

# Temporary Bike Access Routes (TBAR) Guide



# TBAR Overview

## WHAT IS THE TBAR?

When construction activities interfere with existing bike facilities, a temporary bike facility must be created to accommodate safe conditions for people biking. The Temporary Bike/Bike Access Routes (TBAR) guide provides bike-specific requirements, standards, and design guidance for developers to safely reroute bikers when an existing bike facility is impacted during construction.

## HOW AND WHEN TO USE THIS GUIDE

The goal for this guide is to provide adequate guidance to protect people biking in Philadelphia while there is construction occurring within the bike right-of-way. This document provides a list of requirements that all project shall meet (see page 3) as well as guidance for common roadway construction scenarios. Temporary bike facilities may utilize different strategies than those outlined in this document, so long as they provide adequate protections for people biking.

This TBAR guide is a supplement to the [PennDOT Temporary Traffic Control Guidelines Publication 213 \(Pub 213\)](#) and [Manual on Uniform Traffic Control Devices \(MUTCD\)](#) and is designed to work in conjunction with those standards as well as to complement the existing [Philadelphia Temporary Pedestrian Access Routes](#). All items not covered in this guide will follow the relevant [MUTCD](#), [PennDOT Publication 213](#), and [Department of Streets](#) standards.

## WHAT THIS DOES & DOES NOT COVER

This guide includes Maintenance and Protection of Traffic (MPT) guidance for 6 different scenarios within 3 categories:

1. Construction impacting a sidepath/trail
  - 1A. Sidepath/Trail to two-way separated bike lane
2. Construction impacting a separated bike lane
  - 2A. Bike lane to two-way separated bike lane
  - 2B. Bike lane to bike lane
  - 2C. Two-way bike lane to two-way bike lane
3. Constructed impacting a painted bike lane
  - 3A. Bike lane to two-way separated bike lane
  - 3B. Bike lane to bike lane

This guide addresses pedestrian access, but does not provide detailed requirements. For detailed information about temporary pedestrian access, please reference the [Temporary Pedestrian Access Routes \(TPAR\) guide](#).



# General Requirements

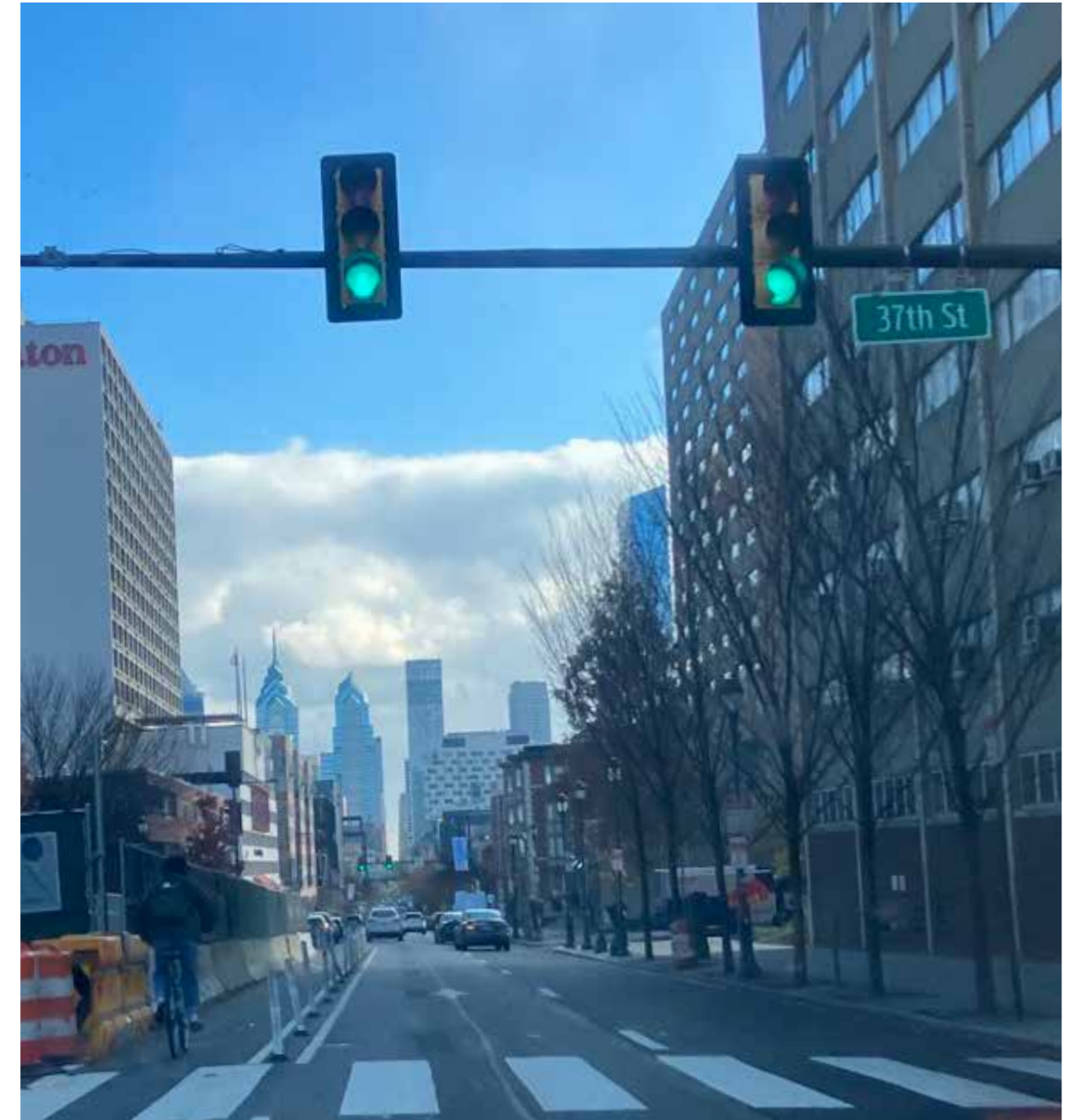
**Temporary bike facilities must contain better or equal protections and features of the current facility whenever possible. All facilities must meet the following requirements:**

