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WPI Sustainability Competition: Assessment of Polar Park Project and Regulation. Draft petitions are on the last three pages.

Introduction

Worcester (Massachusetts) has invited a minor league baseball team now known as the WooSox or Worcester Red Sox which will be headquartered in downtown Worcester. The City and the baseball team are collaborating to construct a new large baseball stadium called Polar Park. The City is borrowing nearly \$101 million to finance the construction of Polar Park, and a total of over \$240 million will be spent on redevelopment projects located around it (1). This stadium is supposed to provide many benefits, such as employment, investment and development. Most citizens and policymakers seem to be in favor (5, 7, 9, 11), but with such large bonds and subsidies involved, there are concerns that the development is not worth it, particularly since the costs have recently begun to exceed initial estimates (1, 4).

Polar Park will be located near the downtown area of Worcester in the historic Canal District on a brownfield site (4). It is close to the highway I-290 and within walking distance of a historic train and bus terminal known as Union Station and the WRTA (a local public bus service) central hub. The land itself is very contoured and sloping, which presents a challenge for designing the stadium (10). East of the stadium are a variety of restaurants, shops and offices. This land was previously known as the Wyman-Gordon Parcels and zoned as Manufacturing – General and Business – General (12), but Polar Park and planned surrounding developments will be mixed-use (10, 39) and the site has been rezoned to BG-6.0 to allow this (32, 39).

The stadium is seen to attract significant investment. Through the MassWorks Infrastructure Plan, the State has committed to \$32.5 million dollars in infrastructure money, including at least \$15 million for a new parking garage (6). The State Department of Transport (MassDOT) also plans to spend at least \$10 million on road improvements, which includes the redesign of Kelley Square, a famously dangerous intersection southeast of Polar Park (7, 10). In addition, developer Madison Downtown Holdings is constructing a 150-room hotel, a 100-room boutique hotel overlooking the ballpark (not on site, 39), 250 market rate apartments and 65,000 square feet of retail and restaurant space, assisted by tax exemptions and credits worth several million dollars from the City (5, 6, 7).

The City has assured that no current taxpayer money will be used to fund the construction of Polar Park and is using bonds instead, claiming that the rent and additional income from Polar Park will pay them off (4, 6). Additionally, the City and the Worcester Red Sox have reached a Community Benefits Agreement with the Worcester Community-Labor Coalition and have committed to local hiring, local sourcing, environmental protections and accessibility (3).

Even so, some are concerned that the deal is excessively favorable for the developers involved and that Worcester (and taxpayers by extension) assumes all risk in case the project does not go as planned (5, 6). Some are also skeptical that the ballpark will generate as much money as the City claims it will, or that this was the best project to invest into (9). There are also concerns about gentrification and impacts on ethnic minorities, homeless communities, nearby tenants and all citizens in general (2, 8). However, the Community Benefits Agreement may mitigate impact (3).

Regardless, construction is underway and the stadium is planned to open in April 2021.

Figure 1 shows the site plan for Polar Park, including the stadium and several planned developments. (10)



Figure 1: The site plan for Polar Park, including the stadium and several planned developments (10).

Regional Context

In 2016, the WRA (Worcester Redevelopment Association) conducted a study which suggested the redevelopment of the vacant Wyman-Gordon properties to "[u]ltimately, transform an abandoned manufacturing site into a productive development that will draw local and regional users ... The redeveloped site should encourage healthy lifestyle choices, offer sustainable job opportunities, and contribute to the City's tax base." (15)

The site itself has steep slopes (see figure 2) and contamination issues which require remediation. The WRA stated that the Wyman-Gordon Parcels were the largest undeveloped site in Worcester's downtown and that it was a blight (15). Another constraint to development is a data

switching center with 37, 000 data/voice lines flowing through – the company declared bankruptcy which prevents the WRA from forcing the company to evacuate (14).

