Streets for People

A Technical Report submitted to the Department of Civil Engineering

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University of Virginia

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Bachelor of Science, School of Engineering

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines

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Overview

Over the last two decades, cities across the United States have seen a shift in how surplus urban space is utilized. Street markings have taken on new forms in the spaces that were once geared exclusively towards motor vehicles. Reimagining these overlooked areas has allowed for the emergence of new community spaces, as well as vastly improved pedestrian and bike infrastructure. This movement traces its roots to Portland, Oregon in the 1990s, where many intersections were re-marked to allow for all forms of traffic, from foot to bus, to navigate the streets with equal integrity. This was linked to increased social interaction and satisfaction from the surrounding neighborhood. Redesigning spaces that are originally dedicated to motor vehicles ranges from repurposing curbside parking (e.g., taking street parking spaces and using them instead for outdoor seating, bike racks, greenery, and more) to repurposing entire street blocks or even entire streets (e.g., transforming traditional street space into pedestrian plazas, bike boulevards [ciclovias], and large-scale social spaces such as dining streets).

As a result of the Covid-19 pandemic, there has been a significant spike in cities reallocating right-of-way from vehicle travel lanes and parking to create open space where residents can walk, bike, meet up, dine, and experience their communities with sufficient social distancing and in the safety of fresh air. The isolation experienced around the world at the onset of the pandemic left populations who were used to traveling and socializing daily with the need for places to maintain these routines in smaller doses and with enough room to stay safe. Indoor restaurant seating restrictions and bans were also a large driver of the reclamation of street space in dense areas.

Despite this relatively sudden large-scale emergence of repurposed streets, due to the nature of the pandemic, public engagement surrounding these projects was limited and normal public processes were frequently sidelined, leading to limited data on public and agency perceptions of these repurposed streets. As a result, more work is needed to ensure these positive trends in urban space utilization are continued.

Project Focus

The focus of this project is to better understand the recent repurposing of streets using several research questions. The design team will develop a survey/interview process to answer these questions alongside the city transportation engineers and planners who oversaw the repurposing of these street spaces. The team will compile the lessons learned and the best practices with the purpose of suggesting additions and changes to the current National Association of City Transportation Officials (NACTO) urban street design guidelines. These findings may help guide municipalities in the best tactics and strategies to use for location, scope, space allocation, and other factors involved in repurposing street spaces.

Project Schedule

By the end of October, the survey and interview questions were completed and distributed to the list of cities/projects. Responses came in over many months, and the survey has remained open to allow the rest of the team to use it for further research after May 2022. Phone interviews with select engineers and planners were conducted in March. Data was compiled and design alternatives were found in March. The final conclusions & designs appear on this final report. See Appendix A for more schedule details.

In the beginning of the semester, the team met with the capstone group to see the other side of the project that is being developed with the first-year research students. Using the information gathered from the entire project view, a scope was developed to lay out the tasks for the rest of the fall 2021 semester and the spring 2022 semester. Research was done to find out the types of projects that the team is interested in and the cities that were involved. These cities considered were from both smaller and larger areas, mostly in the United States but also some abroad, and a range of project sizes. The team did a literature review pertaining to the subject area, and this was presented to the entire capstone team at the end of October.

Over the month of November, the team compiled a list of cities with relevant projects, and provided contact information for each city, including email for all and phone for those that apply. Survey questions were drafted corresponding to the data determined to be most important for the project analysis, which then were reviewed by faculty advisors. The questions received comments and were revised accordingly. The final version of the survey was made using Qualtrics, seen in Appendix B.

Over the months of December through January, the survey was sent to forty city contacts. Approximately around seventeen of these contacts have taken the survey. Due to the smaller number of responses, reminder emails were sent out to the contacts that have not responded or taken the survey. Three transportation planners/engineers were contacted and interviews scheduled to conduct a more in-depth analysis of the answers provided on the survey.

February and March focused on acquiring the data from the remaining interviews. April entailed compiling and analyzing the data received. This focused on investigating the intelligent design guidelines and alternatives that the report will focus on, including proposing design guidelines specific to Charlottesville. We will be working with renderings and diagrams to help improve and detail our project goal for these suggestions.

Survey Formulation

The final version of the survey contains twelve questions in total, only two of which require responses. These two required questions gather information about the street design changes, including

temporary or permanent status, the intended users, pandemic information, as well as the lessons learned and best practices to be applied to street repurposing. These questions were strategically placed at the beginning of the survey to ensure that even if the respondents do not complete the entire survey, the most important questions would be answered. Other questions include funding sources, importance of factors such as social distancing, traffic calming, economic activity, etc., which design guidelines were utilized, if any, and whether or not data was collected on traffic and safety changes as well as public perception. In order to collect the most information while using the least amount of space in the survey and time from the respondents, ranking and yes/no questions were asked in matrix form to allow for ease of reading and to give the impression of a shorter survey with the highest possible rate of follow-through. This would also allow for simpler analysis. The final questions include the job title of the respondent, a space to share any more information beyond what was asked, and finally a prompt for contact information if the respondent would be willing to participate in a personalized interview. The survey includes back arrows as well as a progress bar to allow the respondents to navigate the survey and view their progress, which would help reduce survey fatigue.

The final version of the survey was sent in emails to each of the cities on the contact list compiled earlier in this semester. Since non-response is a concern among the team as well as faculty advisors, we opted to include personal details in the email prompting people to take the survey, as well as an offer to send the respondents the data we receive. Since there is little research on these topics, we expected that an offer of receiving data could result in more responses. Additionally, by including personal details in the email (such as the specific project they worked on in their city) instead of a generalized mass email, they are more likely to reciprocate our interest and respond.

