls had been built to extend the shoreline and it was also intended to widen the road five feet where it would connect to the rebuilt and improved West Boston Bridge. Two technological developments that were not applied to the West Boston Bridge of 1793 would be applied to the new bridge of 1854. The technologies were McAdamizing of the road, and the use of the steam engine.⁸

The process of McAdamizing was named after John McAdam of England and emphasized an even road surface raised above water level with tightly placed stones on the surface to prevent water from breaking the foundation of the road down. It was fast becoming the standard for nineteenth century roads. The Cambridge Chronicle felt the process was important to note and reported that the bridge, "is to be cut down considerably, and then finished in a manner similar to the Craigie Bridge, with McAdamized road and brick side-walks," also that, "this is undoubtedly the best and most economical way of building a bridge, which is to be travelled [sic] as much as this will when it becomes free."⁹ Another issue explained the process in more detail wrote, "the roadway will be covered with earth and paved the entire length of the present bridge with round stones, somewhat smaller than those generally used; the sidewalks will be of brick and will be edged with the ordinary granite edge-stones."¹⁰ The West Boston Bridge would still be a draw bridge that allowed shipping traffic through, but the new draw would be placed some six hundred feet nearer to the center of the bridge and would also use the latest technology.

Through the summer of 1854, the steam engine was another technological advancement that would be soon be employed in powering the new draw. It was also applied in dismantling the old West Boston Bridge. The Cambridge Chronicle noted that, "the work of demolishing the old structure is rapidly progressing. About one hundred men are now engaged in the work, besides three steam engines."¹¹

The building of the new bridge continued, despite one slight delay in July, as lumber had not arrived "from the East," but again, the work resumed in September. The Cambridge Chronicle commented that, "the work of rebuilding this bridge is rapidly progressing towards completion. About 1,200 feet of the bridge and causeway have been paved, which is about one-half the whole distance," and, "the entire structure would probably been completed by this time, but for the delay in procuring the necessary materials."¹²

As the new bridge neared completion, papers echoed the mood of anticipation of the community. "The final completion of the bridge will be hailed with delight by residents of the First and Second Wards,"¹³ wrote the Cambridge Chronicle, and an issue the following month stated:

West Boston Bridge - The completion of this noble structure is near at hand. A few weeks more will suffice to finish every part. It is expected that foot passengers will be allowed to cross it in the course of ten days, and that it will be ready for carriages as early as the 15th November. The settling of a few of the piles where the water is deepest, will not delay the opening of the bridge, as it will take but a few days to remedy this difficulty.¹⁴

Another article, anticipating the opening of the bridge was written as if the bridge had just opened, authored by "Yours respectfully, Dreamer." The article creatively

described a fictitious re-opening of the West Boston Bridge taking place in October where an officer from Police Station Number 3 expressed with, "much feeling, his joy at the prospect of a resumption of the old route by the omnibuses, as relieving his section of the city from a large amount of noise and confusion and by changing the line of foot travel, save them from looking after so large a share of suspicious persons."¹⁵ He concluded his article humorously with, "the notes of the music again sounded forth, and the column was moving along grandly, when the omnibus ran over a large stone, and I waked up."¹⁶ Boston papers had wrongly printed that foot passage was to be free of toll, until all construction had ceased. The Hancock Free Bridge Corporation made it clear to the papers that, "the Company have taken no action upon the subject, but that such foot passengers as choose to cross the Bridge in its present unfinished state, have done so within a few days past without either the direct assent or dissent of the Company."¹⁷ It would nevertheless be a welcome event when the bridge opened, thus eliminating the large detour its repair had brought about.

The night before the bridge opened, there had been a celebration with a large procession traveling from Harvard Square in Cambridge, to State Street in Boston. The parade made its way towards the bridge where it, "stopped at Cambridge Square in the Second Ward, where a large number joined it, with torch lights and fire-works, making quite an exciting display."¹⁸ It was also noted that the, "streets were crowded with citizens," and that, "many of the buildings on the route were brilliantly illuminated, especially those near the bridge, and with fire-works and flags across the street presented a very beautiful appearance."¹⁹ The procession had stopped in front of the toll house

where the collector Moses Hadley received three cheers. Again it would stop in front of the house of Isaac Livermore, the president of the Hancock Free Bridge Corporation, to give rousing cheers and then on to the eating house of "Mr. Teague," where a dinner was served to those who remained behind.²⁰

On Tuesday, November 21, 1854, the newly rebuilt West Boston Bridge (fig. 6) opened for all traffic and for that day, no tolls would be charged. Joshua Harlow of Cambridge detailed the day's traffic over the bridge that day: 2,335 foot passengers, 1,570 one-horse carriages, 300 teams of two horses or more, 315 coaches, and 43 saddle



Fig. 6. West Boston Bridge (Cambridge Bridge), 1855

horses.²¹ One article noted that the completion of the bridge, hailed with satisfaction by the proprietors and drivers of the omnibuses, may also be hailed by the horses themselves. Describing that, "the bridge was closed for 175 working days; the extra travel by all

omnibuses was about 117 miles per day, making the distance travelled [sic] upwards of twenty thousand miles more than it would have been over the West Boston Bridge, and for which no extra pay was demanded."²²

These extra miles traveled were over the Craigie Bridge. The Craigie Bridge had collected about fifty dollars per day before the West Boston Bridge was closed. While it served as the alternative route between Cambridge and Boston, the tolls averaged over \$100 a day. With the West Boston Bridge again open, it was believed that, "it is probable that the tolls on the two bridges will now average over \$150 per day."²³ Cambridge and Boston were again united by the West Boston Bridge, again the tolls began to accumulate, and the Hancock Free Bridge Corporation looked forward to retiring its debt and turning the bridge over to the Commonwealth. It would not happen so quickly. It was scarcely three months after the new West Boston Bridge had opened when the Hancock Free Bridge Corporation received a major set back in their attempt to quickly retire their debt.

In February of 1854, the Supreme Court ruled on the case of the Commonwealth vs. the Hancock Free Bridge Corporation, which held the corporation liable, "to support the road commonly known as Cambridgeport road leading from Watertown to Boston."²⁴ The Hancock Free Bridge Corporation believed that when they had purchased the West Boston Bridge in 1846, that they would be held liable for only the repair and maintenance of the bridges, not the roads that had been property of the West Boston Bridge Corporation. As the Cambridge Chronicle reported, "the Hancock Free Bridge Corporation having succeeded to the rights of the Proprietors of West Boston Bridge, denied their liability to support this part of the old turnpike; contending that they were

only liable to maintain the bridge leading from the Port into Boston.”²⁵ When the towns of Brighton and Watertown complained, the state legislature declined to get involved and referred the matter to the court. These towns, as they were the communities along the Watertown turnpike, had previously received a grant from the legislature when the West Boston Bridge Corporation laid out the road to Watertown, that they would never be held liable, “to support and maintain it [the road] against their consent.”²⁶

The Hancock Free Bridge Corporation was indicted by the Grand Jury of Middlesex County and the final decision, holding the corporation liable, would prevent the freeing of the West Boston Bridge for a few more years. As to the repairs of the Watertown Turnpike and the effects of the decision on the communities of Brighton and Watertown, the Cambridge Chronicle wrote, “this will involve a large outlay; but, this having been accomplished, the towns through which the road passes will have less objection to accepting and maintaining it, which they must eventually do whether it be agreeable or not, though disposed, of course, to postpone that day to as remote a period as possible.”²⁷ In the end, the Hancock Free Bridge Corporation was obliged to make the repairs. These repairs in turn, would delay the retirement of the corporation’s debt and final payoff to its shareholders, and hence delay the freeing of the West Boston Bridge from the collection of tolls for another four years. However, in the following year the Hancock Free Bridge Corporation fared better in a business settlement that involved their West Boston Bridge and a new mode of public transportation: the horsecars.