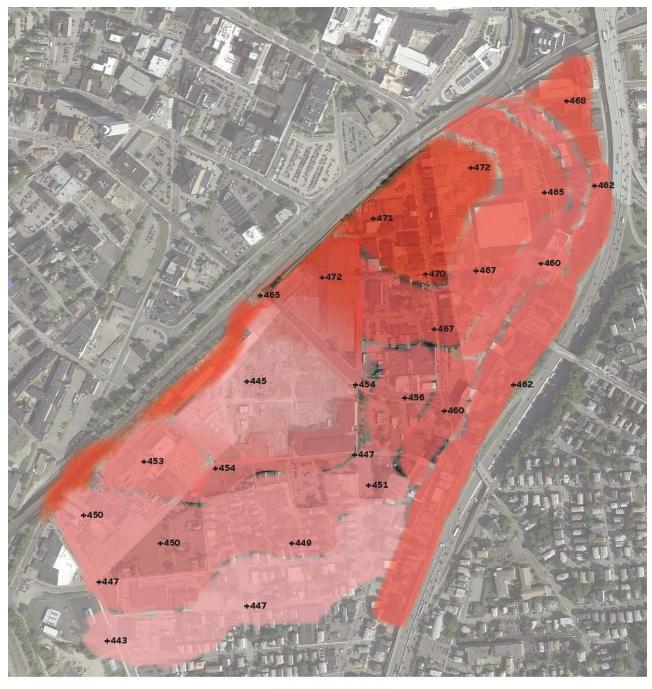
Development of the site will likely increase traffic at Kelley Square (labeled in Figure 3), which in its current condition cannot safely allow for an increased number of vehicles. Additionally, the site is bordered by an elevated railway line which separates it from Union Station and much of downtown. High quality roadway and (especially) pedestrian connections are necessary across the railway line (particularly at the Madison and Green street underpasses) and Kelley Square for:

- 1. Surrounding areas to benefit redevelopment (the development could attract investment and business to Downtown Worcester and the entire Canal District as well).
- 2. Improved access to the site by all modes of transport (a connection to Union Station, a trainbus station with an adjoining parking garage, is especially important to consider).
- 3. Decreasing congestion caused by redevelopment.
- 4. Increased safety for all modes of transport.

These parcels of land are near a FEMA flood zone and the land was formerly a canal. However, as the canal has been buried for over a century, and the flood zone borders the property, these do not constrain development (10, 16).

Worcester's Complete Streets Policy may require the site to provide "safe, convenient, and efficient accommodation for all modes of transportation, including walking, bicycling, driving, and transit." This may include bicycle lanes, pedestrian areas, and additional roadway and pedestrian crossings. The steep slopes, the railway line and the fact that the land nearby is in popular use mean that the land has little space to have a lot of infrastructure. The City's strategic plan lists having goals of a "Vibrant, Thriving City" and "Opportunity for All" (21), which this development will have to support in some way as well. These both complicate designs and suggestions for use.

There are multiple master plans at both the City and county level in progress of receiving input. Worcester has a Master Plan in progress (23). Its details are unknown, but redevelopment of this site is likely to be a significant part of it. Mobility 2040, a regional plan for transportation for Worcester County which is currently being formed, listed that people asked for expansions of commuter rail, which would probably spur the development of the site, as it is near a commuter rail station and may thus require less parking. Developments on this site can also take advantage of the Union Station Garage to use as parking. Additionally, the Central Massachusetts Regional Brownfields Plan suggested planning to build on this site as well (17). Essentially, development on this site requires little additional infrastructure and planning and fits well with regional plans due to its proximity to highways, transit and Worcester's downtown.



TOPOGRAPHY

WORCESTER-BALLPARK MIXED-USE MASTER PLAN MAY 8, 2018

Figure 2: Slopes on the site in feet (10).

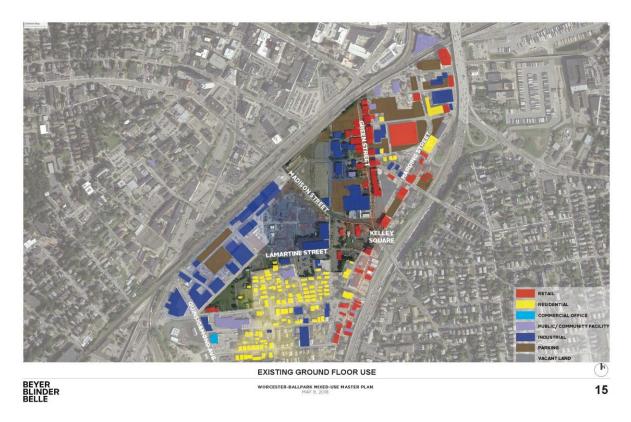


Figure 3: Land uses around the site (10).

