A historical map of Cambridge, Massachusetts, showing various zoning districts labeled with codes such as R1, R2, R3, R4, B1, B2, B3, B4, U1, U2, and U3. The map includes a scale bar in the upper left and a north arrow in the upper right. The title 'CITY OF CAMBRIDGE ZONE MAP' is prominently displayed at the top, with the subtitle 'TO ACCOMPANY BUILDING CODE A.5 APPROVED JANUARY 7 1924' below it.

CITY OF CAMBRIDGE
ZONE MAP
TO ACCOMPANY BUILDING CODE
A.5 APPROVED JANUARY 7 1924

**“THE KIND OF CITY WHICH IS
DESIRABLE AND OBTAINABLE”**

A BRIEF HISTORY OF ZONING IN CAMBRIDGE

**WILL MACARTHUR
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Prepared for the Office of Mayor Marc McGovern
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Abstract

While the first proponents of zoning in Cambridge justified land-use restrictions as a scientifically grounded mechanism for maintaining access to light, air, and open space, those goals only thinly veiled social and economic policy objections. Zoning can keep a neighborhood visually attractive to its current residents, but it is also can maintain neighborhood socioeconomic exclusion. Zoning in Cambridge has done both, maintaining exclusive areas in Avon Hill, near Brattle Street, and near Kirkland Street, which is the exact outcome that both the original proponents of zoning and their successors sought. This report uses archival sources from Cambridge public agencies and accounts in Cambridge newspapers to trace a history of zoning in Cambridge and employs GIS-based social analysis to elucidate the demographic and socioeconomic traits of the neighborhoods in Cambridge that have been zoned for the lowest residential densities.

Executive Summary

Cambridge residents played central roles in bringing zoning to Massachusetts. Cantabrigians advocated for a constitutional amendment to make zoning legal and then worked to pass the enabling legislation that created a local option for zoning. Later, many of the same residents brought their advocacy back to the local level, making a public argument for the first zoning ordinance and holding key positions in city planning and zoning agencies. These residents framed zoning as a scientifically motivated policy to protect the living conditions of all Cambridge residents, and dismissed concerns that zoning would bring about segregation on the basis of race or income or that it would contribute to a housing shortage, and after zoning was adopted, almost all resident concerns hinged on the zoning of specific plots of land rather than on the broader social impacts of zoning. Nevertheless, data from the 1940s indicates that areas that were zoned most restrictively had significantly fewer black residents than those zoned less restrictively, and an analysis of the 2017 zoning map shows that this trend has persisted to this day. Additionally, a comparison between historical and contemporary zoning maps shows that land use in Cambridge has become increasingly restrictive since the first zoning ordinance was adopted in 1924, and archival research in the Cambridge Room, the Cambridge Historical Commission, and the digitized archives of Cambridge newspapers reveals that in the first such downzoning push in 1943, the key justification cited by the primary proponents of zoning shifted from protecting access to open spaces and preventing fires to ensuring that some neighborhoods would remain exclusive and wealthy. In the history of Cambridge zoning, this pattern emerges: nearly all public justifications of zoning rest on the constitutionally permissible goals of protecting the “health, safety, morals, and general welfare,” but zones established under these goals have become more restrictive without substantial justification of the health or safety benefits of lower density, and across Cambridge’s history, the most restrictive zones have unfailingly remained the whitest and wealthiest in the city.

Land Use and Building Regulations in Cambridge Before Zoning

Cambridge's first land use and building regulations sought to prevent fires and protect public safety, but in the first decades of the 20th century, the land use policy turned from advancing safety and public health goals to attempts at engineering social and economic standards for neighborhoods. By the second half of the 19th century, growth in construction of densely situated wood-frame residential structures had created a substantial fire risk in several neighborhoods of the city, prompting the first laws to regulate height, setbacks, and construction materials and techniques.¹ A 1863 law banned buildings from “encroaching on public ways,” which was followed by ordinances requiring fire escapes in 1877, and by 1885, the city had adopted a comprehensive building code. Cambridge began requiring building permits for construction in 1886. Most regulations enacted before 1900 directly sought to prevent fires, largely by banning the use of the most dangerous construction techniques and requiring non-flammable building materials.²

After 1900, land use regulations shifted into the realm of social and economic policy. Discussing state enabling legislation in 1911 and 1913 that “allowed municipalities to prohibit three-deckers and regulate setbacks in residential districts,” Susan Maycock and Charles Sullivan wrote that “although the rationale was fire prevention, the acts reflected a national movement to limit the spread of multifamily housing on moral grounds (which itself was code for keeping immigrants out of established neighborhoods). Ownership of a single-family home was the ideal.”³ Maycock and Sullivan also noted, however, that “Mayor Edward Quinn believed that multifamily housing was necessary to address a postwar housing shortage and to allow continued growth.” Faced with these two countervailing desires – to maintain some multifamily housing stock while preserving existing multifamily neighborhoods – city leaders turned to zoning.

¹ The section on “The Regulatory Framework for Building” in the Cambridge Historical Commission’s *Building Old Cambridge*, an architectural history by Susan E. Maycock and Charles Sullivan, thoroughly summarizes the origins of these land use restrictions.

² Maycock, Susan E., and Charles M. Sullivan. *Building Old Cambridge*. Cambridge, MA: Cambridge Historical Commission, 2016, p. 78.

³ *Ibid*, p. 79

The Path to Zoning in Massachusetts (1918)

Inspired by New York City's 1916 experiment in zoning regulation, municipalities across the country worked to replicate the most populous city in the nation's attempt at improving public health and order through the new science of land-use planning, including not long thereafter in Massachusetts. As the Commonwealth had yet to grant cities the authority to adopt such regulations, Cambridge's push to enact local zoning ordinances began with a statewide effort to draft and adopt Amendment LX to the Massachusetts Constitution. On the path to its adoption, proponents of Amendment LX outlined their vision for the promise of zoning and addressed critics who warned of the potential consequences—intentional or not—that policies aimed at separating people might create. Notwithstanding some of those concerns, Massachusetts voters overwhelmingly adopted the constitutional amendment on November 5, 1918, and granted to municipalities for the first time the “power to limit buildings according to their use or construction to specified districts of cities or towns.” In the century since its adoption, this twenty-two word amendment has formed the legal and constitutional basis for zoning across the Commonwealth. Re-entering the conversations around that amendment process, from the ballot box to the local Council chamber, provides invaluable insights to our modern analysis of zoning in Cambridge and in the Commonwealth. Indeed, one can imagine many any of those now century-old comments being lifted right out of contemporary public comments or shared on social media.

“very often the apartment house is a mere parasite constructed to take advantage of low-density neighborhoods, and that municipalities have the constitutional authority to regulate apartments as they might the segregation of residential, businesses, and industrial buildings.”

-Supreme Court Justice Sutherland
Euclid v. Ambler (1926)

Apartments as a Commercial Use in Zoning Jurisprudence

Almost immediately, Massachusetts residents turned the newly established land use-based structure of zoning into a tool to create social barriers. The initial legal justification for density-based zoning in Massachusetts rests on the idea that a multi-family residential structure is a commercial or industrial use, rather than a residential one, and thus could be applied to separate types of housing. Judge Robert Walcott of Cambridge introduced this idea as a key argument at the 1918 Constitutional Convention to allow zoning in Massachusetts, finding little difference in the impact a busy store or an apartment building would have on neighborhood character. “You buy a piece of land in the town, erect a handsome residence, lay out gardens, plant trees

or shrubs, spend money to make the home attractive for your wife and children,” he instructed his colleagues to imagine. “Pretty soon some real estate speculator comes, and he says: “I thought you would be interested to know that somebody is about to erect a one-story store or a six-flat apartment-house next you [sic]; you probably will want to buy that land, won’t you?”⁴

In New York, Walcott argued, zoning had necessarily arisen because “warehouses and commission houses began to invade the retail districts.”⁵ Equating commercial uses with high-density residences, Walcott saw both as representing a risk to residential districts in Massachusetts, and advocated that zoning legislation was essential to protect residents and retailers from heavy industrial uses. Even without explicitly mentioning density restrictions, Walcott advanced the idea that zoning can be used to block apartment construction by viewing the multi-family apartment building as really no different than a brick factory—both undermined the pastoral vision of home to which he and others ascribed.

In doing so, Walcott foreshadowed arguments that became a major theme in the Supreme Court’s decision to uphold municipal zoning in *Euclid v. Ambler* (1926). Writing for the majority, Justice Sutherland noted that “very often the apartment house is a mere parasite constructed to take advantage of low-density neighborhoods, and that municipalities have the constitutional authority to regulate apartments as they might the segregation of residential, businesses, and industrial buildings.”⁶ Even without the benefit of later, more technical zoning schema, Judge Walcott and Justice Sutherland laid the foundation in their own ways for use-based zoning to justify density-based zoning requirements in residential neighborhoods.

Concerns at the Convention about Zoning and Socioeconomic Segregation

From the beginning, some delegates worried about how the new authority could be abused in the hands of local authorities who might share the view of certain housing types as “mere parasites.” Of particular concern was the fear that zoning would bring about racial and socioeconomic segregation in Massachusetts, which need not take the form of racial tests, as zoning could just as easily bring about segregation by regulating who could afford certain neighborhoods by income. Pro-zoning advocates for Amendment LX didn’t seem particularly concerned by the notion.

A Mr. Kilbon of Springfield, Judge Walcott’s colleague in the minority report of the Committee on Public Welfare, informed the Convention that the proponents of

⁴ Debates in the Massachusetts Constitutional Convention, 1917-1918: Volume 3. Wright and Potter Printing Company, 1920, p. 751. <https://catalog.hathitrust.org/Record/001156621>.

⁵ Ibid, p. 752.

⁶ *Euclid v. Ambler Realty Co.*, 272 U.S. 365 (Supreme Court of the U.S. November 22, 1926, Decided), p. 394. [advance-lexis-com.ezp-prod1.hul.harvard.edu/api/document?collection=cases&id=urn:contentItem:3S4X-GDR0-003B-74WB-00000-00&context=1516831](https://advance.lexis-com.ezp-prod1.hul.harvard.edu/api/document?collection=cases&id=urn:contentItem:3S4X-GDR0-003B-74WB-00000-00&context=1516831).

zoning had been “met with the objection” on zoning’s potential to bring about socioeconomic segregation. The naysayers, he reported, “‘might say that on this street people should live who would pay \$20 a month rent, on the next street people should live who would pay \$40 a month rent, and that the \$50,000 houses should be put in another part of town.’ They said: ‘That is class legislation, we don’t want anything of that sort.’” Such notions, he assured the committee, were mere fancy. “We don’t want anything of that sort,” Kilbon said, “But that objection illustrates a tendency of the human mind which over and over again has been manifested in this Convention, — the tendency to imagine that, if no powers are granted or old powers enlarged, the most absurd and unreasonable thing of all the things that can be done is likely to be done.”⁷

Kilbon concluded that “there is not any danger in practice of a very serious abuse, an absurd abuse, of this power. Whether there might be dangers of incidental abuse, of course I should not dare to be quite so sure.”⁸ Kilbon advised the Convention that no legal safeguards were necessary to prevent the use of zoning as a tool of socioeconomic exclusion. Instead, he dismissed the possibility of such abuses for classist ends out of hand.

Concerns at the Convention about Zoning and Racial Segregation

Unconvinced, some at the Convention continued to point to zoning’s susceptibility to the influence of prejudice, and warned of the racist consequences that the new policy could have in urban areas. A Wellesley native cautioned, “[o]ne of the burning issues throughout the south for many years past, as we all know, has been the

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-Mr. Kilbon, Springfield delegate to Convention

⁷ Debates in the Massachusetts Constitutional Convention, 1917-1918: Volume 3. Wright and Potter Printing Company, 1920, p. 754. <https://catalog.hathitrust.org/Record/001156621>.

⁸ Ibid, p. 754.

“[o]ne of the burning issues throughout the south for many years past, as we all know, has been the segregation of the Negro in particular quarters of a city or town, and several southern cities have made the attempt, which has always... been held unconstitutional, even by the courts of the southern States. To my mind this resolution, while undoubtedly such a thing has never occurred to anybody who is interested in it, plainly would authorize the segregation of the Negro.”

-Wellesley delegate to Convention

segregation of the Negro in particular quarters of a city or town, and several southern cities have made the attempt, which has always... been held unconstitutional, even by the courts of the southern States.” He posited that a policy could still create racial segregation even if the delegates did not intend for it to do so. “To my mind,” he continued, “this resolution, while undoubtedly such a thing has never occurred to anybody who is interested in it, plainly would authorize the segregation of the Negro.”⁹ The delegate from Wellesley clarified that while he did not expect

Massachusetts to adopt any sort of

explicit racial segregation, he would not support any provision that could authorize a form of racial segregation, even inadvertently, and implored the Convention to modify the resolution to eliminate any possibility.¹⁰ In response, Judge Walcott noted that *Buchanan v. Warley* would prevent the use of zoning to bring about racial segregation, and that therefore there was no danger that the currently structured ordinance would create racial segregation.

This broad interpretation of *Buchanan*’s impact on racial segregation is borne out neither by the text of the decision nor by its impact. The *Buchanan* case originated as a test case for an explicitly racial zoning ordinance in Louisville, KY; the NAACP recruited both the plaintiff and the defendant, and argued that racial zoning was unconstitutional because it imposed an unconstitutional restriction on the property rights of white people wishing to sell property to people of color.¹¹ The Supreme Court accepted this narrow rationale for striking down explicitly racial zoning. In fact, their decision affirmed that some forms of segregation were permissible, citing a Supreme Court of Georgia ruling against racial zoning to argue that the racial segregation in *Plessy* was valid because it did not restrict property rights.¹² This rationale in *Buchanan* preserved an opening for using zoning to bring about racial segregation through zoning, and planners who favored segregation recognized and exploited this opening almost immediately. At the National Conference of City Planning in 1918, Frederick Law Olmsted, Jr. argued that the

⁹ Ibid, p. 756.

¹⁰ Ibid, p. 756.

¹¹ Wright, George C. "The NAACP and Residential Segregation in Louisville, Kentucky, 1914-1917." *The Register of the Kentucky Historical Society* 78, no. 1 (1980): 44-47.
<http://www.jstor.org/stable/23378695>.

¹² Ibid, p. 80.

