Public Realm Study
Programs Assessment

Prepared by:
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University of Colorado - Denver College of Architecture and Planning
in association with Denver Department of Transportation and Infrastructure
and Denver Department of Parks and Recreation
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1. Introduction

The coronavirus pandemic began creating new challenges for Denver’s businesses and residents in March 2020. Social distancing practices instantly changed the way Denverites socialized, dined, recreated and moved around the city. To create more physical space for social distancing, the City and County of Denver temporarily expanded activities into the public right-of-way on select streets. These right-of-way transformations occurred in commercial districts, residential neighborhoods and parks. The City’s economic and health crisis response provided an urban laboratory within which new ways of using the public right-of-way could be tested, experienced and studied.

From March to October of 2020, Denver’s Department of Community Planning & Development (CPD) partnered with the Department of Transportation and Infrastructure (DOTI), the Department of Parks and Recreation (DPR) and the University of Colorado - Denver College of Architecture and Planning to examine these temporary changes. The primary objective was to better understand their physical configurations, how they were used and their relative degrees of success. This Public Realm Study Programs Assessment documents the results and findings from these efforts and will inform future actions by the City and community regarding alternative uses of the public right-of-way.

Purpose of the Public Realm Study
The Public Realm Study, of which this Assessment is a part, is intended to do the following:

» Evaluate the approval process. For public right-of-way transformations that are driven by the private sector, document the process and identify challenges and barriers to entry.

» Evaluate the interventions. For all types of public right-of-way transformations, identify key factors of success.

Public Realm Typologies
The Public Realm Study focuses on four different types of right-of-way transformations. The four types, or “Typologies,” are summarized below.

Commercial Streets
These are streets in commercial and mixed-use areas that are open for outdoor dining, non-vehicular mobility and other activities, but closed to vehicles. These streets typically span a block or less and are capped at both ends by barriers preventing vehicle traffic. The full right-of-way, including sidewalks, on-street parking, and travel lanes, is collectively transformed.

Parklets
These are on-street parking spaces in commercial and mixed-use areas converted to an outdoor dining area. In some cases, activities in the on-street parking area are combined with additional amenities in the tree lawn (landscaped area between the curb and sidewalk) and/or public sidewalk.

Neighborhood Streets
These are streets within residential neighborhoods temporarily repurposed to better accommodate walking, biking and other activities by limiting vehicle access to local traffic and slowing speeds of permitted vehicles. Barriers and signage are typically placed at intersections to discourage non-local vehicle traffic and raise awareness of pedestrians and bicyclists that may be present within the part of the street typically reserved for automobiles.

Park Streets
These are streets within parks that have been repurposed to accommodate walking, biking and other activities by prohibiting vehicle access. Barriers are typically located at vehicle entry points to parks.
INTRODUCTION

General Methodology
This section summarizes the general study methodology and input sources for this Programs Assessment. See Appendix 1 for more details.

Field Research
Field research at study locations was a critical component of this project. Researchers spent hundreds of hours in the field observing the study locations, including how they were designed, how they were used, who was using them and how they changed over time. Field research included:

» Quantitative Observations. Strategic studies to gather quantitative data on the use and performance. Researchers developed data collection instruments and tracked users and behavior.

» Qualitative Observations. Field observations of how the spaces functioned over the study period that were more informal than quantitative observations. Qualitative observations were typically prompted by what was occurring in the field at a given moment or conducted in between quantitative observation periods.

» Photo Documentation. Countless photos were taken at each location.

» Direct Experience. Researchers used and experienced the spaces by bike and by foot.

Direct Feedback
To augment data from the field, researchers collected feedback from users to better understand their perceptions and experiences. Direct feedback was collected through the following methods:

» Informal Interviews. Researchers conducted informal interviews in the field with users.

» Formal Interviews. Researchers conducted phone interviews with operators of the spaces, such as businesses or business groups that sponsored outdoor dining expansions.

» On-site User Feedback. In one of the study locations, researchers constructed a chalkboard that was placed at the site. This allowed visitors to share their thoughts on the space on their own time and without researchers being present on the site. Feedback was documented through photographs.

Online Survey
The project team developed and distributed an on-line survey to obtain additional feedback from users and operators of the Commercial, Neighborhood and Park Street Typologies. The survey was shared with local organizations, RNOs, City Council members and through other partnerships by the University of Colorado - Denver. The survey was open for approximately 3 months and yielded over 500 responses.
**Significance of Findings**

The Public Realm Study and its findings and data are based on observational research. The study is not statistically significant and does not take into account all the factors that might influence the performance of interventions. The study began during the pandemic so there is no baseline data to compare activities on the streets before and after the installation of the interventions. As such, the study relies mostly on comparative analysis of different installations within each public realm typology (Commercial Streets, Parklets, Neighborhood Streets and Park Streets).

To the extent the City continues to allow temporary installations in the public right-of-way, additional studies would be helpful in generating more data to sharpen findings.
City Programs Overview
This section describes the City’s programs that allowed for transformations to the City’s public rights-of-way.

Temporary Outdoor Expansion (TOE) Program
In May 2020, the City and County of Denver began issuing permits under the Temporary Outdoor Expansions (TOE) program, which allowed restaurants and bars to operate in outdoor areas adjacent to businesses. The program provided economic relief for businesses while also facilitating physical distancing and safety for patrons during the pandemic when indoor dining was limited.

» Eligible Expansion Areas. Expansion can occur in designated outdoor areas such as streets and sidewalks. While it is not a focus of the Public Realm Study, expansions into areas on private property such as surface parking lots, are also approved under this program.

» Required Approvals. All expansions into the public right-of-way require approval by DOTI. Expansions of areas where alcohol is served require approval by the Department of Excise and License (EXL). The Denver Fire Department (DFD) and Community Planning & Development (CPD) also act as reviewing agencies as needed. Denver Department of Public Health & Environment (DDPHE) is a key partner, advising on public health considerations.

» Approvals Process. The multi-step process for expansion into the right-of-way typically involve DOTI and EXL, and sometimes involve approvals by DFD and CPD. Downtown Denver Partnership (DDP) also participates in the review process for TOEs on the 16th Street Mall.

» Allowed Activities. Activities are limited to sit-down dining and pick-up/carry-out service.

» Prohibited Activities. Expanded outdoor patios cannot be used for activities that would promote congregating, involve shared equipment, or amplify sound. This is to discourage group gatherings during the pandemic. Prohibited activities include:
  ◦ Standing areas
  ◦ Live music, entertainment or dancing
  ◦ Outdoor games
  ◦ Loudspeaker call systems
  ◦ Pets, except as provided in the Americans with Disabilities Act
INTRODUCTION

**Temporary Recreational Streets Program**

In April 2020, DOTI began temporarily closing select streets to through-traffic to create more space for Denver residents to walk, bike and run while complying with physical distancing requirements. DOTI refers to these street segments as Temporary Recreational Streets, or “T-RECs.” They are often called “shared streets” by the public. Vehicular traffic is reduced and slowed by temporary design interventions, freeing up the full width of the street to be comfortably shared by all modes. DOTI conducted a robust analysis to determine the locations that took into account proximity to parks, equity considerations, and constraining factors, such as transit routes and presence of commercial activity.

**Temporary Vehicle Restrictions in Parks**

In April 2020, Denver’s Department of Parks and Recreation (DPR) began prohibiting vehicle travel on select roads within many parks around the city. The primary objective was to allow additional space for social distancing during the pandemic. Opening up roadways for walking, biking and other activities relieved pressure on smaller trails and walkways.
**Temporary Outdoor Expansion (TOE) Program Review**

A multidisciplinary team of professionals from various City departments came together at the onset of the coronavirus pandemic with the objective of providing relief for food and beverage businesses challenged by reduced seating capacities. Within a matter of days, this group, the Temporary Outdoor Expansion (TOE) work group, successfully established processes and procedures for review and immediately began reviewing and approving applications from businesses to expand seating outdoors. This section reviews trends, accomplishments and feedback from applicants.

**Citywide Trends in Temporary Outdoor Expansions**

This section provides a review and analysis of TOEs citywide. The maps in this section reveal where interventions have occurred and not occurred. Bullet point level observations are provided with each map.

**Temporary Outdoor Expansions in the Public Right-of-Way (all types)**

Figure 1-1 shows all TOEs approved within the public right-of-way through October 2020. TOEs are layered over existing commercial, entertainment and mixed uses since these are the areas where expansions are most likely to occur. Within this time period, approximately 200 applications were approved and 30 were denied. Denials were typically occurred when an applicant could not provide adequate accessibility due to site constraints. Observations about the approved expansions into the right-of-way include:

- Expansions are typically located along commercial corridors and in mixed-use urban neighborhoods.
- Expansions typically occurred on slower speed local and collector streets.
- Expansions are more prominent in commercial areas with traditional urban form (buildings framing the street, established street wall, etc.).
- Expansions occurred less frequently outside the urban core.