Regulatory Environment

Worcester is a Council-Manager Government – the City Council chooses a City Manager. Voters choose the City Council and the Mayor (the Mayor must also be voted as a City Council member elected at-large). "The City Manager, appointed by the City Council, is the chief executive officer with appointive and removal authority over department heads and other employees of the City." (25)

The site (the Wyman-Gordon properties) was formerly zoned MG-2.0 and BG-4.0, and has been rezoned to BG-6.0 to allow for the stadium and its accompanying high-density developments. BG-6.0 has a maximum floor area ratio of 6 square feet of buildings/1 square foot of land, which is the highest out of all zones in Worcester. The site is part of the Commercial Corridors Overlay District (CCOD) and thus cannot have non-accessory surface parking (surface parking as a main use of the land) but is exempt from its parking requirements, both due to its rezoning. Food service (including alcoholic beverages), hotels, inns, retail sales, multi-family homes, bus stations, offices and low and high-rise multi-family dwellings are all permitted, which encourages mixed, high-density development (12).

Depending on the use(s), a proposed development will have to include a minimum number of off-street parking spaces. If it includes more than eight spots, the Planning Board will have to review parking plans to "ensure adequate access, drainage, capacity, circulation, compatibility, and safety to pedestrians and vehicles using the facilities and adjoining streets." (26)

Landscape screening (with trees and shrubs) will be required "where the parking, work or service area of a proposed project abuts a street, public park or residential property." (24)

Proposed developments will need to be approved by the Planning Board of the City, who can request or insist on alterations to the development plans. This includes a public hearing.

The first step for these developments to be built will be determining if they are 'By-Right' or comply with the zoning. If a project involves earth filling, earth removal, outdoor advertising, wall murals and/or banners, among other things, then either the planning board or the zoning board of appeals will have to approve the plans and issue a special permit (26).

The next step is determining if a Site Plan Review is triggered. If a building permit is required, then if at least one of the below is true, then a Site Plan review is required:

- 1. If there are more than 4 dwelling units.
- 2. The slope of the land is 15% or greater.
- 3. There are billboards.
- 4. (there are other requirements which are not included for brevity)

The Planning Board can approve the project, conditionally approve the modified project, or deny the project based on specific written findings identifying review standard(s) that were not met (26).

Finally, the developer(s) will apply for a Building Permit. If the application materials are complete and the developments follow the Zoning Ordinance and Building Code, the Director of Inspectional Services will issue the permit (26).

Planned developments may be assisted by DIF and TIF. Tax Increment Financing (TIF) provides property tax exemptions for a certain number of years. District Increment Financing (DIF) ensures that a certain proportion of taxes will be reinvested in the area. DIFs and TIFs may be suitable strategies to attract and ensure investment for this site, as it is blighted, underutilized and simply unattractive (27). The details of the tax increment require negotiation between the City and the developers.

Proposed Use

The entire development planned for the Wyman-Gordon parcels has 8 blocks (not including the ballpark) and is approximately 20 acres in size. A summary of the development (10, Figure 1):

- 1. A ballpark or stadium (10,000 capacity).
- 2. 262,000 sq. ft. of office area spread over block A, E and G.
- 3. 164,800 sq. ft. of retail/restaurant area spread across the development.
- 4. 145,000 sq. ft. of hotel area in block C (200 keys across 5 floors).
- 5. 385,000 sq. ft of residential area in blocks D1, D2 and F (370 units).
- 6. 501 surface and 503 lower level parking spaces.

The zone this site is in, BG-6.0, allows all uses of the parcel except the ballpark, which is considered outdoor recreation and requires a special permit. This project requires a special permit for earth filling, earth removal, outdoor advertising, wall murals and/or banners as well (13).

This project will have to comply with the landscape screening requirements as stated in the 'Regulatory Environment' section.

A site plan review will be triggered, as there are billboards and over 4 dwelling units. There may also be steep slopes, though the area is relatively flat compared to some areas of Worcester (15). Due to the speed of the project and the multiple planned uses, the site plan review will be conducted in phases (38).

Since this development conforms to the requirements of zoning, there are unlikely to be variances. However, as these developments involve building more than 8 off-street parking spots, the Planning Board will have to review parking plans.

Once these steps are completed, the developer will apply for a building permit.

