The View From the Roadside

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New Figures of Exodus

(Histories and Philosophies of the Designed Present)

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Harvard GSD MDes Open Project Spring 2023

Cover image: Kowloon restaurant, Saugus, MA, 1978. Library of Congress, John Margolies Roadside America Archive.

Introduction

The following work traces the history of a Massachusetts road, the Newburyport turnpike, through a series of successive iterations. It began as a toll-road and a vehicle for speculative investment in the beginning of the nineteenth century; intended to revolutionize overland travel in New England, it instead sank into financial failure, disuse, and neglect. The road was revived over fifty years later as a tourist route and incorporated into one of America's most significant automobile trails, the Atlantic Highway. The trail networks, in turn, formed the basis for the early U.S. highway system. By 1926, the former Newburyport turnpike had become part of U.S. 1, the easternmost interstate route and an important regional transit corridor.

To write the history of a road is, in a sense, a perverse undertaking. It requires maintaining attention on a subject that, by its nature, invariably leads to other places. A more fitting approach might be to simply follow the road's course. The filmmaker Robert Kramer's four-hour opus *Route One/USA* (1989) is a magnificent example of this; it takes the form of a road trip along the length of U.S. 1 from Maine to Florida. Yet fixing one's focus on the development of a particular area, as has been done here, has its own advantages. First, it works against the common conception of the road or highway as belonging to a category that exceeds the local. Such systems, as will be seen, emerge only from agglomerations of localities, often by way of complex negotiated processes. (The interstate highway, for example, may be said to be "national" only insofar as its quality of "nationalness" is constituted at the local level.) Second, delimiting a section of road, while precluding any kind of totalizing view, allows something else to come into focus: the particular quality of movement that inheres to this or that historical system of transportation. Over time, some qualities may linger or adapt, or they may be abandoned or superseded. The first two parts of this work, on the turnpike and early

automobile era, respectively, identify certain qualitative affinities between the road's origins and later reemergence as a touring route.

This research concludes with the detailed consideration of a subsection of the Newburyport turnpike, the Route 1 commercial corridor in Saugus, Massachusetts. The Saugus strip saw intense and concentrated development in the 1960s and 1970s, becoming known for its kitschy, oversized themed restaurants such as Hilltop Steak House and Prince's Pizzeria. The work posits that this distinct pattern of roadside development may be read in relation to the postwar situation of Route 1 in Saugus, which came to embody an encounter between two different modes of road construction: the highway and the expressway. Finally, a reading of one such restaurant, the Polynesian-themed Kowloon, characterizes the nature of this encounter through the conceptual figure of abutment.

1
The Newburyport Turnpike 1803–1852

The Newburyport turnpike was a failure, to begin with. Conceived by a group of local investors and constructed between 1803 and 1805, the road connected Boston to the coastal town of Newburyport, Massachusetts. The directness of its course and quality of its construction made the turnpike one of the most advanced roads in New England.[1] It was also the most expensive of its kind, a particularly ambitious embodiment of the turnpike "craze" that swept through New England in the early nineteenth century.[2] Incorporating high-quality gravel surfacing and lavish roadside lodgings with an array of leisure activities, including sailing and horse racing, the Newburyport turnpike was a dramatic intervention in a region that tended to eschew overland travel. The expense was never recouped: once in operation, its toll revenues were nowhere near sufficient to turn a profit.

The Newburyport Turnpike Corporation, like nearly all of its ilk, was defunct by the middle of the century. The road itself eventually turned over to the municipalities along its route. By that point the railroad had established itself as the superior mode of transportation. The turnpikes, in comparison, were derided as products of ill-advised speculation. However, their era of grand folly produced almost four thousand miles of new, well-built roads across the region. These rural highways would be revived with the advent of the automobile, which, one hundred years later, would produce a public more amenable to the promise of the open road.

1.1 The Turnpike Era in New England

The genesis and development of the term "turnpike" is worth clarifying at the outset. Originally, it referred to a gate constructed across a road for the purpose of halting

travel until a toll had been paid.[3] The word derived from the combination of "pike," being anything with a pointed end, with the term "turnstile," a rotating gate composed of four crossed bars that rotated around a central axis. In practice, turnstile-type gates were rarely used. Instead, most took the form of a single long gate built across a road, as was the case for the Newburyport turnpike.[4] Each toll-gate had an adjacent toll house wherein a toll keeper supervised daily operations and collected tolls from travelers. Over time, "turnpike" began to be used metonymically in reference to privately-operated roads that generated revenue through the use of toll-gates. This is the sense in which "turnpike" is used here, i.e., in reference to the roads themselves.

The turnpike era in New England began in 1792 with the construction of a toll road between New London and Norwich, Connecticut. Over the next two decades, turnpikes were widely adopted: because they were user-supported, states saw them as a means of improving roads without relying on taxation. They were built by turnpike corporations chartered by state governments. To establish a turnpike corporation, interested parties petitioned the legislature for permission, through a special act of legislature, to construct their road along a proposed route.[5] State officials then designated committees to review the proposal, making adjustments as deemed necessary as well as assessing damages for any property affected. As written, New England turnpike charters were remarkably uniform in overall structure and language. They enumerated the persons incorporated in the enterprise; the course and width of the route; the rates of toll and number of gates to be erected; the penalties imposed on travelers for avoiding tolls; the penalties imposed on the corporation for failures of maintenance; the right to lands conferred along the route; and certain conditions pertaining to the incorporation, such as an acceptable date range for the road construction and a provision that the road would be returned to the public after achieving a certain level of returns.[6]

At first, turnpikes simply took over existing routes. This type of charter predominated in Connecticut and accounted for much of New England's early turnpike development. In the Connecticut model, turnpike advocates first made their case by describing an existing route and declaring that the road ought to be a public highway. The ensuing act of legislature, if passed, tasked towns with acquiring the land along the route and building any necessary bridges, after which the turnpike corporation assumed responsibility for constructing and maintaining the road.[7]

Between 1800 and 1810, however, Massachusetts drew ahead Connecticut in chartering and constructing turnpikes. Around this time, the rhetoric around turnpikes began to shift. Turnpike proponents started to fixate on the deficiencies of ostensibly crooked public roads and the miles saved by establishing new straight-line routes. Massachusetts charters therefore tended to pursue greenfield projects that would supersede existing roads. As a result, straightness in route planning, as a means of achieving the most direct and efficient overland linkages possible, grew from a commonsensical rule to an *idée fixe* among planners. An 1806 treatise on pisé architecture and road planning, for example, outlines three elements of turnpike construction: "shortness, evenness, and cheapness."[8] Straightness, for many planners, took precedence over any other consideration.[9]

Almost all of the Massachusetts turnpikes followed this maxim, and the Newburyport turnpike was no exception. Its charter describes a course proceeding south from Newburyport "twenty-four degrees West . . . [in] as nearly . . . a strait [*sic*] line as practicable" to Boston (Fig. 1.1).[10] Its route was likely the strictest straight-line requirement observed by any of the New England turnpikes. Upon its completion, the

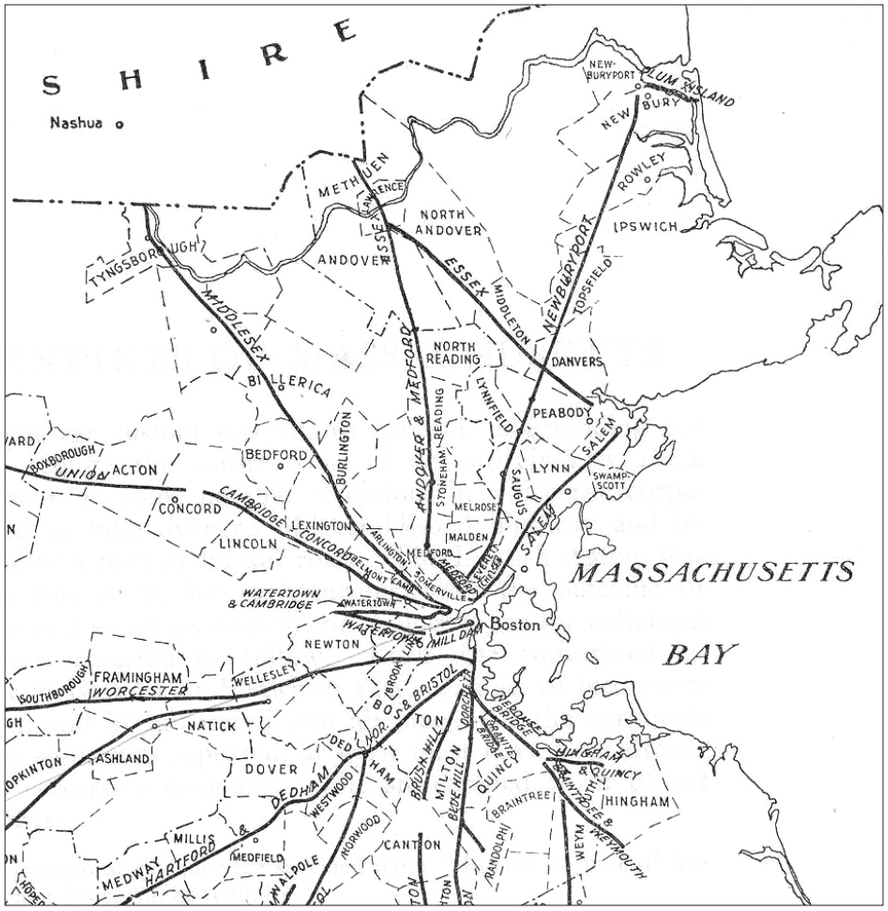

Fig. 1.1. Turnpikes of Massachusetts (detail); the Newburyport turnpike is visible connecting Boston and Newburyport to the northeast. From *Frederic J. Wood, The Turnpikes of New England* (Boston, MA: Marshall Jones Company, 1919).

Newburyport turnpike became the premier example of straight road construction in all of New England.[11] By all accounts, it represented the realization of the period's highest aims in overland travel.

1.2 The Newburyport Turnpike Corporation: Charter and Organization

The Newburyport turnpike received its charter in 1803, which proved to be the high-water mark of turnpike incorporation in New England. A total of twenty-three turnpikes were incorporated that year, sixteen of those in Massachusetts.[12]

Located north of Boston on the southern bank of the Merrimack River, Newburyport was at that point a young town, having split from neighboring Newbury in 1764. A small but active port, it grew steadily from around 2,800 residents in 1765 to close to six thousand by 1800. Like many New England coastal towns, prior to the Revolution it had assumed a mediating role in the triangular trade between England, the North American colonies, and the West Indies. By the eighteenth century, New England colonists had come to leverage the advantage they held in trade, both supplying provisions to the other colonies as well as processing and shipping staple products produced elsewhere. This robust mercantile economy in turn generated the means for colonists to acquire manufactures imported from England.[13]

The Newburyport turnpike was conceived and implemented by representatives of Newburyport's ascendant merchant class. The initial petition to the Massachusetts General Court, filed in February of 1802, lists six signatories: Nicholas Pike, William Bartlet, William Coombs, Micajah Sawyer, John Pettingill, and James Prince.[14] Four of this group (Bartlet, Coombs, Pettingell, and Prince) represented the town's mercantile interests. The remaining two were prominent community members: Sawyer was a physician and Pike a local schoolmaster.[15] There were strong ties between Newburyport's intertwined industries of shipping, shipbuilding, and privateering, and many were involved in some combination of the three. Prior to establishing the Newburyport Turnpike Corporation, various members of the group pursued local public works projects, including constructing lighthouses and bridges.

In order to finance Newburyport turnpike, Bartlet and his associates needed a sympathetic ear in Boston. This they found in the Hon. William Tudor Sr., a prominent lawyer who had formerly served as a Representative in the Massachusetts General Court (from 1781 to 1794) and a State Senator (1800–1802). William Tudor was the only son of "Deacon John" Tudor, from whom he inherited a considerable fortune.[16] When the turnpike's Board of Directors convened in April of 1803, after the petition had been authorized by the Court, William Tudor was elected president.[17] Enoch Sawyer, father of Micajah, was named as treasurer, and James Prince was elected vice president alongside Boston merchant Gorham Parsons. Parsons, too, participated in the triangular trade, shipping commodities such as hemp and iron to England and the West Indies.[18]

Tudor's participation is difficult to account for. Several factors indicate, however, that his involvement may have been related to an interest in land along the planned route. Among his inheritances from Deacon John was a plot in Lynn (now Saugus) upon which Tudor had begun planning a country estate. As it turned out, the route of the Newburyport turnpike directly served this residence.[19] It seems probable, therefore, that Tudor's interest in the project was related to its connection with his Rockwood property.

