

A VISION FOR INTERACTIVE MASTER PLANNING & SUSTAINED COMMUNITY ENGAGEMENT

Cover background image - Map data © 2015 Google







Researched and Written by:

The 2015 Roxbury Neighborhood Design and Planning Workshop Group

Students	Advisors
Ursula August, MIT	Ceasar McDowell, MIT
Pierre Beaudreau, MIT	Professor of the Practice
Sofia Campos, MIT	of Community Development
Libbie Cohn, MIT	
Amy Curran, RCC	Ofer Lerner, MIT
Raphael Dumas, MIT	SPURS Associate
Waller Finnagan, RCC	
Genea Foster, MIT	Report Production
Rebecca Heywood, MIT	Pierre Beaudreau (Graphics and Layout)
Hector Ramirez, MIT	Libbie Cohn (Editorial Team)
Elise Selinger, MIT	Genea Foster (Editorial Team)
Grant Williams, MIT	Rebecca Heywood (Editorial Team)

Prepared for City Councilor Tito Jackson, District 7, Boston

© 2015 Massachusetts Institute of Technology Department of Urban Studies and Planning (DUSP) School of Architecture + Planning Massachusetts Institute of Technology Cambridge, MA

TABLE OF CONTENTS

Figures & Tables	Vİ
Acknowledgements	vii
Executive Summary	viii
1 - Evaluating the 2004 Roxbury Strategic Master Plan	2
1.1 - Historical Context	2
1.2 - Effectiveness of the 2004 Roxbury Strategic Master Plan To Date	4
1.3 - Mismatch with the Current Roxbury Landscape	8
2 - Case Study: Gentrification, an Emerging Challenge	9
2.1 - History of Gentrification in Boston	9
2.2 - Gentrification in Roxbury	10
2.3 - Gentrification and the 2004 Roxbury Strategic Master Plan	16
2.4 - Recommendations	17
3 - Revising Master Planning Processes	22
3.1 - Augmenting Traditional Master Plans with Technology	22
3.2 - Mismatch between 2004 Roxbury Strategic Master Plan and Lived Experiences	25
3.3 - Community Engagement	28
3.4 - Measuring Progress	32
3.5 - Governance Structures	36
3.6 - Towards Implementation	38
Acronyms	41
References	42

FIGURES & TABLES

List of Figures

Figure 1 - Outline of stages in the re-evaluation of Roxbury Master Plan.	ix
Figure 2 - Past community planning efforts in Roxbury.	2
Figure 3 - Governance challenges of 2004 RSMP.	5
Figure 4 - 2004 RSMP overall goals and objectives.	6
Figure 5 - Chain reaction of gentrification.	11
Figure 6 - A map of development, gentrification susceptibility, and transportation access in Roxbury.	14
Figure 7 - Development along Melnea Cass Corridor and Dudley Square.	15
Figure 8 - A selection of events from 2013-2015 focused on the topics of gentrification and displacement.	20
Figure 9 - Key community stakeholders in 2015 anti-gentrification efforts in Roxbury.	21
Figure 10 - An example of the front page of the online Roxbury master plan website.	24
Figure 11 - UCLA Downtown Labor Center event and promotional posters.	26
Figure 12 - Wireframe of possible methods for collecting rent prices.	27
Figure 13 - An example of what a project repository would look like for Roxbury Master Plan webpage.	29
Figure 14 - An example of what an individual project page might look like for a proposal for the Ferdinand Building.	30
Figure 15 - "Alcalde, Como Vamos?" monitoring framework.	33
Figure 16 - Wireframe of possible progress report.	35
List of Tables	
Table 1 - Gentrification indicators by source and forces of gentrification.	19
Table 2 - Sample rubric for measuring project progress.	33

ACKNOWLEDGMENTS

Reclaim Roxbury: a Vision for Interactive Master Planning & Sustained Community Engagement was developed by students from MIT and Roxbury Community College in the Roxbury Neighborhood Design and Planning Workshop Group at MIT. It outlines the need for a revised master planning process for Roxbury to be shared by residents, business owners, community-based organizations, political leaders and the community of Roxbury as a whole.

The work of this group would not have been possible without the city officials, residents and community members who volunteered their time, knowledge and ideas to help us learn about the neighborhood and community.

We hope our efforts will be useful to the Roxbury community and to Councilor Jackson. We hope, in some way, it will inform future development processes in Roxbury.

We would especially like to thank the following individuals and organizations:

Bryan Gangemi

Organizing Coordinator, Local 32

Sahar Lawrence

Community Engagement Officer, Urban Edge

Marvin Martin

Executive Director, Greater Four Corners Action Coalition

Stuart Spina

Alternatives for Community and Environment (ACE)

About the Roxbury Neighborhood Design and Planning Workshop Group

The Roxbury Neighborhood Design and Planning Workshop Group, a graduate class from the Massachusetts Institute of Technology (MIT) Department of Urban Studies and Planning, was requested by City Councilor Tito Jackson, of Boston's District 7, to evaluate the 2004 Roxbury Strategic Master Plan, and to provide recommendations for improvement.

The Group is comprised of twelve Roxbury Community College (RCC) and Massachusetts Institute of Technology students. Each contributor brings significant experience in fields of public policy, community development, social justice, transportation engineering, environmental science, affordable housing development, youth engagement, and immigrant advocacy.

Aaron Tanaka

Boston Workers Alliance

Chuck Turner

Community Leader

Weezy Waldstein

Greater Four Corners Action Coalition & Action for Regional Equity

Right to the City

Tufts Practical Visionaries Workshop Group

EXECUTIVE SUMMARY

This report examines the strengths and shortcomings of the existing Roxbury Strategic Master Plan and suggests opportunities for reclaiming master planning processes in order to address pressing issues faced by Roxbury residents today. The community engagement process from which the 2004 Strategic Master Plan emerged brought together a wide range of stakeholders to identify key objectives and design a community-led governance structure. However, in the decade since the adoption of the 2004 Master Plan, new challenges have emerged and the governance body faces criticism and opposition by community residents. As it currently exists, the 2004 Strategic Master Plan does not meet its objectives and fails to adequately provide for the changing needs of Roxbury residents.

This report uses an in-depth case study of gentrification and displacement in Roxbury to demonstrate the shortcomings of the 2004 Strategic Master Plan and to recommend revisions to traditional master planning processes that can address current issues in Roxbury. The case-study examines the complexity and multi-dimensionality

of gentrification pressures and the diverse range of stakeholders affected. Engaging these stakeholders will be necessary to address the challenges facing Roxbury today. By employing flexible and innovative forms of community engagement, the updated master plan must elevate the agency and leadership of community residents in urban planning decision-making.

City Officials should build off of the strengths of the 2004 Strategic Master Plan to allow for greater transparency and partnerships between city officials and community members. This report proposes an interactive online platform through which Roxbury residents can assess the progress of master plan objectives, evaluate development projects within the neighborhood, report on emerging challenges they face, and provide suggestions for improvements. In order to provide equitable access to this technological framework, youth engagement, outreach to community-based organizations and community development corporations will be critical to bridge the divide between digital and physical forums.

Transitioning from a traditional master planning document to an interactive web platform will require significant support from government officials, community-based organizations, and neighborhood residents. The City of Boston will need to consider revised governance structures, financing, and training for new and existing employees not only for the Roxbury Strategic Master Plan but also for all master plans that will have cross-boundary impacts on Roxbury residents. A new interactive web platform for Roxbury would also benefit the Imagine Boston 2030 city-wide planning efforts. As with the 2004 Roxbury Strategic Master Plan, we suggest that residents of Roxbury and other low-income communities should be prioritized in the design and implementation of this platform, as planning for the margins will have benefits for all. A partnership with MIT's Roxbury Neighborhood Design and Planning Workshop Group can continue to provide support for this endeavor.



Figure 1 - Outline of stages in the re-evaluation of Roxbury Master Plan.

RECLAIM ROXBURY

1 - EVALUATING THE 2004 ROXBURY STRATEGIC MASTER PLAN

The 2004 Roxbury Strategic Master Plan (RSMP) was an outstanding achievement in community organization and visioning, but over ten years have passed and new challenges mean that it is no longer fully meeting the needs of the Roxbury community. By looking at the history and context of its creation, as well as the needs, successes, and shortcomings of its defined priority areas, governance structures, and evaluation framework, the Roxbury Workshop Group suggests the need for an updated Master Plan for Roxbury.

1.1 - Historical Context

Protests and Initiatives Preceding the Master Plan

The creation of the 2004 RSMP builds on earlier community planning efforts around the Washington Park Urban Renewal plan and the "People Before Highways" fight of the 1960s against the Inner Belt, as well as initiatives such as the Lower Roxbury Community Corporation, Parcel 18 community task force, and later initiatives such as the creation of the Dudley Street Neighborhood Initiative land trust (Figure 2). In an interview in 2007, the Roxbury Strategic Master Plan Oversight Committee (RSMPOC) Chair Darnell Williams said, "The Roxbury Strategic Master Plan exists because of the community's fight against the I-95 connector project" (Greeley, 2007). Williams' observation resonates for two reasons: not only was there a shift in mentality in the Roxbury community in this era around public participation through the rise of "advocacy planning" but also some of the vacant parcels under the purview of the RSMOPC were the last remnants of land cleared by the Department of Public Works for the failed Inner Belt highway project.

Building on these early protests, activists organized the Greater Roxbury Neighborhood Authority (GRNA) in 1986, which









Figure 2 - Past community planning efforts in Roxbury. DSNI (top left), Fight against the I-95 connector project (bottom right & left). Washington Park Urban Renewal Area (top right).

unsuccessfully campaigned the Flynn administration for veto power over neighborhood development (Clavel, 2013). Members of the GRNA included Chuck Turner who was a former Roxbury City Councilor and a former co-chairman of the Boston Black United Front. Also in the same era, the Roxbury Neighborhood Council (RNC), an all-volunteer membership community organization drafted their first Interim Planning Overlay District (IPOD), which created zoning regulations, and community participation guidelines that became law through Article 50 in 1990 (City of Boston, 2004). These IPODs were the ultimate origin of the Roxbury Strategic

Master Planning process. These events, taken together, planted the seed for the Roxbury community to begin a community planning and visioning process to realize their economic and planning goals.

Article 50

In 1990, the Boston Zoning Code (Article 50 of Text Amendment #152) established a policy that "[t]he role of community participation in determining appropriate land use regulations and zoning is critical to the success of any zoning article or development plan." (Roxbury Strategic Master Plan, page 102)

Community Visioning Processes and Principles

In 1999, the Boston Redevelopment Authority (BRA) released a master plan Request for Proposal (RFP). From 1999 to 2003, the citizens of Roxbury came together through a rigorous, inclusive, and transparent community engagement process to develop a master plan to ensure that future development would be implemented by a community-driven process. According to Tufts Professor James Jennings, the residents and activists used the 2004 RSMP as a tool to raise challenges to planning ideas perceived as harmful to the neighborhood. According to Jennings (2004), this strong community-driven engagement was characterized by:

- ° Frequent, open and widely advertised meetings
- ° Opportunities for resident feedback regarding proposals
- Decision-making after consultations with many individuals and organizations working in the community

- ° Outreach and distribution of information
- ° Partnership with a community organization and the RNC, in planning public dialogue

Community members created guiding principles to unify the community in common goals for the creation of the 2004 RSMP According to Jennings, "by developing and promoting the principles, it raised the dialogue above the various competing agendas towards a more shared vision of a future for Roxbury" (Greeley, 2007). These guiding principles were:

- 1. Development should not displace residents
- 2. Strategies for each priority area designed by local residents
- 3. Economic development should be seen as a part of each priority area.