As these steps have progressed, the City has been preparing for the development by creating a District Improvement Financing (DIF) District that encompasses the Wyman-Gordon properties to capture new revenue. This is estimated to repay the bonds issued (approximately \$100 million, not including increases in cost estimates) in 30 years, which is also the length of the lease on the property that the City and the Worcester Red Sox have signed (28).

This development is in tandem with the repaving of Kelley Square. Bike lanes (13) and pedestrian access from Union Station (10) are included in these project(s), and the planning board has suggested Bike Sharing. The Green Street and Madison Street Underpasses (which connect the stadium past the railway line to downtown) will be improved (21). Additionally, a new trolley service will connect these areas to other businesses and parts of Worcester (29). Thus, this complies with Worcester's Complete Streets Policy and ensures equitable access.

A 2016 study by the WRA (Worcester Redevelopment Authority) proposed mixed use development: commercial recreational and complementary commercial retail facilities, indoor track and field facilities, a stadium and three commercial/retail buildings. While the layout of the development proposed here is very different, it still has many of the elements suggested in this study (10, 15).

Mobility 2040, a regional plan for transportation for Worcester County which is currently being formed, listed that people asked for expansions of commuter rail services around Worcester (18). This planned development may increase traffic and investment into downtown Worcester and the Canal District (around Union Station), which would both make expansions of commuter rail more desirable and profitable (less subsidized) as more people might take public transit. This might be especially true on game nights as parking might be expensive or difficult to find and people may wish to drink alcohol (and thus may not plan on driving).

The City lists goals of a "Vibrant, Thriving City" and "Opportunity for All" (21), and this development supports that. A fact sheet released by the city states that (28):

1. "The facility will host at least 125 events per year with the goal to activate the space 365-days per year, including baseball games (68), large scale events/concerts, road races, collegiate/high school sporting events, fireworks, and other community events. The "City can host up to 8 city revenue-generating events and 10 community-oriented days at the ballpark per year." The stadium will be publicly accessible year round and will include walking and running facilities, public park amenities and designated fitness areas.

- 2. The project will create more than 500 full-time and 2,000 part-time jobs both in construction and non-construction positions and the Ballclub will "give hiring preference to Worcester residents, in particular women, minority and underrepresented groups."
- 3. The City will have access to conference and meeting space for civic engagement, and the ballpark will serve as a polling location.
- 4. "Worcester K-12 school students will receive one free general admission ticket to a baseball game each season [and] City high school students will have the opportunity to play games at the ballpark."

In short, the public accessibility and amenities of the ballpark, combined with the large numbers of jobs created, ensures the development promotes the City's goals and may increase quality of life of citizens.

Highest and Best Use

The 2016 study by the WRA mentioned earlier had suggested a mixed-use development on the Wyman-Gordon parcels, to generate jobs, revenue and housing in a prime location. Additionally, recreational facilities were suggested so that it would be a valuable site for the community. The current proposal incorporates all these components. The stadium has many planned civic and community uses. Over 500 full-time jobs and 250 market-rate apartments are expected to be created. Despite an increase in cost estimate, the project is still expected to be self-sufficient and not drain any existing taxpayer revenue (4).

This ballpark feels like it suits the community. Citizens and businesses have been enthusiastic about gaining a baseball team, and the ballpark architecture draws inspiration from the City and its history (10). Local murals painted by a local art collaborative (Pow! Wow!) are planned to be a permanent part of the structure (30).

This ballpark, as shown earlier, complements various City and regional plans. It complies with zoning rules and other applicable regulations.

Polar Park has drawn significant investment as well. As a part of the development, the Commonwealth of Massachusetts is spending \$32 million on parking garages and improving roads in the area (7). The ballpark itself has many more corporate sponsors than initially expected (31).

Additionally, this development is sustainable in many ways:

- 1. It has many planned uses and can be expected to have high use throughout its lifetime.
- 2. It is pedestrian-and-cycle friendly and is designed for multi-modal transportation for equitable access. It may increase use of sustainable transport options.
- 3. It is entirely on a blighted brownfield site, which was mostly empty beforehand.
- 4. It is likely to generate density in downtown Worcester (prevent urban sprawl).

However, there are concerns about impacts on the community:

1. Even though the WooSox have signed a Community Benefits Agreement (CBA) with the City and the Worcester County Labor Coalition, the details of the document are unknown. It may not be enough.

