City of SACRAMENTO

Criteria and Guidance to Accommodate Active Transportation in Work Zones Standard

Scope: CITYWIDE

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Table of Contents

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[Insert Date]

Background and Purpose

Supporting the City of Sacramento's (City) goals around equity and climate includes ensuring direct, convenient, and comfortable paths of travel around work zones are maintained for walking and biking. Detours that are difficult for or unclear to users result in frustration and people walking in the street or rolling in travel lanes where they are not expected.

Safety for people walking, bicycling, scooting, and those driving is an important consideration in and around work or construction zones. People walking or biking are more vulnerable on roadways, particularly with respect to work zones and interactions between work-site vehicles and other motorists.

It is necessary to consider the work zone needs of these vulnerable roadway users **as early as possible in the project development and design process**.

As part of the City's Department of Public Works' (Public Works) commitment to safety for all people walking, scooting, and bicycling shall be considered during the planning and development of a Traffic Control Plan (TCP) and maintained throughout the duration of a work or construction zone.

Definitions

- **Americans with Disabilities Act (ADA)** – A federal civil rights law that prohibits discrimination against people with disabilities in everyday activities.
- **Arterials** – A continuous street system serving moderate to long trip lengths that distributes traffic from the freeway/expressway system to and from the metropolitan area. The focus of major arterials is to provide mobility rather than land access (see Figure 3: Arterials and major collectors - Downtown Insert from 2040 General Plan).
- **Bikeway** – Bike Routes, Bike lanes, buffered bike lanes, separated bikeways and/or shared use paths.
- **California Manual on Uniform Traffic Control Devices (CA MUTCD)** – The standard for traffic signs, road surface markings, and traffic signals in California.
- **Central City** – The City's Special Planning District that encompasses about seven (7) square miles at the core of the City and includes Downtown, Midtown, Old Sacramento Waterfront, the Railyards, and the River District.
- **Collectors** – A low-to-moderate-capacity road which serves to move traffic from local streets to arterial roads (see Figure 3: Arterials and major collectors - Downtown Insert from 2040 General Plan).
- **Corridor With Commercial** – A map included in the draft 2040 General Plan Update that lists the City's corridor structure, including commercial zones (see Figure 10: Corridors with Commercial from Map LUP-2 from Draft 2040 General Plan).
- **Detour (Sidewalk, Crosswalk, Shared Use Path and Bikeway)** – A sidewalk, crosswalk, shared use path, or bikeway closure with clear signage, warnings, and ADA-compliant barricades directing people walking, scooting or bicycling to alternative routes. Detours can apply to walking, scooting and bicycling.
- **Diversion (Sidewalk and Bikeway)** – A special route arranged for traffic to follow when the normal route cannot be used. Diversions can apply to both people walking and bicycling (pedestrians and bicyclists).
    - A sidewalk diversion means an ADA compliant pedestrian pathway adjacent to the work area. This may include open walkways, covered walkways, and scaffolding.
    - A bikeway diversion means a bikeway in a right-of-way adjacent to the work area.
- **Flagger** – A person who actively controls the flow of vehicular traffic into and/or through a temporary traffic control zone using hand-signaling devices or an Automated Flagger Assistance Device (AFAD).
- **May** – A permissive condition where no requirement for design, application, or standards is intended.
- **Permit Sponsor** – The entity responsible for implementation of temporary traffic control measures through a work zone. A Permit Sponsor can be a private entity, a public entity (including City crews), or utility companies.
- **Protected** – A barrier used to separate a sidewalk diversion from moving traffic.
- **Residential Mixed Use** – A property that blends residential, commercial, entertainment, and even industrial uses into one space (see General Plan Map LUP-5, General Plan Land Use Diagram).
- **Shall** – A mandatory condition or action.

- **Should** – The standard under normal conditions.
- **Traffic Control Plan (TCP)** – A temporary plan prepared by a professional for City review and approval, which will modify the street and sidewalk use during construction.
- **Vision Zero High Injury Network** – Vision Zero is a traffic safety philosophy that rejects the notion that traffic crashes are simply "accidents," but instead preventable incidents that can and must be systematically addressed. The Vision Zero High Injury Network is a map that identifies those roads with the highest number of injuries and fatalities (see Figure 4: Vision Zero High Injury Network).

Where possible this document refers to the actions of walking, scooting, bicycling, and driving rather than categorizing people into siloed terms based on mode of travel such as pedestrians and bicyclists. This was done because most people walk, bicycle, and drive, and by assigning labels to people by their mode of travel, it creates divisiveness.

Scope

These criteria and guidance provide accommodations for people walking, scooting, and bicycling through work or construction zones impacting mobility in the City. These criteria and guidance will refer to work zones or construction zones interchangeably.

This criteria and guidance supplement the guidance in Chapter 6 of the California Manual on Uniform Traffic Control Devices (CA MUTCD), which specifies that people walking and bicycling must be safely accommodated through construction zones. This supplemental guidance specifies when and where pedestrian and bicycle facilities may be relocated, detoured, modified, and closed in Sacramento. This guidance applies to all sidewalks and all streets on which people bicycling are legally allowed to travel, including designated bikeways. The guidance applies to the Permit Sponsor performing construction work in the public right-of-way, including, but not limited to, utility companies, private land use development, and public agencies and their contractors.

Criteria and Guidance

Any Permit Sponsor submitting for an excavation/encroachment/street use permit to the City that will result in the blockage of a sidewalk, bikeway, vehicle travel lane, bus stop, or other public bicycle or pedestrian path must submit a TCP to Public Works for review and approval prior to any work or construction beginning. The TCP must be included as part of the encroachment permit application and provide proposed pedestrian and/or bicyclist accommodations.

These criteria and guidance do not change the process for the City or City contractors working in the public right-of-way, rather, these criteria and guidance outline the existing City requirement to accommodate people walking or biking through or around work or construction zones.

A Permit Sponsor's TCP must comply with these criteria and guidance. All traffic control devices and methods included in the TCP must also adhere to the standards set forth in the most recent edition of the CA MUTCD. In the event of a conflict between these criteria and guidance and the CA MUTCD, the CA MUTCD shall control.

Work Duration
Work duration is the length of time construction occupies one or multiple locations. Work duration is a major factor in determining the number and types of temporary traffic control devices to be used in a work activity area.

Based on the CA MUTCD (§ 6G.02, Work Duration), there are five (5) categories of work duration. These criteria and guidance refer to those five (5) categories of work, with a modification to long-term stationary work, which must be five (5) days or more.

A. Long-term stationary is work that occupies a location for five (5) days or more.
B. Intermediate-term stationary is work that occupies a location more than one (1) daylight period up to five (5) days, or nighttime work lasting more than one (1) hour.
C. Short-term stationary is daytime work that occupies a location for one (1) hour or more within a single daylight period.
D. Short duration is work that occupies a location up to one (1) hour, day or night.
E. Mobile is work that moves intermittently or continuously.