In the 1850s, passenger cars pulled by horses along rails, known as horsecars were becoming the standard of public travel in the cities of New York and Brooklyn. In May

of 1853, the first company in New England, the Cambridge Horse Railroad Company, was chartered by the legislature and would begin running in 1856 along the omnibus route from Harvard Square in Cambridge to Bowdoin Square in Boston. Other horsecar companies in different locations would soon follow. As Isaac Livermore was one of the incorporators of the Cambridge Horse Railroad Company, rights were easily secured for travel over the West Boston Bridge.²⁸

In October of 1855, it was reported that, “the Cambridge Railroad Company have effected a settlement with the Hancock Free Bridge Corporation for the right of crossing their bridge, and in full for all toll cars, or for omnibuses and sleighs, in case of obstruction to the track for repairs, ice and snow,” and that, “by the payment of thirty-three thousand dollars in bonds of the Cambridge Railroad, dated January 1, 1856, being a portion of the bonds of \$150,000 which the road proposes to issue.”²⁹

The success of the horsecars was due to a slowly growing commuting population between Cambridge and Boston, as well as surrounding communities. Of these new commuters, Binford wrote, “the suburbs became accessible to doctors, skilled workers, clerks, and even some laborers,” and, “along with the freeing of bridges, streetcars also weakened the long-standing difference in conditions of access that separated Cambridge from Somerville and the various parts of Cambridge from each other.”³⁰ The physical boundaries of Boston’s walking city were giving way to the boundaries of the commuting city. Traveling between Boston and Cambridge was not reserved for the elite anymore and a wider spectrum of the population, however somewhat limited, could take advantage of this new mode of travel. As Binford also noted, local interest spawning suburban

growth, as well as crowding in Boston from the several waves of immigration, would continue to augment this mobility revolution.³¹ The stage coaches and the omnibuses had provided the means to facilitate this revolution, but the key factors in the great success of the horsecars were clear: they were faster and cheaper than the omnibuses, while offering passengers a smoother ride. Technology in the form of transportation had come to the West Boston Bridge.

Much like the replacement of the ferries by bridges, technological advances in transportation that were safer, more reliable, and cheaper were a welcome change to those traveling within this growing metropolitan area. The horsecar's predecessor was the omnibus. Omnibuses, unlike coaches which traveled from one city to another, would make stops along a planned route. They were longer than the coaches and contained more seats along the sides, instead of across the middle, with doors at either end which allowed for easier entrance and exit of the omnibus. Three lines of omnibuses had begun running on regular hourly schedules between Cambridge and Boston by the 1830s: the Abel Willard and Mark Bills line, the Thomas Stearns line, and the Hunting and Tarboy line. The three lines were consolidated in 1847 as the Willard, Stearns and Kimball line and it was possible to eventually ride to Boston via omnibus every fifteen minutes from six thirty in the morning to ten o'clock in the evening. Fares to Boston would depend on boarding location. From Harvard Square to Boston, it was fifteen cents, and from Cambridgeport to Boston, the cost was twelve and a half cents.³²

In the expanding urban setting however, their success was short lived. Omnibuses could not compete with the new horsecars in several ways. First, the fares were cheaper.

Horsecar transport from Cambridge to Boston would cost twelve cents, from Cambridgeport to Boston would cost ten cents, and it would be twelve cents from Watertown to Boston. It was even possible to buy package tickets at a fifteen to twenty percent discount. An article anticipating the coming of the horsecars commented, "the cars can be run cheaper than stages, with far less wear and tear," while trusting that, "no one will be found to oppose a matter so intimately connected with the business and social prosperity of the city."³³ While the horsecar lines were being built, an editorial noted the high cost of omnibus fares especially between Cambridge and Boston. "Cambridge has suffered long enough by high omnibus fares," it stated, while asking, "why is it that it costs so much more to travel three miles from Boston though Cambridge, than it does in any other direction from Boston?"³⁴

Limited schedules and available room found another asking why there were not more omnibuses available late at night. "The sensation is not very pleasant, for a lady," it complained, "especially after finding it is impossible to get a seat in the 9 o'clock omnibus, and having waited patiently till 10 o'clock, to see it drive up with twenty-five or thirty inside, twenty or so on top, and some half a dozen on the steps-no other alternative presenting itself, after having waited for an hour and a quarter, but to remain all night or to walk out at that late hour."³⁵ This over-crowded condition of the omnibuses led many to climb to the roof of the vehicle, which under certain conditions, could prove dangerous, as one article detailed: "Persons who occasionally 'imbibe,' and thus become liable to lower their dignity, should not take a seat on the top of an omnibus, as their dignity may suffer a fall in consequence of such a procedure [as] the man who fell from

one of the Cambridge Omnibuses, an evening or two since, near the Office in the Port.”³⁶ Binford acknowledged some of the problems with omnibuses. Many were old and uncomfortable to ride in over damaged roads. Poor weather could also present a delay or difficult journey. Limited range was another problem, along with traffic jams and the ever-present chance of accidents, and of course, the bridge tolls.³⁷ Horsecars were the answer of the time and the Hancock Free Bridge Corporation welcomed this new and improved transportation method. More welcome however, was the successful business agreement with the Cambridge Railroad Company. This single revenue source provided almost one third of the maintenance fund stipulated by the legislature to free the bridge.

By November of 1855, the Hancock Free Bridge Corporation had begun working to widen Main Street in Cambridge, previously know as the causeway, with financial assistance from the city of Cambridge. From the current location of Central Square to the West Boston Bridge, the road would be widened and side walks would be built. The Cambridge Chronicle noted, “the rapidly increasing travel over this great highway, renders it indispensable that the road should be widened, and a good sidewalk made on each side of the street.” It continued that, “the building of the street railroad also renders this step more necessary than before that important public improvement was undertaken.”³⁸ By the end of 1855, not only had Main Street been widened and sidewalks built, but the two pairs of rails, known as “sleepers,” were in place from present day Prospect Street in Central Square, over the West Boston Bridge, down Cambridge Street to Bowdoin Square in Boston. The Cambridge Chronicle wrote with anticipation,

"laborers are already at work at various points on the road, and , if no more snow falls, we may hope soon to see the cars running through our Main Street."³⁹

The first horsecars began running on March 26, 1856. One of two tracks had been opened from Central Square in Cambridge, over the West Boston Bridge, to Bowdoin Square in Boston. These first five cars running on this track had come from New York. "Car to Greenwood Cemetery" appeared on the sides of the cars as it had been their previous destination in Brooklyn.⁴⁰ Although ice on the tracks along Cambridge Street in Boston prevented the cars completing their trip, they crossed the West Boston Bridge and stopped short of Bowdoin Square at North Grove Street in Boston. This new mode of transportation received praising reviews. The Cambridge Chronicle wrote, "we noticed the universal satisfaction expressed in words and looks at the decided improvement between these cars and the omnibuses in which we have been accustomed to ride to and from the Metropolis."⁴¹

These improvements were described in glowing detail, defining the noted improvements over the omnibuses:

The cars are spacious and will seat comfortably twenty-four persons; the passage way through is sufficiently wide to accommodate as many more standing; and they run so smoothly that there is very little objection to riding in this position. They are also well ventilated; and being lighted by large glass, afford a much better view of the beautiful scenery from our bridges and the other parts of the city than can be obtained in any other close carriage which we have ever seen in our streets.⁴²

Noted also was that fifty people could be drawn in a horsecar by only two horses with "more ease and comfort" than an omnibus, and that this, "thus far proves that the cars can

make better time than the omnibuses as they can be stopped and started easier, and drawn over the road at a more rapid speed, with less danger from accidents of any kind."⁴³ The horsecars had proved themselves a great success for their time. New lines would be constructed and others would be expanded through the latter half of the century as Boston, Cambridge, and the surrounding cities continued to grow. Eventually, the strain of urban growth would be too much for the horsecars to support, and the cities' needs for a stronger and more modern bridge would become evident.

