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Myers Street Streetscape Plan

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NATHAN J. MANNING • MASTER OF URBAN AND REGIONAL PLANNING • SPRING 2018 L. DOUGLAS WILDER SCHOOL OF GOVERNMENT AND PUBLIC AFFAIRS • VIRGINIA COMMONWEALTH UNIVERSITY

PREPARED FOR:

THE CITY OF RICHMOND, DEPARTMENT OF PLANNING AND DEVELOPMENT REVIEW THE CITY OF RICHMOND, DEPARTMENT OF PUBLIC WORKS - DIVISION OF TRANSPORTATION ENGINEERING

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SPY ROCK REAL ESTATE GROUP

DESCRIPTIONS OF CLIENTS:

The City of Richmond's Department of Planning and Development Review (PDR) served as the primary client on this plan. The department monitors and implements development within the City of Richmond. The department oversees construction, trades permitting and inspections, compliance with the property maintenance code, current and long-range planning, enforcement of the zoning ordinance, and historic preservation (PDR, n.d.). The stated mission of the department is to "act on the genuine belief that we care about creating and maintaining the best quality of life for Richmond's citizens, businesses, and visitors. To that end, we provide excellent planning and enforcement services to enhance our city's built and natural environments." (PDR, n.d.).

The secondary client was the City of Richmond's Department of Public Work's (DPW) Division of Transportation Engineering. This division of the department is responsible for promoting the safe movement of people who walk, bike, ride transit or drive throughout the city. Their partnerships with the community, non-profits, local, state, and federal agencies help coordinate effective safety in the City of Richmond. The division also "promotes transportation safety in a manner that supports neighborhood/business area livability and viability." The department actively works with citizens, developers, and contractors to assist in projects that affect roadways in the City of Richmond. (City of Richmond, n.d.).

PLANNING & DEVELOPMENT REVIEW



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TABLE OF CONTENTS

ACKNOWLEDGEMENTS 5

	NOLUE	

TABLES OF FIGURES I

EXECUTIVE SUMMARY 15

1. INTRODUCTION 17

1.1. PLAN PURPOSE 17

1.2. HISTORY & PLAN CONTEXT 22

1.3. PLAN APPROACHES 28

2. FINDINGS 31

3. RECOMMENDATIONS 37

4. IMPLEMENTATION 48

5. CONCLUSION 52

REFERENCES 53

APPENDICES 55

TABLE OF FIGURES

MAPS		
	MAP 1: MAP OF STUDY AREA – SCOTT'S ADDITION	17
	MAP 2: MAP OF THE REDEVELOPMENT AREA	19
	MAP 3: MODIFIED 1919 SANBORN MAP OF RICHMOND, VIRGINIA	
	MAP 4: TYPES OF LAND USE WITHIN THE STUDY AREA BEFORE THE SEPTEMBER 2017 ZONING CHA	NGE24
	MAP 5: MODIFIED LAND USE IN THE STUDY AREA AFTER SEPTEMBER 2017 ZONING CHANGE MAP	25
	MAP 6: OBSERVATION LOCATIONS	31
	MAP 7: PARCELS USED FOR NEW STREET CONNECTIONS	
	MAP 8: PROPOSED TRANSPORTATION CONNECTIONS FOR MYERS STREET	42
	MAP 9: LOCATION OF PROPOSED RESIDENTIAL REDEVELOPMENT IN MYERS STREET	45
IMAGES		
	IMAGE 1: CROSS-SECTION DRAWING OF EXISTING CONDITIONS IN THE MYERS STREET CORRIDOR	20
	IMAGE 2: MYERS STREET IN DAYLIGHT AND AFTER DARK LOOKING NORTH	21
	IMAGE 3: WATER CATCHMENTS IN THE MYERS STREET CORRIDOR	
	IMAGE 4: 1909 SOUTHERN STOCKYARDS CORPORATION	23
	IMAGE 5: PLAN FOR SCIENCE MUSEUM PARKING DECK AND LAWN	23
	IMAGE 6: RENDERING OF THE PARKING DECK MATCHING THE SCIENCE MUSEUM ARCHITECTURAL	
	STYLE	23
	IMAGE 7: RENDERING OF THE PROPOSED DEVELOPMENT	23
	IMAGE 8: MODIFIED DELANCEY STREET, PHILADELPHIA, PA IMAGE	30
	IMAGE 9: BIRDS EYES VIEW OF RECOMMENDATIONS MADE FOR MYERS STREET IMAGE	37
	IMAGE 10: CONCEPTUAL PROPOSED NEW CONNECTIONS FOR THE MYERS STREET CORRIDOR	
	CONNECTION	40
	IMAGE 11: PROPOSED W. CLAY STREET CONNECTION	40
	IMAGE 12: CROSS-SECTION DRAWING OF RECOMMENDED DEDICATED SPACE IN MYERS STREET	43
	IMAGE 13: RENDER OF RECOMMENDED STORMWATER CATCHMENT	45
	IMAGE 14: STORMWATER COLLECTION DESIGN	
	IMAGE 15: WATER CATCHMENT IN NEW ZEALAND	
	IMAGE 16: GREEN WALL LIVING SIGNAGE	46
	IMAGE 17: SILVA CELL CROSS-SECTION	47
	IMAGE 18: SILVA CELL SYSTEM IMPLEMENTATION	47
	IMAGE 19: SILVA CELL COMPLETED IMPLEMENTATION	

TABLE OF FIGURES

FIGURES	
	FIGURE 1: VISUAL REPRESENTATION OF OBSERVATION DATA
TABLES	
	TABLE 1: TOP THREE STREET PRIORITIES RANKED BY THE PUBLIC
CHARTS	
	CHART 1: MYERS STREET SWOT ANALYSIS

EXECUTIVE SUMMARY:

The Scott's Addition neighborhood in Richmond, Virginia has faced growing density and redevelopment as the neighborhood has become an appealing place to live, work, and play. Myers Street sits directly East from most of Scott's Addition and has historically housed many industrial businesses. The street is rapidly transforming as many commercial/retail businesses are moving into the corridor. Streetscape redevelopment of the corridor will cause a need for complete streets infrastructure allowing the street to be a safe place for all people, urban design to provide visual aesthetics, and sustainable water runoff catchments to help displace stormwater.

This plan examines impacts on the Scott's Addition neighborhood and specifically, Myers Street. Incremental land use changes have hindered safety within various corridors like West Clay Street as density has increased. Corridor observations have provided evidence that streetscape redevelopment of Myers Street would further its sustainability for the future. Thorough community outreach was conducted to gather input on how the streetscape should be managed and what elements of the corridor need the most attention. Surveys were distributed and interviews and observations were conducted with City of Richmond community members to gather this data. Results of the surveys were analyzed to tailor the recommendations made for the corridor. To implement this plan, it is recommended to seek out grant funding. Community feedback and available grants informed the redevelopment of the Myers Street streetscape.

1. INTRODUCTION

The introduction of the *Myers Street Streetscape Plan* encompasses the plan's purpose, context, approaches and history of the neighborhood. These sections that make up the introduction provide details and information regarding the origin of the plan.

1.1. PLAN PURPOSE

The Scott's Addition neighborhood in Richmond, Virginia was once just an industrial section of the city but is now a thriving, creative, eclectic urban community. The Myers Street corridor developed after Richmond's downtown area grew beyond Shockoe Bottom. Soon, developers were converting this neighborhood of industrial warehouses into apartments, condos, businesses, restaurants, and shops.

Myers Street is a local road adjacent to Scott's Addition that services industrial and commercial uses (Map 1). The boundary line in Map 1 shows the area where data was gathered and meetings were held to help further develop the plan. The City of **Richmond believes** that the Myers Street corridor should be redesigned so it can better service all transportation modes and provide public and private improvements in this rapidly transforming neighborhood.



Map 1: Map of Study Area (Source: Modified Google Earth Map)

The *Myers Street Streetscape Plan* analyzes the existing conditions of Myers Street and considers the potential improvements that can be implemented to better integrate the corridor into the evolving transportation and public service improvements. In addition to these elements, the plan includes proposed building forms and land use recommendations. To help form this plan, the following principles were created to guide the planning process:



Map 2 focuses specifically on the area where redevelopment will be occurring. This boundary line highlights Myers Street and how streetscape redevelopment will affect areas of the corridor.