Coordination
It is incumbent on City staff to coordinate with applicants for different construction projects along the same corridor or in close proximity to each other. City staff will work with applicants to coordinate and provide consistent detours, diversions, and accommodations. For the most effective TCP, Permit Sponsors should provide updated construction schedules to City inspectors as the schedule changes. An approved TCP can be updated as needed during the duration of construction, especially when new construction projects in the surrounding area affect or impact the temporary traffic control measures in place.

Accommodation for Those Walking
According to the CA MUTCD (§ 6D.01, Pedestrian Considerations):

> *It must be recognized that pedestrians are reluctant to retrace their steps to a prior intersection for a crossing or to add distance or out-of-the-way travel to a destination.*

Closure of a sidewalk must be deemed the last resort in the absence of other practicable routing or accommodation options needed to assure pedestrian safety.

The two major types of temporary traffic control for pedestrians are adjacent sidewalk diversions and sidewalk detours. To determine which temporary facility is appropriate, refer to Table 1: Accommodation for .

Requirements for pedestrian accommodations:

- All temporary pedestrian facilities and alternate paths must be compliant with the ADA and all pedestrian-related signage must be as permanent as the other TCP signage.
- Any diversions, detours, or full closures shall be approved as part of a TCP that shall be submitted with the encroachment permit application.
- Signage, channelizing devices, barriers, and other equipment shall not be placed in the pedestrian path of travel or in locations that would block or interfere with pedestrian passage.

- Pedestrian diversions, detours, or closures shall be clearly marked and include advance signage notification. Advance signage shall be placed where pedestrians can modify their route when necessary without backtracking.
- Both sidewalks on either side of a street should not be closed simultaneously.
- A pedestrian route designated as an established detour should not be closed.
- Hollow sidewalks – Hollow sidewalks are a raised sidewalk supported by a street retaining wall, end walls, the adjacent building, and other structural elements. Hollow sidewalks may be site specific. Covered walkways shall not be placed on hollow sidewalks. Coordinate with the City to determine the best treatment for construction on or near hollow sidewalks.
- Utility structures shall be considered in TCP design. Potential issues include, but are not limited to, drop inlet covers that are not ADA compliant, could become a tripping hazard, or may have localized flooding during rain events that impede the path of travel.

Proposals to close a sidewalk shall demonstrate that impacts cannot be reasonably avoided through alternative construction methods, that the facility cannot be reasonably relocated through reassignment of vehicle lanes or other existing facilities, that the duration and extent of impacts have been minimized, and that an adequate detour has been provided.

Sidewalk Diversion

Sidewalk diversions shall always be clearly identified, ADA compliant, shielded from motor vehicle traffic, and free of hazards such as holes, debris, gravel, mud, etc. Sidewalk diversions should include curb ramps when used from sidewalk to street level.

A temporary, protected walking route may be provided adjacent to the sidewalk in a parking lane (if present), travel lane, or bikeway. Channelizing devices used to separate a sidewalk diversion from traffic shall fully separate people walking from motor vehicle impacts. Barricades used for temporary walking routes shall also be detectable by people with visual disabilities, including continuous detectable edging. Please refer to the Public Right-of-Way Accessibility Guidelines (PROWAG) § R303.6 Detectable Edging of Channelizing Devices for guidance on channelizing device selection. Bases of temporary fences shall not extend over any adjacent traffic, bikeway or walking path of travel.

People walking should be separated from people bicycling and scooting. If the sidewalk diversion is placed in a bikeway, biking and scooting accommodation shall be maintained (see Accommodation for Those Bicycling). If a pedestrian diversion takes up a separated bikeway, the parking area that provided a buffer from moving traffic to the separated bikeway may become a temporary bikeway.

All sidewalk diversion routes shall keep and maintain minimum six foot (6’) clear width for walking access, short pinch points of forty-eight inch (48”) width are permitted.

Sidewalk diversions in a parking lane may be dependent upon the slope of the parking lane and depending on the slope, a temporary platform may need to be constructed to be ADA compliant.

Covered Walkways

Covered walkways shall be provided, where feasible, to allow sufficient width for walking access and width from the curb in the following circumstance: (1) when overhead danger is present; (2) for

long-term stationary work; and (3) in a location located on an arterial or major collector in the Central City.

Covered walkways shall conform with Figure 11: Walkway: Covered Pedestrian Walkway, the Caltrans Temporary Pedestrian Facilities Handbook, ADA accessibility standards, OSHA structural specifications (see OSHA standards, 1910-28 "Safety requirements for scaffolding").

Design of the walkway should ensure limited obstruction between the top of railing and walkway cover to allow passive surveillance into and from the walkway and should have a maximum exit access travel distance of one hundred feet (100').

Covered walkways, including supports, shall be higher than eighty inches (80") (see the PROWAG § R402 Protruding Objects and Vertical Elements).

Permit Sponsors are responsible for maintaining adequate lighting within the covered walkway, removal of graffiti, and cleaning of debris.

Sidewalk Detours

Sidewalk detours should be used when appropriate per Table 1: Accommodation for Pedestrians. If approved in the TCP, sidewalk detours should not last more than five (5) days.

For areas where sidewalk detours longer than five (5) days are unavoidable due to safety and site-specific conditions, the Permit Sponsor will need to provide justification for the sidewalk detour duration to the City as part of the TCP design.

All detours shall comply with accessibility conditions. Sidewalk detours shall always be clearly identified, ADA compliant, shielded from motor vehicle traffic, and free of hazards such as holes, debris, gravel, mud, etc.

Signage shall be provided at closest intersections to alert people walking of the sidewalk closure and direct them to the detour. Advance notification to people walking of any sidewalk detours shall be provided at the nearest crosswalk that meets minimum safety requirements on either side of the detour. The TCP should clearly provide the route of the detour. This signage should be posted at least five (5) days in advance of the closure.

A temporary walking route should be given priority over other facilities. A temporary walking route should be given priority over vehicular traffic except when resulting in excessive delay to transit or a walking route that is less safe.

See Example Plans for reference.

Table 1: Accommodation for those Walking

Duration of Construction	Construction Project Location	
	Central City, Vision Zero High Injury Network Corridors, within 0.25 miles of a light rail stop, Residential Mixed Use , Major Transit Corridors (RT 15-minute service), Corridor with Commercial	All Other Areas
Long-term stationary work that occupies a location five (5) or more days.	Sidewalk Diversion A covered walkway is required when overhead danger is present and is located on an arterial or major collector in the Central City	Sidewalk Diversion
Intermediate-term stationary work that occupies a location more than one (1) daylight period up to five (5) days, or nighttime work lasting more than one (1) hour.	Sidewalk Diversion preferred Temporary sidewalk detour allowable	Temporary sidewalk detour
Short-term stationary daytime work that occupies a location for more than one (1) hour within a single daylight period.	Sidewalk Diversion preferred Temporary sidewalk detour allowable Flagger required throughout duration of closure	Temporary sidewalk detour Flagger required throughout duration of closure
Short duration work that occupies a location up to one (1) hour.	Sidewalk Diversion preferred Temporary sidewalk detour allowable Flagger required throughout duration of closure	Temporary sidewalk detour Flagger required throughout duration of closure
Mobile work that moves intermittently or continuously.	See Intermittent Closure section for additional guidance Flagger required throughout duration of closure	See Intermittent Closure section for additional guidance Flagger required throughout duration of closure

Accommodation for Those Bicycling

Closure of a bikeway shall be deemed the last resort in the absence of other practicable routing or accommodation options needed to assure the safety of those bicycling.

