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# Streets for Pandemic Response & Recovery

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Global  
Designing  
Cities  
Initiative

# Foreword

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Even 10 years ago, reclaiming streets from cars to create space for people to walk and to bike was considered a radical—almost revolutionary—act. Today, people-focused streets are a proven global best practice and the first-line response for transportation and transit agencies during the COVID-19 crisis, from Berlin to Brussels to Bogotá and from Minneapolis to Mexico City to Milan.

This is a historic moment when cities can change course. There may be limited mobility options as the crisis has slashed traffic volumes and transit service and people shelter at home. But these empty lanes provide new possibilities for people to use streets for essential trips and healthy activity right now, and they form the outline of the future cities we need to build. Creating safe, walkable streets and choices for getting around are critical during the initial crisis response, and also to achieving a long-term economic recovery that is equitable, sustainable, and enduring.

Transportation and transit agencies around the world are leading the response with bold, creative, and rapid steps to reshape their streets, and by using their existing assets differently. This resource reflects the vast output of these tireless public servants during an incredibly trying time and often at great personal risk, and provides the just-in-time direction that mayors, leaders, and planners around the world need to decide their next steps. Adaptive use of streets can lead the global response and recovery to this crisis, keeping people safe and moving while holding cities together.

## Janette Sadik-Khan

Chair, National Association of City  
Transportation Officials

Principal, Bloomberg Associates

# Introduction

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During a few short weeks, much of the world as we know it changed. The COVID-19 pandemic has radically altered how most people go about their daily lives with huge shifts to how we move in the world, how we get groceries and food, whether we go outside, where we go, who we see, and what we do. The requirement of “social or physical distancing”—maintaining at least 6’ (2 m) distance between people, with significant reductions or bans on group gatherings and crowds—combined with what we know today about the transmission of this coronavirus and its increased communicability in indoor settings, requires that we reallocate our streets and sidewalks for public use during this crisis and for the future.

**The need is now.** Cities across the world are working in real time to grapple with the horrific death toll of COVID-19 and its devastating economic impacts. To meet our immediate health needs and to chart a safe course to allow businesses, institutions, and services to re-open, cities are innovating and adapting. They are changing their streets over the course of days to help their residents stay safe in a time of crisis and to prepare people and societies for the health, social, and economic recovery ahead. These emerging street design and transportation practices are at the front lines of cities’ defense against this coronavirus, essential to preventing future outbreaks and an integral part of our total public health response.

The impacts of COVID-19 are vast and will be long-lasting. As cities around the world are noting, changing our streets now—shifting how space is allocated or shared and which uses are prioritized—is a key tool for mitigating COVID-19’s mortality, health, economic, and social impacts. As we recover, we must continue to align street design and recovery strategies to ensure that the existing inequalities and challenges that this virus is magnifying are not exacerbated in the world we build in the months and years to come.

## About This Document

This resource aggregates and synthesizes emerging practices in transportation and street design in response to the COVID-19 pandemic. It highlights cities’ current efforts to re-organize streets to best manage this crisis and support economic recovery. This evolving resource is not a comprehensive list of options, nor is it calibrated for the needs of a specific community; every city should assess local context and need to inform an implementation strategy.

These emerging practices are organized into stand-alone implementation sheets. Additional sheets will be released as they are developed in order to help cities rapidly innovate, and this resource will be continually updated and expanded over the coming weeks and months based on evolving practices.

This resource was funded by **Bloomberg Philanthropies** and developed through a collaboration between **NACTO, the NACTO Global Designing Cities Initiative, Bloomberg Associates, Street Plans, and Sam Schwartz.**





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# Streets for **Response** Streets for **Recovery**

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# Rethinking Streets in a Time of Physical Distance

In a time when we're required to maintain physical distance to protect public health, streets need to do more than ever.

Streets must be configured so that people are able to **move safely** around the city. The mobility needs of essential workers are paramount; we must ensure that the people who provide medical care, food, and the services that allow most of us to stay at home can move safely and efficiently. As we transition slowly from crisis to recovery, our streets must provide better, safer options for everyone. Configuring our streets to support walking, biking, and high-frequency transit will be essential to our economic recovery. These policies are key to ensuring that our streets do not become gridlocked and that we can continue our efforts to reduce roadway fatalities and greenhouse gas emissions.

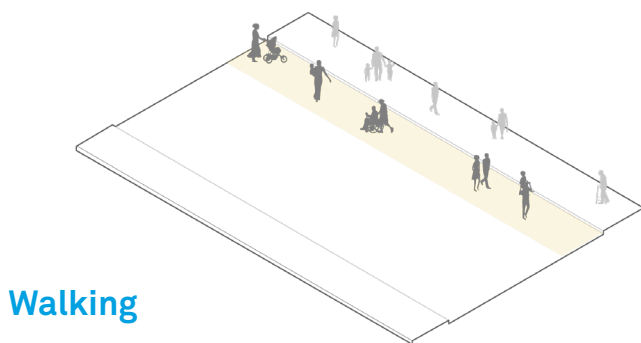
But, as COVID has made clear, our streets support more than just movement. Around the world, streets are providing space so people can safely **access food and essential services**. Our streets provide places for queuing outside grocery stores, markets, and essential businesses. As restrictions are lifted, especially prior to full disease containment or the development of a vaccine, streets can provide room for restaurants and

shops to serve customers outdoors, and for schools and daycares to resume care, allowing businesses to re-open and more people to return, safely, to work.

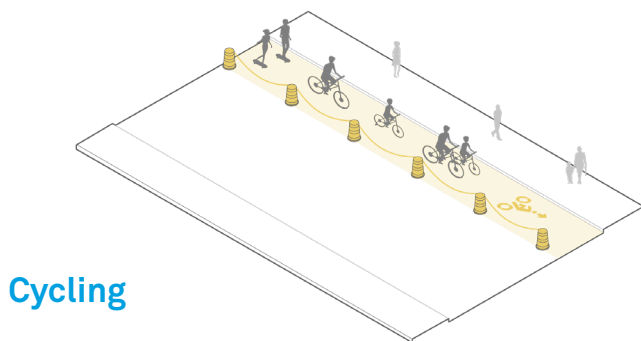
Our streets are key to our mental, physical, and immunological **health**. In cities across the globe, streets are places for essential outdoor respite for people without yards or balconies. Streets are fundamental tools in a risk-reduction public health approach that creates space for people to exercise and play in close proximity to their homes, and provides them with the resources they need to realistically comply with physical distancing guidelines. As the first wave of this pandemic wanes, policies that re-envision streets as public spaces can help people safely gather and reduce the traffic injuries and fatalities that will come with increased vehicle use.

Finally, streets in the COVID era provide space for the **social services** that will allow cities to safely re-open sooner. Streets provide space for pop-up medical and testing locations and distribution points for food and potable water. Streets provide space for WiFi hotspots so children can attend school remotely and people can work from home. As we plan for recovery, streets can be a place where our social supports—schools, libraries, religious and cultural institutions—can safely resume the services and programs that people need.

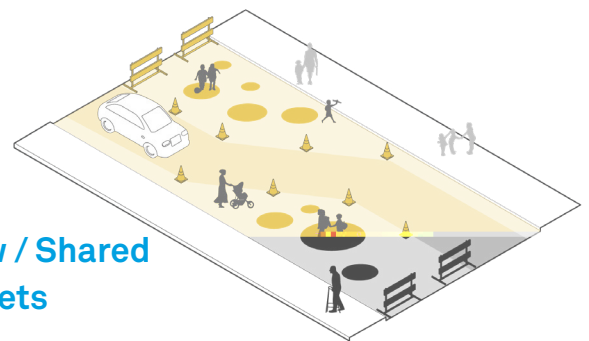
The streets and cities we see on the other side of the pandemic will be different from the ones we knew a few short months ago. As city and transportation leaders, our job is not to return to the inequitable, dangerous, unsustainable patterns of the past, but to help shape a better future. The streets we create today will provide the foundation for our recovery for years to come.