This plan addresses development trends and community needs. Complete streets are an issue in the Scott's Addition neighborhood. Complete streets are defined as a process to determine the appropriate allocation of constrained or unconstrained right-of-way (ROW) to all transportation users so everyone is comfortable and arrives safely at their destination. While lacking completeness,



Map 2: Map of Redevelopment Area (Source: Modified Google Earth Map)

the streets are deficient in safety. Specifically, in Myers Street, sidewalks disconnect through the entirety of the corridor and bike lanes are nonexistent. Observations have found that pedestrians often resort to walking through streets or create pedestrian paths on the sides of roads like W. Clay Street. The two-way traffic does not allow linkage to existing streets that could connect on the other side of N. Boulevard. The street was not originally designed to enable safe access for all users. Image 1 shows a cross-section drawing near the South end of the existing corridor. This image shows where space is dedicated within the right-of-way. With transportation options being limited, vehicular mobility is often the most observed transportation method used within the corridor. Myers Street is in the midst of an area undergoing a change in population. With new connectivity in this area, more access and transportation options can be made available to individuals who want to inhabit this corridor. This plan addresses the future of Myers Street's infrastructure while the surrounding Scott's Addition area simultaneously transforms.



Image 1: Cross-section drawing of existing conditions in the Myers Street corridor

There are extreme differences in what Myers Street looks like between day and night. There are not many tall structures within the corridor which does not allow many areas to shade. In the daylight, most areas are covered by sunlight seen in Image 2.



Image 2: Myers Street in daylight and after dark looking North

However, during night hours only one side of Myers Street has street lights which makes the street dark and a security risk for pedestrians. A photograph of Myers Street looking northbound at night time is shown above in Image 2. Some major inconsistencies exist within the corridor. Water catchments exist throughout the corridor with no uniformity. Sidewalk implementation throughout the corridor in its entirety would allow for the installation of similar water catchments to be placed at the edge the road and yet built into the sidewalk's edge. Some examples of the current water catchments in the corridor are shown below in Image 3.



Image 3: Water catchments in the Myers Street corridor

1.2. HISTORY & PLAN CONTEXT

The Scott's Addition neighborhood is in the Northwestern corner of the City of Richmond. When Scott's Addition originally came to fruition right after 1900, the neighborhood was full of manufacturing buildings. Myers Street was originally built as a service corridor to provide access to those warehouses. A maior

driver of western expansion was the trolley line and then eventual rail service via Broad Street Station in 1919. This area saw a lot of foot traffic as the Virginia State Fairgrounds were located along the Boulevard between 1906 and 1946 (Robertson, 2017). Developers flocked to the area in 2005 when the neighborhood was placed on the National Register of Historic Places which made it easier to obtain historic tax credits for building redevelopment (Hazard, 2015).

living spaces, and design aesthetics that inhabit the area. Myers Street is a 0.3 mile long road that previously served warehouses like the Interbake Foods distribution center for around eighty years (The Timeline, n.d.). The neighborhood has drastically shifted from primarily an industrial area to a residential urban area over a thirtyyear time period.



Myers Street first formed in Scott's Addition between 1919-1943. Map 3 shows the 1919 street pattern where the Southern Stockyards Corporation occupied much of the area where Myers Street currently lays. The location of this building corresponds to the location of the Virginia State Fair Grounds over the railroad tracks where the exhibition buildings were located as shown in Map 3. The street was also heavily constricted due to

Density has been increasing and people are flocking into Scott's Addition because of the diverse range of activities, residential the railroad tracks that were in place before the implementation of Myers Street. Image 4 shows a photo of the Southern Stockyards Corporation building façade and showcases the impact it had in the area due to its size and use. Both the railroad and previous land uses in the area informed the shape of Myers Street.



Image 4: 1909 Southern Stockyards Corporation (Source: The Library of Virginia)

Myers Street serves residents of the community boasting a grocery store, restaurants, and retail stores. The corridor still occupies a small amount of industrial warehouses. In addition to these establishments, a bowling alley and a five-story mixed-use building have recently found residences on Myers Street (Hazard & Smith, 2017). Neighboring properties like the Science Museum of Virginia have planned development in the works. The Science Museum plans to replace its existing surface parking lot with a four-story parking deck. The new deck would add additional spaces with the maximum number of parking spaces reaching 400 compared to the 345 spaces which are currently on the site. The plan also includes a lawn to supply green space in front of the parking deck and museum (Smith, 2018). Images 5 and 6 show the neighboring development. The mixed-use building adjacent to the River City Roll bowling alley is being slated for a five-story building with four levels of residential units above ground-floor commercial space. This building is to take the place of the Interbake Foods Distribution Center at 949 Myers Street. Residential units in the new building could range from one to three bedrooms and 700 to 1,500 square feet (Spiers, 2018). Image 7 shows a rendering of the proposed development.



Image 5: Plan for Science Museum Parking Deck and Lawn (Source: Glavé & Holmes Architecture and The Science Museum of Virginia)



Image 6: Rendering of the parking deck matching the Science Museum Architectural Style (Source: Glavé & Holmes Architecture and The Science Museum of Virginia)



Image 7: Rendering of the proposed development (Source: Spy Rock/Richmond BizSense)

The current conditions in the Myers Street corridor are the result of incremental land use changes that reflect the changing neighborhood characteristics. In September 2017, the zoning in this area changed from M-1 Light Industrial use to a Transit-Oriented Nodal District (TOD-1) (Robinson, 2017). Specifically, a nodal district allows key gateways and prominent places in the city to provide for significant, urban-form development in appropriate locations. Traditionally, TOD zoning has only allowed for taller buildings near major transportation routes. The TOD-1 zoning allows buildings between two and 12 stories and reduces parking requirements (Robinson, 2017). This present-day industrial and commercial area needs the infrastructure for the people living in Scott's Addition. Map 4 below shows the land uses within the study area before the September 2017 rezoning. Map 5 shows the land use within the study area after the September 2017 zoning change. This plan makes the area safer through reducing security risks and traffic crashes by implementing sidewalks and connecting the Scott's Addition street pattern. These transportation elements appeal to a variety of users and complete the street. This plan relates to other plans being produced by addressing one incomplete street among others in Scott's Addition. The City of Richmond 2000-2020 Master Plan addresses incomplete streets and mentions the mixed-use land that the space around the corridor occupies, but it does not specifically reference the Myers Street corridor (City of Richmond Department of Planning and Development Review, n.d.)



Map 4: Land Use in the Study Area Before the September 2017 Zoning Change Map (Source: City of Richmond's Department of Information Technology's Geographic Information Systems GIS data)



Map 5: Land Use in the Study Area After September 2017 Zoning Change Map (Source: City of Richmond's Department of Information Technology's Geographic Information Systems GIS data)

The Scott's Addition Boulevard Association (SABA) was a major stakeholder in this plan. The organization represents the Scott's Addition community, the Boulevard community, their residents, and the businesses who inhabit these areas. The organization first formed in 2001 and has grown substantially since. Surveys were distributed to SABA board members to gain insight from people who lead an influential civic association. These individuals represent a voice for their community. SABA provides diverse insight representing such an assorted group of people and businesses (SABA, n.d.). SABA general membership meetings are open to the public and occur bimonthly.

This plan includes on and off street interviews with community residents. None of these members of the public did have ties to SABA. They were not biased to what the organization wants when answering the questions. All interviewed individuals took a short survey on what elements need improvement along the corridor. Factors like time of day, weather, and proximity to holidays were documented for detailed results. This data determined volume of interviews during certain periods or times. These statistical results were charted and have visual graphics in the research findings section to help understand the results more effectively.

This plan used the City of Richmond's Department of Planning and Development Review (PDR), Department of Public Works (DPW), Department of Public Utilities (DPU), and Department of Information Technology's Geographic Information Systems (GIS) data in order to answer the research questions. Interactive online tools like the City of Richmond's land use project mapper, parcel mapper, and the zoning parcel mapper were all digital tools used when examining the corridor. Documents like the *City of Richmond's Urban Design Guidelines* are referenced in the streetscape design as keeping up with the city aesthetic is imperative in this plan. The Greater Richmond Transit Company (GRTC) route map is also referenced as there is a GRTC bus stop by the South entrance to Myers Street.

At the time of writing this plan, the City of Richmond funded a Scott's Addition Traffic Circulation Study to inform the Richmond 300 master plan as well as this plan. VHB was the consultant hired through the City of Richmond to conduct the study. Maritza Pechin, the Master Plan Project Manager for Richmond 300 was the study's coordinator. Christopher Daily served as the project manager heading up this study at VHB. In addition to this study, VHB also conducted a parking study. The City of Richmond was also pursuing funding to turn the rail to trail to the East of Myers Street to connect the BRT Pulse Science Museum station to Scott's Addition and the Boulevard area.