To determine which temporary facility is appropriate, refer to Table 2: Accommodation for .

Existing bike lanes, buffered bike lanes, and separated bikeways shall maintain a clear width of five-foot (5') minimum, six-foot (6') preferred, for one way travel unless the bikeway closure is specifically approved as part of a TCP and an accommodation for an alternate bicycling path of

travel is implemented. Potential accommodations are listed below in order of preference; however, the accommodation ultimately approved will be that most appropriate based on project site conditions:

1. Closing a parking lane and keeping the adjacent bikeway open.
2. Diverting or shifting the bikeway to a location on the same roadway to bypass the work zone or obstruction, and, if necessary, shifting and narrowing the adjacent motor vehicle traffic lanes; provided the adjacent motor vehicle travel lanes shall be maintained at City standard widths or narrower, with approval from the City Traffic Engineer.
3. Closing the adjacent general purpose travel lane to provide space for a bikeway, provided that a minimum of one (1) motor vehicle travel lane shall remain in the same direction of travel.
4. Merging the bikeway and the adjacent motor vehicle travel lane into a shared travel lane adjacent to the work zone or other obstruction, installing sharrow lane markings in the shared travel lane, and installing signage directing bicyclists to merge into the shared travel lane along with a R4-11 “Bicyclist May Use Full Lane” sign; provided the shared travel lane shall be maintained at no less than fourteen feet (14’) wide and the posted speed limit is thirty miles per hour (30 mph) or less.

If the above accommodation options cannot be met, bicyclists shall be accommodated by detouring those bicycling onto an adjacent roadway, in which case the detour route shall be adequately signed and replicate, as closely as practicable, the level of comfort found on the bikeway being blocked.

Proposals to close a bike lane, separated bikeway, or shared use path shall demonstrate that impacts cannot be reasonably avoided through alternative construction methods, that the facility cannot be reasonably relocated through reassignment of vehicle lanes or other existing facilities, that the duration and extent of impacts have been minimized, and that an adequate detour has been provided.

Please refer to **Error! Reference source not found.**to understand the impact of vehicle speeds or volumes on bicycling level of comfort.

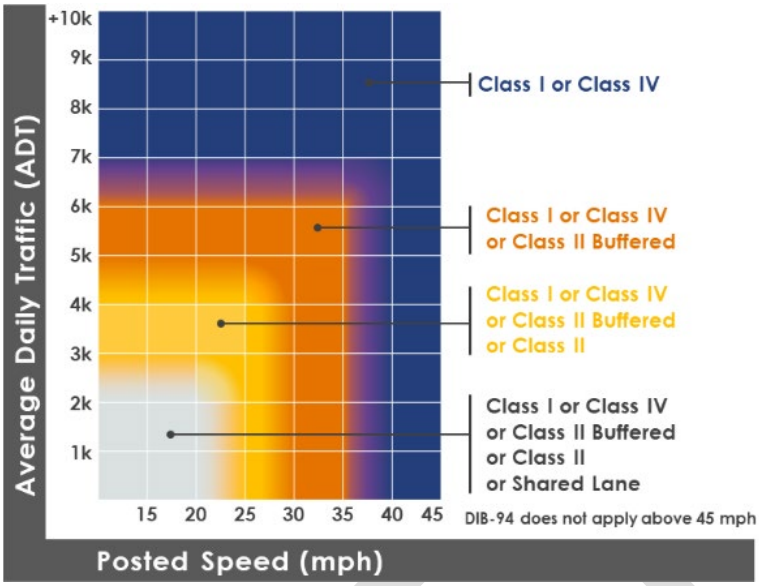


Figure 1: Recommended Bicycle Facilities for Urban Areas, Suburban Areas, and Rural Main Streets from Caltrans Design Information Bulletin 94

When a work zone impacts the safety, accessibility, or movement of people bicycling, the TCP shall provide traffic control measures to accommodate bicycling safely through or around the work zone. There should be efforts to provide a convenient and continuous bikeway with an equal or better degree of bicycle accommodation than the existing facility being disturbed. Accommodations to those bicycling will depend on the existing bikeway facility that could be impacted by construction, vehicle speeds and volumes, and the context of the roadway.

Below are different temporary traffic control treatments for accommodating those bicycling.

Bikeway Diversion

If it is not possible to keep the existing bikeway open, shift the bikeway by closing a parking lane or shift the bikeway to a location on the same roadway.

Sharing the General-Purpose Travel Lane or Bicyclist May Use Full Lane

Merging a bikeway into an adjacent travel lane to create a shared lane with people bicycling and people driving is not a preferred alternative and should only be proposed when there is not sufficient space to divert or shift the existing bikeway to a different dedicated path safely.

When utilizing this treatment, considerations shall include vehicle speeds and volumes, grade, pavement condition, length of work area, lighting, and sight distance to determine if lane widths are sufficient to accommodate both motorists and bicyclists. Refer to Table 2: Accommodation for Bicyclists to understand if vehicle speeds and volumes support this treatment.

Bikeway Detours

Bikeway detours should be used only when an existing bicycle facility is impacted and:

- The roadway width is not available to create a diverted bikeway, or
- The roadway width is not available to create a shared bikeway facility through a work zone or where it has been determined that creating a shared lane marking or bicyclist may use full lane sign would create safety concerns based on vehicle speeds or volumes.

Bikeway detours should parallel the existing bikeway facility impacted by the work area and minimize detour distance to the greatest extent possible. The bikeway detour shall be maintained and regularly monitored (signs maintained and clear of debris) during construction by the Permit Sponsor. Where bicycle detours are expected to create significant change in bicycle volumes on the alternate route, appropriate directional and warning signage for bicyclists and motor vehicles shall be considered and may be required by the City.

Advance signage that the bikeway is closed shall be placed where a bicyclist can modify their route when necessary without backtracking. This signage should be posted at least five (5) days in advance of the closure.