Buchanan decision of the prior year pertains to the “legal and constitutional” question of segregation rather than that of “policy;” he states,

[...] in any housing developments which are to succeed, one must, of course, consider the requirements and the habits of the people for whom the houses are being built, and where there are requirements in regard to number of rooms, etc., which are more or less coincident with racial divisions, they have to be taken into account, and if those differences are very large, it is a question how far one can intermingle houses for people who do not readily intermingle with each other[...]¹³

Judge Walcott of Cambridge was correct that *Buchanan* bans zoning that designates areas of a city for one race or for another, but the legacy of slavery and ongoing systemic, institutional, and interpersonal racism in the United States mean that an act of government can have a disparate racial impact even if it never mentions race. Olmsted’s proposal for using zoning to preserve segregation illustrates this, as he argues that planners should identify aspects of housing demand that are correlated with race in order to design a constitutionally valid means to racial segregation. In relying on *Buchanan* to prevent any racial segregation through zoning, Judge Walcott dismissed a valid criticism of the zoning enabling amendment, and the Convention failed to craft a policy that could prevent the use of zoning to bring about racial segregation.¹⁴

From Amendment LX to Statewide Zoning Enabling Legislation

Cambridge residents were integral to the push for zoning on the state legislative battle: Cambridge representatives submitted each of the first two bills to enabling zoning, and Cambridge public staff and private residents provided the technical expertise necessary to meet the constitutional requirements for the legislation. After Amendment LX’s success at the ballot box, the proponents of zoning began a second push for an enabling law in the state legislature. This effort began in earnest on January 22, 1920, when Representative Kidder of Cambridge transmitted a petition from Judge Walcott requesting “that cities and towns be authorized to limit buildings according to their use and construction to specified districts.”¹⁵ The petition accompanied House Bill 1057, Kidder’s bill to grant zoning authority to Massachusetts

¹³ “Proceedings of the Tenth National Conference on City Planning,” May 27, 1918. Hathi Trust Digital Library, pp. 44-45. babel.hathitrust.org/cgi/pt?id=wu.89074743881;view=1up;seq=7.

¹⁴ *Welch v. Swasey*, 214 U.S. 91, (Supreme Court of the United States May 17, 1909, Decided), pp. 107-108. <https://advance-lexis-com.ezp-prod1.hul.harvard.edu/api/document?collection=cases&id=urn:contentItem:3S4X-9J50-003B-H1BK-00000-00&context=1516831>.

¹⁵ Commonwealth of Massachusetts. “Journal of the House of Representatives of the Commonwealth of Massachusetts: 1920.” Wright and Potter Printing Co., State Printers, 1920. Harvard University Libraries via Hathi Trust Digital Library, p. 135. <https://babel.hathitrust.org/cgi/pt?id=hvd.hl5bu2&view=1up&seq=5>.

municipalities. That same day, seeking to avoid another constitutional defeat for zoning legislation, Representative Keniston took the unusual step of requesting an advisory opinion from the Supreme Judicial Court indicating whether House Bill 1366 “would be legal and constitutional if enacted into law.”¹⁶ After review by the Committee on Rules, the order was adopted and forwarded to the Court on April 29th, 1920.¹⁷ The annual report of the Planning Board for 1920 described the role that Cambridge’s zoning advocates played in this episode, noting that Judge Walcott and Planning Board Consultant Arthur Comey had crafted the new bill for the legislature after Amendment LX had passed in order to ensure that it would be found constitutional.¹⁸

SJC Finds Zoning Constitutional Based on Amendment LX

In their response to the legislature’s request, the Supreme Judicial Court affirmed that the proposed legislation aligned with the state constitution, and repeatedly invoked Amendment LX to explain this position. The Court’s opinion notes that land use restrictions that were necessary to prevent fires or to pursue another public safety goal would have been permissible even without Amendment LX, and states that its interpretation of Amendment LX was based on its analysis of the points made for it at the 1918 constitutional convention: “The debates in the convention indicate that the thought uppermost in the minds of those who spoke was to prevent an established residential neighborhood from being injured by the construction or use of buildings whereby the neighborhood would be rendered less desirable for homes.”¹⁹

Based on this and on the similarity between the language in Amendment LX and in the proposed statute, the Court found that Amendment LX granted all constitutional authority necessary for the legislature to move forward with their bill, and seemed to underscore the shifting motives for zoning, which had moved from fire prevention and public safety to preventing multifamily housing growth in single-family neighborhoods. The Court took care to note, however, that while the

“...in any housing developments which are to succeed, one must, of course, consider the requirements and the habits of the people for whom the houses are being built, and where there are requirements in regard to number of rooms, etc., which are more or less coincident with racial divisions, they have to be taken into account, and if those differences are very large, it is a question how far one can intermingle houses for people who do not readily intermingle with each other...”

-Frederick Law Olmstead, 1918

¹⁶ Ibid, p. 413.

¹⁷ Ibid, p. 838.

¹⁸ “Planning Board: Zoning for Cambridge.” City of Cambridge Annual Report. Cambridge Planning Board, June 30, 1920. Cambridge Public Library: Cambridge Room.

¹⁹ Ibid, p. 995.

broad interpretation of the police power advanced in Amendment LX formed sufficient grounds for zoning, it did not alter the fact that “the exercise of such power in many conceivable instances would be a serious limitation upon what have been commonly regarded as the instances of ownership. All this, however, is clearly within the purview of Amendment LX[DW8].”²⁰

The Court also reminded the legislature that no state constitutional changes could supersede the state’s obligation to the federal Constitution, which “within the sphere covered by it is supreme over all the people and over each act of every instrumentality of government established within or by the several states,” and that “[t]he constitution of a state stands no higher or stronger in this particular than any other act of a state.”²¹ Drawing upon precedent set in other federal courts, the Justices noted that the state was still enjoined from arbitrarily banning a specific business without “rational ground” (*Dobbins v. Los Angeles*) and from discrimination “based on color alone” (*Buchanan v. Warley*). After these cautions, the court concluded that “the proposed act if enacted into law would be constitutional.”²² The law passed the House and was sent to the Senate, which returned it passed to be engrossed on June 2nd, 1920. It became law on June 4th, 1920.²³

The full text of the final bill as adopted is available [here](#).

²⁰ Ibid, p. 996.

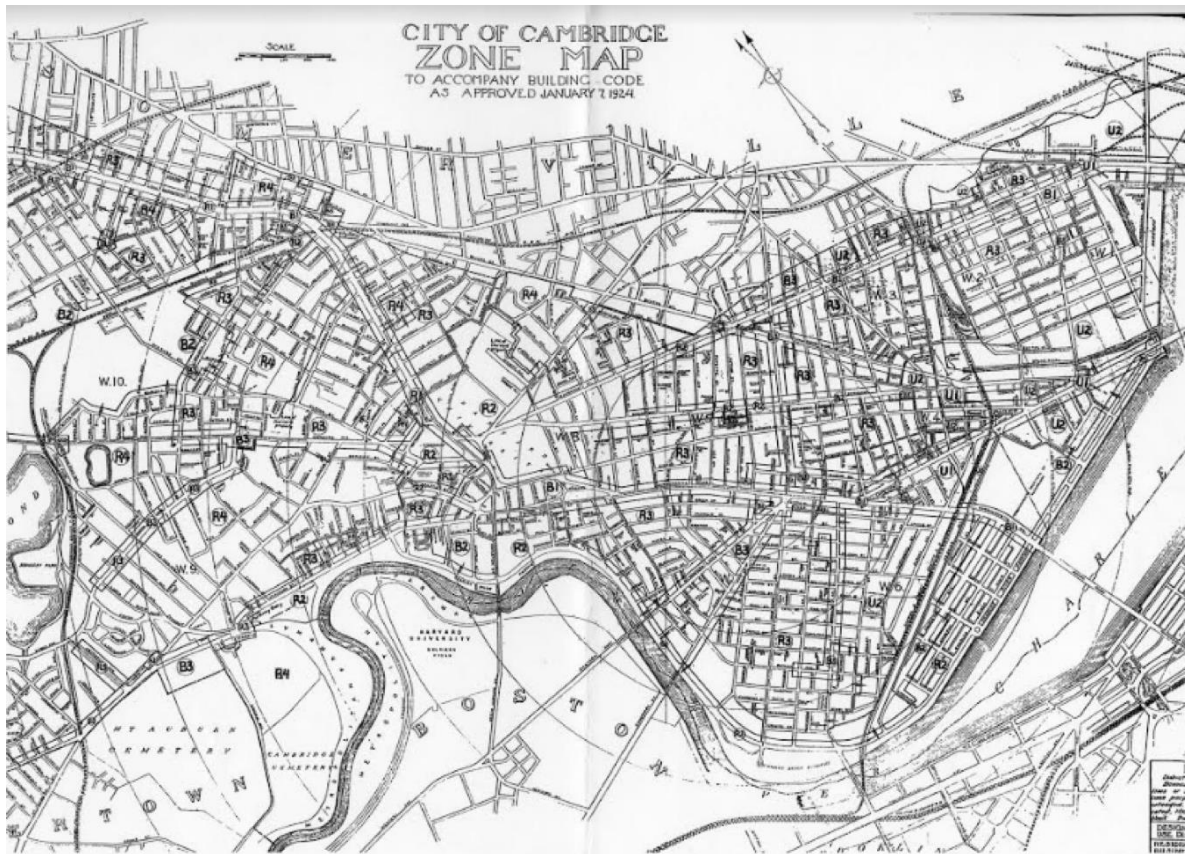
²¹ Ibid, p. 999-1000.

²² Ibid, p. 1003.

²³ Ibid, p. 1126; “Acts and Resolves Passed by the General Court of Massachusetts in the Year 1920.” Wright and Potter Printing Co., 1920, p. 667. <https://archive.org/details/actsresolvespass1920mass>.

The First Cambridge Zoning Ordinance (1919-1924)

The first Cambridge zoning ordinance sought to divide the city between residential, commercial, and industrial uses, a popular reform among the residents who had participated in the public process to bring land-use restrictions into existence. The ordinance also adopted height limits, but these generally reflected the range of existing structures and likely uses and were also broadly non-controversial at the time. Most public engagement with the ordinance involved residents of specific neighborhoods seeking certain zoning designations and owners of individual parcels seeking specific allowed uses. Requests of both types were often granted in the early days of zoning, and as a result, politically engaged residents actively shaped the first zoning ordinance to meet their desired vision for neighborhoods and properties.



Map 1
The Cambridge 1924 Zoning Ordinance Map. Map courtesy of Cambridge Historical Commission²⁴

²⁴ “City of Cambridge Zone Map to Accompany Building Code as Approved January 5, 1924.” Cambridge, MA, 1924. Zoning Maps in Chronological Order. Cambridge Historical Commission.

Early Justifications of Zoning in Cambridge

By December 1921, the Cambridge-based proponents of local zoning had begun a concerted effort to build popular support for the initiative, both through formal meetings of the Planning Board and through informal gatherings with influential residents. In each aspect, Arthur B. Comey, a consultant for the Planning Board, and Professor William F. Harris, President of the Cambridge Planning Board, took center stage.²⁵ Comey, Harris, and other Cambridge leaders and officials arranged meetings to discuss the proposed zoning ordinance, both with private resident groups such as the Cambridge Club and the Economy Club and with members of the public.²⁶ The *Cambridge Sentinel* of December 10, 1921, describes the routine in the public meetings, reporting that Harris explained “the principles of zoning” while Comey “shows by colored maps the proposals for Cambridge, with particular reference to the part of the city where the meeting is being held.”²⁷ Per the *Sentinel*, “Citizens present at the meetings are taking a lively interest. Opinion solidly favors the idea [of zoning]; questions come thick and fast on the applications.”²⁸ This pattern

“such regulation of the height, area and use of buildings as will protect each occupant from the impairment of his share of light and access; as will protect his ears from unseemly noises, his nose from unpleasant smells and his eyes from offensive sights; and will make toward protection for the city of values already established or to be created.”

-Professor William F. Harris, Camb.

came to characterize zoning in Cambridge for nearly the next twenty years, as its proponents saw virtually no opposition to the concept of zoning and deep frustration with individual zoning decisions, both in the base zoning map and in the variances and special permits that proliferated after the map’s approval.

Together, Comey and Harris made a persuasive case for zoning, and their arguments shaped

the city-wide debate. After one meeting, for example, The *Cambridge Tribune* reported that Professor Harris had described zoning as “such regulation of the height, area and use of buildings as will protect each occupant from the impairment of his share of light and access; as will protect his ears from unseemly noises, his nose from unpleasant smells and his eyes from offensive sights; and will make toward protection for the city of values already established or to be created.” The *Tribune* continued that zoning seeks to “guard against the intrusion into any neighborhood of buildings put to wrong use or constructed in such a way as to injure the character of the

²⁵ “Some Light Thrown on Zoning System.” *Cambridge Chronicle*. December 3, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19211203-01.2.5>

²⁶ “Clubs Meet Jointly to Confer on Zoning.” *Cambridge Tribune*. December 24, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19211224-01.2.5>.

²⁷]“The Local Town Meeting on Zoning.” *Cambridge Sentinel*. December 10, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Sentinel19211210-01.2.25>.

²⁸ *Ibid.*

locality as a whole. In this way intelligent zoning tends to realize to the utmost the economic possibilities of city land, to increase taxable valuations, and to stabilize values.”²⁹

In another meeting, the *Chronicle* reported on a 1915 inventory of every building in the city that Comey used in his argument that the specific proposed zoning map was well designed to address current conditions and that it would survive legal challenges; in his framing, “the needs of the people were perfectly understood by the courts,” as well as by the city officials who had drafted the zoning ordinance. Comey and Harris framed zoning as a policy that could be wielded with near-scientific precision to produce outcomes that were unambiguously positive. This framing is clearest in a 1919 *Cambridge Tribune* article entitled “Purpose of Zoning,” which states that “zoning means the substitution of an economic, scientific, efficient community programme of city building for wasteful, inefficient haphazard growth.”³⁰ The two were a formidable team and, indeed, one could imagine it difficult to make a case in favor of unseemly noises, unpleasant smells, or offensive sights, or to challenge the results of a city-wide housing inventory or the wisdom of a world expert on zoning. Instead of targeting the goals or the methods of the zoning ordinance, most challenges sought narrow changes to the zoning classifications of specific neighborhoods, streets, or lots.

