



Zoning & Planning Committee
Agenda
Special Meeting

City of Newton
In City Council

Thursday, May 9, 2019

7:00PM

Room 205/Council Chamber

Items Scheduled for Discussion:

- #220-18** **Discussion relative to the Washington Street Corridor Action Plan**
DIRECTOR OF PLANNING requesting monthly progress discussions on the Washington Street Corridor action plan.

Respectfully Submitted,

Susan S. Albright, Chair

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.



Ruthanne Fuller
Mayor

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Barney S. Heath
Director

MEMORANDUM

DATE: May 3, 2019

TO: Councilor Albright, Chair
Members of the Zoning and Planning Committee

FROM: Barney S. Heath, Director of Planning and Development
James Freas, Deputy Director of Planning and Development
Lily Canan Reynolds, Community Engagement Manager
Rachel B. Nadkarni, Long-Range Planner

RE: **#220-18 Washington Street Vision Plan Draft Three**

MEETING DATE: May 9, 2019

CC: Honorable Newton City Councilors
Planning and Development Board
Urban Design Commission

The Zoning and Planning Committee will continue its review of the Washington Street Vision Plan and Zoning on Thursday May 9, 2019. At the request of the Committee Chair, Committee members are asked to email comments on Draft #3 of the Vision Plan to staff, by the close of business Tuesday, May 7, 2019. Like Draft #2, staff will organize Councilor comments into themes to help facilitate the Committee's review of the document. On May 9, the Committee, at the direction of the Chair, will focus its discussion on Chapter 1 Introduction, Chapter 2 Big Ideas, and Chapter 4 Street Repair.

In response to Councilor requests for more concise communication tools for discussing the key elements of the Plan with constituents, staff has begun to create one-page excerpts of the Vision Plan to help highlight the most salient elements. These will also be posted on the project website:

- What is a Vision Plan (previously released in April 2019)
- Why Plan Now (previously released in April 2019)
- Transportation
- Neighborhood Side Streets
- Uniting Across the Pike

Additional one-page excerpts are forthcoming including, Housing, Fiscal Impacts, and Zoning and are anticipated to be published ahead of the May 28, 2019 Committee meeting.

At the previous Committee meeting, staff heard several requests from Councilors to reincorporate references to heights of future buildings into the Vision Plan, which in Draft #3 are addressed via the height regulations in the proposed Zoning. Accordingly, at the May 9, 2019 meeting staff will review an approach for reincorporation of height into the Vision Plan that at the same time does not specifying maximum heights for particular locations, which will need to be discussed subsequently by the Council when it reviews the Zoning. It remains the recommendation of staff that the Vision Plan be reviewed and considered for adoption as an amendment to the Comprehensive Plan first, with the revision and consideration for adoption of the Zoning second. The Vision Plan is a guidance document of principles, policy objectives, and a look to the future of the Washington Street area 20 years into the future. These overarching principles as well as action steps to implement them are laying out the path to the future, and the zoning is the first implementation step to be taken on the path.

On May 28, 2019 the Committee discussion is anticipated to continue its review of Draft #3 and focus on the remaining sections, Chapter 3 Site Studies & Development Objectives, and Chapter 5 Running the Numbers.

What is a Vision Plan?

Planning for the future involves roughly the same steps whether one is planning for the future of a community, creating a business plan, or planning a trip. The questions one asks at each stage in thinking about the future are the same.

- Step 1: Deciding on the how you will plan for the future**
- Step 2: Deciding on the destination**
- Step 3: Deciding how you will get to your destination**
- Step 4: Making it happen & correcting course along the way**

The vision for Washington Street in 20-30 years will become clearer over time. It may be that the vision itself shifts and needs to be changed. One can think of a vision plan more like a business plan than a blueprint for a house. A business plan is constantly evolving as the market for the product or service created and the availability of raw materials are constantly in flux. A business plan gives you a picture of the future to guide decisions about inventory and business growth. A blueprint on the other hand tells you that if you follow this exactly, you will get the product that was drawn. A vision plan is not a blueprint and can never tell you exactly what will happen and when. Like a business plan, a vision plan defines a goal, it does not prescribe the future.