Bikeway Closures

Any TCP that identifies bikeway closures, detours, or other bike facility changes is subject to approval and shall address the following guidance:

1. Active bikeways shall maintain a clear width of five-foot (5') minimum, six-foot (6') preferred. Signage, channelizing devices, barriers, and other equipment shall not be placed in active bike lanes, in the bicycle path of travel, or in locations that would obstruct or interfere with their passage.
2. Bikeways shall not be closed for construction activities unless the closure is documented in a TCP and approved by the City.
3. Where bike lanes shall be closed, advance notification and tapers shall be provided with sufficient length to allow bicyclists to merge into the adjoining travel lane in advance of the bike lane closure.
4. TCPs that include bike lane closures shall post construction zone speed limits of twenty-five miles per hour (25 mph) or less.
5. All bicycle-related signage shall be as permanent as the other TCP signage in the construction zone.
6. If the TCP includes roadway striping, temporary bike lane striping or sharrows shall be installed along with R4-11 "Bicyclist May Use Full Lane."
7. For multiuse or shared path closures, a low stress detour should be provided that is consistent with the Figure 1: Recommended Bicycle Facilities for Urban Areas, Suburban Areas, and Rural Main Streets from Caltrans Design Information Bulletin 94 identified in the Caltrans Design Information Bulletin 94, Complete Streets: Contextual Design Guidance. Multiuse or shared paths provide a higher level of comfort and are often more attractive for use by people of all ages and bicycling abilities because there is less interaction with automobiles which can increase the level of stress for those bicycling. A low stress detour means that the detour route is meant to provide the same or similar level of comfort as a

multiuse or shared path. The detour route should be convenient and as continuous as possible with an equal or better degree of bicycle accommodation as the trail closure. Refer to Figure 1: Recommended Bicycle Facilities for Urban Areas, Suburban Areas, and Rural Main Streets from Caltrans Design Information Bulletin 94 for assistance in understanding bikeway facility selection.

Bicycle Parking

When bicycle parking is displaced or inaccessible due to a work zone, including because of the accommodations in the TCP, the Permit Sponsor is responsible for providing temporary or permanent bicycle parking, at the expense of the Permit Sponsor.

The Permit Sponsor should reference the Bike Rack Design and Placement Design Standards for the specific design guidelines for the type of bicycle parking permitted.

See Example Plans for reference.

Table 2: Accommodation for those Bicycling

Duration of Construction	Posted Travel Speed and Average Daily Traffic Volumes (ADT)			
	≤25 mph or ≤5,000 ADT with existing bike lane, buffered bike lane, or separated bikeway	26-35 mph or 5,001-12,500 ADT with existing bike lane, buffered bike lane, or separated bikeway	36-45 mph or 12,501-21,000 ADT with existing bike lane, buffered bike lane, or separated bikeway	≥46 mph or ≥21,001 ADT with existing bike lane, buffered bike lane, or separated bikeway
Long-term stationary work that occupies a location five (5) or more days.	Bikeway Diversion providing at minimum a bike lane	Bikeway Diversion providing at minimum the same bikeway type as existing on street	Bikeway Diversion providing at minimum the same bikeway as existing on street	Bikeway Diversion providing at minimum the same bikeway as existing on street
Intermediate-term stationary work that occupies a location more than one (1) daylight period up to five (5) days, or nighttime work lasting more than one (1) hour.	Bikeway Diversion with bike route/sharrow or bike lane OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour	Bikeway Diversion providing at minimum the same bikeway type as existing on street OR Temporary detour
Short-term stationary daytime work that occupies a location for more than one (1) hour within a single daylight period.	Bikeway Diversion with bike route OR Temporary detour	Bikeway Diversion with minimum of bike lane. OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour
Short duration work that occupies a location up to one (1) hour.	Bicyclists may use full lane sign OR Temporary detour	Bicyclists may use full lane sign OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour	Bikeway Diversion with minimum of bike lane OR Temporary detour
Mobile work that moves intermittently or continuously.	Bicyclists may use full lane sign OR Temporary detour	Bicyclists may use full lane sign OR Temporary detour	Temporary detour	Temporary detour

Developing a TCP

Reflecting the above guidance and according to the CA MUTCD (§ 6C.01, Temporary Traffic Control Plans):

> *Should be prepared by persons knowledgeable (for example, trained and/or certified) about the fundamental principles of TCP and work activities to be performed. The design, selection, and placement of TCP devices for a TCP plan should be based on engineering judgment .*

The TCP must show installation of temporary signage compliant with CA MUTCD and any modifications to existing signage or street striping and will be reviewed and approved by the City.

Before work begins, TCPs, when developed for handling traffic through a construction or maintenance project, shall be submitted to the City and approved by the City to ensure the appropriate plans are used. Proposed design and placement of the temporary traffic control signs, devices, and roadway markings shall follow the most recent edition of the CA MUTCD.

The closure of a sidewalk or a bikeway shall be a last resort and shall be approved by the City. Note: the safe and reasonable flow of walking and bicycling traffic is to be maintained in preference to construction activities and the flow of construction vehicles.

Noticing Requirements

In addition to the signage requirements set forth in these criteria and guidelines, for major closures that will impact mobility to the most vulnerable users, notice of closures must also be provided through the City's noticing system, including, but not limited to, the City Express, the Transportation Planning newsletter, and social media. Depending on the project's impact on mobility, this may include notification through a mapping application or City messaging platforms. The Permit Sponsor shall provide information on the closure, including the detour route and map for City distribution. The Permit Sponsor shall provide timely notice to City staff on major changes to the TCP, including changes to the detour and schedule, so that timely public notice can be provided.

Intermittent Closure

If a sidewalk or bikeway shall be closed intermittently due to conflicts with construction activities or construction vehicles, the TCP may require:

1. Flaggers or spotters to be posted at each end of the closed pedestrian or bikeway route for the entire duration of time the intermittent closure is in place;
2. Limitations on the times of day when intermittent closure may occur;
3. The safe and reasonable flow of pedestrian and bicycle traffic to be maintained in preference to construction activities and the flow of construction vehicles; and
4. Acknowledgement that advance notice to Public Works, the Police Department, and emergency services such as the Fire Department is required for each full road closure, subject to fine and/or revocation of excavation/encroachment permit.

If an existing walking or bicycling route is impacted by a short-term or a short-duration work zone that is attended with project personnel, establishing an alternate pedestrian and/or bikeway route may not be necessary if the work can be stopped and pedestrians and/or bicyclists can navigate the work zone safely. This shall be determined by the City Traffic Engineer or their designee. When a

temporary pedestrian/bikeway route extends through an active work zone, it shall be the contractor or permit sponsor's responsibility to always maintain safe pedestrian/bicyclist passage. Pedestrians/bicyclists may be delayed for a short period of time for project personnel to move equipment and materials to facilitate passage. Project personnel may also assist pedestrians with disabilities. ADA compliant devices, including channelizing devices compliant with the PROWAG § R303.6 Detectable Edging of Channelizing Devices, placed on the sidewalk and additional warning signage may be used to alert pedestrians of the beginning of a work zone.