Survey Results

Survey respondents included seventeen of the forty cities which received the survey. These respondents were located all over the United States, Canada, and Australia. The most common designs were slow streets and parking or travel lane closures for use by local businesses. Ten cities (58.8%) created “slow streets,” where lanes are closed to all thru traffic, meaning a driver can only enter the street if their destination is on that street. Most of these slow streets programs have been paused or entirely discontinued since reopening the city. Nine cities (52.9%) created parklets, where a parking spot or lane is closed to allow outdoor dining or outdoor shopping space. Most of these outdoor business spaces were either temporary or seasonal, but they are becoming permanent in Oakland, California. Other less common methods of street repurposing include pedestrian plazas and entire lane closures for pedestrian or bike use.

When asked if NACTO's interim design strategies were followed, 70.5% of respondents said yes. One city - Burlington, Vermont - even contributed to the development of these guidelines. Sydney, Australia, followed guidelines developed by the state of New South Wales, which were based largely on NACTO's design strategies. Respondents were asked to rate ten different factors on a scale from 1 to 5 in their importance in developing designs. Over ten cities (58.8%) agreed that the four highest rated options included: accessibility, maintaining local economic activity, creation of pedestrian facilities, and outdoor recreation/restaurant seating, with average scores of 4.59, 4.59, 4.50, and 4.35, respectively. The least valued factors in design were stormwater management and streetscape or aesthetics, with average scores of 3.22 and 3.15, respectively. Funding sources included mainly city funds and emergency or CARES act funds. The city of Pittsburgh secured funding for signage from a local cyclist advocate group called Bike Pittsburgh. A few cities secured funding from state or other grants, local maintenance of traffic funds and signs from events which were canceled, or park funds.

To observe data about the use of these new spaces, four cities (23.5%) collected both bike and pedestrian data along their slow streets using video monitoring to assess the utilization of these spaces. Seven cities (50%) monitored car traffic, including speed data, and three monitored safety or crash data using crash records or user surveys. Most cities also allowed for community engagement of some sort, whether it be public town hall meetings, a questionnaire, or some online forum or dropbox; only three cities (17.6%) did not collect any community engagement data.

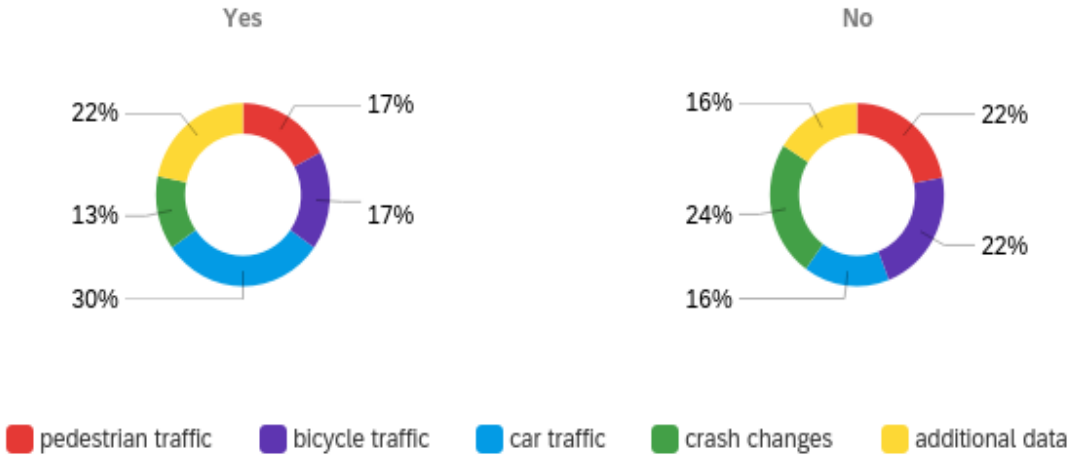
The question that the capstone team expected to collect the most important and useful information on was the "lessons learned and best practices" question. All respondents answered this question, and many cities observed similar situations. The most common lesson learned was that temporary signage requires more maintenance. Many cities started out using temporary signs which were not bolted down or secured, which resulted in many maintenance requests due to being blown away during poor weather, run over by cars, or stolen. As these programs became extended or permanent, cities made moves to replace temporary signs with heavier replacements or more heavily secured versions. Another common observation was that either the community was hostile towards the changes made or they were simply uninformed. In some areas, residents were hesitant to use slow streets - they needed to have a reason to walk or bike in the street, meaning the closure had to be better advertised and more safeguards were needed to ensure that drivers cooperate. Two cities (11.8%) experienced decreased use of slow streets once students went back to school in fall 2020 or spring 2021. When society started to move out of the pandemic's initial restrictions, drivers wanted to return to old habits. Pittsburgh saw a correlation between slow street use and socioeconomic factors; white neighborhoods and areas with high car ownership rates were using slow streets more, resulting in an inequitable implementation. Better advertisement to marginalized communities may have resulted in more participation from those communities. Another

highly cited lesson learned was the need to involve the community heavily, especially at early stages of design. Gaining community support early in the process allowed some design teams to make necessary adjustments to best serve the community. A lack of local support in plan development has the potential to result in a poorly executed design reflecting biases of the designers who may not be connected to the community atmosphere. Oakland, California, moved very quickly with their designs, skipping community outreach that would normally occur, and it resulted in heightened criticism of the design. These critical lessons learned from the cities surveyed will inform the development of guidelines by the design team.