1. Temporary bike facilities must be created to guide bikers past the work zone rather than closing the facility and creating a detour on another street.
2. Temporary bike facilities take priority over on-street parking.
3. Temporary bike facilities take priority over travel lanes on multi-lane roadways.
4. No vehicles should be parked in the temporary bike facility at any time. Temporary facilities that utilize an existing parking lane must coordinate with the Philadelphia Parking Authority.
5. Temporary facilities must remain clear of any hazards such as construction equipment, vehicles, debris, surface irregularities, etc. at all times.
6. Temporary bike facilities and signage must be established when construction commences.
7. If emergency work needs to be done, construction may begin before installing the temporary bike facility. However, the temporary bike facility that meets the requirements of this guide must be installed within 3 days if the repair duration will be more than 3 days long.
8. All signs and barriers must meet City standards. This document provides a list of approved signs and barriers. If a separate or related vehicular detour overlaps with construction and calls for the same sign to be placed in the same location, default to the larger sign.

Temporary bike facilities shall be implemented based on engineering judgment, location of operation, and type of bike facility affected, and as indicated on the City of Philadelphia street closure permit. If a project deviates from these requirements, an alternative plan and letter signed by a professional engineer should be submitted for approval along with permit application.

## **CONTACT**

For any questions, comments, or issues related to your street closure application, please contact City of Philadelphia Streets Department Right of Way Unit at [Street.Closure@phila.gov](mailto:Street.Closure@phila.gov).



# SIGNS AND BARRIERS



## LANE SHIFT SIGNS

Lane Shift Left (W24-1L) and Lane Shift Right (W24-1R) signs should be used when bikes and/or vehicles need to shift into temporary lanes. Refer to [PennDOT Publication 46, Exhibit 2-6](#) for sign placement. Sign size should be 18" X 18".



## ROAD WORK AHEAD

Road Work Ahead signs (W20-1) should be placed leading up to the construction site / detour. Signs can be 30" x 30" if posted speed is less than 35MPH. If posted speed is over 35MPH, sign size should be 36" x 36". Refer to [MUTCD guide](#) for further details.



## BIKE DETOUR

Bike Detour signs (M4-9c) should be used when bike lane shifts to alternate side of the street. Sign should be placed in advance of the detour to alert bikes and vehicles. Signs should be 24" x 18". Refer to [MUTCD guide](#) for further details.



## END DETOUR

End Detour signs (M4-81) should be used at the end of the detour to indicate that typical travel patterns have resumed. Signs should be 24" x 18". Refer to [MUTCD guide](#) for further details.



## TURNING VEHICLES YIELD TO BIKE

Turning Vehicle Yield to Bike Signs (a modified R10-15a) should be used when directing bikes to use a crosswalk as a part of the detour. Vehicles turning right must yield to bikes using the temporary facility. Signs should be 30" x 30". This modification has been recommended for the next edition of the MUTCD. Refer to [NCUTCD guide](#) for further details.