- 2. Madison Downtown Holdings has not signed a CBA, even though they are constructing the rest of the development.
- 3. This development may cause gentrification. Rental cost increases may force nearby renters out of the area, and there is no affordable housing or known equity contributions for low-income and homeless citizens who may face higher costs due to this.
- 4. If this project does not go as planned, Worcester (and taxpayers by extension) will foot the bill. This is especially concerning since stadiums aren't very useful without a team, and this project is on a short timeframe.
- 5. The deal was probably in favor of the base ball team and the developers (who probably didn't need these many incentives to build) (6, 9).
- 6. The City Council has declared a Climate Emergency (22), but there are no publicized plans for the development to be high efficiency, LEED-certified and/or solar powered. Essentially, this development may not promote the city's sustainability goals in this area.

In many ways this project appears to be the best possible use of the land. However, there are areas where the project could be more equitable and sustainable, and the financial viability is not guaranteed. Citizen oversight is necessary to ensure agreements are kept and the stadium and the surrounding developments remain assets to the community at large.

Regulatory Changes

While regulations have ensured that the ballpark plans have been approved quickly enough for the City, developers and the WooSox to start building rapidly, it could be arguable that there is not enough accountability to the public that the promises of this development will be met or will complement the City's goals.

Firstly, the City has a Complete Streets Policy (20) which might not have been adequately incorporated in the plans. There are plans for bus stops, but there are no transit-only lanes, and the bicycle lanes may not be high quality (protected and with well-planned intersections). This project is progressing quickly – perhaps too quickly for modifications suggested by the public to be incorporated. The list of site plan review standards in the zoning ordinance (12) (Article V, Section 5B: Standards For Review) ensure that the Planning Board considers vehicular and pedestrian access and circulation. Transit and bicycle priority and creating connections to the existing transit and bicycle networks could be added to this list. Additionally, Article II, Section 6A, 2: Special Permits could be amended to ensure the Zoning Board of Appeals considers pedestrian, bicycle and transit access.

These amendments can also be added with additional requirements in the CCOD (Commercial Corridor Overlay District) which the site is part of. The CCOD, described in Article IX in the Zoning Ordinance (12) encourages 'high-quality, pedestrian-scale environments,' 'compact developments,' 'reuse and redevelopment' and 'economic development.' It ensures that buildings face the streets, prioritizes pedestrian access, restricts surface parking, among other things. However, it does not fully promote the City's Complete Streets Policy. In its parking requirements (Article IX, Section 7: Off-Street Accessory Parking & Loading Requirements) a limited incentive is provided for replacing car parking with bicycle parking, and transit is stated as a consideration. However, this site is exempted from these requirements as it is zoned BG-6.0. A new section explicitly requiring a minimum of bicycle parking, bicycle share station(s) and compatibility with transit and bicycle networks could be added into Article IX. These districts are particularly suitable for transit, walking and biking as they intend to be inviting,

pedestrian-friendly, with mixed-use high-density developments and less accessible parking. The purposes and intents of the Complete Streets Policy and the CCOD complement each other, and integrating them in the Zoning Ordinance could yield many benefits.

Secondly, there is no requirement for the ballpark to be sustainable in any way. Even though the Worcester City Council has declared a climate emergency (22), there are few regulations ensuring the project is environmentally friendly. Aside from MassSave incentives (state tax credits), there is no requirement or incentive for the business to be PHIUS+ certified (passive house) or LEED. In contrast, Boston, MA (the largest city in the state) has required all major developments to be LEED-certified and has made it a part of their zoning code by creating Article 37 (33). Similarly, Worcester can create a new article in their zoning ordinance requiring LEED or PHIUS+ certification or mitigation for major developments and/or incorporate it in their site plan review. Alternatively, energy efficiency and environmental mitigation could be added to Article V, Section 5B: Standards For Review and/or Article II, Section 6A, 2: Special Permits.