Roxbury Strategic Master Plan Oversight Committee

The RSMPOC was designed to be a community-driven entity to allow community members, the RNC, and elected officials to participate in the implementation of the Master Plan. While the RNC is responsible for neighborhood-wide zoning matters, the RSMPOC was created as a sub-committee to provide more specific governance of development by Roxbury residents. The prescribed process for appointing RSMPOC members includes city officials and community members. The RNC members and elected officials would recommend people to serve on the RSMPOC and the Mayor would appoint fifteen committee members from the pool.

The RSMPOC is meant to serve as a bridge between community members, developers, and the BRA, as well as govern the disposition of 11 surplus state- and MBTA-owned (Massachusetts Bay Transportation Authority) parcels in Roxbury. They are accountable for coordinating public feedback at monthly meetings and establishing neighborhood subcommittees to review individual parcels.

The RSMPOC hosts monthly meetings that are open to the public at the Dudley Square Branch of the Boston Public Library. Also, the RSMPOC is accessible to the public through online platforms such as The Opportunity Roxbury website, Facebook, and Twitter. In addition to its community engagement responsibilities, the RSMPOC can propose revisions to the Master Plan with the advice and consent of the RNC.

1.2 - Effectiveness of the 2004 Roxbury Strategic Master Plan To Date

Community Outreach and Governance Challenges

While the creation of the RSMPOC was initially seen as an innovative governance structure and means of community engagement, the committee is now facing a series of challenges around their own governance as well as community outreach and transparency. The governance of the RSMPOC relies heavily on the existence of the RNC. However, the Roxbury Neighborhood Council is no longer in existence and cannot provide the guidance and support from community members as was originally intended. With incomplete governance structures, there is no mechanism for modifications to the 2004 RSMP, no way to nominate new members to the committee, and no entity in charge of general zoning and development review for Roxbury. The dissolution of the RNC was not envisioned or planned for when structuring the governance of the 2004 RSMP, and has led to significant challenges for general development in the neighborhood. These governance challenges are illustrated in Figure 3.

Beyond challenges created by the dissolution of the RNC, community members have also criticized the RSMPOC for limited community outreach around public meetings and a lack of transparency in their decision-making processes. This discontent among the community is palpable at the RSMPOC's monthly meetings; conflicts have arisen as community members expressed concern that the committee is no longer adhering to the guiding principles, and are not allowing attendees to participate in voting processes when they voice dissent. In a recent news article, journalist Chris Faraone documents an RSMPOC meeting in April 2015 where he learned that the executive board met privately after a public meeting on Good Jobs standards to change the previously agreed-upon written recommendations.

In addition, current members have no structured opportunities for ongoing learning and education. With frequent changes and updates to laws and strategic plans from different agencies, these opportunities are particularly important. Lack of support around technical issues for RSMPOC members can makes it challenging to implement the 2004 RSMP goals. For instance, according to Greeley, the Master Plan implied that the role of the BRA would be to provide technical support for the RSMPOC but remained vague on the details. While the BRA has provided technical assistance or funds to hire an outside consultant on occasion, further professional support is needed to ensure that decision-makers have access to all the information they need to make informed decisions

Other than the BRA, the RSMPOC has limited relationships with other city agencies to provide community feedback and ensure that the plan keeps up with changing strategic plans across different agencies. For example, phrasing in the Master Plan such as "Interface the RSMPOC with the Parks and Recreation department's city wide plan for open space" puts the burden on the Oversight Committee to engage the Parks and Recreation department rather than require the Parks agency to share and obtain review of all proposals of interest with the Oversight Committee.

Although this report acknowledges that rethinking the governance structure of the Master Plan is a complex and long-term plan, it is important to emphasize that it is only with a strong and functioning RNC and RSMPOC that the Master Plan's and Roxbury's objectives

Roxbury Strategic Master Plan Oversight Committee (2015)

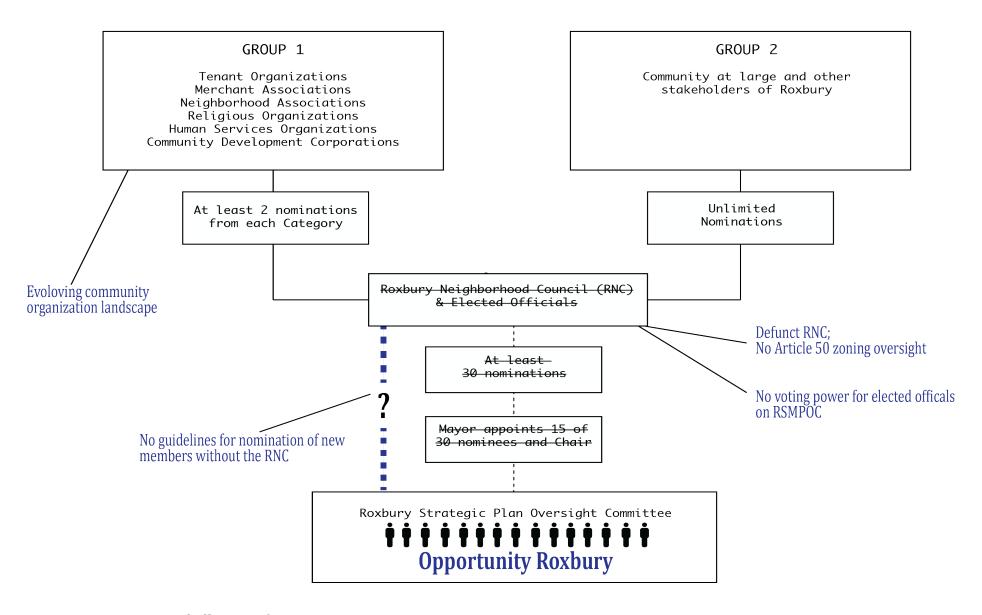


Figure 3 - Governance challenges of 2004 RSMP.

will be able to be implemented, evaluated and put up to date in the long term. We have identified the need to improve the RSMPOC in the following areas:

- Increasing public awareness and attendance to the RSMPOC meetings
- ° Implementing strategies of community involvement and partnership with existing organizations in Roxbury
- ° Providing professional staff support to RSMPOC
- ° Increasing the frequency and outreach of RSMPOC meetings both with neighbors and other planning organizations

Master Plan Evaluation

The 2004 RSMP targeted priority areas in order to help create the community vision for Roxbury and guide decision-making for the disposition for the parcels. The implementation of the strategic goals, outlined in **Figure 4**, has been uneven across policy areas. To date, according to Councilor Tito Jackson, there has been minimal evaluation of the outcomes of these measures despite the fact that the 2004 RSMP explicitly states, "the RSMPOC will have clear responsibilities and milestones that will be reviewed annually" (City of Boston, 2004).

As part of our analysis of the 2004 RSMP, we conducted a preliminary review of the specific strategies and policy items that were outlined for each priority area in Arts & Culture, Open Space & Recreation, Historic Preservation, Economic Development & Job Creation, Transportation & Smart Growth, Transit-oriented Development, Transportation as Economic Development, and Housing. We compared the BRA's list of approved projects within Roxbury from 2004 to present day with the strategies outlined in the 2004 RSMP to assess if the intended objections are coming to fruition.

2004 Roxbury Strategic Master Plan – Overall Goals and Objectives

- Enhance civic life and the cultural environment in which residents participate (Arts & Cultural Heritage)
- Actively promote a sustainable and diverse economy focused on job opportunities and the creation of wealth (Economic Development & Job Creation)
- Provide a safe and convenient pedestrian, public transit and automobile transportation network (Transportation)
- Provide a wider range of housing options for residents of diverse socioeconomic and age groups (Housing)
- Create a public realm that is comfortable, lively and safe that reflects the unique physical and social character of the neighborhood (Community-Wide Urban Design Recommendations)
- Enhance community participation and empowerment and increase the accountability of various groups and entities to the Roxbury community; including institutions, government agencies and businesses (Implementation)
- Integrate and connect Roxbury with the larger network of parks, transit corridors/boulevards and business and cultural centers throughout the city (Open Space & Transportation)
- Raise the community's awareness of Roxbury's many historic assets and strong architectural legacy; promote historic and cultural preservation as a tool for neighborhood revival (Historic Preservation)
- Create a healthy environment and a rich array of cultural, educational and economic opportunities for the elderly and the youth of the community (Arts & Cultural Heritage & Economic Development & Job Creation)

Figure 4 - 2004 RSMP overall goals and objectives.

Our review indicated that some areas have seen significant achievements, particularly in Arts and Culture, Historic Preservation, and to a lesser extent, Open Spaces and Recreation. Examples of successfully implemented strategies include the creation of the Roxbury Historic Trust and relaunch of the Roxbury Historical Society, which together with Discover Roxbury have focused on preserving and promoting Roxbury's culture and history. However, strategic recommendations in other policy areas, many of which are critical for Roxbury's job creation and economic development, remain to be implemented. These are especially important policy items for Roxbury given their potential to have multiplicative effects in terms of economic development and the greater integration of Roxbury with the rest of Boston.

Analyzing the 2004 RSMP has been difficult due to a lack of systematic and measurable indicators within the plan to compare our findings with. Many of the priority areas do not include an intended goal or benchmark that can be measured to aid in accepting a development project or to use in future evaluation of the Master Plan. For example, the plan calls for the BRA to "maximize the number of affordable units" but it does not provide an Area Median Income (AMI) target for a certain percentage of new housing units or a timeline for the expected completion of projects. The plan also includes an economic development checklist with measures such as the projected number of jobs and local procurement for the construction of housing, but there were no baselines established. Since the numerical metrics for each strategy are not clearly defined, it is impossible to determine if strategies are meeting the intended objective.

There is the opportunity for the RSMP to improve with the creation of evaluation metrics that can be used to approve RFPs and to evaluate the master plan itself. Roxbury's authorities and decision-

makers would then have the tools necessary to evaluate progress made in key policy areas. Community members would then be able to have informed conversations with their representatives about the achievements made in their community and the challenges that lie ahead. Determining an evaluation structure and processes will allow for better decision-making amongst planning professionals and will provide a way to keep these decision makers accountable to the public.

1.3 - Mismatch with the Current Roxbury Landscape

The 2004 RSMP was designed to "be adaptable [and] respond to unforeseen challenges and opportunities." (The City of Boston, 2004) Yet, as it stands today, the plan has failed to evolve with changing conditions. On one hand, several areas identified in the 2004 RSMP demand ongoing and thorough attention in an updated master plan - in particular the areas of economic opportunity, job creation, and education and workforce development. On the other hand, the 2004 RSMP currently fails to adequately address a host of new and complex issues that have arisen in the past decade. Through conversations with community members and community-based organizations, the Workshop Group identified three significant challenges that have grown increasingly pressing since the 2004 RSMP was adopted:

- ° Gentrification and foreclosures
- ° Access to healthy and affordable food
- ° Negative perceptions of Roxbury including perceptions of crime

The rapid increase in housing and rental prices across Boston, have led to growing housing pressure within lower-income Roxbury. The foreclosure crisis in 2008 also contributed to resident displacement that is not addressed in the 2004 RSMP. Since the early 2000s, organizations such as Alternatives for Community and Environment (ACE), The Food Project, and the Dudley Street Neighborhood Initiative (DSNI) have initiated food justice campaigns and urban agricultural projects within the neighborhood to address the lack of healthy and affordable fresh foods available to Roxbury residents. Lastly, there is a pressing need to elevate local voices so that the rich cultural history of Roxbury is not lost in the midst of competing narratives that highlight crime or ignore the presence of existing residents.