The Vision Zero multidisciplinary global strategy initiative to eliminate traffic fatalities and injuries was signed into implementation in October 2017. The initiative proved successful in Europe and envisions safe, healthy transportation. Traffic related injuries and deaths are preventable through the implementation of this initiative (City of Richmond, 2017). This plan channels several of those strategies used in the initiative.

The Department of Planning and Development Review's Division of Zoning Administration zoning guidelines helped with determining what changes to the corridor are allowed under the new zoning guidelines. Myers Street falls within the Transit-Oriented Nodal District (TOD-1). The height and massing requirements allow development between two and 12 stories tall. There is no limit on residential density. Front yards have to have a maximum of 10' except in special cases. Ground floor dwelling units have to have a front yard setback of 10'-15'. There is no surface parking as a principal or conditional use and no commercial parking requirement except for hotels. There is no residential parking requirement for up to 16 dwelling units. Once over 16 units, for every one apartment, two parking spaces are required. If a parking garage is to be developed that is for principal use, it must have a minimum 20' depth of another principal use along all street frontages. Parking deck access along principal or priority streets is not allowed if alley access is available (Department of Planning and Development Review, 2017).

The National Association of City Transportation Officials (NACTO) blueprints for designing 21st century streets. Information regarding streets, street design elements, interim design strategies, intersections, intersection design elements, and design controls can all be found in the NACTO's *Urban Street Design Guide*. The guide is referenced in the recommendations section of this plan (NACTO, n.d.).

Several plans have influenced and inspired this plan to form. Previous plans for the Scott's Addition area were examined and built off of to form this plan. The Richmond Connects: Strategic Multimodal Transportation Plan produced by Michael Baker Jr. for the City of Richmond was a 20-year plan for transportation within the city. The plan addressed issues and improvements that would help with connectivity for all transportation modes in Richmond. The plan introduced ideas for streets to become one-way. The plan specified Complete Streets policies as a way to increase safety of transportation users. The Complete Streets Resolution helped inform this policy introduction to the city. However, this introduction of Complete Streets would need to be implemented in many corridors and not just one. In the case of Myers Street, Complete Streets need to be implemented throughout the Scott's Addition neighborhood and the City of Richmond as a whole for this approach to be successful. Introducing Complete Streets design to Myers Street would be a start to introducing Complete Streets in Scott's Addition and this plan could be built off of in the future for a more comprehensive approach in the City of Richmond (City of

Richmond, 2013). The City of Richmond 2000-2020 Master Plan examined the near west planning district in depth and pushed for the inclusion of governmental, institutional, industrial, and commercial uses North of Broad Street between Belvidere Street and the Boulevard. These land uses are included in the new Nodal Mixed-Use land use category that now occupies the streetscape redevelopment area. The master plan was updated in September 2017 to reflect the land use changes. The policies and strategies of this new category of land use was meant to preserve the urban character of the neighborhood while still monitoring new development. The City of Richmond 2000-2020 Master Plan relates to this plan by desiring the phasing out of inconsistent areas that do not identify with the neighborhood they are in. The Myers Street Streetscape Plan recognizes areas where businesses and residential living development is suitable while addressing transportation infrastructure to support new development.

In addition to those two main precedent plans, the *Pulse Corridor Plan*, and DPU's stormwater management plan were examined to make detailed recommendations. The Pulse Corridor runs parallel to the South entrance of Myers Street. This transit-oriented area will encourage density with the completion of the BRT. DPU's 2017 *RVA Clean Water Plan* addresses the collection of stormwater and the ways to mitigate the collection of contaminated runoff in stormwater catchments. Solutions to these issues are addressed in the recommendations section of this plan.

In 2010, the Congress for New Urbanism (CNU) and the Institute of Transportation Engineers (ITE) created the *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* manual. Engineers and planners have been using these guidelines to improve roadway projects. The manual illustrates the best practices to create walkable, mixed-use streets. This manual served as an additional design reference for the *Myers Street Streetscape Plan* (CNU & ITE, 2017). In 2013, Storefront for Community Design prepared the *Scott's Addition Workshop Report* for SABA and City Councilman Charles Samuels. This report was the result of a series of workshops that created a community design action plan for the neighborhood. The workshops formed questions around zoning, land use, traffic, circulation, parking, sidewalks, green space, and neighborhood boundaries. The individuals involved in workshops included representatives from the City of Richmond Department of Public Works, City of Richmond Department of Planning and Development Review, City of Richmond Department of Economic and Community Development, business owners, and residents. The results from the workshops created a diverse, all-encompassing community design action plan that helped inform improvements listed in the *Myers Street Streetscape Plan* (Scott's Addition Boulevard Association, & Samuels, 2013).

1.3. PLAN APPROACHES

The plan approaches section examines this plan through planning theories and guides on planning practices. This plan references relevant theories that are appropriate to the planning process and identifies how this plan needs to be conducted to prove success.

This plan aimed to find interaction with the public through communicative action. Using theories of planning to engage voices in the community, and local knowledge combined with expert knowledge, created the best plan for implementation. Finding community interaction through public meetings, on and off street surveying, and interviews allowed for many voices to be included and valued equally (Quick & Feldman, 2011).

Public engagement was conducted was through inclusion and participation. Quick and Feldman (2011) defined participation as increasing input for decisions and inclusion as making connections among people, across issues, and over time (Quick & Feldman, 2011). In the Myers Street Streetscape Plan, participation and inclusion was documented through different groups of people taking a survey about Myers Street and this data provided input for the final plan. The inclusion of data from SABA's board provided information from a local civic association's perspective while the surveys distributed to the public and to businesses within the study area provided a larger quantity of input. The Just City planning theory examines a democratic process in planning that aims to take all perspectives into account equally. Using the word "Just" signifies that even though all perspectives are accounted for, it brings into question if the majority of the democratic process is just and right for all. This typology of planning theory wants legitimacy of planning deliberations. Communicative action theory does not address the structural, political inequalities or social hierarchies which allow different voices to the table like The Just City theory does (Fainstein & Campbell, 2016). The surveys and

interviews conducted on the street were to random individuals. This was to counter the ideas from a civic association's perspective.

This plan was developed by using a complete streets approach. Complete streets are defined by Smart Growth America as streets that are for everyone and that are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities (Smart Growth America, n.d.). Incorporating elements like dedicated space for bicyclists and pedestrians accommodates more people in the corridor. Street trees and plants provide urban greenery and inspire economic prosperity. Curb cuts would allow for compliance with the Americans with Disabilities Act (ADA).

The American Planning Association's (APA) Policy Guides explains approaches to planning problems or issues. These policy guides used in this plan are tied to the American Planning Association through community residents of varying demographics who need options in transportation. Specifically, for this plan two policy guides have been identified that provided recommendations for this plan. The surface transportation policy guide that was adopted in 2010 examined approaches in transportation planning. Policy VI details creating safe, healthy, and accessible communities for everyone. This reflects the connectivity aspect of the plan for Myers Street. Creating sidewalks and more entry points to this corridor expands accessibility (APA, 2010).

APA's Aging in the Community Policy Guide 4.2 states "The American Planning Association and its Chapters and Divisions support the adoption of policies and implementation of plans consistent with the principles of Complete Streets, whereby everyone has convenient, safe, and reliable transportation regardless of whether they get around by car, bicycle, on foot, or

by public transportation, and regardless of age and ability." (APA, 2014). This plan highlights the unsafe infrastructure cyclists and pedestrians often battle in commuting. Providing infrastructure in this corridor to remove pedestrians from the roadway will reduce traffic accidents.

This streetscape design was inspired by author, journalist, and activist, Jane Jacobs. Her theories were based around the formation of urban design and the public realm. Jacobs often spoke of the correlation between urban design and pedestrian activity. In this plan, small blocks were created to form alternative travel routes. More intersections were introduced to slow down cars to create a safer environment for pedestrians. With more accessible areas for pedestrians, Jacob's eyes on the street theory will come to fruition as this area densifies (Goodyear, 2013). These design elements are to prove life exists beyond the right-of-way. This was accomplished through connecting the existing street pattern from West of the Boulevard over to intersect into Myers Street.

One of Danish architect Jan Gehl's five rules for designing great cities is banning cars. Gehl has encountered this issue in many of his projects. In Sao Paulo, Brazil, Gehl was trying to make streets safe for people in highly vehicular areas (Gehl, n.d.). This was done through Complete Streets infrastructure. Gehl spoke how walking is a common act and it demands space in order for it to be possible (Gaete, 2016). Wheeled travelers like infants in carriages and individuals with disabilities need to be taken into account regardless of how small the space is for sidewalk development. Materials used and surface conditions are indicators of how often these pathways will be traveled. In Myers Street, the corridor lacks space for substantial sidewalk implementation. The recommendations section of this plan has designs for implementation strategies. Sidewalks play a large role in the safety of pedestrians and to the visual aesthetics of an area. Creating these sidewalks are drivers for public life along the corridor and was accomplished through detailed urban design (Gaete, 2016).