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*Figure 1-1: Temporary Outdoor Modifications Occupying the Public Right-of-Way*

Source: Department of Transportation and Infrastructure (October 2020)
Temporary Outdoor Expansions on Private Property

For comparative purposes, Figure 1-2 shows all TOEs that occurred on private property (parking lots, open areas, etc.) through November 2020. Observations include:

» Expansions on private property were spread around the city when compared to those occupying the right-of-way.

» TOEs on private property occurred in both urban and auto-oriented, suburban contexts.

» TOEs on private property occurred on properties adjacent to a wide variety of streets, from narrow collectors to wide multi-lane arterials.

» While TOEs on private property are more widespread when compared to those in the public right-of-way, they appear to occur less frequently in many areas of the city, such as the south, southeast, east and northeast.

Figure 1-2: Temporary Outdoor Modifications Occupying the Public Right-of-Way and On Private Property

Sources: Department of Transporation and Infrastructure (October 2020); Department of Excise and License (November 2020)
INTRODUCTION

Full Street (Commercial Streets)

Figure 1-3 shows all TOEs approved within the public right-of-way through October 2020 that fall within the Commercial Streets (full street closure) Typology. Observations include:

» Few full street closures occurred under the program given the level of complexity and organizational challenges.

» These expansions are generally concentrated within the city’s centrally located mixed use neighborhoods in and surrounding Downtown.

» Full street closures occurred in commercial areas with traditional urban form (buildings framing the street, established street wall, etc.).

Figure 1-3: Temporary Outdoor Modifications Occupying the Full Public Right-of-Way
Source: Department of Transportation and Infrastructure (October 2020)
INTRODUCTION

On-Street Parking (Parklets)

Figure 1-4 shows all TOEs approved within the public right-of-way through October 2020 that involve transformation of on-street parking to outdoor dining activities, including interventions where dining in on-street parking areas was combined with use of the sidewalk, tree lawn and/or other spaces. TOEs that utilized the vehicle travel lane in combination with a Parklet are not included in this data. Observations include:

» Parklets occurred throughout the city in a wide variety of urban contexts.

» Parklets typically occurred in commercial areas with traditional urban form (buildings framing the street, established street wall, etc.).

» Parklets typically occur on modestly scaled streets as opposed to wider ones, like arterials.

» Multiple parklets are often concentrated together on the same street or within the same vicinity.

» Expansions occurred less frequently in suburban, auto-oriented contexts.

Temporary Outdoor Expansion occupying the on-street parking lane on Tennyson Street

Figure 1-4: Temporary Outdoor Modifications Occupying On-Street Parking in the Public Right-of-Way

Sources: Department of Transportation and Infrastructure (October 2020)
Sidewalk Patios
Figure 1-5 shows all TOEs approved within the public right-of-way through October 2020 that involve transformation of the public sidewalk for outdoor dining activities. Observations include:

» Sidewalk patios were more widespread than other interventions in the right-of-way.
» Sidewalk expansions typically occurred in areas with a traditional urban character with buildings framing the street right-of-way.
» Sidewalk patios occurred on both modestly scaled and wider streets, such as Broadway and East Colfax Avenue.
» Multiple sidewalk patios were often concentrated on a street or within a vicinity.
» Sidewalk patios were limited or absent from large portions of the city, particularly to the southwest, southeast, east, north and northeast.
Administrative Evaluation
The project team interviewed TOE applicants to collect feedback on the approvals process. The objective was to identify applicant challenges and opportunities for improvements to the process.

Key Finding: The TOE program was perceived as very successful, but the approvals process was challenging to navigate.
Almost every interviewee expressed sincere gratitude for the City's quick action in setting up the TOE program. It was clear from discussions that this program had a significant impact on their ability to weather the economic challenges associated with the pandemic. However, applicants also felt there may be opportunities to make the process easier to understand and more efficient.

Most concerns centered around a struggle to understand the process clearly from the outset. Many applicants did not understand the number of departments from which sign off and approval would be required. Customers reported that just when they thought they had completed necessary steps, they were informed they needed additional approvals. Suggestions for improvement included enhanced coordination between the various departments and clear, one-stop direction for applicants. Specific suggestions included:

» Develop comprehensive applicant guide that clearly explains the steps and City departments involved
» Assign a single point of contact to help applicants navigate the process and coordinate multi-departmental review
» Increase clarity of website

It should be noted that as the TOE program evolved, additional materials, how-to videos, web content and other initiatives were pursued and executed by the City to improve customer service, however there may be more opportunities available.
2. Commercial Streets

The City’s Temporary Outdoor Expansion program permitted food and beverage businesses to expand dining activities into the right-of-way. Commercial Streets typically involved closure of a full or partial block to vehicle traffic and included dining and public seating, landscaping, lighting elements, and other amenities.

This chapter documents the findings of an investigative study into Commercial Streets. It focuses on the key design and management considerations and reviews the interventions to assess their impact on placemaking and business operations.

Researchers sought to answer the following study questions:

» What is a successful street closure?
» What factors contribute to success?
» How are spaces being used?
» Who is using these spaces?
Study Locations

As shown in Figure 2-1, study locations included Glenarm Place, Larimer Square, and Larimer Street and 29th Street.

» **Glenarm Place.** A half-block stretch from 16th Street Mall to the southern edge of the Denver Pavilions. This is a 2-way street with one 12-foot vehicle lane and a 5-foot bike lane in each direction with a center median and a pedestrian refuge island integrated with a mid-block crossing.

» **Larimer Square.** A full block stretch on Larimer Street between 14th and 15th Streets. This 2-way street includes two 12-foot vehicle lanes, two 7-foot parking lanes, and two 16-foot sidewalks.

» **Larimer Street at 29th Street.** A full block stretch on Larimer Street between 29th Street and 30th Street. This 2-way street includes two 11-foot vehicle lanes, two 5-foot bike lanes, two 8-foot parking lanes, and two 6-foot sidewalks.
Findings

Key Finding 1: Adjacent land uses and street level design impact the character of a Commercial Street

Land Use
Streets with a mix of dining, retail, office, and other commercial uses seem to increase activity on the street. For example, Larimer Square has a diverse mix of food and beverage establishments, retail stores and other businesses. This diverse mix of uses meant that activity was created throughout the day.

Urban Form/Street Level Character
Urban form and street level character impacted the success of Commercial Streets. Visually interesting storefronts with a strong relationship to the street established by entryways and windows increased the placemaking impact of the intervention.

» Glenarm Place. Businesses adjacent to Glenarm Place provide activity in the general area, but most entries are oriented to the 16th Street Mall and the paseos of the Denver Pavilions. This means Glenarm Place is a tertiary frontage that provides less visual interest and activity. Researchers believe this impacted the likeliness of user staying/lingering at Glenarm Place. Additional approaches to creating activation and visual interest may be considered.

» Larimer Square. Larimer Square contains a mix of historic buildings with large transparent windows, unique architectural details, and active entrances facing the street. Larimer Square is more active and visually interesting because of these elements.

» Larimer and 29th. Larimer and 29th Street had less street level entrances facing the street than Larimer Square and more than Glenarm Place. There is a mix of large transparent windows and large building walls with murals facing the street, adding visual interest to the public realm.

Figure 2-2 indicates the number of publicly accessible street facing entries for each study location.

<table>
<thead>
<tr>
<th>GLENARM PATIO</th>
<th>LARIMER SQUARE</th>
<th>LARIMER 29TH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>40</td>
<td>13</td>
</tr>
</tbody>
</table>

Figure 2-2: Number of publicly accessible street facing entries on each street (does not include service/maintenance doors).
Key Finding 2: The placement and spacing of elements impacts the richness of one’s experience on a Commercial Street

Commercial Street design and the spacing of elements impacted how people accessed, moved through, and used the street.

Glenarm Place – Maximum Dining Configuration
Glenarm Place reserved the entire curb-to-curb space for restaurant seating, meaning pedestrians had to walk along the sidewalks. This forced bicycles and scooters onto the sidewalk, which sometimes resulted in modal conflicts. Since restaurants were not directly adjacent to seating in the street, pedestrians seemed confused about how to use the space. People were observed showing interest in the seating, but appeared unsure if they were allowed to use it. This design setup likely maximized the number of seating options for each business, but it also created a place that non-customer members of the public were more likely to move through than stay and enjoy. The curb-to-curb width was limited in comparison to other study locations, which created additional challenges in balancing private seating with other amenities.

Larimer Square and Larimer and 29th – Dynamic Configuration
Larimer Square and Larimer and 29th featured outdoor seating and other amenities generally along the curb and the middle of the street remained open and unencumbered. These streets also included open space between elements, creating unencumbered areas that allowed people to move from the middle of the street to and along the sidewalk. Restaurant and bar seating was placed in front of the business with which it was associated. Sidewalks remained open for walking and business access. These configurations created an open space in the middle of the road for mobility while also creating multiple layers of visual interest and activation. This multi-layered configuration also created 360-degree visual interest for diners, which created enhanced people watching opportunities.