In May of 1857, the legislature passed an act authorizing the West Boston Bridge and the Craigie Bridge to be turned over to the city of Cambridge, instead of the Commonwealth. It stated, "the city of Cambridge is hereby authorized, upon the terms and conditions in this act contained, to assume the exclusive ownership, and control and charge of the bridges named in first section of this act."⁴⁴ With regard to past confusion about the turnpike road from Watertown to Cambridge, it was now clearly stipulated in the act that, "the said city is hereby authorized and required to maintain the same, with bridge and draw thereof, in the same manner as other highways within the said city."⁴⁵ By accepting the act in June 1857, the Cambridge City Council was clearly willing to accept the change of proprietorship from the Commonwealth to the city. Now that the Hancock Free Bridge Corporation had fulfilled its obligation to its shareholders and the legislature, the city was ready to accept the agreed fund of \$100,000 for future maintenance of the West Boston Bridge and the Craigie Bridge, as well as, the contractual payments from the horsecar company. As the Hancock Free Bridge Corporation prepared to hand the bridges over to Cambridge, the Cambridge Chronicle commented, "the

bridges are in most excellent condition and there is no probability that the whole income from the fund will be required to support them for many years.”⁴⁶ With the income from the contract with the horsecar company, it was clear that, “the estimated expense of keeping the rest of the Bridge and the Canal Bridge in good repair for the next twenty years, does not exceed \$2,600 leaving \$2,400 to be added annually to the fund.”⁴⁷

On January 30, 1858, between four and five o’clock, the toll signs on the West Boston Bridge and the Canal Bridge were taken down and replaced with signs noting, “FREE BRIDGES! From and after this day, Saturday, Jan. 30, 1858, the WEST BOSTON and CANAL BRIDGES Will become FREE public avenues, forever!”⁴⁸ It was written that, “the entire community, with the exception of those officially acquainted with what was in preparation, and a very few individuals besides, were taken by surprise; in fact it was one of the greatest ‘surprises’ ever known.”⁴⁹ On the following Monday, February 1, the large celebration that had been planned, began to take shape in front of the Cambridge Atheneum around eleven o’clock in the morning. It was here that the West Boston Bridge and the Canal Bridge would be handed over by the Hancock Free Bridge Corporation to the City of Cambridge as free bridges. There were twenty-five gun salutes and church bells ringing while the citizens of Boston and Cambridge, as well as many local merchants, began to fill the area in front of the Cambridge Atheneum. Several buildings including the bridges were “handsomely decorated,” and it was reported that the streets were filled with large amounts of the local population who had come out to take part in the celebration.⁵⁰

At the draw on the West Boston Bridge, Isaac Livermore, the president of the Hancock Free Bridge Corporation presented the bridge to Mayor John Sargent stating, "I surrender to you, Mr. Mayor, as the representative of the city of Cambridge, the West Boston Bridge, to be maintained by said city as a free public avenue forever!," whereupon the speech, "was received with loud and enthusiastic applause by the crowd assembled on the bridge."⁵¹ The procession then moved from the West Boston Bridge, down Cambridge Street to Bowdoin Square, then along Green and Lowell Streets, and to the Canal Bridge, where it was also was presented to the mayor. With another speech, Livermore made it clear the importance of the moment and the past burdens of the tolls: "It is one of the happiest circumstances of my life to be permitted to unite with you in striking this blow, which severs the last link in the chain that for more than half a century has fettered our beloved city, checking her prosperity, retarding her onward progress, and thus permitting her to stand forth not only as a city of freemen but a free city."⁵² The mayor responded to Livermore and the directors with praise and, "all honor to them for their disinterested labors for the public good, and we trust that as the history of the bridges is handed down, the name of Mr. Livermore and his associates may be mentioned with honor for their part they have borne in securing to the city a free communication with the metropolis."⁵³ The procession crossed back into Cambridge and stopped at the Atheneum, where a dinner was served for the officials. The celebration ended that night with several fireworks displays around the cities.⁵⁴

For the next half of the century, the route of the West Boston Bridge would still remain an important connection between Cambridge and Boston, and other surrounding

communities. The purchase of the bridge from the West Boston Bridge Corporation by the Hancock Free Bridge Corporation had brought the West Boston Bridge into the nineteenth century. The bridge had been completely rebuilt in 1854, with assistance from steam power; and the newest form of public transportation, the horsecar, made its debut in New England traveling over the bridge in 1856. The greatest change, however, was that the West Boston Bridge had ceased operation as a toll bridge in 1858.

The ending of tolls on the West Boston Bridge, was brought about by the Charles River Bridge case decision in 1837, ushering in the Jacksonian-Democratic inspired attitude on vested rights. Where the growing business community and the Free Bridge Movement succeeded; the gentlemen investors, who were the proprietors of the first bridge companies, were doomed to fail. The attitude of the time required it, as Kutler wrote, "privileges that amounted to barriers and restraints on material gain and market exploitation would be sacrificed on the altar of progress."⁵⁵ The age of protected vested rights were at an end and not without personal cost. One Cambridge landowner lamented just one week after the bridges were freed: "Those who have had their property taken from them," he wrote, "at less than a sixth of its value, as mine and the other Bridge proprietors was, cannot of course have any great expectations of justice being done to them," and continued that, "there will not be denied to them the poor privilege of leaving behind the glorious coruscations and brilliant fire-works of the other day, one blackened, half burnt stick inscribed an emblem of the public faith of the Old Bay State in the matter of the Cambridge Bridges!"⁵⁶

Times had changed and the West Boston Bridge had changed with them. By 1870, a legislative act would give the cities of Cambridge and Boston a shared responsibility in maintaining both the Canal and West Boston Bridges. Through the last part of the nineteenth century, the urban population would continue to increase, as well as the commuting population. The contemporary technological innovations that had affected the West Boston Bridge through the nineteenth century, would be replaced by new innovations; the replacement of horsecars with cost-efficient electric street cars over the West Boston Bridge on February 16, 1889, and the great task of building of the first fixed-span of steel and granite over the Charles River between 1900 and 1907.

As the twentieth century approached, the need for a stronger bridge became imperative, while a strong interest in developing the Charles River Basin area surfaced as part of a popular and growing urban beautification movement. The West Boston Bridge between Cambridge and Boston had changed with the times and would again change, as it was replaced with a newer bridge. This bridge, known as the Cambridge Bridge, would still provide a necessary transportation route between Cambridge and Boston, just as it had in 1793, as both Boston and Cambridge prepared for a new century.