Early Questions About Appeals Procedure and Neighborhood-Specific Zoning

While all three Cambridge papers describe near-unanimous support for the ordinance at public meetings, questions about zoning appeals procedure dogged Comey and Harris from the very beginning. The *Cambridge Tribune* reported on December 3, 1921, at the first public meeting on zoning held in the city, that Comey faced questions regarding the procedures through which a property owner could pursue a use that differed from the base zoning on their site.³¹ Neighborhood groups expressed similar desires to be allowed to modify the zoning ordinance to fit their tastes. Even before the initial adoption of zoning, groups such as those in wealthy neighborhoods of the city campaigned for zoning with more stringent use and density restrictions, establishing a pattern in the Kirkland Street, Avon Hill, and Brattle Street neighborhoods that would persist in future zoning revisions, most notably in 1943 and 1962.

Arthur F. Blanchard, a Cambridge political force who had served as a city councillor, state representative, and state senator, and who had introduced the first

²⁹ “Planning Board Begins Hearings on Zoning Plan.” *Cambridge Tribune*. December 3, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19211203-01.2.8>.

³⁰ “Purpose of Zoning.” *Cambridge Tribune*. March 8, 1919. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19190308-01.2.70>.

³¹ “Planning Board Begins Hearings on Zoning Plan.” *Cambridge Tribune*. December 3, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19211203-01.2.8>.

state zoning enabling legislation in the state legislature, wrote to the *Chronicle* that he had “organized the Avon Hill Association, the only group in the city whose sole purpose is to protect the neighborhood from detrimental zoning changes.”³² The Avon Hill Association was not alone. Per the *Sentinel*, “[c]ertain sections have gone so far as to form committees to present a unanimous demand for what they want in their own neighborhood. Those dwelling in the territory between Kirkland Street and the Somerville line have put a great deal of work in organizing for the total exclusion of all but dwelling houses.”³³

Cambridge passed the final ordinance on January 5th, 1924, the last legislative day of the previous City Council term.³⁴ Led by Councillor McCarthy, a contingent of councillors voting against the measure charged that property owners had not been properly notified of the zoning changes, and argued that the committee’s tendency to accept requests for specific zoning changes from neighborhood groups and property owners meant that it would be improper to pass an ordinance without perspectives heard from each property owner in the city. Despite these early process concerns, however, the zoning ordinance passed by a vote of 8-5.

The zoning code adopted in 1924 divided the city into residential and business districts and split each into four districts based on permitted height and also imposed some restrictions on each through a table of permitted and prohibited uses. Under this zoning system, 691 (20.0%) of the 3451 acres of land in the city that was zoned in the 1924 zoning map had height limits of 40 feet, 1188 acres (34.4%) had height limits of 60 feet, 1135 acres (32.9%) had height limits of 80 feet, and 334 acres (9.7%) had height limits of 100 feet (the map was unclear for 103 acres). While the final ordinance does not offer specific justification of these height limits, Comey’s statement in an initial public meeting indicates that the basis for the map in the initial zoning proposal had been a 1915 inventory of existing building stock in the city.³⁵

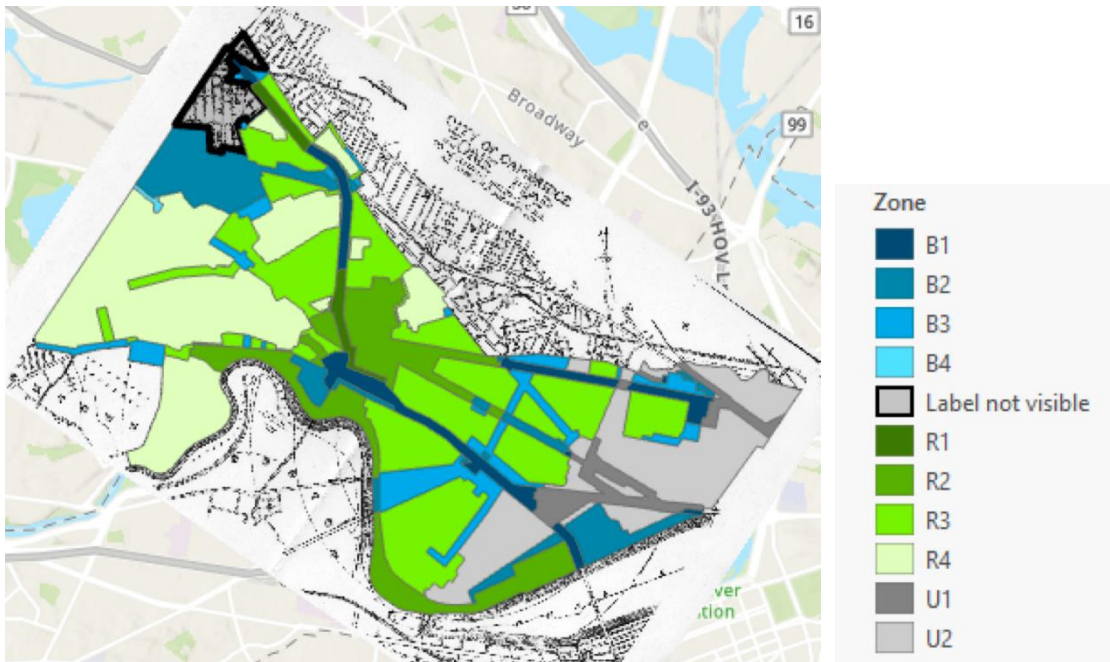
³² “Blanchard Replies To Professor Adams On New Zoning Law.” *Cambridge Chronicle*. April 2, 1942. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19420402-01.2.21>.

³³ “The Local Town Meeting on Zoning.” *Cambridge Sentinel*. December 10, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Sentinel19211210-01.2.25>.

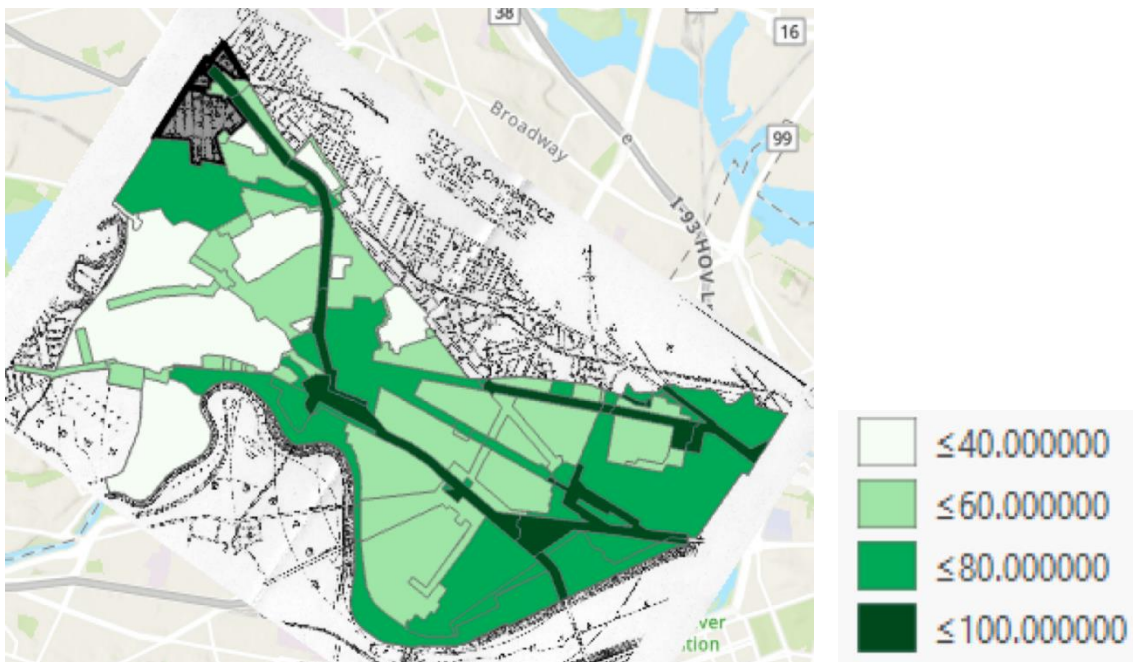
³⁴ “After Warm Debate City Council Passes Zoning Ordinance, 8 to 5.” *Cambridge Chronicle*, January 5, 1924. *Zoning Maps and Ordinances in Chronological Order*. Cambridge Historical Commission.

³⁵ “Some Light Thrown on Zoning System.” *Cambridge Chronicle*. December 3, 1921. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19211203-01.2.5>.

Height Limits in the First Zoning Ordinance



MAP 2
HEIGHT LIMITS IN THE FUTURE ZONING ORDINANCE



MAP 3
HEIGHT LIMITS IN 1924 ZONING. THE LOWEST HEIGHT LIMITS IN THE CITY WERE SET AT 40 FEET, AND MOST OF THE CITY WAS CAPPED AT 60, 80, OR EVEN 100 FEET. IN CONTRAST, THE 2017 ZONING LIMITS THE VAST MAJORITY OF THE CITY AT 35 FEET.

Challenges and Revisions to Zoning (1924-1943)

The final adoption of the ordinance did not end the public discussion of the zoning of each section of the city. Instead, it crystallized organized efforts to override zoning, particularly among property owners who wished to use their properties for purposes not permitted in their zone. Discussion of zoning in the three major Cambridge newspapers increased dramatically with the passage of the ordinance. Figure 1 shows the number of references to zoning in the three newspapers in the two decades after the passage of the state enabling legislation.³⁶

The volume of requests for zoning changes led the Council to convert the seven-member ordinance committee to a committee of the whole, bringing the total membership to fifteen.³⁷

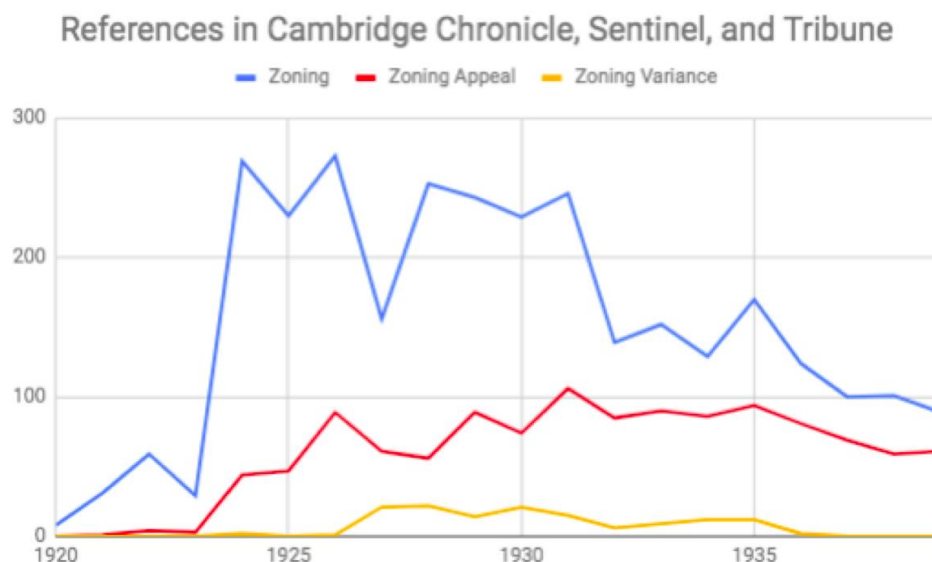


FIGURE 1: REFERENCES TO ZONING TOPICS IN CAMBRIDGE NEWSPAPERS

Cambridge Zoning Reaches the Supreme Court in *Nectow v. Cambridge*

Through the first few years, the vast majority of challenges to zoning or requests to modify it were resolved through local processes, but one dispute over the classification of a property on Brookline Street went to the courts, and eventually reached the U.S. Supreme Court as *Nectow v. Cambridge* (1928). In this case, the

³⁶ Based on data from the Cambridge Public Library archive at <https://cambridge.dlconsulting.com>.

³⁷ "Zoning Ordinance Causing Trouble." Cambridge Chronicle, n.d. Zoning Maps and Ordinances in Chronological Order. Cambridge Historical Commission.

Court found that since a comparable zoning plan in which the Nectow property was not included in a residential district would have been just as successful in protecting the “health, safety, convenience and general welfare” of the residents of the city, there was no constitutional basis for zoning the property as residential, and ordered the city to change the plan.³⁸ Residents worried that the standard set by the Supreme Court rendered their local zoning toothless, decrying that “[a]ny land owner in Cambridge who sees a chance to sell for development purposes (or wants to do it himself) other than that laid down in the Zoning Ordinance, will quote the Nectow vs. Cambridge decision to justify his demand.”³⁹ The *Sentinel*, too, worried that “every protest case will be advantaged at the start by means of this very important decision,” and argued that countless similar cases had come before municipal boards in the previous years and many more would come in the future. Seeking to dissuade those fears, Planning Board President Charles Killam wrote a letter to the editor of the *Sentinel* arguing that “the Nectow decision settled such a special case” and positing that the circumstances around it would not be replicated in any future instances.⁴⁰

All the same, the Ordinance Committee and Board of Appeals seemed reluctant to test how far *Nectow* would go, and began granting many of the requests for variances and special permits that appeared before them. Local observers took notice, and objected to the increase in zoning settlements that were favorable to landowners who wished to build outside of the table of permitted uses. An editorial in the *Cambridge Tribune* of February 1929 decried “spot zoning,” or the practice of adopting a permanent zoning change to a specific property rather than granting a special permit for a specific project.⁴¹ In a similar op-ed in the *Chronicle* a few months later, Daniel Buckley argued that the number of spot changes demonstrated the need for a wholesale revision of the zoning ordinance.⁴² Nevertheless, no such change occurred in 1929, and the “spot-zoning” decisions continued for the next decade.

³⁸ *Nectow v. Cambridge*, 277 U.S. 183 (Supreme Court of the United States May 14, 1928, Decided). <https://advance-lexis-com.ezp-prod1.hul.harvard.edu/api/document?collection=cases&id=urn:contentItem:3S4X-FDX0-003B-72XD-00000-00&context=1516831>.

³⁹ “He Said No!” *Cambridge Sentinel*. June 23, 1928. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Sentinel19280623-01.2.52>.

⁴⁰ Killam, Charles. “Zoning and Nectow.” *Cambridge Sentinel*. July 7, 1928. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Sentinel19280707-01.2.2>.