For the Newburyport turnpike, as with most turnpike corporations, legislators

determined the quantity of stock and left the total capital and the amount per share variable. In this case, the stock comprised nine hundred and ninety-five shares.[20] Turnpikes offered no-par stock and were paid for with a small downpayment; since road construction was a long-term prospect, costs could be paid during construction with subsequent assessments that raised the shares' value. In the case of the Newburyport turnpike, shares were assessed in twenty-dollar increments, eventually reaching four hundred and twenty dollars each. The turnpike's capital stock ultimately totaled $417,000, of which $41,643 was used to build two inns along the route, one in Lynnfield and the other in Topsfield.[21]

As part of the process of obtaining a charter, the state of Massachusetts required the directors to publish copies of their petition in certain newspapers, including the Boston-based *Columbian Centinel* and the *Newburyport Gazette*. This offered citizens the chance to voice their opinion on the proposed project and route; it also gave the directors the opportunity to advertise to prospective investors. In April of 1802, the *Centinel* published the directors' petition to build the Newburyport turnpike, which asserted the following:

> [A] Turnpike Road in as direct a line as possible from *Newburyport* to *Boston*, would be of very great utility to the public, which (*Newburyport* lying in a direct line between *Portsmouth* [New Hampshire] and *Boston*) by connecting with a similar one from *Portsmouth*, will contract the travelling distance between those capitals from sixty-seven or sixty-eight, to fifty-two or fifty-three miles; and that from *Newburyport* to *Boston* to about thirty-two miles.[22]

An anonymous editorial in the *Newburyport Gazette*, published around the same time, made a similar case for the turnpike. Noting that "a new bridge . . . and a turnpike over the marshes" had recently been proposed, it opined first that such projects "should be taken as part of a system for drawing closer the connexion [*sic*] with smaller sea ports, from Boston to Portsmouth inclusively." After discussing the problem of "bad roads" blocking the "profitable employment of labor and capital," the piece claimed that "the smaller sea-ports and Boston perfectly unite in viewing the proposed accommodation [i.e., the turnpike] as a great and essential advantage common to them all." Finally, drawing on recent memories of the struggle for independence, it suggested the utility of improved transportation in times of war: had "the road been so much shortened in 1775 and 1776 as now proposed," the author wrote, "how easy in comparison it would have been to defend our coast."[23] Such arguments invoked the road's prospective convenience and utility in the context of regional and national unity. The Newburyport turnpike, according to this description, would facilitate interstate cooperation among Massachusetts, New Hampshire, and Maine.

1.3 Construction

Massachusetts turnpikes tended to be much more expensive than earlier inland and Connecticut projects. There were a number of general conditions that contributed to the cost differential. First, this phase centered around the relatively dense Greater Boston area, and as a consequence the land damages paid out were much more expensive. Second, planners' increasing adherence to straightness made construction more demanding and labor-intensive.[24] (Anticipating high levels of traffic around Boston,

builders also tended to invest in high-quality construction and surfacing.) By way of comparison, the mean cost per mile for Connecticut turnpikes was $547, while the mean cost per mile in Massachusetts was $1,940. Even among its peers, however, the Newburyport turnpike was astonishingly expensive. On average, each of its thirty-two miles cost $11,730 to build. The only New England road comparable in per-mile cost was the Salem turnpike (incorporated 1802), which was less than half its length.[25]

Several specific factors helped to account for the Newburyport turnpike's expense; some were within the directors' control, and others less so. Of the latter category was the terrain. Over three weeks in the summer of 1803, the directors traversed the route several times to finalize its course. The surveying process anticipated construction difficulties to come: "[rocky] heights, bogs, briers, thickets, and all the unpleasant obstacles of an unfrequented tract of country . . . rendered these pedestrian journeys slow and fatiguing."[26] The final route was drawn up by Michael Hodge, a merchant marine captain and the Surveyor of the Port of Entry at Newburyport.[27]

Construction began in earnest on August 23, 1803, proceeding southward from State Street in Newburyport. The roadbed was laid out in several stages. For each section, the directors paid individuals to oversee the work and contract labor from locals, who received a day rate. In many cases, workers provided their own tools (wheelbarrows, carts, picks, and shovels), although the turnpike provided several ox and horse carts as the work progressed.[28] James Prince and fellow merchant captain Israel Young oversaw construction of the first eleven miles from Newburyport to Topsfield. The crew completed four miles by November of 1803, at which point they adjourned until the next spring. This initial eleven-mile stretch ultimately cost $18,850 to build. A smaller section followed; Peleg Slocum (of Lynn) coordinated the construction of another three-and-a-half miles to the town of Rowley and received in payment "eight thousand dollars and a hogshead of rum." Captain Jonathan Ingersoll, of Newburyport, completed another nine miles, bringing the route near its terminus in Malden. Ebenezer and Richard Kimball, a father and son from Lebanon, New Hampshire, helped to complete the turnpike in early 1805, by which time it had opened for use.[29]

After commencing work in August, the road crews immediately encountered difficulties. This was largely due to the terrain around Newburyport, which was riddled with swamps, streams, and rivers. In order to maintain the course, Prince and Young were forced to build sixty-two bridges in the first eleven miles.[30] Water remained a persistent problem throughout construction: the turnpike eventually required one hundred and thirty-one bridges in total. Most of these were small wooden structures, but at times larger bridges were necessary. A bridge over the Ipswich River, for example, spanned seventy feet and required three hundred feet of abutments due to a marsh on its north side. Board member Gorham Parsons oversaw construction of another substantial (seven-thousand-dollar) bridge over Newbury's Little River. Even where bridges weren't needed, the waterlogged soil conditions often required raising the roadbed a considerable amount. At one point near Newburyport, workers built a twenty-foot-high embankment above a swamp only to find it collapsed the following day into a thirty-six-foot-deep hole.[31]

For all its setbacks, the construction of the first half of the turnpike from Newburyport to Topsfield proceeded with relative efficiency. For this portion of the road, the cost of construction per mile averaged around $1,850, around the median for Massachusetts turnpikes overall.[32] This began to change, however, as it drew near Boston. Water remained an issue; Ingersoll's portion of the road (between Topsfield and

Malden) required dozens of small bridges and culverts. To this was added an additional obstacle: hills. Due to the limitations of horse-drawn vehicles, turnpikes needed to avoid steep inclines and declines. In order to accomplish this while maintaining the road's course, Ingersoll's men had to cut down nine large hills and many more small hills. The largest hills were reduced by up to twenty-five feet and smaller ones by six to twelve feet. In other areas, the crew faced the opposite problem: steep declines had to be built up or bridged. For this, workers employed hundreds of pounds of gunpowder to break up rocks and ledges that were used to fill holes or build culverts or embankments. Ingersoll's section required "three hundred men, eighty yoke of oxen, and twenty horses" between the summer and fall of 1804.[33] It was hard, dangerous work. In August of 1804, the Salem *Gazette* reported that a laborer had been killed "by the falling in of earth [while] at work on the Turnpike" in Topsfield.[34] The following year, a fifty-year-old road worker died in a similar manner. Many more non-fatal accidents occurred during construction, including one that required a worker's leg to be amputated.[35] Owing to the difficulty of the terrain, the turnpike deviated perceptibly from its heading as it passed through this area (present-day Saugus).

The road itself, difficult as it was to build, was only one part of the overall cost. Land damages also constituted a significant part of the expense. The cost was already relatively high, given its proximity to Boston, but many landowners along the route also demanded compensation beyond the amount set by the state. Even though the charter gave the corporation the right to appropriate land in return for predetermined damages, many landowners succeeded in their appeals. In seventeen different cases, landowners were able to convince a jury to increase the amount of damages they were owed. This reflected the reality that few people along the route supported the project. Investment was highly concentrated geographically: more than eighty percent of the turnpike's investors were from its two terminals.[36]

Obstructive terrain, accidents, excessive land damages: these were to some degree outside the corporation's control. As a result, the cost of construction, financed by twenty-six assessments between 1803 and 1806, rose far higher than any other road of its kind. This is not to say that the turnpike would have been economical otherwise. Indeed, much of its expense was attributable to its design from the outset. For example, the directors chose to surface the road with a ten-inch layer of gravel on top of the roadbed. The practice of "gravelling" was, at that point, recognized as the most effective method for high-traffic routes as it protected the roadbed from erosion and wheel damage. In 1803, however, this was still uncommon. None of the Connecticut turnpikes were surfaced with gravel, and only a handful of Massachusetts turnpikes used this method. While expensive, the quality of surfacing meant that the Newburyport turnpike was the best-constructed of its contemporaries.[37]

The Newburyport turnpike's most visible expense was the erection of two well-appointed inns along the route, one in Lynnfield and another in Topsfield. For the Lynnfield inn (twelve miles outside of Boston), the corporation purchased fifty-three acres of land and built ice-houses, stables, and a blacksmith's shop in addition to the main hotel. The Topsfield location included similar amenities on a smaller, four-and-a-half-acre lot.[38] The inns provided lodging and entertainment for long-distance travelers on the turnpike (Fig. 1.2). At the Lynnfield inn, the builders made the road twice as wide in order to accommodate horse racing. The property also included sailing facilities at nearby Suntaug Lake, likely anticipating a high volume of traffic from Boston and Salem during the summer.[39] More than any other feature, these attempts at vertical

integration reveal the extent of the planners' ambitions. The turnpike was evidently conceived not only as a means of conveyance but a site of leisure activity.

1.4 Operation, Use, and Decline

The Newburyport turnpike opened for travelers in February of 1805, though work on its terminal in Malden continued into 1806. The corporation installed toll collectors at the turnpike's three gates. Each was initially paid a salary of two hundred and forty dollars per year.[40] Fares for travel ranged from five cents (for a man on horseback) to twenty-five cents (for a four-horse carriage). Transporting cattle cost one cent per head and swine three cents a dozen. In accordance with general turnpike regulations during this period, toll collection was limited to long-distance and commercial travelers. Users exempt from paying a fee included those traveling on foot, those going to and from worship, and those who used the road in going about their daily work. Fares were assessed according to vehicle size, with particular attention paid to the number of horses and wheels per vehicle. This was a fairly common practice that aimed to offset the damage done to the road's surface by wheels and hooves.[41]

As a rule, specific data on the types of vehicles that used New England turnpikes is scarce; most often, toll keepers simply recorded daily earnings.[42] Given this gap in the historical record, detailed logbook information gathered by a toll collector on the Newburyport turnpike between 1808 and 1811 is of particular interest.[43] These records show that, in the early years of the turnpike's operation, the vast majority of fares came from the category marked "two-wheeled carriage, one horse," that is, in a chaise or similar vehicle. Over a thirteen-week sample period spanning June to August of 1808, the median number of weekly chaise travelers was one hundred and eighteen. The next-most-common type was "man on horseback," whose median weekly ridership during the same period came to thirty-one. Weekly figures for the other major categories were very low: "four-wheeled carriage, four horses," one; "four-wheeled carriage, two

Fig. 1.2. The Lynnfield inn on the Newburyport turnpike. From Nathan Mortimer Hawkes, "Milestone Memorials along Newburyport Turnpike," in *The Register of the Lynn Historical Society, Vols. 15–18* (Lynn, MA: Frank S. Whitten, 1913).

horses," four; and "two-wheeled carriage, two horses," two. However, as this logbook fails to account for any travelers exempt from the toll, the extent of local turnpike use remains unknown.

These initial data seem to indicate that the Newburyport turnpike primarily served private travelers in one-horse carriages.[44] In a typical week, the sample set shows, approximately seventy-five percent of the turnpike's toll-eligible users traveled in private carriages. This fact carries with it certain implications about the Newburyport turnpike's early ridership. In the period following the Revolutionary War, carriages for private travel were relatively rare. The chaise (i.e., the "two-wheeled, one horse" type) indicated wealth: its high wheels, painted canvas or leather curtains, folding tops, and cushioned seats made it a conspicuous luxury item.[45] Accordingly, it may be reasonably inferred that the turnpike's earliest adopters were private travelers of some means.

The composition of ridership likely began to shift somewhat following the establishment of the Eastern Stage Company in 1818, which conveyed passengers between Newburyport and Boston for a fare of two dollars. The Newburyport Turnpike Corporation also successfully petitioned the Postmaster General to use the road for the purpose of mail delivery, arguing that it was "generally considered to be the best in the United States" and that it shortened the distance between Newburyport and Boston considerably.[46] Neither the mail service nor passenger stage, however, had a significant impact on the turnpike's finances.