## FLEX POST DELINEATORS (<25MPH)



## MOVEABLE CONSTRUCTION PADDLES (<25MPH)



## PLASTIC WATER-FILLED JERSEY BARRIERS (>25MPH)

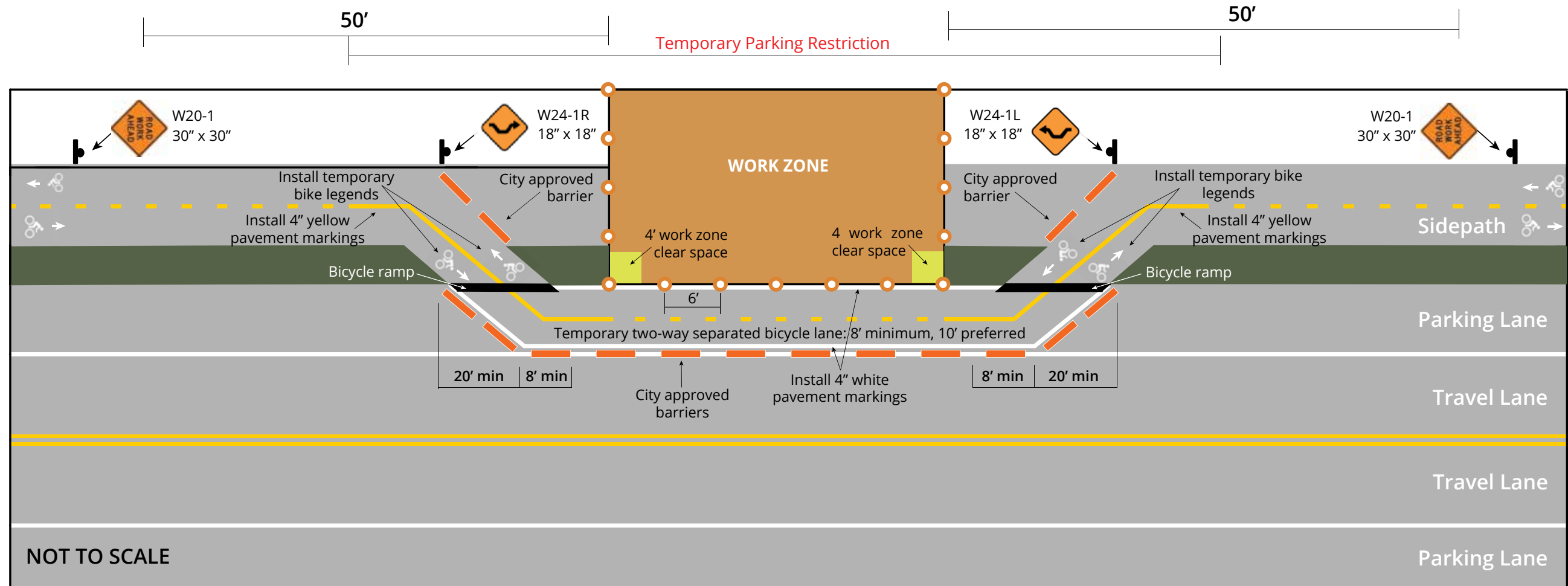


## CONCRETE JERSEY BARRIERS (>25MPH)



# 1. Construction impacting a Sidepath/Trail

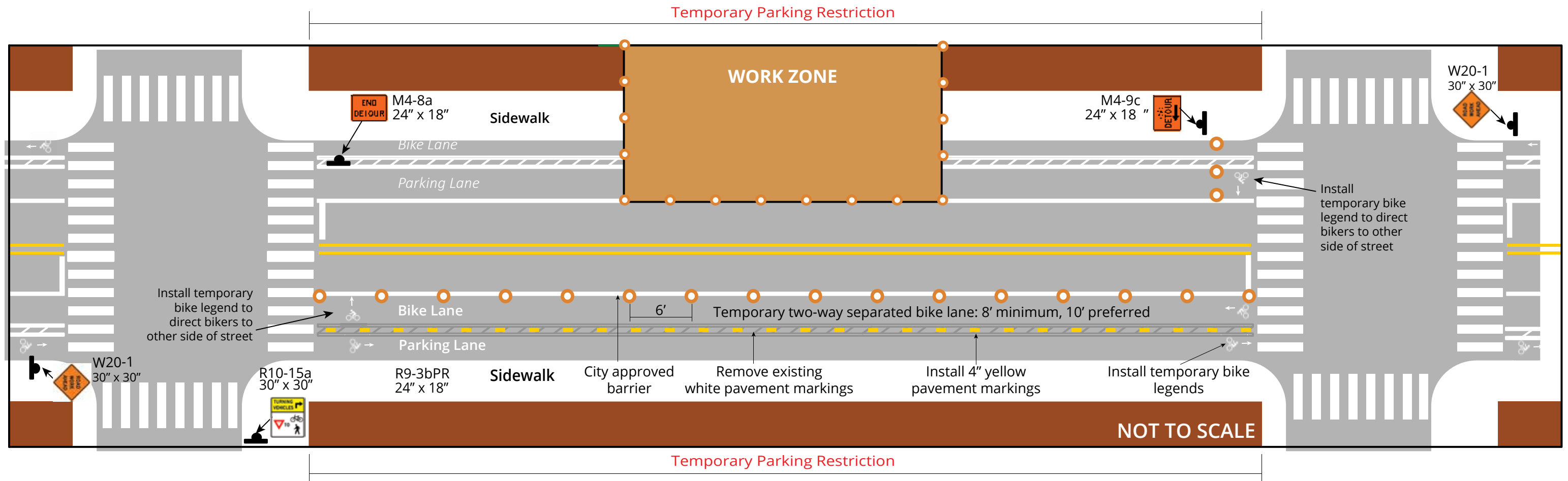
## A: Sidepath/Trail to Two-way Separated Bike Lane