⁴¹ “Spot Zoning Dangerous.” *Cambridge Tribune*. February 16, 1929. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19290216-01.2.13>.

⁴² Buckley, Daniel A. “Daniel A. Buckley Points Out Many Flaws In The Cambridge Zoning Laws.” *Cambridge Chronicle*. July 26, 1929. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19290726-01.2.95>.

City Seeks to Address Concerns Through Zoning “Modernization” and Downzoning

By 1941, frustration with “spot-zoning” had reached its boiling point. The city had convened the *Committee on the Modernization of the Building Code and the Zoning Law* to recommend changes, but while the Committee worked, the Board of Appeals in Cambridge continued to grant zoning changes. Local opposition grew so strong that the state legislature took the remarkable step of passing legislation filed by Senator Blanchard specifically prohibiting the Cambridge Board of Zoning Appeals from making any zoning modifications until the report was complete.⁴³ A *Cambridge Chronicle* editorial entitled “Clip Wings of Board” expressed strong support for this move, arguing that the city should await the results of the comprehensive plan for zoning before taking any further action and positing that the ban “reflects the view of many Cambridge citizens who feel that the Board of Appeals has been too liberal in granting zoning changes here in the past.”⁴⁴ With the legislation, the city’s zoning was frozen until the Modernization report came out a year later.

“[w]e are not sardines or Lilliputians. What Cambridge needs are brick and stone mansions, occupied [sic] by millionaires who will share our tax burden [sic]. Prof. Adams’ committee is trying to sell Cambridge short!”

-Rep. Arthur F. Blanchard, Camb.

After freezing the zoning to await the Modernization report, Senator Blanchard became a vocal opponent of some of its provisions, and his dispute with its authors reveals some of the principles that had animated him to his decades of advocacy for zoning. In a statement on the Modernization Report, he warned,

The finest and oldest residential districts of Cambridge will be vitally and permanently affected by the proposed ordinance. In such exclusive sections at Brattle, Highland, and Berkeley streets, Coolidge Hill, Larchwood, Gray Gardens East and West, and the neighborhood of Francis avenue and Holden Green, the ordinance will permit the alteration of single-family into two-family houses, with external fire escapes.⁴⁵

⁴³ “Bill Bans Zoning Changes Here For Rest Of The Year.” *Cambridge Chronicle*. July 24, 1941. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19410724-01.2.14>.

⁴⁴ “Clip Wings of Board.” *Cambridge Chronicle*. July 24, 1941. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19410724-01.2.51>.

⁴⁵ “Public Should Study Proposed Zoning Law Sen. Blanchard Warns.” *Cambridge Chronicle*. March 12, 1942. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19420312-01.2.23>.

In response, Professor Frederick Adams, who taught City Planning at MIT and had served on the Modernization task force, assured the public that the proposed changes actually represented a downzoning from the 1924 zoning, and that “the present law is much more conducive to overbuilding and a high density of population than the proposed one.”⁴⁶ In response, Blanchard highlighted his roles in the Avon Hill Association and in introducing “the first zoning legislation in the Massachusetts General Court,” and argued that the downzoning had not gone far enough. In his words, “[w]e are not sardines or Lilliputians. What Cambridge needs are brick and stone mansions, accupied [sic] by millionaires who will share our tax bureen [sic]. Prof. Adams’ committee is trying to sell Cambridge short!”⁴⁷

Despite Blanchard’s concerns, the 1943 revision proceeded as designed. The 1942 Planning Board Annual Report notes that a draft “which was not fundamentally different from the original” gained unanimous Planning Board approval on August 17th, 1942.⁴⁸ The new ordinance moved between City Council committees for the next year, as minor changes were discussed and referred to the Planning Board for

additional insight,⁴⁹ but by the end of 1943, the new zoning law had been ordained by the full council. The 1943 annual report from the Planning Board states that “[a]lthough planning in Cambridge is actually starting 25 years late, a substantial step toward preserving the natural assets of the city was made in 1943 when the Building and Zoning Code was ordained by the City Council.”⁵⁰

“Councillor Leahy of Ward 11 did not object to the principle of the [zoning ordinance], but desired to know how it would affect the problem of the home shortage, which was losing many natives who were moving to other localities, where homes were available.”

-The Sentinel, November 1922

The 1943 Ordinance as a City-Wide Downzoning

An examination of the final 1943 ordinance makes Blanchard’s concerns seem misplaced; the new ordinance dramatically reduced density limits in residentially

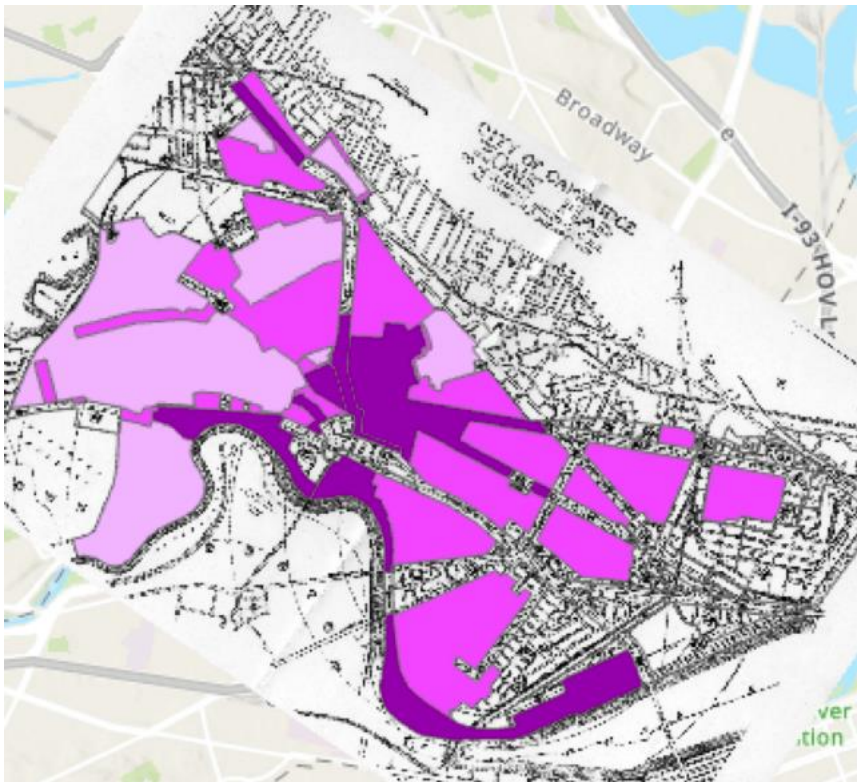
⁴⁶ “Professor Rebukes Senator Blanchard On New Zoning Law.” Cambridge Chronicle. March 26, 1942. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19420326-01.2.2>.

⁴⁷ “Blanchard Replies To Professor Adams On New Zoning Law.” Cambridge Chronicle. April 2, 1942. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19420402-01.2.21>.

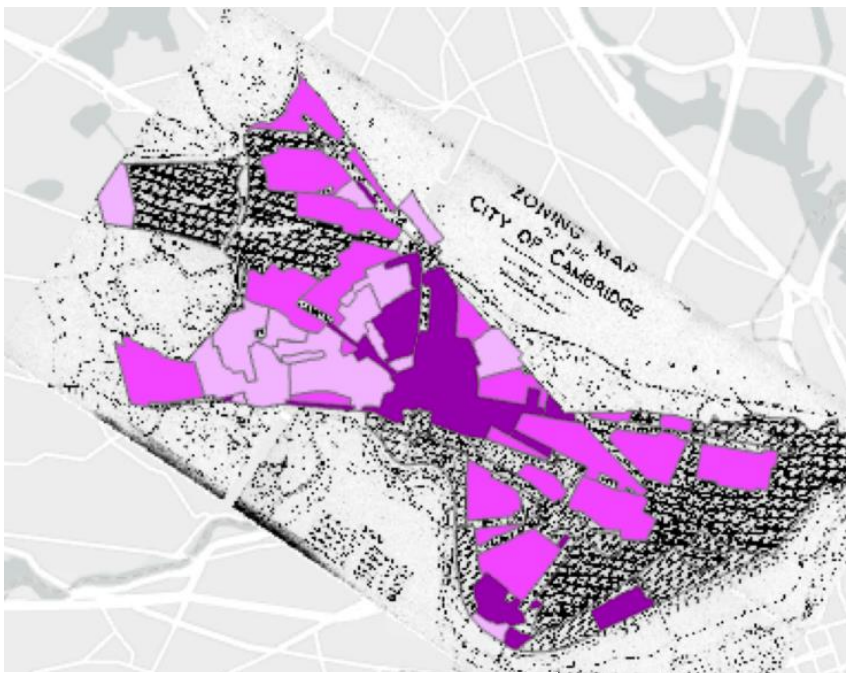
⁴⁸ “Annual Report: Planning Board.” City of Cambridge, 1942. Cambridge Public Library: Cambridge Room.

⁴⁹ “Work on New Building Laws and Zoning Code Speeded by Committees.” Cambridge Chronicle. September 23, 1943. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19430923-01.2.19>.

⁵⁰ “Annual Report.” Cambridge, MA: City of Cambridge, 1943, p. 31. Cambridge Public Library: Cambridge Room.



MAP 4: RESIDENTIAL DISTRICTS IN 1924



MAP 5: RESIDENTIAL DISTRICTS IN 1943

zoned districts across the city. In the 1943 zoning modernization, most areas zoned as R1 or R2 were rezoned as Residence C-2; the as-of-right height allowed in these districts fell from 100 feet (R1) and 80 feet (R2) to 65 feet. Most areas zoned as R3 were rezoned as Residence C-1; here, the height limit fell from 60 feet to 35 feet. Most areas zoned as R4 were rezoned as Residence A or B, bringing the height limit from 40 to 35 feet. Using a shared symbology, as shown on the maps below, can help demonstrate the validity of these comparisons.

The darkest purple represents R1 and R2 districts on the 1924 map (Map 5) and Residence C-2 districts on the 1943 map (Map 6), while the medium purple represents R3 and C-1 districts and the lightest purple shows R4 and Residence A and B districts (to best facilitate visual comparisons between the residential zoning systems, all non-

residential zones were omitted from both maps).

Concerns that Downzoning Would Reduce Density

A 1958 *Magazine of Cambridge* article entitled “Zoning Ordinance Study” supports this analysis, as the Chamber wrote that the 1943 zoning ordinance had “reduced the potential density by a substantial amount, although still providing for several times the population that could be reasonably anticipated.” Per the article, the 1924 zoning “would have accommodated a population of approximately 600,000.”⁵¹ With such a strong difference between the actual and possible population, the article argued, there was little risk that zoning could prevent the housing growth that would be necessary to support the city.

This downzoning is particularly notable given concerns that arose about zoning and the housing shortage before the passage of the initial ordinance. On November 11th, 1922, the *Cambridge Sentinel* published a summary of a round-table discussion on zoning at City Hall. The *Sentinel* reported that “Councillor Leahy of Ward 11 did not object to the principle of the [zoning ordinance], but desired to know how it would affect the problem of the home shortage, which was losing many natives who were moving to other localities, where homes were available.” In response, Professor Charles W. Killam argued that “the effect of stabilizing neighborhood values aimed at in the zoning system would greatly encourage building, because the person building would have greater assurance of permanency in value under a

Cambridge Population and Percentage Change by Decade		
1890	70,028	+33.0%
1900	91,886	+31.2%
1910	104,839	+14.1%
1920	109,694	+4.6%
1924 City's first zoning ordinance		
1930	113,643	+3.6%
1940	110,879	-2.4%
1943 zoning modernization		
1950	120,740	+8.9%
1960	107,716	-10.8%
1962 FAR introduced		
1970	100,361	-6.8%
1980	95,322	-5.0%
1990	95,802	+0.5%
1995 Rent Control ends 1998 inclusionary zoning passed		
2000	101,355	+5.8%
2000 zoning allowing housing in all districts		
2010	105,162	+3.8%
2018	118,977	+13.1%

⁵¹ “Zoning Ordinance Study.” The Magazine of Cambridge, August 1953. Zoning Maps and Ordinances in Chronological Order. Cambridge Historical Commission.

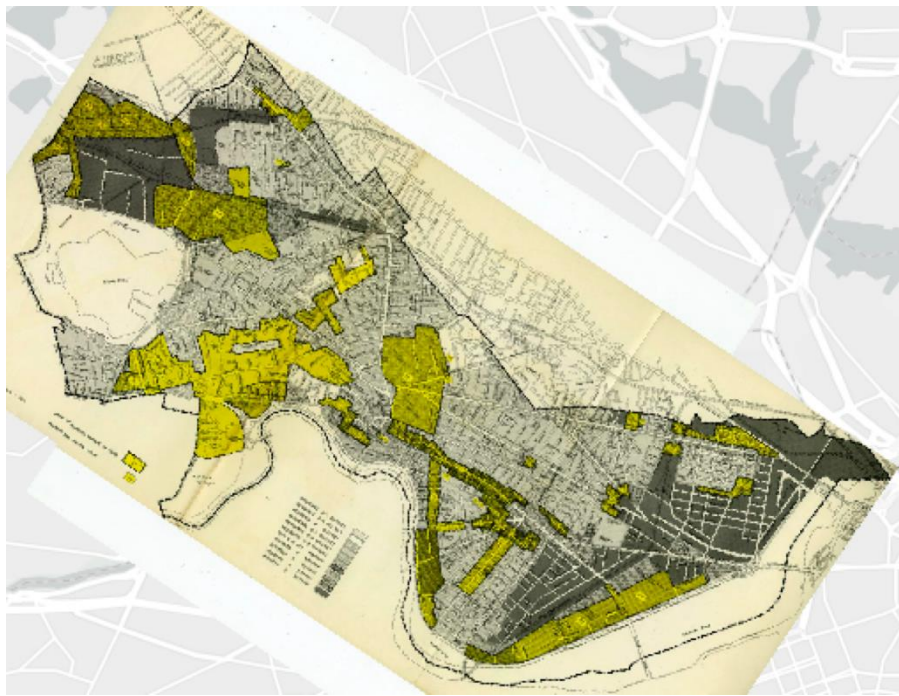
competent system rather than the haphazard way of the present.”⁵² The *Cambridge Tribune* later described Killam as having been “active in the effort which resulted in the adoption of the zoning law,” and after the law was in place, he became chairman of the Cambridge Planning Board.⁵³

⁵² “Zoning Discussed.” *Cambridge Sentinel*. November 11, 1922. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Sentinel19221111-01.2.2>.