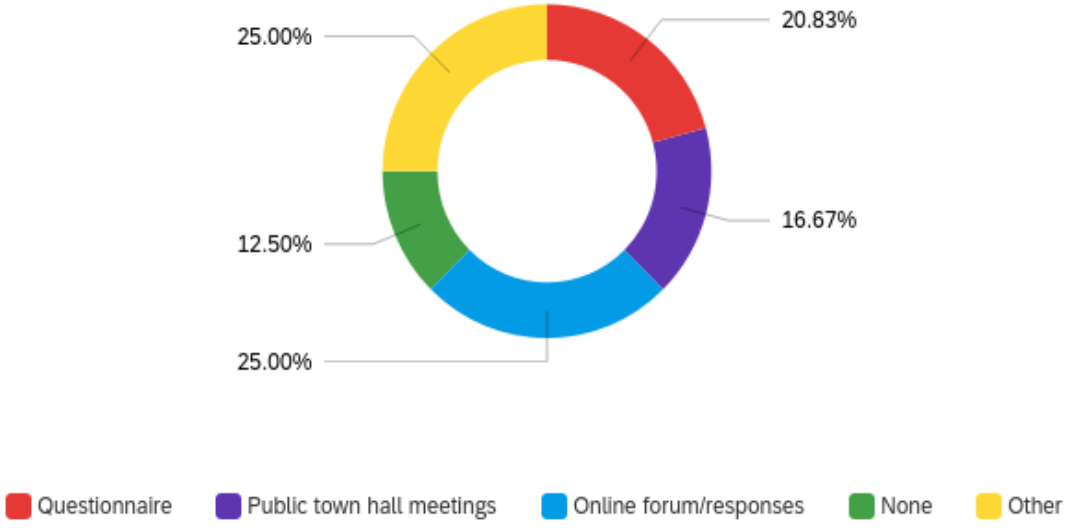
Data Analysis

Were NACTO design guidelines used?			
Question	**Yes**	**No**	**Other design guidelines**
Bingen, WA	**0**	**1**	**0**
Burlington, VT	**1**	**0**	**1**
City of White Salmon, WA	**0**	**1**	**0**
Denver, CO	**1**	**0**	**0**
Eugene, OR	**1**	**0**	**0**
Fort Lauderdale, FL	**0**	**0**	**1**
Jersey City, NJ	**1**	**0**	**0**
New Haven, CT	**1**	**0**	**0**
New Westminster, BC	**0**	**1**	**0**
Oakland, CA	**1**	**0**	**0**
Pasadena, CA	**1**	**0**	**0**
Pittsburgh, PA	**1**	**0**	**0**
Portland, OR	**0**	**0**	**1**
Providence, RI	**0**	**1**	**0**
Seattle, WA	**1**	**0**	**0**
Sydney, AUS	**0**	**0**	**1**
Choice Count	**53%**	**24%**	**24%**

Was data in traffic/safety changes collected?



How was this data collected?



How important is each factor for your city transportation planners/engineers?											
Question	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	Total
social distancing	0%	12%	0%	0%	0%	12%	6%	12%	6%	53%	17
outdoor recreational activities/restaurant seating	0%	0%	0%	0%	0%	18%	6%	18%	6%	53%	17
maintaining local economic activity	0%	0%	0%	0%	0%	0%	6%	29%	6%	59%	17
pedestrian facilities	0%	0%	0%	6%	0%	6%	0%	13%	13%	63%	16
traffic calming	0%	6%	0%	6%	6%	6%	0%	12%	6%	59%	17
nature/streetscape/aesthetics	6%	0%	0%	18%	6%	35%	0%	18%	6%	12%	17
public transportation	6%	0%	0%	6%	0%	6%	12%	35%	0%	35%	17
parking management	0%	0%	0%	6%	0%	18%	0%	35%	6%	35%	17
accessibility	0%	0%	0%	0%	6%	12%	0%	0%	6%	76%	17
stormwater management	0%	13%	6%	6%	19%	13%	6%	6%	0%	31%	16

Where street design changes Temporary or Permanent?		
Question	Temporary	Permanent
Bingen, WA	1	0
Burlington, VT	1	1
City of White Salmon, WA	1	0
Denver, CO	1	0
Eugene, OR	1	0
Fort Lauderdale, FL	1	1
Jersey City, NJ	0	1
New Haven, CT	1	0
New Westminster, BC	1	1
Oakland, CA	0	1
Pasadena, CA	1	0
Pittsburgh, PA	0	1
Portland, OR	1	0
Providence, RI	1	0
Seattle, WA	0	1
Sydney, AUS	1	0
Choice Count	65%	35%

Who benefited the most from these changes?				
Question	Business owners	Residents	General Public	Other
Bingen, WA	1	0	1	0
Burlington, VT	1	1	0	1
Burlington, VT	1	1	1	0
City of White Salmon, WA	1	1	1	1
Denver, CO	0	0	1	0
Eugene, OR	0	1	0	0
Fort Lauderdale, FL	1	1	1	0
Jersey City, NJ	1	1	1	0
New Haven, CT	1	0	1	0
New Westminster, BC	0	0	1	0
Oakland, CA	1	1	1	1
Pasadena, CA	1	1	1	0
Pittsburgh, PA	0	1	0	0
Portland, OR	0	1	1	0
Providence, RI	0	1	1	0
Seattle, WA	0	1	1	0
Sydney, AUS	0	1	1	0
Choice Count	23%	33%	36%	8%

Interviews

In order to further understand the survey responses, the capstone team decided to conduct three in-depth interviews with the survey participants. The interviews were meant to gather more information from these cities, and the specific street design changes that occurred during the pandemic. The questions were geared towards the timeline of implementation, the current status, and community response. We were also interested in the type of data that was collected in each city to determine the locations of the street design changes and what was used to inform design choices. The three cities selected were Seattle, Washington; Fort Lauderdale, Florida; and Oakland, California.

Seattle, Washington

The first interview was conducted on March 18th, 2022 with Sara Colling, the community outreach lead for the Seattle Department of Transportation. Seattle has a program called the Stay Healthy Streets Initiative, which has closed over twenty miles of streets that were already "neighborhood greenways" - residential routes with traffic calming like speed humps, all way stops, and rapid flashing beacons at the start of the pandemic. Some of these streets are going to be made permanent, and some are in an in-between stage. In order to choose which streets will become permanent, three criteria are looked at. First, the street should have a high use, which is determined through physical counts of pedestrians and cyclists. Second, closing the street to vehicles should have a positive response from neighbors, which is found through community outreach surveys. Third, the street should be in an area of higher need, specifically an area that is more economically and racially diverse. These streets have been made 24 hr closures to vehicles, as this was created as a pilot for an emergency response to the pandemic. Currently, there is no effort to connect the streets in the Stay Healthy Streets Initiative, as routes are already a couple miles long and serve as bike/walk routes. The outreach process entails an advisory board, facilitated by an outreach consultant. The advisory board is composed of community members that represent different groups (e.g. bike advocate groups, neighborhood groups) to bring perspectives and different sides of the issue. This board is also a racially diverse board. This board has regular meetings to help them decide what they should do in a particular short term, help envision for the long-term, and figure out funding. Larger outreach includes mailer to neighbors, media, posters, signage. The Seattle Department of Transportation also has a webpage and email updates.