As shown on Figure 2-3, configuration impacted how people traveled through and experienced a space.
Key Finding 3: Public amenities create a vibrant, visually interesting and inclusive street

Diverse public amenities make a Commercial Street comfortable and inviting. For the purposes of this study, a public amenity on a Commercial Street is an amenity that benefits a non-paying visitor functionally and/or visually.

As streets transitioned to restrict vehicles, new elements were introduced. Some streets already contained elements to encourage activity and provide visual and placemaking benefits. Trees, lighting, benches, and planters are examples. Some streets had all these features and others only had some of them. Public amenities, itemized in Figure 2-4, impacted one’s experience on a Commercial Street. The specific public elements included at each street are summarized below. Figure 2-5 shows on-line survey responses to a question asking what amenities would cause a user to stay longer on a Commercial Street.

Glenarm Place

» **Comfort and Safety.** Umbrellas and misters were provided, but only for paying customers.

» **Vibrancy and Visual Character.** Existing planters were moved to the north entry point to the space, near the intersection with 16th Street Mall. These landscape elements continued to provide a visual and placemaking public benefit under the redesign.

Larimer Square

» **Comfort and Safety.** Elements providing shade, cooling, and heat were placed in areas not occupied by outdoor restaurant seating. These were often integrated with other public benefits. Four freestanding pergolas with integrated furnishings and visual character elements were key features.

» **Furnishings.** Public seating of varying types was placed throughout the street, both as free standing elements and integrated with other elements.

» **Access and Signage.** Accessibility ramps provided access from the curb-to-curb space to sidewalks. Signage at the ends and throughout the street assisted in wayfinding and provided business information.

![Figure 2-4: The above graphic shows the type of public amenities present at each study location. Public amenities are defined as features that benefit non-paying members of the public or areas accessible by non-paying members of the public.](image)

![Figure 2-5: Total responses to on-line survey question asking why people stayed at a Commercial Street longer.](image)
» Vibrancy and Visual Character. Many elements were provided to enhance visual character, sensory stimulation and cultural opportunities. Music and food stands were sometimes present on the block.

Larimer and 29th

» Accessibility and Signage. Accessibility ramps provided access from the curb-to-curb space to the sidewalks. Signage at the ends and throughout the street assisted in wayfinding and provided business information related to contactless service (QR codes that link to takeout ordering options for restaurants).

Researchers believe public amenities encouraged people to stay in and enjoy Commercial Streets. See Figure 2-6 for data on people staying in the street as a percentage of all people in the street. Public amenities, especially public seating, also increased inclusiveness by providing amenities for persons that were not paying customers. When provided, public seating was utilized. See Figure 2-7 for data on usage of public seating.

PUBLIC EATING WITHOUT PUBLIC SEATING

Food trucks located at Larimer and 29th provided additional dining options but did not provide seating. This caused people who wanted to stay on the street to sit on the curb or sidewalk. Glenarm Place also did not have public seating, except for some movable tables and chairs from the adjacent paseos. Larimer Square had public seating for anyone to sit and use whether for people eating from street vendors or anyone wanting to hang out on the street. This further highlights the importance of public seating in a Commercial Street.

![Figure 2-6: The average percentage of total people observed in the space that were stationary or staying (eating, hanging out, etc.). The averages are based on a series of 10-minute counts of people staying and moving through each space over the course of the study.](image)

![Figure 2-7: The data above shows the percentage of all people observed staying in the street that were sitting in public seating for each location.](image)
Key Finding 4: Street design and pedestrian activity cause people moving to slow down

Fieldwork studies and observations suggest that as pedestrian activity increases on a Commercial Street, it alters the way people move through it. The fieldwork also suggests that a rich space with permeable layering of amenities causes people traveling through a space to slow down.

Glenarm Place
Glenarm Place restricts through-travel to existing public sidewalks because restaurant seating is placed in the curb-to-curb space and visitors not dining in these spaces could not enter this area. Researchers observed that people that biked and rolled on Glenarm Place sidewalks did not have to slow down or dismount to maneuver pedestrians and street elements.

Larimer Square and Larimer and 29th
Larimer Square and Larimer and 29th kept the center of the street open, allowing those passing through to travel on sidewalks or in the street. Those encountering the street were faced with a multi-dimensional space with pedestrians, outdoor seating and other amenity elements scattered throughout the street. It appeared difficult for cyclists and people rolling to efficiently and safely move through an activated and visually rich space. In some circumstances cyclists slowed down or dismounted when they encountered the Commercial Street.
Key Finding 5: All three interventions appeared to be equally inclusive with respect to gender

Researchers documented the gender of people moving through each street. Data suggests that all three study locations were equally inclusive with respect to gender. As shown in Figure 2-9, the roughly 50-50 male-female split observed in the study is proportional to the City’s overall breakdown as indicated by the 2010 Census.

Key Finding 6: Commercial Streets are used less frequently by people in younger and older age ranges

Age distribution of users was similar among all locations. The most represented range was 31-64 with 15-30 close behind. Larimer Square saw higher rates of children at night. In contrast, Larimer and 29th attracted kids during the day but they were seldom observed at night. Figure 2-10 shows age diversity of users observed at each location during the day and at night.

Figure 2-10: The data above shows the percentage of each range represented of all persons observed moving through the space at each location for day and evening.

Figure 2-9: Top: The percentage of male and female moving through the space at each location from all gender observational studies. Bottom: Denver citywide percentage of male and female per 2010 Census.
Key Finding 7: Event programming increased activity and user diversity

This key finding is specific to Larimer and 29th. At this location, the age breakdown of users stayed relatively consistent from day to day throughout the course of this study.

However, one study occurred concurrent with a programmed event. A weekend pop-up street bazaar featured 11 tents with individual vendors, a pop-up food vendor and a DJ spinning lively music. During the event the street saw a shift in age representation that was more inclusive of younger and older populations. The demographic shift from a typical day to event day observed is detailed in Figure 2-11.

Figure 2-11: The data above shows the percentage of each range represented of all persons observed moving through the space for a typical mid-day and for an event scenario.
Key Finding 8: Businesses benefited from Commercial Streets

Researchers interviewed several businesses located adjacent to the Larimer and 29th study location. Most interviewees expressed that the Commercial Street positively impacted business. Figure 2-12 maps some of the businesses that were interviewed and shares quotes extracted from those discussions. In some cases, business owners said that revenue increased over normal, non-pandemic levels and partially attributed this to increased pedestrian traffic resulting from the Commercial Street.

“Saw 95% of normal summer revenue. Enjoyed being able to operate on an open street”
- Owner of Ratio Beerworks

“Sales were good when we were utilizing TOE program. They are down after not continuing in winter”
- Manager Barcelona Wine Bar

“We are growing as a company despite covid. Would not have happened without the outdoor space”
- Owners of the Block Distillery

“A lot of my sales in years past were from tourism. This year tourism is down and I had better sales in November 2020 then I did November 2019.”
- Owner of Modern Nomad

Figure 2-12: Business responses when asked if business is Better, About the Same or Worse under the street intervention.
The City’s Temporary Outdoor Expansions (TOE) program permitted food and beverage businesses to expand dining activities into areas of the right-of-way typically used for on-street parking (parallel or angled). About 7 to 9 feet deep as measured perpendicular from the curb toward the street centerline for a standard parallel parking stall, this space presented a significant opportunity for additional seating during the pandemic. In some US cities, conversion of on-street parking spaces is commonly employed for placemaking and business support purposes even in non-pandemic times, but these transformations have not been widely employed in Denver. This chapter documents the findings of an investigative study into a series of patios in the parking lane, or “Parklets” around the city. It focuses on the key design and management considerations and reviews the interventions to assess impacts on placemaking and business operations. In studying Parklets, researchers sought to answer the following questions:

» In what range of urban contexts and street types did Parklets occur?
» What range of physical elements were utilized?
» What factors were most critical to success?
» What lessons did operators learn in creating and managing these spaces?
Study Locations

The research team focused on six locations with varying urban contexts and roadway conditions. For each study location, two independently designed and operated Parklets were observed. Study locations are shown on Figure 3-1.

Figure 3-1: Parklet Study Locations and Neighborhoods
Parklet Placement and Design

Parklets observed in this study took place in a variety of contexts and included a range of physical design elements. This section identifies Parklet placement considerations and design elements.

Street Categories

» **Neighborhood Commercial Streets.** Many Parklets were located on small, two-lane commercial streets within residential areas. Gaylord and Tennyson Streets are two examples.

» **Intersecting Streets.** In some cases, Parklets were located on a calmer side street that intersected a busier commercial street. Locating on a side street provided greater relief from traffic and noise. Examples include Ellsworth Street, just off Broadway and West 33rd Avenue, just off Tejon Street.