The Newburyport turnpike's fundamental problem was that its ridership was insufficient to cover the cost of its construction. Part of the reason for this, ironically, was the planners' strict adherence to their straight line. Despite all their efforts to cut down hills, the road exceeded the standard five-percent maximum grade in a number of areas, which made individual travel difficult. This was a matter of horsepower: it was generally safer and more efficient for carriages to navigate around, rather than surmount, steep hills.[47] Despite the quality of the surfacing, inclines could also be dangerous. While four-horse Concord coaches could manage the trip, its steep ascents and descents discouraged private travelers, who more often took a coastal route through Salem. The turnpike also saw little commercial travel, as its hills were ill-suited to hauling heavy loads. Even those who did use the Newburyport Turnpike found ways of eluding the toll. It was common for locals to devise routes, or "shunpikes," that circumvented toll-gates, and the turnpike era saw a proliferation of laws combating this practice. This problem was significant enough that the Newburyport Turnpike Corporation erected intermediate toll-gates along the route to curtail shunpike use.[48]

The Newburyport turnpike earned estimated returns of about two percent per year.[49] Very little of its income ever made its way back to investors. Shareholders received dividends of two dollars and twenty-five cents per share in the first assessment in January of 1806; the largest dividend, of two dollars and seventy-five cents per share, was issued in 1807. The amount dropped to fifty cents per share by 1820, and in 1823 the corporation sold its Lynnfield and Topsfield hotels, issuing shareholders five dollars per share from the proceeds. By 1825, most New England investors recognized that turnpike stocks were essentially worthless. Contemporary transaction records reflect this realization. Share prices for the Newburyport Turnpike Corporation began, in 1803, at four hundred and twenty dollars. In 1814, they sold for sixty-three dollars each; in 1831, another transaction clocks them at roughly ten dollars per share; and by 1841, Newburyport turnpike shares sold for fifty-seven cents.[50]

In February of 1836, Newburyport residents approved a petition by the Eastern

Railroad Company to construct a railroad through their town as part of its coastal line. The Eastern Railroad opened in 1840 and connected East Boston to the North Shore (including Lynn, Salem, and Newburyport) before continuing through to Portsmouth and up to Portland, Maine. The railroad rendered the Newburyport turnpike obsolete, though by that point the turnpike had been in financial trouble for a long time. In 1849, much of the northern part of the Newburyport turnpike (through Rowley, Ipswich, Topsfield, and Danvers) was turned over to the public, and the remaining portions (Middlesex, Lynnfield, and Saugus) followed several years later.[51] In 1852, the Newburyport Turnpike Corporation was dissolved and the entirety of the road made public.

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49 Qtd. in Wood 1919, 15.
50 Taylor 1934, 273; Kyle 1927, 17.
51 Wood 1919, 126; Kyle 1927, 18.

2
Modernizing the Turnpike 1900–1940

The Newburyport turnpike became the object of renewed interest with the invention of the automobile. While road-improvement advocates and automobile tourists quickly discerned its potential as a direct route to New Hampshire, it was not immediately incorporated into the Massachusetts state highway system. This was in part because the state focused its early highway efforts on a different northbound route that served a more populated coastal area. The Newburyport turnpike, in contrast, cut through large swaths of sparsely settled farmland, especially in the north. As a result, the more populous towns at the south end of the turnpike, notably Saugus and Lynnfield, were initially left to petition for piecemeal road improvements through various state- and federal-aid programs. This brought the towns into temporary alignment with members of the automobile associations, who favored improving the turnpike as a through road that enabled quicker access to the resort regions of New Hampshire, Maine, and Vermont.

Eventually, the Newburyport turnpike assumed a prominent place in a succession of regional road networks. First, it was incorporated into the Atlantic Highway, an independently organized automobile trail. Subsequently it became part of New England's regional interstate system and then, in 1926, was re-designated U.S. Route 1 as part of the national Interstate Highway Numbering System. These changes occasioned a series of progressively comprehensive modernization efforts that graded, widened, and re-surfaced the turnpike. However, given the paucity of local use to the north of the turnpike, much of this modernization took place in the Saugus-Lynnfield area. During the New Deal, the southern section of the Newburyport turnpike was converted into a modern six-lane divided highway. The modernized Saugus highway would, in the postwar period, become the site of substantial commercial development.

2.1 The Massachusetts Highway Commission and the Good Roads Movement

Railroads were the dominant means of overland transportation during the second half of the nineteenth century. They proved superior to turnpikes by nearly every metric, including travel time, cost, and capacity. The Boston and Worcester Railroad, for example, halved passengers' end-to-end travel time: the trip took three hours by rail and six hours via the Worcester and Boston turnpike (itself one of the best roads in New England). Savings were even more significant when it came to shipping, an industry that many turnpikes had ceded to canals even before the railroads arrived.[1] Former turnpikes and other inter-municipal roads, as a result, entered a period of neglect that is often called the "dark ages" of U.S. highway travel.[2] Essex County historian Cyrus Mason Tracy, writing in 1878, described the Newburyport turnpike as a "modern ruin":

> The grass, in many places, springs between its ruts; the bushes are at every season encroaching on its margins; and thus it lies, right through the centre [sic] of the county, a long line of admonition and counsel, teaching all to beware of ill-considered enterprises, and not to risk the fruits of honest industry for the dazzle of a fancied scheme, or the glitter of a happy possibility.[3]

Here the Newburyport turnpike was a representative, rather than unique, case. An 1893 state road survey estimated that the poor condition of rural highways amounted to a virtual transportation "tax" that cost the state up to ten million dollars each year.[4]

By that time, however, changes were already underway. Americans began to display a renewed interest in rural roads as early as the 1880s, when the invention of the modern bicycle (sans the oversized front wheel) kicked off a national cycling fad. Enthusiastic "wheelmen," venturing further and further into the countryside, were dismayed by the quality of roads they encountered.[5] Soon they formed associations, such as the League of American Wheelmen (LAW), to advocate for better roads. These "Good Roads Associations," which coalesced around LAW's *Good Roads* magazine, began to agitate for road-management programs at the state level. Such efforts spread practical roadbuilding knowledge, often cribbed from French engineering, and gradually acclimatized the American public to the idea of large-scale tax-supported road improvement. Good Roads Associations convened the first national road conference in 1894, recommending, among other measures, the creation of state highway commissions to guide legislation on the issue.[6] The same year saw the establishment of the Office of Road Inquiry, the first federal office dedicated to road management and research. It was headed by a prominent LAW member and Good Roads advocate.[7]

Massachusetts was at the forefront of state highway development and pioneered new techniques in both highway engineering and administration. The Massachusetts Highway Commission, founded in 1892, was the first such commission in the United States. It was charged with investigating preferred construction and maintenance methods, routes, and materials with the aim of creating a highway system that connected Massachusetts's rural and urban areas.[8] In its first report, the Commission argued that its work addressed discontinuous road management incentives along major thoroughfares. These mismatched incentives, it observed, produced poor road conditions. For example, the town of Revere, a suburb north of Boston, saw a high degree of freight traffic into the city, yet, the report's traffic studies revealed, virtually all of this traffic came from towns further north in Essex County. The benefits of the

highway therefore accrued to Boston and Essex County, not to Revere. For its part, Revere maintained the road only to the degree required by its residents, which proved insufficient to the volume of through traffic. Not only did the road deteriorate in Revere, the Commission concluded, but there were hitherto few means of soliciting improvement within the town's borders.[9]

To address this kind of political impasse, the Commission implemented a novel state-aid plan that would become the model for many other states in the ensuing years. Under its terms, the Highway Commission paid for three-quarters of the cost of constructing and surfacing highways nominated by local officials. (The county covered the remainder.) Afterward, the Commission assumed responsibility for maintaining any road thus improved. It also reserved the right to veto proposals and oversee contracts to make sure they met statewide standards.[10] Through this administrative method, the Highway Commission began to gradually assemble, improve, and oversee a network of inter-municipal rural routes whose importance to the state economy exceeded the interests and capacities of the individual towns through which they passed. It stopped short, however, of recommending federal involvement. The geologist Nathaniel Shaler, one of the three original Commissioners appointed by the Massachusetts Legislature, wrote in his 1896 treatise *American Highways* that roads should remain a local and regional concern in complement to the interstate railways. As "there is no systematic communication between states by ordinary roads," he determined, the federal government had no place in addressing the "highway problem."[11] The argument of the Commission for administering important state routes, in other words, did not extend to the national level.

The Commission benefited in its road-improvement efforts from a growing body of geological, topographic, and engineering knowledge being produced in Massachusetts. Shaler himself served (concurrently with his Highway Commission appointment) as the dean of Harvard University's Lawrence Scientific School. William McClintock, another member of the Commission, taught civil engineering and road-building at Harvard.[12] In addition to offering the nation's first highway engineering program, the Lawrence School, under Shaler's direction, conducted extensive tests of road-making materials. These tests, which may be considered the inception of a scientific approach to road-making in the U.S., sought to improve on prior French studies by measuring impact resistance (modeled on the blow of a horse's hoof) as well as the "recementation" qualities of various types of stone dust.[13]

The engineer in charge of these tests, Logan Waller Page, went on to become director of the federal Office of Public Roads (OPR), where in 1904 he oversaw the first comprehensive survey of U.S. road conditions.[14] By then, the advent of the automobile had begun to significantly raise the profile of America's highways. Here Massachusetts engineers again played a leading role. The Stanley brothers, of Newton, developed a reliable steam-powered car in the 1890s, and in 1893 Charles Duryea, a Springfield bicycle engineer, produced the nation's first gasoline automobile. (Duryea's creation, the "Buggyaut," consisted of a one-cylinder engine mounted to a buggy chassis, reanimating an outmoded vehicle.)[15] As mass production methods improved in the early decades of the twentieth century, automobile ownership grew quickly. There were 8,000 automobiles registered in the U.S. as of 1900; 77,400 in 1905; 485,500 in 1910; and nearly 2.5 million by 1915.[16] Like the bicycle, and the coach before it, this new vehicle again subjected U.S. rural highways to withering scrutiny.

The OPR's 1904 survey conveyed a dire national picture: of over two million miles of rural roads, only seven percent were listed as "improved," that is, properly

graded, drained, and surfaced using gravel, broken stone, planks, shells, or other materials. Owing to the efforts of the Highway Commission, however, nearly fifty percent of Massachusetts roads were graded and surfaced (second only to Washington, D.C.).[17] By 1906, the Massachusetts Highway Commission had improved and taken charge of over one hundred miles of state highways (Fig. 2.1).[18] The Newburyport turnpike was not among them. Instead, the Commission had, in 1896, assumed control of much of the former Salem turnpike, which also traced a northerly route from Boston but stayed close to the coast, connecting the towns of Revere, Lynn, and Salem.[19] The Newburyport turnpike ran roughly parallel to this route but lay further west in a less densely settled area. For the first decade of the twenty-first century, it remained unimproved.

2.2 The Automobile and the Touring-Road

In tracing the history of the Newburyport turnpike (later Route 1) and its relation to Saugus, it is important to note that, in this initial phase of state-funded highway improvement, the Newburyport turnpike was passed over in favor of another route. Saugus itself, which contained sections of both the Newburyport and Salem turnpikes, initially chose in favor of the latter. After the Massachusetts Legislature granted the Highway Commission authority to establish a state highway in the North Shore, Saugus fought hard for inclusion on the route, which it secured in 1898. The Selectmen's report for that year celebrated that

> [we] have succeeded in having the Salem turnpike made a State highway. Therefore the Town of Saugus is forever free from the yearly expense of keeping it in a semi-passable condition. It has also saved the Town from expending many thousands of dollars in the near future, rebuilding bridges, regrading and fencing this much travelled [*sic*] thoroughfare. [. . .] We congratulate the citizens of the Town on the successful termination of the contest, won against so many schemes and combinations[.][20]

Their effort makes clear that Saugus residents recognized, as early as 1898, that the town's proximity and position relative to Boston left it well situated to benefit from highway improvements. Indeed, in an 1893 poll, Saugus was alone among its neighbors (Danvers, Lynn, Lynnfield, Topsfield, and Newbury) in favoring both state road-building aid as well as the establishment of the Massachusetts Highway Commission.[21] For over a decade, however, the Newburyport turnpike was conspicuously absent from its petitions.