CHAPTER SIX

THE MAGNIFICENT STRUCTURE, 1898-1907

As with the rebuilding of the original West Boston Bridge in 1854, the demands of the age were once again requiring change. Boston's population had grown from 177,840 in 1860, to 362,839 in 1880, and Cambridge's population figures had increased from 26,060 in 1860, to 52,669 by 1880.¹ By the late 1890s, upwards of thirty-thousand people were crossing the West Boston Bridge each day between Cambridge and Boston. With these numbers in mind, it is easy to understand why the West Boston Bridge had been closed for several months in 1871 for extensive repairs, and by April of 1877, a report from the Office of the City Engineer in Cambridge estimated a cost of \$5,788.60 to extend the roadway to one complete side of the bridge for team travel, thus eliminating one sidewalk.² By 1889, the bridge was referred to as, "old, narrow and poor, not suitable for the increase of travel and transportation which at present must be accommodated."³

With this increased traffic, combined with the heavy weight of the electric cars that had been running since February of 1889, the legislature authorized Cambridge and Boston to widen the bridge some twenty feet on the southerly side, but by 1890, no work had been done. In the spring of 1899, repairs were desperately needed on the West Boston Bridge and by October, the Boston Herald wrote, "of late years the bridge has been under constant repair, and has become somewhat shaky."⁴ The Cambridge

Chronicle wrote, "the paving on the roadway the entire length of the bridge was unsafe for travel."⁵ The bridge was repaired, but only doing what was needed to prevent any accidents.⁶ With the opening of the new Harvard Bridge crossing the Charles River at Massachusetts Avenue in 1891, there was some relief to the traffic congestion between Cambridge and Boston, but it was clear to all those who traveled over the old bridge that the West Boston Bridge of 1854 had become outdated and unsafe.

On May 26, 1898, the Massachusetts Legislature passed an act creating the Cambridge Bridge Commission. Through this commission, the legislature authorized the cities of Cambridge and Boston to construct and maintain a new bridge over the Charles River to replace the aging West Boston Bridge of 1854. The commission, consisting of Mayor Josiah Quincy of Boston, Mayor Alvin F. Sortwell of Cambridge, and Dr. Erasmus D. Leavitt, a well-known mechanical engineer at the time, was authorized to, "construct as a highway, a new bridge across Charles river, to be known as Cambridge bridge, at, upon, or near the present site of the so-called West Boston Bridge, from Cambridge street in Boston to Main street in Cambridge."⁷ Leavitt, who was the only paid member of the commission, was appointed as the sole permanent member and was expected to serve for the life of the commission.

The creation of Cambridge Bridge Commission was a culmination of events brought about by the increasing need for better and more modern public transportation. The incorporation of the Boston Elevated Railway Company had been passed by the legislature in 1894 to solve the increasing problem of slow traffic and extensively crowded streets in the downtown areas of Boston. It was planned that the elevated public

transit system would eliminate such problems downtown and expand into the surrounding communities of Cambridge, Somerville, Charlestown, Somerville and several others to the south and west of Boston. This same act created the Boston Transit Commission which would construct the first underground subway at Park Street along Tremont Street, the East Boston Tunnel and a new Charlestown Bridge.

With the passage of the act incorporating the Boston Transit Commission, the Boston Elevated Railway Company, along with the cities of Boston and Cambridge were directed by the original act of 1897 to petition to the legislature in 1898 or 1899, to establish an act which would authorize the construction and maintenance of a bridge across the Charles River. The location for this new bridge would be at the same site as the West Boston Bridge. It would be built with the intention to support an elevated railroad, as well as surface cars running between Cambridge and Boston.⁸

Sixteen sections were included in the original act incorporating the Cambridge Bridge Commission and they established the details of the building of the new bridge. Among the sections, the act noted: who would serve on the Cambridge Bridge Commission, the building of a temporary bridge for traffic while the construction took place, the assistance of the board of harbor and land commission for, "avoiding angles that will tend to cause collections of floating matter, and in granting licenses for the dredging of faults in said river,"⁹ the construction methods of the bridge, the payment of the cost of construction, the approaches to the bridge and the laying out of the highways.

The first meeting of the Cambridge Bridge Commission took place on June 16, 1898 on School Street, Boston in Mayor Quincy's office. William Jackson, a 1868

graduate of the Massachusetts Institute of Technology, was appointed chief engineer of the project, with a salary of \$3,000 per year. It was also voted that other architects would be invited to submit input as to the artistic design of the bridge. On June 25, 1898, a leading Boston architect, Edmund M. Wheelwright was appointed as consulting architect at \$2,400 yearly, and another graduate of the Massachusetts Institute of Technology, John E. Cheney, was appointed as assistant engineer and acting chief in Jackson's absence for \$2,000 annually. Jackson and Cheney were also engineers for the city of Boston, Jackson being the city engineer and Cheney serving as assistant. By the fall of 1898, both Jackson and Wheelwright had left for Europe to explore possible bridge designs. They met together in Dresden, Germany and traveled through Austria, Russia, France and England. The result was a large collection of bridge photographs to be used to develop the design for the new Cambridge Bridge.¹⁰

An article in Technology Review noted, "the earlier studies for the new bridge were made with the idea of using a draw; and several preliminary designs were for a bridge of stone or steel arches with a central draw channel running through an artificial island, the latter being of structural use to resist the thrust of the arches of each half of the bridge, and available also for park purposes."¹¹ The commission however, eventually settled on the idea of a drawless bridge, based on the decreasing amount of river traffic and the increasing amount of road traffic. It was also believed that a drawless bridge would cost less to maintain and that it would serve to eliminate delays for the proposed public transportation over it.¹²

As the original act establishing the Cambridge Bridge Commission noted that the bridge would be built, “with a draw substantially equidistant from the easterly and westerly end abutments of said bridge,” it was necessary for the commission to petition the legislature to permit construction of a drawless bridge.¹³ The legislature approved a drawless bridge on March 23, 1899. It noted that the new Cambridge Bridge could be constructed without a draw as long as it had the consent of the United States Government. If the bridge was approved in Washington, its height over the main ship channel, needed to meet the requirement of being not less than twenty-six feet above mean high water.¹⁴ As the Charles River was a navigable waterway, the War Department in Washington had to approve any construction plans affecting it. The plans were soon submitted and the commission waited for Washington’s answer.

The Cambridge Bridge Commission received an answer from the Secretary of War on June 1, 1899, stating that, “the Board is of the opinion that such a bridge would be an unreasonable obstruction to the navigation and that any bridge across the Charles river at this locality should be a drawbridge.”¹⁵ In response, the Cambridge Bridge Commission did not give up on a drawless design and a delegation, led by then Mayor of Cambridge, Edgar R. Chamlin, went to Washington to petition Congress. Success seemed close for the delegation by February of 1900, as bills advocating the drawless bridge had been introduced in both houses of Congress. Mayor Champlin and Chief Engineer Jackson appeared before the Committee on Foreign and Interstate Commerce on February 9, 1900 advocating for the drawless design. They made reference to the current four bridges over the Charles River noting that across them, “surges the enormous traffic

which radiates out from Boston to Cambridge and to the suburban districts to the north and west. More than one hundred thousand people travel over them daily,” and that, “all but one--Harvard Bridge--are pile bridges, unsightly structures, utterly inadequate to the daily demands made upon them and grotesquely inconsistent with the present plans for the future of the river.”¹⁶

Mayor Champlin stressed the importance of a modern and aesthetic Cambridge Bridge in light of the future plans to turn the Charles River Basin into a metropolitan park. It was also noted that, “this bridge has been the main artery to and from Boston in the past and it will probably continue to be for all time, as it is the selected route of the new elevated railway system.”¹⁷ Champlin detailed that a drawless bridge would cost less to build, would require less maintenance, would serve to provide uninterrupted service for the estimated thousands of commuters, and would provide no chance for a fast moving train to meet an open draw bridge by accident.