⁵³ “Professor Killam Elected Fellow of American Institute.” *Cambridge Tribune*. May 15, 1926. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Tribune19260515-01.2.10>.

Zoning Changes and the Shift to FAR (1958-1962)

Between 1958 and 1962, the Planning Board led an effort to change the Cambridge zoning system from a form-based system to an FAR-based system and to change the zoning designations of neighborhoods throughout the city. While the former system had employed height limits and setback requirements to limit the bulk of residential structures, the Planning Board found that these limits did not sufficiently limit the housing potential of a given lot, and recommended changes to the zoning to cap the total amount of habitable floor area in a structure relative to the area of the lot on which it sat. Per the *Chronicle*, the Planning Board argued that the shift to FAR-based zoning “has been found practical and constructive in a number of modern zoning ordinances.”⁵⁴



MAP 6: THIS 1960 MAP REFLECTS AREAS OF PROPOSED ZONING CHANGES IN THE 1962 REVISION.

No challenges to this claim appeared in the *Chronicle* before the new zoning was adopted in 1962, but in 1969, Roy A. Hammer wrote a letter to the editor of the *Chronicle* challenged the scientific framing that had characterized zoning in Cambridge for the previous fifty years. In a letter discussing solutions to the “[upward] spiraling rents” facing the

city, Hammer proposed examining the ordinance. Such an examination, he argued, “should not be conducted in terms of technical zoning jargon, but should explore the subjective value judgments which underlie the ordinance. Floor area ratio requirements and the like are merely the tools used to implement judgments with respect to the kind of city which is desirable and obtainable.”⁵⁵

⁵⁴ “Public Hearing Set For December 18: Changes In City Zoning Law Proposed By Planning Board.” Cambridge Chronicle. November 27, 1958. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19581127-01.2.67>.

⁵⁵ McClennen, Alan. “Final Zoning Report.” Cambridge, MA: Cambridge Planning Board, December 5, 1960, enclosed map. Citywide 1947-1970 Box II CHC. Cambridge Public Library: Cambridge Room

FAR Replaced Height Limits

Before the 1962 revision, Cambridge's zoning codes had been entirely form-based, limiting building bulk through setback requirements and height limitations rather than through FAR caps. The phrase "floor area ratio" did not appear in a Cambridge newspaper until November 27th, 1958, when the *Cambridge Chronicle* reported that the planning board was considering using FAR in future iterations of the zoning code.⁵⁶ The article included the following press release from the Cambridge Planning Board:

In the multi-family districts of Cambridge, present regulations would permit floor area ratios ranging from 1.25 in C-1 districts (2 ½ stories, 50% coverage) to 4.0 in C-3 districts (10 stories, 40% coverage). Studies of building permits issued in recent years in the Boston metropolitan area, conducted as part of the Boston Re-Zoning Studies, indicated that floor area ratios in communities similar to Cambridge ranged from 0.75 to 2.0. On the basis of a survey of residential, commercial, and industrial buildings constructed in Cambridge during the past 10 years, it is recommended that a range of FAR's be adopted of 0.75 to 3.0 multi-family residence districts and industrial districts, and of 1.0 to 4.0 for business districts.⁵⁷

The actual FARs adopted in the 1962 ordinance closely align with those described in this release, and are detailed in the table shown at right.

With the shift to FAR, the 1962 zoning revision eliminated height limits in nearly all business and industrial districts and in Residence C-3 districts, but these limits had all been reintroduced to the code by 1981.⁵⁸ While several new residential district subtypes have been added since 1962, these same caps remained the core of Cambridge's FAR zoning in

District Type	FAR Cap
Res A-1/Res A-2	0.5
Res B	0.5
Res C-1	0.75
Res C-2	1.75
Res C-3	3.0
Business A	1.0
Business B	4.0

⁵⁶ "Public Hearing Set For December 18: Changes In City Zoning Law Proposed By Planning Board." *Cambridge Chronicle*. November 27, 1958. Cambridge Public Library. <https://cambridge.dlconsulting.com/?a=d&d=Chronicle19581127-01.2.67>

⁵⁷ Ibid.

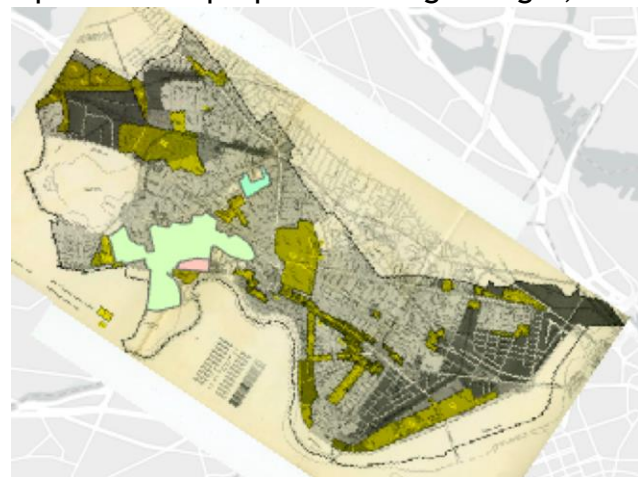
⁵⁸ Maycock, Susan E., and Charles M. Sullivan. *Building Old Cambridge*. Cambridge, MA: Cambridge Historical Commission, 2016, p. 107; "Zoning Primer." Cambridge Community Development Department, 1981. *Zoning Maps and Ordinances in Chronological Order*. Cambridge Historical Commission.

residential districts the 2017 zoning map.⁵⁹ The Planning Board’s press release, however, conspicuously omitted the single-family districts that the 1962 revision downzoned, and that Blanchard had been so concerned with preserving twenty years earlier. These districts, and Residence B two-family districts, were restricted to 0.5 FAR in the 1962 rezoning, and this restriction remains unchanged in the 2017 zoning.⁶⁰ The 1960 Planning Board report was clearer about the motivations for these changes, stating that the FAR limits were adopted so that “the number of families that can be housed on a given lot is controlled by a defined amount of land in relation to each dwelling unit.”⁶¹

Downzonings in Three Single-Family Neighborhoods

In the executive summary of a 1960 report on the proposed zoning changes, Planning Director Alan McClennen wrote that “[t]he single and two-family areas representing the areas of highest owner occupancy have been provided with greater protection in several ways,” detailing changes to density standards and downzoning in areas “where single and two-family homes predominate.” Like previous advocates of downzoning, McClennen took care to note that the change would not prevent city-wide population growth.⁶²

Three such changes were described in a 1959 consultant’s report that formed the basis for the rezoning. These changes were “[a]rea added to



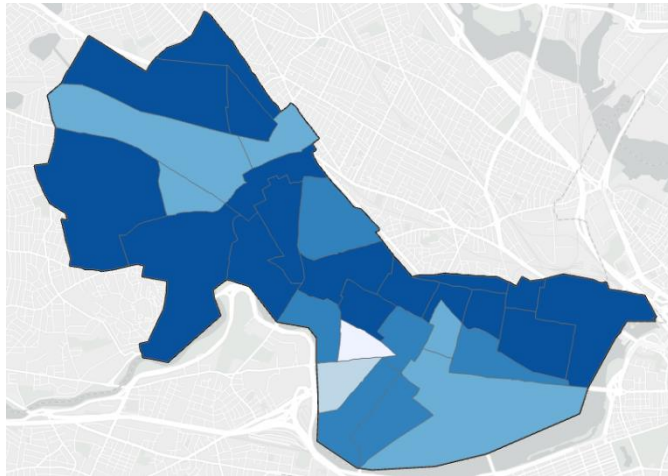
- From Res A-2 to Res A-1
- From Res B to Res A-2
- From Res C-1 and C-2 to Res B

⁵⁹ Monroe, Brendan. “Zoning Districts.” Cambridge Community Development Department, December 7, 2017. https://www.cambridgema.gov/-/media/Files/CDD/Maps/Zoning/cddmap_zoning_overlay_11x17_2017_1208.pdf.

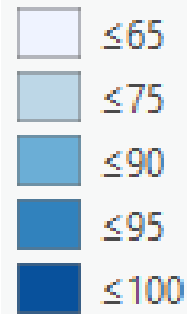
⁶⁰ “City of Cambridge Zoning Ordinance,” Article V, Section, 2. August 1962. Zoning Maps and Ordinances in Chronological Order. Cambridge Historical Commission; Monroe, Brendan. “Zoning Districts.” Cambridge Community Development Department, December 7, 2017. https://www.cambridgema.gov/-/media/Files/CDD/Maps/Zoning/cddmap_zoning_overlay_11x17_2017_1208.pdf

⁶¹ McClennen, Alan. “Final Zoning Report.” Cambridge, MA: Cambridge Planning Board, December 5, 1960, p. 1. Citywide 1947-1970 Box II CHC. Cambridge Public Library: Cambridge Room

⁶² McClennen, Alan. “Final Zoning Report.” Cambridge, MA: Cambridge Planning Board, December 5, 1960, p. 1. Citywide 1947-1970 Box II CHC. Cambridge Public Library: Cambridge Room.



Percent white

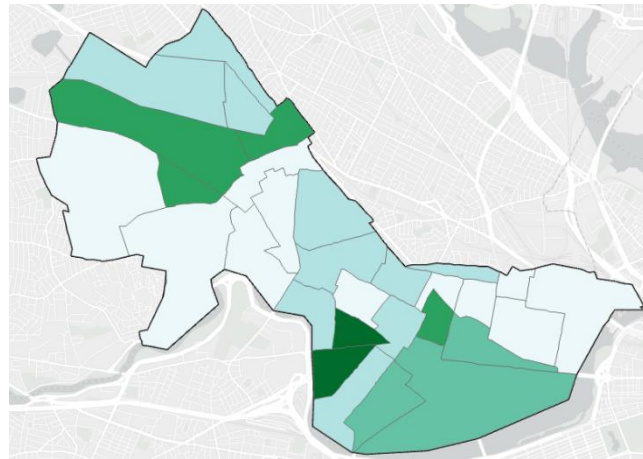


Res. A-2 zone in Avon Hill district including all area now zoned Res. B except for frontages on Mount Vernon Street, Upland Road, and Bellvue [sic] Avenue”; “[a]rea now

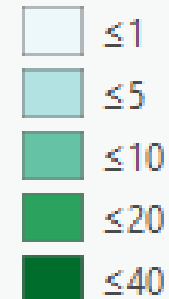
zoned Res. C-1 and C-2, south

of Foster Street and West of Sparks Street and east of Trail Street” converted to Res B; and the rezoning of an extensive area near Brattle Street from Res. A-2 to Res. A-1.⁶³ The map shown at the right highlights these three changes. Most other changes shown in yellow on the 1962 zoning revisions map involved changes within business or industrial designations or changes to permit an institutional use.

While the areas downzoned in 1962 were too small and irregular for a conclusive analysis of their residential demographics based on census data, the following maps of tract data from the 1962 census illustrate racial demographics in



Percent black



neighborhoods citywide, and each downzoning took place in a neighborhood that was less than 1% black and more than 95% white (unfortunately, the census in 1960 only described race using these two categories and “other.”⁶⁴

⁶³ Adams, Horace, and Greeley: Consultants. “Proposed Zoning Map Revisions,” June 1959. Citywide 1947-1970: Box 2 CHC. Cambridge Public Library: Cambridge Room.

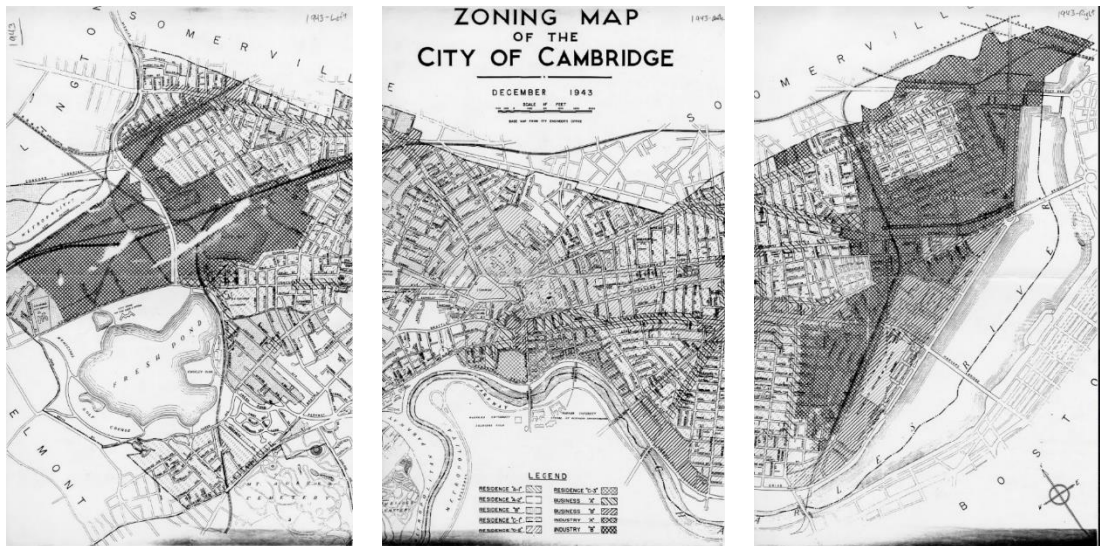
⁶⁴ Maps based on data from the National Historic Geographic Information Systems Database: Steven Manson, Jonathan Schroeder, David Van Riper, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 13.0 [Database]. Minneapolis: University of Minnesota. 2018. <http://doi.org/10.18128/D050.V13.0>

Correlations Between Zoning and Race (1943)

As the previous sections of this report have documented, before zoning was ever ordained in Cambridge, critics worried about its impact on socioeconomic and racial segregation and on whether it would impose a housing supply constraint that would increase displacement of long-time Cambridge residents. In response to each criticism, proponents argued that these outcomes were unlikely, making their claims respectively based on trust in the benevolence of Massachusetts land use authorities and on flawed constitutional and economic analysis. All the while, proponents insisted that they did not wish to bring about any of these three outcomes, arguing instead that they hoped that zoning would be an uncontroversial matter of light and air, and of open spaces and general welfare. Instead of seeking to justify zoning in the face of these criticisms, they questioned their empirical grounding. It is therefore worth analyzing how zoning in Cambridge proceeded on each of these three metrics — socioeconomic segregation, racial segregation, and housing supply constraints — in the ninety-five years since the adoption of the city's first zoning ordinance.