1. Install sign assembly W20-1 50 feet in front of the work zone on both approaches. If the 50 feet falls within the intersection, it should be installed on the approach to the intersection and the sidewalk at a location between the crosswalk and stop bar.
2. Install sign W24-1R and W24-1L at either end of the work zone. The sign should be placed at the beginning of the transition area and located in alignment with the barriers or flexible delineator posts which signal that the sidepath is closed.
3. Signs should be anchored into the asphalt or barrier. Mount signs on existing poles where available. Signs should not obstruct the bike and pedestrian traffic.
4. Blackout existing pavement markings within the area affected by the TBAR plan. Bike ramp/asphalt wedge must meet TPAR standards.
5. Install a 4-inch white edge line a minimum of 8 feet from the white line/verticle elements that separate the work zone and separated bike lane. The two-way separated bike lane should be a minimum of 10 feet wide, with 2 five-foot lanes.
6. Install a City-approved barrier aligned with the white edge line on the travel lane side.
7. Install bike symbols at either end of the temporary separated bike lane per lane. Bike symbols should be positioned in the direction of bike traffic.
8. Taper length is assumed to be 20' long for bikes. All vehicular tapers shall follow the most up-to-date Philadelphia and PennDOT standards. Designers shall use PennDOT Pub213 to define the spacing of barriers and construction devices for detour elements.
9. Where the two-way bikeway transitions between the existing sidepath and temporary separated bike lane, a 4-inch yellow solid centerline should be installed using paint 8 feet on the approaches to the 20-foot long taper and along the length of the taper.
10. Between the two transition areas on either end of the work zone, a 4-inch yellow dashed (2-foot solid and 4-foot spacing) centerline should be installed using paint.
11. The transition area from the side path to the street edge shall be made of concrete, bituminous asphalt, or other City-approved material and meet the requirements for a sidepath.
12. A ramp made of concrete, bituminous asphalt, or other Streets-approved material shall be provided to transfer the cyclists from side path level to street level.
13. At the corners of the construction fencing where the walkway or bikeway exist, a 4-foot opening should be provided on both sides of the corner for visibility purposes.
14. Enforce a temporary parking restriction for the length of the temporary bike lane, the length of the transition area, and an additional 20-foot buffer.

## 2. Construction impacting a Separated Bike Lane

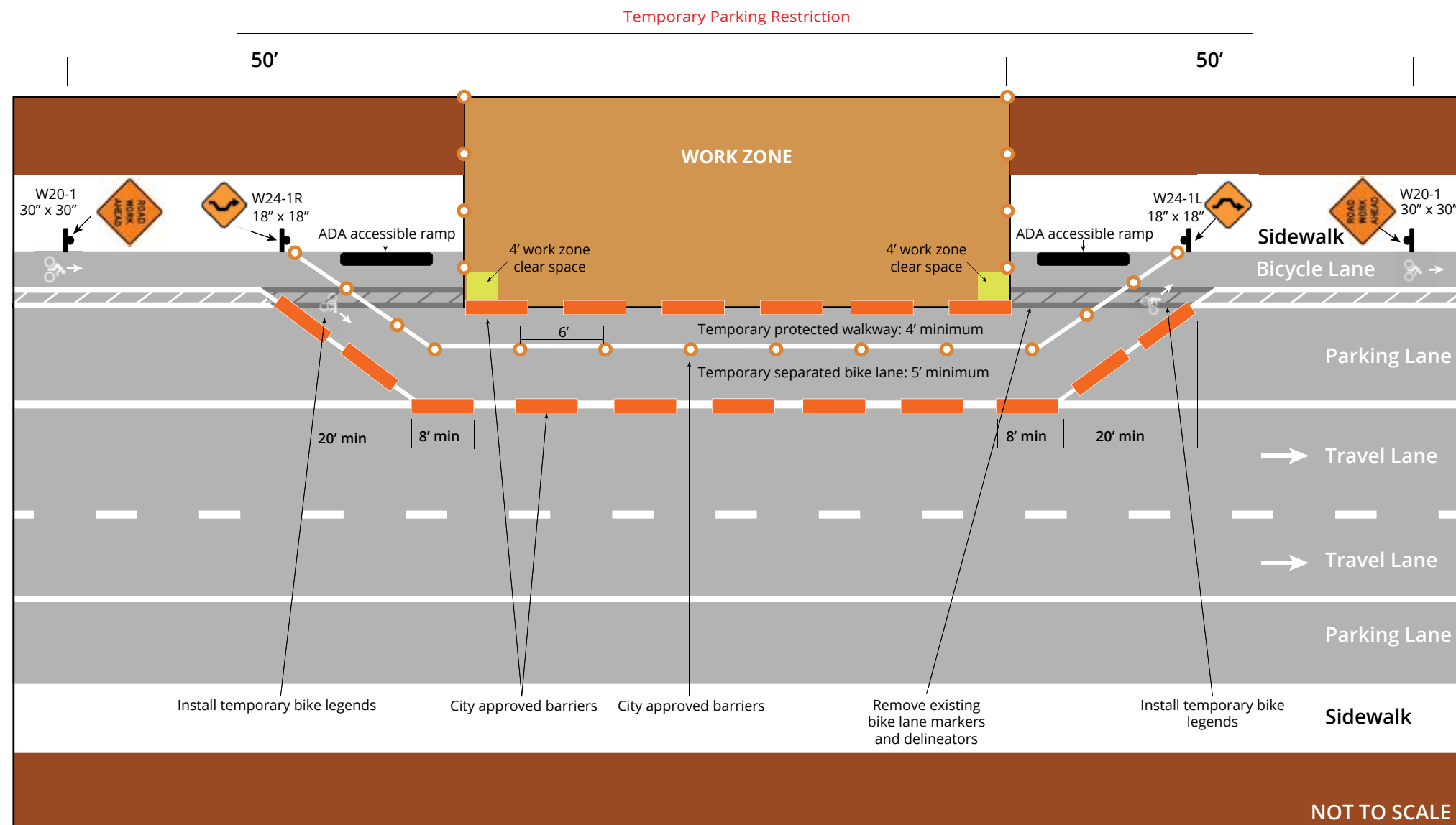
### A: Bike Lane to Two-way Separated Bike Lane