» **Arterials.** One study location was right on Broadway, just north of Ellsworth Street.

Top Left: Intersecting Street - Ellsworth Street; Top Right: Arterial - Broadway; Bottom Left: Neighborhood Commercial Street - Tennyson Street; Bottom Right: Neighborhood Commercial Street - South Gaylord Street
**Contextual Relationships**

The placement and relationship of a Parklet to other features like buildings, nearby outdoor seating, trees and building entries, is an important consideration. The degree of design integration of Parklets with their surroundings varied significantly. Common contextual elements to consider in the design of a Parklet include:

» **Sidewalk.** By definition, a Parklet typically has a relationship to the public sidewalk since it is located across the sidewalk from the associated business. Some were seamlessly integrated, while others provided physical elements to separate the Parklet from the public sidewalk.

» **Adjacent seating.** Many Parklets were placed and designed to coordinate with and complement other outdoor seating areas, both temporary and permanent.

» **Building wall/storefronts.** Since most Parklets occurred in traditional urban settings, they were typically directly across from a strong building edge/street wall. The characteristics of the adjacent building impacts the Parklet. In some cases, the building wall was visually and physically impermeable and in other cases there was a strong visual and physical relationship between the Parklet and the indoor business activities.
Groundplane
The ground plane, or base, of Parklets varied by location and included the following:

» **Untreated.** Using the roadway with no additional application of materials or structure.

» **Cover.** Artificial turf or other material was often used to demarcate and differentiate the Parklet space.

» **Structured Deck.** Wood decking or other structure was used to elevate a Parklet from the road and demarcate and differentiate the space.

Seating
Seating within Parklets was typically straightforward and simple, including:

» **Independent Tables/Chairs.** Typical tables with detached chairs.

» **Common Dining/Picnic Tables.** Picnic table units that sat between four to six customers.
Enclosure and Traffic Separation
In most cases, Parklet spaces were demarcated and enclosed by vertical elements. Enclosure was provided at the interface with the vehicle travel lanes in all cases, and in some cases at the interface with the adjacent sidewalk and/or amenity zone. A variety of approaches were utilized, including:

» Fencing. Decorative, metal barrier, lightweight wood, lattice, etc.
» Rope/chain
» Curtains
» Plastic barrier (water filled)
» Concrete barrier
» Integrated structure
» Open
**Cover/Shade**

In the summer months, shade was a critical to success. Most interventions utilized independent umbrellas adjacent to or integrated with tables, while others used larger shade features that covered multiple tables. Others relied on existing street trees or buildings for shade. Typical approaches included:

- Tenting
- Independent umbrellas
- Shade sails
- Street trees
- None

**Landscape Elements (Artificial and Natural)**

Landscape elements (real and artificial) were often integrated into Parklets to provide ambience, visual interest or in some cases screening from the adjacent vehicle travel lane. Typical approaches included:

- Freestanding planters
- Integrated/woven landscaping
- Hanging baskets
- Existing natural
Lighting
Parklet lighting is essential for safety and effective at creating an inviting dining space. Most Parklets integrated lighting with the design, however some also benefited from nearby public street and building lighting. Typical approaches included:

- Low level
- Overhead
- Adjacent building lighting
- Public street lighting

Access
Entry to Parklet dining areas varied from consolidated entry points to those that were generally open and could be entered from the sidewalk at any point.

- Open
- Restricted
Findings
This section provides key findings based on field work and interviews with Parklet designers and operators.

Key Finding 1: A wide variety of elements can be used to support a Parklet.
Parklets were created using a wide range of successful approaches. Some Parklets were minimal and relied on contextual elements for creating a dining atmosphere, while others layered more elements into the Parklet itself. Interviews with operators suggested the keys to determining appropriate elements largely depend on:

» Desired customer experience
» Available budget
» Operating hours and season/weather
» Relationship to other Parklets in the vicinity
» Access control concerns
Key Finding 2: Integrated design approaches benefit the parklet and the public realm

Parklets provided a rich experience for customers and passersby when integrated physically and visually with other outdoor elements and the associated restaurant.

Successful integration requires being intentional about Parklet placement, considering views from Parklet seating and coordinating circulation between the Parklet and the main building. Placement and relationship to permanent public elements like street trees and lamps is also important. Creating a visual relationship between a Parklet and indoor business activities helps make a Parklet feel integrated with the main restaurant and maximizes visual interest and activation. Placing a Parklet adjacent to a storefront with a high degree of transparency and/or openness is the most effective approach. Where these elements are not available, a backdrop of public wall art is a potential alternative.

Parklets were particularly effective when integrated with other outdoor seating areas. In some cases, this meant layering a Parklet with another Temporary Outdoor Expansion component on the adjacent sidewalk. Other times this layering occurred when the Parklet was located across the public sidewalk from a permanent outdoor seating area adjacent to a building wall. Two sided seating arrangements benefited passersby by creating additional visual interest, activity and a rich, two-sided pedestrian experience.
Key Finding 3: Visual cohesion, durability and access are often lacking
Given the shock of the pandemic, many Parklet operators had to move quickly in the design process. Additionally, given the uncertainty of the Temporary Outdoor Expansion program and length of eligibility, many businesses were reluctant to make significant investments in a temporary Parklet. This often resulted in Parklet designs that benefited the business but that did not maximize benefits to the public realm. Interviews with operators suggest that most businesses would be interested in designing something with a greater sense of permanence, durability and visual quality if a long-term Parklet option was available. Some specific design issues included:

» Cluttered design.
» No relationship to contextual elements.
» Visual disconnect with street or business.
» Materials vulnerable to deterioration

In many cases, simple designs were most effective in creating a visual benefit to the public realm. The Parklets shown to the right do not employ many elements, but provide a visual and experiential benefit for diners and passersby. These Parklets minimized investment costs. Parklets that integrate structural features, like decking, require a more significant investment to ensure adequate design quality and durability.

Key Finding 4: Design guidance could assist applicants and potentially improve outcomes
Many business operators were forced to design their own Parklet. With little time available and scarce resources, few Parklet sponsors sought outside design expertise. Interviews with Parklet operators indicate that design resources would be helpful. Design guidelines, photo examples, management tips and other materials could be helpful resources to future Parklet operators.
Key Finding 5: Entry cost ranges significantly depending on Parklet size and design elements
The initial setup and management of a Parklet requires careful planning. Based on interviews with operators, setup costs ranged from $2,500 to $20,000 depending on the scale and scope of the Parklet. In addition to setup costs, ongoing maintenance expenditures and labor costs required to manage a Parklet must be considered.

Key Finding 6: Maintenance and management is critical
Once the intervention is in place, it must be maintained and monitored to ensure continued safety and protection from the elements. Operators need to take into account weather conditions when designing a Parklet. Snow, rain, wind, debris, falling leaves and sun exposure create potential challenges for operators. Operators shared that they sometimes had to remove overhead materials like shade sails ahead of heavy winds or snow. Theft prevention strategies and staffing for moving vulnerable Parklet components inside during off-business hours are other key considerations.

Key Finding 7: Most businesses would trade on-street parking for a Parklet if allowed.
Interviews with business operators suggested only marginal benefit from on-street parking near restaurant entries. Many stated that customers do not expect parking when visiting their business in an urban neighborhood. However, businesses requiring loading and valet services did state that a Parklet could sometimes interfere with those operations. On the whole, when asked whether they would trade on-street parking for a Parklet in the long-term, the vast majority responded in the affirmative and stated the benefit of the Parklet far outweighed that of on-street parking.
4. Neighborhood Streets

Denver’s open and shared street network began in Spring 2020 when Mayor Hancock announced that certain roadway segments around the city would be closed to through-traffic to allow people more space to walk, bike, and roll in their neighborhoods while still socially distancing. Neighborhood Streets are located in primarily residential areas. Temporary barricades at intersections slow down vehicles and discourage non-local traffic.

For the purposes of this study, multiple elements of each Neighborhood Street were considered, including:

» **Shared Space.** Space that was intended by DOTI to be fully shared by all mobility forms. Typically this was the vehicle travel lanes and dedicated bike lanes within the curb-to-curb area.

» **On-Street Parking.** Parallel parking spaces reserved for vehicles.

» **Sidewalk/Amenity Zone.** Paths for pedestrians and landscaped areas outside the curb-to-curb area.

Researchers sought to answer the following questions.

» Who is using the street?
» How is the street being used?
» How do different users interact?
Study Locations
As shown in Figure 4-1, this report provides results and findings from studies at the following Neighborhood Streets:

» West Byron Place (Sloan Lake). A primarily residential street with generous lane widths. The street has a very open character since it is flanked by large residential yards and Sloan Lake Park. This open feel is further amplified because the parallel parking on the north side of the street is not well used and the travel lanes are somewhat generous.