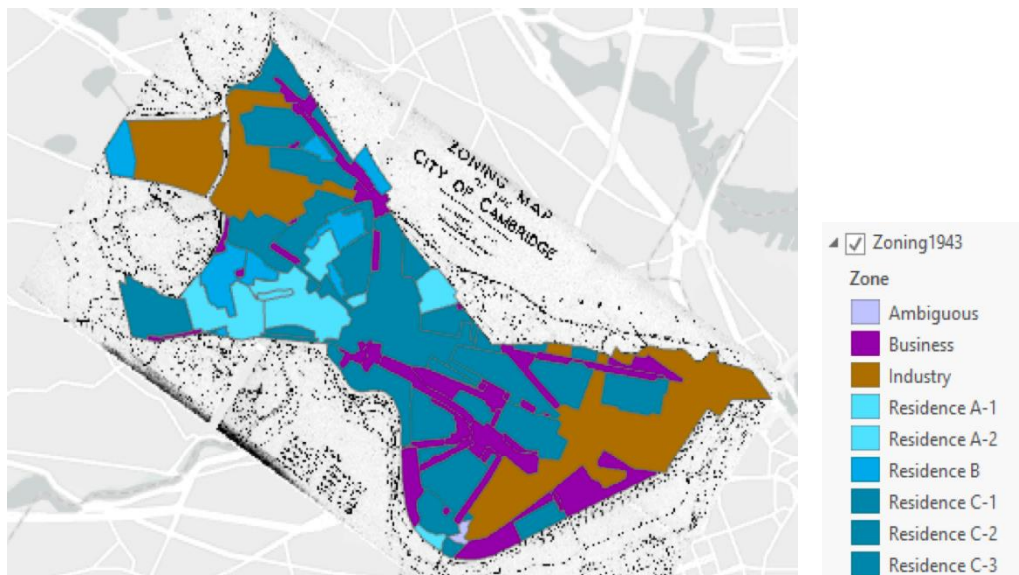
Developing a GIS Dataset of the 1943 Zoning Map

To analyze correlations between zoning and race in 1943, it is first necessary to develop a geospatial dataset of the 1943 zoning map. The following 1943 zoning map archived in the Cambridge Historical Commission formed the basis for this project.



65

MAP 7: 1943 ZONING MAP OF CAMBRIDGE



This image displays the same 1943 zoning map shown above georeferenced to a map of Cambridge with zoning districts colored according to their classification.

MAP 8: 1943 ZONING MAP COLOR CODED ACCORDING TO CLASSIFICATION

⁶⁵ "Zoning Map of the City of Cambridge." Cambridge, MA: City of Cambridge, December 1943. Zoning Maps and Ordinances in Chronological Order. Cambridge Historical Commission.

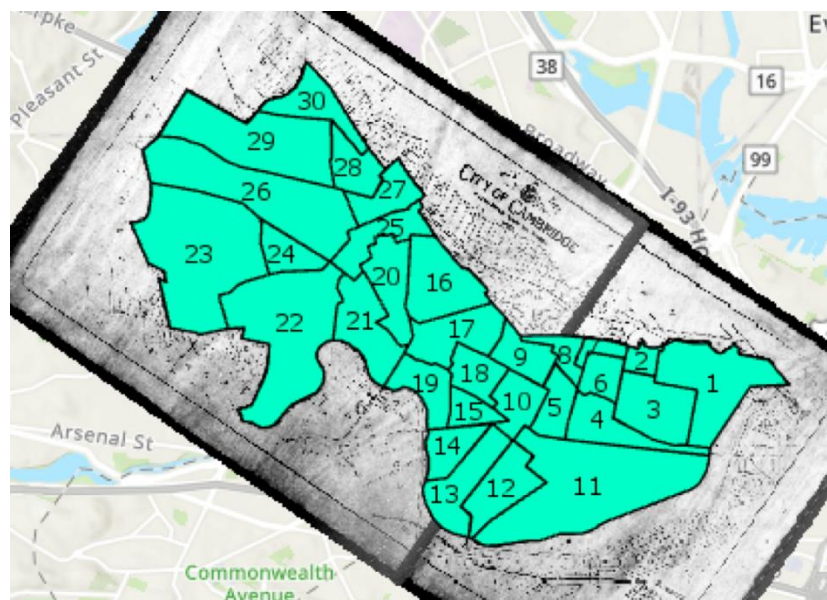
Developing a GIS Dataset of 1940 Census Tracts

Demographic data is generally available based on census geographies rather than zoning districts, so it is necessary to create a dataset of 1940 census tracts using the following maps, which together represent the 1940 census enumeration districts.



MAP 9: 1940 CAMBRIDGE MAP WITH CENSUS TRACTS

This map (below) displays the georeferenced 1940 census tract map labeled by tract number.⁶⁶



⁶⁶ “1940 Census Enumeration District Maps - Massachusetts - Middlesex County - Cambridge - ED 16-1 - ED 16-136.” Cambridge, MA: Bureau of the Census, n.d. Records of the Bureau of the Census, 1790-2007. National Archives. <https://catalog.archives.gov/id/5832401>.

Displaying 1940 Census Data

With these geographies, it is possible to take a table of 1940 tract-based census data from Cambridge and display it on the map. For example, the following table of data on racial demographics appears in a 1944 report entitled Negro Housing in Cambridge, and displaying this data using the georeferenced 1940 census tracts yields the following map.⁶⁷

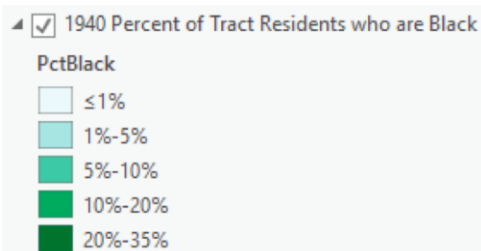
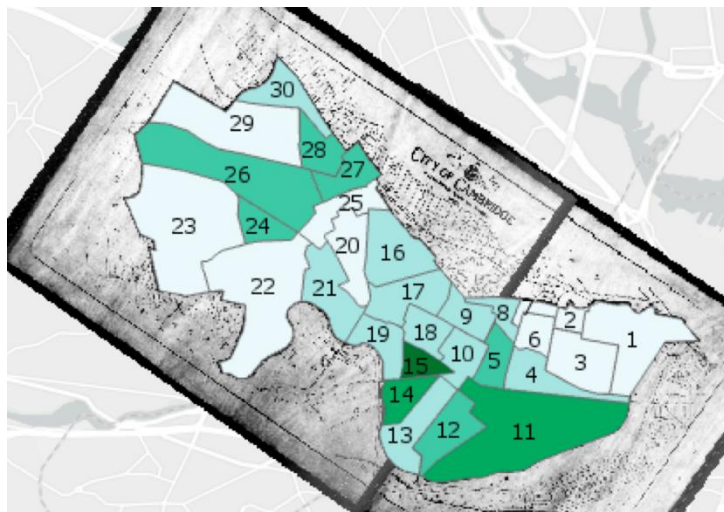


Table 2. NEGRO POPULATION by Tract and No., CAMBRIDGE, 1940

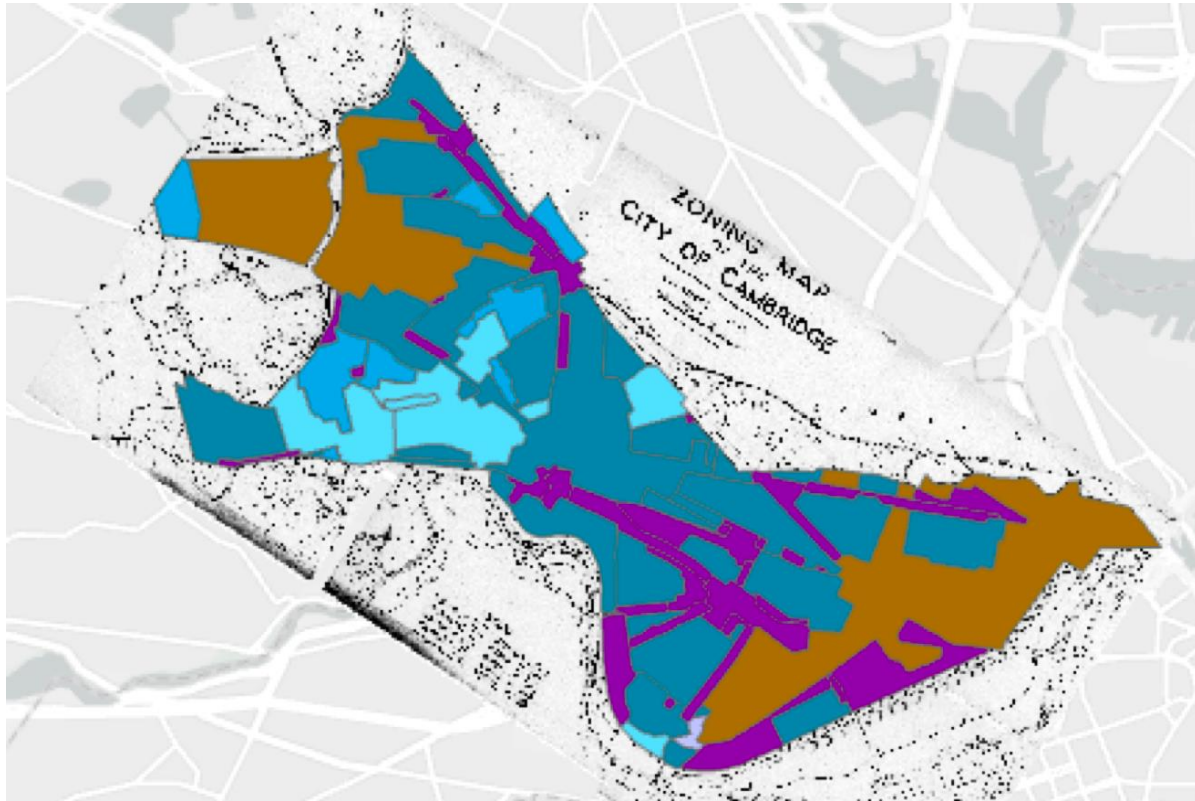
Tract	Total Population	Negro Population Number	% of Total
Cambridge	110,879	4,058	4.4
1	3,127	4	0.2
2	2,400	-	-
3	3,534	-	-
4	3,676	181	5.2
5	4,362	382	8.8
6	3,649	3	0.1
7	3,596	11	0.3
8	3,444	96	2.8
9	4,004	63	1.6
10	4,211	79	1.9
11	3,717	396	10.6
12	4,266	289	6.8
13	3,707	164	4.4
14	3,886	446	11.5
15	3,857	1,232	32.4
16	4,093	43	1.0
17	4,985	89	2.0
18	6,307	64	1.2
19	2,416	70	2.9
20	3,364	10	0.3
21	3,676	39	1.1
22	3,628	21	0.6
23	3,507	13	0.4
24	2,639	254	9.6
25	2,987	9	0.3
26	3,620	372	10.3
27	3,327	236	7.1
28	2,983	166	5.6
29	4,006	17	0.4
30	3,361	90	2.7

Source: U.S. Census, 1940

MAP 10: CAMBRIDGE ZONING TRACTS WITH PERCENTAGE OF RESIDENTS WHO ARE BLACK

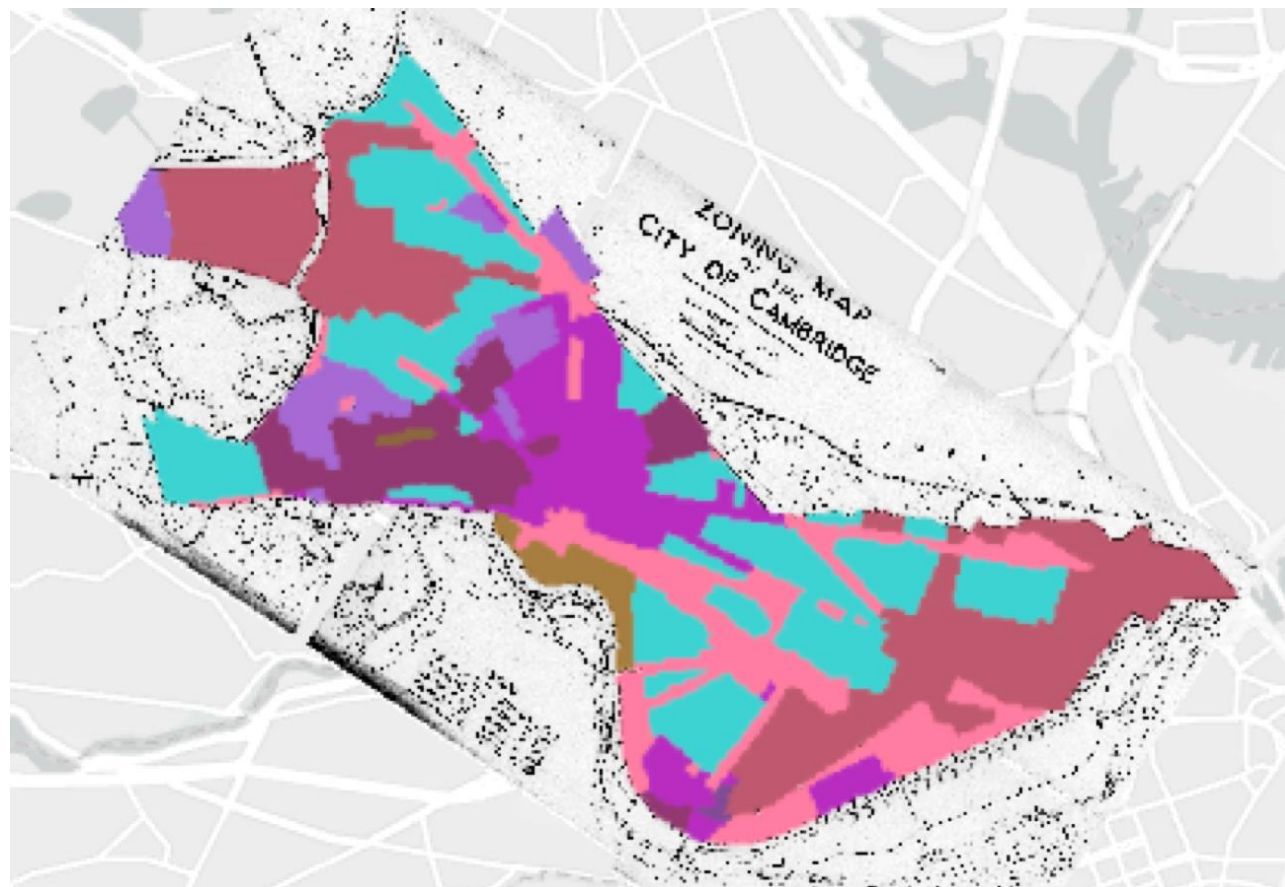
⁶⁷ Goldstein, Norma F., and Gladys P. Lyons. "Negro Housing in Cambridge." Cambridge, MA, 1944. Citywide Box 1 (1916-1950). Cambridge Public Library Cambridge Room.