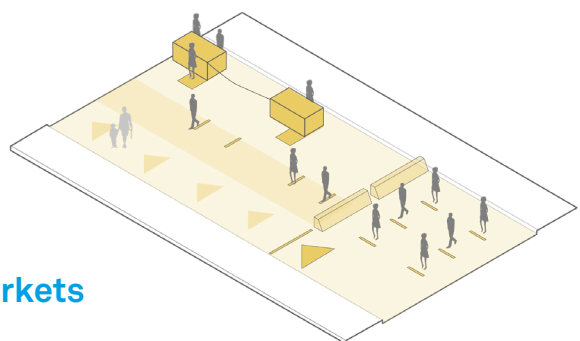
Walking



Cycling

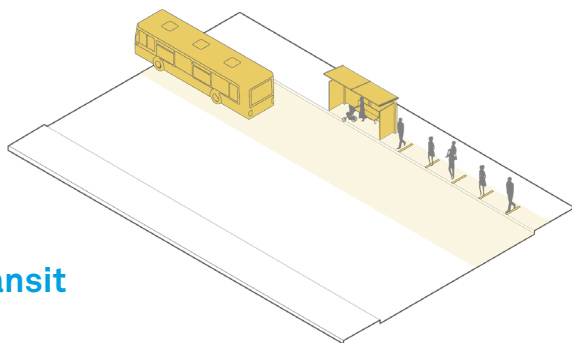


Slow / Shared Streets

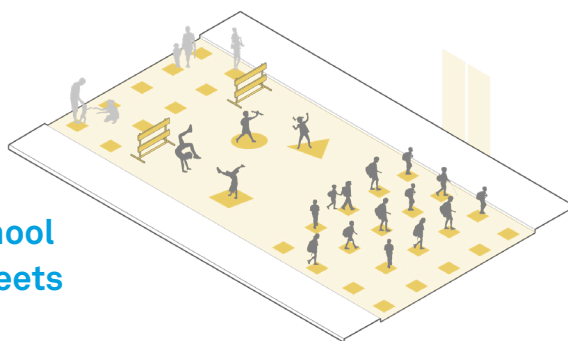


Markets

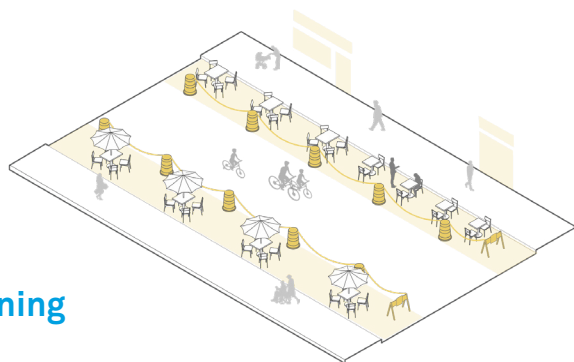
Transit



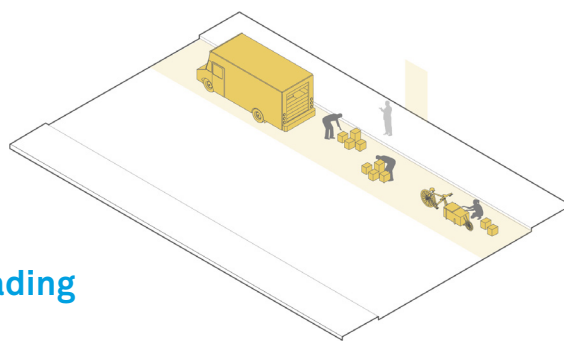
School Streets



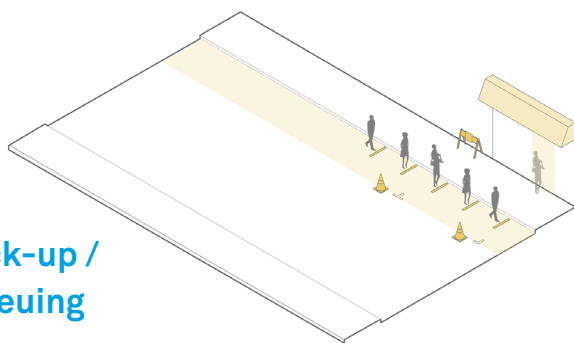
Dining



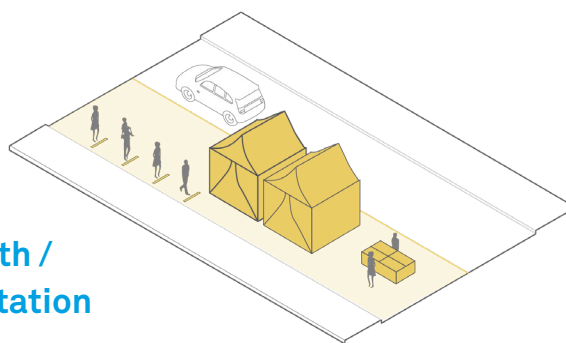
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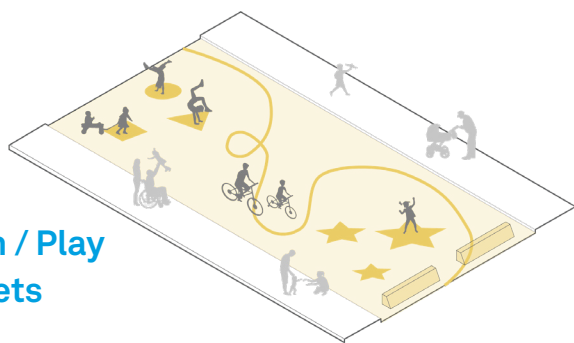
Pick-up /  
Queuing



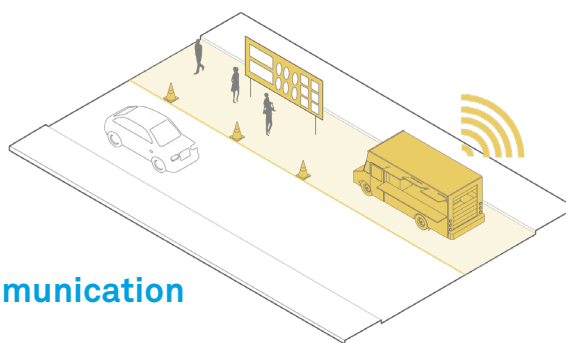
Health /  
Sanitation



Open / Play  
Streets



Communication



# Principles to Guide COVID Response & Recovery

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Given the serious and acute impacts of COVID-19, cities should establish principles to guide investments and decision making. Each city's principles should be grounded in local context, history, and need, and should be shared publicly, as well as across departments and partner organizations. Below is a **sample approach** that includes six principles that could be used to inform ongoing response and recovery phases.

## 1 Support the most vulnerable people first.

COVID-19 is amplifying existing racial and socioeconomic inequities, and is disproportionately impacting society's most vulnerable. Planners and decision makers should consider systemic inequities, unequal levels of risk and exposure, and disparate financial and social resources available to their residents, and work to ensure that support is provided first to the people who need it most.

## 2 Amplify & support public health guidance.

Physical distancing is a core public health strategy to reduce the transmission and potential resurgence of COVID-19 outbreaks. In particular, increasing the amount of outdoor space available to people can make it easier for them to comply with public health guidance for longer periods of time, aiding in efforts to reduce the spread of the virus. As cities move into long-term recovery phases, streets offer unique opportunities to foster public health and improve health outcomes for everyone.

## 3 Safer streets for today and tomorrow

Especially during periods of COVID-19 outbreak, essential workers need to travel and must be able to do so safely. Emergency street changes must ensure that vehicles travel at safe speeds, even with fewer vehicles on the road. As stay at home restrictions ease, trips will increase. To ensure that recovery does not come with economy-choking gridlock and increased traffic fatalities and carbon emissions, cities must prioritize streets for public transportation, cycling, and walking today.

## 4 Support local economies.

Stores, restaurants, markets, and schools and daycares are essential to our economic health. Unemployment rates have increased dramatically and local businesses have weathered devastating impacts. Ensuring that businesses can re-open safely and that people have job opportunities is key to our overall recovery. As public health restrictions ease, cities must ensure that street design supports economic policy goals by providing space for businesses, schools, and institutions to safely re-open. Without this, broad economic recovery may not be achieved.

## 5 Bring communities into the process.

The rapid project implementation that is necessary during emergency, stabilization, and recovery requires open and frequent communication, transparent decision making with clear metrics and timelines, established channels for feedback, and regular coordination with communities and community groups. Ensuring the voices of a wide variety of local stakeholders is essential to project development and implementation. Local groups can provide key information to make projects better and help disseminate information wider and deeper than government channels typically can.

## 6 Act now and adapt over time.

Action is needed now. Adopting an open and iterative approach to transportation planning will allow for rapid implementation, continuous feedback, and course correction that will enable cities to respond better and faster to future COVID outbreaks. Quick-build strategies today can inform lasting improvements over the course of recovery and beyond. Regular dialogue with local groups can provide essential on-the-ground information about how efforts are working and what should be modified over time.

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## A Public Health Perspective

People of all ages, races, and ethnicities deserve access to safe outdoor spaces. Especially now, when data suggests that COVID-19 transmission rates may be significantly lower outdoors than indoors, and when safe, distanced exercise is encouraged by public health officials as a part of COVID response efforts, we must strive to support our communities with public policy and urban design that create opportunities for healthy outcomes.

To reduce the further spread and resurgence of COVID-19 and to help individuals better manage their personal risk as societies and commerce re-open, city governments can provide infrastructure that supports safety and the ability for individuals to comply more easily with public health guidelines around physical distancing. These efforts are critical during the pandemic and into the future because of the tremendous benefits of physical activity for reducing the risk of heart disease, improving mood, mental health, and weight control, along with significant benefits for one's immune system.

Healthy, safe, and equitable communities are possible—communities where everyone who wants to walk has access to well-maintained sidewalks, where bicyclists have access to dedicated bicycle lanes that are part of city-wide networks, where kids can play in the road, and where transit users can travel safely and reliably. These strategies can be adopted and implemented by city leaders who embrace the urgent need for lasting change during this unprecedented time.

**Keshia M. Pollack Porter, PhD, MPH**

Johns Hopkins Bloomberg School of Public Health

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# Street Policies for an Evolving Crisis

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## What we need from our streets will change at different moments throughout the COVID-19 crisis.

We will use our streets differently during moments of emergency response than we may as restrictions are relaxed. Underlying structural vulnerabilities in different neighborhoods may require governments to provide more or more-specialized services in some areas than in others. Needs will differ on neighborhood streets with primarily houses or apartments and schools compared with needs on major thoroughfares where office, retail, or institutional uses may predominate. The phases of this pandemic may not follow a predictable sequence and cities should be prepared to employ different strategies in non-linear fashions as necessary. Considering all these factors will be key to nimble, strategic policy response today, tomorrow, and throughout our recovery.

For example, **strategies that allow people to safely access essential services without traveling long distances are paramount**. During emergency response phases and in the long-term recovery phases to come, cities can support their residents by rapidly reconfiguring streets to slow motor vehicle speeds in residential areas and along neighborhood commercial corridors. These changes ensure that people can safely get the goods and services they need while staying in close proximity to their homes. Streets can transform into new spaces, helping people to access food, information, local options for play and exercise, and medical and testing services, without requiring them to get on transit or drive. Quick-build materials—for example, signs, cones, and saw-horse barricades—will be essential tools to roll out these types of projects as quickly as needed.

During periods of stabilization and long-term recovery, when restrictions are relaxed and businesses are starting to re-open but a vaccine is not yet developed or widespread, cities will need to focus on how to **help people maintain physical distance while moving around the city**. Transit-only lanes will be essential to ensure that buses can move freely and frequently, allowing people to use transit without fear of overcrowding. Expanded sidewalks, speed management strategies, and protected bike lane networks will be necessary to keep people safe as vehicular traffic returns. Stores, markets, and restaurants will need outdoor space for seating and queuing in order to stay financially solvent. Schools, libraries, venues, and religious and cultural institutions may need outdoor space to safely conduct classes and programming or provide essential social services. Interim and permanent materials—for example, rubber and precast concrete curbs, paint, delineators, planters, and jersey barriers—will be key tools to develop and maintain these projects over time.