Addressing these three issues requires coordination with city agencies beyond the BRA. However, the RSMPOC as it currently stands has no direct relationship with any other city agencies. These connections must be made in order to ensure that the RSMP keeps up with challenges emerging across sectors and can coordinate strategic objectives with other city agencies. As the city implements new housing and transportation plans, for example, it will be essential to provide ongoing technical education, coordinate between multiple city agencies, and adapt the master plan's strategies and objectives in a quickly evolving context. An updated RSMP will provide frameworks that respond to these opportunities.

Roxbury is in the midst of rapid and deep transformations and it is paramount that the community and its leadership prepare to think and act collectively to address these challenges. The next section of this report will discuss the need for an updated master plan that can address accelerating gentrification in new ways and undertake necessary governance reform. This serves as a case study for how to look at these emerging challenges facing Roxbury.

2 - CASE STUDY: GENTRIFICATION, AN EMERGING CHALLENGE

Gentrification and displacement, one of Roxbury's emerging challenges, is used here as a case study to highlight one of the mismatches between the priority areas of the 2004 RSMP with the current lived experiences of Roxbury residents today. This case study provides evidence for the need to revise master planning processes within the neighborhood to include evaluation metrics to measure progress, to strengthen governance structures that collaborate with community-based organizations, and to improve channels of community engagement in decision-making.

"Gentrification is the process of demographic succession driven by market forces, development speculation, and complicit government policy in poor neighborhoods."

Amiton, et al., 2009

2.1 - History of Gentrification in Boston

The history of current conditions in Roxbury can be traced to the migration of 6 million African-Americans from the South between the 1920s and 1960s in order to escape oppressive racism, harsh segregationist laws, and lack of economic opportunities. While northern cities provided greater liberties, black communities were largely cut out of the rising tide of post-war economic prosperity through exclusionary "redlining" practices, discriminatory lending, and municipal divestment from black neighborhoods (Coates, 2014).

Additionally, between 1945 and 1975, Boston suffered devastating industrial job loss and urban decline as businesses moved out of the city to suburban areas, directly affecting residents and neighborhoods relying on these jobs. This web of policies and activities withheld primary means for wealth accumulation from black households. Currently, for example, the median net worth for a white household is \$247,500, while African American households have a median net worth of \$8 (Munoz et al, 2015).

In the 1990s, predatory lending practices by formal banking institutions began to specifically target minority neighborhoods. Subprime mortgages brought a rise in homeownership at an extremely high risk to the borrowers, through manipulative and deceptive marketing practices. When the 2008 financial crisis hit, minority neighborhoods were disproportionately impacted. The hardest hit neighborhoods in Boston included Hyde Park, East Boston, Roxbury, Dorchester, and Mattapan.

Today, the City of Boston as a whole is undergoing dramatic growth and the effects are being felt in Roxbury. The recent Boston Housing Plan claims that by 2030, Boston will add 91,000 residents. To address the growth in housing demand, the Plan calls for the development of 53,000 housing units including 6,500 affordable units (Mayor's Housing Task Force, 2014). While such an influx of people and capital has great potential to enliven and support existing communities in Boston, the current trajectory of development may fall far short of this potential due to the great level of inequality throughout the city. Nationally ranked third in inequality, Boston's disadvantaged communities will suffer the most from displacement unless significant interventions are made (Johnston, 2015).

2.2 - Gentrification in Roxbury

While many neighborhoods within the City of Boston are experiencing increased development, Roxbury in particular is highly susceptible to the forces of gentrification due to the demographics of residents who currently live there and statistics of the neighborhood. The largely low-income population of color is experiencing rising rents, pressures from transit-oriented development (TOD), and increase in demand for housing near to educational institutions. We have categorized these forces of gentrification into the following categories: housing demand, transportation, and new development.

Housing Demand

From 2005-2013, Roxbury suffered 18% of the city's foreclosures, despite only representing 7% of the city's housing units (Department of Neighborhood Development, 2013). The impact was greatest in the southern neighborhoods, particularly in Grove Hall. Homeownership is at a low point and currently 80% of residents are renters (Mayor's Housing Task Force, 2014). An increase in real estateowned properties has exposed Roxbury to massive investments by institutional landlords such as City Realty and Millennium that aim to profit from high rent prices until an opportune time to sell.

Financial institutions have also become more conservative in their lending practices, making it more difficult for lower-income households to achieve ownership. Housing prices are estimated to increase by 10-15% in the next year (Dewey, 2015). Additionally, 12.5% of Roxbury's affordable housing units are at risk of converting to market-rate by 2018 (Weynicz, 2015). Many of the remaining units exist under affordability standards that are not representative of the Roxbury neighborhood, which has a median income less than 40% average median income of the metropolitan area (Amiton, Hammer, Morris, Nollner, & Vladeck, 2009). The impact of these changes disproportionately burden low- and middle-income households on

fixed incomes, but it also causes a chain reaction of displacement that pervades all forms of housing (City Council Hearing, 2015), as illustrated in **Figure 5**.

Residential dynamics in Roxbury are also closely tied to rental market pressures by students. Northeastern University borders Roxbury to the northwest, and university students are seeking housing in the northern and eastern sections of the neighborhood. Northeastern University houses only 60% of its' 20,000 students and puts rental housing pressures on Roxbury (Sampson, 2012). Additionally, the wealthier neighborhoods of Jamaica Plain and the South End are highly desirable and increasingly unaffordable, pushing residents who wish to access their resources with lower housing costs into Roxbury.

Scaling back public housing Result of increasing land value, Residents are displaced and decreasing funding moved to the voucher system Scaling back Section 8 Rising rent prices disincentivize landlords from Decreasing federal funding restricts access to voucher section 8 contracts system Landlords are incentivized to Tenants are displaced or heavily rent-burdened convert units to market rate as rent price increases Increasing housing prices Increasing property taxes burden homeowners with Homeowners are incentivized to sell and gain returns fixed incomes

Figure 5 - Chain reaction of gentrification.

Transportation

Roxbury residents primarily work outside of the neighborhood and rely on transit to access their jobs. Access to transit has been a long-fought battle in the neighborhood and continues to limit connectivity for Roxbury, with 47.5% of residents traveling more than thirty minutes to work and 11.8% traveling more than one hour (Mayor's Housing Task Force, 2014) (see **Figure 6** on page 14 for transportation access in Roxbury). Some community residents are concerned that resident's needs for rapid transit will lead to TOD that creates market-rate housing and expensive commercial real estate around new nodes of transit. The T-Riders Union (TRU) has been leading campaigns for transit justice to preserve Roxbury residents right to safe and affordable transit without promoting displacement (Alternatives for Community, n.d).

Ruggles, Roxbury Crossing, Jackson Square, and Stony Brook stations on the MBTA Orange Line provide excellent metro access, connecting the northwest part of Roxbury to Downtown Boston. While the Orange Line has connected many Roxbury residents to accessible transportation, it made the area very attractive to TOD that primarily serves market rate residents. Jackson Square and Egleston Square, both border the wealthier neighborhood of Jamaica Plain but have long been working-class neighborhoods, have seen a new wave of investment and development in great contrast to the current character of these neighborhoods.

Roxbury is hugged by efficient transit lines and quick access to downtown Boston – the Orange Line in the west, and the Fairmount commuter train and the Red Line in the east – and Dudley Square serves as the main bus hub of the neighborhood, connecting Roxbury to adjacent neighborhoods. These hubs of mobility also serve as main sites for new development that offer primarily market-rate housing and retail. As seen in **Table 1** (on page 19), proximity to transit is considered a primary indicator for gentrification susceptibility.

Furthermore, two neighborhoods within Roxbury that are very susceptible to transportation forces are Upham's Corner and Grove Hall. The neighborhoods are located within the Fairmont Corridor and may be locations that attract newcomers seeking close proximity to public transit. Community organizations are pushing for stronger affordability preservation standards within these catchment areas (Martin & Waldstein, 2015).

New Development

Roxbury is becoming a hot-spot of new residential and retail development (see **Figure 6**). Roxbury is attractive to developers for new development because of the relatively low prices of commercial land in comparison to the rest of Boston and the high number of vacant commercial and residential properties. Although new development can bring positive impacts to the community, the neighborhood will be more susceptible to the negative consequences, like gentrification, if they continue to have little community control over development proposals and hiring practices. There are multiple locations throughout Roxbury that are prime for new development and should be locations targeted to improve community engagement in decision-making.

One of the new faces of gentrification is major institutional investors. This is no more prevalent in Roxbury than in the Northwest Quadrant, along the Melnea Cass Corridor and in Dudley Square, where development is occurring also through the RSMPOC-led disposition of public land (**Figure 7**). Currently, of the public parcels granted to the RSMPOC for disposition, six are undergoing development and four are approved. Northeastern University's 10-year Plan, for example, which began implementation in 2013, calls for \$2 billion and 3 million square feet in construction projects within Roxbury's northeastern edge (Moore, 2003).

Dudley Square is also an area of concern due to its many municipal services and high public transit access. In recent years, community members have witnessed outside investments take stock within the community, such as The Ferdinand Building, which is the headquarters of the Boston Department of Education. As an Innovation District, Dudley has been designated for spaces to provide entrepreneurial training, a digital hub for education, and technological innovation. Venture Café, manager of the Roxbury, Cambridge, and Waterfront Innovation Districts, also plans to initiate

networking platforms, hack-a-thons, and technology competitions. However, it is not clear if these innovative opportunities will be appropriately tailored to Roxbury's existing population and needs.

Other locations throughout Roxbury that are susceptible to the negative consequences of development are, for example, Egleston Square (officially not part of Roxbury) and Blue Hill Avenue. The latter is susceptible to gentrification because it has high retail and commercial vacancy and the Blue Hill Task Force, a neighborhood association that previously reviewed RFPs, has been disbanded.

New development brings additional economic activity that offers new and attractive goods and services. While community residents could benefit from new development through more access to critical resources and job creation, it will depend on the type of the development and the developer's sense of moral responsibility to serve present community member's needs. Regardless of the development being built, residents should have a voice in what gets built and how it will benefit the community. While many of Roxbury's existing residents are employed in low-wage service jobs, there is a strong focus in Boston's economy on high-skill, high-education jobs. There is concern within the community that these new initiatives may not provide substantial wealth-generating opportunities for existing residents, and that new opportunities do not match the skills present among the community. The community has vocalized their concerns that new developments must benefit the existing community through affordable units and good jobs. The Good Jobs Standard, passed by the RSMPOC in April 2015 is an attempt to address these concerns (RSMPOC meeting, 2015).

Figure 6 illustrates the intersection between development, gentrification susceptibility, and transportation access as described in this chapter.