Thirdly, the City signed 100-million dollars of bonds which taxpayers could be at risk of footing. There certainly was inadequate public outreach prior to the deal which was reached through closeddoor negotiation. If for any reason the project fails, the project might essentially cost \$500 per person in the city (34). Even if this project becomes a success, maybe there should be regulation requiring more public outreach and transparency for deals of this amount. Also, this is a very expensive ballpark. The public did not have much say in whether they should have gone for a cheaper, simpler stadium (37). In the City of Worcester Ordinance list, there is no explicit mention of public accountability regarding finances and discussing budgets and bonds with the public – only with other offices. The Ordinances for the Office of the City Manager (Article 1), the Department of Administration & Finance (Article 4) and Auditing Department (Article 11) could include public disclosure and comment periods for finances and new major projects which include other relevant boards as well (for example, for a public meeting discussing the financials of Polar Park, the Executive Office of Economic Development and/or the City Manager and/or at least one City Council Member should be present). Additionally, an ordinance ensuring that financials are transparent and easily accessible to the public, the public can start an appeals process and/or investments, bonds or large changes in funding have to be decided with a vote or a form of citizen approval could help solve this.

Finally, this project is likely to cause gentrification and may displace low income residents and make the lives of the homeless harder (2). While this project creates publicly accessible space, it does not create affordable housing or truly address the social problems it may cause. A requirement for a minimum of affordable housing might help address this. The zoning ordinance could include that all new apartments and high-density residential developments must include a certain proportion of affordable houses, by modifying the requirements in existing zoning where applicable or creating a new zoning overlay over areas at risk of gentrification and tenant displacement. For example, aside from directly funding affordable housing, Washington, DC has Inclusionary Zoning and requires that 8-10% or floor area is set aside for affordable rent or sale (36). Alternatively, the City of Seattle, WA provides (35):

1. MFTE (Multifamily Tax Exemptions): Owners of multifamily rental buildings provide a 12-year property tax exemption on residential improvements in exchange for reserving at least 20% of apartments as affordable.

- IZ (Incentive Zoning): Commercial and residential developers can gain additional development capacity (higher density) in exchange for providing or funding affordable housing.
- 3. MHA (Mandatory Housing Affordability): New development must include affordable homes or fund affordable housing.

In considering these ordinances, the City of Worcester must study the required amount of housing, whether it is more desirable to rent or sell affordable housing, the amount of City subsidies involved, and consider how taxes and regulations can balance the need for affordable housing with the need to encourage development. The City of Worcester Zoning Ordinance, Article VII already includes a density bonus to developers building affordable housing, but as this is not a requirement and thus may not generate enough affordable housing on its own.

Essentially, regulation requiring the City to be more transparent and for development to support the City's Complete Streets Policy and Climate Emergency Declaration and include equity considerations would help ensure that all new developments complement Worcester and increase the quality of life for all citizens.

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Petition: Integrate the CCOD (Commercial Corridors Overlay District) and Worcester's Complete Streets policy in the City Zoning Ordinance.

The CCOD (Commercial Corridors Overlay District), described in Article IX in the City Zoning Ordinance encourages 'high-quality, pedestrian-scale environments,' 'compact developments,' 'reuse and redevelopment' and 'economic development.' It ensures that buildings face the streets, prioritizes pedestrian access, restricts surface parking, among other things. However, it does not fully promote the City's Complete Streets Policy. Aside from a limited incentive for replacing car parking with bicycle parking and a statement that transit is stated as a consideration (Article IX, Section 7: Off-Street Accessory Parking & Loading Requirements), there is no requirement or suggestion to ensure that developments in this district comply with the City's Complete Streets Policy, which ensures equitable access.

This petition requests that Article IX in the zoning ordinance is amended to:

- Include a new section requiring a minimum of bicycle parking which is more
 accessible to the building than private vehicle parking. Include a suggestion for
 developers to include indoor bicycle parking, where bicycles are less likely to be
 stolen.
- 2. Include bicycle share station areas, publicly accessible bicycle racks, and sheltered bus stops along these corridors.
- 3. Ensure that new developments include planned accessibility to transit and bicycle networks, by ensuring bicycle parking is accessible and there are clear and accessible routes and signage for bicyclists and pedestrians.
- 4. Explicitly enforce the Complete Streets Policy in all changes and upgrades to the roadway network in these areas and ensure accessibility for all modes of transportation.
- 5. Encourage developers to offset predicted increases in traffic by investing in bicycle lanes, bus stops, sidewalks and other alternative modes of transportation.

The CCODs are particularly suitable for transit, walking and biking as they intend to be inviting, pedestrian-friendly, with mixed-use high-density developments and less accessible parking. The purposes and intents of the Complete Streets Policy and the CCOD complement each other and they should be integrated in the Zoning Ordinance.

Petition: Include protected/separated bicycle lanes in the City's Complete Streets Policy.