Fort Lauderdale, Florida

The second interview was conducted on March 30, 2022, with Karen Warfel, the transportation planning program manager of the city of Fort Lauderdale. She is part of a department created in 2012 that developed a city's comprehensive master plan for the future of 2035. The Fort Lauderdale residents expressed their desire for a more multi-modal transportation system through this process. Residents wanted a city where they could walk and bike around safely. This department was created to work on these urgent requests made by the community specifically. The first project part of this program was a lane elimination in a 6-lane divided road through a single-family residential neighborhood. This lane helped reduce the 60-mph average velocity of cars cruising through this corridor. Lane elimination has been the primary design that Fort Lauderdale has been implementing, especially near the beach, where people walk and bike through this area. The pandemic's start helped accelerate the master plan of the city of Fort Lauderdale as most of the streets and parking areas near the beach were closed to allow restaurants

to move into the streets and implement outdoor dining. Most of these new innovative street design changes lasted until the beginning of the fall of 2021. Eventually, the streets with high daily traffic were reversed to their original form, but this time with additional sidewalks, bike lanes, and bike racks that foster pedestrian activity.

On the other hand, less congested streets adopted these new design changes and are entirely closed to motor vehicles on the weekends. All these street design changes come with the approval of the departments of emergency response, fire police, and the A1A (State Department of Transportation), working together to make sure all the barriers are implemented to meet the requirements for safety. The pandemic was not why the City of Fort Lauderdale started to build a connection between its people and its places. In the long term, the next plan is to improve the road that connects the beach and downtown by equipping it with pedestrian space.

Oakland, California

The third interview was conducted with Noel Pond-Danchick, a transportation planner for the Oakland Department of Transportation (OakDOT). Oakland has three types of changes: “Slow Streets”- uses residential streets to create space for physical activity with social distancing during shelter-in-place; “Essential Places” - makes pedestrian safety improvements at essential services (food distribution sites, health clinics, testing sites, and grocery stores); “Flex Streets” - allows businesses to move indoor activities onto the sidewalk and/or into the street. Flex Streets was mainly for dining, plus rome retail, and services at a community arts center and recreation center. All of these were initially temporarily established in April 2020 (Essential Places was a few months later based on feedback), but all are taking permanent forms. Slow streets are converging with their planning for bike boulevards, Essential Places are being upgraded with permanent safety improvements, and there are efforts to continue some form of Flex Streets beyond its needs for the pandemic. The ranges of the closures are generally based off of community input and their requests, but are most likely a few blocks and are not time-limited.

OakDOT struggled to collect traffic volumes and control data, since the traffic volumes varied so much during the pandemic. They did collect some volumes using street lights. They did it at five different locations on five different streets that are on the slow street network, and five control streets during summer 2020. Using this data, they observed that high-volume streets converted to slow streets were not super effective because given the implemented signs and barricades that were being put on the streets, it didn’t decrease the volume of traffic enough to increase the safety of pedestrians/cyclists. Therefore, the city took two approaches. Some streets were decommissioned if it wasn’t successful given the amount of resources and infrastructure used to make it a slow street. Some streets got upgraded from type 2 (sandwich board barricades) to installing type 3 which are larger barricades that are drilled into the

ground to deter more traffic. For community outreach, they initially had weekly meetings with local advocacy groups and conducted a lot of engagement with the public. Their data skewed to hearing whiter and wealthier residents in North Oakland. They did specific outreach to community leaders in East Oakland, which had a higher proportion of people of color and low-income residents. They tried to partner with representatives with organizations in this area and to get a different perspective, and this helped make changes in the essential places program. One survey had thousands of responses, but some areas only had around ten responses so this was a signal that they needed more targeted outreach to certain areas. Since many of these changes were temporary, a lot of the outreach and feedback was received post-implementation. If they received complaints, they were willing to quickly remove the changes made.

Design Considerations

Information collected through the surveys and interviews was used to form design considerations and compiled into a design guideline recommendation document. This document includes design guidelines for slow streets and parklets. Slow streets, which are streets closed to through-traffic, were the most common type of street repurposing observed in the survey. Using the lessons learned from those ten cities which implemented slow streets, general design guidelines for potential slow streets in Charlottesville were developed. Even before design, there are important equity and ethics factors to consider when choosing where to implement slow streets in order to create the most equitable results. Cities surveyed showed that there was difficulty establishing projects equally across all socio-economic barriers, and that community engagement and support was vital. Guidelines for choosing locations as well as community engagement in design are listed in addition to technical design requirements. Parklets were the second most commonly observed method of street repurposing, where a parking lane is converted to public space, most often outdoor dining or shopping space for local businesses. The same information about choosing locations and community outreach is detailed for parklets. Included in the design guidelines for both slow streets and parklets are requirements for more sturdy barriers and signs, to keep the need for maintenance less frequent. These guidelines are found in Appendix C.

Finally, a specific example is proposed: making McCormick Road a slow street. This street runs through the heart of our grounds and is a mixing bowl of UVA students moving between dorms, classes, dining halls, and more. During class changes, the narrow sidewalks are flooded with students trying to get to class, and often students even walk in the streets. For these reasons, we have selected McCormick Road, between Alderman Road and University Avenue, to be a feasible location to implement a slow street in Charlottesville, and specific considerations and plans are outlined in Appendix D.