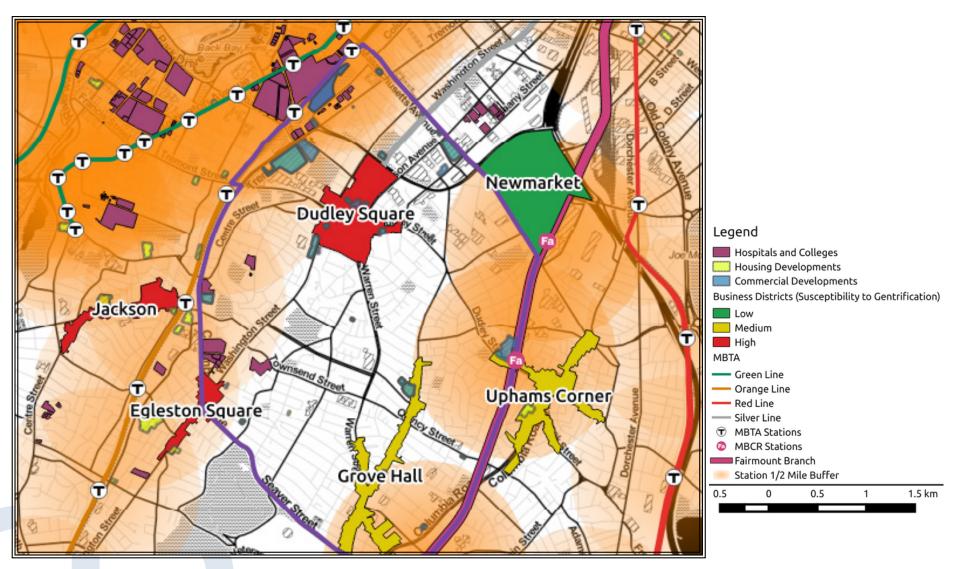


Figure 6 - A map of development, gentrification susceptibility, and transportation access in Roxbury. Map by Raphael Dumas, MIT.

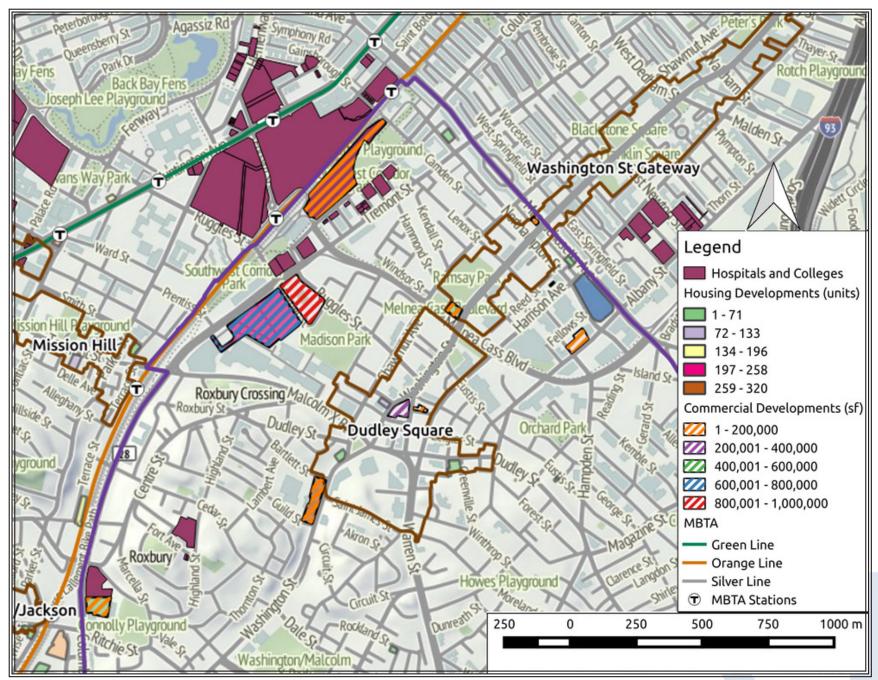


Figure 7 - Development along Melnea Cass Corridor and Dudley Square.

Map by Raphael Dumas, MIT.

2.3 - Gentrification and the 2004 Roxbury Strategic Master Plan

Measuring Progress

There are many challenges to assessing the effects that the 2004 RSMP has on contributing to or curbing gentrification and displacement. The 2004 RSMP does not address these issues specifically as priority areas, but many of the forces of gentrification are included in the master plan. For example affordable housing, economic development, and transportation are priority areas. However the 2004 RSMP does not engage in a larger discussion of how these priority areas relate to gentrification and displacement. In order to assess this relationship it is necessary for master plans to outline goals and metrics that can be used to evaluate progress. In addition, many of the critical strategies developed to meet the RSMP goals of housing, economic development, and transportation have not yet been realized.

Community Engagement

The 2004 RSMP provided a model for a comprehensive community-driven process for generating goals and strategies for neighborhood development. However, with the completion of the final plan, neighborhood-level community engagement had dwindled in subsequent years.

Governance

There have been significant alterations in neighborhood governance structure since 2004, including the disbanding of the RNC and rising tensions between community members and the RSMPOC. Governance structures have not been implemented as intended in the RSMP leading to limited oversight by community members and a fragmented neighborhood strategy for addressing development.

Lived Experiences and Current Conditions

While the Roxbury Master Plan aimed to address economic instability and housing displacement, unforeseen challenges have increased the vulnerability of the neighborhood. Currently community members do not have the agency or an appropriate forum to raise emerging issues that should be addressed by the master plan.

2.4 - Recommendations

Despite the 2004 RSMP's efforts to guide development, it has been unable to protect itself from unforeseen consequences such as collapsing governance structures and evolving challenges facing the community. Our recommendations for addressing gentrification in Roxbury include establishing methods of increasing community resident input in decision-making and establishing an adaptable framework for evaluation. Through doing these things, Roxbury residents will be better able to control and lead development within their community.

Community Engagement

Resisting gentrification requires an array of organized campaigns bridging multiple scales and sectors. To resist the most urgent threat of displacement, the community must push for immediate interventions to stabilize housing prices and tenancy. Addressing the larger scale issue of political and economic inequity requires another set of policies and structural changes. Community groups in Roxbury have been organizing around and crafting solutions for these problems for decades. Three advocacy platforms, constituent-based organizing, place-based organizing, and issue-based organizing, can help city officials to understand methods of engaging with community-based organizations to partner in solving emerging challenges like gentrification.

Constituent-based organizing addresses multiple issues and works in many places to bring together and advocate for a particular demographic or for a cross-section of people with common experiences. Roxbury-based community organizations that are using this platform include Alternatives for Community and Environment (ACE) which is focused on communities of color and low-income communities across Massachusetts, Black Economic Justice Institute (BEJI), which offers education, job training and assistance to

Boston's communities of color, and City Life/Vida Urbana, which builds working class power promoting tenant rights and preventing housing displacement.

The second approach is **place-based organizing**, which builds on the rich interplay between multiple issues and a variety of constituents who share a neighborhood or locale. Place-based organizing has a long and rich history in Boston, as exemplified by the Dudley Square Neighborhood Initiative (DSNI) in the central and northeast quadrant of Roxbury and Greater Four Corners Action Coalition (GFCAC) located at the Four Corners neighborhood at the Roxbury and Dorchester border.

These advocacy models continue to play a critical role, while at the same time, the urgent timeline and cross-sector and multi-scalar nature of the threats of gentrification demand new collaborations and approaches. Many of the groups listed above have joined forces to create campaigns and build through coalitions that utilize **issue-based organizing**. Some of these coalitions are decades old and others were created in the past few years, illustrating a growing recognition that broader bases and cross-sector collaboration is necessary to counter gentrification. The coalitions working actively on these issues include the Boston Jobs Coalition (BJC), Boston Tenant Coalition (BTC), Right to the City (RTTC) and Action for Regional Equity Coalition (A4RE).

Figure 8 illustrates a selection of local events from 2013 to 2015 focused on the topics of gentrification and displacement. Participation in the events highlights the wide range of stakeholders in Boston. Among the many events that are not included in the timeline are the direct actions and protests organized by community groups. Figure 9 highlights community stakeholders that are actively organizing to support development without displacement in Roxbury. The chart shows the cross-section of issue areas that different organizations focus on, as well as membership in four key coalitions.

Even as these coalitions push forward with these campaigns, there is widespread recognition that further collaboration is needed. It will take coordinated pressure from community organizations, sympathetic government officials, and community members to counteract the incentive structures that drive city government, on the one hand, and the market pressures and forces of displacement driven by real estate developers and private equity interests on the other hand. In other words, not only will existing community organizations and activist leaders need to continue to coalesce around shared goals and strategies, they will need to forge stronger connection at two other scales: with city officials sympathetic to their needs and demands and with people in the communities and neighborhoods they are fighting for.

This coalition-building cannot come too soon. We recommend that the City Councilor convene several meetings with community residents and community organizations. The coalition will discuss the strengths and shortcomings of the 2004 RSMP and opportunities to revise the master plan. We propose two ongoing processes—a master plan revision process and an online platform for disseminating information, soliciting feedback, assessing shifting neighborhood gentrification pressures, coordinating events and campaigns. Both processes aim to widen the web of stakeholders involved in community development and anti-gentrification efforts and to provide spaces and transparency around meaningful community engagement.

Measuring Progress and Evaluation Methods

There are multiple methods and metrics that can be used to analyze gentrification and that should be incorporated into Roxbury's master plan. **Table 1** shows popular metrics used for studying gentrification in academic papers. These same methods can be used within governmental organizations to quantify metrics for not only

gentrification, but also transit access, economic development, and affordable housing and can be used accordingly to impact decisions on development projects, zoning criteria, and to revise the master plan.

An interactive master plan can utilize this set of indicators as evaluation metrics for greater responsiveness to changing neighborhood conditions and aid in more community control of development within Roxbury. These indicators should reflect the three forms of control as recommended by DeFilippis (2003); control of land, control of capital, and control of work. This combination can increase land ownership, local entrepreneurship and jobs standards, and wealth generation amongst Roxbury residents and provide a stabilizing force against gentrification, and other emerging challenges.

Conclusion

Roxbury can control the means of development - land, capital, and work, through deep and sustained resident participation in political and non-political processes to shape the community's future. Through this form of civic control, a new master planning process will address the previous plan's shortcomings by implementing flexible and powerful governing structures, interactive processes to adapt to a changing neighborhood, and the tools and metrics to hold stakeholders accountable for implementation. Civic control begins with transparent communication to inform about changes in the neighborhood, education about development processes and community engagement opportunities, and locally-designed strategies for Roxbury-led development. An information hub and a set of educational materials can be beneficial for sustained dialogue between community members, local organizations, and city officials.

Research Document	Set of Indicators	Housing Demand	Transit	Development
"Assessing the risk of	Proximity to transit	~	~	~
gentrification across Boston"	Historical architecture	~		
 Tufts UEP, 2009 (Turner Snow, 2001; Rose, 2002) 	Expiring affordability	~		
	Adjacent census tract income difference	~		~
	Concentration of renters	~		
	Housing unit size	~		
"Gentrification and Financial Health" – Daniel Hartley, 2013	Median home sales price in relation to median area home sales price	~		~
"Mapping Neighborhood	Concentration of seniors 75+	~		
Transformation: An Assessment of	Less than high school degree	~		
Susceptibility and Recommendation for	Proximity to transit		~	
Codman Square" - Boston University, 2014	Proximity to parks	~		
	Presence of non-family households	~		
	Concentration of renters	~		
	Mortgage/rent burden	~		
	Vacant units	~		~

Table $\ensuremath{\mathbf{1}}$ - Gentrification indicators by source and forces of gentrification.