Charles Montgomery in his book *Happy City: Transforming Our Lives Through Urban Design* made the argument that humans are constantly commuting. This applies to Myers Street as observations found that pedestrians want to use Myers Street as a shortcut. In most cases the shortcut destination was the BowTie theater. A complete street may open up the corridor to more pedestrian commuting. This data is further examined in the findings section of this plan. Montgomery also noted the importance of green space. Green space does not need to be large or luxurious but the presence of it is important for the mental health of humans. Greenery should help balance the landscape of a space (Montgomery, 2015). With the implementation of more sidewalks in this plan, space for a planting zone was also allocated to supply street trees and ground cover in the corridor.

An example of a street that has similar characteristics to Myers Street is Delancey Street in Philadelphia, PA shown in Image 8. Delancey Street is a narrow corridor with one drive lane for moving traffic while the other paved portion is dedicated to parking. The street is very pedestrian-oriented and this type of urban design is reflected in the recommendations section for Myers Street. Pedestrian space exists on both sides of the corridor in an urban residential neighborhood. Scott's Addition and Myers Street are reflecting similar neighborhood changes. In Image 8 there are two small-scale planting zones that occur between the travel lanes and the sidewalks on both sides of the street. In addition to the biophilic elements in the planting zone, transportation signage is located right up to the street's edge. Stoops are common elements in this corridor that help introduce the building facades to the pedestrian zone. The stoops come out of the building facades five feet for each home entryway

throughout the corridor. The stoop alignment allows for an undisturbed pedestrian zone. In Image 8, the pedestrian zone is about 10 feet with two 4 foot planting zones on both sides of the pedestrian zone. Delancey Street is a narrow street but embraces its uniqueness and compensates with other street elements where it is limited in vehicular capacity. It is part of the vision for this plan to replicate some of the exaggerated street elements in Image 8 below to manipulate Myers Street to accommodate its narrowness but still allowing key elements like sidewalks, with-flow and contraflow bike lanes, a planting zone, uniform stormwater catchments, and lighting for pedestrian safety.



Image 8: Modified Delancey Street, Philadelphia, PA Image (Source: Metropolis-In-Depth News, Analysis & Commentary for the Philadelphia Region, http://www.phlmetropolis.com/2010/07/greening-philadelphia-tree-by-tree.php)

2. FINDINGS

In this section the results from the observations and surveys were analyzed. The data was put together to form recommendations which can be found in section five.

Observations were conducted on two occasions in the redevelopment boundary.¹ The observations found quantitative data from individuals within the redevelopment boundary. Counts were completed on pedestrians, cars, cyclists, and motorcyclists within the Myers Street corridor. Factors like weather, proximity to holidays, day and night, and proximity to areas of interest were also examined and correlated to the data found. Map 6 shows the observation locations.

Peak Observation (Wednesday, 2/28/18 from 4:30-5:30pm): In the peak observation, the weather was 62 degrees Fahrenheit and partly cloudy. The peak observation did not occur near any holidays. Most businesses in the corridor were open. Daylight was still occurring during the observation period. The observation location was in the Aldi parking lot at the South end of the corridor. This area was of high interest due to its commercial/ retail use. This observation found an abundance of vehicular traffic coming through the corridor with 334 cars during one hour. Some pedestrians used sidewalks while others did not, to make their commutes. Peak observation data can be found in Figure 1.

Non-Peak Observation (Friday-Saturday, 3/2/18 from 11:50pm-12:50am):

In the non-peak observation, the weather was 36 degrees Fahrenheit and partly cloudy. The non-peak observation did not occur near any holidays. Most businesses in the corridor were closed. There was no sunlight during the observation period. The observation location was in the BowTie parking lot at the North end of the corridor. This observation did not find a lot of corridor usage



Map 6: Observation Locations (Source: Modified Mapbox Map)

¹The observations took place on Wednesday, 2/28/18 from 4:30-5:30pm and on Friday-Saturday, 3/2/18 from 11:50pm-12:50am. These observations times were chosen as peak and non-peak times. Peak (4:30-5:30pm) meaning when most businesses are open and rush hour is occurring. Non-peak (11:50pm-12:50am) meaning most businesses are closed and rush hour is not occurring. All of these observations were conducted on foot.

due to the time of day. This end of the corridor is mostly commercial use and does not draw density to it except for the movie theater. Only vehicular traffic was seen during this observation period. 81 vehicles were counted and most were exiting the movie theater parking lot. With no pedestrians seen during this observation, recommendations will be made to create a corridor that is more open with more eyes on the street. Non-peak observation data can be found in Figure 1.

The findings from the observations found that presently Myers Street has heavy vehicular traffic. The recommendations accommodate vehicular transportation while promoting bike and pedestrian transportation. The creation of intersections should allow for more access to the corridor while simultaneously opening the corridor up to more eyes on the street. It is an objective of the intersections and sidewalks to invite more traffic through the corridor.

When the street was not busy, it was a common occurrence to see pedestrians walking in the middle of the street. It is assumed this is a safety measure actively taken by pedestrians to maintain caution while traveling through a narrow, dark corridor. This was seen only during the day as no pedestrians were seen after dark.

Forty-one people completed the survey about their knowledge of Myers Street. The survey was distributed to get information from city residents, businesses within the study area, and the Scott's Addition Boulevard Association (SABA). Results show that respondents frequented the general neighborhood, but not everyone was familiar with Myers Street. This data reflects the identity Myers Street presently has. Of the respondents, 31 responded via electronic survey and 10 responded via paper copy. The survey was a total of seven questions. The survey prompted questions about Myers Street, its use, safety within it, and



Figure 1: Visual Representation of Observation Data (Source: Nathan J. Manning)

improvements that need to be implemented in the corridor.

Businesses were guaranteed privacy to encourage participation. The SABA board was contacted to participate in the survey and interviews. To give further context of who is aware of Myers Street, the survey asked if survey takers knew where Myers Street is located. This question was beneficial for the results but also hindered survey takers in case they knew the location of the street but could not recall the street name. Some survey takers asked for reference points or areas of interest on the street to create a contextual framework for themselves. These tools helped

respondents answer the survey honestly if they did not know street names in the Scott's Addition area. Figure 2 below shows the percentages of survey respondents who answered if they knew where Myers Street is located at the time the survey was distributed. The results found that 76 percent of individuals surveyed know where Myers Street is located, 22 percent did not know where Myers Street is located, and 2 percent were unsure. This high quantity of survey respondents who know where Myers Street is located will prove to be valuable data as recommendations for the corridor are proposed.

87 percent of survey respondents voted yes that they do travel through the Myers Street corridor and 13 percent voted they do not as shown in Figure 3. A large percentage of respondents do travel through the corridor. Transportation-oriented recommendations were formed from the collection and analysis of this data. The recommendations are presented in the form of corridor renderings in the following section.

Do you know where Myers Street is located?



Figure 2: Percentages of survey respondents who know where Myers Street is located



Figure 3: Percentages of survey respondents who answered if they travel through Myers Street

The street improvements were presented in a ranking structure. Survey participants ranked street elements they wanted to see occur from urgent implementation to implementation occurring in the distant future. This ranking system provided the top three street priorities that supports interest in specific areas of the corridor. A total of 41 individuals completed the survey but only 23 filled out the ranking portion and completed it accurately. 16 respondents in the general public ranked traffic flow as their primary priority, sidewalk as their secondary priority, and bike lanes as their tertiary priority. Seven respondents from businesses in the study area ranked sidewalks as their primary priority, lighting as their secondary priority, and bike lanes as their tertiary priority. Sidewalks and bike lanes were ranked in the top three street priorities for both the public and businesses. Traffic flow and lighting were ranked in the top three street priorities but not for both groups surveyed. The top three street priorities for both groups surveyed took precedent over the others when recommendations for Myers Street were made. Table 1 below shows the top three street priorities that were ranked by the public. Table 2 shows the top three street priorities that were ranked by businesses within the study area.