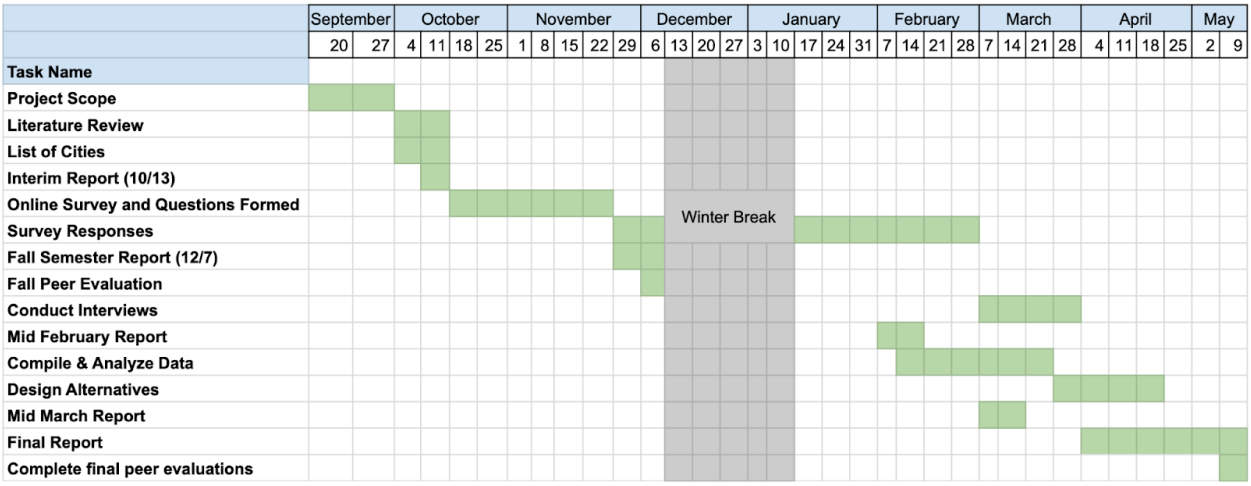
Conclusion

The major findings of this report, including the most commonly used street changes and community responses, were used to help determine the recommendations we posed for the City of Charlottesville. Slow streets were the most common and successful change that the cities surveyed employed during the Covid-19 pandemic. Slow streets are relatively easy to implement, and if using durable signage, do not require significant maintenance. Slow Streets were recommended for implementation on McCormick Road, at the University of Virginia. This is due to the high use by students, relatively low traffic, and the increased safety for pedestrians.

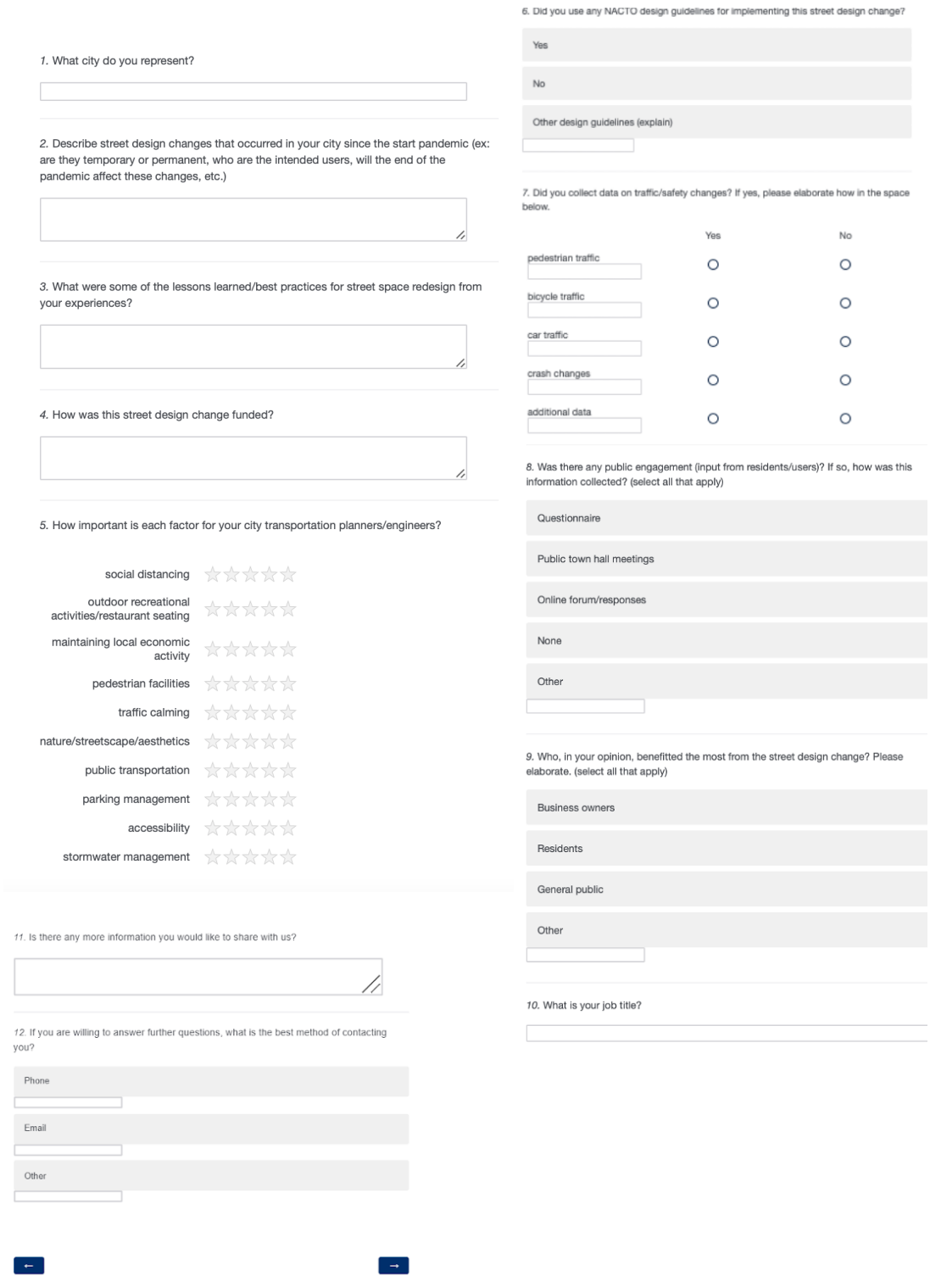
The survey that was developed for the purpose of this project will be kept open to allow for the extended team to continue to use it to gather more information from other cities if needed. The research conducted in this capstone project will be used in a second phase as background research for helping determine the best guidelines for repurposing street spaces, using eye-tracking equipment to measure pedestrian response to these street changes. A final presentation will be conducted before May 6th, 2022, to the extended capstone team outlining the entire research process, data analysis, and recommendations that were mentioned in this paper.