In 1906, the Massachusetts Legislature passed a bill introduced by Frank P. Bennett, Jr., a Saugus House Representative, authorizing the Highway Commission to conduct a comprehensive survey of the Newburyport turnpike and assess its suitability for State highway status.[22] The results were inconclusive. While the Commission described the turnpike as a "much used and important main road leading to Boston," it only recommended partial improvements concentrated in the Saugus and Lynnfield sections due to the extent of local use.[23]

This new interest in the Newburyport turnpike was linked to the growing popularity of the automobile. Massachusetts automobile registration had grown by more than five hundred percent in the previous five years.[24] Nationwide, auto associations had replaced bicycle clubs: the American Automobile Association (AAA) succeeded

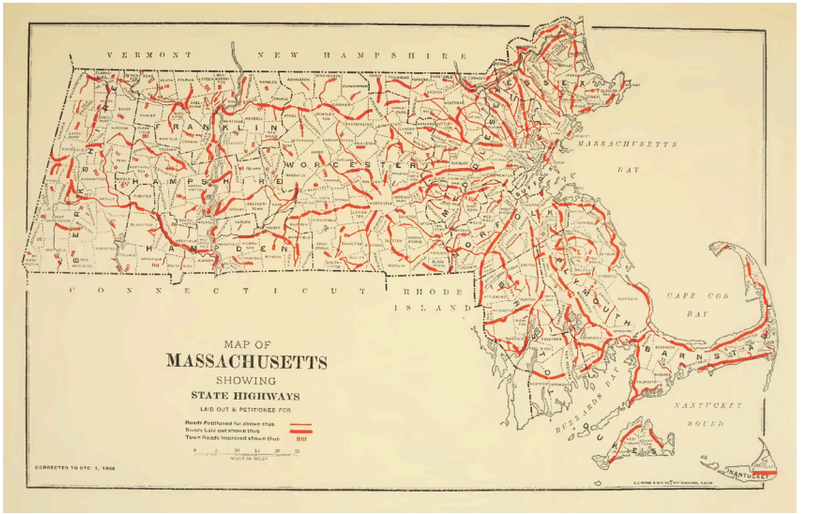


Fig. 2.1. Massachusetts state highways, both petitioned and implemented, in 1906. From *Massachusetts Highway Commission, Fourteenth Annual Report of the Massachusetts Highway Commission, For the Fiscal Year Ending November 30, 1906* (Boston, MA: Wright and Potter Printing Co., 1907).

the League of American Wheelmen in 1902 and began publishing road maps in 1905. Such maps, along with automobile guidebooks (most notably the *Automobile Blue Book*), helped open up the countryside to an increasingly mobile, car-owning public. As with cyclists in the decades prior, automobile tourists drew attention to the problem of improving, administering, and maintaining rural highways. (This problem gained urgency from the fact that automobiles subjected gravel and broken-stone roads to a high degree of wear; even roads built to the standards of the Good Roads Movement were threatened by any appreciable amount of automobile traffic.)[25] Following the survey, the Saugus Board of Selectmen reported receiving "encouragement" regarding the prospect of designating the Newburyport turnpike a state highway, though no immediate action followed.[26]

The turnpike received its first round of state aid in 1910 as a direct result of the automobile phenomenon. In April of that year, the Massachusetts Legislature approved an amendment that supplemented the Highway Commission's annual budget with money from the "motor vehicle fees fund," which comprised fees or fines received from automobile use.[27] The act stipulated that the funds were to be allocated to small-scale improvements to town or county roads nominated by municipalities. Unlike other state-aided roads, these roads would remain under town or county ownership after construction had been completed. This provision allowed the Commission greater flexibility in addressing localized problems that had previously been deemed unsuitable for long-term state intervention. The Newburyport turnpike was among the first roads selected for improvement under this "Small Town" act. The turnpike was "favored," the Commission noted, "not only by the representatives of the towns through which it was built . . . [but by] many automobile associations."[28] In the next four years, $37,000 from the motor vehicles fund went toward shaping and resurfacing the turnpike, beginning

with sections in Saugus and Lynnfield. Saugus's Superintendent of Streets wrote in 1911 that these improvements had made the Newburyport turnpike "a good road for driving."[29]

The project of modernizing the Newburyport turnpike was therefore conceived in relation to the automobile. If this seems self-evident, recall that the same was not true of the Salem turnpike, which had begun receiving state aid over a decade earlier. The shift from the latter to the former illustrated changing priorities at local, state, and national levels as automobile ownership continued to grow apace. While the need for large-scale road improvement was, by this time, widely recognized, policy debates revealed an increasingly sharp division between advocates for local roads and through routes. Each camp had its partisans. Missouri Representative Dorsey Shackleford, speaking at the Third American Road Congress in 1913, stated that

> [we] are divided into two general classes, which for the purposes of this discussion may be designated as the "touring-roads" class and the "business-roads" class. The "touring-roads" class is marching under a banner upon which is inscribed in letters of gold: "See America first." The "business-roads" class is marshaling its forces under a flag which bears the legend: "Cheaper transportation and lower cost of living[.]"[30]

Prior to World War I, American shipping was still conducted primarily by rail. Trucks, not yet adapted to long-distance travel, were mostly used for local deliveries.[31] Many, like Shackleford, therefore began to see local rural roads as serving different interests than long-distance highways: the former was associated with the needs of farmers and small-town businesses, while the latter catered to automobile-owning urban tourists. The Newburyport and Salem turnpikes reflect, to a certain extent, this distinction, understanding that Shackleford's "touring-road" refers implicitly to automobile tourism. The Highway Commission justified its initial work on the Salem turnpike as a means of lowering the cost of freight transport between Boston, Revere, and Lynn.[32] It

Fig. 2.2. New England Hotel Association tour map (detail), 1917.

described the Newburyport turnpike in entirely different terms. In a 1912 assessment, the Commission characterized the road as a conduit for New England rural tourism: it was "one of the main lines between Boston and the pleasure resorts in the northern part of Massachusetts and in Maine and New Hampshire." While noting that the route passed over a number of steep hills, the report goes on to say that "[such] roads, [when] properly surfaced, have no terrors for modern motor vehicles."[33] The uncompromising straightness of the Newburyport turnpike, a significant impediment to its success during the stagecoach era, was becoming an asset with the arrival of the automobile.

While the conceptual distinction between "touring-roads" and "business-roads" is clear enough, the Newburyport turnpike's reliance on the "Small Town" act suggests that in practice the two categories overlapped and diverged, often on the same road. As written, the act was intended to support the improvement of rural "business-roads" that otherwise lay outside the purview of the Highway Commission. Under this criteria, the Newburyport turnpike, as a whole, would seem not to qualify. Here the needs of particular localities became important. The southern municipalities along the route, primarily Saugus and Lynnfield, successfully petitioned the state's motor vehicle fund by treating their stretches of the turnpike as local roads. In contrast, the less-populated towns to the north were, at this point, generally indifferent toward the turnpike. A 1913 Highway Commission report makes this clear. In a follow-up assessment of the Newburyport turnpike, it notes that "the towns [along the route] are little interested [in improvements], as, *except in Saugus and Lynnfield*, the road only passes through unsettled country and is little used for local traffic.[34] Of course, the automobile associations were interested in developing the entire turnpike, which brought them into alignment with the representatives of Saugus and Lynnfield. In other words, the southern stretch of the Newburyport turnpike acted both as a rural "business-road" and an urban "touring-road," a fact that would drive local roadside development in the following decades.

The "Small Town" act worked as a kind of loophole, allowing for piecemeal state-funded improvements without officially incorporating the Newburyport turnpike into the Massachusetts highway system. The turnpike remained nominally a local road through the second decade of the twentieth century. In the absence of any state designation, the automobile associations stepped in, discerning the road's value as a direct through route to the increasingly popular northern New England resorts via Portsmouth. The coastal route through Salem also connected to Portsmouth, but the Newburyport turnpike shortened the trip by fifteen miles.[35] By 1914, the turnpike was listed in the Automobile Blue Book, the most widely-used automobile touring guide in the country, as a viable route (of "good gravel") between Boston and Portsmouth.[36] Unsurprisingly, the New England Hotel Association was also an early proponent of the Newburyport turnpike as a through route to destinations in New Hampshire, Vermont, and Maine. The organization's 1917 tour map shows the turnpike as part of a route leading to New Hampshire's Lake Sunapee and the White Mountains before turning west toward Vermont's Lake Champlain resort region (Fig. 2.2).

These independent associations were among the first to map out U.S. interstate road networks. In the early decades of the twentieth century, automobile "pathfinders" plotted hundreds of long-distance routes across the country. Eventually, touring clubs formed auto trail organizations to mark out important routes using ad-hoc roadside signage. These trail networks anticipated federal involvement in highway construction and planning by identifying and linking the most-traveled and best-maintained highways between states. As the majority of pathfinding was done by automobile

associations, at times with the explicit support of the OPR, these routes reflected the emergent culture of automobile tourism. Many of the New England trails, for example, were named for popular scenic destinations, such as the "Dixville Notch way" (Route 26) and the "Lake Sunapee route" (Route 32).[37]

Lacking any central organization, however, the trails tended to proliferate. Soon, the sheer number of them (each with its own marking system) had become a source of confusion for travelers.[38] In 1915, in response to this problem, the Massachusetts Highway Commission led an effort among the New England states to identify and mark the primary interstate routes. Highway department representatives from New York, Connecticut, Maine, Rhode Island, New Hampshire, and Vermont agreed to adopt a shared system, marking the main east-west routes in red and north-south routes in blue. The Newburyport turnpike was included in this system as one of the state's main north-south roads, though it was still secondary to the coastal Salem route.[39]

As New England began to organize its own regional interstate system, the federal government made its first intervention into highway improvement. With the Federal Road Aid Act of 1916, it authorized the OPR, under the leadership of Logan Waller Page, to disburse $75 million in matching funds for state highway construction. Under the act, states could petition the OPR for road improvements; if approved, the federal government would match state funding for the project. Once construction was complete, the state would resume responsibility for ongoing maintenance.[40] The Federal Road Aid Act opened up a much-needed new source of funding for the Newburyport turnpike, which, while designated a "main route," still had not assumed Massachusetts state highway status. By this time the Highway Commission had directed substantial amounts from the motor vehicle fees fund toward improving the turnpike, though some of the towns along the route still declined to cooperate with these efforts. In its 1916 report, the Commission expressed some frustration over this state of affairs: "the Commission has not felt that it was fair to other localities in the State to have so much of the motor vehicle fees spent on [the Newburyport turnpike] now that it has been improved."[41]

The Federal Road Aid Act marked a definitive shift in favor of the "touring-road" class. The AAA had long been agitating for federal aid, arguing that government funds were best spent on "main thoroughfares" and should not be "dissipated" on the nation's two million miles of local roads. Owing to this influence, the Road Aid act included language that limited eligible projects to those that were "substantial in character."[42] In Massachusetts, the Newburyport turnpike was immediately selected as a candidate for improvement. As with prior efforts, the process focused on the more populous southern municipalities. In 1917, the OPR approved the Highway Commission's proposal to resurface sections of the road in Malden, Melrose, and Saugus, for which Massachusetts received $11,600 in federal aid.[43]

The influx of federal funds accelerated the process of modernizing the Newburyport turnpike through the remainder of the decade. In prior years, the increasing amount of automobile traffic had required the road to be regularly reshaped and oiled to prevent cars from kicking up dust. Federal funds allowed the state to start converting the turnpike from macadam (broken stone) to more resilient asphalt surfacing. Asphalt, a combination of refined petroleum, sand, and gravel, had been developed in the late nineteenth century. Initially used for city streets, it was gradually adopted for use on longer rural highways during this period. In Saugus, the Commission employed

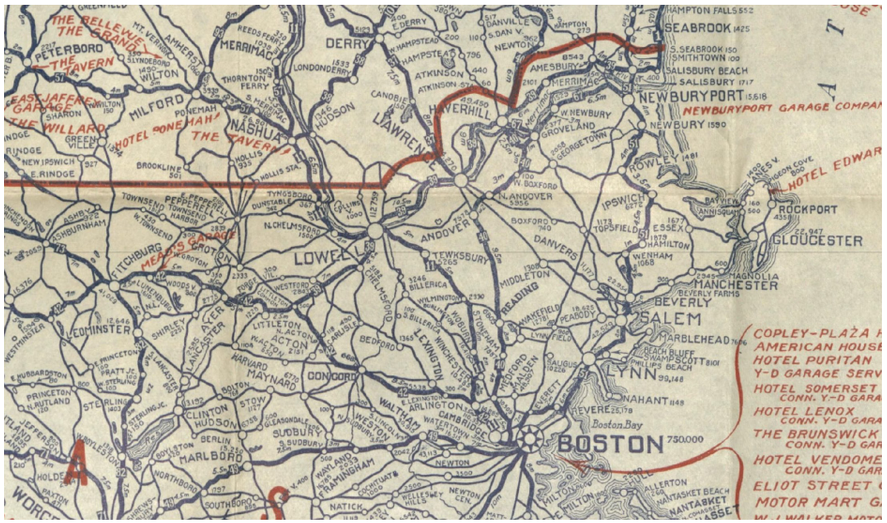
surfacing that consisted of broken stone penetrated with an asphalt binder.[44] After the initial round of work was completed in Saugus and Lynnfield, subsequent improvements followed elsewhere. Between 1916, and 1921, the turnpike was widened to at least eighteen feet throughout and surfaced with concrete and macadam.[45]

2.3 The U.S. Interstate Highway Numbering System

With better surfacing driving a steady increase in usage, the Newburyport turnpike began to vie with the Salem turnpike, its coastal counterpart, for its status as the primary through route from Boston to New Hampshire. This is evidenced by changes in the course of the so-called Atlantic Highway, one of the primary interstate automobile trails. First established in 1911 as the Quebec-Miami International Highway, the route traced a course along the east coast of the United States between Maine and Florida. Throughout the 1910s, commercial maps marked the Atlantic Highway as following the Salem turnpike north of Boston along the coast to Portsmouth (Fig. 2.3). By the 1920s, as the Newburyport turnpike emerged as one of the region's preferred automobile routes, it finally began the process of attaining state highway status. The northmost section, between Topsfield and Newburyport, successfully petitioned the Highway Commission for the designation in 1922.[46] That same year, New England state highway officials convened to update the regional interstate road marking system, this time with input from hoteliers and automobile associations. This version dropped its red-blue color bands in favor of numbered and named routes.[47] The Atlantic Highway, designated Route No. 1,[48] now took the inland route between Boston and Portsmouth across the Newburyport turnpike (Fig. 2.4).