1. Install sign assembly W20-1 50 feet from the affected intersections at locations on the edge of the sidewalk.
2. Enforce a temporary parking restriction for the length of the block on both sides of the street.
3. Create a barricade across the closed bike lane just behind the crosswalk using City-approved barriers.
4. Install sign assembly M4-9c in line with the barrier. The sign should be anchored into the asphalt or barrier, using existing poles where available. The sign should not obstruct pedestrian traffic either vertically or horizontally.
5. The separated bike lane should be the same width as the parking lane and existing bike lane: 10 feet wide with 2 five-foot lanes.
6. Install a City-approved barrier aligned with the white edge line on the travel lane side. The barriers should be placed 6' apart. Under no circumstances should the barriers be placed within the dynamic envelope of the trolley tracks.
7. Install a minimum of two bike symbols per lane at either end of the temporary on-street separated bike lane. Bike symbols should be positioned in the direction of bike traffic.
8. Install temporary bike symbols and arrows at the start and end of the temporary facility to direct bikers across the street appropriately.
9. Between the two crosswalks on either end of the work zone, a 4-inch yellow dashed (2-foot solid and 4-foot spacing) center line should be installed using paint.
10. Blackout existing pavement markings within the area affected by the TBAR plan.
11. Install sign assembly M4-8a on the existing white line that demarked the parking lane and the conventional bike lane.
12. Designers shall use Pub213 to define the spacing of barriers and construction devices for detour elements.