Table	1: Top three	e street priorities	ranked by the publ	ic within the study area
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Top Three Street Priorities - Public								
1	Traffic Flow = 8 Votes							
2	Sidewalks = 6 Votes							
3	Bike Lanes = 5 Votes							

Table 2: Top three street priorities ranked by businesses within the study area

Top Three Street Priorities - Businesses							
1	Sidewalks = 3 Votes						
2	Lighting = 2 Votes						
3	Bike Lanes = 2 Votes						

Safety in terms of neighborhood security in the Myers Street corridor has been an issue that has seen varying responses. Figure 4 below proves those trends. When analyzing this data it was found that the public in the city feels more unsafe in this corridor than business owners in the Scott's Addition neighborhood. These business owners spend more time within Scott's Addition than general members of the public in Richmond, Virginia. Among the three groups surveyed (public, businesses, and SABA), moderately safe was a common trend as the highest percentage in each group. Moderately safe was voted 57 percent of the total among the three groups combined. Unsafe was voted next highest at 23 percent of the three groups surveyed. In addition to this data, the road condition is poor which is a deterrent and will make people shy away from the street. The recommendations section holds corridor designs that can be implemented to help individuals feel safer within Myers Street using Jane Jacob's "eyes on the street" approach.



What is your perception of safety in the Myers Street corridor?

Figure 4: Percentages of the perception of safety in the Myers Street corridor

Two questions in the survey were demographic related to get an understanding of who was taking the survey. It was a trend to see younger individuals like millennials and gen Xers completing the survey. A majority of survey takers from the general public were from the 18-24 and 25-34 age demographics. Business owners saw their age majority occur at age 35 and older. This survey was taken mostly by men with them taking 63 percent of the total number of people who completed the survey. This data was beneficial for plan

recommendations so the plan is targeted for the demographics using this corridor.

The comments below are some of the highlights that stuck out as areas of improvement or problem areas for Myers Street as they spoke of similar themes from an open-ended question on the survey. The comments helped form the recommendations that can be found in section three of this plan.

- 1. Busy street that will only get busier, work is definitely needed
- 2. I shop at Aldi so I'm on Myers at least once a week and it is not easy to navigate over there.
- Create pedestrian only zone. Use it as a space other than for automobiles. Boulevard area is already a mess, simplify it by reducing automobile travel.
- 4. Area needs more parking
- Unsure how much of my frustration going through that area will be resolved once the Pulse construction is done, but right now it seems like there is a lot of room for traffic flow improvement, especially being on the outskirts of Scott's Addition
- 6. As it is now, Myers Street is an unutilized space.
- 7. Being as it is such a short street, it might be better off as a pedestrian only street with shops, restaurants, and bars along the corridor.
- 8. Need area to look cleaner and better kept.
- 9. The road is very narrow and there is lots of ingress/ egress. Not sure what can be done about this, but it's an increasingly congested road and increasingly used as a cut-through.

The results from this survey found trends within the data. Many people do know where Myers Street is located and also travel through it. These same individuals found the corridor to be moderately safe. Traffic flow, sidewalks, bike lanes, and lighting were found to be some of the most sought after street priorities from the ranking section on the survey. Lastly, a majority of individuals who took the survey for this plan were millennial men. These results were used in the formation of alternative streetscape development for Myers Street.

To examine existing conditions, a strengths, weaknesses, opportunities, and threats (SWOT) analysis was conducted to help guide recommendations in the Myers Street corridor. Below, factors in each section were identified from site visits to the corridor. Chart 1 on the next page shows the SWOT Analysis that was conducted for Myers Street.

STRENGTHS

- Location in relation to other infrastructure
- Land use in the corridor
- New businesses attracting density to corridor
- Residential communities growing around Myers
 Street
- · Land parcels available for future redevelopment

OPPORTUNITIES

- Create pedestrian-oriented corridor
- Implement bike lane to connect to W. Leigh Street bike lane
- Connect the Scott's Addition street pattern across N. Boulevard to Myers Street
- Introduce more biophilia and lighting to the corridor

WEAKNESSES

- Narrow Street
- Used as a "short cut" street
- Disconnecting sidewalks
- · Varied styles of rain catchments
- No bike lane

THREATS

- Vehicular traffic travel lane space
- Neighborhood greenery
- · Maintaining existing businesses in the corridor
- Traffic flow direction
- Neighborhood security

Chart 1: Myers Street SWOT Analysis

3. RECOMMENDATIONS

Recommendations for this plan were made after conducting research on the redevelopment area. The results of research conducted formed a vision statement and goals for this plan to take on. Image 9 below shows a bird's-eye view of Myers Street with recommendations implemented.

Vision Statement: The *Myers Street Streetscape Plan* is intended to guide transportation improvement decisions within the corridor. The plan aims to create a Complete Street to provide a safer community through neighborhood security and transportation safety, design recommendations to improve neighborhood aesthetics, foster community, provide biophilia, and develop land use recommendations as density increases. It builds off existing plans and will be a building block for Complete Streets in Scott's Addition. This small area plan is one of many plans that focus on improving livability in this historic neighborhood in Richmond, Virginia.



RECOMMENDATIONS:

- **1. ONE-WAY NORTHBOUND VEHICULAR TRAFFIC**
- 2. 4' BIKE LANES
- 3. 5' SIDEWALKS ON BOTH SIDES OF CORRIDOR
- 4. 2' PLANTING ZONE FOR LONDON PLANE TREES
- 5. PEDESTRIAN-SCALE STREET LIGHTS
- 6. UNDERGROUND UTILITIES

Image 9: Bird's-eye view of recommendations made for Myers Street (Source: Nathan J. Manning)

3. RECOMMENDATIONS

Three goals were formed from the research that was conducted. It is through these three goals that recommendations were made to improve the Myers Street corridor.

Table 3: Goal 1 of Myers Street Recommendations

Goal 1: Activate The Street								
Objectives and Actions Priority Level								
Objective 1.1.: Create new connections to a	adjacent streets							
Action 1.1.1.: Attain priority properties								
along N. Boulevard to create new access	High							
points								
Action 1.1.2.: Demolish structures on the	Lliab							
two parcels that will host the connections	підіі							
Objective 1.2.: Engage stakeholders to view new connections as								
beneficial for green space and sidewalks on both sides of the								
street								
Action 1.2.1.: Provide construction								
updates throughout the implementation	High							
process at local community meetings								
Action 1.2.2.: Explain the grant funding	High							
process to stakeholders for this project								
Objective 1.3.: Enhance the uses of land sp	atially							
Action 1.3.1.: Create a design overlay								
district to address front setbacks and	Medium							
fenestrations because of land scarcity								
Action 1.3.2.: Construct the corridor to be								
able to be shut down occasionally to	Hiah							
vehicular traffic for pedestrian	riigii							
programming								

Table 3 breaks down the first goal into objectives and actions. Scott's Addition has a street pattern that is gridded and has few streets obstructing from this patterned neighborhood. Achieving Actions 1.1.1. and 1.1.2. by connecting the pattern across N. Boulevard would allow for Myers Street to open up. With more connections into Myers Street, this would allow for more eyes on the street. More intersections would reduce the speeds of vehicles and the distances pedestrians need to move through and within the area allowing this street to be safer.

According to the City of Richmond parcel map, attaining the property through eminent domain would require the gathering of two properties along N. Boulevard. The connections across N. Boulevard would have shorter right-of-ways due to the one-way nature of the two new street connections via W. Leigh Street and W. Clay Street. Attaining these two parcels through eminent domain allows for large amounts of green space and sidewalks on both sides of the street due to single-one way lanes feeding into Myers Street. Map 7 shows the parcels that would need to be attained to form these connections.

From the data gathered, it was found that residents do not want to lose parking within the study area. To accommodate that, it is recommended to not connect W. Marshall Street across N. Boulevard. W. Clay Street would need to have two-way traffic to be able to open up to Myers Street. Stoplights with an option to proceed East would need to be installed on these streets at their N. Boulevard intersections. Yield signs would need to be installed at W. Leigh Street and Myers and W. Clay Street and Myers to allow for traffic to continuously flow down Myers Street. This conceptual sketch of the new connections can be seen in Image 10. The W. Clay Street recommended connection is rendered in Image 11.



Map 7: Parcels for new connections to Myers Street (Source: City of Richmond Department of Information Technology's Geographic Information Systems GIS data)



Image 10: Conceptual proposed new connections for the Myers Street corridor image

Image 11: Proposed W. Clay Street Connection



It is an objective to be engaged with stakeholders so they understand the positive outcomes of this streetscape redevelopment. Consistent communication with stakeholders before, throughout, and after construction will allow for residents and local community groups to be fully aware of what is going on in their neighborhood. Actions 1.2.1. and 1.2.2. pairs communicative action theory with the engagement process for a transparent outcome.