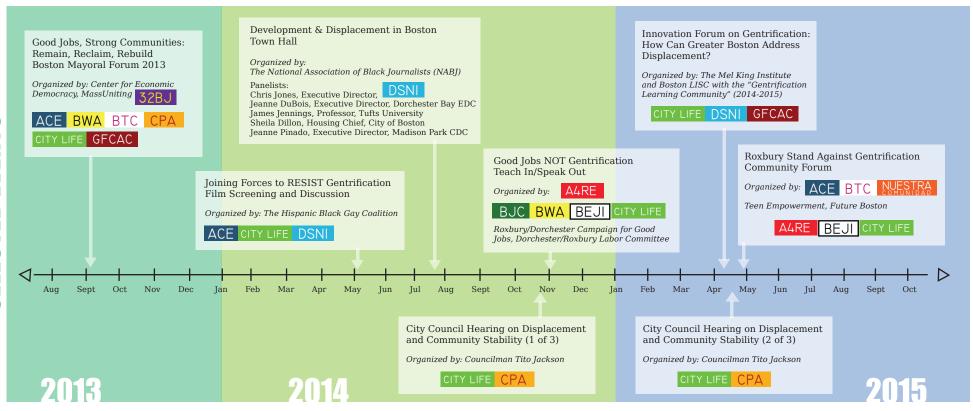


Figure 8 - A selection of events from 2013-2015 focused on the topics of gentrification and displacement. Infographic by Libbie Cohn

			Housing	Jobs & Economic Dev.	Transit	Youth & Education	Environment	Food	
	32BJ	32BJ SEIU New England 615		1		1			
2	ACE	Alternatives for Community and Environment (ACE)			1	1	1	1	
	BEJI	Black Economic Justice Institute (BEJI)		1					
	BWA	Boston Workers Alliance (BWA)		<u></u>					_
	CPA	Chinese Progressive Association (CPA)	1	1		1			S
	CITY LIFE	City Life / Vida Urbana	1						ES
4	DSNI	Dudley Street Neighborhood Initiative (DSNI)	1	<u></u>			1	1	0,
5	GFCAC	Greater Four Corners Action Coalition (GFCAC)		Ţ		1			
	NUESTRA	Nuestra Comunidad CDC	<u></u>						
S	Action for Regional Equity Coalition (A4RE) 32BJ ACE CITY LIFE GFCAC BTC + Asian CDC, Fair Housing Center of Greater Boston, Somerville CDC, Tri-City Community Action Program (Tri-CAP), United for a Fair Economy								
	BJC	Boston Jobs Coalition (BJC)	ition (BJC) 32BJ BEJI BWA CITY LIFE A4RE + Dorchester Roxbury Labor Committee						
DALIT	ВТС	Boston Tenant Coalition (BTC)	ACE CPA CITY LIFE NUESTRA + Jamaica Plain NDC, Committee for Boston Public Housing, Disabled Peoples Liberation Front, Allston-Brighton CDC, Fair Housing Center of Greater Boston, Homes for Families, Fenway CDC, Massachusetts Senior Action Council, Boston Urban Asthma Coalition, Southwest Boston CDC, Massachusetts Coaltion for the Homeless, South Boston Families Advocating for Neighborhood Strength ACE BWA CPA CITY LIFE + New England United for Justice, Neighbors United for a Better Boston					on, Homes for Families, Fenway CDC, a Coalition, Southwest Boston CDC,	
4	RTTC	Right to the City (RTTC)						Better Boston	

Figure 9 - Key community stakeholders in 2015 anti-gentrification efforts in Roxbury. Infographic by Libbie Cohn

3 - REVISING MASTER PLANNING PROCESSES

The previous chapters have brought together our analysis around the need for updating and rethinking the Roxbury Master Plan to better address the emerging challenge of gentrification the community faces. Through a new master plan approach that is interactive and adaptable, Roxbury itself can define its future and respond to new challenges and opportunities. This chapter outlines specific recommendations to structure and implement an updated Roxbury Master Plan that continuously adapts to changing needs and challenges such as gentrification. By developing a digital presence that augments Roxbury's growing face-to-face community engagement, and strengthening bridges between Roxbury's stakeholders, including its governing bodies, educational institutions, and community organizations, Roxbury will be better equipped to lead its own development.

3.1 - Augmenting Traditional Master Plans with Technology

The traditional format of municipal and city master plans is one that has led us to many of our current urban forms and processes for generations. However, times have changed significantly since the rise of the master plan document. Technology is now embedded in much of our daily activities, and is capable of capturing more personal and timely information. As we look to improve the way Roxbury creates and works with its Master Plan, technology and new modes of community engagement should be incorporated to make sure the optimal framework and results can be achieved.

Assets of 2004 Roxbury Strategic Master Plan

In its simplest form, a master plan provides a framework within

which decision makers can craft the direction their city/constituency will take. Often times, the master plan document will compile an indepth look at a place's history and change over time, propose a vision for the future of that place, and define strategies to get there.

In the Roxbury context, the 2004 RSMP provides an in-depth outline of the community's efforts to retain the rich history, culture, and community relationships/networks that have for long kept the community thriving. It does so by outlining overarching guidelines and development frameworks for achieving that vision, which was created through a combination of community engagement methods. Despite lacking concrete metrics to measure progress, and facing an unstable governance environment, there have been successes in Roxbury, such as those outlined previously.

Shortcomings of 2004 Roxbury Strategic Master Plan

When the 2004 RSMP was created, the topic areas and ideas covered were based on the information and perceived best-ways-forward of the time. However, now 10 years after the 2004 master plan was created, hindsight shows that the document effectively only looks at a snapshot in time of conditions on the ground, and set up the next 10 years of development with little room for responding to changing conditions on the ground (both local and regional aspects).

In thinking of how a master plan can better adapt to changing conditions on the ground, a few questions come to mind. For example, if a new public consultation topic is brought to the attention of the community and it is voted on, or a new development fulfills 10% of the vowed for affordable units in the area, how do the results then get incorporated into the master plan, and how does

the master plan then shift? How do the results of the new vote affect the master plan? How can we even know which projects might be impacted by that in the first place, especially given the master planning process dates back over 10 years? This begs the question: how can a new master planning framework help keep track of decisions and progress affecting individual projects and the vision for the area as a whole?

Similarly, how can we ensure that as the conditions on the ground and the master plan evolves, we are keeping track of success and failures of projects and initiatives within the community? This constant monitoring of progress is one of the core ideas behind rethinking the traditional master plan, which technology can easily help achieve using, for example, a database and website framework for monitoring projects, completion, slow-downs, and more. As such, the following describes the beginning of the vision for a digital master plan framework that begins to respond to changes and progress in the community, and makes it much more accessible and user-friendly for citizens (rather than a static 100-page PDF).

The following are four considerations that helped us create a framework for a living master plan:

- ° How to better capture conditions on the ground
- ° How does feedback get incorporated
- ° How do results in turn affect the master plan
- ° How to keep track of decisions and progress

Opportunities for Improvement

Given some of the limitations noted of traditional master planning, we explored the ability for technology to help improve and augment communication related to the master planning process. In fact, many platforms have emerged recently providing cities with a host of planning, communication, and participatory services via a

combination of wireless, internet, and in-person technologies.

While such technologies have evolved tremendously over the past decades, our interaction with, and development of, master plans remains mostly PDF based. As master plans serve an important role as communication devices for governments to communicate objectives, we believe it is important to explore the role technology could play in not only improving the way master plans are presented and communicated, but also the way we maintain information pertaining to the master plan process, and adopt more participatory frameworks to ensure the master plan is best tailored to the community it encompasses.

That said, while technology does provide an opportunity for flexibility and rethinking, the master plan should still preserve some sort of rigidity as to not aimlessly move towards a platform that tries to do everything without providing useful direction to those using and creating it. Instead, the following chapters will outline specific recommendations, and proposed interventions, for introducing new frameworks and technologies into the master planning process. We address four main areas:

- 3.2 Lived Experiences and Current Conditions
- 3.3 Community Engagement
- 3.4 Measuring Progress
- 3.5 Governance

Figure 10 on the next page begins to put together what could be an online platform for organizing all these elements of the improved master planning process.



Figure 10 - An example of the frontpage of the online Roxbury master plan website.

3.2 - Mismatch between 2004 Roxbury Strategic Master Plan and Lived Experiences

Effective community engagement and communication provides the pathway through which information can change hands. Beyond engagement however are tools that allow for engagement to produce data and understanding of lived experiences and current neighborhood conditions that can improve efforts to rewrite master plan pieces.

Challenges Within the 2004 RSMP

One of the challenges of developing and updating a master plan is capturing the on-the-ground conditions of the community. Census data is one of the most common examples of ways local conditions are used to display many socio-demographic population trends as well as infrastructural information. However, census data may not be updated as often as possible, nor capture the exact information of interest for a particular master planning effort. As a result, it may be challenging for decision-makers or the community to effectively understand what is going on in the community, and move forward on anything.

Proposed Solutions

Once again, changes in technology mean that capturing conditions on-the-ground is possible at a variety of time intervals and at different granularities. Technology allows for gathering census-type information, and any other customized variables, at any point in time, using tools such as smartphones and computers. Companies like Ushahidi and Local Data for example, have built successful platforms allowing for gathering site-specific, and geographically located

data of your choice. Adopting such technologies and frameworks in Roxbury could allow for rapid data collection surrounding issues of interest to the community. **Figure 12** shows an example of what a web-based platform for collecting average housing/rent price in Roxbury could look like for insight into gentrification pressures.

Technology is not the only way to better capture the current conditions on-the-ground. Creating strong community ties is equally important in gathering data about the current state of certain topics of interest. As such, any technology developed or adopted to capture data at the community level should be matched with an outreach program to ensure that the data being captured represents the entire population of interest, and not only those with access to the technology, or an internet connection, for example.

Best Practices

Examples like the Center for Community Engagement (CCE) at Sonoma State University and the UCLA Downtown Labor Center (see **Figure 11**), which connect university resources with community organizations and members in order to benefit the neighborhoods and communities they work with, are valuable tools for data collection and analysis. In addition to utilizing the skills and capacity of university students to collect research and data, as the Community Scholars Program at UCLA does, such institutional connections offer local neighborhoods additional resources and technological possibilities to efficiently and effectively gather accurate information needed to identify and address concerns.

Moreover, effective documentation and distribution of data is important for sustaining communication and community engagement of community members. Community events meant to collect feedback and ideas from diverse residents such as Santa Rosa's Coffee with a Local Leader and Discussions Inviting Neighborhood Engagement (DINE) ensure documentation and synthesis of opinions so they can be uploaded onto the Santa Rosa website as well as with the offices of local officials.

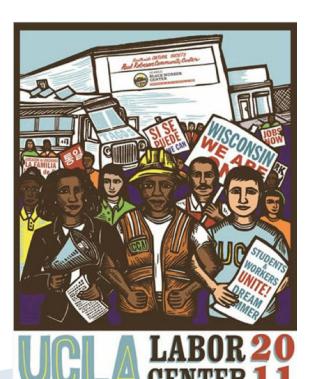




Figure 11 - UCLA Downtown Labor Center event and promotional posters.