By this time there was increasing interest at the federal level in coordinating interstate travel nationwide. The Road Aid Act had been a major step forward in this regard, but critics observed that it did not require federally-aided highways to connect to those of neighboring states. While the relatively populous and wealthy New England states were able to organize a regional marking system, many other regions were left with a patchwork of discontinuous highway routes.[49] Importantly, however, the Road Aid act required all states to form a highway department. Their convening body, the American Association of State Highway Officials (AASHO), allowed for a much greater degree of interstate cooperation on highway construction and administration. Such matters gained increasing salience during the war effort, when the rapid expansion of interstate trucking exposed the deficiencies of the nation's roads. The so-called Pershing Map, commissioned in 1922, anticipated the interstate system by identifying the national routes deemed most important for the purposes of national defense. (Here, too, the Newburyport turnpike makes an appearance; it is marked as a "first priority road" between Boston to Portsmouth.)

In 1925, AASHO passed a resolution calling for the formation of a joint board, consisting of state highway department representatives as well as members of the federal Bureau of Public Roads (BPR),[50] to "undertake immediately the selection and designation of a comprehensive system of through interstate routes [and] to devise a . . . uniform scheme for designating such routes in such a manner as to give them a conspicuous place among the highways of the country as roads of interstate and national significance."[51] Over the course of the year, regional state highway representatives convened to identify major highways. The New England contingent met in June at the State House in Boston. They were, according to meeting notes, in complete "harmony"



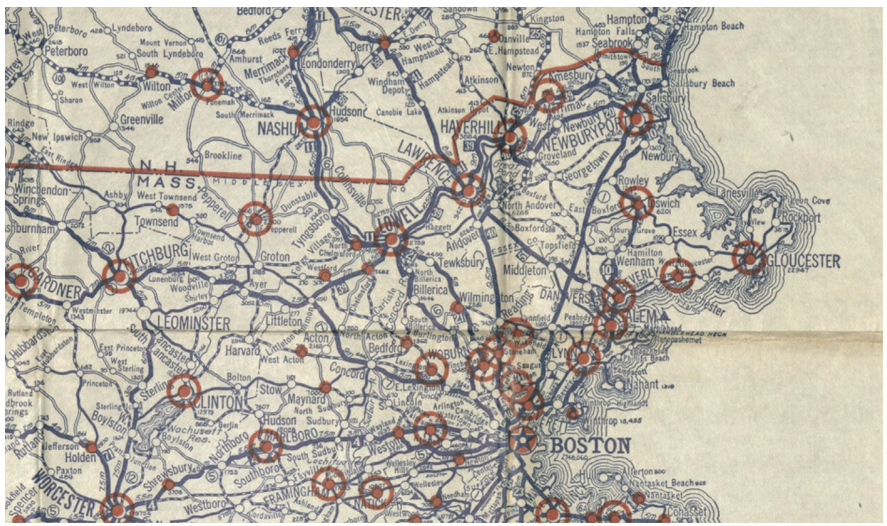


Fig. 2.3 (top). Atlantic Highway route in 1921 (detail). From *The Rand McNally Official 1921 Auto Trails Map, District No. 6: New England and Eastern New York* (Boston, MA: Noyes-Buick Co., 1921).

Fig. 2.4 (bottom). Atlantic Highway route in 1923 (detail); shifted to the Newburyport turnpike. From *The Rand McNally Official 1923 Auto Trails Map, District No. 6: New England and Eastern New York* (Boston, MA: Noyes-Buick Co., 1923).

in designating through routes, presumably because they had collaborated on their own regional marking system just a few years earlier. After receiving recommendations from each region, AASHO synthesized and adopted them in its annual meeting in October of 1925. The system assigned odd numbers to north-south routes and even numbers to east-west routes. The former Atlantic Highway automobile trail, including the Newburyport turnpike, was now canonized as U.S. Route 1, the easternmost north-south interstate highway.

The United States Numbered Highway System, adopted voluntarily by all forty-eight states in 1926, comprised 145 discrete routes and 96,626 miles of road.[52] Unlike the later Interstate Highway System, it was a project of organization rather than greenfield construction: the plan acted as an overlay, connecting and defining existing routes. Signage was therefore important. AASHO's guidelines stipulated that the main highways ended in either 0 or 1; secondary routes were given two-digit numbers. In addition, AASHO engineers developed a comprehensive road marking system for the new interstate highway network, creating uniform standards for sign shape, placement, and color.[53] While the new interstate designations sought primarily to systematize the decentralized auto trail networks (correcting problems like route duplication, overlapping, and faulty placement), the new signage system also addressed growing safety concerns around highway use. It established a shape-based typology to convey different messages to the driver: an octagon for "stop," a diamond for "slow," a square for "caution," a circle for railroad crossings, a rectangle for information, and a distinctive shield shape for marking the route.[54] E. W. James, head of the Highway Transport division of the BPR, wrote that he hoped these markers would "aid in the safe, free, and pleasurable use of our national system of highways."[55]

A 1927 press release described Route 1 as "the most important interstate road" due to its economic and strategic value (connecting the "great manufacturing and industrial cities of the Atlantic Seaboard") as well as its status as the "principal tourist route from . . . the winter resorts of the South [to] the summer resorts of New England."[56] A contemporaneous BPR study of New Hampshire's highways confirmed that the southern section of U.S. 1 bordering Massachusetts (which connected to the Newburyport turnpike by way of Portsmouth) saw the most tourists of any of its roads: on average, four thousand out-of-state automobiles per day, three-quarters of its total traffic.[57] As part of this significant transit corridor, the Newburyport turnpike[58] was subjected to modernization efforts of a renewed intensity. First, it was granted "through way" status in 1927, giving turnpike motorists the right of way against those on any intersecting roads.[59] In 1928, the Highway Commission reported contracting over five miles of resurfacing work in "bituminous concrete" and "bituminous macadam" on Route 1 in Malden, Saugus, and Lynnfield.[60] By 1930, the turnpike had been widened to at least thirty feet throughout.[61]

Highway improvement efforts proved resilient to the economic downturn precipitated by the 1929 stock market crash. Motor vehicle registration continued to rise unabated. In addition, the federal government saw highway construction as a promising vector for economic stimulus: in addition to providing onsite construction jobs, road-building indirectly benefited a host of other areas, including aggregate industries, cement-making, machinery, and transportation.[62] Advances in grading and surfacing, particularly the widespread use of bituminous asphalt on rural highways, also brought new safety concerns to the fore. In prior decades, the preponderance of gravel and macadam roads kept vehicle speeds low; many states instituted speed limits of

around twenty-five miles per hour, far below most automobiles' capacities. With better surfacing, drivers grew more comfortable traveling at higher speeds. This fact, along with increasing volumes of traffic overall, led to a higher incidence of fatal accidents. In response, the BPR developed a set of updated highway safety recommendations. These included eliminating railroad grade crossings, separating opposing directions of traffic, and reducing curves and visual obstructions. Congress directed hundreds of millions of dollars toward state highway safety programs during the Great Depression with the National Industrial Recovery Act (1933), the Hayden-Cartwright Act (1934), and the Emergency Relief Appropriation Act (1935) in addition to other federal-aid grants.[63]

During this time, the Saugus-Lynnfield section of the Newburyport turnpike underwent significant reconstruction (Fig. 2.5). Following the influential model of Robert Moses's New York urban parkways, this section of the turnpike was converted to a three-lane divided highway with minimal at-grade crossings.[64] The project, which was completed in 1937, also included extensive work to connect the southern terminal of the turnpike to downtown Boston via the newly-completed Sumner Tunnel.[65] At a 1938 conference, G. H. Delano, Chief Engineer of the Massachusetts Department of Public Works (DPW), presented the Newburyport turnpike project as an example of the new "superhighway," a typology characterized by a physical separation between opposite streams of traffic. Delano enumerated the turnpike's features as follows:

> Each roadway has a 12-ft. inside passing lane, two 11-ft. travel lanes, a 10-ft. parking lane and a hard-surfaced sidewalk. The roadways are separated by a parting strip of variable but always at least 20-ft. width at openings for traffic to cross from one roadway to the other. Sloped curbs (45 deg.) border the parting strip and along them are catchbasins to take the surface drainage from the inside slopes of the roadways which are crowned at the center. Grades are separated at important cross-roads with interchange ramps of full clover-leaf design where possible.[66]

It was now a fully realized interstate road, designed to convey high volumes of passenger vehicles between urban centers (Fig. 2.6). For the second time in its history, the Newburyport turnpike could reasonably claim to be, as the Massachusett Highway Commission put it, "one of the most modern types of highway in the country."[67]

1 P. E. Taylor, "The Turnpike Era In New England" (Ph.D. diss., Yale University, 1934), 311; 319.

2 United States Department of Agriculture, Office of Information, *United States Route No. 1 Is a Highway of History* (1927).

3 Cyrus M. Tracy and Henry Wheatland, "Lynnfield," in *Standard History of Essex County, Massachusetts, Embracing a History of the County from Its First Settlement to the Present Time, with a History and Description of Its Towns and Cities. The Most Historic County of America* (Boston, MA: C. F. Jewett & Co., 1878), 35.

4 Massachusetts Highway Commission, *Report of the Commission to Improve the Highways of the Commonwealth* (Boston, MA: Wright and Potter Printing Co., 1893), 40–41.

5 United States Department of Transportation, *America's Highways, 1776–1976:*

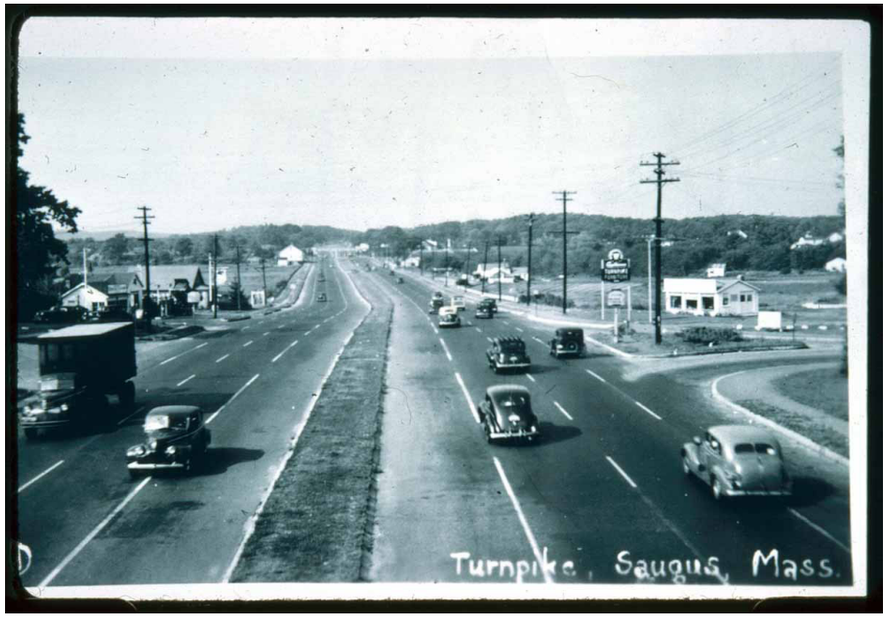


Fig. 2.5. Widening the Newburyport turnpike, ca. 1937. Helen Cutter Slides Collection, Saugus Public Library, Saugus, MA.

Fig. 2.6. The Newburyport turnpike, ca. 1940. Helen Cutter Slides Collection, Saugus Public Library, Saugus, MA.

a History of the Federal-Aid Program (Washington, D.C.: U.S. Govt. Print. Off., 1977), 43.

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13 Shaler 1896, 85.

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20 Town of Saugus, *Auditor's Annual Report for the Town of Saugus Together With the Report of the School Committee For the Year Ending December 31, 1898* (Lynn, MA: Whitten and Cass, 1898), 159.

21 Massachusetts Highway Commission 1893, 202.

22 Massachusetts House of Representatives, *Resolve Relative to the Newburyport Turnpike*, House Bill No. 1220 (1906).

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41 Massachusetts Highway Commission, *Twenty-First Annual Report* (1917), 48.

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46 Massachusetts Department of Public Works, *Annual Report of the Department of Public Works for the Year Ending November 30, 1922* (Boston, MA: Wright and Potter Printing Co., 1923), 21.

47 "Motor Sign Uniformity," *The New York Times*, April 16, 1922.

48 Note that this designation was specific to the 1922 New England road marking system and is distinct from its later status as U.S. 1 in the national interstate system (which happened to retain the route number).

49 United States Department of Transportation 1977, 106.

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53 McNichol 2006, 72; American Association of State Highway Officials, *Manual and Specifications for the Manufacture, Display, and Erection of U.S. Standard Road Markers and Signs* (1927), 5.