Land is scarce throughout Scott's Addition and green space is seldom. Action 1.3.1. recommends creating a design overlay district to address front setbacks and fenestrations. Action 1.3.1. aims at creating more of a natural environment in front of the businesses within the corridor. Action 1.3.2. recommends constructing the corridor in a manner that it can be shutdown to vehicular traffic and used for pedestrian programming. The implementation of Action 1.3.1. would provide more space for that programming and would provide a more open, welcoming feel to pedestrians. Table 4: Goal 2 of Myers Street Recommendations

Goal 2: Improve Transportation Options

Objectives and Actions	Priority Level			
Objective 2.1.: Change traffic flow to north	bound only			
Action 2.1.1.: Implement 5' sidewalks on	High			
both sides of the corridor	Пуп			
Action 2.1.2.: Implement 4' with-flow and				
contra-flow bike lanes in Myers Street to	High			
connect to the Leigh Street bike lane				
network				
Objective 2.2.: Utilize existing neighborhood	d elements			
Action 2.2.1.: Convert the railroad tracks				
to a Rail to Trails path as a connection to	High			
the Science Museum BRT stop				
Action 2.2.2.: Create area signage				
reflecting the railroad tracks that were	Low			
once used in the neighborhood				

Table 4 shows Goal 2 for the Myers Street corridor. The streetscape redevelopment will reflect a new corridor design. Larger sidewalks can be implemented by removing other streetscape elements like the planting zone to create more space for pedestrian activities and programming. Moving all utilities underground would also help allocate space to more pedestrian activity and greenery within the corridor. Introducing with-flow and contra-flow bike lanes and sidewalks to Myers Street through Actions 2.1.1. and 2.1.2. will help with navigation around Scott's Addition and take some pressure off the usage of vehicular mobility. This is important as parking in Scott's Addition can be troublesome and will be as the neighborhood densifies. It is recommended that the bike lanes be a part of the roadway but will have dedicated space for cyclists only.

A contra-flow bike lane would solve wrong way biking and access in two directions for people who bike. This would also increase preference toward non-motorized travel. This street design was formed from NACTO's *Urban Street Design Guide*. Map 8 shows the proposed bike lane and street connections in relation to the existing street pattern. Image 12 is a cross-section of the corridor with recommendations of how to dedicate space. Reducing vehicular mobility space in the corridor allows for more pedestrian space in the right-of-way.

Utilizing existing neighborhood elements is outlined through Actions 2.2.1. and 2.2.2. The neighborhood already has pre-existing routes that may have been used differently over time. The city is pursuing funding for a rails to trails path from the existing railroad tracks just North of Myers Street. It is recommended that this path be an alternative connection to the Science Museum BRT station. In addition to adapting this pathway, signage could be updated within the area marking historical parts of Scott's Addition and how these areas were once used previously.



Map 8: Proposed Transportation Connections for Myers Street (Source: City of Richmond Department of Planning and Development Review)



Image 12: Cross-Section Drawing of Recommended Dedicated Space in Myers Street

Table 5: Goal 3 of Myers Street Recommendations

Goal 3: Enhance the Environment								
Objectives and Actions Priority Level								
Objective 3.1.: Create a beautiful corridor through urban greenery								
and redevelopment								
Action 3.1.1.: Create a 2' planting zone for								
London Plane trees (Platanus ×	Low							
Acerifolia)								
Action 3.1.2.: Move all utilities	Madium							
underground	Medium							
Action 3.1.3.: Use consistent materials	Low							
and architectural styles	LOW							
Objective 3.2.: Implement a uniform stormwater management								
system								
Action 3.2.1.: Implement catchments in								
the edge of sidewalks through low impact	Low							
development (LID)								
Action 3.2.2.: Encourage businesses to								
install rain gardens and green walls to	Low							
decrease runoff								
Action 3.2.3.: Implement Silva Cell								
systems to ensure health and growth of	Low							
trees								
Objective 3.3.: Implement uniform lighting	through the corridor to							
deter crime								
Action 3.3.1.: Use pedestrian-scale street	1 Back							
lighting	Hign							
Action 3.3.2.: Use Crime Prevention								
Through Environmental Design guidelines	High							
within streetscape redevelopment								

The goal of enhancing the environment is examined through objectives and actions in Table 5. The Myers Street corridor was originally designed for industrial functionality. Reducing travel lane size will allow execution of Action 3.1.1. London Plane trees (Platanus × acerifolia) will be planted in a two foot planting zone on the East side of the corridor. These trees grow well in confined urban conditions. Action 3.1.2. recommends moving all utilities underground. This would open up the corridor and allow space for the other recommendations in this plan to be implemented. In August 2016, Dominion Power received approval from the State Corporation Commission to start a pilot program to bury utilities. Specific locations within the state were not made available to where this pilot program started (Blackwell, 2016).

Action 3.1.3. recommends using consistent materials and architectural styles when creating a beautiful environment. Additionally, it is recommended that Spy Rock Real Estate Group follow this trend during redevelopment of the Interbake Foods distribution center. The site is close to transit, grocery stores, and many amenities. The proposed structure is of similar size and massing compared to the neighboring residential Cookie Lofts. The current plans show an L-shaped building with metal used on the façade. The building materials used should echo and reflect similar aesthetics like heavy brickwork already implemented throughout Scott's Addition. Map 9 shows the location of proposed redevelopment.



Map 9: Location of Proposed Residential Redevelopment in Myers Street (Source: Modified Mapbox Map)

Myers Street does not have uniform water catchments to collect stormwater. Images 13, 14, and 15 below show recommended designs for stormwater catchments. Action 3.2.1. calls for the catchments to be integrated with sidewalks. The West side of the corridor contains many back sides of buildings. Action 3.2.2. recommends to private businesses that they install green walls to liven up corridor aesthetics with natural elements like hanging plants and vines. Urban greenery also helps control stormwater. Plants absorb stormwater, while easing the pressure off of drainage systems. This is a common practice used in low-impact development (LID) (City of Richmond, 2006). It has been proven that urban greenery corresponds with economic prosperity. The University of Washington conducted a study and found that drivers indicated it was easier to locate roadside businesses when they were framed by trees and vegetation (Economic Benefits of Green Spaces, 2016). Image 16 shows an example of an urban green wall that could be created in the Myers Street corridor. Action 3.2.3. will allow for large trees to grow using Silva Cell systems. These suspended pavement systems enhance urban forests by absorbing run-off, mitigating heat islands, and they support the development of large trees (ABOUT US, n.d.). Silva Cell placement and installation can be seen in Images 17, 18, and 19.



Image 13: Render of Recommended Stormwater Catchment Implementation

Based on the data found from the survey, residents do not feel safe within the Myers Street corridor. Action 3.3.1. recommends that improved corridor lighting through the use of pedestrian-scale street lights be implemented throughout the corridor. All lighting improvements must meet the requirements found within the Urban Design Committee guidelines. Image 9 shows a rendering with the pedestrian-scale lights implemented throughout the corridor.

The concept for this streetscape redevelopment came from Crime Prevention Through Environmental Design (CPTED). CPTED is a crime-deterrent design concept that the built environment can lead to a reduction in crime and improve the quality of life (City of Richmond, 2006). Action 3.3.2. calls for the review of the street design to ensure it complies with CPTED's five main principles of natural surveillance, activity support, access control, territorial reinforcement, and maintenance to deter criminal activity (City of Richmond, 2006).



Image 15: Water Catchment in New Zealand (Source: http://www.hynds. co.nz/product-category/stormwater/stormwater-pits-kerb-blocks/)



Image 14: Stormwater Collection Design (Source: http://www. hidrasoftware.com/en/types-of-drain-inlets-for-stormwater-collectionavailable-in-dren-urba/)



Image 16: Green Wall Living Signage (Source: Live Wall, https:// livewall.com/living-wall-benefits/)



Image 18: Silva Cell Implementation (Source: http://www.prweb.com/ releases/2011/02/prweb5106084.htm)



Image 17: Silva Cell Cross-Section Render (Source: http://www.landezine.com/ index.php/2017/10/deeproot-high-end-ecosystem-services/)



Image 19: Silva Cell Completed Implementation (Source: http://www.deeproot. com/blog/blog-entries/free-with-your-purchase-of-silva-cells)

4. IMPLEMENTATION

The implementation of this plan will be carried out over a three-year period. The three-year period was determined by allowing ample time for parcel attainment and for streetscape redevelopment to occur. Additionally, this timeline allows for changes to occur if necessary. To implement this plan, it is recommended to use grants as the primary source for funding. This would not hinder the city's budget while still improving the area and achieving the goals set forth by the plan. If not enough funds are awarded for complete implementation, this plan can be implemented in phases to allow for gradual continuation. The final plan will be revised and tailored to the grants awarded for implementation.