» East 16th Avenue (North Capitol Hill, City Park West). A primarily residential street that presents a sense of enclosure resulting from modest yards on either side of the street and consistently occupied on-street parking on the north side. The presence of bike lanes provides additional space in the curb-to-curb area.

» East Bayaud Avenue (Speer). A primarily residential street with an intersecting neighborhood commercial street just west of the study location and a large middle school to the east of the study location. The street presents a strong sense of enclosure resulting from modest yards on either side and consistently occupied parallel parking. Very narrow vehicle travel lanes make this roadway feel constrained.

Figure 4-1: Neighborhood Street Study Locations (and other Neighborhood Street locations)
W. Byron Place
(Facing West)

Blueprint Denver
Future Street Type: Undesignated

Community
Transportation Network: Neighborhood Bikeway

![Image](image1.png)

*varies between on-street parking and drive lane

E. 16th Avenue
(Facing West)

Blueprint Denver
Future Street Type: Undesignated

![Image](image2.png)

E. Bayaud Ave
(Facing West)

Blueprint Denver
Future Street Type: Undesignated

Community
Transportation Network: Neighborhood Bikeway

![Image](image3.png)
Findings

Key Finding 1: Shared Space width and street design elements impact comfort for all users

As shown in Figure 4-3 and 4-4, vehicle speeds were lower compared to pre-pandemic speeds captured from data from 2019. This likely discouraged through traffic and made the space more comfortable for active modes. Data supports this finding since bicycle activity increased and vehicle activity decreased (see Figures 4-7 and 4-8) compared to pre-pandemic counts. However, it should be noted these changes are not solely due to the Neighborhood Street interventions as the pandemic itself resulted in significant changes to travel behaviors. While data from automated counters appear to illuminate effectiveness, this study seeks to supplement these findings through direct observations of user behavior in the field to understand additional factors of success.

A street’s configuration and design elements strongly influence mobility behavior, especially for pedestrians. As shown in Figure 4-2 on the previous page, configuration and design elements varied significantly for each street.

» W. Byron Place

- **Shared Space Width.** W. Byron Place provided a 22-foot wide Shared Space, which allowed motorists to easily maneuver around cyclists and pedestrians using the street.

- **Design Elements.** W. Byron Place has on-street parking on the south and north sides of the street, but on-street parking on the north side is rarely used. When the space is not occupied by parked cars the wide road geometry sends a signal to cars that is it okay to go fast. When on-street parking is not occupied, the Shared Space effectively expands. While this provides additional room for maneuvering, it also may have resulted in a reduced impact on lowering vehicle speeds.

- **Barricades.** Barricades were located at the terminus of all north-south streets with W. Byron Place, but barricades were only spaced sporadically on W. Byron Place itself. This did not appear to have the same impact of slowing and displacing motorists.
» E. 16th Avenue

0 **Shared Space Width.** On E. 16th Avenue, the 29 feet of Shared Space feels safe for pedestrian, bike and rolling mobility users. Here, the Shared Space includes two narrow drive lanes and two demarcated bike lanes, which provide adequate maneuvering space for all modes.

0 **Design Elements.** The bike lanes help delineate space and provide a sense of scale for all users. These visual features appeared to aid in slowing down motorists. Pedestrians were frequently observed walking in the bike lanes, perhaps more comfortable there than in the vehicle travel lanes.

0 **Barricades.** Barricades were consistently placed in the middle of the street at all four sides of each intersection. Since the travel lanes are relatively narrow, barricades required motorists to slow down to squeeze between the barrier and other elements like crosswalks, curbs and parked cars.

---

**Figure 4-3 - Speed data (percentiles and mean) before and after the Neighborhood Street intervention on E. 16th Avenue.** Average eastbound speeds were decreased by 34%. Average westbound speeds decreased by 33%.

*Source: Denver Department of Transportation and Infrastructure*
» E. Bayaud Avenue

- **Shared Space Width.** E. Bayaud Avenue is very narrow compared to the two other locations. This street’s Shared Space is only 16 feet wide, consisting of two narrow travel lanes.

- **Design Elements.** Sharrows (shared lane markings indicating travel lanes are shared with significant bicycle traffic) are present but did not appear to have a strong impact on mobility behavior of any mode beyond their intended role in the street without the intervention.

- **Barricades.** Barricades were consistently placed at the middle of each intersection, but not on the intersecting streets. Since travel lanes are very narrow and on-street parking is present on both sides, barricades made motorists slow down to squeeze between the barrier and other elements like crosswalks, curbs and parked cars.

![E. Bayaud Avenue Speed (westbound) - Feb 2020 vs Spring/Summer 2020 with Intervention](image1)

![E. Bayaud Avenue Speed (eastbound) - Feb 2020 vs Spring/Summer 2020 with Intervention](image2)

**Figure 4-4** - Speed data (percentiles and mean) before and after the Neighborhood Street intervention on E. Bayaud Avenue. Average eastbound speeds decreased by 3%. Average westbound speeds decreased by 42%.

*Source: Denver Department of Transportation and Infrastructure*
Configuration and Design Element Impacts

» **Shared Space Width.** Shared Space width needs to be adequate to allow maneuvering, but not so wide that motorists are comfortable driving at higher speeds.

» **On-Street Parking.** On-street parking, when occupied, helps to enclose the Shared Space, which appeared to slow vehicle traffic. When on-street parking was absent, motorists appeared to feel more comfortable driving at higher speeds.

» **Bike Lanes.** Bike lanes appeared to impact on behavior and user comfort. These elements narrow the perceived scale of the Shared Space, which appeared to slow drivers. Bike lanes also provide a comfortable pedestrian space. Where travel lanes are narrow, bike lanes provide critical width for different modes to maneuver around one another.

» **Barricade Placement.** To be effective, barriers must be placed to significantly impact drivers. Specifically, a motorist’s travel must be displaced such that it forces them to slow down to drive around the barricade. Barrier placement on E. 16th and E. Bayaud Avenues was effective. On Byron Place, the barriers appeared to have a reduced impact on vehicle speed. The large Shared Space and unused on-street parking appeared to reduce the degree of driver displacement. Increased frequency or wider barriers may have increased impact.

As shown in Figure 4-5, the percentage of pedestrians observed in the Shared Space varied significantly and researchers believe the factors above were key determinants.
Key Finding 2: Design and configuration impacted how long pedestrians remained in the Shared Space.

Neighborhood Street design appeared to impact pedestrian behavior and comfort. Researchers collected data on how long pedestrians stayed in the Shared Space within each study segment. As shown in Figure 4-6, people typically walked in the Shared Space for a longer distance at E. 16th Avenue than at E. Bayaud Avenue. The observation categories are as follows:

- **Short.** Pedestrians traveled in the Shared Space for roughly 1/3 of the distance of the total study block or less. Represented in this group are people crossing the street mid-block.

- **Medium.** Pedestrians traveled in the Shared Space between 1/3 and 2/3 of the distance of the study block. This captured people that stayed in the Shared Space for much of the block, but chose to move to the sidewalk.

- **Long.** Pedestrians stayed or traveled in the Shared Space for the majority of the whole block. Many of these people traveled east-west through the study block and beyond.

A significant percentage of pedestrians used the Shared Space at both locations, but the utilization at E. 16th Avenue was more significant. Researchers believe the tight configuration of E. Bayaud Avenue made it a less comfortable space to walk.

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**Figure 4-6:** The data above shows the percentage for all people observed walking in the Shared Space broken up by short, medium, or long distance at E. 16th and E. Bayaud Avenues.
**Key Finding 3: Surrounding streets and adjacent uses appear to impact traffic levels and/or behavior, thereby impacting pedestrian comfort and willingness to walk in the Shared Space**

Surrounding streets and nearby land uses appeared to impact auto patterns and behavior.

**W. Byron Place**

» **Surrounding Streets.** Motorists on W. Byron Place can choose to avoid the Neighborhood Street by taking W. 26th Avenue to the north or W. 17th Avenue to the south. W. Byron Place enters Sloan's Lake Park, perhaps making it a less desirable cut-through street. Many likely enter Byron Place from Sheridan Boulevard, a regional vehicle dominated, high speed arterial.

» **Surrounding Land Uses.** W. Byron Place is a residential area with a regional park interface. A significant amount of the vehicle traffic appeared to be accessing the park.
E. 16th Avenue

- **Surrounding Streets.** At this location, motorists have multiple alternatives to choose from. E. 17th Avenue, E. 18th Avenue and Colfax Avenue all provide nearby options for east-west vehicular travel. Researchers believe the availability of these nearby alternatives made driving on E. 16th Avenue even less attractive under the redesign.

- **Surrounding Land Uses.** The E. 16th Avenue study segment was mostly lined with residential uses. Given this, there is a relatively low amount of cut-through traffic with the exception of service activity (deliveries) to nearby businesses during work hours. The presence of City Park at the east end of this Neighborhood Street also likely had a significant influence on its use.