The Covid-19 pandemic created a burst of pedestrian-positive action as governments large and small had to shift their focus to the increased need for localized outdoor recreation and business space. While many of these projects were only temporary alterations, they set a positive precedent for the ability to progress with these trends more permanently where best suited. The further understanding of these possibilities and best practices therein, provided through this study, aim to contribute to gradually altering the fabric of our streets for a better future.

Appendix A - Project Schedule



Appendix B - Survey Questions and Appearance



1. What city do you represent?

2. Describe street design changes that occurred in your city since the start pandemic (ex: are they temporary or permanent, who are the intended users, will the end of the pandemic affect these changes, etc.)

3. What were some of the lessons learned/best practices for street space redesign from your experiences?

4. How was this street design change funded?

5. How important is each factor for your city transportation planners/engineers?

social distancing
outdoor recreational activities/restaurant seating
maintaining local economic activity
pedestrian facilities
traffic calming
nature/streetscape/aesthetics
public transportation
parking management
accessibility
stormwater management

6. Did you use any NACTO design guidelines for implementing this street design change?

Yes
No
Other design guidelines (explain)

7. Did you collect data on traffic/safety changes? If yes, please elaborate how in the space below.

	Yes	No
pedestrian traffic		
bicycle traffic		
car traffic		
crash changes		
additional data		

8. Was there any public engagement (input from residents/users)? If so, how was this information collected? (select all that apply)

Questionnaire
Public town hall meetings
Online forum/responses
None
Other

9. Who, in your opinion, benefitted the most from the street design change? Please elaborate. (select all that apply)

Business owners
Residents
General public
Other

10. What is your job title?

11. Is there any more information you would like to share with us?

12. If you are willing to answer further questions, what is the best method of contacting you?

Phone
Email
Other

←
→

Appendix C: Design Guidelines

Slow Streets

What are slow streets?

"Slow streets" are a temporary or permanent closure of a road to through-traffic. Only locally-destined traffic may access the slow street, opening the lanes up to be used by pedestrians and bicycles in the neighborhood for the majority of the time. Deliveries and emergency vehicles may still access the street, but passenger cars may only access the street if their destination is along the corridor.

Where could we implement slow streets?

- ➢ Traffic rates – High pedestrian and bicycle traffic with low vehicle traffic at low speeds
- ➢ Location – Streets that connect between more heavily-trafficked areas resulting in being used as a cut-through, necessarily with alternative routes in the immediate vicinity
- ➢ Connectivity – Streets which would connect existing bicycle or pedestrian infrastructure, such as filling gaps in the network outlined in the Charlottesville Bicycle and Pedestrian Master Plan, or streets which connect to each other to form a longer pedestrian/bike corridor

Community Engagement

- ➢ Awareness – Slow streets are implemented upon request from communities, meaning a neighborhood must be aware of the program to request service
- ➢ Equitable Advertisement – Advertise program across all socio-economic groups
- ➢ Outreach – Through community outreach in the form of surveys, questionnaires, etc., implementation can take the form of the needs and wants of the community
- ➢ Advocacy – Local groups which advocate for biking, walking, health, etc., may be an effective way to reach community members
- ➢ Educate – Educate local community about slow streets to maximize use and minimize hostility toward the program

Design Specifications

For long term or permanent street closures:

Traffic or weather may lead to lightweight signage blowing over and needing maintenance.

- ➢ Type III Barricades –Type III barricades are typically the barricades used for road closures and are at least 4 feet wide with three reflective panels as defined in Section 6F.63 of the Manual on Uniform Traffic Control Devices (MUTCD)
- ➢ Fixed Mount Base Signs – "Charlottesville Slow Streets" sign posted on a concrete base or base that can be bolted into the pavement, on the same style post used by "STATE LAW - YIELD TO PEDESTRIANS" signs.

Signage:

- R11-4 "ROAD CLOSED TO THROUGH TRAFFIC" MUTCD-standard sign attached to barricade
- A "Charlottesville Slow Streets" sign shall be posted at the road's centerline at main access points: the terminus of the slow street corridor, and any intersections in between. Signs shall convey "ROADS CLOSED TO THRU TRAFFIC - SLOW DOWN"
- Signs may also include contact information for community members to find more information and to leave feedback

Parklets

What are parklets?

Parklets take advantage of parking spaces along a street to create communal space and have the potential to help maintain local economic activity during the COVID-19 pandemic. Most common uses for parklets are outdoor restaurant dining or local business shopping space. Parklets should be standardized across the city to provide some uniformity in design

Where could we implement parklets?