The Washington Street Vision Plan sketches out the objectives for Washington Street 20 years and more from now. The Vision Plan is a policy document that outlines what Newton wants to see happen in this area both in terms of what is built by the private development and business sector and what public infrastructure investments the City of Newton would like to pursue, either through its own financing or in conjunction with public or private partners, in order to enhance the quality of life along Washington Street.

It is important to recognize that there are known unknowns in vision planning. There are many aspects of life in the 2020s and 2030s that simply cannot be foreseen today; for instance, will there be autonomous vehicles or how will climate change create new challenges. Course correcting and adjusting will always be a part of implementing this plan, just as it is for any other type of plan. Without a plan though, it is difficult to organize actions to accomplish the great things that are of interest to Newton.



A Vision Plan is based first and foremost in collecting community ideas and coalescing those ideas into objectives for the future. The Washington Street Vision Plan, like a business plan, will evolve with time. The Vision Plan for Washington Street is anticipated to have feedback loops throughout the process of evaluating individual public or private projects and in revising the vision plan over time.

Why Plan Now?

Is Washington Street the best version of itself? Is the view you see of Washington Street today emblematic of what Newton stands for? For years, the City has heard that Washington Street is not living up to the high standards that Newton sets for itself.

The City Council adopted a goal in the Comprehensive Plan to do area vision planning like this for places like Washington Street and that plan laid out a general overview statement about what might be achieved through a vision planning process. The community process engaged in for this Vision Plan was meant to update and more deeply discuss the goals for Washington Street's future.

Here is the vision for Washington Street written into the Comprehensive Plan, adopted in 2007:

The time is near (but not yet here) to seriously consider additional air rights projects over the Turnpike. In addition to Newton Corner, it would be feasible and appropriate to study high rise air rights developments in Newtonville and possibly in West Newton. These developments could not only be physically connected to Washington Street but also be part of a larger development plan so that the connection of the new to the existing is relatively seamless, the uses are complementary, and a reuniting of north and south portions of those areas is achieved.

Of course a lot has changed in Newton, the metropolitan region, and the world since 2007, and planning is never finished, but rather an ongoing effort to prepare, analyze, and respond to a changing world.



WHY PLAN NOW?

This is an opportunity to revise and add nuance to the Vision for Washington Street outlined in the City's Comprehensive Plan from 2007.

In shaping this vision, the City of Newton has an eye on:

- **Renewed view of Washington Street as an Opportunity**
- **Housing Needs and Trends**
- **Transportation Needs and Trends**
- **Uniting Across the Turnpike**
- **Need for Community Spaces and Places**
- **Importance of Fiscal Strength and Economic Development**
- **Preparing for Contingencies**

Envisioning a Multi-Modal Washington Street

A Road for All

The vision for Washington Street supported by the community shows a more friendly and vibrant street that contributes to village life and is more equitable for all people. Automobile travel will remain a large part of the transportation system in Newton for years to come. This vision for Washington Street acknowledges the need to accommodate automobile travel as the means by which many get around on a daily basis. The street needs to become safer and more enjoyable, especially for people walking, biking and shopping at stores. There is enough space on Washington Street to accommodate all modes of travel safely.

This plan includes an early concept of how Washington Street could be made great for all travelers in a new street design. The design depicted in the Vision Plan does not represent a final plan or decision, and will need a great deal of further study and refinement.

A Design with Space for All

The design shown here recognizes that Washington Street changes along the corridor, and it proposes different tools at different locations to address the needs of those who are walking, biking, driving, and taking the bus.

The overarching vision for the design of Washington Street is a 4:3 Lane Conversion, in which 4-lane sections of roadway are converted to a 3-lane section between intersections with 1-lane in each direction and a center turn lane. This was the recommendation in the 2015 State MPO study, and after considering a range of options for the

road layout during the Public Design Week, the 4:3 lane conversion was recommended because it offers benefits to a wide range of users.