The first goal will start during year one and continue until the last year of the project. Goal 1 of the implementation process focuses on creating new connections in Myers Street by attaining parcels to make those connections and engaging and updating stakeholders in the process so they are aware of the benefits of the streetscape redevelopment. Engagement and communication throughout the process will provide transparency to the community as the plan unfolds. Goal 1 also examines land scarcity throughout the neighborhood and how to address it for the future.

Time/Goals/Funding		Yea	ar 1		Year 2			Year 3				Fundina Source:	
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	, , , , , , , , , , , , , , , , , , ,
Goal 1: Activate The Street													
Objective 1.1.: Create new connections to adjacent streets													
Action 1.1.1.: Attain priority properties along N. Boulevard to create new access points													VDOT TAP
Action 1.1.2.: Demolish structures on the two parcels that will host the connections													VDOT TAP
Objective 1.2.: Engage stakeholders to view new connections as beneficial for green space and sidewalks on both sides of the street													
Action 1.2.1.: Provide construction updates throughout the implmentation process at local community meetings													VDOT TAP
Action 1.2.2.: Explain the grant funding process to stakeholders for this project													VDOT TAP
Objective 1.3.: Enhance the uses of land spatially													
Action 1.3.1.: Create a design overlay district to address front setbacks and fenestrations because of land scarcity													VDOT TAP
Action 1.3.2.: Construct the corridor to be able to be shut down occasionally to vehicular traffic for pedestrian programming													VDOT TAP

Chart 2: Goal 1 Implementation Timeline Gantt Chart

The second and third goals will start simultaneously at the beginning of year 2 and will continue until the end of year 3. Goal 2 examines transportation options within Myers Street and what can be changed in the future to accommodate growing density in this area. Some possible changes include removing drive lanes and utilizing existing neighborhood elements like signage and rail tracks.

Chart 3: Goal 2 Implementation Timeline Gantt Chart

Time/Goals/Funding		Year 1			Year 2				Year 3				Funding Source:	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Funding Source.	
Goal 2: Improve Transportation Options														
Objective 2.1.: Change traffic flow to northbound only														
Action 2.1.1.: Implement 5' sidewalks on both sides of the													TIGER Grant	
corridor													HOLK Grait	
Action 2.1.2.: Implement 4' with-flow and contra-flow bike														
lanes in Myers Street to connect to the Leigh Street bike lane													TIGER Grant	
network														
Objective 2.2.: Utilize existing neighborhood elements														
Action 2.2.1.: Convert the railroad tracks to a Rail to Trails														
path as a connection to the Science Musuem BRT stop													VDUTTAP	
Action 2.2.2.: Create area signage reflecting the railroad														
tracks that were once used in the neighborhood													VDOLIAP	

Goal 3 interacts more with the aesthetics of the environment. Some objectives of the goal include creating a beautiful corridor through urban greenery and redevelopment, implementing a uniform stormwater management system and lighting throughout the corridor. Examples of the actions that will help achieve these objectives include creating a 2' planting zone for London Plane Trees, implementing Silva Cell tree systems, and using pedestrian-scale street lighting.

Time/Goals/Funding	Year 1			Year 2			Year 3				Funding Source:		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Goal 3: Enhance the Environment													
Objective 3.1.: Create a beautiful corridor through urban													
greenery and redevelopment													
Action 3.1.1.: Create a 2' planting zone for London Plane													νροτ ταρ
trees (Platanus × Acerifolia)													VDOTIAL
Action 3.1.2.: Move all utilities underground													Dominion
Action 3.1.3.: Use consistent materials and architectural													VDOT TAP/TIGER Grant
styles													
Objective 3.2.: Implement a uniform stormwater													
management system													
Action 3.2.1.: Implement catchments in the edge of													
sidewalks through low impact development (LID)													VDOTIAL
Action 3.2.2.: Encourage businesses to install rain gardens													
and green walls to decrease runoff													
Action 3.2.3.: Implement Silva Cell systems to ensure health													
and growth of trees													VDUTTAP
Objective 3.3.: Implement uniform lighting through the													
corridor to deter crime													
Action 3.3.1.: Use pedestrian-scale street lighting													VDOT TAP
Action 3.3.2.: Use Crime Prevention Through Environmental													
Design guidelines within streetscape redevelopment													VDOT TAF

Chart 4: Goal 3 Implementation Timeline Gantt Chart

Funding options for the plan include:

1. The Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grant program is a common source for funding projects all over the United States. TIGER grants invest in road, rail, transit and port projects. Specifically, this plan meets eligibility due to the funding for multi-modal transportation being sought out at a local level (About TIGER Grants, 2014).

- 2. Another funding option is through the Transportation Alternatives Program (TAP). This VDOT program encompasses smallerscale, non-traditional transportation projects. Previous uses of these funds have went to small municipalities like the Town of Wise, Virginia to provide ADA sidewalks, crosswalks, curb and gutter, and lighting along sidewalks (VDOT, 2018).
- 3. The Virginia Smart Scale entails a process of funding transportation projects in Virginia by priority. The process is outcomebased and the Commonwealth Transportation Board makes decisions of what projects are funded after thorough scoring of projects has been completed (SMART SCALE, n.d.).

This plan may not be able to be completed all at once so implementation in phasing is a possibility as well. This may mean not putting utilities underground but instead moving them behind the sidewalks so they can still be implemented. If utilities cannot be put underground, using trees that do not grow above 30' in height like Apple Serviceberry (Amelanchier x grandiflora 'Autumn Brilliance') or the Kousa Dogwood (Cornus kousa) is another option to find similar outcomes. Another example may be implementing only one with-flow bike lane so there is a bigger planting zone for ground cover and shrubbery. It may be possible to speed up the implementation timeline with support from local community groups and organizations. Lastly, it may be more feasible to implement the plan without the two new street connections as eminent domain and the attainment of property can be difficult.

5. CONCLUSION

The *Myers Street Streetscape Plan* examines this transitioning street closely as it continues to transform. The Scott's Addition neighborhood is pushing itself to continuously grow while having limited space to expand. Myers Street reflects periodical changes as the land uses within the corridor have significantly shifted over time. The streetscape carries lacking transportation options, inconsistent materials, varied lighting fixtures and stormwater drainage catchments. These are some of the problems that have arisen over time.

This plan seeks out the most problematic parts of Myers Street and aims to correct those parts for a streetscape redevelopment that will have a sustainable future. As popularity and density increases in Scott's Addition, these recommendations will help this area support the influx of change that is continuously occurring. The recommendations made address common development trends while still maintaining the historic character of the neighborhood.

In order for this area to prosper, the entire plan does not need to be implemented in its entirety. Parts of this plan can be implemented to achieve improvements throughout the corridor. The recommendations that were formed for this plan were based upon research conducted on the study area and the streetscape redevelopment area to help Myers Street be sustained and nourished for a vibrant, urban future.



About TIGER Grants. (2014, February 25). Retrieved April 11, 2018, from https://www.transportation.gov/tiger/about

ABOUT US. (n.d.). Retrieved April 06, 2018, from http://www.deeproot.com/about/about.html