This map reveals that there was substantial variation in the demographic composition of Cambridge neighborhoods in 1940, and a side-by-side visual comparison with the 1943 zoning map indicates some similarities between Residence A districts and areas with very few black residents in 1940.



Data Analysis: 1943 Zoning and 1940 Census

Since zoning is not based on census geographies, it is impossible to produce a definite and exact account of demographic variation between zoning districts. It is possible to determine the predominant zoning designation in each census tract and doing so would better facilitate an analysis of correlations between zoning and demographics to provide a more empirically driven answer the question of zoning's impact on segregation. In ArcGIS Pro, the first step in this process is producing a raster of the 1943 zoning using the Polygon to Raster tool. A raster is a pixelated image of a geographic area and is generally used to represent spatially continuous variables such as elevation. However, it can also be used to represent categorical variables such as zoning as shown in this 1943 zoning raster.

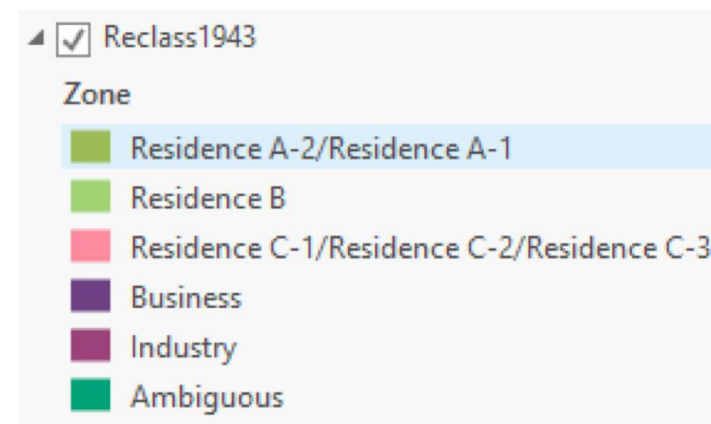
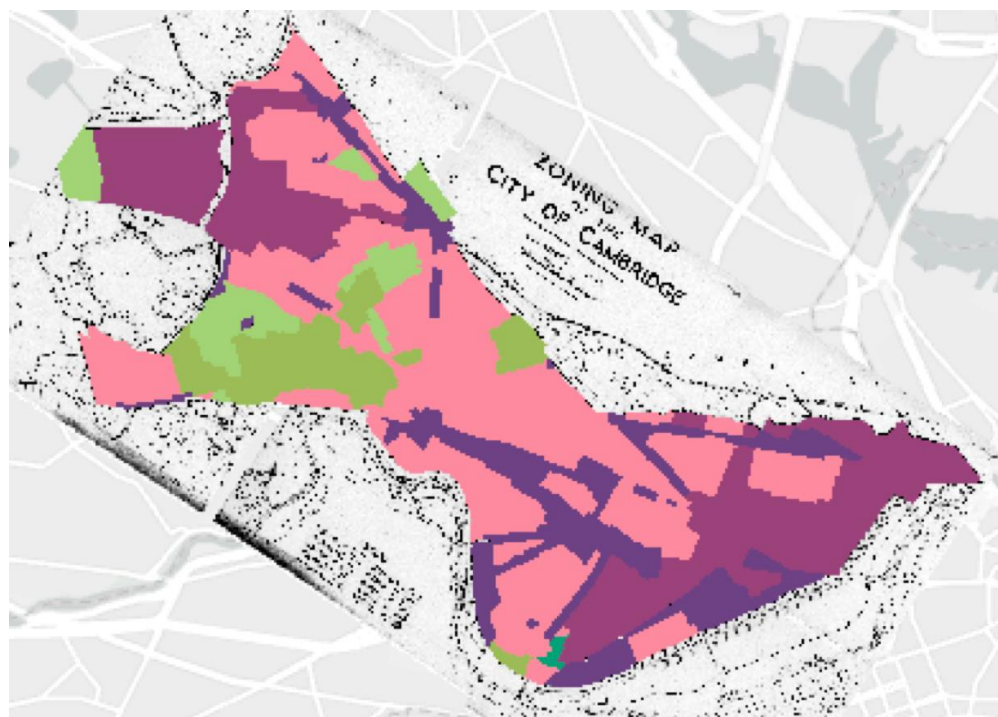


☑ Zoning1943Raster

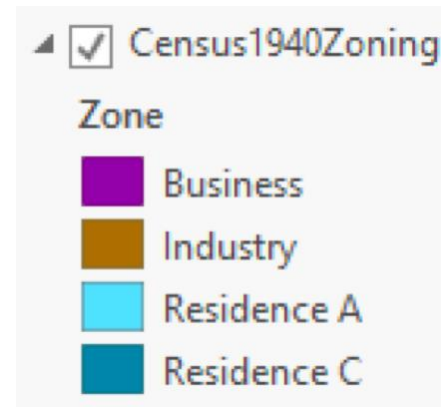
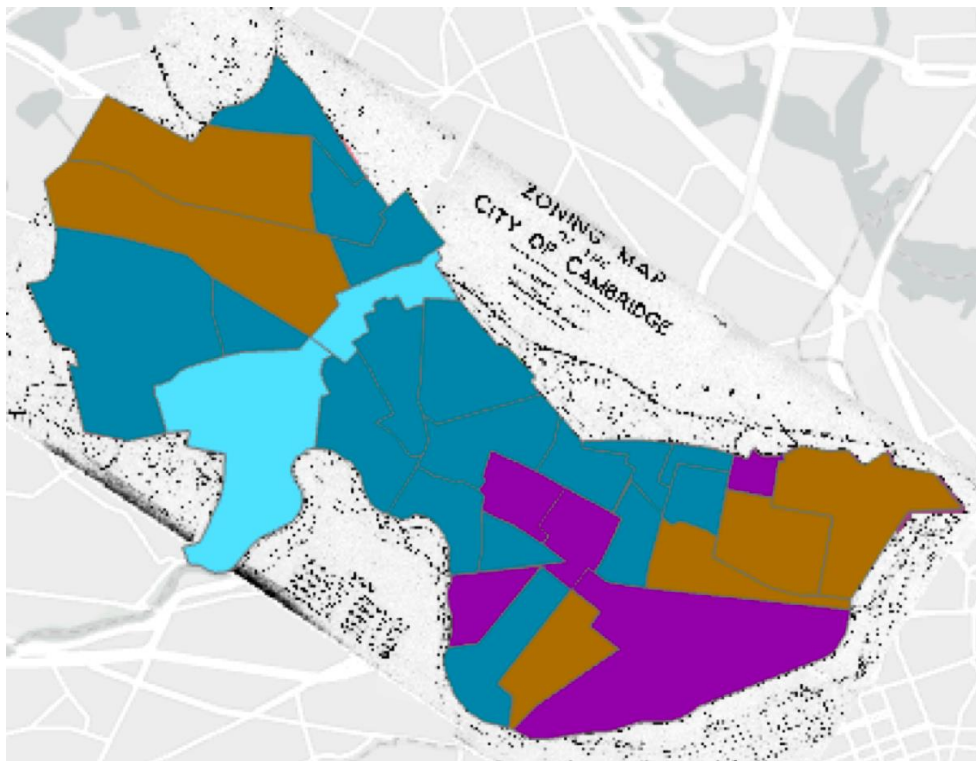
Zone

- Business
- Residence B
- Industry
- Residence C-1
- Residence C-2
- Ambiguous
- Residence A-2
- Residence C-3
- Residence A-1

To simplify further analysis, we can reclassify this raster to combine areas with substantially similar regulatory frameworks (e.g. Residence A-1 and Residence A-2) using the Reclass tool.



Using this simplified zoning raster, we can use the Majority setting in the Zonal Statistics tool to calculate the most common zoning designation for each of the census tracts. This tool functionally superimposes the census tract polygons over the pixelated zoning image and reports the most common pixel in each tract, providing a reasonable proxy for zoning using geographies that can be easily compared to census data.



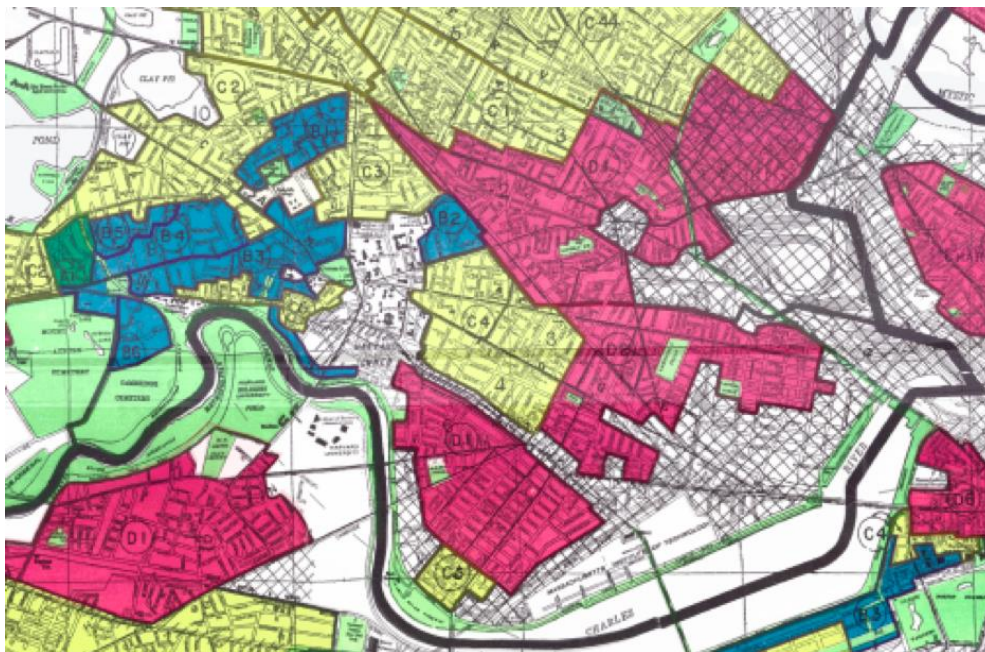
Of the thirty census tracts in 1940, two are predominantly zoned as Residence A, none are predominantly Residence B, seventeen are predominantly Residence C, six are predominantly Industry, and the remaining five are predominantly Business. Aggregating the 1940 census data on black residents displayed above by this tract zoning data yields the following data table:

1940 Census	Total Population	Black Population	Percent Black
Res A	6515	30	0.46%
Res B	0	0	N/A
Res C	62539	2979	4.76%
Business	18421	986	5.35%
Industry	22390	863	3.85%
Citywide	109865	4858	4.42%

As shown in the table, the percent of residents in 1940 in predominantly Residence C, predominantly Industry, and Predominantly Business tracts who were black is within one percentage point of the city as a whole, but in tracts that were predominantly zoned as Residence A in the 1943 rezoning, only thirty of the 6515 residents in the 1940 census were black.

Influence of Redlining on Interpreting 1940/1943 Results

This analysis does not prove that zoning and racial segregation in Cambridge are causally related, and it would be difficult, if not impossible, to do so. One reason is that government policy on other levels of government has contributed to excluding residents of color from the same areas of the city. In 1938, the Home Owners Loan Corporation published “Residential Security” maps of major American cities. Through these maps, the HOLC advised banks on the relative security of loans made in different neighborhoods. The HOLC’s methodology in generating these maps was explicitly racist. For instance, the HOLC listed the area of West Cambridge between Avon Hill and Brattle Street as “Definitely Declining,” the third of four possible residential security grades, and justified their decision by writing that the area had a



“detrimental influence” from “negro concentration.”⁶⁸ The area of mid-Cambridge between Harvard and Central Squares was classified similarly because “a few negro families have moved in... and threaten to spread.”⁶⁹

Based on these maps, many banks cut off access to credit for families in historically neighborhoods and refused to lend to black families seeking to move into predominantly white neighborhoods.⁷¹ Because the 1943 zoning correlates almost exactly with segregationist federal policy, isolating causal effects in any direction between 1943 zoning, 1938 redlining, and 1940 racial segregation shown in census data is difficult, but from available data it is clear that areas that were zoned the most restrictively in the 1943 rezoning had dramatically fewer black residents than the rest of the city.