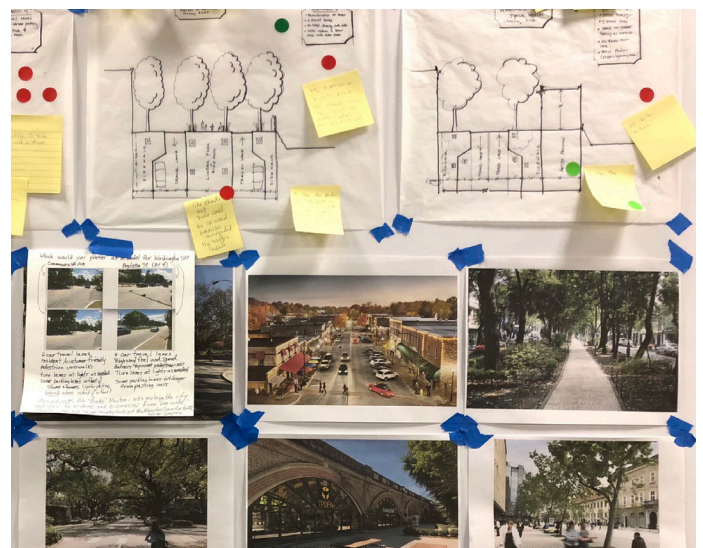
Better Bus Operations

Among the ideas that were considered and then not recommended, was the idea of dedicated bus lanes on Washington Street. The best way to serve Newton residents is for the buses to work the way they currently do, picking up passengers at local stops on Washington Street and then going express into Boston on the Mass Pike. There are still many ways to make the bus riding experience substantially better for Newton riders. These include:

- Crosswalks at every bus stop
- Bus shelters and real time wait-time information at major stops
- Faster fare collection (coming 2020 from the MBTA)
- Transit-signal priority so the bus does not wait if there is traffic congestion
- Well-placed stops, not too close together and not too far apart



In 2019-2020, the West Newton Square Enhancements Project is investing in all modes of travel in West Newton Square.



The Washington Street design team explored a number of design strategies for the length of Washington St, building on the work in West Newton Square and Walnut Street Enhancements Projects.

Envisioning a Multi-Modal Washington Street

4:3 Lane Conversion

4:3 Lane Conversions: Transportation Best Practice

The four- to three-lane conversion is a transportation best practice that has been implemented across the country over the past several decades. The conversion redesigns the street to form a single lane in each direction plus a third turning lane as needed, rather than two lanes in each direction. According to the Federal Highway Administration, the benefits of four- to three-lane conversions include "crash reduction of 19% to 47%, reduced vehicle speed differential, improved mobility and access by all users, and integration of the roadway into surrounding uses that results in an enhanced quality of life."

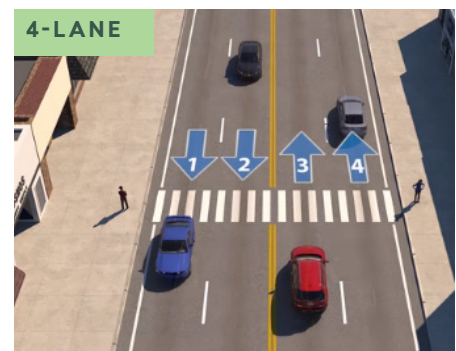
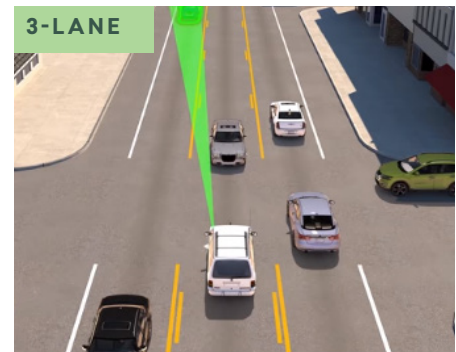
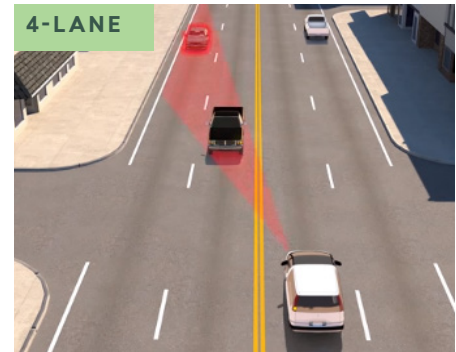
Many of Newton's major connecting streets function like the three lane road, with one through lane in each direction and turn lanes where needed. Commonwealth Avenue is a particularly apt comparison to Washington Street. It is also one of Newton's primary east-west roads and it carries similar amounts of traffic to Washington Street (14,000-15,000 vehicles a day on Commonwealth Ave as compared to 13,000-18,000 vehicles a day on Washington Street).