**E. 16th Avenue Bike and Vehicle Activity - 2019 vs Spring/Summer 2020 with Intervention**

![Graph showing bike and vehicle activity data before (2019) and after the Neighborhood Street intervention on E. 16th Avenue (Spring/Summer 2020). The data suggests DOTI engineers believe the intervention impacted traffic volumes, however the reduction in traffic volumes was also largely influenced by reduced travel overall during the pandemic. Note that the 2019 data represents only two days of data gathering. Source: Denver’s Department of Transportation and Infrastructure.](image-url)
E. Bayaud Avenue

» **Surrounding Streets.** Motorists that want to stay in the neighborhood and travel in the east-west direction have other small scale residential streets or Alameda Boulevard as options.

» **Surrounding Land Uses.** The study location for E. Bayaud Avenue was near a small scale commercial street in Pennsylvania Street. At the time of this study, Pennsylvania Street was closed to vehicles to allow for restaurant expansion into the vehicle travel lane. Pennsylvania Street restaurants appeared to attract people in cars. Many people were observed parking in the neighborhood and walking to Pennsylvania Street for take out food. This additional volume was exacerbated by motorist circling the block looking for parking. Commercial activity near E. Bayaud Avenue appeared to add traffic to the street at certain times, which may have impacted pedestrian comfort in the Shared Space along with other factors. While traffic volume was reduced overall under the redesigned street, specific auto behaviors related to commercial activities may have also impacted one’s willingness to walk in the Shared Space.

E. Bayaud Avenue Vehicle and Bike Activity - 2019 vs Spring/Summer 2020 with Intervention

![Chart showing vehicle and bike activity comparison](image)

*Figure 4-8: Vehicle and bike activity data before (2019) and after the Neighborhood Street intervention on E. 16th Avenue (Spring/Summer 2020). The data suggests and DOTI engineers believe the intervention impacted traffic volumes, however the reduction in traffic volumes was also largely influenced by reduced travel overall during the pandemic. Note 2019 bike count data represents data for a single day.*

*Source: Denver’s Department of Transportation and Infrastructure*
Key Finding 4: Modal conflicts were rarely witnessed and those that did occur were low-level conflicts

Researchers conducted observations of encounters between different transportation modes in the Shared Space on all three streets. The objective was to gain insight on the behavior of different users when they came close to one another. As an organizational tool, DOTI advised researchers to utilize six different categories of encounters ranging from Level 1 (minor) to Level 6 (severe). These categories are defined as follows:

- Level 1: One participant required to maneuver, stop or slow down to avoid one another, but with ample time.
- Level 2: Both participants required to maneuver, stop or slow down to avoid one another, but with ample time.
- Level 3: One participant required to suddenly maneuver, stop or slow down to avoid one another, resulting in a near miss situation.
- Level 4: Both participants required to suddenly maneuver, stop or slow down to avoid one another, resulting in a near miss situation.
- Level 5: Light contact is made between the two parties, but no injuries.
- Level 6: Full contact is made between the two parties, requiring emergency action.

As shown in Figure 4-9, very few encounters were observed over the study period and most were of the Low Level categories. While there is limited data, the lowest number of conflicts were observed on E. 16th Avenue and design elements likely played a significant role.
Key Finding 5: Neighborhood Streets were generally gender inclusive, but young people were observed less frequently.

As shown in Figure 4-10, all three study locations saw very low rates of people in the 0-14 age range. Many in this age range were being carried in a stroller or wheeled behind a parent on a bike.

With respect to gender, the Shared Space was utilized fairly evenly by males and females. At E. Bayaud Avenue however, the Shared Space was more frequently used by females for the 15-64 age range.

AGE AND GENDER OF PERSONS IN THE SHARED SPACE

W. BYRON PLACE

E. 16TH AVENUE

E. BAYAUD AVENUE

Figure 4-10 The data above shows the percentage of users for each age range and gender observed in the Shared Space for all age observations for each study location.
Key Finding 6: Survey respondents indicate strong support for Neighborhood Streets and a desire for them to be permanent.

On-line survey participants were asked how safe they felt when using Neighborhood Streets. Results indicated people feel safe. When asked on a scale of 1-10 how safe the survey responder felt, the average response was 6.8.

When on-line survey participants were asked if they would like to see Neighborhood Streets become permanent, 71% responded yes.
Denver’s Department of Parks and Recreation (DPR) prohibited vehicle traffic on many streets within parks to allow additional space for all other non-vehicular forms of travel and support social distancing practices. Park Streets included only barriers and signage at entries to keep vehicles out. No other design elements were added.

Researches sought to answer the following study questions:

» How are the spaces being used?
» Who is using the spaces?
» Are the interventions being embraced?
» Would users support long-term vehicle restrictions in parks?
Study Locations

As shown in Figure 5-1, study locations included Sloan’s Lake, City Park and Cheesman Park.

Specific locations within each park include:

» **The Pavilion at Cheesman Park.** A straight street segment that runs north-south directly west of the Cheesman Pavilions. This street was flanked only by open park areas, so there was no defined mobility alternative to the street space.

» **Duck Pond at City Park.** A slightly curved street segment adjacent to the Duck Pond centrally located in City Park. This street was flanked by a sidewalk on one side and open park area on the other side.

» **Lakeshore Drive at Sloan’s Lake.** A curvilinear stretch of Lakeshore Drive at the south east corner of the park near W. 18th Avenue. This study location featured a street typically used by vehicles and was flanked on one side by a sidewalk and a separate multi-use path and on the other side by open park area. A bike lane is also present within the curb-to-curb area.

Figure 5-1: Park Street Study Locations and Neighborhoods
Findings

Key Finding 1: Park Streets are being used overwhelmingly for mobility

Studies showed Park Streets were used mostly for mobility. Most of the mobility activity observed appeared to be for recreation and exercise and very little for commuting. This is likely attributable to the working-from-home practices utilized during the pandemic. Researchers initially hypothesized that people might utilize the street spaces to conduct gatherings, play games or participate in other stationary activities, but this was rarely observed.

Field studies included gathering data on the distance that users stayed within the street over a specified length. As shown in Figure 5-2, observations indicate that people typically stayed in the street space for the full length of the study segment. This appears to support the finding that Park Streets are used for mobility.

Distances were defined as follows:

» **Short.** User stayed in the street space for 1/3 of the study segment length or less.

» **Medium.** User stayed in the street space greater than 1/3 and less than 2/3 of the study segment length.

» **Long.** User stayed in the street space 2/3 or more of the study segment length.

![Figure 5-2: The percentage for all people observed moving through the street broken up by short, medium, or long distance at each study location](image-url)
Key Finding 2: Park Streets provide space for people to learn to ride a bike, skateboard or scooter.

Children and adults used the streets to learn to ride. Park Streets provided more room for learning. The lack of cars on the street provided a safe environment for a new activity to occur in the space. While categorized as mobility for the purposes of the study, this is a unique benefit that emerged as a result of the street’s transformation and perhaps provided a superior alternative to learning on a typical street (with cars) or private parking lot.

WHAT RESIDENTS ARE SAYING...

“Park streets are incredible. I have a 2 and 3 year old, and don’t feel safe with them biking on any other street in my neighborhood.”

“These street changes have been a huge quality of life improvement for us. I have a 6 year old who learned to ride a bike. What Denver streets were being used in such a way that a kid could ride a bike on them? None as far as I could tell. Even our local park road was used mainly for through car traffic.”
Key Finding 3: People feel safer using the street in parks than Neighborhood Streets because vehicles are not allowed.

Qualitative observations and survey responses show that people feel safer on Park Streets than Neighborhood Streets. This is likely because Park Streets prohibit vehicles, except for maintenance vehicles, while Neighborhood Streets are shared with local vehicle traffic.

Figure 5-3 shows survey results related to how safe users felt on different Typologies.

WHAT RESIDENTS ARE SAYING...

“Closing park streets to cars has been a huge success. I love seeing families with small children walking and biking on streets that used to be open to cars, and I feel as though more people have been using park streets for walking, rolling, and biking.”

“It has been nice knowing that I will not have to worry about someone speeding in the pedestrian area or overtaking aggressively.” (regarding experience on Park Streets in Washington Park)

“I love not having to worry about cars on commercial and park streets. It feels much safer and I’m more willing to go for walks and runs.”

“I love feeling safer as I take breaks and exercise by bicycling and walking on streets closed to cars!”
Key Finding 4: People are concerned about parking and access at regional parks.

The on-line survey yielded several comments about the lack of parking and access at City and Cheesman Parks. Key concerns included the following:

» Parking. Concerns centered around parking for people visiting by car. City Park and Cheesman Park serve more than the surrounding neighborhoods and those accustomed to visiting the park in their car faced a new parking challenge since there was less available with the vehicle restrictions in place.

» Spillover neighborhood parking impacts. Some survey responders believed the reduced parking availability pushed additional parking into adjacent neighborhoods.