Display of Permitted TCP

After an excavation/encroachment permit and TCP is approved and before commencing any activities that result in the blockage of a pedestrian or bicycle facility, Permit Sponsor shall display a copy of the excavation/encroachment permit at a prominent, publicly accessible location near the construction site entrance. If that is not feasible, the permit shall be available at the site for inspection by the Public Works Director or designee during all work (City Code § 12.20.020.D). Additionally, the following information shall be displayed or available onsite should the City request it:

1. The range of dates during which the encroachment permit is valid.
2. The name and contact information of the party requesting the encroachment permit.
3. A clear description of the approved TCP.
4. A Public Works phone number and email address to direct questions, comments, and concerns regarding the blockage.

Planning Appropriately for TCP Review

Every reasonable effort shall be made to avoid and minimize construction impacts on pedestrian and bicycle facilities in the City. As such, Permit Sponsors for projects may elect to propose and receive feedback on preliminary plans for temporary traffic control. TCPs are required at different points in the process depending on the type of application.

- The TCP shall be submitted with applications for minor encroachment street use and maintenance.
- Minor encroachment construction and major encroachment permits typically undergo an engineering review, and the TCP is generally required after the engineering review is completed and approved.
- If on-street parking is impacted, applicants shall also submit an on-street parking reservation application for parking closure.

Exemptions

An exemption to these criteria and guidance may be granted only if:

a) A request for an exemption is submitted in writing, with supporting documentation when Permit Sponsors submit initial TCPs for City review and approval; and
b) The exemption is approved in writing by the Public Works Director or their designee.

Exemptions may be granted based on claims of undue hardship (e.g., the cost or scale of accommodations is not commensurate with the cost or scale of the project) or claims that providing the accommodations required herein is not possible due to the existing street network.

Administrative Penalties

Implementation of the requirements for accommodations within these criteria and guidance shall be paid for by the Permit Sponsor, and it shall be the responsibility of the Permit Sponsor to comply with the requirements of these criteria and guidance. Should the Permit Sponsor fail to comply, the Public Works Director or their designee has the authority to stop all work until compliance has been achieved (City Code § 12.20.020). Such work will not be resumed until the necessary modifications have been implemented (City Code § 12.20.020).

The Public Works Director or their designee may issue an order imposing an administrative penalty to any person violating any provision of City Code Chapter 12.20 Closure of Primary Streets for Construction.