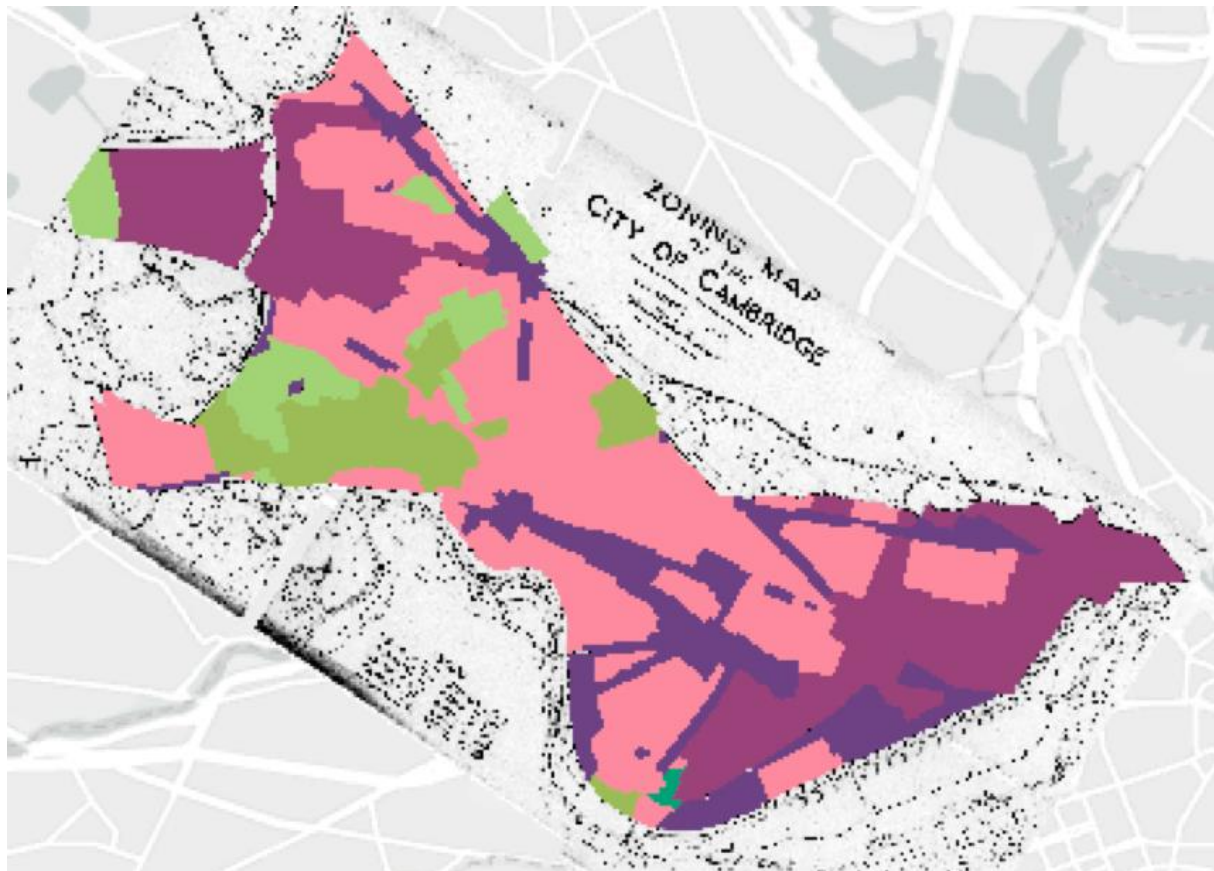
⁶⁸ “Residential Security Map: Section 2.” Cambridge, MA: Appraisal Department: Home Owners Loan Corporation, February 1, 1938. Mapping Inequality: University of Richmond. Cambridge Section C2. <https://dsl.richmond.edu/panorama/redlining/#loc=13/42.4380/-71.1947&opacity=0.8>.

⁶⁹ Ibid. Cambridge Section C4.

⁷⁰ Screenshot from University of Richmond Mapping Inequality database cited above.

⁷¹ For further reading on this topic, see *The Color of Law* by Richard Rothstein and *Crabgrass Frontier* by Kenneth T. Jackson.

The maps below show the strength of this relationship, as the left map shows redlining designations and the right shows 1943 zoning.



The Contemporary Zoning Map

While the 1962 iteration of the Cambridge zoning ordinance is broadly similar in structure to the ordinance as it stands today, at least two other phases of rezoning have changed elements of its application to specific zones and building types. The first set of changes altered requirements for townhouses to discourage demolition of existing structures in 1978.⁷² The second set, which took place between 1998 and 2000, was the product of a city-sponsored Citywide Growth Management Advisory Committee created in 1997 to amend zoning to promote affordable housing, create opportunities for public review of large developments, and address traffic concerns.

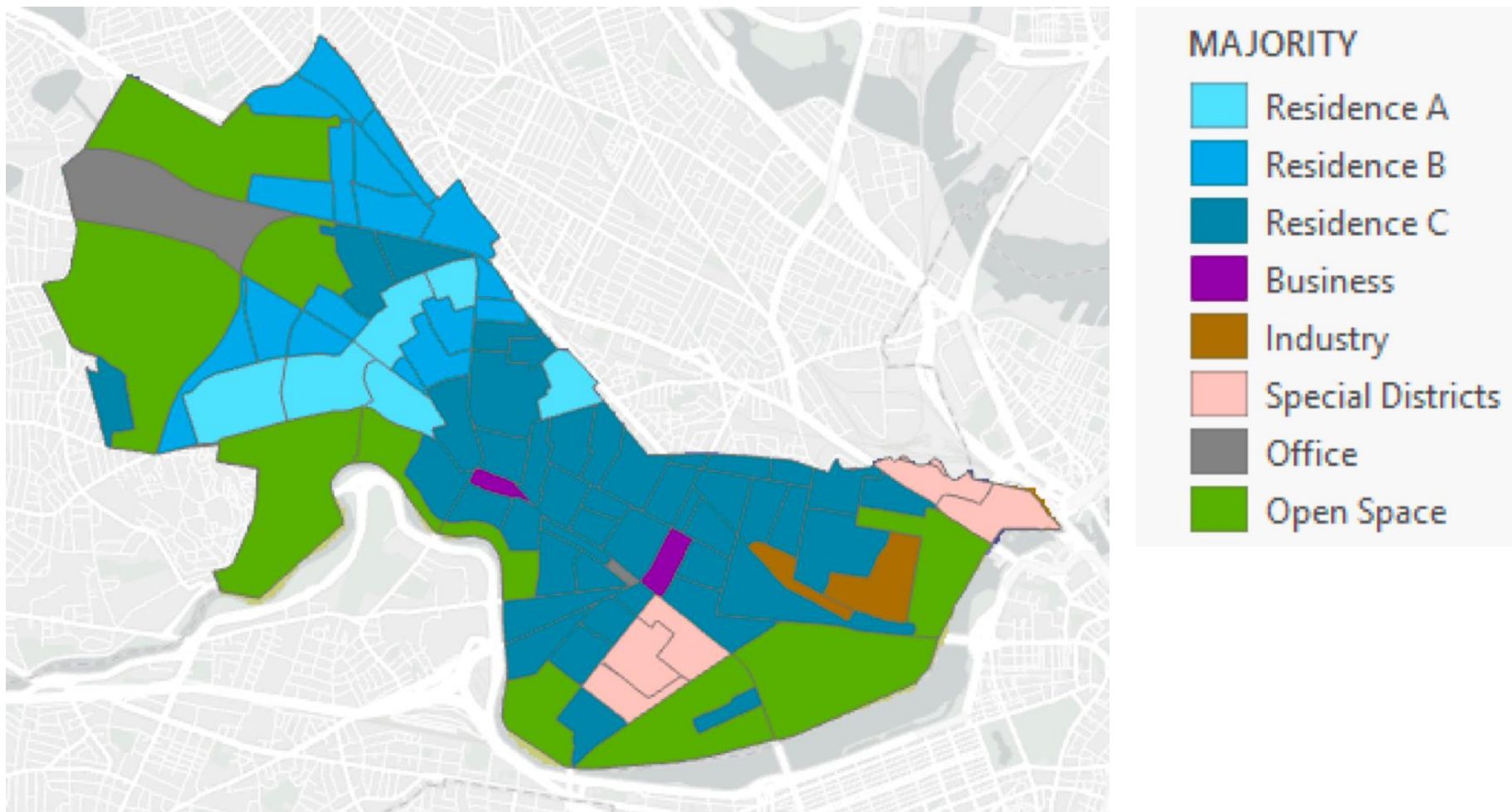
A CDD summary of the Committee's work noted that "[s]everal zoning changes have already been recommended by the Planning Board and adopted by City Council: "inclusionary" zoning to require a percentage of affordable units in larger housing projects (March 1998), zoning to protect backyard open space (July 1999), and zoning to allow housing in all districts of the city (June 2000)," and proposed additional requirements for design review, reduced parking requirements.⁷³ A citywide zoning petition including each of these amendments was approved by the Council in 2001, creating the citywide zoning landscape that has existed for the past eighteen years.⁷⁴ Just as the previous section detailed a correlation between zoning and race in 1940, this section will examine the relationship between the contemporary zoning map and a variety of demographic factors. Performing such a process on the contemporary zoning and the 2010 census block groups yields the following map:

⁷² See Townhouse Revision Folder, Cambridge Historical Commission for more information

⁷³ "The Citywide Rezoning Bulletin: A Plan for the Future of Cambridge." Cambridge Community Development Department, the Citywide Growth Management Advisory Committee, and the Planning Board, Fall 2000.

<https://www.cambridgema.gov/CDD/Projects/Planning/-/media/09A110F42A2941CEB4455C6B3C20BD7D.ashx>.

⁷⁴ "Citywide Rezoning Petition." Cambridge Community Development Department, February 21, 2001. <https://www.cambridgema.gov/CDD/Projects/-/media/5404B40B5957457883DFC92D412B953F.ashx>



MAP 11: 2010 CENSUS TRACTS IN CAMBRIDGE CODED BY THE MAJORITY ZONING USE OF THE TRACT.

Demographic Trends in the Modern Zoning Map

The following table displays information on the race of residents from the 2017 American Community Survey aggregated based on the plurality zoning designation for each block group:

2017 Census	Total Households	Total Population	White %	Black/African American %	Asian %	Some other race %	Two or more races pct
Res A	2464	5859	86.38%	2.82%	6.98%	1.25%	2.58%
Res B	8127	19946	64.23%	17.22%	14.58%	1.10%	2.87%
Res C	23923	58987	66.64%	11.46%	14.36%	3.08%	4.47%
Business	510	1697	65.06%	6.60%	18.44%	4.48%	5.42%
Industry	966	1969	65.06%	5.99%	20.26%	0.25%	8.43%
Special	2759	7339	60.57%	8.43%	24.76%	1.55%	4.69%
Office	450	1362	57.56%	3.08%	30.69%	0.88%	7.78%
Open Space	4833	13734	68.73%	5.56%	19.56%	2.05%	4.09%
Total	44032	110893	66.94%	10.84%	15.71%	2.34%	4.17%

75

The two tables below show the results of a similar process on the individual poverty rate and on the number of families living in poverty. Since these two variables are masked on the block group level, these tables use tract-level aggregation.

	Total Population for Whom Poverty Status is Determined	Total Population Living Below the Poverty Level	Poverty Rate
Residence A	8182	524	6.40%
Residence B	17043	2460	14.43%
Residence C	45395	6501	14.32%
Business	No tracts predominantly zoned for business uses	No tracts predominantly zoned for business uses	N/A
Industry	4254	643	15.12%
Special Districts	7882	1472	18.68%
Office	No tracts predominantly zoned for office uses	No tracts predominantly zoned for office uses	N/A
Open Space	11544	1138	9.86%
Total	94300	12738	13.51%

⁷⁵ 2017 American Community Survey data found on American Factfinder

	Families with Children under 18	Families in Poverty with Children under 18 (calculated)	Pct of Families in Poverty
Residence A	829	34	4.10%
Residence B	1739	297	17.08%
Residence C	3616	394	10.90%
Business	No tracts predominantly zoned for business uses	No tracts predominantly zoned for business uses	N/A
Industry	409	62	15.16%
Special Districts	474	87	18.35%
Office	No tracts predominantly zoned for office uses	No tracts predominantly zoned for office uses	N/A
Open Space	1309	82	6.26%
Total	8376	956	11.41%

76

⁷⁶ 2017 American Community Survey data found on American Factfinder

Conclusion, Potential for Further Research, and Further Reading

This report does not recommend specific changes to the zoning system in Cambridge. Rather, it suggests that zoning in Cambridge has long been a social and economic policy. As Roy Hammer suggested in his 1969 Cambridge Chronicle letter, zoning is one mechanism through which the city government can bring about “the kind of city which is desirable and obtainable.” In evaluating the traits of such a city, past Cambridge zoning advocates have considered social and economic factors as well as more innocuous aesthetic preferences. The current zoning reflects a preference for socioeconomic exclusionary practices inherited from previous zoning leaders that should not be ignored in setting zoning that aligns with the city’s current values.

Further research on the history of zoning in Cambridge and the contemporary zoning landscape could delve deeper into the relationship between socioeconomic and racial segregation and zoning. An evaluation of potential causality was outside of the scope of this project, but more in-depth investigation of any available Planning Board records from 1958-1962 could reveal more about what motivated the zoning changes in the neighborhoods that were down-zoned. Further research could also explore the micro-level effects of down-zonings on neighborhood demographics and home costs nationwide, as the limited focus on Cambridge in this report does not offer sufficient evidence to claim that down-zoning causes socioeconomic segregation; rather, it demonstrates the existence of a correlation between the two, and further research is needed to investigate the exact nature of the relationship.

For further reading on the topics discussed in this report, *Building Old Cambridge* by Susan Maycock and Charles Sullivan offers a thorough account of the architectural and land use history of Cambridge. On the topics of zoning, redlining, and racial exclusion more generally, *The Color of Law* by Richard Rothstein and *Crabgrass Frontier* by Kenneth T. Jackson are excellent. In *Hate Thy Neighbor*, Jeannine Bell offers a particularly in-depth account of the forces behind racial segregation in American cities, including some accounts relevant to the Boston area, and her primary focus concerns the role of terror campaigns and move-in violence in making neighborhoods unsafe for residents of color. Finally, substantial recent academic research has documented the role that zoning plays in promoting socioeconomic exclusion on a metro-wide level in greater Boston. One prime example of this research is the recent report on “The State of Zoning for Multi-Family Housing in Greater Boston” by Amy Dain.

In the 1960 Planning Board report presenting the proposed zoning changes to the city, Planning Director Alan McClennan wrote that “[i]n the final analysis, a zoning ordinance cannot be all things to all people. It must compromise, adjust, and

balance.”⁷⁷ This was especially necessary, he argued, because “[e]valuations of the ideal Cambridge vary.” There is no ideal zoning system for the city to pursue, but instead, the city must consider how any zoning ordinance effectively incorporates the interests of all current, former, and prospective Cantabrigians. The ordinance reflects a past vision of exclusion from certain neighborhoods, and the city can similarly seek to modify it to reflect its current vision of the ideal Cambridge.

⁷⁷ McClennen, Alan. “Final Zoning Report.” Cambridge, MA: Cambridge Planning Board, December 5, 1960, p. 1. Citywide 1947-1970 Box II CHC. Cambridge Public Library: Cambridge Room.