The plans for a temporary pile bridge, designed much like the West Boston Bridge of 1854, had been approved by the Secretary of War on September 14, 1898, and on October 15, a contract was awarded. The bridge was set three hundred feet south of the old bridge and extended 2,248 feet. Both ends of the temporary bridge turned inward to connect with the established roadways to the West Boston Bridge. The width of the bridge was forty seven feet and two inches, with a ten foot wide sidewalk on the north side. For the electric street cars, there was a space for two tracks set in the middle of the roadway. Two draws measuring thirty five feet each would no longer be powered by

steam, but by electric motors. Electricity would also be used to light all eight towers of the new bridge.¹⁸

The bridge was completed approximately one year from the start of the building at a total cost of \$72,509.50, but the anticipated opening would wait for two weeks while testing was done on the new electric draws. On October 19, 1899, the Boston Herald reported, "at 10:28 o'clock last night a special electric car was run over the temporary structure. Among the passengers was Mayor Champlin of Cambridge, who is a member of the Cambridge Bridge Commission, and he officially declared the bridge opened," and that there, "was no ceremony other than the testing of rails and electrical equipment by the trial trip of the car."¹⁹ With the opening of the temporary bridge, the West Boston Bridge of 1854 was closed forever. As the new Cambridge Bridge began to cross the Charles River, the old bridge would be used for storage by the contractors and then slowly be dismantled.

In Washington, after careful consideration of the facts presented by Mayor Champlin and the Cambridge Bridge Commission, the Senate and the House of Representatives passed a revised bill for a new and drawless bridge over the Charles River and President McKinley signed the bill on March 29, 1900. While the politics of building the bridge were being worked out in Washington, the Cambridge Bridge Commission's architectural and engineering staffs had worked out about forty preliminary plans for the new bridge and at last, settled on a specific design (fig. 7). The new bridge would be one hundred and five feet wide, extend roughly 1,767 ½ feet between abutments, use eleven steel arch spans supported on ten masonry piers and two

large abutments that would extend forty feet above the roadway. The center of the bridge would be forty eight and a half feet above low water and meet the required twenty six feet of clearance at high water. The two abutments at Cambridge and Boston would each have two towers, and on each of the four central piers, numbers five and six, there would be a tower extending up forty feet above the roadway. Iron staircases inside these towers would lead below the bridge to a granite tunnel for crossing.

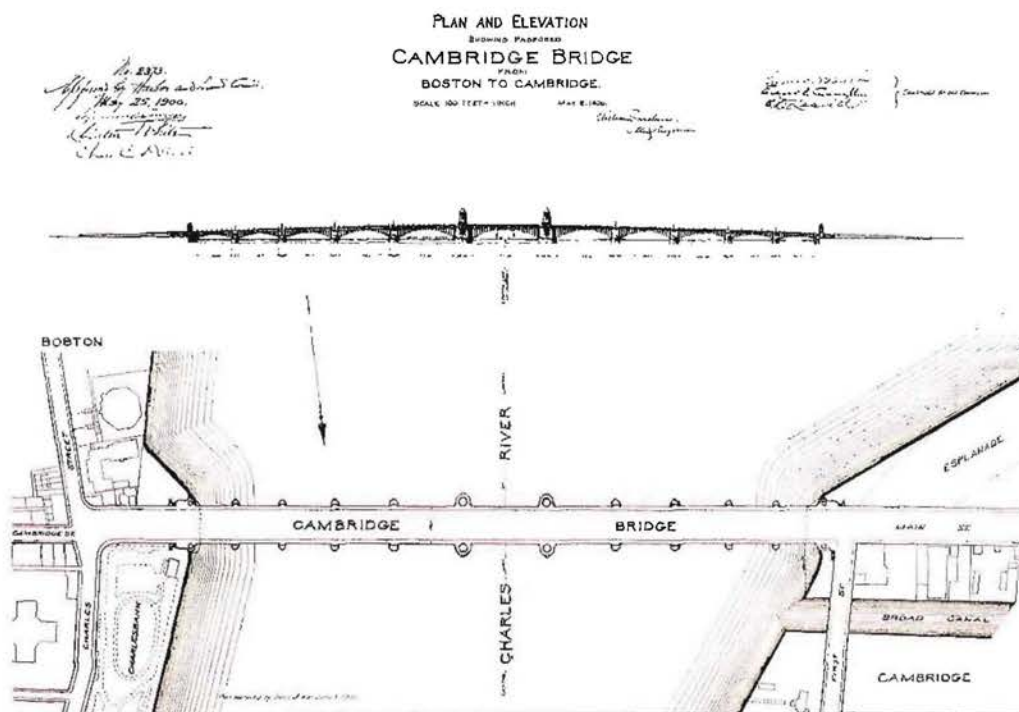


Fig. 7. Plans for Cambridge Bridge, 1900

This underground road crossing would be necessary, as the center space of the bridge was reserved for the tracks of the Boston Elevated. The bridge would be 105 feet wide from edge to edge. There would be a wide roadway on each side of the bridge, flanked on the outside by sidewalks with space for a total of four lines of public transportation tracks:

two tracks in the center of the bridge, eventually to be used by the Boston Elevated; and one on the inside of each roadway for the electric street car lines.²⁰

With a final design for the bridge selected and forwarded to the appropriate Washington offices, the Cambridge Bridge Commission received a license to build the bridge from the Harbor and Land Commissioners on May 25, and on June 5, the Secretary of War approved the design. The building of the first fixed-span bridge across the Charles River was ready to begin and newspapers echoed its coming. The Cambridge Chronicle wrote, “it is the present purpose to make the new Cambridge bridge one of the finest and most beautiful structures in this country.”²¹ Contracts for each stage of the building would be advertised in the several Boston, and Cambridge papers over the next six years.

The first step in building the Cambridge Bridge was to contract a company to build eight masonry piers that would serve as foundations for the steel arches and granite towers. Out of eleven bids, the lowest at \$460,000 was from the Boston-based firm of Holbrook, Cabot and Daly. It was accepted by the Cambridge Bridge Commission in July, and work would begin immediately to dredge mud, sand, and clay from the specific locations for the piers. In addition to the eight piers there would also be two central piers. These were contracted in November with the same firm for \$188,000. James W. Rollins, Jr., a member of Holbrook, Cabot and Daly and a 1878 graduate of the Massachusetts Institute of Technology, would supervise all the steps of the pier construction.

Dredging the Charles River from eighteen to twenty feet below the water line began immediately after the agreed contract at the pier locations, and all soft material was

carried and dumped five miles out in the ocean. Sand and gravel that had been dredged was deposited on a storage bank to be re-used after the pier foundations had been set.²²

The next step in the construction was to drive twenty to fifty foot piles into the dredged areas to support the cement foundations that would eventually be poured. A steam-driven pile driver was built especially for the purpose of sinking these piles some thirty to seventy-five feet below water level. It was capable of driving seventy-five piles in nine hours with a steam hammer that would strike approximately forty to sixty blows per minute. Over 14, 000 piles were eventually in place and ready to be surrounded by coffer dams constructed of pine sheeting. These coffer dams would serve as the encasements for the foundations of poured concrete upon which the steel spans and granite towers would rest.²³

Again pile drivers were used to drive pine sheeting almost completely below the surface water to form encasements around the previously driven piles. An additional 1,600 spruce piles were employed as guides for the sheeting. Once in place, Portland cement was poured into the coffer dams by a railcar, through a pipe that deposited the concrete up to six feet below the low water surface. The railcar could move easily over the coffer dam and deposit an equal amount of concrete over the large area. After removing excess surface water with steam pumps, a final amount of concrete was poured over a dry surface, and leveled for the placement of granite blocks which would be the material used in the above-water construction of Cambridge Bridge. This dry surface would support the first granite placements that would eventually be under five feet of water.²⁴

Granite for the upper masonry of the ten piers was contracted for with the Rockport Granite Company of Boston by November of 1901. The Cambridge Bridge Commission awarded the contract for cut granite to be delivered to the bridge site for \$91,900. In the fall of 1902, the Cambridge Bridge Commission contracted with Holbrook, Cabot, and Robbins to finish the upper masonry work on all ten piers and to build the granite abutments where the bridge would meet the roadways. This work alone was at a cost of over \$200,000.²⁵ By the end of the following year, the lower and upper granite masonry foundations were in place and would now be ready to receive the steel arch ribs. On piers five and six, the central piers, the seals of the cities of Boston and Cambridge, on their respective sides, were carved within a ship's bow in granite (fig. 8).