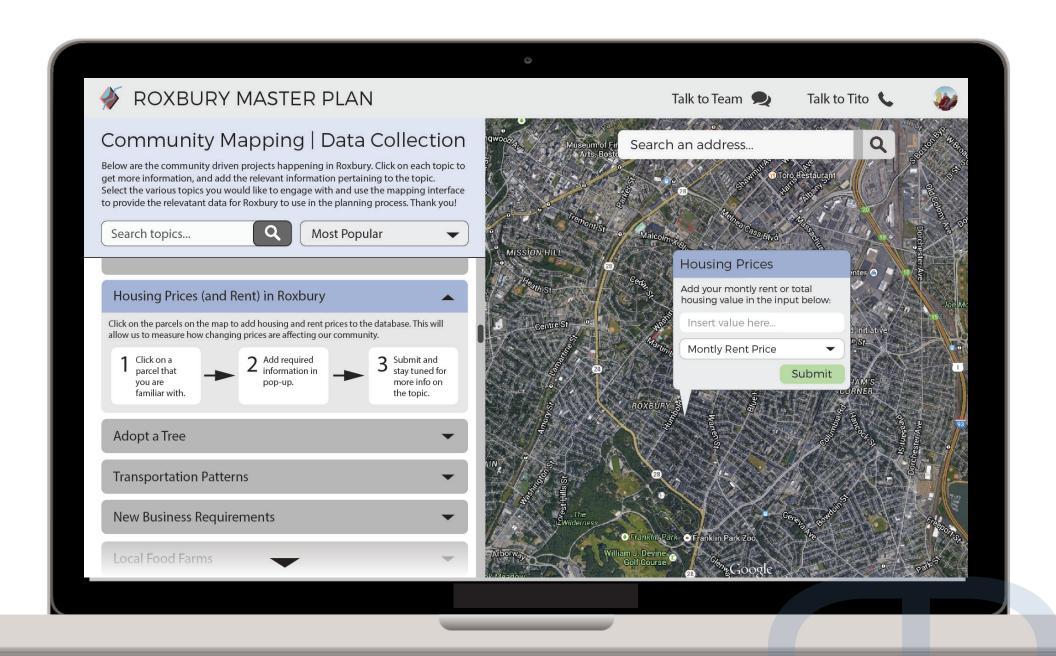


Figure 12 - Wireframe of possible methods for collecting rent prices.

3.3 - Community Engagement

One key aspect of deciding on and implementing future plans is the exchange of information from people on the ground working on the front lines of change in the community, and decision-makers. As such, establishing strong community engagement pathways is essential.

Challenges Withing the 2004 RSMP

The 2004 RSMP was spearheaded by the City of Boston in conjunction with the BRA. From the early years of the planning for the master plan in 1999, the BRA working closely with the Roxbury Neighborhood Council (RNC) to gather input from community residents that would shape the goals of the master plan. The RNC hosted both formal and informal meetings with residents, elected officials, and community groups. The two main victories of these processes were the creation of guiding principles to be used for decision-making and the creation of a governance body to implement these guiding principles. However, over time, the governance structures have broken down and no longer effectively support intentional community engagement.

We believe that the current Master Plan can better support the needs of community members through more intentional community engagement that welcomes their critiques rather than disregard them.

Proposed Solutions

Since effective master planning requires constant, organized feedback, Roxbury must develop specific tools for coordination and collaboration to engage its community around new developments as well as new or existing relationships. To expand community engagement in Roxbury and establish a strong, adaptable presence of an updated master plan, Roxbury should implement new communications methods connecting its physical and digital worlds of community participation. These communications methods should also facilitate Roxbury's engagement with other Boston neighborhoods to foster city-wide connections and planning.

Figures 13 & 14 on the following page show examples of how all projects, community efforts and news related to a sub-theme of the Master Plan (e.g. gentrification) can be combined in a participatory mapping interface present within the Roxbury Master Planning website/platform. A mapping interface could allow for multiple pieces of the master plan or issues of interest at any point in time, to be opened up for public information sharing. Existing community organizations could dialogue with the public and take part in the participatory framework via individual and organizational profiles, for example. We believe that having one centralized platform housing multiple community outreach programs would improve the participatory process and make sure that any progress is monitored, and fed into relevant sections of the master plan.



Figure 13 - An example of what a project repository would look like for Roxbury Master Plan webpage.

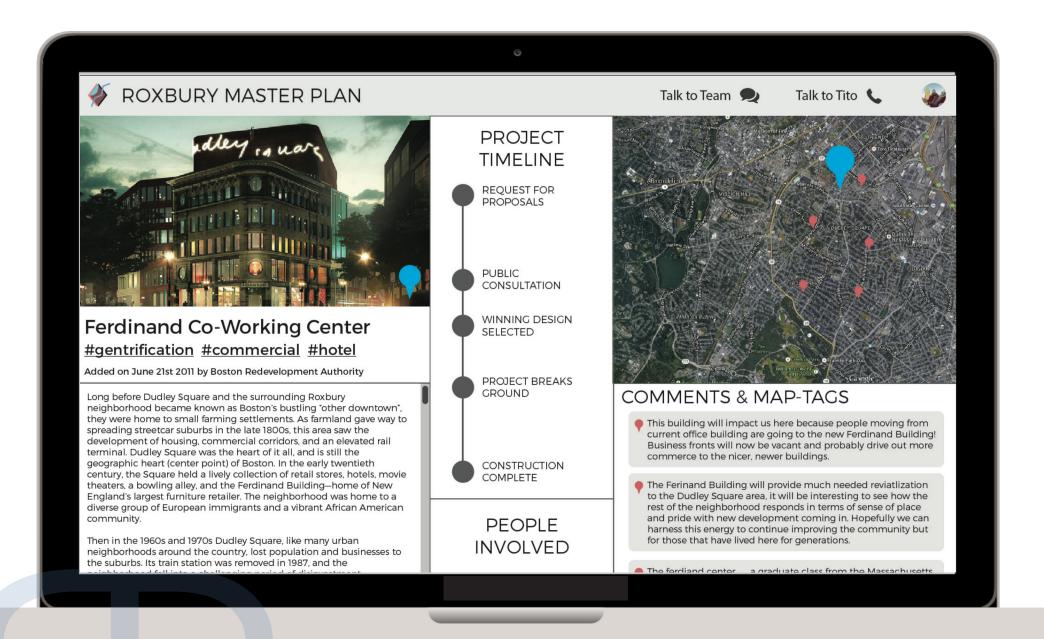


Figure 14 - An example of what an individual project page might look like for a proposal for the Ferdinand Building.

Connecting to Existing Networks

Roxbury is rich with organizing history and continues to house a number of local community organizations committed to Roxbury and its surrounding neighborhoods. By coordinating greater collaboration between these entities and businesses, schools, community centers, and other Roxbury institutions, Roxbury will better lead its own development. Restructuring decision-making processes and creating community outreach programs can often be a time-intensive and expensive process. The City should also take advantage of existing networks and channels used to connect with and capture data from community residents in order to preserve existing relationships, and make efficient use of resources. By taking advantage of these networks, City officials can engage community residents in civic actions and mobilize community members that are typically underrepresented in planning processes. While technology helps facilitate this coordination and collaboration, deepening relationships and physical interaction between Roxbury community members is required for Roxbury's development to flourish.

One channel that could be used to gather feedback on community development includes the American Community Survey. This national survey is conducted every year as a supplement to the Census and collects demographic information. The survey could be extended to include questions on community development that could shape goal setting and evaluation for master planning.

Another medium that could be useful for gathering feedback and promoting engagement is through The RoxVote Coalition. This organization helps to outreach to community residents about voting, elections, and registration. At a recent community meeting on "Community control of land" hosted by Dudley Street Neighborhood Initiative, one resident voiced concern about residents being unaware of open meetings where decisions were being made that impact the future of the community. She was calling attention to the need

for more civic engagement that becomes as well known as local elections. RoxVote could be a useful channel to address this and educate residents about master planning processes which they can get involved in.

Improved community engagement strategies also means drawing in residents who do not typically attend planning meetings. Two of these subgroups include caregivers and youth who often do not attend meetings because of personal conflicts and cultural differences. In order to get caregivers into the planning process it could be beneficial to partner with faith-based institutions that have strong connections to family units. The church can be used as an anchor to communicate potential development projects, publicize public meetings, and to gather feedback on community development. In order to reach youth, it would be useful to partner with the public school system and youth development organizations. Faith-based groups and youth organizations could also organize to help address barriers that exist to many community members attending meetings, such as childcare responsibilities.

Best Practices

In researching existing examples of local city or neighborhood programs that practice an effective combination of physical and online community engagement, we came across the City of Santa Rosa, CA website. This simple, easy-to-navigate website is equipped with a community calendar managed by the Center for Community Engagement (CCE) at Sonoma State University. The CCE's purpose is to help the University and community connect, "whether through a service-learning class, internship or volunteerism, or through community based participatory research, action research or creative activity for the common good." By helping "faculty, staff, and students collaborate with community partners to deepen learning and outcomes," this center serves as a bridge between the Santa Rosa community and a resourceful institutional partner.

In Santa Rosa, California, there are various initiatives towards nurturing community, including monthly Coffee with a Local Leader and Discussions Inviting Neighborhood Engagement (DINE) which brings together small groups of community members to share meals and dialogue. By sharing information, food, and space, community members form connections and energy around increasing their community engagement. Opinions and outcomes are recorded and synthesized to be shared online and with local officials.

Things to Consider

A way to mix effective community engagement strategies in Roxbury is to go where people already gather in the neighborhood and share ideas while sharing delicious meals. Community Tables at Haley House take place every Saturday in the heart of Roxbury. This is a great opportunity to have a Boston/Roxbury local leader or city department head join community dialogue and engage with community members. Such events could be further publicized by utilizing social media (Facebook, Twitter, Instagram, and website platforms).

Moreover, Roxbury Community College, M.I.T., or any of the near-by universities should serve to connect students and faculty with the Roxbury community for collaboration and deeper engagement of community issues. Similar to CCE at Sonoma State University, a local university could maintain a community calendar and supplement Councilmember Tito's office with communications volunteers. Additionally, local Roxbury high school students could serve as Communications Ambassadors to upload videos of meetings and notes onto the Roxbury website and social media.

3.4 - Measuring Progress

As part of our recommendation for updating Roxbury's current master plan document and process towards a more open and customizable digital platform, we believe that having an easy point of access for both citizens and decision-makers to check the progress made on certain portions of the master plan is critical. In order for Roxbury's Master Plan to become a usable, real-time and impactful tool to guide and inform the neighborhood's development, it must help neighbors and authorities rapidly assess in which policy areas major achievements have been completed, and where do opportunities and risks lie ahead. Similarly, it should serve as a tool that can be used within governance structures to evaluate the status of the master plan and that it is on the right path to achieve what the public has voted for.

Challenges Within the 2004 RSMP

Currently, there is no unified source or platform for Roxbury's neighbors and authorities to check on the progress towards Master Plan goals in broad policy areas, such as transit and economic development, or towards the completion status of specific recommendations or policy items. Progress evaluation is one of the specified responsibilities of the RSMPOC, but without a forum or method for evaluating these goals, it is a difficult responsibility to accomplish. Thus, it is difficult for neighbors and authorities to discuss effectively where time and resources should be focused.

Proposed Solutions

In order to have unified and usable progress monitoring within Roxbury's Master Plan framework we propose that the website contains a dedicated progress monitor page that can help report critical achievements. It would also be a tremendous asset if community members were brought into this evaluation process. This could be done through evaluation forms that are distributed in physical locations or electronically. For this to be a success, the participants must be able to track individual projects from the RFP to completion.