54 American Association of State Highway Officials 1927, 5.

55 E. W. James, "Marking Our Highway System," *American Highways* 10.4 (October 1931), 1931, 20.

56 United States Department of Transportation, *Highway of History*, 1927.
57 United States Bureau of Public Roads, *Report of a Survey of Transportation on the State Highway of New Hampshire* (1927), 31.
58 N.B.: the term "Newburyport turnpike" is henceforth used to specify the section of U.S. Route 1 between Boston and Newburyport. This usage also reflects the fact that the term remained in use locally after the establishment of the numbered highway system.
59 Massachusetts Department of Public Works, *Annual Report of the Department of Public Works for the Year Ending November 30, 1926* (Boston, MA: Wright and Potter Printing Co., 1927), 41.
60 Massachusetts Department of Public Works, *Annual Report of the Department of Public Works for the Year Ending November 30, 1928* (Boston, MA: Wright and Potter Printing Co., 1929), 15.
61 Massachusetts Department of Public Works, *Annual Report of the Department of Public Works for the Year Ending November 30, 1930* (Boston, MA: Wright and Potter Printing Co., 1931), 1; James 1935, 443.
62 United States Department of Transportation 1977, 124.
63 United States Department of Transportation 1977, 129–131.
64 Kaszinski 2000, 113.
65 Massachusetts Department of Public Works, *Annual Report of the Department of Public Works for the Year Ending November 30, 1937* (Boston, MA: Wright and Potter Printing Co., 1938), 2.
66 "Eastern Roadbuilders Survey Problems at Atlantic City," *Engineering News-Record* 120.9 (March 3, 1938), 337.
67 Massachusetts Department of Public Works 1938, 2.

3
Saugus and Kowloon 1950–1980

In 1939, the Bureau of Public Roads prepared an exhibition entitled "Highways of History" for San Francisco's Golden Gate International Exposition. A series of dioramas traced the progressive improvement of American roads from the colonial era to the present, concluding with a look towards the future of U.S. highway travel. One of its final scenes, titled "City Entrances and Belt Lines," depicts pristine divided highways cutting through a denuded countryside en route to a metropolis (Fig. 3.1). The caption reads: "Express highways will soon conduct entering traffic safely and quickly to the heart of the city."[1] An efficient system of expressways, the image suggests, will effect a neat separation between urban areas and their hinterlands, preserving swaths of open country outside city limits.

This, as is well known, was not the case. As car ownership continued to rise and interstate highways improved, many U.S. cities developed commercial "approach strips" along major transit corridors. Entrepreneurs and developers saw opportunity in buying cheap land in the outskirts and establishing roadside businesses that catered to incoming and outgoing traffic. Beginning in the 1930s, these commercial strips developed into a characteristic feature of the American city: radiating '"gauntlets" of gas stations, garages, ice cream stands, restaurants, roadside vendors, and motels, all vying for travelers' patronage.[2] This process slowed down during World War II, when federal wartime restrictions curbed automobile production and non-essential highway use, but accelerated in the postwar period. For their part, suburban municipalities tended to welcome this kind of commercial development as a new source of tax revenue.

Saugus, favorably located alongside a busy tourist throughway, soon saw the development of a commercial approach strip north of Boston. In the decades after World War II, changes in the Massachusetts highway system not only allowed this commercial

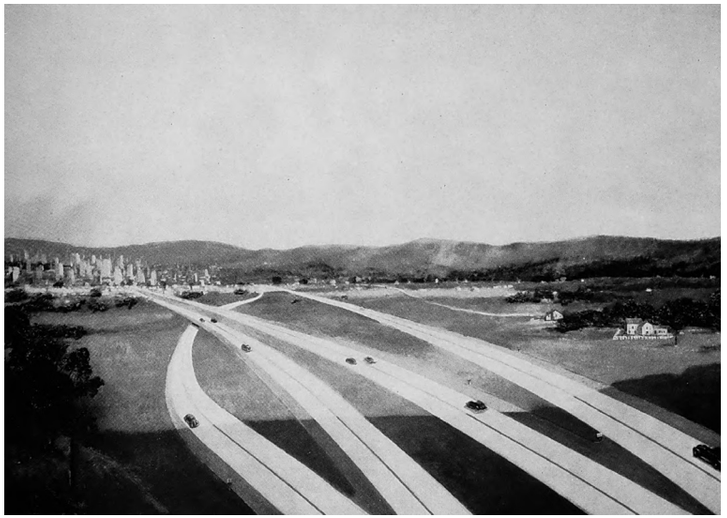

Fig. 3.1. “City Entrances and Belt Lines.” From United States Department of Agriculture, Bureau of Public Roads, *Highways of History* (Washington, D.C.: U.S. Govt. Print. Off., 1939).

strip to escape obsolescence but, in effect, compressed traffic and development pressure along Route 1 in Saugus and Lynnfield. This phenomenon must be understood doubly as the product of a series of consequential shifts in highway policy at the national, state, and metropolitan levels (some of which contradict one another), and, equally, a local response to these large-scale shifts. After describing the complex postwar highway situation in and around Saugus, the following analysis uses the roadside restaurant Kowloon as a representative case through which to understand this situation and the localized architectural response.

3.1 Postwar Development: Saugus, U.S. 1, and I-95

Interstate highway development in Massachusetts prior to World War II had been marked by a remarkable degree of cooperation between the federal and state governments. Indeed, Massachusetts pioneered a number of innovations in highway construction, administration, and regional coordination that would later influence the United States Interstate Highway Marking System of 1925. Municipalities, too, were largely amenable to road improvement efforts; at worst, as was the case along the northern section of the Newburyport turnpike, they were indifferent. Saugus was in favor of highway improvements from the beginning and, indeed, had proved capable of negotiating for aid at both the state and federal scales: in securing State highway status for the Salem turnpike in 1893; in positioning the Newburyport turnpike as a beneficiary of the “Small Town” act in 1910; and in continuing to modernize U.S. 1 through the Federal Road Aid act and later New Deal measures. The status of U.S. 1 in Saugus by the end of the 1930s, viz., as a fully modern six-lane divided highway, thus reflected decades of aligned efforts at national, state, and municipal scales. Ironically, much of the development of the Saugus strip occurred during the postwar period, when the

interests of the town, state, and federal government began to decouple.

Saugus rezoning petitions indicate that the roadside along the turnpike developed piecemeal prior to World War II, though a sizable section of the west side was rezoned for business in 1930.[3] In 1938, the Saugus Planning Board expressed reservations about the prevalence of billboards along the road:

> We have followed, among other subjects, during the past year the erection and location of several billboards throughout the Town and particularly on the Newburyport [turnpike]. We regret that our best available ‘show window’ has degenerated into a series of signs. . . . Intended as the most modern and beautiful roadway in eastern Massachusetts, we now greet visitors and tourists with a string of billboards. Can we hope to attract new home owners until we correct our present means of advertising?[4]

It was not until 1951 that the town announced a master-planning effort that sought to “determine an honest solution for zoning on the Turnpike.”[5] This was followed, in 1952, by the establishment of a Newburyport Turnpike Commission charged with stimulating commercial and industrial development along the route. In its announcement, the executive director noted that Saugus was “favorably situated” for development as it was “the nearest town north of Boston with large areas of undeveloped land suitable for business and industry,” but was impeded by the fact that the Newburyport turnpike was not “sensibly zoned.”[6] Contemporary photographs of the turnpike indicate that roadside development was, at that time, still relatively sparse. By 1953, however, the area alongside the turnpike had been almost entirely rezoned for business.[7]

Like many “approach strips” in the United States, Route 1 in Saugus grew into a much more substantial commercial corridor in the 1950s as the automobile increasingly defined the American shopping experience. Roadside development no longer catered strictly to the tourist or traveler but courted suburban customers as well. The 1953 Saugus master plan inaugurated this phase of development with the announcement of a $5.5 million open-air shopping center located on the turnpike between the Essex and Main Street overpasses. The center was, the planners argued, readily accessible to over one million North Shore residents and would provide “speedy and accessible proximity to well-stocked stores for thousands of people” tired of Boston’s “inadequate and inaccessible present shopping areas congested with auto traffic and with limited or non-existent parking facilities.”[8] A twenty-three acre plot across from the shopping center was set aside as the new location for the Saugus High School. Over the next decade, the turnpike would attract department stores, supermarkets, clothing stores, candy shops, and numerous other businesses to roadside locations alongside the ever-present gas stations, motels, and restaurants.[9]

Through traffic remained substantially important and, in fact, was further anchored to the south by two important developments. The first was the expansion of East Boston’s Logan International Airport as a transatlantic hub, which began with the addition of terminals B and C in 1949. Passenger air travel through Logan grew three hundred percent between 1950 and 1959.[10] U.S. Route 1, which connected to Logan by way of Route C-1 in Revere, therefore became an increasingly important corridor for travelers from northern New England. The second development was the opening of the Mystic River (later Tobin) Bridge between Charlestown and Chelsea. The six-lane bridge was built to replace the nearby two-lane Chelsea North Bridge and to relieve

traffic from the nearby Sumner Tunnel. Soon after opening, the bridge was connected to U.S. 1, providing much more direct access to downtown Boston via the southern terminal of the Newburyport turnpike.

The Mystic River Bridge was part of a comprehensive Master Highway Plan for the Boston metropolitan area released in 1948. The plan grew out of a postwar audit of the state's highway system, which found widespread disparities in condition, width, and surfacing. The survey also identified a lack of "trans-urban connections" between Boston and the state highway system.[11] In response, the 1948 Master Highway Plan proposed a system of radial expressways connecting the greater Boston region to major state and interstate routes. As planned, the expressways would converge on an inner beltway encircling the downtown area and bisected by a "Central Artery" to facilitate car travel in and out of the city.[12] The entire system would consist of six-lane limited-access highways, in accordance with federal standards, to allow for the uninterrupted movement of traffic throughout.[13] The Mystic River Bridge would serve, in this framework, to connect Boston's inner beltway to a proposed Northeast Expressway constructed more or less on the footprint of the Newburyport turnpike.

The Master Plan, like the prior New England Regional Marking System, anticipated subsequent federal highway planning initiatives; President Eisenhower would not announce his national interstate system until 1953. The state plan was instead to be funded by a series of bond issues beginning in 1949. It described a two-phase rollout for the Northeast Expressway. According to the state's postwar survey, the more modernized southern section of U.S. 1 (in Saugus and Lynnfield) was suitable for conversion into a full expressway.[14] However, the northern section of the turnpike, between Danvers and the New Hampshire state line, was only a two-lane highway; rather than expand this section, the plan instead laid out a new six-lane expressway running more or less parallel to the turnpike through Topsfield, Boxford, and Newburyport.

Only the latter of the two phases would be completed. After the first $100 million bond issue in 1949, construction began on the new northern interstate road (known as the "Relocated U.S. 1") between Danvers and Portsmouth. Upon its completion in 1954, it was connected to the southern Saugus-Lynnfield section, creating a six-lane highway stretching from Boston to New Hampshire. (The obsolete two-lane section of the turnpike between Danvers and Newburyport was designated Route 17.) Work subsequently began on upgrading U.S. 1 south of Saugus; by 1958, the section of the turnpike between the Mystic River Bridge and the Route C-1 junction in Revere had been fully upgraded.[15] Route 1 in Saugus, bookended by brand-new sections of the Northeast Expressway to the south (in Revere) and the north (in Danvers), now began to seem retrograde in comparison: a 1930s urban parkway stuck between two modern expressways.