Newton has seen two 4:3 conversions over the years, Needham Street and Nonantum Road. Needham Street is a less successful 4:3 lane conversion because the street is isolated from the surrounding road network, and there are so many driveways. One of the benefits of the 3-lane configuration, as illustrated in the drawings to the right, is that it creates a safer environment for left-turns. Needham Street has so many driveways that drivers can end up in conflict over appropriate positions to turn left. The upcoming project from MassDOT will alleviate some of the left-turn conflicts.

Nonantum Road has been a very successful implementation of a 4:3 lane conversion. It carries between 10,000-25,000 vehicles per day, and before conversion from a 4:3 lane road was the site of numerous serious crashes. Since implementation, safety has dramatically improved and the expanded bike facilities along this route has facilitated bike commuting from Newton into Boston.



In many places, Commonwealth Ave & Washington St carry similar traffic volumes



A 4:3 Lane Conversion removes the risk of a "double jeopardy" crash for both turning vehicles and pedestrians crossing the street. Because the 3-lane design has just one lane of flowing traffic in each direction, the sight lines are much better.

Street Calming for Neighborhood Side Streets Concept Drawings

Street Calming Strategies

During the Public Design Week, WalkBoston conducted a WalkAudit of the study area with community members and City staff. The walk audit, identified numerous possible small fixes that could be further studied to improve the walking environment along Washington Street.

A common theme heard during the walk, was the need for improved intersections with the side streets, and general calming of traffic on the neighborhood streets that connect to Washington Street.

A number of street calming best practices can be piloted using the Tactical Urbanism Quick-Build approach with low-cost materials such as paint and flex posts, to begin to tame driver behavior on the neighborhood streets.

The City should work with neighborhood stakeholders to create a short- and long-term strategy for reducing driving speeds on neighborhood streets. Among the solutions discussed were:

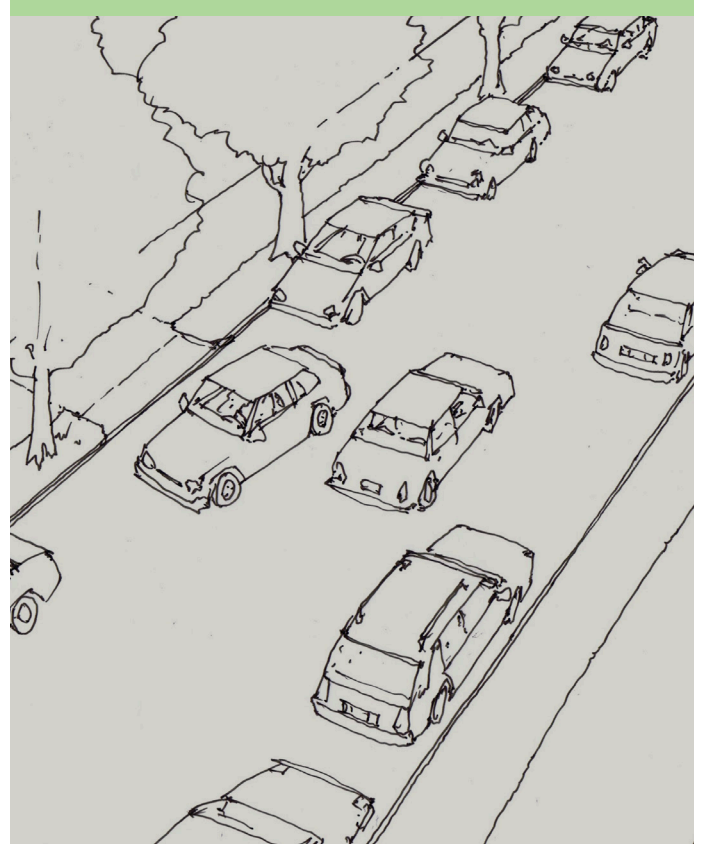
- Installing flex posts to reduce curb radii and slow turning movements onto the side street from Washington Street
- Narrowing lanes of neighborhood residential streets (with existing lane striping) to no more than 9 feet
- Creating a network of bike-boulevards
- Adding chicanes to low-volume streets, permitting on-street parking to absorb extra lane width and buffer people from moving vehicles
- Prioritizing signals for pedestrians and bicycles

What all of the approaches have in common is that they signal to a driver turning from Washington Street to a neighborhood street, that they are entering a street that prioritizes the neighbors first and not the time it takes them to connect to the next major road.