The evaluation will follow a rubric that allows for an analysis of how well the project meets its intended goal, while prompting suggestions for improvement. A sample rubric is seen in **Table 2**. Additionally, increased accountability and interactivity regarding policy and planning efforts should be brought into master plan evaluation. Project and program progress should be monitored in an open and accessible way, and regularly updated. An example of an accessible framework termed "Mayor, how are we doing?" follows.

Does this project contribute to its intended goal?	Counterproductive	Not at all	A little	Very much		
Does this project improve the community?	Counterproductive	Not at all	A little	Very much		
Does this project provide an important service to the community?	Counterproductive	Not at all	A little	Very much		
Was community engaged during this project?		Not at all	A little	Very much		
Comments:						

Table 2 - Sample rubric for measuring project progress.

Best Practices

Other city and local initiatives around the world have used digital platforms as a way to build accountability and interactivity regarding policy and planning efforts. In **Figure 15** is a website called "Alcalde, ¿Cómo Vamos?" ("Mayor, How are we doing") from Mexico. This website includes a platform that evaluates the completion status of

the 10 top campaign commitments made by mayors of the state of Nuevo Leon. This allows for citizens, the media, and authorities to rapidly and transparently assess the performance of local authorities in an easy to understand manner. In **Figure 16**, a version of the monitoring framework presented in "Mayor, how are we doing?" is adapted for the Roxbury context. The technology would require a certain project and progress framework that allows for milestones within individual projects, and greater goals, to be updated when necessary. As milestones are achieved, the measure of progress (e.g. 5 of 15 milestones reached, or 33%) could then be showcased alongside that item or section. The framework for such a monitoring system would of course have to be carefully designed, but the idea behind it remains the same.



Figure 15 - "Alcalde, Como Vamos?" monitoring framework.

Beyond imaging and aesthetics, the Workshop Group also explore the state-of-the-art in terms of the concepts behind, and implementation of, open government practices and standards in government websites, both local and national. Although it is important to emphasize that this website is not meant to be enabled as a comprehensive open government initiative (for example, open data and independent enforcement bodies are not explicitly included in our proposal), in the design of our proposal we have adhered to the international best practices for open government. In particular, we have chosen principles from Project on Open Government Oversight and Open Government Standards as guidelines for this proposal:

- ° Content should be accurate and timely
- ° Engage the public in policy-making
- ° Make public participation as simple as possible
- ° Timelines should be clear to all participants
- ° Results of the process should be readily available to the public
- ° Shine a light on how tax dollars are spent
- ° Websites should be fully searchable and underlying data available to the public
- ° Maps should augment data presentation on the website
- ° Recognize that the public has a right to know
- ° Information is proactively published
- ° Information is clear and comprehensive
- ° Collaboration is actively supported
- ° Actively include transparency and accountability

Things to Consider

A critical issue when thinking about the whole ownership of the website and in particular the performance review is the organizational structure and composition. After reviewing case studies of digital platforms both from government authorities and civil society organizations, we believe that the best alternative is a balance of key local authorities (in particular, City Councilor Tito Jackson), as well as representatives of neighborhood, academic and local business members as acting board members for the new platform. The website itself and the organization that is established to implement and maintain it will be enriched if both key local authorities and members of the civil, academic and business community of Roxbury are included.

In the case of the platform "Alcalde, Como Vamos?", for example, the board is composed of over 40 social, academic, and business organizations in order to found, implement and maintain the website and the entire organizational support behind it. The inclusion of many of the major stakeholders in the state and local governments activities helps to maintain independence, augment legitimacy, and exploit the diversity of ideas and resources of all these organizations. It is important to notice that "Mayor, How Are We Doing?" monitors the activities of 9 different cities, so the number of organizations involved is much higher than Roxbury might need. However, this sheds light on the possibility of partnering with other neighbors to be part of a broader network.

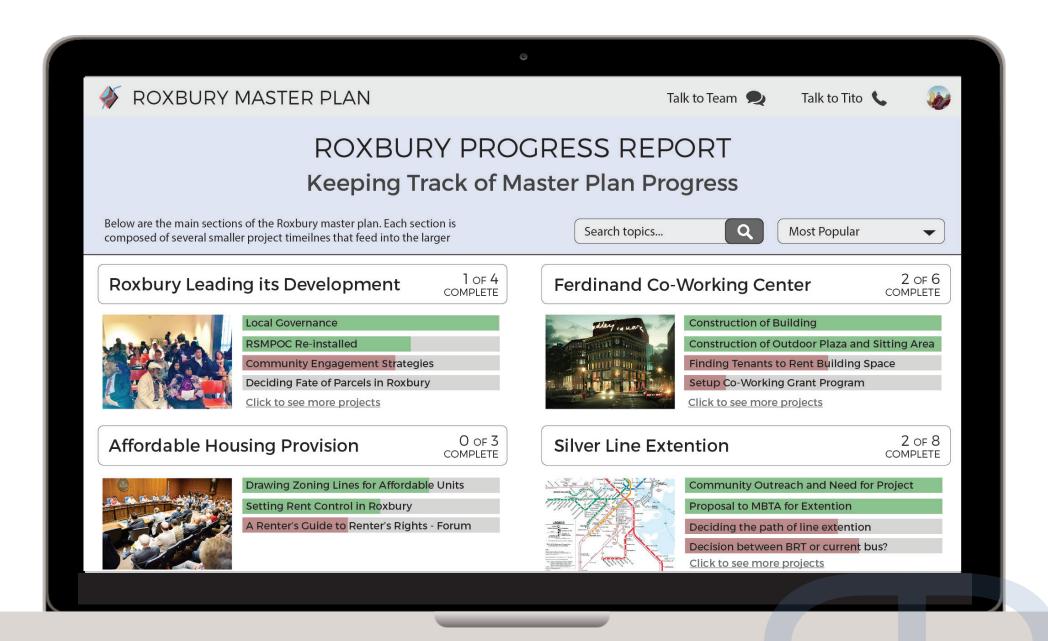


Figure 16 - Wireframe of possible progress report.

3.5 - Governance Structures

As noted throughout this report, one of the most important pieces of implementing this new master planning approach will be the governance structure that is responsible for it. Previous governance structures, such as the RSMPOC and the RNC, show the opportunities for governance to support achieving progress, but also how such governance can be less effective than planned.

Challenges Within the 2004 RSMP

The major shortcomings of the master plan governance and the RSMPOC are the community outreach around public meetings and the lack of transparency in decision-making processes. The Committee could improve upon the methods of promoting public meetings by expanding their outreach. Currently, information about public meetings is accessible through the BRA website and the Opportunity Roxbury website. It would be beneficial to do outreach to both expand their social media presence and to send pamphlets to all residents explaining the purpose of the committee and listing meeting dates for the year. In terms of decision-making processes the Committee should explore new models of structuring public meeting that allow for more testimonial by community members, and mechanisms to understand how community input is utilized. The Mayor may also reconsider the governance and election process of the RSPOC to allow residents to elect representatives who can speak to their needs and make decisions more in line with community goals.

Proposed Solutions

As outlined in the 2004 RSMP, one of the strengths of the Roxbury neighborhood is the large number of community-based organizations present in the area. There are approximately 40 community-based organizations, 54 faith-based organizations, and 20 cultural/civic

organizations. It is important to leverage these community assets. Many of these groups have forums for residents to discuss what they would like to see within their community, and many of these groups have concrete ideas and plans for the types of development that Roxbury needs. Our recommendation is for the master planning process to support these forums by providing a platform to advertise these meetings and also send a representative of the RSMPOC to attend. This would foster a more substantial relationship between the decision-makers and community members. In addition, these meetings (with permission from the host organization) can be archived on the City Council website as is done with government sponsored public meetings.

Apart from organizing meetings to engage their constituents, many of Roxbury's community-based organization also lead their own local initiatives to address identified critical needs for residents. It is likely that these local initiatives can fit into the goals outlined within a Master Plan and could be another way to see master plan goals from concept to fruition. A revised master plan could incorporate a platform for organizations to submit information on local initiatives or proposals for local new local initiatives. This new component provides an opportunity for the City of Boston to sponsor and fund ongoing work aligned with the master plan, rather than creating tension by outsourcing development projects. In addition, this could be a tool for community organizations to familiarize themselves with one another's work, aid in collaboration and avoid of duplicate initiatives.

In order to improve community engagement within Roxbury, it is still necessary for the City of Boston to create a new governance structure while still working within existing networks. The city government will need to establish new job positions, and fund these positions, in order to successfully execute our recommendations. The creation of these new positions can align with goals outlined in the master plan by providing jobs to local residents, including youth.

There will need to be at least three new full-time positions for coordination with community-based organizations (CBOs), managing master plan evaluation, and managing submissions for locally driven initiatives. The Coordinator of CBOs must create outreach tools for partnering with CBOs, be in regular communication with these organizations, attend meetings held by partner organizations, and create joint initiatives with partners. The Evaluation Manager will need to monitor digital and written evaluations of the master plan and individual projects. They will also be responsible for summarizing results and making recommendations to update the master plan. Lastly, the Local Projects Manager will verify the validity of projects that are submitted for integration into the Master Plan, coordinate responses and follow-up with applicants, and provide financial/technical support to the applicant.

We suggest that youth jobs and internship positions be created to supplement the work of full-time staff in the above program areas. Youth involvement in Roxbury's master planning processes furthers the goal of the 2004 Strategic Master Plan to capitalize on an important community asset. Involving youth teaches the next generation of Roxbury residents about development processes while engaging their perspectives on the future of the neighborhood. It provides a mutual learning opportunity for city officials and community residents to learn from one another. All of the community residents that are involved in this job and internship program will gain valuable skills around project management, public administration, and community outreach that will reap social and economic benefits for the entire community.

Things to Consider

It is important to think about who will manage this project moving forward, and what relationships will govern its management. Once these details are resolved, it will be useful to collect data and map where Roxbury community members congregate regularly, as well as viable options for an education institution to develop programs similar to those of the UCLA Downtown Labor Center and CCE at Sonoma State University. Such university-based programs should collaborate with Roxbury community organizations and officials to use their available resources and capacity to facilitate data collection, analysis, and distribution of Roxbury for Roxbury.

Additionally, existing Roxbury leadership programs, especially those focused on youth empowerment, may be partners within these university-resourced community hubs and connect local Roxbury youth with opportunities to collect data and build a strong analysis of conditions on the ground. By helping collect and analyze surveys and feedback from community events about their local community, Roxbury's youth can put their growing leadership skills to use as well as exchange knowledge with university students and institutions. This results in more accurate data and analysis since individuals who are from Roxbury and are growing up there as Roxbury faces emerging opportunities and challenges will also be a part of developing tools and projects to help Roxbury lead its own development.

3.6 - Towards Implementation

As outlined in this chapter, we believe that a revised master plan that utilizes the growing power and potential of technology can serve as a bridge between City officials and neighborhood Residents, be an information manager for important inputs to the neighborhood's development goals, and help create and realize the vision for Roxbury. The information presented in this report is only the first step towards realizing this vision. The following is an overview of future work needed to achieve many of the suggestions presented in this report. Many of these needs and ideas revolve around the technological updates needed to fulfill the recommendations to make the master planning process more technologically oriented and responsive, and to help bridge technological and face-to-face community interactions. This is only a starting point for continuing the work of the Workshop Group; further partnerships can help to make these recommendations a reality for Roxbury.