» Accessibility. Many expressed concern about ADA access and park visitors that face mobility challenges. While the City did maintain ADA accessible parking opportunities, the street closures sometimes did not allow for visitors facing mobility challenges to be dropped off at or drive to their specific destination in a park.

Key Finding 5: Park Streets were inclusive relative to gender, but males and females were the dominant user at different times of the day.

The study found that in the mornings, a higher percentage of women were observed on Park Streets (Figure 5-4). However, in the evenings, the opposite was observed with a greater percentage of men being counted. This pattern was consistent across all study locations. Researchers have not identified an obvious factor for the differences observed. Park Streets were generally inclusive with respect to gender.

WHAT RESIDENTS ARE SAYING...

“I have two small children and when we tried to go to City Park we had to park very far away and it was too much for us.”

“Closures were done with little public input and prioritized ableism over those with disabilities.”

“I have heard elderly residents complain that they can’t easily access our parks due to the road closures...”

![Figure 5-4: Percentage of male and female for all gender observations in the morning and evening by each location and overall](image-url)
Key Finding 6: People of all ages used Park Streets.

Although there was a mix of people of different ages using the Park Streets, the majority of users were between the ages 15-30 and 31-64 as shown in Figure 5-5.

Key Finding 7: Users are overwhelmingly supportive of long-term vehicle restrictions of parks.

The on-line survey asked respondents if they would like to see Park Streets made permanent. Most of the respondents answered “Yes” as shown in Figure 5-6.

Figure 5-5: The percentage of total people observed for each Park Street study location by age range.

Figure 5-6: Breakdown of survey responses to a question asking if the respondent would like to see Park Streets made permanent.
6. Next Steps

The Public Realm Study is intended to help guide future planning and decision making regarding alternative uses of the public right-of-way. It should be utilized in the context of all other available data, information and evidence related to temporary public right-of-way transformations. This chapter provides a series of high-level next steps to consider.

 Overall Next Steps

Next steps relevant to all Typologies addressed in this document include:

» Educate. Share the Public Realm Study results internally with partner agencies and externally to stakeholders and peer cities.

» Conduct additional studies. Seek opportunities to build on this work. Attaining additional data and research findings will strengthen the body of knowledge relative to public right-of-way transformations and provide a better baseline understanding to inform decision making.

» Inform future decision making. Use the findings of this study to inform planning and decision making regarding use of the public realm. Note this study’s findings must be taken in context with other data, community feedback and performance evaluations.

Next Steps for Commercial Streets and Parklets

Next steps specifically related to Commercial Streets, Parklets and other applicant driven right-of-way transformations include:

» Continue to learn. Use the Temporary Outdoor Expansion (TOE) program to expand the City’s understanding of the benefits, challenges and opportunities related to applicant driven right-of-way transformations.

» Explore a permanent ROW transformation program. Use the TOE program as an experimental testing ground for a future right-of-way transformation program. Many cities around the country have robust programs that allow private sector applicants to act as stewards of the public right-of-way by installing and maintaining temporary, reversible elements in the right-of-way. The City must consider a wide range of factors in developing a permanent program, including rules and regulations, review processes, design requirements and fee structures.
Next Steps for Neighborhood Streets
Next steps specific to Neighborhood Streets include:

» **Expand and experiment.** Continue to experiment with Neighborhood Streets in new and different locations to expand the body of knowledge and learn more about the nuances of application in different contexts.

» **Explore the potential for a permanent program for Neighborhood Streets.** Build off of the pandemic-era program to potentially establish a permanent seasonal or year-round program. Doing so provides immediate benefits to residents while also helping to inform future, permanent street design interventions.

» **Integrate discussions of Neighborhood Streets into community planning discussions.** Within the City’s ongoing Neighborhood Planning Initiative (NPI), small area planning, and other efforts, engage the community about the potential role of Neighborhood Streets in meeting local transportation needs.

Next Steps for Park Streets
Next steps specific to Park Streets include:

» **Continue the program.** Continue the program in the near-term and make adjustments as needed to respond to specific needs and challenges, such as access for persons with disabilities.

» **Install functional, durable and adaptable entry barriers.** If Department of Parks and Recreation continues to restrict vehicle access in parks, seek to provide more robust entry barrier solutions that are more permanent, but can still be used flexibly.

» **Coordinate with Neighborhood Streets.** Continue to leverage the interrelationships between Park Streets and Neighborhood Streets. This will require ongoing coordination between the Departments of Transportation and Infrastructure (DOTI) and Park and Recreation (DPR). Careful coordination presents opportunities to maximize benefits to the transportation network.

» **Integrate vehicle restrictions discussions into future master planning efforts.** Based on the success of this program, continue to evaluate the role of vehicle infrastructure and potential alternative uses in future park planning discussions.
Appendix 1:
Study Methodology/Survey Instruments
# Age + Gender Tally (Commercial Streets)

**ALL MOBILITY TYPES — 10 MIN INTERVALS**

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>NOT SURE</th>
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<tbody>
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<tr>
<td>seniors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** Establish an imaginary line that crosses the Commercial Street. For a 10-minute interval, note the estimated age group and gender of persons crossing the imaginary line. For ages 0-4, do not assign a gender.
### Mobility Count (Commercial Streets)

10 MINUTES

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COUNT—TALLY EVERYONE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALKING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUNNING/JOGGING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPORTED (WHEELCHAIR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARRIED (KIDS, STROLLER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLLING (skateboard, scooter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMUTER/REC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARDCORE CYCLIST</td>
<td></td>
<td></td>
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<tr>
<td>TOURIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISMOUNTED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** Establish an imaginary line that crosses the Commercial Street. For a 10-minute interval, note the mobility type crossing the imaginary line. For cyclists, note whether the user dismounted the bicycle and which type of cyclist they appeared to be.

General Notes
### STAYING ACTIVITY (COMMERCIAL STREETS)

Instructions: Complete a walk through of the street and tally the staying activity. Take as long as you need, but do not exceed a 10 minute time period. Do not count people that are moving regardless of mode.

<table>
<thead>
<tr>
<th>POSTURE</th>
<th>TALLY</th>
<th>ACTIVITIES</th>
<th>PLAY</th>
<th>CONSUMING FOOD/BEV.</th>
<th>COMMERCIAL ACTIVITY</th>
<th>CULTURAL ACTIVITY</th>
<th>ENGAGED IN CONVERSATION</th>
<th>SHADE</th>
<th>SUN</th>
<th>OTHER ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDING</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>SITTING PUBLIC</td>
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<td></td>
<td></td>
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<tr>
<td>SITTING PRIVATE</td>
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<td></td>
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<tr>
<td>SITTING COMMERCIAL</td>
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<td></td>
<td></td>
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<tr>
<td>SITTING INFORMAL</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**GENERAL NOTES/SKETCHES**
<table>
<thead>
<tr>
<th>ENCOUNT 1</th>
<th>TIME:</th>
<th>DIRECTION OF TRAVEL OF PARTICIPANTS</th>
<th>TYPE OF ENCOUNTER</th>
<th>SEVERITY OF ENCOUNTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCOUNT 2</td>
<td>TIME:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENCOUNT 3</td>
<td>TIME:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ENCOUNT 4</td>
<td>TIME:</td>
<td></td>
<td></td>
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<tr>
<td>ENCOUNT 5</td>
<td>TIME:</td>
<td></td>
<td></td>
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<tr>
<td>ENCOUNT 6</td>
<td>TIME:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ENCOUNT 7</td>
<td>TIME:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENCOUNT 8</td>
<td>TIME:</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Instructions: See back
### User Distance on Road (Neighborhood Streets)

**15 MINUTE INTERVALS**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SHORT</th>
<th>MEDIUM</th>
<th>LONG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEDESTRIANS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>WALKING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUNNING/JOGGING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPORTED (WHEELCHAIR)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CARRIED (KIDS, STROLLER)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLLING (skateboard, scooter)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BICYCLISTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMuter/REC</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>HARDCORE</td>
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<td></td>
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<tr>
<td>TOURIST</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>DISMOUNTED</td>
<td></td>
<td></td>
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</tbody>
</table>

**INSTRUCTIONS:**
Track people how long they stay in the Shared Space for the one block study segment.

- **Short:** Crossing within the Shared Space or staying for 1/3 of the block length or less
- **Medium:** In Shared Space for 1/3 to 2/3 of the block length.
- **Long:** In Shared Space for 2/3 to full block length

**General Notes**
### User Behavior/Characteristics (Neighborhood Streets)

**INSTRUCTIONS:**
Establish an imaginary line in the middle of the block. Count people moving across the indicated line for 15 minutes. Also count pedestrians that cross the line on the sidewalk. Adjust the location of your line as necessary to maintain a clear sightline from end to end.