# Types of Policies to Consider

Public Health Response	Neighborhood Streets (local/residential)	Neighborhood Main/High Streets (small retail/office, residential, schools, institutions)	Major Urban Streets (transit, retail/ offices, institutions, schools)	Edge Streets & Boulevards (in/alongside parks, waterfronts, etc.)
Stay-at-home orders in place	<ul style="list-style-type: none"> <li>• “open streets” (pop-up parks)</li> <li>• slow streets or local access only</li> <li>• speed management (movable barriers, gateway treatments, signs)</li> <li>• WiFi hotspots</li> <li>• open-air cooling zones/sanitation</li> </ul>	<ul style="list-style-type: none"> <li>• sidewalk expansions for queuing, outdoor markets, &amp; access</li> <li>• pop-up bike and roll lanes</li> <li>• temporary pick-up/ drop-off delivery zones</li> </ul>	<ul style="list-style-type: none"> <li>• sidewalk expansions for access &amp; queuing</li> <li>• temporary pick-up/ drop-off zones</li> <li>• shorten signal cycles</li> <li>• put pedestrian signals on recall</li> </ul>	<ul style="list-style-type: none"> <li>• street closures to vehicular traffic, for medical services, recreation, markets, etc.</li> </ul>
Pre-vaccine re-opening	<ul style="list-style-type: none"> <li>• local-access only treatments</li> <li>• lane removal/street closures for schools &amp; religious/cultural service providers</li> </ul>	<ul style="list-style-type: none"> <li>• tactical lane/parking space removal, street closures for outdoor restaurant seating, outdoor markets, etc.</li> <li>• sidewalk expansions for queuing &amp; access</li> <li>• tactical bike lanes</li> <li>• designated pick-up/ drop-off delivery zones</li> <li>• bike &amp; shared micromobility parking corrals</li> <li>• lane removal/street closures for schools &amp; religious/cultural service providers</li> </ul>	<ul style="list-style-type: none"> <li>• bus-only lane, tactical islands/in-lane stops, bus priority signals, expanded bus stops</li> <li>• lane removal/parking space removal for outdoor restaurant seating, outdoor markets</li> <li>• sidewalk expansions for queuing &amp; access</li> <li>• protected bike lanes</li> <li>• speed management</li> </ul>	<ul style="list-style-type: none"> <li>• street closures to vehicular traffic, e.g. for recreation, markets, schools, etc.</li> <li>• expanded bike lanes &amp; bike/shared micromobility parking zones</li> <li>• speed management</li> </ul>
Vaccine/post-COVID	<ul style="list-style-type: none"> <li>• speed management (e.g. speed limit changes &amp; geometry)</li> <li>• play streets, slow streets, and local-access-only policies &amp; design</li> </ul>	<ul style="list-style-type: none"> <li>• sidewalk widenings</li> <li>• speed management (e.g. speed limit changes &amp; geometry)</li> <li>• expanded bike lanes &amp; bike/shared micromobility parking zones</li> </ul>	<ul style="list-style-type: none"> <li>• bus-only lanes with offboard fare collection, bus islands, and amenities</li> <li>• high frequency bus service</li> <li>• expanded bike lanes &amp; bike/shared micromobility parking zones</li> <li>• sidewalk widenings</li> <li>• speed management</li> </ul>	<ul style="list-style-type: none"> <li>• open space expansions</li> <li>• expanded bike lanes &amp; bike/shared micromobility parking zones</li> <li>• speed management</li> </ul>





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# Emerging Practices for **Implementation**

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# Emerging Practices, Planning and Engagement

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Rapid response infrastructure can be implemented as temporary traffic control under the authority of most roadway-owning agencies. Cities can use those powers now to support public health guidance on physical distancing, to help essential workers move safely and efficiently, and to access goods and essential services during the COVID-19 pandemic and recovery. The following sections document ongoing and emerging practices for rapid response mobility improvements, whether temporary or permanent, while maintaining accessibility for all people in cities around the world.

## Finding Space

There is often enough room for physical distancing on streets, but much of this space is currently assigned to motor vehicles by default. Most cities can find space for safe mobility and physical distancing through one or more of the following space reassignments:

- **Remove individual parking space(s)** or a curbside parking lane.
- **Narrow** a motor vehicle lane or lanes.
- **Shift parking or loading** away from the curb, even where it requires closing a vehicle lane.
- **Designate a street as local access only** to reduce vehicle volumes and speed to levels where street space can be shared.
- **Close motor vehicle lane(s)**, or the entire street, to enable adequate physical distancing or improve accessibility and safety for other road users.

## Planning & Evaluation

- **Use an on-call or general contractor**, in-house staff, and supplies on hand. City leaders can support this work by approving the use of operational funds or staff in other divisions.
- **Establish clear project goals and metrics**, and ensure that agency partners understand project, evaluation, and enforcement objectives.
- **Monitor projects** every day or twice daily at first, then weekly, to ensure that barriers remain in place and signs are understood.
- **Align projects with ongoing plans** for sustainability, accessibility, or public health to facilitate next steps or scaling up projects and programs.

## Engagement

- **Engage with stakeholders** through community groups, social service providers, business associations, and local shops; reach workers through employers and advocates.
- **Ask stakeholders and advocates** to place flyers, circulate notices to local/hyper-local online networks, or safely contact local residents.
- **Work with community groups** to identify key obstacles or issues affecting design.
- **Encourage feedback** from neighbors and stakeholders to inform adjustments, modifications, and future phases.
- **Convey clear goals** and periodically solicit feedback via brief survey(s) to people using the street, businesses, and residents to ensure input in refinements or any future phases of work.

# Emerging Practices, Materials and Design

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The COVID-19 pandemic has significantly reduced traffic volumes, which allows traffic engineers to use a wider palette of materials in developing new street configurations. In addition, narrowing or re-assigning motor vehicle lanes typically results in slower speeds, enabling engineers to use lighter separation materials more readily than pre-existing conditions might have implied. Be sure to align materials selection to project duration and key conditions, such as observed speeds. Lighter materials can be used for temporary, particularly short-term, implementation. More durable materials should be examined for lengthier deployment, with an eye to [placemaking](#), particularly as recovery begins and physical distancing guidance evolves. Short-term projects can be adjusted or transitioned to permanent, using heavier materials as needed, following evaluation, engagement, and refinement.

## Placement & Visibility

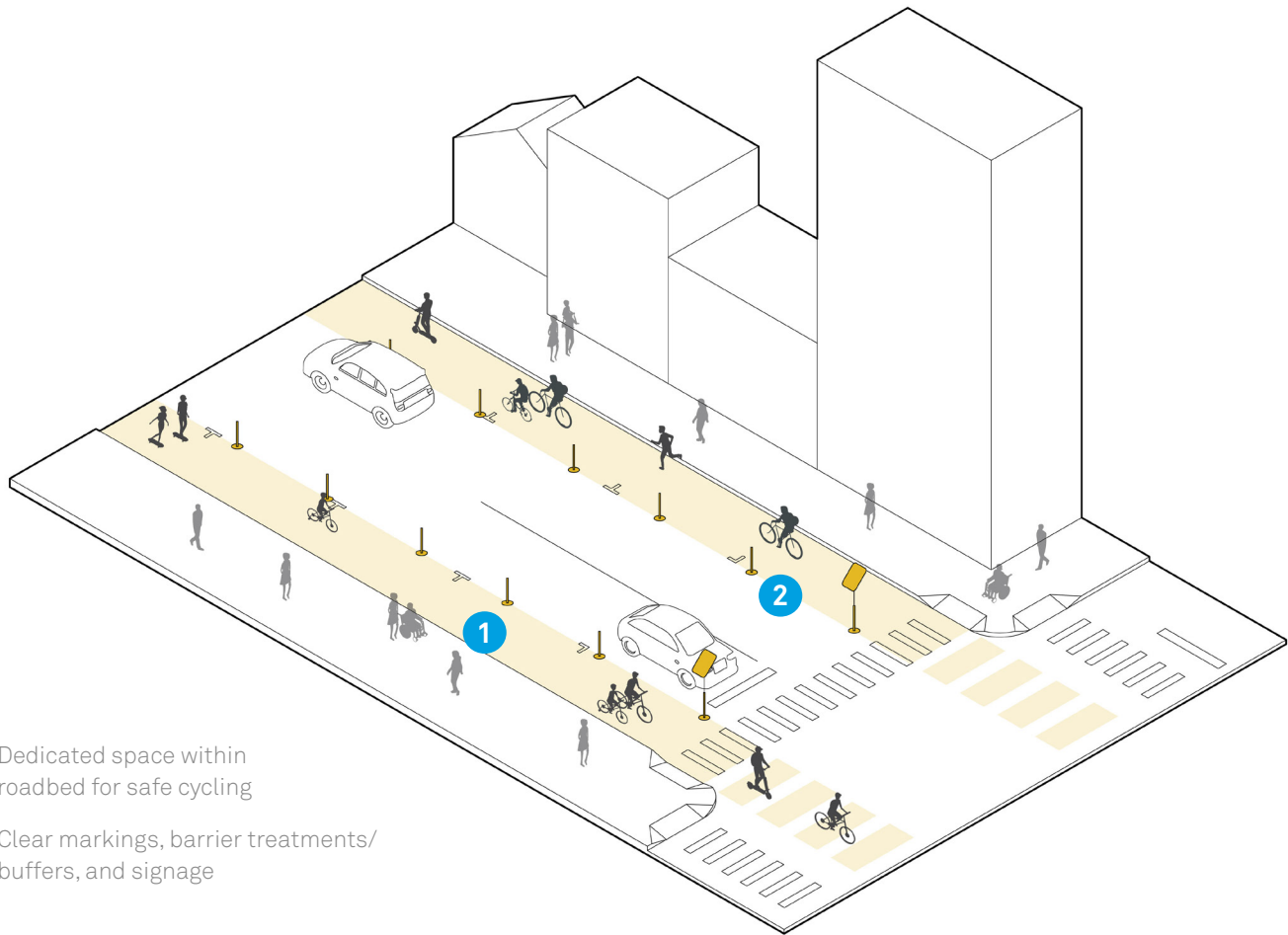
- Place barriers and signs **at the points along the street where drivers and riders need to do something new.**
- **All-conditions visibility and reflective surfaces** can be provided by conventional construction zone material or temporary traffic control devices.