Community Engagement

- ° A map that allows citizens to add local knowledge on certain categories of the master plan or community
- ° Real-time public consultation on master plan general
- ° Participatory Budgeting
- ° Grassroots Project Suggestions/Submissions
- ° Document Database (PDFs, transcripts of meetings, pamphlets, etc.)

Governance

- ° Revitalization of the RNC, or a revision of the role of the RSMPOC
- Creation of organization or sub-agency to house the staff needed to successfully implement revised master plan

Lived Experiences and Current Conditions

- On A map that allows various data layers and datasets to be presented to the public in an interactive fashion. Currently the maps produced for a master plan are reduced to screenshots of the map and provide no way for people to dive deeper into certain elements of the data
- ° Rent price community mapping
- ° Interim surveys/questionnaires
- ° Open Data Database (census+community databases)

Project Monitoring and Evaluation

- ° A "Current Master Plan" project map allowing citizens to explore housing and other projects currently in the pipeline for achieving the objectives of the master plan
- ° Project Database
- ° Project Timeline
- ° Project Ranking (according to public opinion)
- ° New Projects & Successful Projects

Suggested Resources

Given the vision for the living document / master plan approach, we believe it is crucial to outline a way forward as to not jump into this exploratory project without testing the waters first. As such, a few recommendations for implementing portion of the mapping, participatory, and repository elements are made here, along with the teams that may be required to put these together and maintain.

Companies and/or Website Developers

When exploring the notion of participatory mapping or budgeting technologies, existing technologies and companies would allow for Roxbury to try using these without investing in a developer to build Roxbury-specific platforms. Companies such as Local Data, or CoUrbanize allow for testing such online platforms without reinventing the wheel and making sure Roxbury citizens are ready to

adopt these technologies.

If these technologies are successful and useful, then they can either be fully integrated into the master planning process, or similar custom platforms could be built for Roxbury. In the latter case, hiring a developer (or perhaps a capable student in a Roxbury Workshop class) could be a way forward to building the platform.

Team and Future of Project

Regardless of the technology adopted for exploring the augmented master plan approach, putting together a team capable of organizing, and maintaining such efforts will be crucial. As such, we suggest setting up internship programs allowing students to help produce maps, data, or community outreach projects. This could also be housed in subsequent iterations of the Roxbury Practicum at MIT.

Lastly, in addition to technology allowing for many of the improvements discussed earlier, tremendous online communities allow for projects and ideas to grow through open source frameworks and sharing of code. If the idea for a digital master plan for Roxbury ever becomes a reality, one way of continuously improving the role of technology in the planning process would be to open up the code for others to fix, build upon, and maintain. This can be done by hosting the master planning framework process on GitHub, and ensuring that developers follow as many open sources and extensible frameworks as possible. Opening it up to the growing online community of developers can ensure that the ideas discussed in this chapter, and report, can be shared with, and benefit other communities around the world.

ACRONYMS

A4RE – Action for Regional Equity Coalition

ACE – Alternatives for Community and Environment

AMI - Area Median Income

BEJI – Black Economic Justice Institute

BJC - Boston Jobs Coalition

BRA – Boston Redevelopment Authority

BTC – Boston Tenant Coalition

CBO - Community-Based Organization

CCE – Center for Community Engagement

DINE – Discussions Inviting Neighborhood Engagement

DSNI – Dudley Street Neighborhood Initiative

GFCAC – Greater Four Corners Action Coalition

GRNA – Greater Rox¬bury Neighborhood Authority

IPOD – Interim Planning Overlay District

MBTA – Massachusetts Bay Transportation Authority

MIT - Massachusetts Institute of Technology

RCC – Roxbury Community College

RFP – Request for Proposal

RNC - Roxbury Neighborhood Council

RSMP – Roxbury Strategic Master Plan

RSMPOC – Roxbury Strategic Master Plan Oversight Committee

RTTC – Right to the City

TRU - T-Riders Union

REFERENCES

- "Alcalde, ¿Cómo vamos?". Retrieved from http://www.comovamosnl.org/.
- Alternatives for Community and Environment. TRU: The T-Riders Union. Retrieved on May 10, 2015, from http://www.ace-ej.org/tru
- Amiton, R., Hammer, M., Morris, J., Nollner, E., & Vladeck, A. (2009, May 1). For Dudley, By Dudley.
- The Boston Foundation. (2014). Boston Indicators. Retrieved May 10, 2015, from http://www.bostonindicators.org/
- Boston Urban Symposium, City Planning and Urban Affairs. (2014, May). Mapping Neighborhood Transformation An Assessment of Susceptibility and Recommendation for Codman Square. Retrieved from http://www.dotnews.com/BU%20CSNDC%20 Mapping%20Neighborhood%20Transformation.pdf
- Center for Community Engagement. Sonoma State University. Retrieved from http://www.sonoma.edu/cce/
- City Council Hearing: Displacement and Neighborhood Stability. Boston City Council. (April 2015).
- City of Boston. 2004. The Roxbury Strategic Master Plan. City of Boston. http://www.bostonredevelopmentauthority.org/pdf/ PlanningPublications/RSMPOC%20Roxbury%20Master%20 Plan.pdf
- Clavel, P. (2010). Activists in City Hall: The Progressive Response to the Reagan Era in Boston and Chicago. Ithaca, NY: Cornell University Press. p. 79.

- Coates, T.-N. (2014, June). The Case for Reparations. Retrieved May 9, 2015, from http://www.theatlantic.com/galleries/reparations/1/
- DeFilippis, J. (2003). Unmaking Goliath: Community Control in the Face of Global Capital (1 edition). New York: Routledge.
- Dewey, E. (2015, April 22). Will triple-deckers cost \$1 million in Roxbury? The Bay State Banner. Retrieved from http://baystate-banner.com/news/2015/apr/22/will-triple-deckers-cost-1-million-roxbury/
- Discussions Inspiring Neighborhood Engagement D.I.N.E. City of Santa Rosa, California. Retrieved from http://www.ci.santa-rosa.ca.us/departments/cityadmin/communityengagement/Pages/DINE.aspx
- Faraone, C. (2015, April 8). Dudley Dispatch: Putting the "Oversight" in Roxbury Strategic Master Plan Oversight Committee. Retrieved May 10, 2015, from https://digboston.com/dudley-dispatch-putting-the-oversight-in-roxbury-strategic-master-plan-oversight-committee/
- Greeley, J. (2007). The Roxbury Strategic Master Plan Oversight Committee: A case study of empowered participatory governance. TUFTS UNIVERSITY. Retrieved from http://gradworks.umi.com/14/45/1445946.html
- Hartley, D. (2013, November 6). Gentrification and Financial Health. Federal Reserve Bank of Cleveland, Economic Trends.
- Jennings, J. (2004). Urban Planning, Community Participation, and the Roxbury Master Plan in Boston. The ANNALS of the American Academy of Political and Social Science, 594(1), 12–33. http://doi.org/10.1177/0002716204264947

- Johnston, K. (2015, March 17). Boston among worst in US for income inequality. Retrieved May 9, 2015, from https://www. bostonglobe.com/business/2015/03/17/boston-has-third-highest-rate-income-inequality/IWgWJZ7vHZROi4xkcXKEXJ/story. html
- Mayor's Housing Task Force, 2014. (2014, October). Housing a Changing City: Boston 2030. Retrieved from http://www.city-ofboston.gov/dnd/pdfs/boston2030/Housing_A_Changing_City-Boston_2030_full_plan.pdf
- Medoff, P., & Sklar, H. (1999). Streets of Hope: The Fall and Rise of an Urban Neighborhood (6.1.1999 edition). Boston, MA: South End Press.
- Moore, G. (2013). Northeastern University's Roxbury push. Boston Business Journal.
- Munoz, A. P., Kim, M., Chang, M., Jackson, R. O., Hamilton, D., & Darity Jr., W. A. (2015). The Color of Wealth in Boston.
- Department of Neighborhood Development. (n.d.). Foreclosure Trends: 2005-2013.
- Price, D. (2014, April 14). Home Matters! Seven Policies that Could Prevent Roxbury's Gentrification. Retrieved from http://nuestracdc.org/blog/2014/04/14/15-home-matters-seven-policies-that-could-prevent-roxburys-gentrification
- Rose, K. (2002). Combating Gentrification Through Equitable Development. Race, Poverty, and The Environment. Retrieved from http://reimaginerpe.org/node/919
- Roxbury Strategic Master Plan Oversight Committee meeting. March 2nd, 2015. Dudley Branch Boston Public Library.

- Sampson. (2012, August 27). Student housing concerns aired at community meeting. The Huntington News. Retrieved from http://huntnewsnu.com/2012/09/student-housing-concerns-aired-at-community-meeting/
 - Turner, M. A., & Snow, C. (2001, June 14). Leading Indicators of Gentrification in D.C. Neighborhoods: D.C. Policy Forum [Text]. Retrieved May 9, 2015, from http://webarchive.urban.org/publications/900461.html
 - UCLA Downtown Labor Center. UCLA. Retrieved from http://www.labor.ucla.edu/about/history/.
 - Weynicz, S. (2015, May 12). CEDAC Expiring Use Inventory.

+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ + +	+
+ +	+ +	. + .	+ + -	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ .	+ ' + '	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ +	+ +	+ + +	+ + +	+ +							
+ +	+ +		+ + -	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	. + .	+ + -	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ .	+ +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + -	+ + +	+ + +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +								
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ + +	+ +	+ + +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +								
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ +	+ +	+ + +	+ +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ + +	+ + +								
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +								
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ -	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ + -	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ .	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ + +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	+ +	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ + +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ -	+ +	+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -	+ +	+ +	+ + +	+ +	+ +							
+ +	+ +	+ +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ +							
+ +	+ +	+ -	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ + +	. + +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +								
+ .	+ +	+ +	+ +	+ +	+ + -	+ + +	+ +	+ + +	+ +	+ +	+ +	+ + -				+ + +								
+ +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ + +	+ + +	+ +	+ +	+ + +				+ + +								
+ +	+ +	+ -	+ +	+ + +	+ +	+ +	+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +								
+ +	+ +	+ +	+ +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +							
+ .	+ +	+ +	+ +		+ +			+ + +		+ +		+ + -	+ +	+ +	+ + +	+ + +								
+ +	+ +	+ +			+ +	+ + +			+ + +	+ +	+ +	+ + -	+ + +	+ + +	+ + +									
+ +	+ +	+ -	+ + +		+ +		+ + +	+ +	+ + +	+ + +	+ +	+ +	+ +	+ + +	+ +	+ + +	+ +							
+ +	+ +	. + .	+ +		+ + +		+ + +		+ + +		+ + +	+ +		+ + +		+ + +								
+ .	+ +	+ +	+ +			+ + +			+ +	+ +		+ + -	+ + +			+ + +								
+ +	+ +	+ +	+ + +				+ + +	+ + +	+ + +	+ + +	+ +	+ + +	+ +	+ + +	+ + +	+ + +	+ +							
+ +	+ +	+ -				+ +			+ + +	+ + +	+ +		+ +			+ + +								
+ +	+ +	- + -			+ + +	+ + +	+ + +		+ + +		+ +	+ + +				+ + +								
+ .	+ +	+ +	+ +			+ + +		+ + +			+ +	+ + + -				+ + +								
+ +	+ +	+ +	+ +		+ +		+ + +				+ +					+ + +								
la a			1		4 4																			