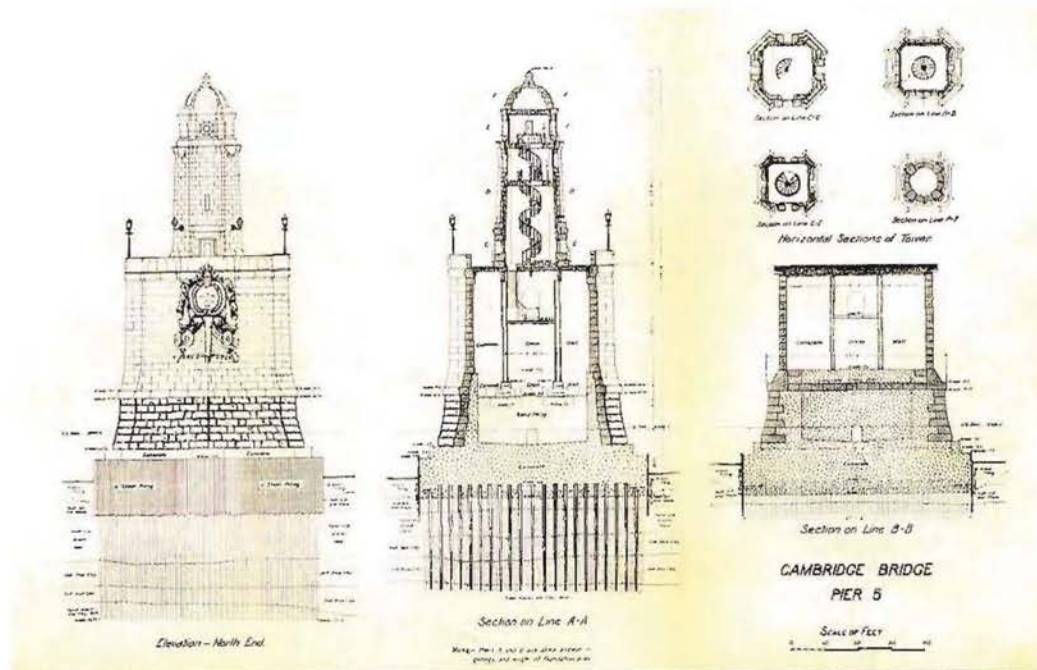


Fig. 8. Pier Five, Cambridge Bridge

The building of the steel structure was contracted by the Cambridge Bridge Commission to the Phoenix Bridge Company of Phoenixville, Pennsylvania in January of 1904. The accepted bid for the steel work amounted to \$529,500. The contracted company would now build to the specifications of one hundred and sixty plans that had been drawn in November of 1903 by Chief Engineer Jackson's office. Between each of the twelve granite piers, there existed eleven spaces for arch work. These arches were constructed and shipped in two parts and once in place, would be connected to form a single arch between each of the twelve granite piers. Within each of these eleven spaces formed by the piers, a total of twelve arches would rest to support the above steel structure and roadway. The length of each span varied from 101 ½ feet to 188 ½ feet, and would vary in curvature from 8.430 feet to 26.670 feet.²⁶

Work on the steel structure of the Cambridge Bridge began soon after the first shipment of twenty carloads of steel arrived from Pennsylvania on March 20, 1904. These steel-rib structures were stored on the recently rebuilt Cambridge embankment until needed in construction. Once needed, a piece would be towed by a scow and then set in place by a "heavy lighter" (a barge with engine-powered blocks and tackles) between each of the granite piers. By the end of April, false work, which consisted of double rows of Norway piles serving as temporary supports for the arches, had been set in place. Over the next seven months, the steel arches were assembled and riveted into exact location while the upper steel posts and floor beams grew along with the arches.²⁷

By November of 1904, all of the steel work had been completed except for the posts and beams for the above roadway and the steel work to go between the abutments

connecting the bridge to the Cambridge and Boston side (fig. 9). Additional stonework for the abutments was eventually finished and the steel work would be complete by May of 1905.



Fig. 9. Steel arches and piers in place, 1904

During the fall of 1904, a fire broke broken out on the temporary bridge from faulty electric wires and disrupted traffic for several days.²⁶ It had started between the draw and the Cambridge side and badly damaged an area of one hundred eighty feet. The Boston Herald reported that, “while the piles and cross-sills were badly charred, it is not believed that their strength is much impaired.”²⁷ Over the one hundred and eighty feet of destroyed surface, the bridge’s sidewalk did survive and continued to be used. All other traffic had been stopped. Public transportation stopped at the burned areas, and passengers would cross the bridge on foot and then resume their ride on cars at the other

end of the bridge. Other routes from Inman Square in Cambridge were created making detours to the Harvard Bridge. It was reported also that, "the loss, which will probably amount to a large sum, will come out of the appropriation for the construction of the new Cambridge bridge, which the burned structure is temporarily replacing."³⁰ By October 21, the bridge was opened to all traffic, and by October 27, all repairs were completed. The cost of repairing the temporary bridge from the damage caused by the fire was \$6,396.87.

The temporary bridge was not unlike its wooden predecessors of 1793 and 1854, needing extensive repairs every year of its existence from October 1899, to November 1906. The vast amount of traffic across the bridge demanded constant repairs as well as complete resheathing of the roadway every year. By the time the temporary bridge closed and was taken down, seven years and one month after its building, total maintenance of the bridge had amounted to \$39,821.12. By 1906, overall cost of construction, maintenance and removal of the temporary bridge had amounted to \$113,615.30.

Work continued on the Cambridge Bridge and contracts were made with several companies from 1906 to 1907 for the final stages of construction and remaining detail work. Curbstone, paving blocks, ornamental cast-iron work including railings, sidewalk stones, cleaning and painting of steel work, bronze grills, doors, and granite for the parapets and towers were contracted for and work progressed throughout the two years.

Electricity for the temporary arc lights for the new bridge was contracted for with the Cambridge Electric Light Company and the Boston Edison Illuminating Company in May of 1906. For permanent lighting along the sidewalks, one hundred and eight cast-

iron gas lamps were being constructed by the Helca Iron Works in Brooklyn, New York. The Cambridge Bridge Commission contracted the Boston Consolidated Gas Company in August of 1906 to, "lay to and maintain, without charge, in and on the bridge, a gas main and gas services from the main to the lanterns on each lamp-post."³¹ Each one hundred and fifty-candle power lamps along the bridge would receive 3,828 lighting hours for a year at a cost of forty-nine dollars. Electricity would also light the sixteen globe and bronze lights on the four center towers, as well as four of the same style lights on each of the Boston and Cambridge abutment towers. These ornamental lights would be completed by 1907.³²

Although the formal dedication of the new Cambridge Bridge would not take place until July of 1907, the bridge was nearly finished by August of 1906. It was on August 12, 1906, that the first electric street car traveled across the new Cambridge Bridge from Boston to Cambridge at 10:59 Sunday morning. Street cars coming from Cambridge were still crossing at the temporary bridge. The Boston Evening Transcript reported, "its arch is from bank to bank, and the crown rises so high above the river that the people in the cars get a fine view up stream to Corey Hill and down stream to the place where the new Charles River dam is being constructed."³³ It was however, still impossible for teams or pedestrians to cross the new bridge, as the center towers, known today as the "salt and pepper towers" were being built, and part of the Boston approach roadway had not been finished. The Transcript added that, "no teams can use even the down-street roadway of the new bridge for some time yet, partly because the approach from Charles street still lacks about 100 linear feet of paving, and partly because the

contractors who are building the four central towers out on the middle of the bridge are taking up much of the roadway with their blocks of granite and their hoisting machinery.”³⁴ By September 9, all street cars were traveling over the new Cambridge Bridge and on November 27, at eight o’ clock in the morning, the temporary bridge was closed and taken down over the next eight months. It would be five years before the reserved center space for the proposed elevated would be used because in Cambridge, the elevated project had met with strong opposition.³⁵