## 2. Construction impacting a Separated Bike Lane

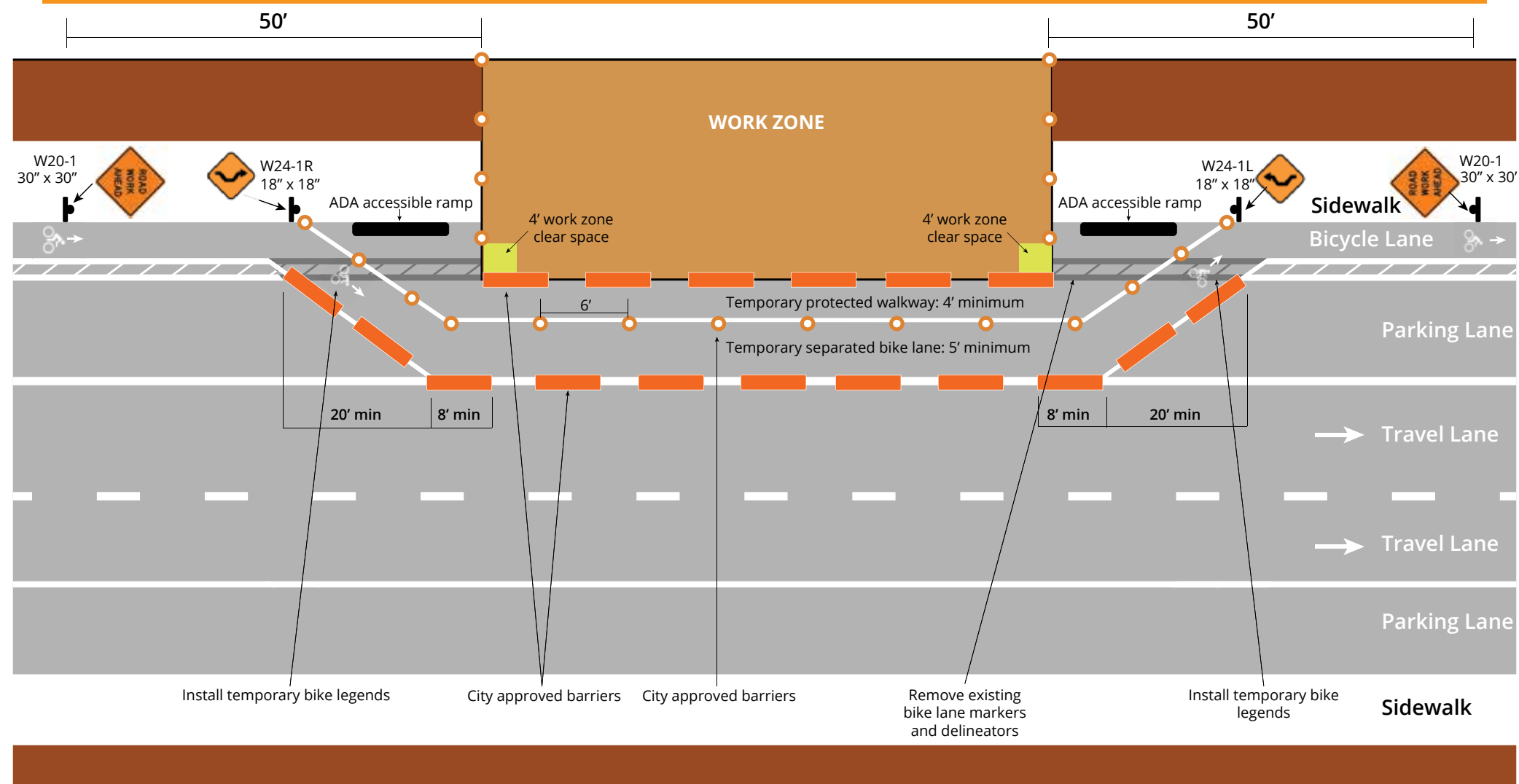
### B: Bike Lane to Bike Lane



1. Install sign assembly W20-1 50 feet from the affected intersection at a location on the edge of the sidewalk and in the middle of the white paint buffered area between the bike lane and the travel lane.
2. Install sign assembly W24-1R at the beginning of the temporary shifted bike lane and sign assembly W24-1L at the end of the temporary shifted bike lane.
3. Blackout existing pavement markings within the area affected by the TBAR plan.
4. Enforce a temporary parking restriction for the length of the block on both sides of the street.
5. Create a barricade for the length of the detoured route along the path of the bike taper and along the travel lane. The barricades shall be placed 6 feet apart. Additionally, place barriers on the white line that separates the bike lane and the walkway.
6. The separated bike lane should be a minimum of 5-feet wide and the temporary walkway should be a minimum of 4-feet wide.
7. Install an ADA accessible ramp where pedestrians are expected to transition from sidewalk level to street level within the TBAR affected areas.
8. Install a minimum of two bike symbols at either end of the bike lane. Bike symbols should be positioned in the direction of bike traffic.
9. The taper for the bike lane shall start a distance of at least 8 feet from the edge of the work zone.
10. Taper length is assumed to be 20' long for bikes. All vehicular tapers should follow the most up-to-date Philadelphia and PennDOT standards. Designers should use Pub213 to define the spacing of barriers and construction devices for detour elements.
11. A 4-foot clear zone shall be maintained at the corners of the work area.
12. A solid white line 4-inch white line shall be painted or otherwise marked between the walkway and the bike lane and between the travel lane and the bike lane.