The situation continued to change after the passage of the Federal-Aid Highway Act of 1956, which promised to reimburse ninety percent of state costs expended in the construction of Eisenhower's national system of superhighways. In its wake, Massachusetts planners modified Boston's Master Highway Plan to bring it into alignment with the new national interstate system. The Northeast Expressway was designated Interstate 95 (I-95) and, in the early 1960s, given a modified route.[16] Rather than convert the Saugus section of Route 1 into an expressway, as originally intended, the plan proposed a new extension that connected the northern and southern sections of I-95 via Lynn. This extension, if built, would bypass the entirety of U.S. 1 in Saugus (Fig. 3.2).[17]

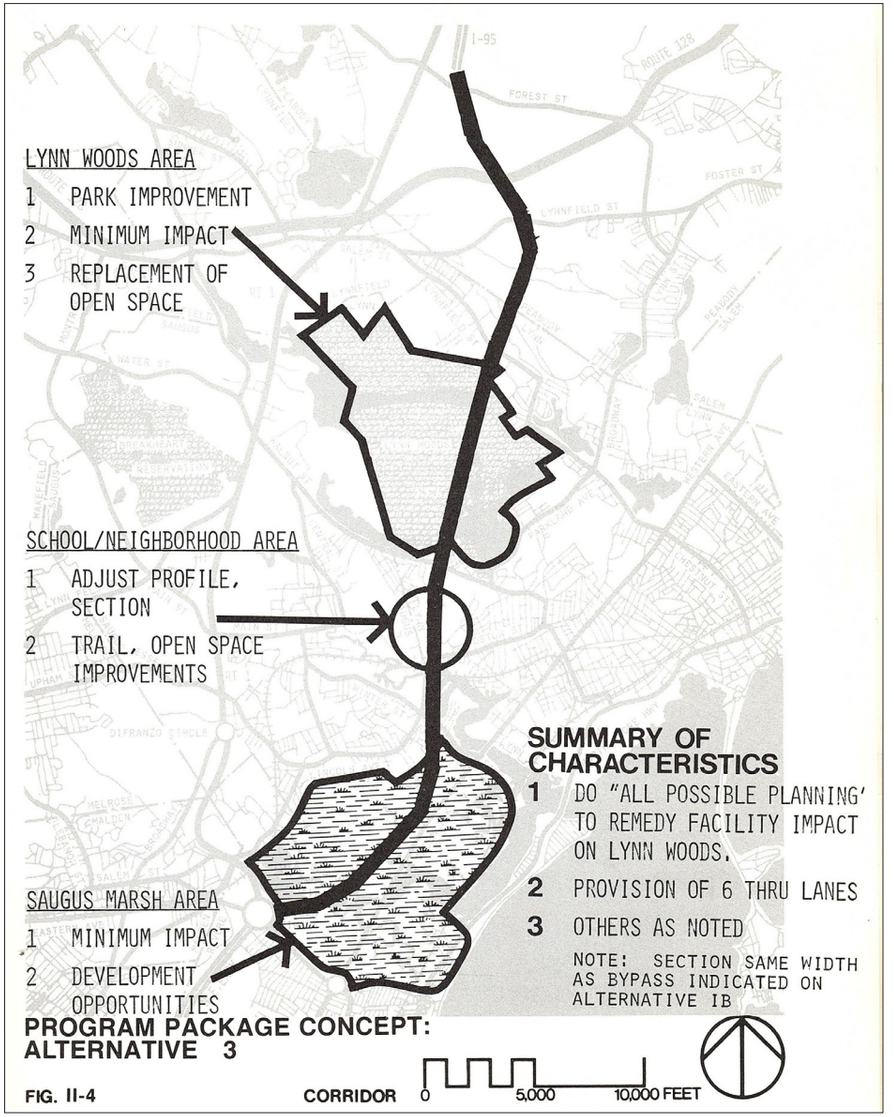

Fig. 3.2. Map of the proposed I-95 bypass in Lynn. From Boston Transportation Planning Review, *North Shore Draft Environmental Impact Statement* (Boston, MA: Massachusetts Department of Public Works, 1972).

The Saugus commercial corridor therefore developed during a period when the route's continued viability was under threat. By 1958, Saugus was the only holdout along an entirely reconfigured Newburyport turnpike: the northern section had been bypassed by I-95, while the southern section between Revere and the Mystic River Bridge had been converted to a modern expressway. This situation, while tenuous, was not without its benefits. In fact, the increased capacity of the modernized expressways to the north and south, in addition to Route 1's status as a through route to downtown Boston and Logan Airport, fed high volumes of traffic through the Saugus strip. In 1955, a Saugus zoning study found that rezoning had raised the assessed value of turnpike-adjacent land by eighty percent, to roughly seven percent of the town's total valuation. (It adds that this figure is likely "many times" too low as it did not account for the future value of planned construction.)[18] The 1961 Town Selectmen's report noted that a "bright spot in our municipal financial economy is the increase in our total municipal valuation [due], in a large measure, to our increased building growth on the Newburyport Turnpike."[19] By the end of the decade, roadside commercial development not only generated significant tax revenue for the town but also accounted for a significant amount of local employment: roughly sixty percent of Saugus's retail business derived from the Route 1 strip.[20]

The fate of Saugus's commercial corridor remained undecided through the 1960s. In 1970, however, Massachusetts governor Frank Sargent declared a moratorium on new highway construction within the Boston metropolitan region. The move came in response to a series of escalating conflicts around ongoing highway development in downtown Boston. In 1952, during the tenure of Sargent's predecessor John A. Volpe (later the United States Secretary of Transportation under President Eisenhower), public outcry had halted the development of the new Central Artery. A cornerstone of the 1948 Master Highway Plan, the elevated highway drew criticism for displacing residents and dividing historic neighborhoods. Volpe ultimately decided to minimize further disruption by moving the southern section of the Artery underground; the project was completed by 1957. During the 1960s, Boston planners and activists continued to mobilize community opposition to the Highway Plan, particularly the proposed Inner Belt (I-695) and the extension of I-95 south of Boston, which had begun to displace hundreds of residents of Jamaica Plain and Roxbury.[21]

Amid this controversy, the northern I-95 extension received considerably less attention, though local resistance emerged on various fronts. Among the most organized of these was the Saugus-based Route 1 Businessmen's Association, which argued that the proposed bypass would negatively impact their business by diverting traffic away from the Saugus corridor, reducing the pool of "impulse clientele" that comprised a sizable portion of their patronage.[22] Though the Businessmen's Association coordinated at points with Fred Salvucci, a Cambridge-based planner and leader in Boston's anti-highway movement, their influence was relatively circumscribed in relation to the urban contingent. North Shore advocates were, however, able to make an effective case against the highway on ecological grounds, as the planned route bisected a 2,200-acre municipal forest park that comprised an important regional watershed.[23]

Facing mounting pressure, in 1970 Governor Sargent announced a moratorium on all expressway construction within a twelve-mile radius of Boston and commissioned studies on the proposed I-695 and I-95 projects. The resulting Boston Transportation Planning Review (BTPR) marked a distinct shift from prior planning approaches, faulting earlier processes for their undue emphasis on the regional scale

and long-term (rather than immediate) objectives; their concern with aggregate groups, rather than specific communities; their preference for highways over other modes of transportation; and their disengaged and technocratic methods.[24] Sargent eventually killed both expressway projects. The Inner Belt was discontinued and I-95 routed over Route 128, Boston's outer beltway. The Saugus commercial corridor, six miles of outmoded highway, remained.

3.2 Kowloon, 1950–1980

Kowloon is a unique but emblematic representative of Saugus's Route 1 roadside establishments. It was founded in 1950 by a Cantonese immigrant couple, Chun Sau Chin and Tow See Chin, who converted a former ice cream stand on the east side of the turnpike into a forty-seat restaurant called Mandarin House.[25] In 1958, they sold the restaurant to their son-in-law, William Wong. Wong renamed it Kowloon, gave it a Polynesian theme, and initiated a series of expansions that brought the restaurant's capacity to 1,200 seats by 1972. Similar developments occurred all along the Saugus strip as roadside institutions, particularly restaurants, ballooned to immense proportions through the 1960s and 1970s. Many adopted fantastic themes or monumental signage. The Ship Restaurant began in 1920 as a roadside refreshment stand and became, by 1963, a life-size replica of a two-masted schooner capable of seating six hundred people. Prince's Pizzeria, a small drive-in, grew to accommodate seven hundred diners by 1970, hailing drivers with a "Leaning Tower of Pizza."[26] Frank Giuffrida's Western-themed Hilltop Steak House opened with 125 seats in 1961 and eventually grew to seat 1,500. By the late 1980s, it was the largest restaurant in the country, serving 2.4 million customers each year. Many more establishments followed. A 1988 *New York Times* profile of the Saugus strip described it as "a Disneyland of family restaurants."[27]

The following analysis is premised on two assumptions: first, that the above-described phenomenon, of what might be termed the "themed mega-restaurant," constitutes an architectural typology distinct to Route 1 in Saugus; and second, that this typology is related in some way to the unusual status of the Saugus highway vis-à-vis the surrounding expressways (particularly I-95). As the oldest extant example of the Saugus mega-restaurant, Kowloon therefore constitutes a valuable case study. Its expansions and adaptations between 1950 and 1972 may be viewed as an architectural response to the intensifying encounter, in Saugus, between the distinct modes of the prewar highway and postwar expressway.

The original Mandarin House restaurant was housed in a small rectangular building that faced the east (northbound) side of Route 1 (Fig. 3.3). The otherwise unassuming structure featured a large decorative sign on the west (road-facing) façade in the shape of an East Asian pagoda. Alongside the name of the restaurant, the sign advertised two of its amenities: takeout and air conditioning. Parking space was restricted by structures on its two adjoining lots, a small house to the south and a Siesta Motel to the north.[28]

After William Wong took ownership of the restaurant in 1958, he began expanding the newly-renamed Kowloon through a series of additions to the east side of the building. These additions increased the restaurant's seating capacity but also allowed Wong to begin incorporating more elaborate decorative elements that reflected Kowloon's new Polynesian theming (which was inspired by Wong's honeymoon in Hawaii). For this effort, which would eventually span over a decade, he recruited the

Fig. 3.3. Mandarin House restaurant, ca. 1950. Image courtesy of *The Boston Globe*.

help of a Winchester-based draftsman and artist named David Burnham. Burnham, a Brown University graduate and World War II veteran, had worked for several years in advertising, including on early campaigns for Dunkin' Donuts, before pursuing freelance work as a draftsman and architectural designer. Most of his commissions were residential, though he was involved in at least three known commercial design projects: two North Shore restaurants, including Kowloon, as well as a storage facility in Seabrook, New Hampshire. How Burnham initially became involved in the Kowloon project is unknown, but it is possible that he was introduced to Wong through the restaurateur Charlie Doe, founder of the 99 Restaurants franchise.[29] Burnham was not licensed or trained professionally as an architect; rather, for each of his projects he collaborated with the client and a building contractor to realize his designs. This held true for Kowloon. To execute the expansions, Burnham worked closely with Wong and a Wakefield contractor named Lee Laird.[30]

Wong oversaw three Burnham-designed expansions during the 1960s. All were built outward from the building's east side, deepening the original structure while maintaining its roadside width. The first, completed sometime in the early years of the decade, added forty to sixty seats. The second two were considerably larger and added a combined four or five hundred seats to Kowloon's capacity. Wong and Burnham designed each successive addition to have a distinct visual and programmatic identity. First, adjoining the original footprint (now dubbed the "Mandarin Room"), was the "Tiki Bar," which featured a protruding bar area sunken into the floor to make room for its faux-thatched roof. The "Tiki Lagoon Room," built next, was centered on a long indoor water fountain, around which were arrayed booth-style seating and several imitation palm trees. Finally, the "Volcano Bay Room" featured a life-size section of a sailing ship built into the floor (with gunwales at roughly hip height), complete with part of a mast and rigging that disappeared into the blue-painted ceiling. The ship's "deck" served as a stage and dance floor. The perimeter of the room was wrapped in a massive mural, painted by Burnham, depicting a distant volcanic island. It included various immersive touches, including protruding volcanic "rocks," more palm trees, and curvature along the top of the mural to hide the ceiling's edge (Fig. 3.4). Amid the series of eastward additions, the restaurant also underwent several exterior changes. The

Fig. 3.4. Volcano Bay Room mural by David Burnham (detail). Photo by author.

Fig. 3.5. Kowloon restaurant, ca. 1965 (after the second addition). Image courtesy of *The Boston Globe*.

clapboard siding was replaced with brick veneer and a separate entrance to the Tiki Bar was added on the south side, although the main entrance remained on the road-facing west façade. Most notably, the building featured a new East Asian hipped roof, complete with a three-tiered pagoda, that echoed the erstwhile Mandarin house sign (Fig. 3.5).