Maps

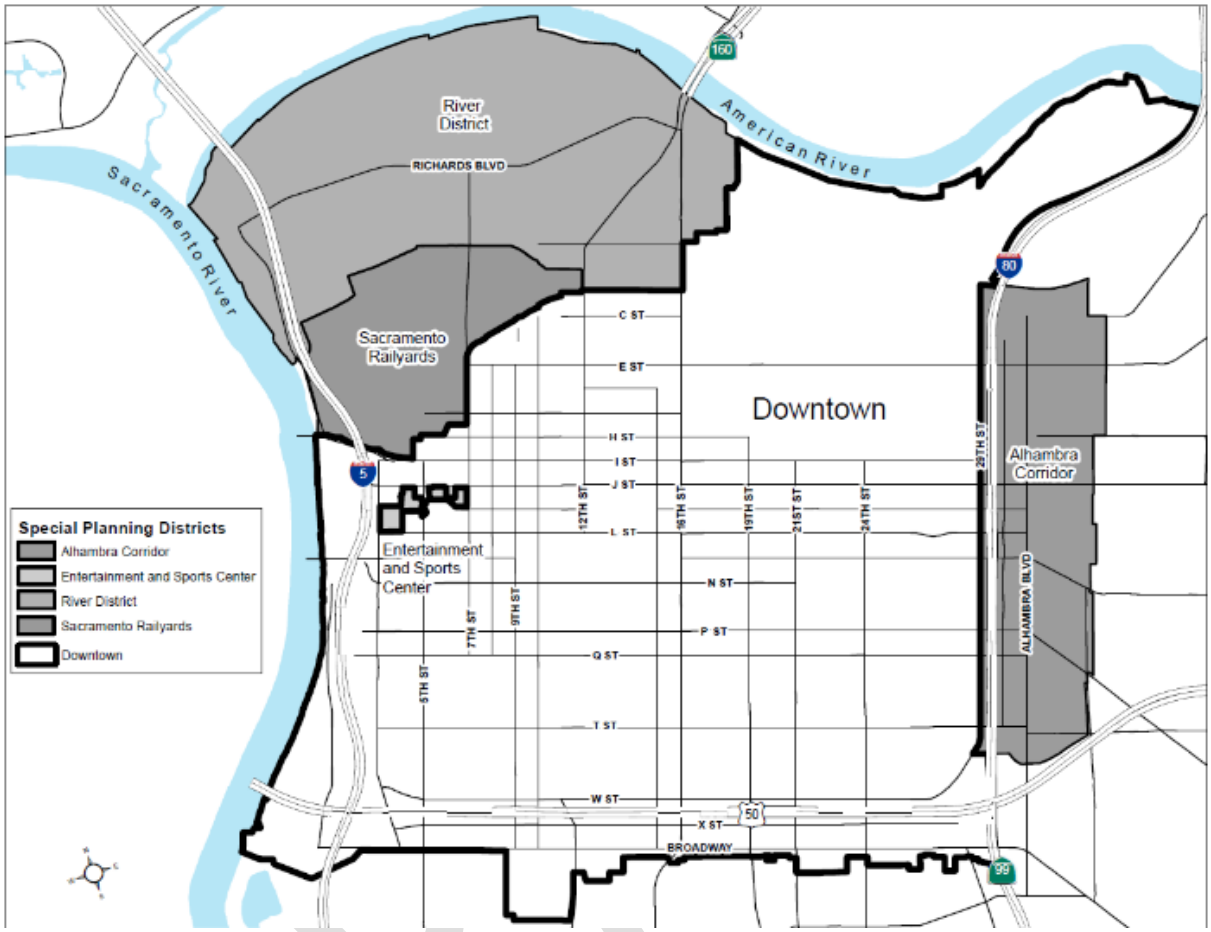


Figure 2: Central City

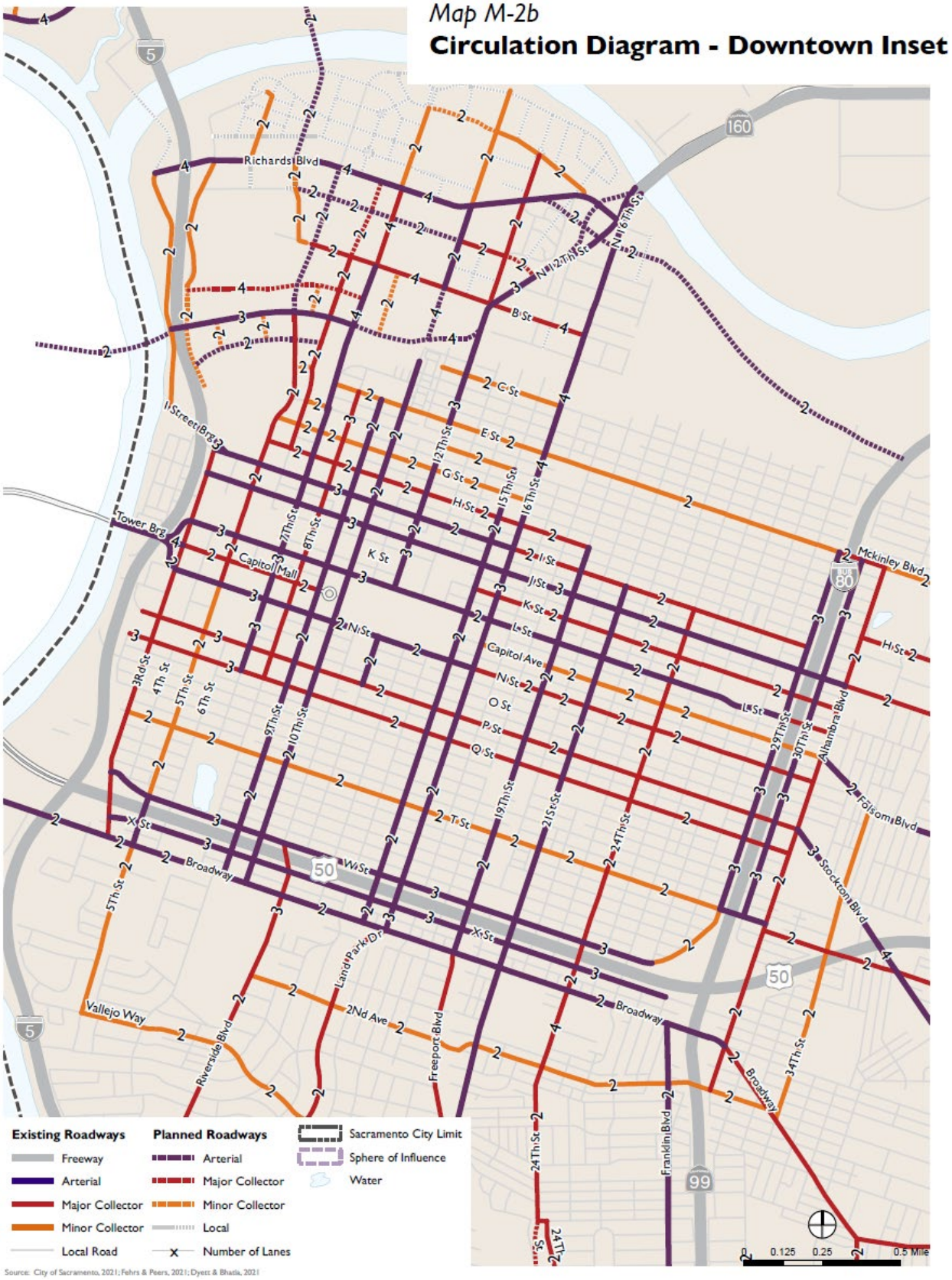


Figure 3: Arterials and major collectors - Downtown Insert from 2040 General Plan

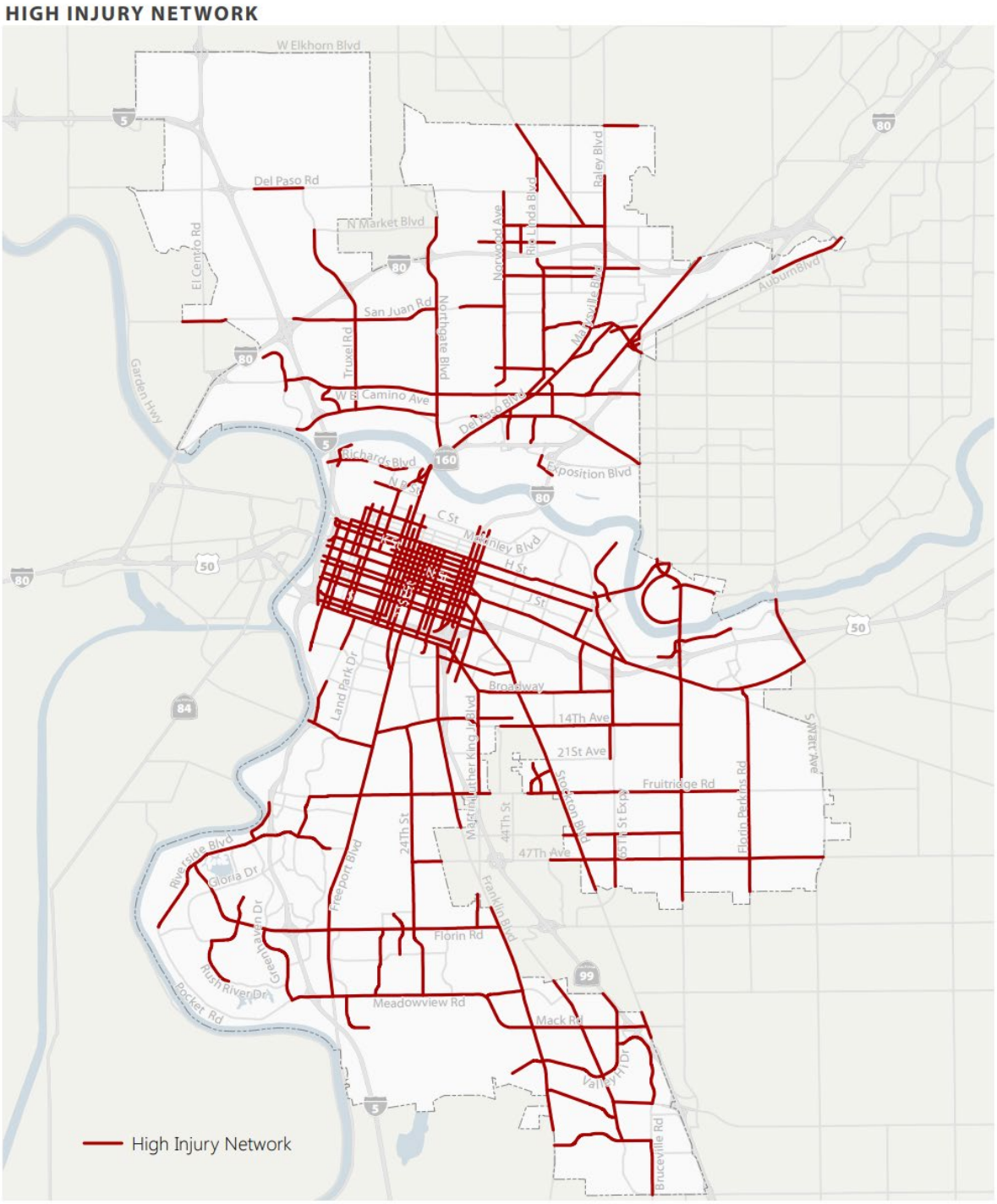


Figure 4: Vision Zero High Injury Network

For Major Transit Corridors (Sacramento Regional Transit District (SacRT) 15-minute service), refer to SacRT's service schedule to determine routes with 15-minute service. Below are maps with current 15-minute service, as of November 2023 and as provided by SacRT.