- APA. (2014). Aging in the Community. Retrieved October 10, 2017, from https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/policy/guides/pdf/agingincommunity.pdf APA. (2010). APA Policy Guide on Surface Transportation. Retrieved October 10, 2017, from https://www.planning.org/policy/guides/adopted/surfacetransportation.htm
- Blackwell, J. R. (2016, August 24). Dominion pilot program to move power lines underground expected to increase utility bills. Retrieved March 25, 2018, from http://www.richmond.com/business/local/ dominion-pilot-program-to-move-power-lines-underground-expected-to/article_07af71ca-7c0b-56b1-aa26-7df9a0497511.html
- Christensen, K. S. (2015). Both Process and Outcome Are Essential to Planning. Journal of Planning Education and Research, 35(2), 188-198. doi:10.1177/0739456x14566277
- City of Richmond Department of Planning and Development Review. (n.d.). City of Richmond Master Plan 2000-2020. Retrieved October 11, 2017, from http://www.richmondgov.com/ PlanningAndDevelopmentReview/PlansMaster.aspx
- City of Richmond. (n.d.). Transportation Engineering Division. Retrieved November 25, 2017, from http://www.richmondgov.com/PublicWorks/Transportation.aspx
- City of Richmond. (2013). Richmond Connects: Richmond Strategic Multimodal Transportation Plan July 2013. Retrieved from http://www.yesrichmondva.com/sites/default/files/documents/ RichmondConnects.pdf
- City of Richmond. (2017, October). Vision Zero. Retrieved November 29, 2017, from http://www.richmondgov.com/PublicWorks/VisionZero.aspx
- City of Richmond Department of Community Development, Division of Comprehensive Planning. (2006, December 11). City of Richmond Urban Design Guidelines . Retrieved March 8, 2018, from http://www. richmondgov.com/CommitteeUrbanDesign/documents/UDC_Guidelines.pdf
- CNU, & ITE. (2017, June 22). CNU / ITE Manual. Retrieved November 25, 2017, from https://www.cnu.org/our-projects/cnu-ite-manual
- DeepRoot High-end Ecosystem Services « Landscape Architecture Works. (n.d.). Retrieved from http://www.landezine.com/index.php/2017/10/deeproot-high-end-ecosystem-services/ DeepRoot To Showcase Silva Cell at EcoBuild Tradeshow in London's ExC. (2011, February 27). Retrieved from http://www.prweb.com/releases/2011/02/prweb5106084.htm
- Department of Planning and Development Review. (2017, June 7). Scott's Addition and West Broad Street Rezoning: Proposed Zoning. Retrieved February 10, 2018, from http://www.richmondgov.com/ PlanningAndDevelopmentReview/documents/PulseCorridorPlan/Open_House_2_Presentation-20170607.pdf
- Economic Benefits of Green Spaces. (2016, June 12). Retrieved March 9, 2018, from http://projectevergreen.org/resources/economic-benefits-of-green-spaces/
- Fainstein, S. S., & Campbell, S. (2016). Readings in planning theory. Chichester, West Sussex, UK: Wiley Blackwell.
- Gaete, C. (2016, December 16). Jan Gehl's 5 Rules for Designing Great Cities. Retrieved December 12, 2017, from https://www.archdaily.com/801431/jan-gehl-5-rules-for-designing-great-cities
- Gehl. (n.d.). São Paulo Concept Design & Pilot Projects Gehl. Retrieved April 23, 2018, from http://gehlpeople.com/cases/sao-paulo-brazil/
- Goodyear, S. (2013, July 22). A New Way of Understanding 'Eyes on the Street'. Retrieved January 23, 2018, from https://www.citylab.com/equity/2013/07/new-way-understanding-eyes-street/6276/ Hazard, C. (2017, June 08). 3-story office building proposed for a site behind Buz and Ned's restaurant off the Boulevard. Retrieved November 29, 2017, from http://www.richmond.com/business/local/story
 - office-building-proposed-for-a-site-behind-buz-and/article_9347fbf2-8738-593b-84c6-f0dbd033a41a.html
- Hazard, C. (2015, June 21). Richmond's hottest spot: Scott's Addition. Retrieved September 27, 2017, from http://www.richmond.com/business/local/metro-business/richmond-s-hottest-spot-scott-s-addition/article_36e0fb46-1cca-5369-bb31-a73df65b2ebd.html
- Montgomery, C. (2015). Happy city: transforming our lives through urban design. London: Penguin Books.
- NACTO. (n.d.). Urban Street Design Guide. Retrieved November 25, 2017, from https://nacto.org/publication/urban-street-design-guide/
- PDR. (n.d.). Mission. Retrieved November 07, 2017, from http://www.richmondgov.com/PlanningAndDevelopmentReview/Mission.aspx
- Quick, K. S., & Feldman, M. S. (2011). Distinguishing Participation and Inclusion. Journal of Planning Education and Research, 31(3), 272-290. doi:10.1177/0739456x11410979
- Robertson, G. (2017, August 24). A Fair History. Retrieved September 26, 2017, from http://richmondmagazine.com/news/news/a-fair-history/#prev
- Robinson, M. (2017, September 05). Richmond Planning Commission approves zoning changes for Scott's Addition, North Boulevard. Retrieved October 11, 2017, from http://www.richmond.com/news/local/ city-of-richmond/richmond-planning-commission-approves-zoning-changes-for-scott-s-addition/article_609a09ba-c50c-5062-9012-014a4277b892.html
- SABA. (n.d.). A Thriving, Growing Neighborhood. Retrieved October 11, 2017, from http://scottsaddition.com/About
- Scott's Addition Boulevard Association, & Samuels, C. (2013). SCOTT'S ADDITION WORKSHOP REPORT.
- Smart Growth America. (n.d.). What are Complete Streets? Retrieved February 12, 2018, from https://smartgrowthamerica.org/program/national-complete-streets-coalition/what-are-complete-streets/ SMART SCALE. (n.d.). Retrieved April 11, 2018, from http://vasmartscale.org/about/default.asp
- Smith, T. (2017, March 27). Upscale bowling venue planned off North Boulevard near Scott's Addition. Retrieved November 29, 2017, from http://www.richmond.com/business/local/upscale-bowling-venueplanned-off-north-boulevard-near-scott-s/article_470b1b5a-5d2d-52a6-8b5e-e5993bdebb04.html
- Smith, T. (2018, April 05). Science Museum of Virginia plans new parking deck, green spaces. Retrieved April 10, 2018, from http://www.richmond.com/business/local/science-museum-of-virginia-plans-new-parking-deck-green-spaces/article_d189b8c9-cc56-5407-8e49-9a2c4e4f0c19.html
- Spiers, J. (2018, April 10). Developers drop \$5M for Interbake site off Boulevard. Retrieved April 10, 2018, from https://richmondbizsense.com/2018/04/10/spy-rock-stanley-shield-drop-5m-interbake-site-boulevard/
- SubscribeGreen Infrastructure. (n.d.). Retrieved from http://www.deeproot.com/blog/blog-entries/free-with-your-purchase-of-silva-cells
- The Timeline. (n.d.). Retrieved September 26, 2017, from http://www.interbake.com/our-history/
- VDOT. (2018, February 23). Local Assistance Division. Retrieved April 11, 2018, from http://www.virginiadot.org/business/prenhancegrants.asp
- Zalot, M. (n.d.). Greening Philadelphia Tree by Tree. Retrieved May 1, 2018, from http://www.phlmetropolis.com/2010/07/greening-philadelphia-tree-by-tree.php

Appendix A.

Myers Street Streetscape Plan Survey

1. Do you know where Myers Street is located?

(A) Yes (B) No (C) Unsure

If you answered no or unsure to question 1, skip to question 5.

2. Rank the street improvements 1-7 that are most needed in the street from urgent implementation to implementation occurring in the distant future.

- 1 Urgent implementation
- 7 Implementation occurring in the distant future
- _ Sidewalks
- _ Bike Lanes
- Building Forms (aesthetically appealing structures)
 Lighting
- _ Lighting
- _ Drainage
- _ Greenery
- _ Traffic Flow
- 3. Do you travel through the Myers Street corridor?

Yes

No

4. What is your perception of safety in the Myers Street corridor?

Safe Moderately Safe Unsafe Unsure 5. Age? Under 12 years old 12-17 years old 18-24 years old 25-34 years old 35-44 years old 45-54 years old 55-64 years old 65-74 years old 75 years or older 6. Gender?

> Female Male Would not like to disclose

7. Any other thoughts or comments?

Appendix B.

Percentages of survey respondents who know where Myers Street is located

Do you know where Myers Street is located?



Appendix C.

Percentages of survey respondents who answered if they travel through Myers Street

Do you travel through the Myers Street corridor?



Appendix D.

Top three street priorities ranked by the public

Top Three Street Priorities - Public					
1	Traffic Flow = 8 Votes				
2	Sidewalks = 6 Votes				
3	Bike Lanes = 5 Votes				

n=16

Top Street Priorities - Public

Ranked 1st Traffic Flow = 8	Ranked 2nd Sidewalks = 6	Ranked 3rd Bike Lanes = 5
Sidewalks = 4	Lighting = 4	Traffic Flow = 3
Building Forms = 2 Greenery = 1 Lighting = 1	Greenery = 4 Traffic Flow = 1 Drainage = 1 Sidewalks = 1	Drainage = 3 Lighting = 2 Greenery = 2
Total=16	Total=16	Total=16

Appendix E.

Top three street priorities ranked by businesses within the study area

Top Three Street Priorities - Businesses				
1	Sidewalks = 3 Votes			
2	Lighting = 2 Votes			
3	Bike Lanes = 2 Votes			

n=7

Top Street Priorities - Businesses

Ranked 1st	Ranked 2nd	Ranked 3rd
Sidewalks = 3	Bike Lanes = 2	Bike Lanes = 2
Lighting = 2	Lighting = 2	Sidewalks = 2
Drainage = 1	Sidewalk = 1	Building Forms = 1
Traffic Flow = 1	Drainage = 1	Greenery = 1
	Building Forms = 1	Lighting = 1
Total=7	Total=7	Total=7

Appendix F.

Percentages of the perception of safety in the Myers Street corridor

What is your perception of safety in the Myers Street corridor?



Safe	5
Moderately Safe	17
Unsafe	7
Unsure	1

Appendix G.





APPENDICES