Protected bicycle lane (Class IV bikeways) and bicycle paths independent of roadways (Class I bikeways) increase bicycle traffic and increase safety as well. Unlike bicycle lanes (Class II bikeways, such as the ones on Main street), these lanes accommodate bicyclists of all skill levels. If well-designed, parents can even take their children on them.

For example, in Portland, OR, where protected bicycle lanes were installed, "where the population of bike commuters increased from 1.2 to 7 percent between 1990 and 2015, fatality rates fell 75 percent in the same period." [Streetsblog USA]

However, while the City's Complete Streets Policy mentions separated bicycle paths, bicycle lanes (Class II) and share-use markings (Class III), it does not explicitly mention *protected* bicycle lanes (Class IV), which can be implemented in almost every situation instead of a usual bicycle lane (Class II).

MassDOT has created a high-quality, easily understandable document explaining how protected bicycle lanes can be implemented. Please refer to that document (URL below) and change the City's Complete Streets Policy to emphasize the need for protected bicycle lanes (Class IV).

mass.gov/lists/separated-bike-lane-planning-design-guide

The City's efforts in building bicycle lanes is commendable. However, there are serious disadvantages of constructing the painted bicycle lanes (Class II) sandwiched between traffic and parked cars:

- 1. Cars must move across the bike lane to park, and in order to re-enter the roadway must cross the bicycle path again, which is a serious safety issue. It is also easy for bicyclists to be in the blind spot of a mirror.
- Approximately half of bicycle accidents occur at intersections, and a painted bicycle
 lane constructed in this manner does not solve the issues causing these accidents.
 For example, it is common for cars to turn right and inadvertently hit a cyclist in the
 bicycle lane.
- 3. People exiting their car may hit cyclists with the door.
- 4. Speeding cars that do not stay in their lane may accidentally hit cyclists. Similarly, cyclists may also find it more difficult to stay in their lane, especially if they have to dodge an improperly parked car or an open car door. This discourages people who are not experienced cyclists from riding in these lanes, so these lanes are less useful as fewer people will use them.

Additionally, bicycle markings or 'sharrows' such as on Park Ave. (Class III) do not necessarily increase safety of bicyclists – they encourage a false sense of security [Streetsblog USA].

The Massachusetts Bicycle Transportation Plan Public Engagement Results has many takeaways on what people want. Separated bicycle lanes are a key component of addressing their issues. 94% of attendees stated that they would bike if they were separated from

vehicles, as opposed to 73% that were comfortable biking in usual bike lanes. This is also an equity issue: "non-english speakers" stated that "[the lack of] a safe bike facility is the biggest barrier." People with disabilities stated that "More separation and dedicated paths are needed, as is a connected network of safe on-street bike facilities that lead to paths." Senior citizens stated that "More people don't bike because they feel unsafe, particularly through rotaries." Others stated, "Safe, comfortable infrastructure is a prerequisite for everyday biking."

This petition emphasizes Class IV bicycle lanes as they are the safest, most effective and equitable way to ensure that people can access jobs, businesses and stores through them, as these lanes can be built inexpensively throughout Worcester.

Please modify the Complete Streets Policy so that the City does not build Class II bicycle lanes and bicycle markings (Class III bicycle lanes) except when there is no other option and encourage building Class I and Class IV bikeways where feasible, and emphasize creating safe intersections. This will make bicycling safer and more accessible.

Citation: "Separated Bike Lanes Means Safer Streets, Study Says." *Streetsblog USA*, 29 May 2019, https://usa.streetsblog.org/2019/05/29/protect-yourself-separated-bike-lanes-means-safer-streets-study-says/.

Include Bicycle Share programs in the Complete Streets Policy

I suggest that Bicycle Share programs should be integrated in the Complete Streets Policy to expand access to on-demand sustainable modes of transportation. In implementing bicycle docking stations, this study by student(s) at Clark University can be used as guidance (see citation).

Additionally, note that during this pandemic, bicycling has proven to be an effective form of exercising and maintaining social distancing, and the use of bikeshare bicycles has increased. As the Spokesman wrote:

"In large urban areas, bike use has exploded as residents shun public transportation. New York City's bike share program saw a 67% increase in use, the New York Times reported last week.

"Other large cities – including Bogotá, Colombia, and Mexico City – are encouraging people to bike as a way of slowing the spread of COVID-19."

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