- ➢ Small sidewalks – Small, congested sidewalks with no space to be used by businesses and property owners
- ➢ Businesses – Identify popular local businesses and restaurants which may benefit from utilizing a parklet for extra space due to COVID-19, or beyond to encourage business seasonally
- ➢ Street space – Streets with space that is not essential to through traffic, such as duplicate lanes or street parking
    - ○ If there is only a single lane each direction with no excess roadway space, consideration could be taken to make the street one-way in order to occupy one side of it

Community Engagement

- ➢ Awareness – Parklets are implemented upon request from business owners, meaning the local businesses should be aware of the program to request service
- ➢ Outreach – Through community outreach in the form of surveys, questionnaires, etc., implementation can take the form of the needs and wants of local businesses and their support can be gained early. For example, other businesses may be affected by the lack of parking access due to implementation of a parklet used by one business, however it may also increase foot traffic for those businesses
- ➢ Advocacy – Organizations which represent local businesses, such as the Downtown Business Association of Charlottesville (DBAC) or the Central Virginia Small Business Development Center (CV SBDC) may be an effective way to reach local businesses about parklets

Design Specifications

The design of a parklet should include all of the "critical" components of parklet design according to the existing NACTO interim design strategies. This includes:

1. A wheel stop 4 feet from the parklet
2. Bollards or some vertical element to increase visibility to traffic
3. Minimum 6 foot width
4. Platform raised to the level of the curb to create a flush transition, or ramp accommodations

Other design considerations include:

- ➢ Bike racks on or around parklet to promote non-automobile traffic
- ➢ Parklets should not be located on corners or near any turning traffic
- ➢ Concrete planters with railings no higher than 3 feet to create a sturdy boundary that will require minimal maintenance

Appendix D: Project Example

Closure of McCormick Road to Through Traffic, and Repartition of Excess Space

University of Virginia students use McCormick Road to walk between the majority of classes, dining locations, and first-year dorms. It is very much the central road through the grounds of UVA. Not only does this position the street for a high overall volume of pedestrian traffic, but the fluctuations are often sudden and extreme. During class changes, thousands of students line the sidewalks along McCormick Road. It is also not uncommon to see cars waiting several minutes for students to clear the streets in order to make forward progress, especially when turning onto side streets. In most places, the sidewalk is only 8 feet wide, which is insufficient for the volume of foot traffic present every day. There are also no provisions at all for bicyclists. Yet, in some areas, there is extreme excess width to what is technically only a two-lane roadway - in the section between Hancock Drive and Bonnycastle Drive, the roadway exceeds the width of five standard lanes, not even including parking.

The proposed Slow Street closure on McCormick Road through UVA's Grounds would span the 0.8-mile section between the traffic signal at Alderman Road to the eastern terminus at University Avenue. Within this section of roadway, there is also a vehicular connection to Emmet Street. McCormick Road is a significant cut-through across grounds, with the nearest alternatives being the heavily-trafficked University-Ivy Road corridor to the north, and Jefferson Park Ave to the south. Formerly, through traffic on this stretch of McCormick Road was restricted using two sets of gates stationed midway between each of the three access points. The gates were closed between 7:30 AM and 4:30 PM during weekdays, and only UVA vehicles with a transponder could raise them to pass through. The use of a physical barrier significantly reduced vehicular traffic on the road during prime school hours. However, functional issues with the gates resulted in their ultimate abandonment, and without any other restricting signage, the road is now open to through vehicles at all hours of the day. Traffic is heavier now than ever, giving pedestrians a harder time navigating. The majority of traffic experienced by McCormick Road is through traffic unrelated to UVA students and employees.

Figure 1: Abandoned Gate and Faded Sign Detailing Former Traffic Restrictions Along McCormick

The reinstated closure would occur between 7:30 AM and 4:30 PM on weekdays, as it was before. The restrictions would be marked with signage at each external vehicular access point to the encompassing section of roadway. Figure 2 shows in plan view the location of the proposed sign postings along McCormick Road. Vehicles will still be permitted to access destinations along McCormick Road such as faculty parking lots behind Clark Hall, Bryan Hall, the Physics Building, and alongside the Lawn. UVA Facilities Management, mail, and emergency vehicles will also be permitted to utilize McCormick Road as needed.

While the traffic restrictions will improve safety for pedestrians and bicyclists, vehicular traffic is still a certainty. The majority of the road is not wide enough to add adequate bike facilities and expand pedestrian accommodations inward, so not much can be done to increase usable space (beyond the reduction of vehicular traffic) without more significant right-of-way expansion. However, the aforementioned 0.1-mile section between Hancock Drive and Bonnycastle Drive has an extreme excess of space - 75 feet of width striped only for two travel lanes - which can be utilized far more efficiently simply through restriping. Currently, there is a large amount of wasted space in the form of a striped median, that is of no use to vehicles or pedestrians. By moving vehicular traffic to the center of the street, this allows for buffer zones on each side of the street to effectively become part of the sidewalk - nearly doubling the pedestrian capacity by width - as well as the addition of protected bike lanes. Figure 3 shows how this section of roadway would be adjusted.

A conservative cost estimate is shown in Table 1. UVA employs crossing guards to help students cross McCormick Road safely during school hours. With the new vehicle restrictions, these guards may no longer be necessary, potentially saving in expenses. (A trial period should be observed prior to making that change, however.) With the new signage communicating the restrictions to the public, UVA police will be able to fully enforce the reinstated restrictions and begin issuing tickets for violators. As they are frequently stationed at multiple locations along McCormick Road all throughout the day, no additional costs will be incurred for this to work efficiently.

All signs shall be posted at a minimum of 6 feet high on a square-channel post with a 250-lb concrete base.

Slow Streets signs shall be posted at the following intersections:

- McCormick Rd and Alderman Rd
- McCormick Rd and Emmet St
- McCormick Rd and University Ave

Another sign shall include key destinations drivers may be trying to reach such as:

- Clark Hall
- Thornton Hall
- McCormick Road Residence Area (Old Dorms)
- UVA Chapel

In addition, the city of Charlottesville would be asked to install signs along Alderman Road, Emmet Street, and University Avenue in advance of their intersections with McCormick Road specifying that left or right turns are only permitted for authorized vehicles during the specified hours.