In September 1904, a joint special committee on rapid transit in Cambridge forwarded to the Boston Elevated Railway Company a report on the behalf of the citizens of Cambridge in favor of a subway instead of the proposed elevated. The citizens’ committee believed that the conditions in Cambridge were right for a subway instead of a elevated, and also that a subway would eliminate the “disturbing and annoying features” of having an elevated road.³⁶ The committee proposed that the Boston Elevated Railway Company join with the city of Cambridge and petition the legislature for amendments to create a subway, not an elevated in Cambridge. After several meetings, the response of the Boston Elevated Railway Company came soon afterward, and in May of 1905, a refusal of any alteration of the original contract was returned to Cambridge. It was noted in the press that, “the company stands ready to carry out the terms of this contract, and to build its elevated road to Brattle Square.”³⁷

Over the next four years, public sentiment was extremely strong in Cambridge for a subway and the city would not relent in its fight for a subway. The battle was short lived and building of a new subway began in the summer of 1909, with a repeal of the

original legislative act of 1894. Compromise eventually came to Cambridge's determined cause from an unpredicted source: the president of the Boston Elevated Railway Company, William Bancroft. Bancroft was a Cambridge resident and at the subway's dedication in 1912, then Mayor J. Edward Barry of Cambridge made Bancroft's influence in the compromise known. Barry orated, "I feel that the result was accomplished, in some measure at least, from the fact that the head of this great corporation was a Cambridge man, and was moved by local pride and a deep civic interest in the city, which he has served with distinction."³⁸ It was also noted that the Boston Elevated Railway Company, "did not press their legal rights in opposing what was so manifestly the will of the people of Cambridge."³⁹ Cambridge would have its subway.

During the struggle between the Boston Elevated Company and Cambridge, for its subway, the Cambridge Bridge was dedicated on July 31, 1907, in a style not unlike its two predecessors of 1793 and 1854. The Cambridge Bridge Commissioners, consisting of Mayor Fitzgerald of Boston, Mayor Wardwell of Cambridge, and E. D. Leavitt, were present for the celebration with over 100,000 people who attended to see a large fireworks display from floats in the Charles River. According to the Cambridge Chronicle, the fireworks were, "unquestionably the finest display ever seen in these parts," and, "all along the Cambridge bank of the esplanade, on Harvard bridge, Craigie bridge, and the new Cambridge bridge were thousands and thousands of people, who had a magnificent view of the display."⁴⁰ On the Cambridge side of the river, a grandstand had been set up for invited guests and ticket holders numbering two thousand, while boats of "every description" were on the Charles below the fireworks display. An informal

luncheon was held by the Cambridge Bridge Commission for some two hundred invited local past and present politicians at a new building, Riverbank Court. Speeches were made by several people including the mayors of Boston and Cambridge. Mayor Fitzgerald echoed that the new bridge was, “a magnificent structure that links two of the oldest cities on the continent,”⁴¹ and Mayor Wardwell of Cambridge continued with, “we feel that we are starting a new era,” and that, “we feel that the prosperity of Cambridge is assured.”⁴² The all day event, which had began at seven in the morning, eventually came to a close after a large parade, the formal dedication and speeches, with the display of “effective fireworks,” and the press concluding that, “it was an ideal night for such a picturesque event.”⁴³

In 1909, the Report of the Cambridge Bridge Commission and Report of the Chief Engineer upon the Construction of Cambridge Bridge was published by the city of Boston. The final cost of the new Cambridge Bridge from 1900-1907, amounted to \$2,654,895.66. Still unknown at the time was the apportionment of cost between the cities of Cambridge, Boston, and the Boston Elevated Railway Company. In the original act of the legislature authorizing the building of the Cambridge Bridge in 1898, the Cambridge Bridge Commission could request the Supreme Judicial Court of Massachusetts to appoint a special commission to determine what amount would be paid by the Boston Elevated Railway Company. In the Cambridge Bridge Commission’s report, it refers to, “this matter is now under consideration by a Special Commission appointed by the Supreme Judicial Court, in accordance with chapter 467, of the Acts of 1898.”⁴⁴ Settlement was eventually reached between all parties on March 31, 1910. For

its share of the cost of building the Cambridge Bridge, the Boston Elevated Railway Company would pay a total of \$515,000. As Cambridge and Boston had been paying for the construction of the bridge from the beginning, the settlement amount was split in half and Cambridge and Boston each received \$257,500 from the Boston Elevated Railway Company.⁴⁵

The Cambridge Bridge had been built (fig. 10) with two considerations in mind: to provide a strong bridge incorporating the latest technologies in engineering for a new

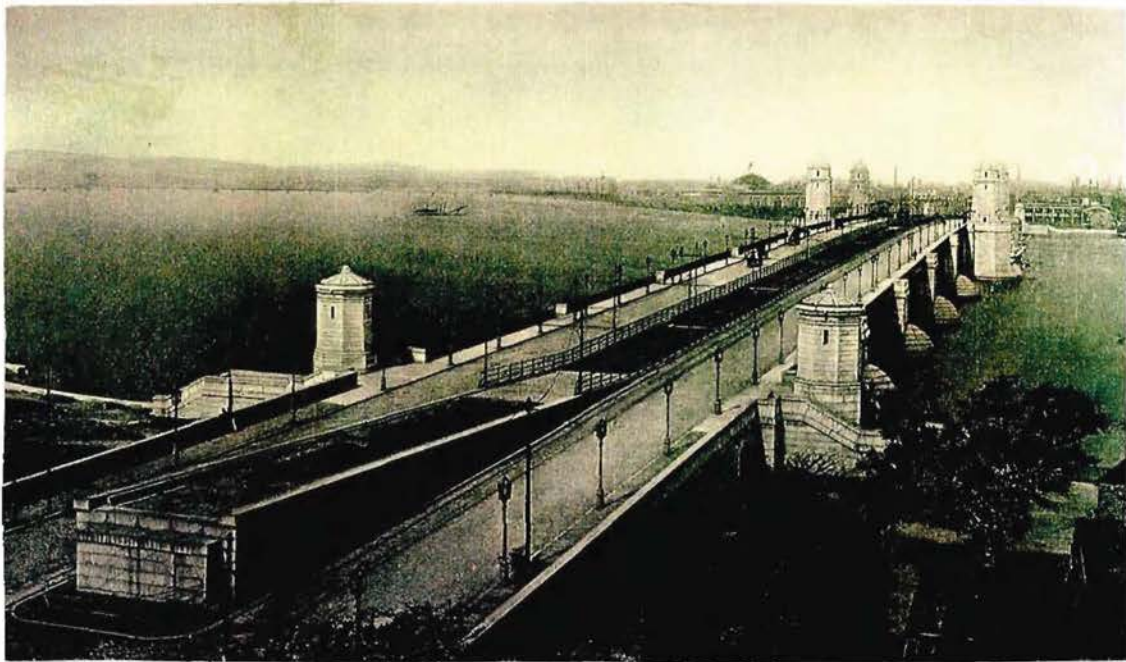


Fig. 10. Cambridge Bridge completed, 1908

rapid transit system, and to design that bridge with an emphasis on aesthetic value that would establish it as a centerpiece in the developing scheme of a metropolitan park within the Charles River Basin.⁴⁶

Like its predecessors, the Cambridge Bridge had been designed first and foremost with utility in mind, yet unlike its predecessors, the Cambridge Bridge had been designed to serve as an architectural landmark, that symbolized that the cities of Cambridge and Boston had jointly embraced the age of the modern metropolis.