## Signs & Markings

- **Signs** can be made of paper, coroplast, or other temporary material and can be combined with plywood or metal regulatory signs (such as “Local Traffic Only”) if available.
- **Spray paint, acrylic latex, spray chalk, or traffic tape** can be used create a temporary lane line if needed.
- **Consult local guidance** and state/provincial/national standards for official colors, signs, and symbols. Standards documents may be insufficient for pedestrian and bicycle needs but can be helpful for familiar motor vehicle traffic control.

## Separation

- **Light separation:** for visibility and to emphasize the new edge of the motor vehicle roadway. Light separation can also be used for projects that are limited to specific times of day or days of the week. Light separation includes: [traffic cones](#), [free-standing delineator posts](#), traffic barrels, sawhorses, movable parade barricades (“French barricades”), small planters, and [traffic control barricades](#) such as A-frames.
- **Heavy separation:** for the most sensitive locations such as the beginning of lane closure on high-volume streets. Heavy separation includes: water-filled barriers, concrete barriers, filled barrels, large planters, flexible posts and delineators, and armadillos.
- Spray-chalk or spray-paint the preferred locations of barriers to ease implementation.



- 1 Dedicated space within roadbed for safe cycling
- 2 Clear markings, barrier treatments/buffers, and signage

**Provide space for essential workers and others to bike and roll safely while maintaining sufficient physical distance from others.**

## CONTEXT

- Multilane streets, streets with wide lanes where demand is high
- Streets that provide access to hospitals and other essential services; connector routes to parks and other open spaces

## KEY STEPS

- Convert curbside parking or motor vehicle lane to bike lane. Optional: convert adjacent vehicle lane to parking
- Designate start of lane with a barrier and sign, positioned so as not to block cyclists
- Use reflective barriers such as traffic cones, flexible posts, bollards, plastic barriers, freestanding delineators, or traffic barrels

**TIMELINE:** Days to plan, hours to implement

**DURATION:** Days to months



Credit: @ParisBeauAVelo

## Paris, France

Paris rolled out 50 km of a planned 650 km of emergency bike lanes over the course of a few weeks using semi-rigid delineator posts and traffic barricades.

## Planning

- Prioritize filling gaps in existing bike networks, transit routes, bike routes awaiting implementation, and streets that already have ridership.
- Consider streets leading to hospitals, key health destinations, or along key transit routes to improve safety, especially for essential workers.
- Consider vehicle lanes adjacent to shared-use paths, roads, parks, or waterfronts.

## Engagement

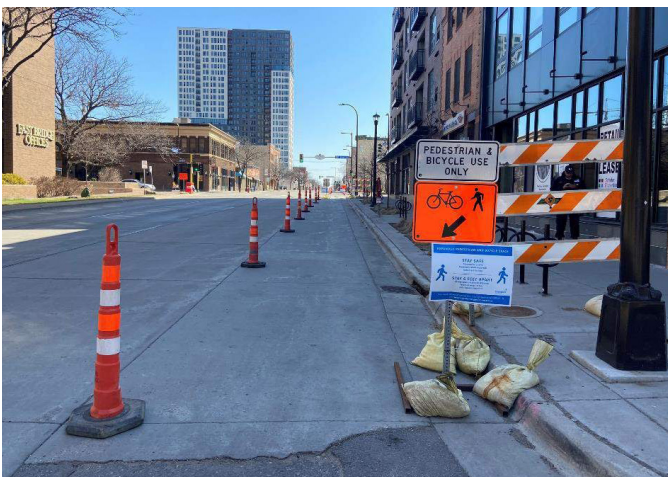
- Partner with community groups, social service providers, bike coalitions, and bike shops; reach workers through employers.
- Ask stakeholders and advocates to place flyers, circulate notices to local/hyper-local online networks, or safely contact local residents.
- Tap community groups to identify key obstacles or issues affecting design or segment length.

## Design + Implementation

- Use light separation materials to separate bike and roll lane from other lanes.
- Use heavy separation at endcap locations and other sensitive points (e.g. major intersections, T-intersections).
- If parking lane exists, move away from curb or prohibit parking to make protected bike lane; 'floating' parking can provide additional protection for cyclists.
- Place signs on movable barriers at beginning of bike and roll lane, major intersections, and other high-volume turn locations.
- Use typical temporary lane control signs (Lane Closed Ahead, Right Lane Ends, or local equivalent) ahead of vehicle closure.
- Use temporary signs and markings to indicate where to bike or park.

## Monitoring

- Key criteria: number and percent change in demand; use an automated device, such as a tube counter, to collect counts.
- Check placement of equipment daily for the first few weekday and weekend days, then weekly.



Credit: Minneapolis DPW



Credit: Kledina Skendo

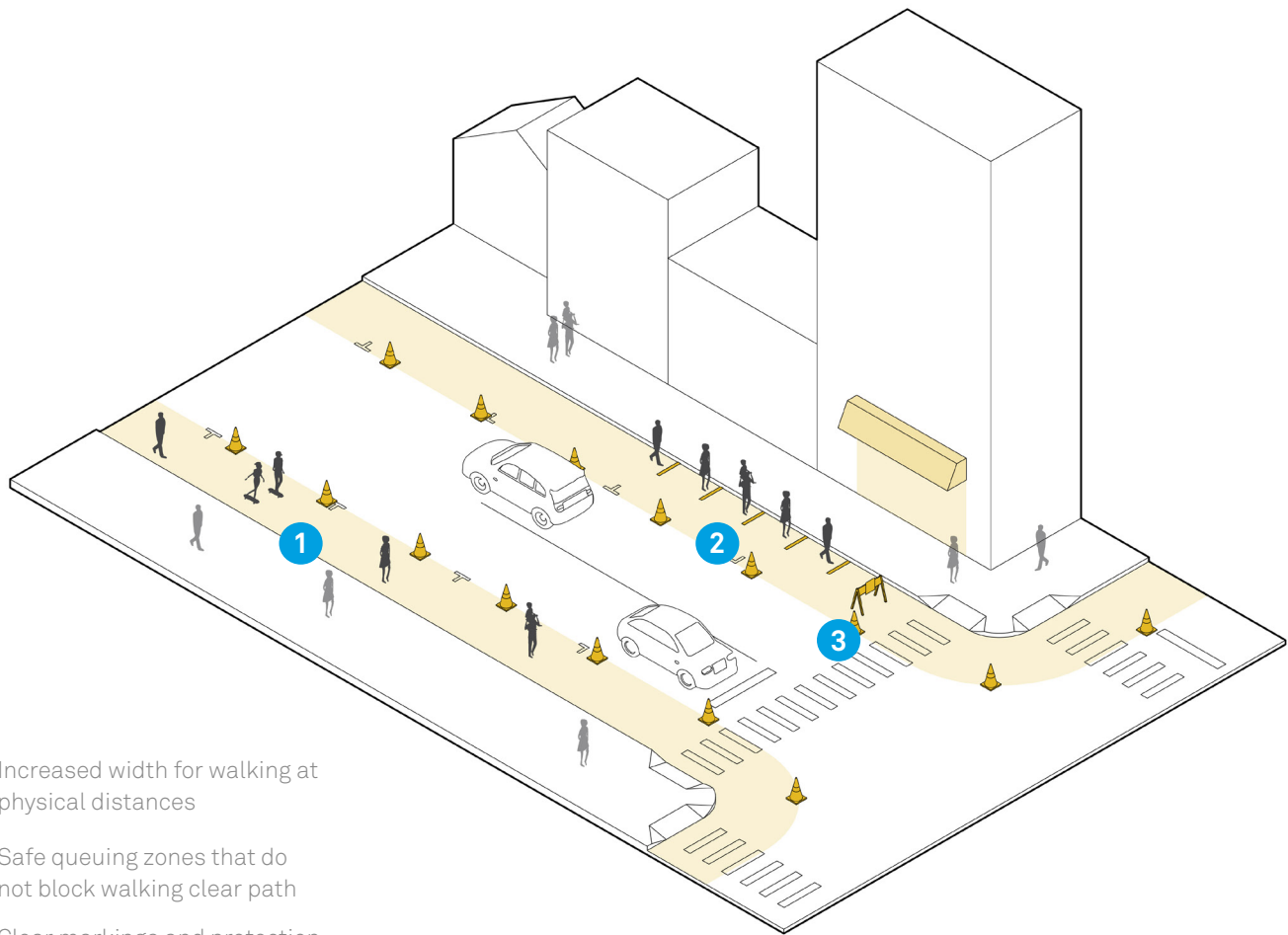
### Minneapolis, MN, USA

Minneapolis added 11 miles of “Stay Healthy Streets” using freestanding delineator posts and closure signs mounted on traffic barricades. These loop routes support more space for active recreation while maintaining physical distance between users.

### Tirana, Albania

Tirana converted parking lanes into protected bike lanes using plastic flexible delineator posts and yellow paint markings.