Figure 5: SacRT Bus Route #30

Figure 6: SacRT Bus Route #38

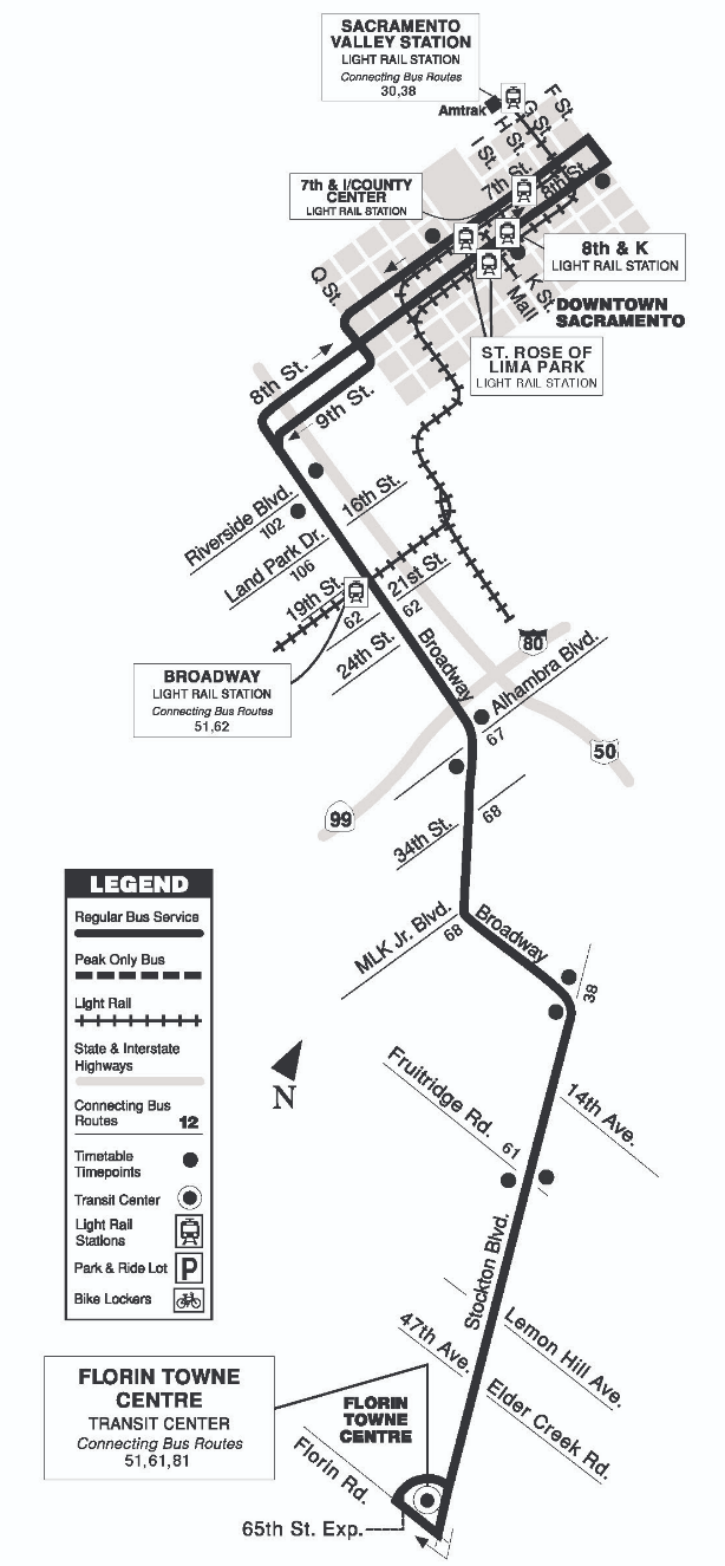


Figure 7: SacRT Bus Route #51

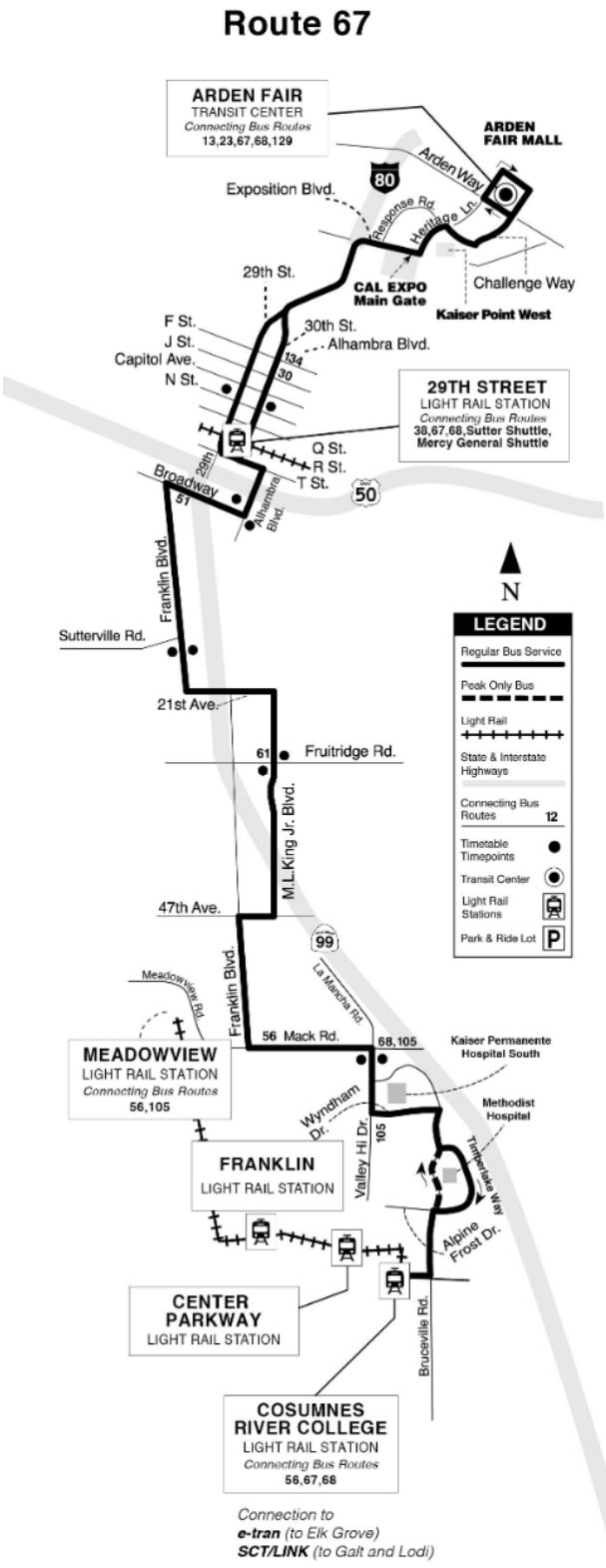