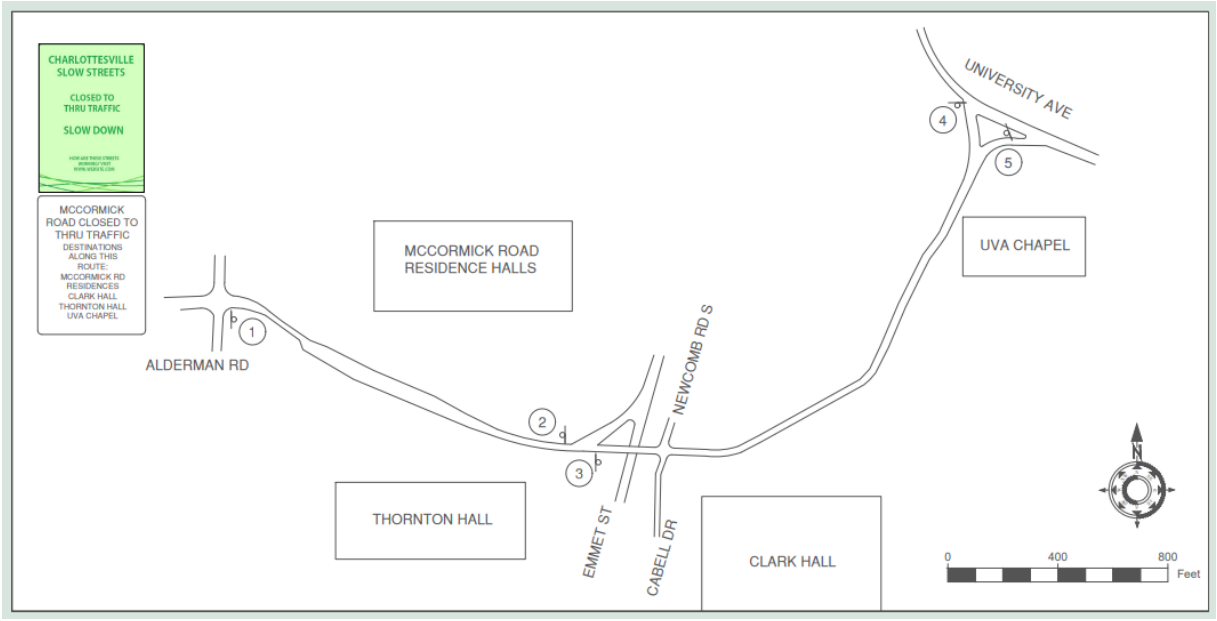
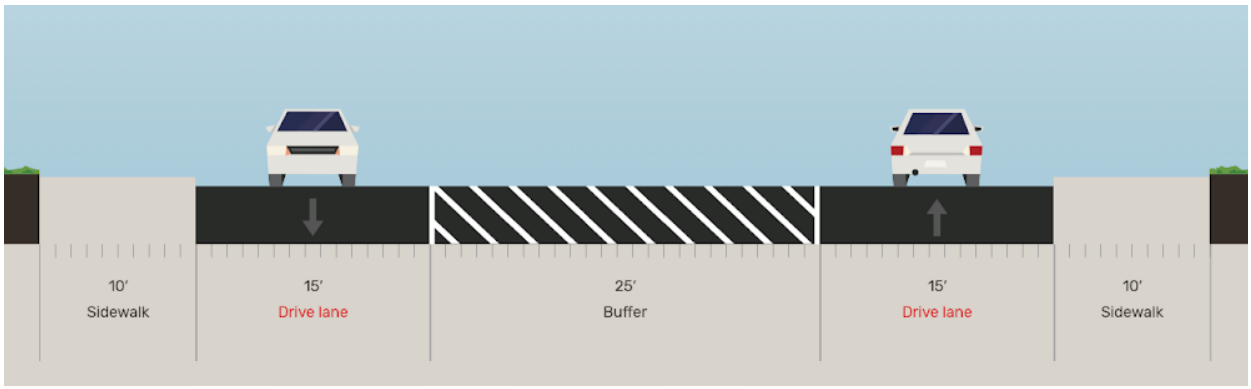


Figure 2: Plan View of McCormick Closure Proposed

Current Configuration



Future Configuration

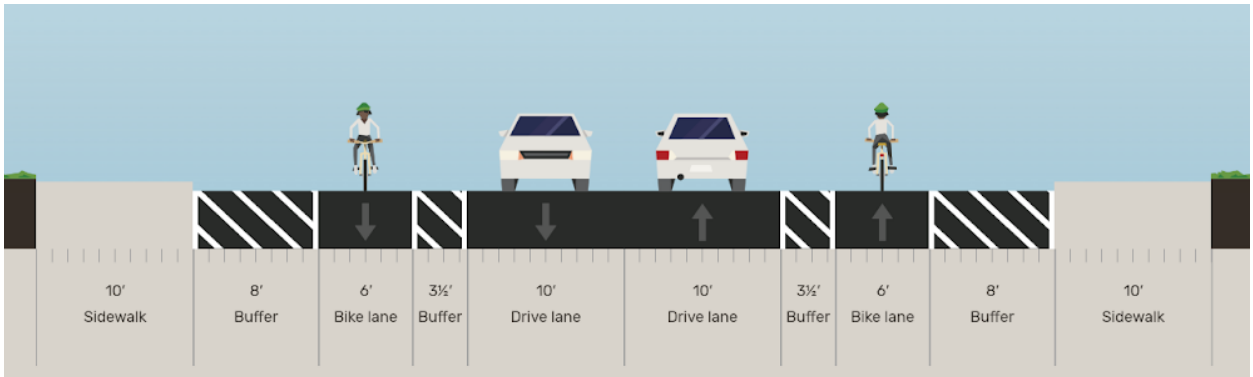


Figure 3: Cross Section of Marking Alterations to McCormick between Hancock and Bonnycastle

Item	Quantity	Estimated Price (Each)	Total Price
Custom 24”x18” “Road Closed” Sign	5	$50	$250
Custom 24”x18” “Slow Streets” Sign	5	$50	$250
6-foot square-channel post w/ 250-lb concrete base	5	$170	$850
Removal of existing striping and application of new striping	570 feet	$2 per foot of roadway	$1,140
		Total Cost:	$2,490

Table 1: Cost Estimate