- 1 Increased width for walking at physical distances
- 2 Safe queuing zones that do not block walking clear path
- 3 Clear markings and protection for pedestrians

## Provide space for people to comply with physical distancing guidelines while walking or waiting.

### CONTEXT

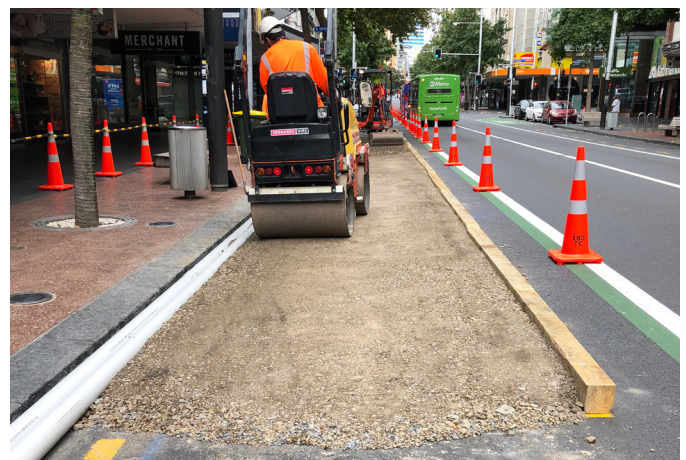
- Along main/high streets and major thoroughfares with essential businesses/services, high transit use, or crowded recreational paths
- On streets with narrow or missing sidewalks that cannot be converted to local traffic only

### KEY STEPS

- Convert curbside parking or motor vehicle lane to pedestrian space
- Protect lane with reflective barriers such as freestanding delineators or traffic barrels

**TIMELINE:** Days to plan, hours to implement

**DURATION:** Days to months



Credit: Auckland Transport

### Auckland, New Zealand

Auckland created more space for physical distancing on Queen Street using asphalt ramps, white safety posts, and paint to delineate extended sidewalks.

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## Planning

- Prioritize sidewalks where pedestrian queuing or waiting is already a known issue, locations near grocery stores and markets, and on main streets in neighborhoods with high infection rates.
- Convert streets leading to key health destinations or along key transit routes to improve safety, especially for essential workers.
- Consider converting vehicle lanes to pedestrian space adjacent to shared-use paths, parks, or waterfronts to ease overcrowding.
- If local requirements for pedestrian protection in temporary traffic control plans cannot be met within the timeline of pandemic response, document rationale for departing from rules rather than delaying the project.

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## Engagement

- Use flyers and temporary signs to notify people who use the street.
- Partner with stakeholders and advocates to place flyers or safely contact neighbors about upcoming changes.
- Tap community groups and business associations to identify key obstacles or issues affecting design or segment length.

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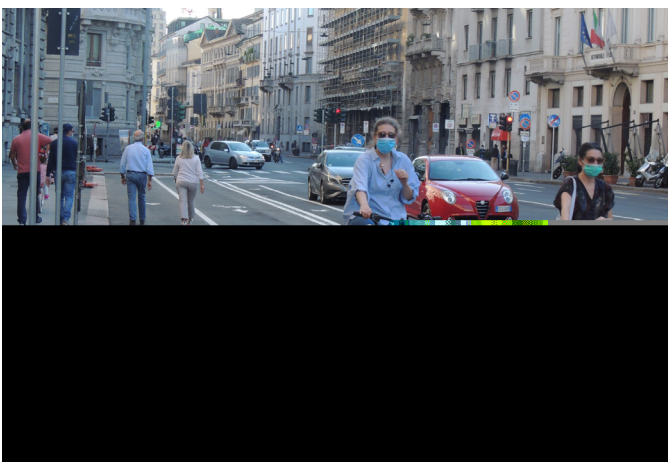
## Design + Implementation

- Use light separation to delineate walking space.
- Use heavy separation at endcap locations and other sensitive points (e.g. major intersections, T-intersections).
- If parking lane exists, move it away from curb or prohibit parking. 'Floating' parking lane can provide additional protection for sidewalk space.
- For pedestrian queuing space, apply temporary markings to roadway with tape or spray chalk.
- Use temporary signs, such as Park Here/Walk Here or Park Here/Queue Here signs.
- Use typical temporary lane control signs (Lane Closed Ahead, Right Lane Ends, or local equivalent) ahead of the vehicle closure.
- Consider a framework for locations and markings with permitting for local organizations, where staff resources are constrained.

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## Monitoring

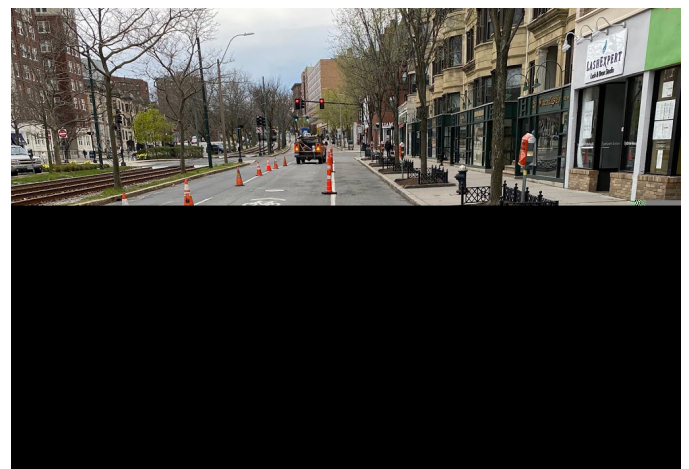
- Key criteria: sufficient space for physically distant walking and/or queuing; few or no observations of people waiting in queues walking on sidewalk.
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Credit: AMAT Officina Urbana/Comune di Milano

### Milan, Italy

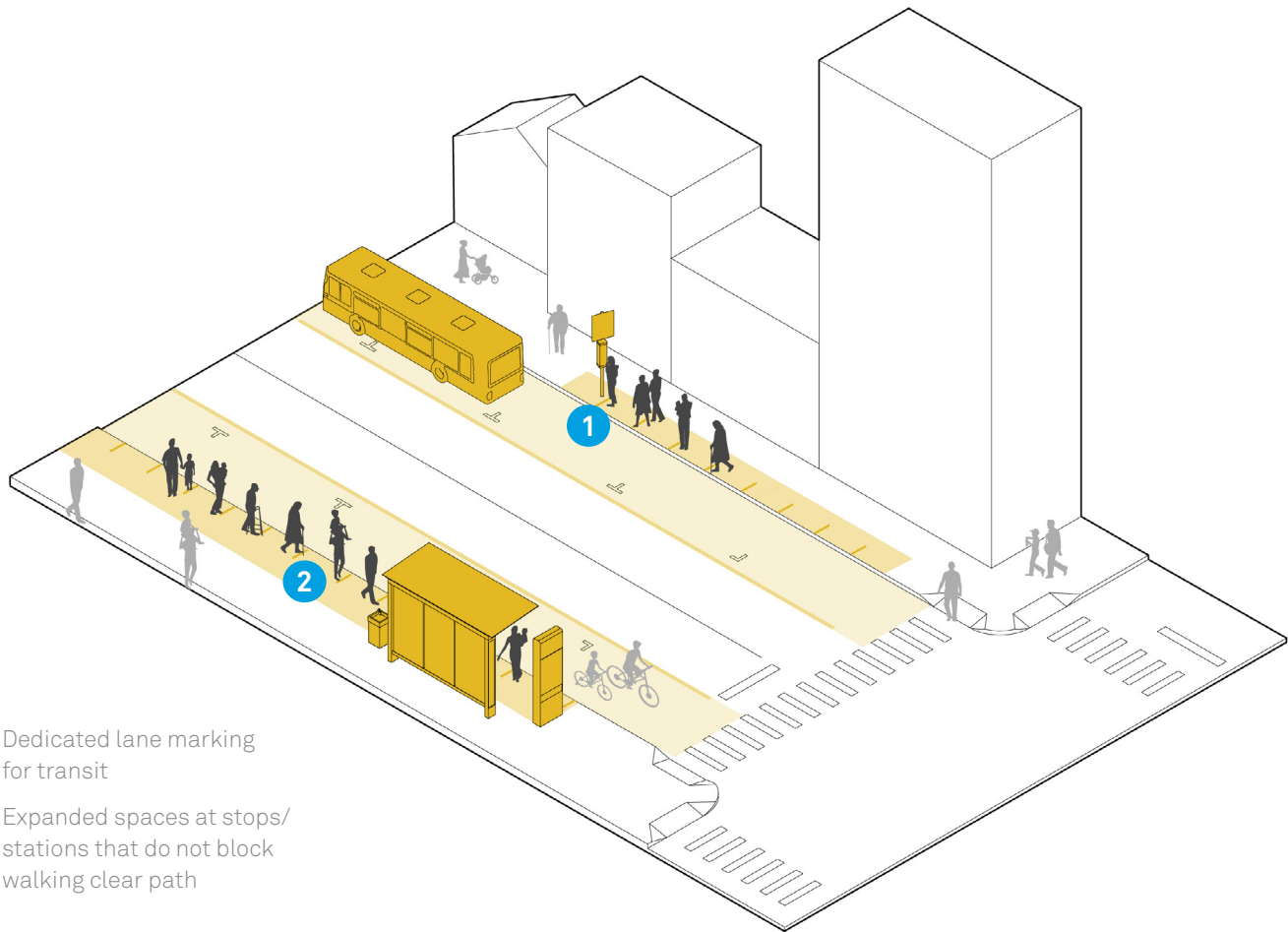
Milan created a citywide plan to implement new pedestrian and bike facilities on 35 km of streets. On this 4.5-km corridor over its busiest subway line, the City used paint and markings to widen sidewalks and add a parking-protected bike lane.



Credit: @BLineTransport

### Brookline, MA, USA

Brookline used cones and temporary signs mounted on freestanding delineator posts to extend sidewalks and create bike lanes along four high-volume streets.