By 1970, Wong had begun consulting with Burnham about a fourth addition that would considerably expand the restaurant's footprint and capacity. In anticipation of the expansion, Wong bought and cleared the adjoining lot to the south to make room for a large parking lot. The new addition, unlike the previous ones, would be built on the restaurant's south side. It also differed stylistically from the existing structure. As designed by Burnham, the addition consisted of a large, two-story rectangular structure in the form of a South Seas longhouse bisected by a protruding A-shaped gable that framed a south-facing entryway (Fig. 3.6). In addition to nearly doubling Kowloon's seating capacity, the addition relocated the main entrance to the south-facing Polynesian façade. The west entrance remained but took on a secondary role, being used primarily for takeout orders. Inside, the new space included two new dining areas on the ground floor: the "Thai Grill" and "Hong Kong Lounge," which featured a sleek semicircular bar. The second floor was used as a multifunctional event space; it was eventually split in half to create a comedy club.[31] Finally, to accommodate Kowloon's increased capacity, Wong expanded the kitchen on the building's north side sometime in the late 1970s. This required acquiring and demolishing the neighboring motel.[32]

Taken as a whole, the structure comprises a complex historicist assemblage. Like many mid-century tiki bars and restaurants, it evokes an abstract and exoticized Oceanic setting (rather than any particular location) through the combination of iconographic elements derived from many different cultures. Most notable among these is the massive sculpture, carved by Burnham, above the south façade entryway, which is based on a common motif in Marquesan island cultures: the tiki, an anthropomorphic figure that represents the "first man of Creation."[33] The longhouse-and-gable arrangement of the south-facing addition was common in U.S. tiki bars and itself draws on several Micronesian building typologies; the peaked A-frame entry is reminiscent of a Palauan *bai*, or meeting-house, or a New Guinean *haus tambaran*. Given this fact, it is likely that Burnham based his design on existing American structures rather

than specific Micronesian types. Burnham's design and layout is similar, for example, to Trader Vic's in Scottsdale, Arizona (1962) and the Tahiti Restaurant in San Diego (1965).[34] Burnham's low-slung combination longhouse roof is less typical and resembles an elongated *joglo* roof, a Javanese vernacular style.[35]

It is more instructive to conceive of Kowloon relationally rather than iconographically: in terms of the internal relation between its parts as well as the building's relationship to Route 1. From this line of inquiry a pair of basic observations emerge: first, that the 1971 addition marked a distinct stylistic departure from the earlier East Asian west façade; and second, that this addition also shifted Kowloon's primary axis by ninety degrees; the main façade no longer faced the street but, instead, the parking lot and oncoming traffic. The transformative effect of the 1971 façade therefore splits the history of the structure into two distinct periods. The first period, from 1950 to approximately 1969, begins with the Mandarin House restaurant and proceeds through Kowloon's renaming, re-theming, and subsequent eastern additions (the Tiki Bar, Tiki Lagoon Room, etc.). While this phase of expansion saw the restaurant change considerably, its aspect and relation to Route 1 remained more or less constant. The remodeled exterior simply adopted, in three dimensions, the East Asian gabled roof depicted on the original sign, and the west-facing façade remained the primary entrance through the first three eastern expansions. The second period was marked by the addition of the monumental south façade, which both reoriented the structure southward and re-themed the exterior.

(It is worth noting that the evolution of the building's interior and exterior theming is rather complex as well. As Mandarin House, a Chinese restaurant, the building adopted a consistent East Asian aesthetic. When it changed to Kowloon in 1958, the interior Polynesian theme began to diverge from its exterior, which retained its East Asian gabled roofline. The 1971 addition thus may be understood in part as an externalization of the interior Polynesian decorative scheme.)

Fig. 3.6. Kowloon restaurant, south façade, 1978. Library of Congress, John Margolies Roadside America Archive.

Two factors suggest that the shift between the first and second periods, as described above, should be understood primarily in terms of Kowloon's relationship to Route 1; that its reorientation occasioned an aesthetic change (from East Asian to Polynesian), and not the other way around. The first is that the process of planning the addition began several years before Burnham's design was finalized; the acquisition of the adjoining south lot occurred in the late 1960s, and the development of the new parking lot involved first relocating and eventually demolishing the neighboring structure.[36] The second is the fact that the Polynesian exterior re-theming, while monumental, did not supplant but simply added to the existing East Asian decorative scheme. While the view from the parking-lot appears unified and cohesive, circumambulating the structure reveals that the earlier west façade, including the original entrance, remains unchanged. The Polynesian roofline is simply grafted onto the preexisting gabled roof (Fig. 3.7). The 1971 addition, therefore, does not seem to have been motivated by a desire for aesthetic unity: its intervention was primarily a matter of abutment to which aesthetic considerations were incidental.

The importance of abutment in Kowloon's development supports the notion that it is best understood relative to Route 1. Indeed, abutment, as a formal and technical feature, came to define Route 1 in Saugus during the postwar period. In 1938, when the Massachusetts DPW was promoting Route 1 as an example of advanced highway construction, chief engineer G. H. Delano noted that "one serious hazard" remained in its design, viz., "access by abutters: Massachusetts laws do not permit this to be denied."[37] The modernization efforts of the 1930s had endeavored to remove as many at-grade crossings from the turnpike as possible, constructing, for example, overpasses at the Essex Street and Main Street intersections in 1936. All major crossroads were replaced with graded crossings outfitted with clover-leaf interchange ramps.[38] All abutting properties, however, retained direct on-off access to the highway. This was in fact a constitutive feature of the commercial strip: it allowed roadside businesses to attract so-called "impulse clientele" by enticing them off of the road through advertising or other means.

As Delano's remarks indicate, however, as early as 1938 highway engineers were becoming increasingly ill at ease with abutment. As speed limits rose and the number of vehicles on the road increased, engineers began to view abutting properties as safety hazards and sources of traffic congestion. There was by the late 1940s a growing consensus, supported by extensive wartime research, that modern interstate routes were best served by proscribing abutment altogether. In a 1977 publication, the Federal Highway Administration described this approach accordingly:

> [The] most effective way to facilitate the driver's task is to provide him with a highway having full control of access. Such a highway . . . prohibits access from abutting property, thus eliminating many of the roadside conflicts which confront the driver. Crossroads are grade separated, eliminating angle collisions occurring at intersections. Wide medians eliminate head-on collisions, and carefully planned interchanges with long speed change lanes minimize rear end and turning collisions.[39]

The postwar National System of Interstate and Defense Highways adopted "full control of access" as an a priori design principle. This new species of highway, the expressway, was no longer permeable; access points were often three or more miles apart.[40]

The condition of abutment as such on Route 1 was not unique: many highways across the country maintained similar roadside conditions. Yet the evidence suggests that it gained salience along the Saugus strip because of the road's particular relationship to the Boston metropolitan interstate system. Only Saugus retained its prewar abutment access despite being plugged in to a network of limited-access expressways (I-95, Route 128) that comprised a vital regional transportation corridor. Instead of being bypassed, roadside businesses in Saugus were able to access high volumes of metropolitan traffic fed into Route 1 by the new interstates. This increased customer base allowed them to expand to unprecedented proportions and led to a concentration of "mega-restaurants" within a small commercial area. By the 1980s, Saugus could claim two of the nation's biggest restaurants by volume, Hilltop Steak House and Kowloon, within a half-mile stretch.[41]

Kowloon's structuring fantasy, therefore, is not that of an exoticized Oceania but rather the condition of abutting an expressway. The building's complex and disjunctive form, however, suggests that this is an impossible condition for reasons that go beyond the technical distinction between highway and expressway. Here the visual juxtaposition between the 1960s structure and the 1971 addition is instructive. Marvin Trachtenberg begins his 2010 work *Building-In-Time* with a similar anomaly: a Renaissance-era choir, in the town church of Nogent-sur-Seine, "caught" replacing the prior Gothic interior (Fig. 3.8).[42] In his analysis, Trachtenberg uses the uneasy coexistence of the two styles to illustrate his concept of "modalities of time":

> I realized that [Nogent-sur-Seine] was about conflict, and about time, but at bottom not a conflict between *discrete moments in time*. Rather, it involved a violent disjunction of two different *modalities of time* that were [embedded] in the site. . . . [It] was not two intervals in a pure, single diachronic strand that had come together in conflict at Nogent — a present and future versus a past. Instead, two discrete diachronic strands, each a distinct modality of time, different modes in which time operates, were interacting in a particular way and were frozen in this state[.][43]

Kowloon's expansion over time, as has been shown, may be read as an architectural response to the evolving condition of Route 1 in Saugus during the postwar period: from the road-fronting Mandarin House structure to the monumental 1971 south-facing façade. If the former emerged in the "pure" context of the highway and the latter only as an adaptation to the peripheral influence of the expressway, the possibility arises, following Trachtenberg, that the two structures responded not only to different technical conditions but also different modalities of time that inhered to the highway and expressway, respectively. Specifically at issue, in this case, is not time abstractly considered but rather the spatial ordering of time: movement or, more prosaically, traffic.

The role of abutment on Route 1 is entirely consonant with the road's history as a "touring-road," a typology that emerged, in the early decades of the twentieth century, as essentially an accrual of destinations. The early automobile trails came into being, self-evidently, to convey tourists and vacationers from one place to another; hence the existence of roads such as the "Saranac-Lake Placid Route," the "Dixville Notch Way," or the "Lake Sunapee Route." Implicit in the logic of destination is the possibility of arrival: the automobile trails were an accrual of destinations insofar as they functioned as an accrual of individual travelers arriving at, and departing from, those destinations.

Fig. 3.7 (top). Kowloon restaurant, southwest corner (detail. Photo by author.

Fig. 3.8 (bottom). St-Laurent, Nogent-sur-Seine (detail). From Marvin Trachtenberg, *Building-in-Time: From Giotto to Alberti and Modern Oblivion* (New Haven, CT: Yale University Press, 2010).

As hoteliers, restaurateurs, and other entrepreneurs soon recognized, the touring-road became saturated with the possibility of arrival. Given the right location, one could conceivably attract enough traffic to create a wholly new destination. The emergence of resorts, market stands, and roadside attractions (miniature golf, drive-in theaters, and all manner of tourist traps) along the early highway system may be seen as reflective of this possibility. The role of abutment, in establishing the highway as essentially permeable, was a determining factor in this development.

The limited-access expressway pointed to the rise of a new logic of highway development: that of traffic flows. The 1948 Massachusetts Master Highway Plan is representative in this regard. Describing its primary aim as "the relief of traffic congestion in the [Boston] Area," the plan states that the region's "major expressways will be of [the] limited access type, providing for swift, uninterrupted flow of traffic and with no entering or cross streets except at prescribed points of interchange where grades will be separated."[44] With the advent of the expressway, the destination-oriented touring-road ceded to a large-scale, abstracted conception of traffic as such. The notion of "flow" at the scale of the system, as Michael Sorkin writes in *Giving Ground: The Politics of Propinquity* (1999), "imposes its own idea of efficiency, always calibrated to keeping going, not stopping, overcoming impedance and resisting inertia."[45] As an organizing principle "flow" is therefore entirely distinct from, and even antithetical to, the nodal logic of the touring-road.

In *Learning from Las Vegas* (1972), Denise Scott Brown and Robert Venturi observe that the architectural "rule" of the highway is "[the] big sign and the little building."[46] The original Mandarin House restaurant was exactly of this type. Kowloon's subsequent development, however, yielded something far more complex and hybridized. Situated amid an encounter between the nodal logic of the highway and the logic of flow imposed by the expressway, it was able to grow to monumental proportions by leveraging its abutment rights. First, by acquiring the two adjoining lots, Wong first vastly expanded the restaurant's frontage and access to Route 1. In addition, by demolishing the preexisting structure to the south and creating a large parking area, he cleared a viewshed that effectively directed attention from northbound traffic towards the new Polynesian façade and entryway.

In the American urban periphery, the nodal character of architecture is often made subordinate to planning strategies that prioritize traffic flow.[47] Kowloon's particular situation suggests that it may constitute a rare example of the opposite: a site where system-wide strategies of flow are, if momentarily, subordinated to Saugus's persistent nodal logic. The restaurant's twin façades thematize this disjunction. The west façade, with the sign out front, is clear, determinate, and directed toward the individual. It makes its promises known: cocktails, dancing, air conditioning, take-out. In short, it follows nodal principles. The south façade is much more opaque, its theming incidental but not arbitrary. In adopting an abstract Polynesian style, it conjures not any idea of a specific destination but, instead, the notion of travel itself: this is the logic of flow. In Kowloon, the two reach a brief entente.

Can Route 1 be said to have *produced* Kowloon and the other Saugus mega-restaurants? Frank Giuffrida reportedly decided to open Hilltop Steak House because, in his words, he "counted the cars driving along Route 1 and saw a business opportunity."[48] Certainly as examples of "roadside architecture" they would not exist without the presence of Route 1, although this eludes the question somewhat. It is even contended here that

these restaurants may, as in the case of Kowloon, thematize certain characteristics of Route 1 in their structure and orientation. In another sense, however, the restaurants of the Saugus strip function in opposition to the *telos* of the highway. Their aim, in part, is to encourage intermodal transfer: to lure drivers off of the road, into the parking lot, and out of the car. In this, Kowloon's expansive seating capacity is a testament to its success.

It is more accurate to say, then, that the highway establishes a given "roadside" condition to which establishments can respond. Route 1 in Saugus is unique because it remains permeable in an urban context where roadside access would otherwise be sharply circumscribed. For those abutting the highway, this presents an opportunity by introducing a degree of profitable friction into intra- and interstate traffic circulation. The Saugus mega-restaurant is therefore, among other things, a reassertion of the local in the face of a continent-spanning system of flows. It carries with it an implicit politics based on proximity and access: a tradition inherited, perhaps, from the rural landowners who sued the Newburyport turnpike for excessive land damages during its construction. Sorkin writes, regarding access and the city, that

> [traffic] codes and historic laws of rights of way codify urban styles of deference in motion. These rules of accessibility form criteria for determining who may go where and when. . . . [Though] speed — and indeed almost instantaneous 'movement' — is now conceived as the determining factor of our new economic order, the slower, physical flow of vehicular and human traffic remains a neglected issue.[49]

The symbolic character and expanded scale of the mega-restaurant effectively make this problematic visible. There are tradeoffs: the Saugus strip isn't as safe as an expressway, as anyone who has merged into traffic from the Kowloon parking lot can tell you. It is, perhaps, a bit more democratic.

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