## 2. Construction impacting a Separated Bike Lane

### C: Two-way Bike Lane to Two-way Bike Lane

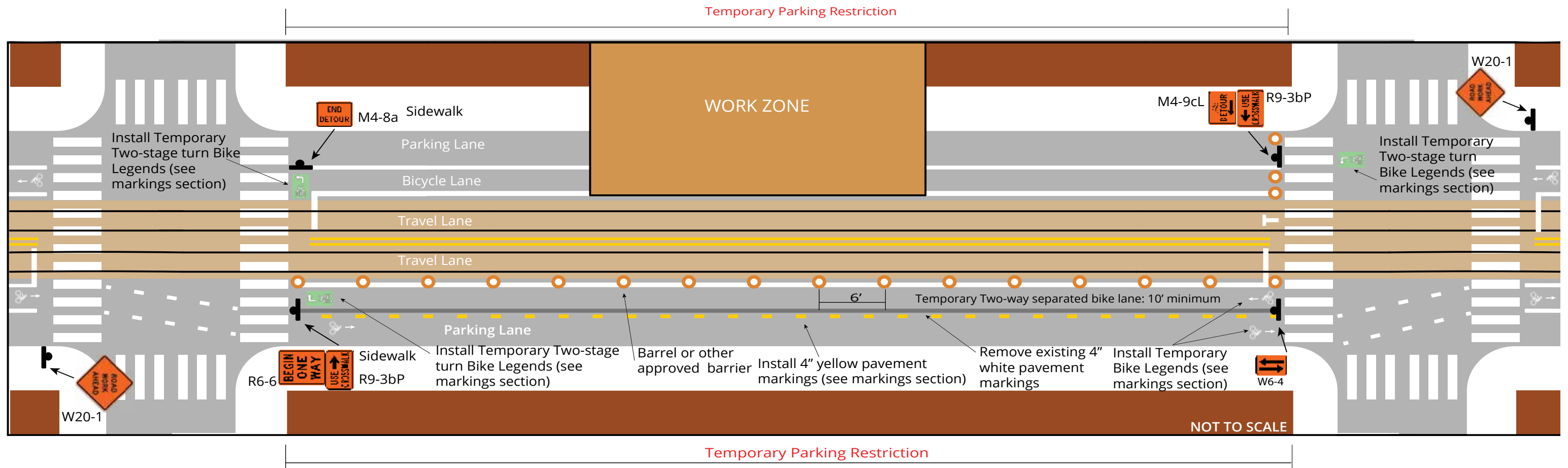


1. Install sign assembly W20-1 50 feet from the affected intersection at a location on the edge of the sidewalk and in the middle of the white paint buffered area between the bike lane and the travel lane.
2. Install sign assembly W24-1R at the beginning of the temporary shifted bike lane and sign assembly W24-1L at the end of the temporary shifted bike lane.
3. Blackout existing pavement markings within the area affected by the TBAR plan.
4. Enforce a temporary parking restriction for the length of the block on both sides of the street.
5. Create a barricade for the length of the detoured route along the path of the bike taper and along the travel lane. The barricades shall be placed 6 feet apart. Additionally, place barriers on the white line that separates the bike lane and the walkway.
6. Between the two transition areas on either end of the work zone, a 4-inch yellow dashed (2-foot solid and 4-foot spacing) center line should be installed using paint.
7. The separated bike lane should be a minimum of 5-feet wide and the temporary walkway should be a minimum of 4-feet wide as well.
8. Install an ADA accessible ramp where pedestrians are expected to transition from sidewalk level to street level within the TBAR affected areas.
9. Install a minimum of two bike symbols at either end of the temporary bike lane. Bike symbols should be positioned in the direction of bike traffic.
10. The taper for the bike lane shall start a distance of at least 8 feet from the edge of the work zone.
11. Taper length is assumed to be 20' long for bikes. All vehicular tapers should follow the most up-to-date Philadelphia and PennDOT standards. Designers should use Pub213 to define the spacing of barriers and construction devices for detour elements.
12. A 4-foot clear zone shall be maintained at the corners of the work area.
13. Where the two-way bikeway transitions between the existing path and temporary separated bike lane, a 4-inch yellow solid centerline should be installed using paint 8 feet from the work zone on the approaches to the 20-foot long taper and along the length of the taper.