- 1 Dedicated lane marking for transit
- 2 Expanded spaces at stops/stations that do not block walking clear path

**Provide or expand transit-only/transit-priority lanes to ensure that surface-level transit can continue to be a reliable and efficient form of transportation for the people who need it most.**

## CONTEXT

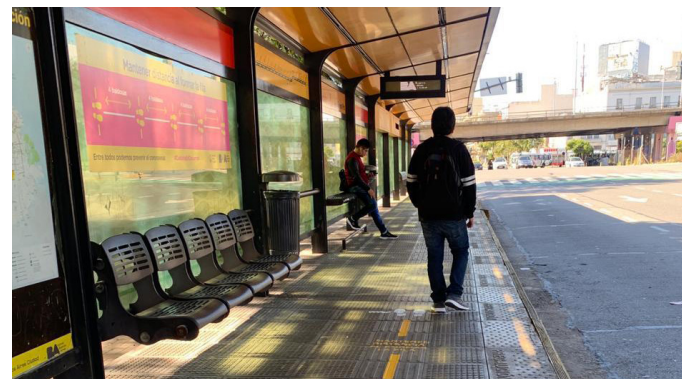
- High-ridership transit corridors and routes that serve transit-dependent communities and essential businesses/services

## KEY STEPS

- Convert curbside parking or motor vehicle lanes to surface transit lanes
- Designate the transit lane with paint and striping, signage (static or VMS), or barriers (cones)

**TIMELINE:** Weeks to plan, days/weeks to implement

**DURATION:** Several months to 2-3 years



Credit: Secretary of Transportation and Public Works of Buenos Aires

## Buenos Aires, Argentina

Buenos Aires used paint and icons to indicate appropriate spacing for passengers at public transit stations, waiting areas, and queues.



## Planning

- Prioritize routes in transit dependent communities and routes leading to essential locations with higher ridership or demand.
- Identify locations for relief vehicles if riders are frequently passed up because loads are too high.
- Change signs, signals, and markings to mitigate significant turning conflicts where necessary.
- Study impacts of removing parking, curb access, or loading zones, especially where they impact essential businesses.
- Determine most critical segments based on speed and delay; lanes can be as short as a block or as long as several miles.

## Engagement

- Leverage existing communications networks and social media channels, such as transit advocacy groups, neighborhood associations, and large employers.
- Post notices in vehicles, on-board, at stops, online, and in newsletters to publicize changes and solicit feedback.
- Message goals from the outset to align with current performance and signal future changes to traffic conditions and transit ridership.

## Design + Implementation

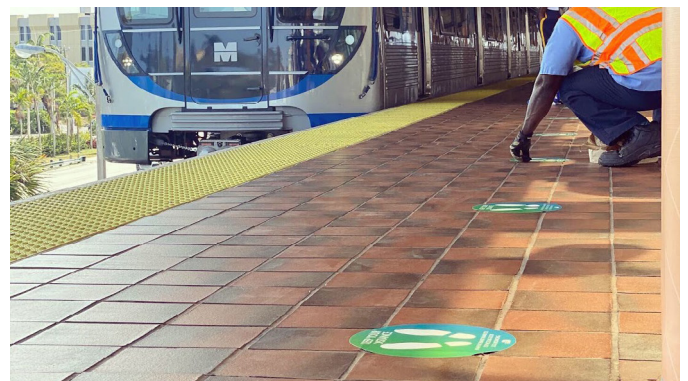
- Measure and mark locations and add signage to indicate hours of operations.
- Install cones and/or barrels, delineator posts, or paint with “Bus Only” markings.
- Signage may be static or VMS, depending on availability and resources.
- At existing stops and hubs, power wash and disinfect high-touch surfaces like shelters, benches, kiosks, and ticket machines. For new sites, ensure sufficient space for customers to maintain physical distance. Where possible, install sanitizer dispensers or portable sinks.
- For recovery planning, upgrade from temporary to permanent materials.

## Monitoring

- Key criteria: collect ridership, crowding, and travel time data; adjust for operational performance as well as public health guidance.
- Coordinate with police to prevent private vehicles from stopping, parking, or traveling in lanes; focus attention as implementation begins.



Credit: @LockdownInUK



Credit: Miami-Dade Transportation & Public Works

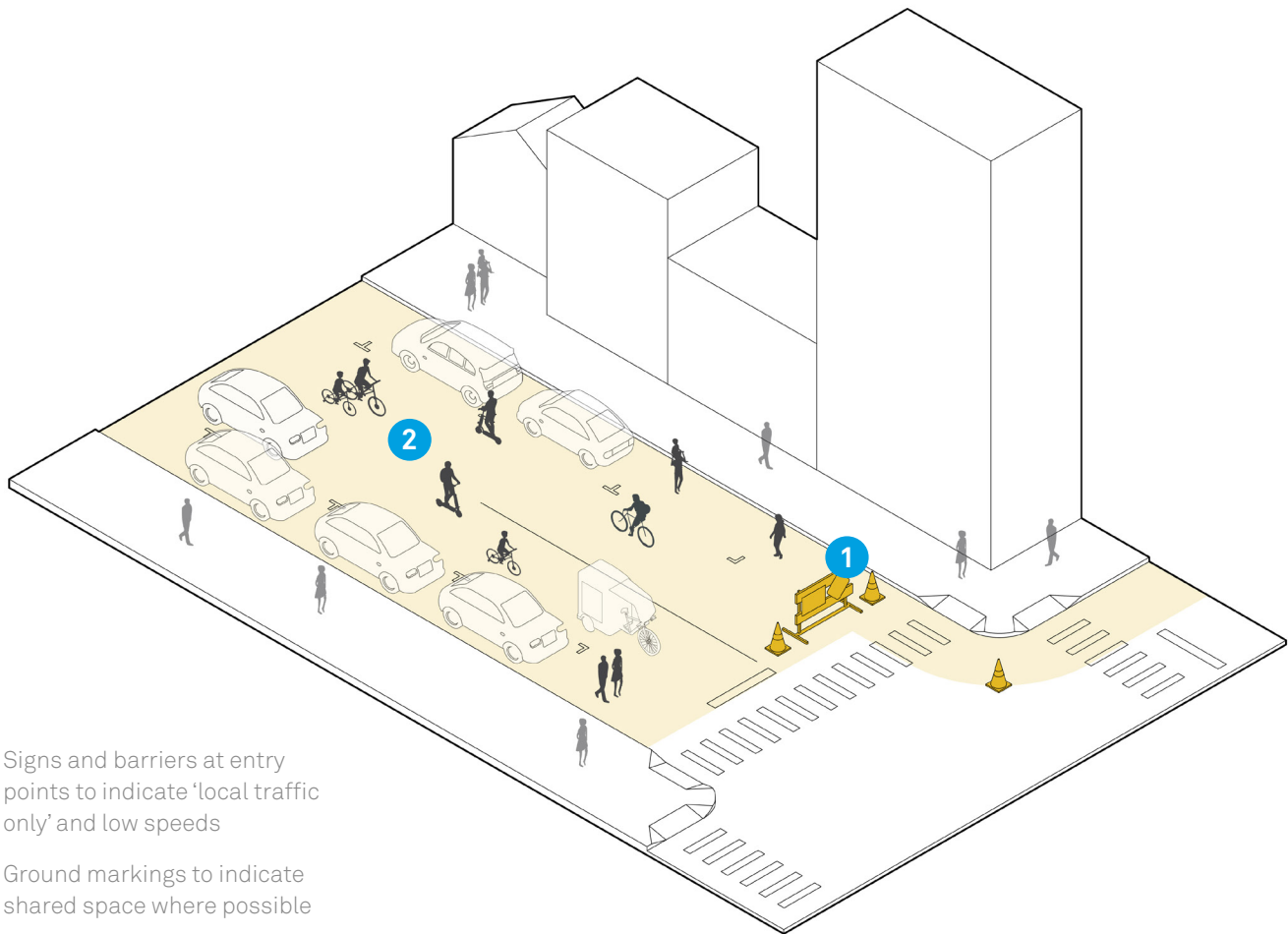
### London, UK

Transport for London launched an informational campaign to promote physical distancing at bus stations.

### Miami, FL, USA

Miami marked appropriate spacing for physical distancing at public transit stations.

# SLOW STREETS



**1** Signs and barriers at entry points to indicate 'local traffic only' and low speeds

**2** Ground markings to indicate shared space where possible

**Reduce traffic volume and speed to a minimum so that people can walk, bike, and run safely.**

## CONTEXT

- Streets with low vehicle volume and low to moderate speeds, where vehicle volumes have dropped, or serve redundant through-traffic role during COVID disruptions.

## KEY STEPS

- Install temporary traffic barriers and "Local Traffic Only", Slow/Shared, or branded signs (e.g. "Stay Healthy Streets") at main vehicle entry points
- For neighborhoods, establish a grid of entry points into the local street network where barricades should be installed
- Identify stewards to take care of and monitor barricades
- Allow local access, deliveries, and emergency vehicles

**TIMELINE:** One week

**DURATION:** Days to months



Credit: European Cyclist's Federation

## Brussels, Belgium

Brussels created a 20 km/h (12 mph) zone in the downtown core, allowing pedestrians to walk more safely in the roadbed.

## Planning

- Identify a network of streets that can be closed at key entry points, where interior intersections remain unobstructed.
- Examine proposed neighborhood greenways, bike boulevards, or routes that await implementation.
- Consider including other low-volume streets or those with low to moderate speeds.

## Engagement

- Reach out to homeowners associations or other residential district organizations.
- Partner with bike/walk and health coalitions and bike shops; reach workers through advocates and employers.
- Partner with stakeholders and advocates to place flyers or safely contact local residents.
- Tap community groups to identify key obstacles or issues affecting design or segment length.

## Design + Implementation

- Identify which intersections to close fully and which to partially close, preserving local access but preventing most through-movements.
- Place light separation to partially block streets and indicate restricted use and lower speeds (typically 5-10 mph / 10-15 km/h).
- Use temporary “Local Traffic Only” signs, which can be attached to barricades or A-frames if necessary.