Add on-street parking on both sides

On-street parking physically narrows the roadway creating “visual friction” in the peripheral vision of drivers. There are a number of advantages of parking on both sides of the street: parked cars place a barrier of steel between pedestrians and moving vehicles, increases parking supply, permits unobstructed flow of stormwater, and is a low-cost approach to managing traffic speeds. Adding parking has been shown to have an average 2-3 mph decrease in vehicular speed when compared to streets without on-street parking.

PARALLEL PARKING ON BOTH SIDES



Planters

Planters physically narrow the roadway which creates “visual friction” in the peripheral vision of drivers. These design tools create tree planting sites along sidewalks that are otherwise too narrow to handle street trees and add permeable surface to the roadway. This approach has demonstrated an average 7% decrease in vehicular speed (standard street trees) with an average 20% decrease in accidents (standard street trees).

Pinch Point

Curb extensions aligned at mid-block locations narrow a street down to one travel lane and may include a crosswalk and landscaping in the curb extension. These extensions are easily negotiable by large vehicles such as fire trucks, can have a positive aesthetic value, and reduce both speed and volume. This approach can help decrease vehicular speeds by an average of 7%.

PLANTERS - PERMANENT BUILD



PINCH POINT - PERMANENT BUILD



PLANTERS - QUICK-TEST BUILD



PINCH POINT - QUICK-TEST BUILD



Financial Planning for Infrastructure

Uniting Across the Mass Pike

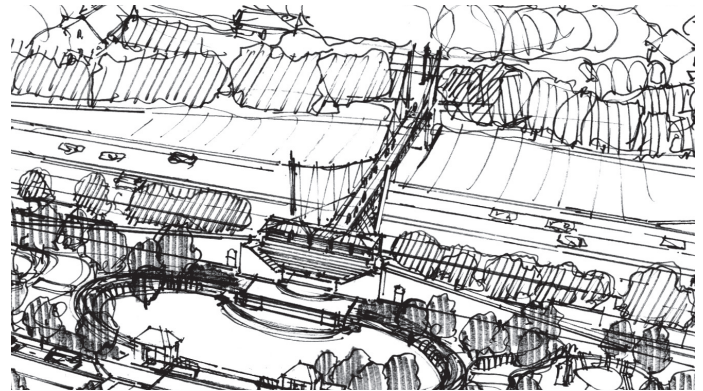
Estimating the Cost for a Pedestrian Bridge

Costs of pedestrian bridges vary greatly depending on intended users, location and design. According to a resource funded by the US Department of Transportation Federal Highway Administration, pedestrian bridges that accommodate bicycles should be approximately 14 feet wide and will be most effective if implemented at street-level grade. The proposed pedestrian/bicycle bridge at Walker Park is estimated at 165 feet in order to cross the turnpike and the existing rail lines to Austin Street. The proposed bridge aligns with the intersections of Brookside Avenue to the north and Mt. Vernon Street to the south. Based on comparable structures, a prefabricated bridge could cost between \$234,000 and \$743,000. However, similar examples of pedestrian overpass bridges crossing highways and/or rail lines range from \$3.5 million to \$9.4 million, depending on design.

For example, a conceptual design for the Charles River Pedestrian Bridge which would be movable, curved, and span 175 feet including access ramps has an estimated cost of \$3.5 million. The same architecture firm completed a conceptual design for a pedestrian bridge in New York, scheduled to be completed in 2020, with a cost \$14 million. Finally, Rosales Partners also completed the design for the Alewife Bicycle and Pedestrian bridge which will cross over rail lines and an MBTA facility. Expected to be completed in 2019, the main span of the bridge is 270 feet long and is estimated to cost \$25 million.

Estimating the Costs for Deck Parks with Private Development at the Edges

Newton has two potential locations for deck parks, one in Newtonville and one in West Newton. Based on the few examples of deck parks built recently, the cost is estimated at \$485 - \$500 per square foot of park. The West Newton deck park, an estimated 2.3 acres, could potentially cost \$48.7 million to \$50.1 million to build out. The Newtonville deck park at 2.2 acres is estimated to cost between \$46.5 million and \$47.9 million. While significant engineering is involved in deck parks, highway decks with development above (e.g. Crowne Plaza and Star Market) require significantly more load-bearing capacity. There is a potential location for a 4.2 acre development deck in Newton Corner, which is estimated to cost between \$120.3 million and \$183.4 million. This estimate is to build the deck structure alone and does not consider additional costs for development above.