<table>
<thead>
<tr>
<th>Male</th>
<th>BICYCLISTS</th>
<th>MICROMOBILITY</th>
<th>PEDESTRIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td></td>
<td></td>
<td>On Street</td>
</tr>
<tr>
<td>15-64</td>
<td></td>
<td></td>
<td>On Sidewalk</td>
</tr>
<tr>
<td>65+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Female</th>
<th>BICYCLISTS</th>
<th>MICROMOBILITY</th>
<th>PEDESTRIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**General Notes**
Instructions for Mobility Encounters

DIRECTION OF TRAVEL OF PARTICIPANTS:

- Traveling the same way
- Opposite ways
- Crossing paths

THE TYPE OF ENCOUNTER:

1. Pedestrian or cyclist waits for vehicle
2. Pedestrian runs across road
3. Pedestrian or cyclist continues travelling despite vehicle
4. Pedestrian alters direction on sidewalk to avoid crossing roadway at that point
5. Pedestrian or cyclist alters direction on roadway
6. Vehicle brakes
7. Vehicle brakes hard
8. Vehicle swerves.

SEVERITY OF ENCOUNTER

Level 1: One participant required to maneuver, stop or slow down to avoid one another, but with ample time.

Level 2: Both participants required to maneuver, stop or slow down to avoid one another, but with ample time.

Level 3: One participant required to suddenly maneuver, stop or slow down to avoid one another, resulting in a near miss situation.

Level 4: Both participants required to suddenly maneuver, stop or slow down to avoid one another, resulting in a near miss situation.

Level 5: Light contact is made between the two parties, but no injuries.

Level 6: Full contact is made between the two parties, requiring emergency action.
### Age + Gender Tally (Park Streets)

**ALL MOBILITY TYPES—10 MIN INTERVALS**

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>NOT SURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toddlers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL:</td>
<td>TOTAL:</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>5-14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL:</td>
<td>TOTAL:</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>15-30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young adults</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>TOTAL:</td>
<td>TOTAL:</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>31-64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL:</td>
<td>TOTAL:</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>65+</td>
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<td></td>
</tr>
<tr>
<td>Seniors</td>
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<tr>
<td></td>
<td>TOTAL:</td>
<td>TOTAL:</td>
<td>TOTAL:</td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** Establish an imaginary line that crosses the Park Street. For a 10-minute interval, note the estimated age group and gender of persons crossing the imaginary line. For ages 0-4, do not assign a gender.
### Users Road Time (Park Streets)

**10 MINUTE INTERVALS**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SHORT</th>
<th>MEDIUM</th>
<th>LONG</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALKING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUNNING/JOGGING</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SUPPORTED (WHEELCHAIR)</td>
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<td>CARRIED (KIDS, STROLLER)</td>
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<tr>
<td>ROLLING (skateboard, scooter)</td>
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<tr>
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<tr>
<td>TOURIST</td>
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<td></td>
</tr>
<tr>
<td>DISMOUNTED</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:** Track how long people stay in the Park Street (curb-to-curb) for the study segment noting short, medium and long.
- Short: Crossing within the Park Street or staying for 1/3 of the segment length or less
- Medium: In Park Street for 1/3 to 2/3 of the segment length.
- Long: In Park Street for 2/3 to full segment length.

---

General Notes
### Mobility Count (Park Streets)

**10 MINUTES**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>COUNT—TALLY EVERYONE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALKING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUNNING/JOGGING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPORTED (WHEELCHAIR)</td>
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<tr>
<td>CARRIED (KIDS, STROLLER)</td>
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<td></td>
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<tr>
<td>ROLLING (skateboard, scooter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMUTER/REC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARDCORE CYCLIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOURIST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISMOUNTED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INSTRUCTIONS: Establish an imaginary line that crosses the Park Street. For a 10-minute interval, note the mobility type crossing the imaginary line. For cyclists, note whether the user dismounted the bicycle and which type of cyclist they appeared to be.
Appendix 2:
On-Line Survey Questions
SHARE YOUR OPEN (or HEALTHY) STREETS EXPERIENCE 2020 SURVEY

To create more space for personal mobility, dining and socializing while still practicing 6-foot distancing, the City and County of Denver has temporarily expanded activities into the public right-of-way on select streets. The College of Architecture and Planning at University of Colorado Denver is studying these expanded public areas as a part of the 2020 Fall Semester and would like your feedback on how these spaces perform and to understand why you like or dislike them. Your feedback will help graduate students in Urban Planning, Landscape Architecture and Urban Design understand the streets that are most effective in creating additional public space. The survey results will provide valuable lessons to inform future efforts. Thank you for your time.

Expanded Street Type Definitions

Commercial Streets: Streets in commercial areas that are open for outdoor dining and other activities, but are temporarily closed to vehicles

Neighborhood Streets: Streets within neighborhoods that are expanded to accommodate walking, biking and other activities, but where vehicle access is limited to local traffic only

Park Streets: Streets within parks that are open for walking, biking and other activities, but are closed to vehicles

Survey Questions

1. Were you aware some streets are being used differently in Denver during the covid-19 pandemic? (See above for explanation)
   Yes/No

2. On the chart below, indicate which streets you have visited and how satisfied you were with your experience.

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Neutral</th>
<th>Somewhat Dissatisfied</th>
<th>Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Park</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Tell us about your experience. If your comment is specific to one of the streets (per definition above), please specify. (Open Ended Text Boxes)

3. How did you get to each street type?

<table>
<thead>
<tr>
<th>Street Type</th>
<th>I walked</th>
<th>I rode a bike</th>
<th>I drove or rode in a vehicle</th>
<th>I took Transit (Bus or Train)</th>
<th>I use a different transportation option (skateboard, scooter, etc.)</th>
<th>I am assisted by wheelchair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood</td>
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</tr>
<tr>
<td>Park</td>
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</tr>
</tbody>
</table>

4. In the last 4 weeks, how often have you visited “Commercial Streets” as defined above? (apply this to all similar questions below)

- Less than 1 time per week
- 1 time per week
- 2 to 3 times per week
- More than 3 times a week
- Never
- Other: Please specify [room provided for text answer]

5. For “Commercial Streets”, why did you visit these areas? Please rank each category using the slide bar below with 10 being the highest reason.

- I like the surrounding Architecture/buildings
- Because the Streets are Closed to vehicles
- To take advantage of Outdoor dining opportunities
- To support local businesses
- To socialize with friends
- I went for work/errands
- For leisure or recreational purposes

6. In the last 4 weeks, how often have you visited “Neighborhood Streets” as defined above?

- Less than 1 time per week
- 1 time per week
- 2 to 3 times per week
- More than 3 times a week
- Never
- Other: Please specify [room provided for text answer]
7. If you have walked, biked or rolled on a “Neighborhood Street”, why? Check all that apply.

- To get to work
- To exercise
- To access a park
- I live on a “Neighborhood Street”
- I feel safer on these streets because they give me the necessary >6ft. distance from others
- To visit businesses along the street
- Out of curiosity
- Other...please specify [room provided for text answer]

8. In the last 4 weeks, how often have you visited “Park Streets” as defined above?

- Less than 1 time per week
- 1 time per week
- 2 to 3 times per week
- More than 3 times a week
- Never
- Other: Please specify [room provided for text answer]

9. How safe do you feel on each street type? (with 1 being the least safe and 10 being the safest)

<table>
<thead>
<tr>
<th>Street Type</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Neighborhood</td>
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<tr>
<td>Park</td>
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</tr>
</tbody>
</table>

Add a box for them to explain why?

10. What on “Commercial Streets” causes you to stay longer?

- Activities (or Amenities?) for Kids
- An area for dogs, or dog-friendly amenities
- Shade
- Public Seating
- Lighting
- Greenery (Plants/Trees)
- Music
- Art
- Other: please specify [room provided for text answer]

11. Which street types (as defined above) would you support becoming permanent?
12. Would you like to see more of these street types??

- Yes
- No
- Maybe

13. What do you like most about these streets? If your comment is specific to one of these street types (per definition above), please specify.

14. How could these streets be improved? If your comment is specific to one of the street types (per definitions above), please specify

15. Please select your age range.

- 0-14
- 15-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80 or older

16. To which gender identify do you most identify?

- Male
- Female
- Transgender
- Gender variant/non-conforming/non-binary
- Prefer not to answer
- Not listed [please specify]

17. What is your race and/or ethnicity? Please select all groups that apply. You may report more than one group.

- American Indian or Alaska Native
- Asian or Asian American
• Black or African American
• Hispanic or Latino or Spanish
• Middle Eastern or North African
• Native Hawaiian or other Pacific Islander
• White
• Other races or ethnicities [please specify]

18. Please estimate your total household income, before taxes, in the last year.
• Under $20,000
• Between $20,000 and $34,999
• Between $35,000 and $49,999
• Between $50,000 and $74,999
• Between $75,000 and $99,999
• Over $100,000

19. Zip code where you live?
[blank to fill in]