CONCLUSION

This thesis has explored the three bridges over the Charles River between Cambridge and Boston, each one known to its contemporaries as the West Boston Bridge. The first bridge, built as a toll bridge in 1793 by a private corporation, opened up a new route between Cambridge and Boston other than the Boston neck, or the Charles River Bridge of 1786. The second West Boston Bridge was built in 1854 by another share holding corporation of local Cambridge businessmen, and succeeded in its intention of making it a free bridge in 1858. The current bridge, known today as the Longfellow Bridge, was completed in 1907 by the cities of Cambridge and Boston in order to support the busy traffic of a modern metropolis while encompassing a distinctly urban and modern appearance, in conjunction with a new metropolitan park.

The West Boston Bridge was clearly a changing bridge for changing times. These three bridges over the Charles River were definitively each products of three distinct time periods and each brought unique contributions to their urban environment. The first bridge was built in an age of vested privilege, when gentlemen speculators sought individual profit from exclusive charters. The second bridge was built in an age of urban growth and expanding commercialization influenced strongly by Jacksonian-Democratic

principles. The third and current Longfellow Bridge, was the product of Boston and Cambridge entering into the age of a modern metropolis.

The first West Boston Bridge of 1793 established a route of two and a quarter miles travel between Cambridge and Boston that was shorter than any route that existed prior to its construction. The bridge was vital to opening up a direct route from the agricultural interior of Middlesex County to the markets at Boston, while bringing an end to the isolation of West Boston and creating Cambridgeport.¹ Although the route proved popular and many profited from initial land speculation along the route, profits for the West Boston Bridge Corporation and its shareholders were sparse: records show that expenditures often exceeded income. The key factors in this economic situation was that the popularity of the route brought a need for constant repairs, and in spite of the attempts of the West Boston Bridge Corporation to increase tolls and extend their charter, no help came from the state legislature. In addition, the building of the Craigie or Canal Bridge between Cambridge and Boston in 1808, further limited profits from the West Boston Bridge Corporation by offering another route between Boston and Cambridge and communities to the north.

Road building and the development of previously uninhabited areas outside of Old Cambridge were a result of the building of these two bridges. The Canal Bridge, built by Andrew Craigie in direct rivalry to the West Boston Bridge Corporation, resulted in the development of industry-based East Cambridge and a network of neatly placed criss-crossing roads including Cambridge Street in Cambridge. Access between Cambridge and Boston via the Craigie Bridge would also lend an interest in eventually

filling in and development of the Mill Pond. The greatest competition between these two companies led to the building of roads to the West Boston Bridge Corporation's Watertown Turnpike.

Commercial development, as well as settlement, took place along Cambridge Street in Boston, the new Main Street in Cambridge, and in the West End of Boston and Bowdoin Square directly influenced by traffic over the West Boston Bridge. Established roads such as the Concord Turnpike and the Middlesex Turnpike were extended and connected with West Boston Bridge roads with the intention of bringing more traffic and tolls to the bridge. Bulfinch's Charles Street was built with the help of the West Boston Bridge Corporation which after the financial slowing due to the Embargo, eventually led to extended building off the street around the Beacon Hill area. With these roads and bridges in place, public transportation companies in the form of stages and later, omnibuses soon established themselves as an irreplaceable part of the growing urban layout.

As noted, both the West Boston Bridge and the Canal Bridge were products of an age of protected vested rights. With the landmark Charles River Bridge case favoring public interest over individual privilege in 1837, vested rights had received its death knell. Changing times had come for the first West Boston Bridge. No longer could vested rights be protected on the state level and more importantly, no longer on the Federal level. Jacksonian-Democratic influences had played a major role in setting this precedent for state governments to act upon. The popular tone was now to be: what was better for the public's accommodation, not for those who held vested rights. The

corporations that held exclusive rights were sacrificed if they stood in the way of a “democratic” economic development and expansion. With this era of vested rights ending, the West Boston Bridge Corporation and the Canal Bridge Corporation saw no other options available except to sell out when the legislature authorized the building of a third and free bridge over the Charles River in the 1830s. The South Boston Bridge Corporation of 1805 witnessed a similar ending. Its shareholders, who had collected not a single dividend in its history, witnessed the state incorporate a neighboring second bridge in 1828 that would be free of tolls.² Another bridge company had seen an end to their profits and their vested rights. By the 1830s, the free bridge movement had backing from local businesses, the state, and the Federal Supreme Court. No longer could vested rights survive or could the companies who built these bridges.

With the purchase of the West Boston and Canal Bridges in 1846 by the Hancock Free Bridge Corporation, changing times had arrived. The concern for uninhibited commercial exchange, inspired by Jacksonian-Democrat ideals, had been the primary impetus for the free bridge movement in the 1830s, resulting in the bridge becoming free in 1858. The increase in the cities’ commercial and population growth, with a developing commuting population outside the traditional walking city, led to the need of a sturdier West Boston Bridge. Henry C. Binford’s study, noted a rising increase from this idea of a walking city to one dependent on mass transportation from 1815 to 1860, with the development of the first residential suburbs.³ A rebuilt West Boston Bridge was opened in 1854 to serve this age of urban growth and expanding commercialization for Boston and Cambridge.

In this age of urban growth and expanding commercialization, public transportation was becoming an important part of the urban landscape and a new form appeared over the West Boston Bridge. The horse cars made their debut on a run between Central Square in Cambridge and Bowdoin Square in Boston in 1856 and expansion of these lines, as well as an increase in riders crossing the bridges would continue as the cities' population grew and the urban environment expanded.

Like the horse cars, technologies appeared in relation to the West Boston Bridge in the form of steam power and new technology in road building. Steam power was employed in dismantling the old bridge of 1793 and in operating the draw bridge of the new West Boston Bridge. Toward the end of the nineteenth century, as the West Boston Bridge of 1854 failed to keep up with the demands of a growing urban environment, a new bridge was needed that would support a superior public transportation system and hold in aesthetics, a metropolitan character.

The West Boston Bridge of 1900-1900, also known as the Cambridge Bridge and eventually the Longfellow in 1927, was the product of the age of a modern metropolis. Designed by engineers from the Massachusetts Institute of Technology, the modern steel and granite structure replaced the outdated and failing bridge of 1854. The bridge was heralded as a magnificent structure for its time, and had been built by the cities of Cambridge and Boston for the primary purpose of supporting an elevated rail system between Cambridge and Boston. Unlike the previous two bridges: the first being funded by a private corporation, and the second, being funded by Cambridge businessmen with limited assistance from local government, the new bridge was funded by the cities of

Cambridge and Boston, and the Boston Elevated Railway Company. Times had again changed. Gone were the horse cars and steam-operated draw, as electricity illuminated the bridge at night, and powered the heavily-used subway during the day. The new bridge was not just utilitarian, but it was built as a symbol of a modern metropolitan age in part of the scheme for the public park within the Charles River Basin.

An important final point in considering the changing history of the West Boston Bridge is that the original route, constructed by the West Boston Bridge Corporation in 1793, is still being traveled on today. Although the expressway has long eclipsed it as a main entrance into Boston, it is nevertheless used every day by thousands of commuters traveling between Cambridge and Boston. Its utility has survived for two hundred and seven years and more than likely, will continue through the new century. The history of the West Boston Bridge is an often forgotten part of the fascinating past of Boston and Cambridge.

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CHAPTER FIVE

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CHAPTER SIX

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