FISCAL IMPACT OF THE PRIVATE DEVELOPMENT PORTION OVER THE MASS PIKE

It is clear that the City of Newton cannot take on the cost of decking over the Mass Pike by itself. The approach recommended here models the decking project on similar projects undertaken in Boston, Columbus OH, and Dallas TX, involving partners across all governmental levels and in the private sector to make a decking project a success.

One piece of that needs to be understood is the potential fiscal impact of new private development on top of decks over the Mass Pike. The fiscal impact analysis analyzes the potential revenue/costs from a possible development program of liner buildings to the new deck parks. The net cumulative fiscal impact of what is built on top of the decks is analyzed in the same methodology described in the next section to understand what, if any, surplus might be generated from private development could be leveraged toward assisting with the upfront decking costs.



Precedent Projects Capping Highways



LOS ANGELES, CA: 101 FREEWAY CAP

Cities around the country consider but rarely implement highway deck parks. Due to the high cost of design, construction, and maintenance, many proposed projects have slowed in the planning phase. Since at least 2008, Los Angeles has been considering capping the 101 Freeway to reclaim four downtown blocks for a park, playground, and festival area. Proponents have suggested developing nearby sites to generate a park maintenance fund. Los Angeles City Council teamed up with Friends of the Park 101 in order to explore all possible local, state, and federal funding options. One group estimated the 10-acre park would cost \$180 million to build.

SANTA MONICA, CA: FREEWAY 10 CAP

Another deck park that has yet to get off the ground is in Santa Monica. The City is considering capping the terminus of Freeway 10 in order to reconnect the downtown. Originally proposed in 1996, the City quashed the idea in 2010 after learning that construction costs were estimated at \$500 per square foot, with no opportunities for outside funding sources.

DALLAS, TX: KLYDE WARREN PARK

A successful deck park example is the Klyde Warren Park in Dallas, Texas. A 5.2-acre deck park built over an eight-lane freeway, the project was a public-private partnership with private donations featured prominently in the funding scheme. TxDOT contributed \$20 million, the City of Dallas another \$20 million through bonds, and a \$16.7 million funding gap was eventually closed through federal funding via the American Recovery and Reinvestment Act of 2009. The remaining \$53 million (approximately 50% of the total project costs) was raised through private donations to the Woodall Rodgers Park Foundation. The park required 20 highway closings, primarily on nights and weekends. A similar park has recently been approved to deck Interstate 35E across from the Dallas Zoo. The I-35E deck park will be part of a larger highway widening and restructuring project, taking advantage of federal and state highway construction funds for much of the underlying infrastructure.

COLUMBUS, OHIO: I-670 HIGHWAY CAP

A public-private partnership between the City of Columbus, Ohio and a local real estate developer resulted in a retail-focused highway deck with a \$7.8 million price tag. From planning to completion, the project spanned eight years and a variety of speed bumps, including the City's two-year, \$50,000 title search to gain air rights to 13 parcels (totaling 0.84 acres). However, the most important lesson from the Columbus project was negotiating the lease agreement with the Federal Highway Administration and Ohio DOT, cited as nearly killing the project.

Despite some setbacks, the project has been a success. It bridges a gap between the city's conference center and arts district and garners higher rents per square foot than other nearby locations. The City provided a 10-year, 100% tax abatement on the property. The developer indicated that the mixed-use project was profitable seven years after completion, but that development costs were high and the project received relatively little city or state funding.

According to a case study published on the Columbus I-670 highway cap project,

"Those involved in the development of the I-670 cap have identified the ingredients necessary to complete a similar project in the future. There needs to be:

- An active roadway construction project
- A well-organized citizenry
- A willing developer
- A city council willing to push the project and make it a priority
- A mature-enough retail environment to support the development."

Source: The Cap at Union Station, Columbus, Ohio. Urban Land Institute. <https://casestudies.uli.org/wp-content/uploads/2015/12/C035010.pdf>