# 3. Construction impacting a Conventional Bike Lane

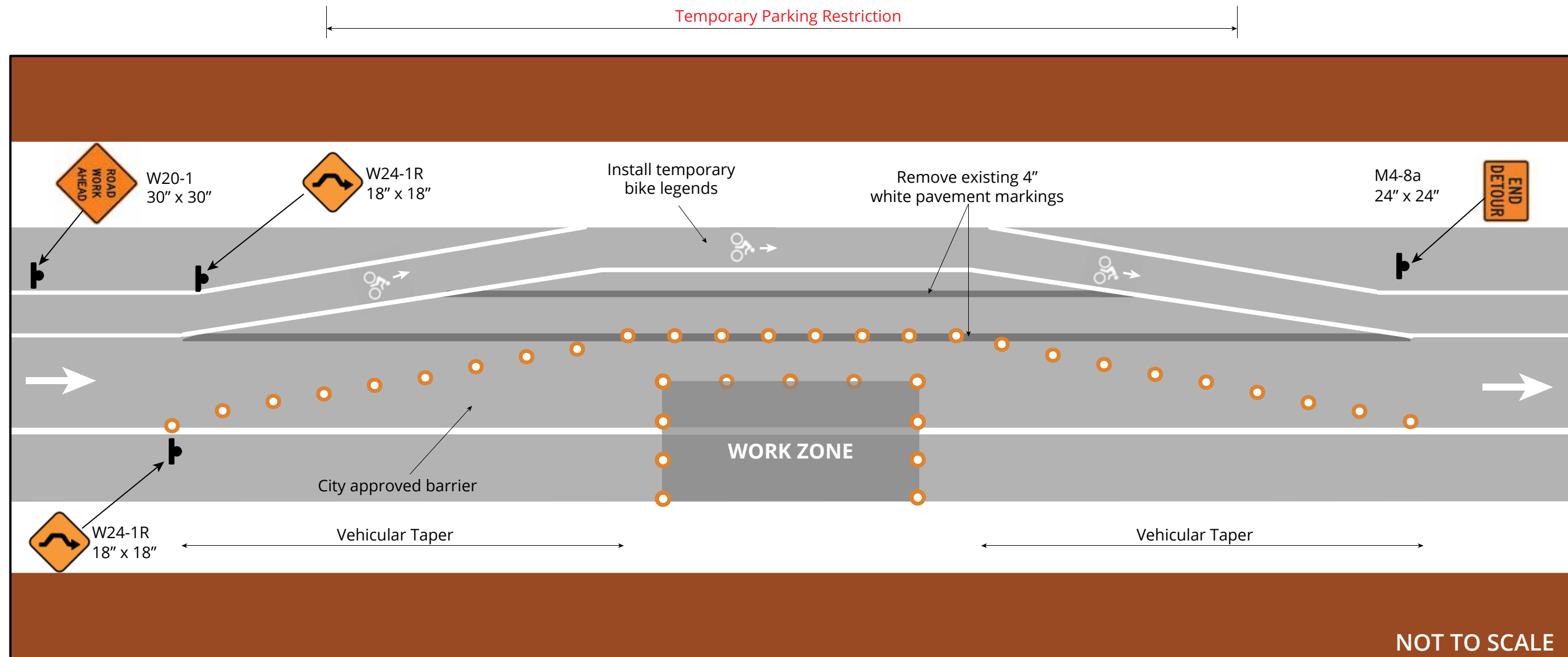
## A: Bike Lane to Two-way Separated Bike Lane



1. Install sign assembly W20-1 50 feet from the affected intersection at a location on the edge of the sidewalk.
2. Install sign assembly W20-1 on the approach to the intersection and the sidewalk at a location between the crosswalk and stop bar.
3. Blackout existing pavement markings within the area affected by the TBAR plan.
4. Enforce a temporary parking restriction for the length of the block on both sides of the street.
5. Create a barricade across the closed bike lane just behind the crosswalk using City-approved barriers.
6. Install sign assembly M4-9c in line with the barrier. The sign should be anchored into the asphalt or barrier, using existing poles where available. The sign should not obstruct pedestrian traffic either vertically or horizontally.
7. The separated bike lane should be the same width as the parking lane and existing bike lane: 10 feet wide with 2 five-foot lanes.
8. Install a City-approved barrier aligned with the white edge line on the travel lane side. The barriers should be placed 6' apart. Under no circumstances should the barriers be placed within the dynamic envelope of the trolley tracks.
9. Install a minimum of two bike symbols per lane at either end of the temporary on-streetseparated bike lane. Bike symbols should be positioned in the direction of bike traffic.
10. Install temporary bike symbols and arrows at the start and end of the temporary facility to direct bikers across the street appropriately.
11. Between the two crosswalks on either end of the work zone, a 4-inch yellow dashed (2-foot solid and 4-foot spacing) center line should be installed using paint.
12. Install sign assembly M4-8a on the existing white line that demarked the parking lane and the conventional bike lane.
13. Designers should use Pub213 to define the spacing of barriers and construction devices for detour elements.

# 3. Construction impacting a Conventional Bike Lane

## B: Bike Lane to Bike Lane



1. Install sign assembly W20-1 50 feet from the affected intersection at a location next to the bike lane in the parking lane section of the street.
2. Install sign assembly W24-1R where the bike taper begins.
3. Install sign assembly W24-1R where the vehicle taper begins.
4. Blackout existing pavement markings within the area affected by the TBAR plan.
5. Enforce a temporary parking restriction for the length of the block on the affected side of the street.
6. Create a temporary 5-foot minimum width bike lane using a 4-inch solid white paint line to demark the temporary lane.
7. Install a minimum of two bike symbols per lane at either end of the temporary bike lane. Bike symbols should be positioned in the direction of bike traffic.
8. The bike taper shall be a minimum of 20 feet long.
9. The taper for vehicles shall match those in the most recent Philadelphia and PennDOT Standards.
10. Designers shall use the Pub 213 to define taper length and to define the spacing of barriers and construction devices for detour elements.