## Monitoring

- Key criteria: number and percent change in demand; use an automated device, such as a tube counter, to gather bike volume counts and short (15-minute to 1-hour) sample pedestrian counts if practical.
- Use counts or conduct surveys to determine whether and where segments should be expanded.



Credit: @jonobate

### Oakland, CA, USA

Oakland used signs mounted on A-frames to designate streets as local access only, creating a 74-mile “slow streets” network.

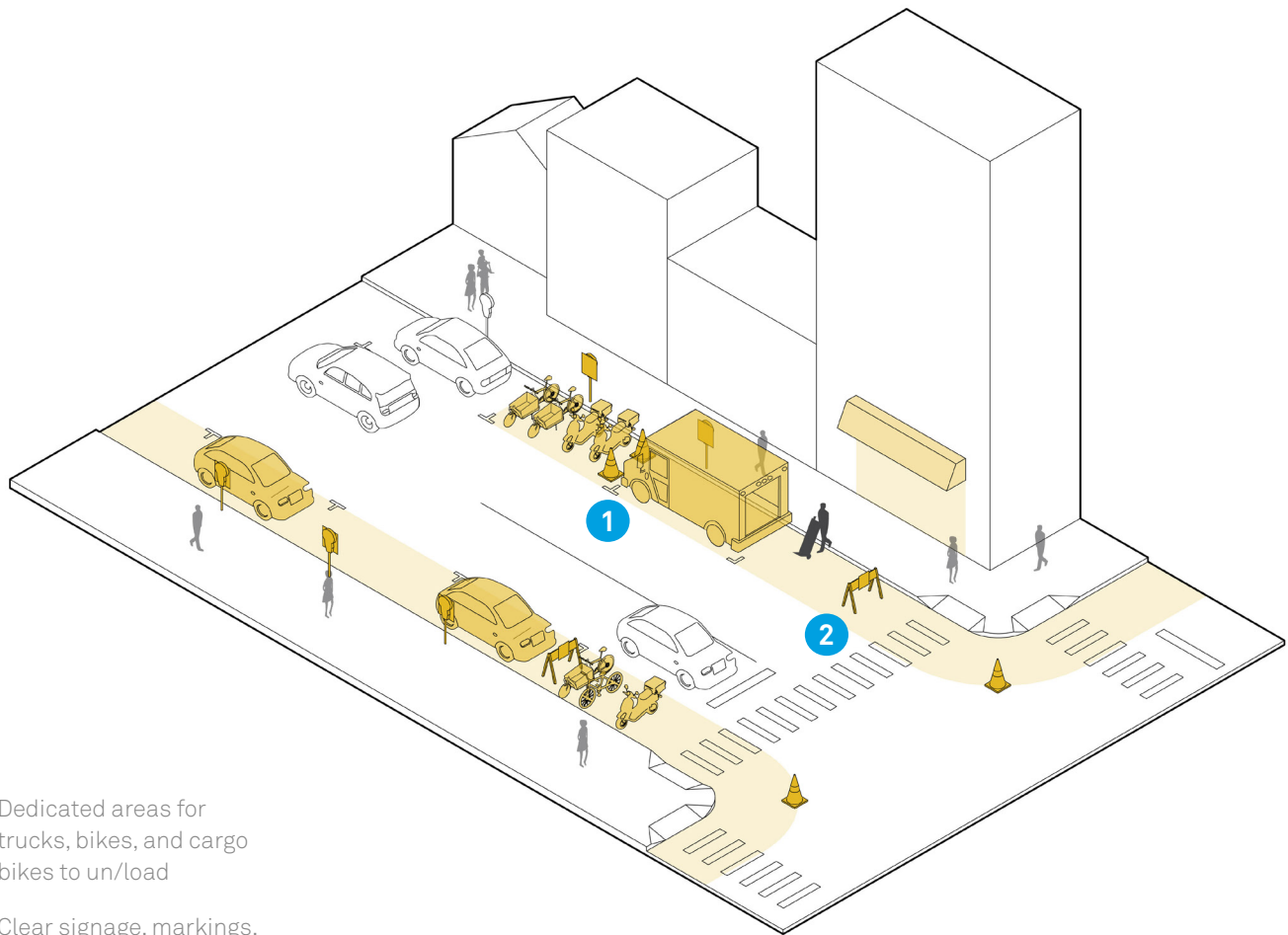


Credit: NACTO-GDCI

### Dunedin, New Zealand

Dunedin approved a plan that reduced speeds to 10 km/hr and allowed city center businesses to extend into the streets, creating shared spaces for multiple modes.





**1** Dedicated areas for trucks, bikes, and cargo bikes to un/load

**2** Clear signage, markings, and protection

## Convert curbside parking spaces or travel lanes to high-turnover pick-up or delivery zones serving essential businesses.

### CONTEXT

- Most relevant at restaurants, laundromats, pharmacies, and other essential services

### KEY STEPS

- Use spray chalk, paint, stickers, or traffic tape, as needed to delineate space
- Alter management and enforcement policy, and cover meters or machines
- Set time limits (~10 minutes max.) to enable turnover/quick access to essential services

**TIMELINE:** Days to plan, hours to implement

**DURATION:** Days to months



**Raleigh, NC, USA**

Credit: City of Raleigh

Raleigh used cones and signs to create temporary curbside pickup zones.

## Planning

- Select locations that support essential services, are crowded, and/or are in areas with high infection rates.
- Commit to initial timeline and associate adjustments with public health guidance or mobility changes.
- Include maintenance and replacement of materials in budgets.

## Engagement

- Notify patrons, businesses, and residents along the route using flyers and circulate notices to online networks.
- Use business associations, partners, and stakeholders to spread information and check details on the ground.
- Keep lines of communication open with emergency services and local businesses.

## Design + Implementation

- De-activate or cover affected parking meters and cover parking regulation signs as needed.
- Install light separation materials (e.g. cones, saw horses, barricades) to designate space.
- Use spray chalk, paint, stickers, or traffic tape if no lane line or parking markings exist.
- Make room in roadbed to unload packages, and add bike racks as needed, to maintain a clear path for pedestrians on sidewalk.
- Create and post temporary signage to clearly communicate shifted uses and policies.

## Monitoring

- Key criteria: pick-up and delivery spaces occupied by motorists and cyclists for appropriate durations of time.
- Examine interference with pedestrian areas and with street operations (e.g. double parking, emergency access).
- Check placement of equipment daily for the first few weekday and weekend days, then weekly.



Seattle, WA, USA

Credit: Dongho Chang

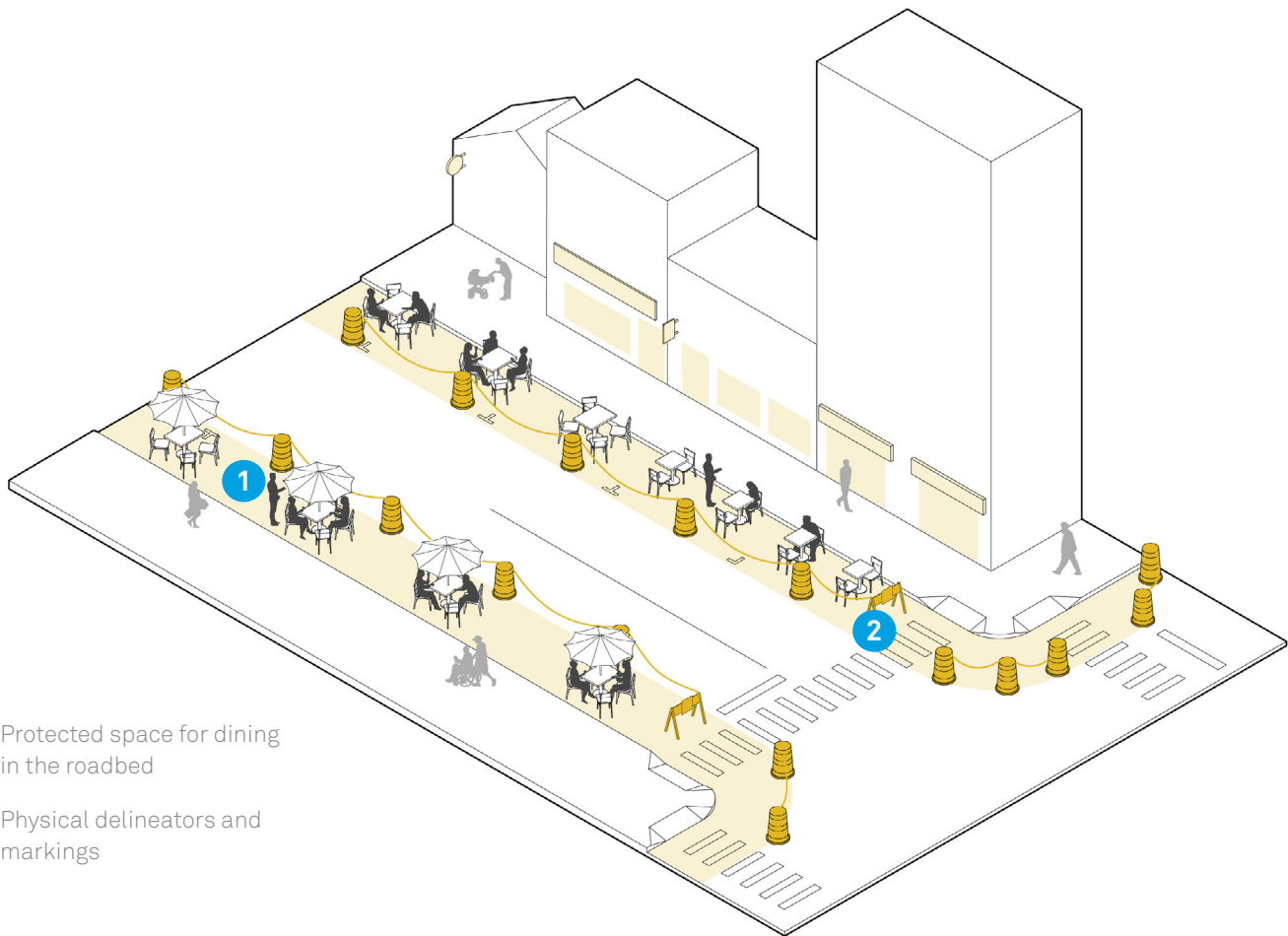
Seattle introduced a program to convert parking spaces near food establishments into pick-up and loading zones for customers and delivery workers.



Alexandria, VA, USA

Credit: City of Alexandria

Alexandria used temporary signage to designate pick-up zones outside food establishments, allowing customers and delivery workers to safely access businesses.



**1** Protected space for dining in the roadbed

**2** Physical delineators and markings

**Provide space for outdoor dining so that restaurants can comply with physical distancing guidelines while resuming dine-in operations.**

## CONTEXT

- Where restaurants, cafes, food stalls, and/or street food vendors are clustered along several blocks

## KEY STEPS

- Identify restaurant clusters and designate 'dining street' zones
- Waive existing permit fees for outdoor dining within preselected zones, as necessary
- Establish clear occupancy standards (e.g. table counts) for 'dining street' zones

**TIMELINE:** One week

**DURATION:** Months



Credit: Go Vilnius

## Vilnius, Lithuania

Eighteen public spaces in Vilnius, including the central Cathedral Square, have been opened for outdoor cafes and restaurants to allow businesses to operate safely. More spaces are expected to open during the summer.



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## Planning

- Establish “street dining” zones by temporarily closing streets or lanes or repurposing parking space within emergency executive orders, as needed.
- Waive sidewalk dining permit fees; set occupancy standards.
- Tap parking enforcement officers and public works to assist with support tasks; local associations can be asked to assist with cleaning and monitoring.
- Commit to an initial duration and hours of operation, noting any city or state “stay-at-home” restrictions that govern operations.
- If present, consider transit performance and access for essential workers before settling on location and segment length. Not advised for major transit routes serving essential workers or destinations.

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## Engagement

- Create brief form allowing businesses and street vendors to register interest, as necessary. Message an iterative approach from the outset.
- Use local business groups and BID, local associations, and other partnerships to publicize programs; fast-track assessment and notification within each neighborhood.
- Keep interagency communications open, especially emergency services and any cleaning or maintenance crews.

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## Design + Implementation

- Use heavy separation at endcap to close street to vehicle traffic, as needed.
- Use tables, chairs, and umbrellas as needed; establish guidance for storage and deployment of equipment to ensure pedestrian, bike, and vehicular access in off-hours (to maintain ample pedestrian access).
- Establish a delivery protocol for restaurants based on hours of operation, overall access.
- Measure from back-of-seat to back-of-seat when using markings to indicate distancing standards or public health guidelines.
- Maintain sidewalks clear of tables and chairs to allow ample, physically distant pedestrian movement.

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## Monitoring

- Key criteria: confirm table spacing according to public health guidelines; maintain clear zone for pedestrian movement.
  - Survey restaurants and vendors periodically for feedback, and adjust hours of operation as needed.
- 



Credit: Albert Cesare/The Enquirer

### Cincinnati, OH, USA

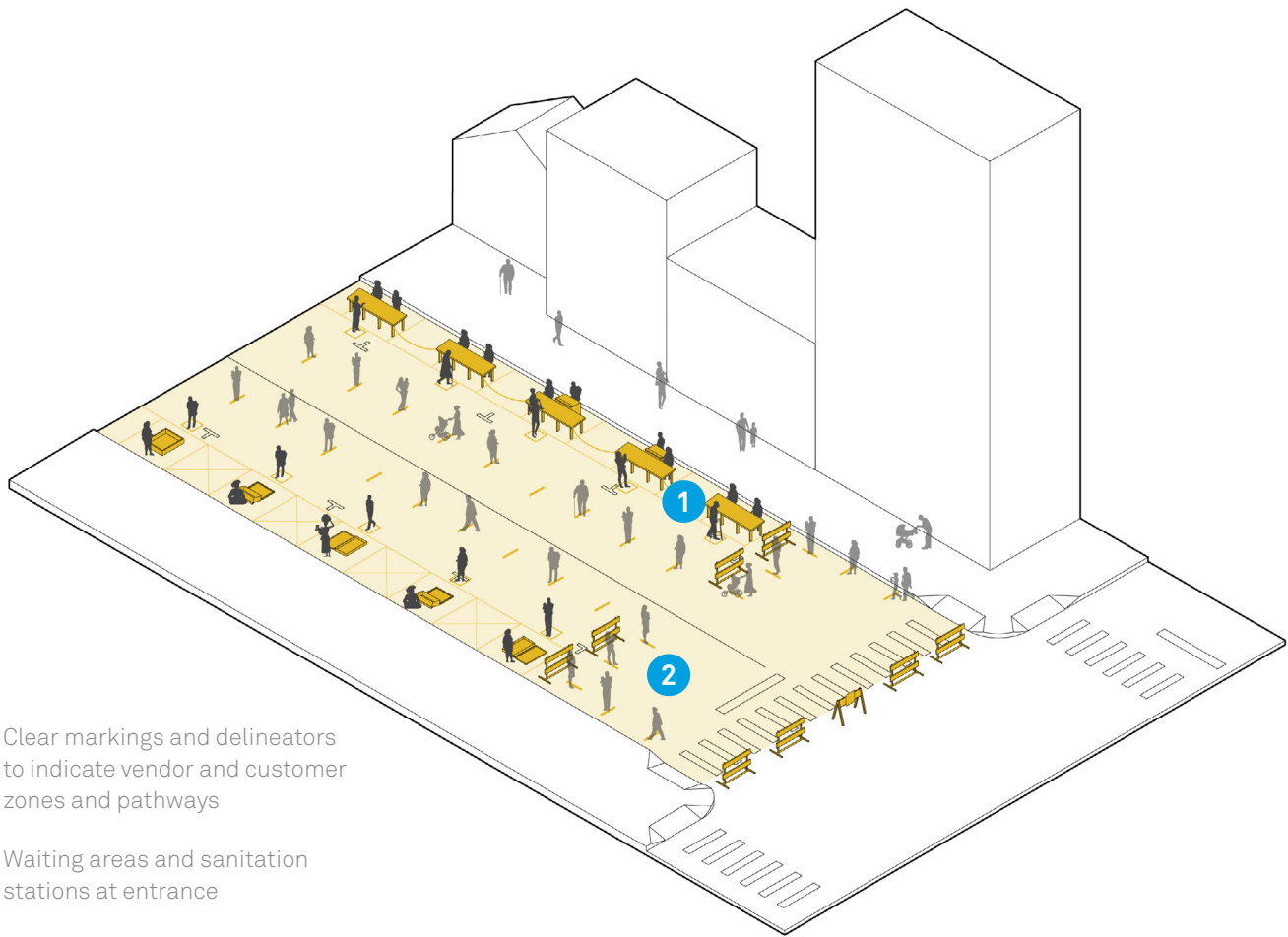
Cincinnati's expanded street seating plan allows establishments to use parking spaces as expanded outdoor seating areas for dining.



Credit: Tampa Downtown Partnership

### Tampa, FL, USA

Tampa has temporarily suspended approval requirements for restaurants to expand operating space in designated portions of the public right-of-way.



1 Clear markings and delineators to indicate vendor and customer zones and pathways

2 Waiting areas and sanitation stations at entrance

## Expand market footprints into adjacent streets to relieve crowding and support physical distancing.

### CONTEXT

- Streets with permanent or active open-air markets
- Streets adjacent to market buildings or public spaces with markets
- Periodic farmers markets

### KEY STEPS

- Allocate street space to allow markets an expanded footprint to operate with safe physical distancing
- Alter management and enforcement policy
- Define safe layout and spacing for vendor stalls and circulation routes based on local physical distancing guidelines

**TIMELINE:** Days to plan, hours to implement

**DURATION:** Hours, days, months, or permanent



Credit: Jain Weraphong

### Kalaw, Myanmar

In Kalaw, paint was used to mark vendor stall locations in the marketplace, separating vendors and allowing customers to shop safely.



## Planning

- Prioritize food and essential goods markets and ensure that locations are equitably distributed across neighborhoods.
- Extend market footprint to adjacent blocks if necessary, divide vendors among different locations, or alternate vendors throughout the week.
- Assess total vendor and customer capacity based on current physical distancing guidelines.
- Amend or update permits to reflect the new operation scheme, if needed.
- Allocate space and schedules to allow for safe loading and drop-off outside market operating hours.

## Engagement

- Focus on vendors and local residents and businesses.
- Use clear signage to communicate adjusted operations, including maximum capacity and physical distancing regulations, to vendors and customers.
- Rely on partners and stakeholders to spread the message and share operational tasks.

## Design + Implementation

- Use barriers and signs to demarcate where market boundaries abut vehicle traffic.
- Create large signage for entrance areas. Create queuing zones at entrances for customers to use when occupancy is at capacity.
- Use paint and other ground markings to indicate locations for vendor stalls and safe circulation routes.
- Use barriers and markings (e.g tables, ropes, paint) to minimize interactions between vendors and customers and to maintain physical distances at purchase points.
- If necessary, provide facilities for hand washing and sanitation.

## Monitoring

- Key criteria: ratio of customer/vendor/hour and ratio of customer/area/hour.
- Track customer counts and conduct surveys to inform updated market protocols as necessary.
- Ensure market area is cleaned and sanitized at the end of each day.



Credit: Sistema FAEG/Senar



Credit: Jason Roberts/Better Block

### Goiânia, Brazil

Goiânia implemented a “Safe Fairs” pilot project, encouraging open markets to operate in accordance with World Health Organization guidelines to avoid contagion.

### Dallas, TX, USA

In Dallas, local nonprofit Better Block is providing wooden fruit and vegetable racks to shuttered restaurants to allow them to sell excess inventory in outdoor grocery markets.