Figure 8: SacRT Bus Route #67

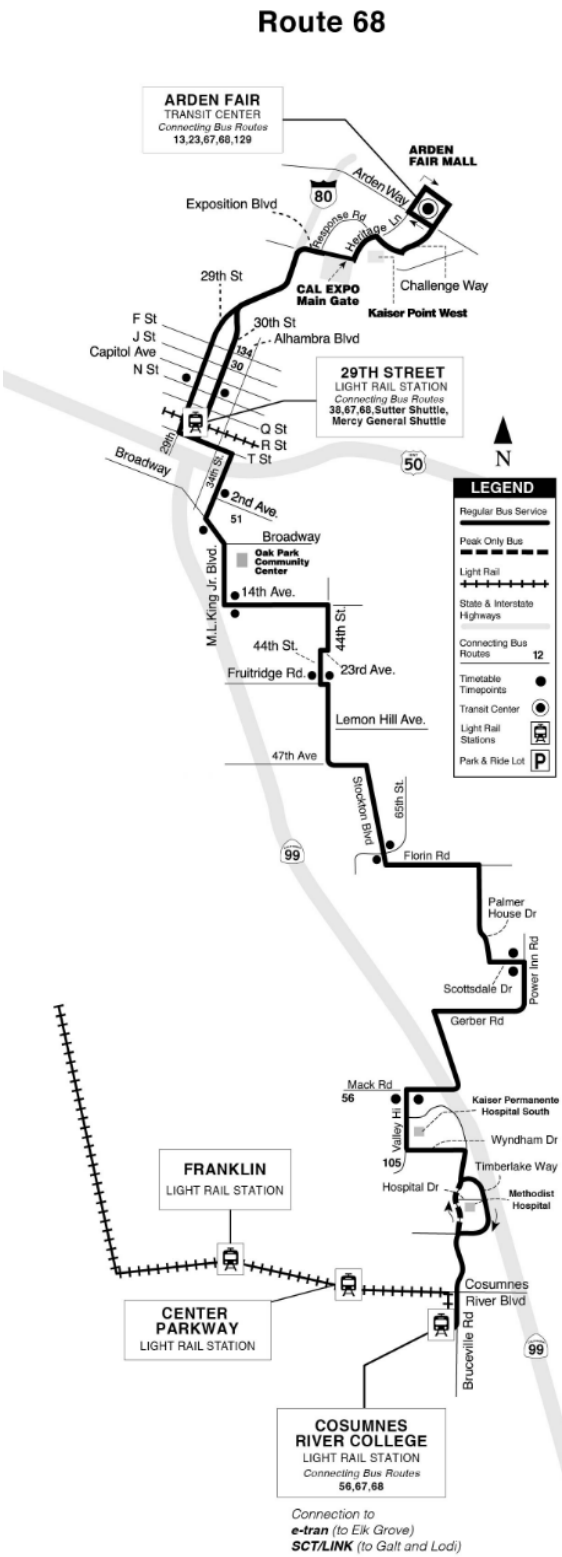


Figure 9: SacRT Bus Route #68

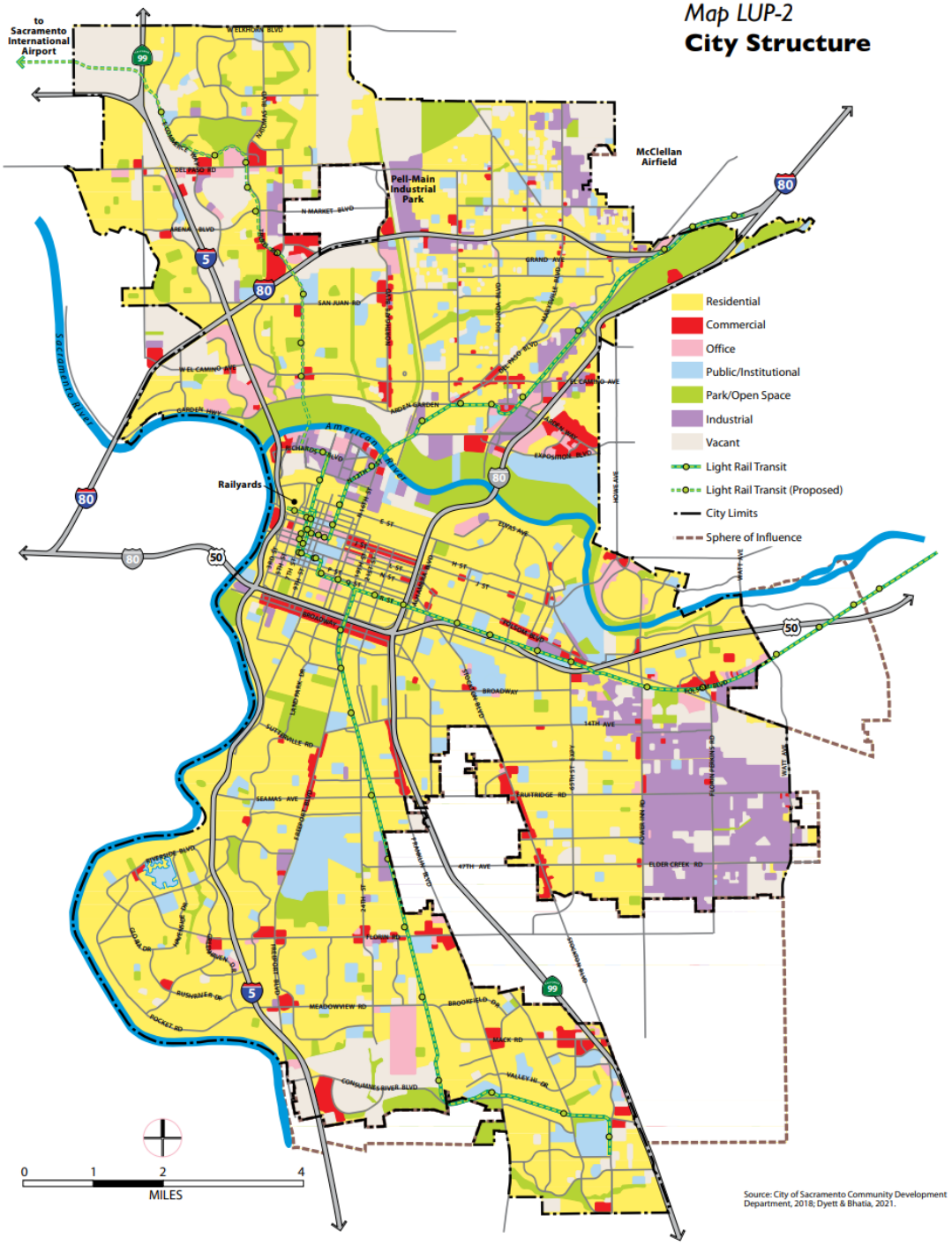
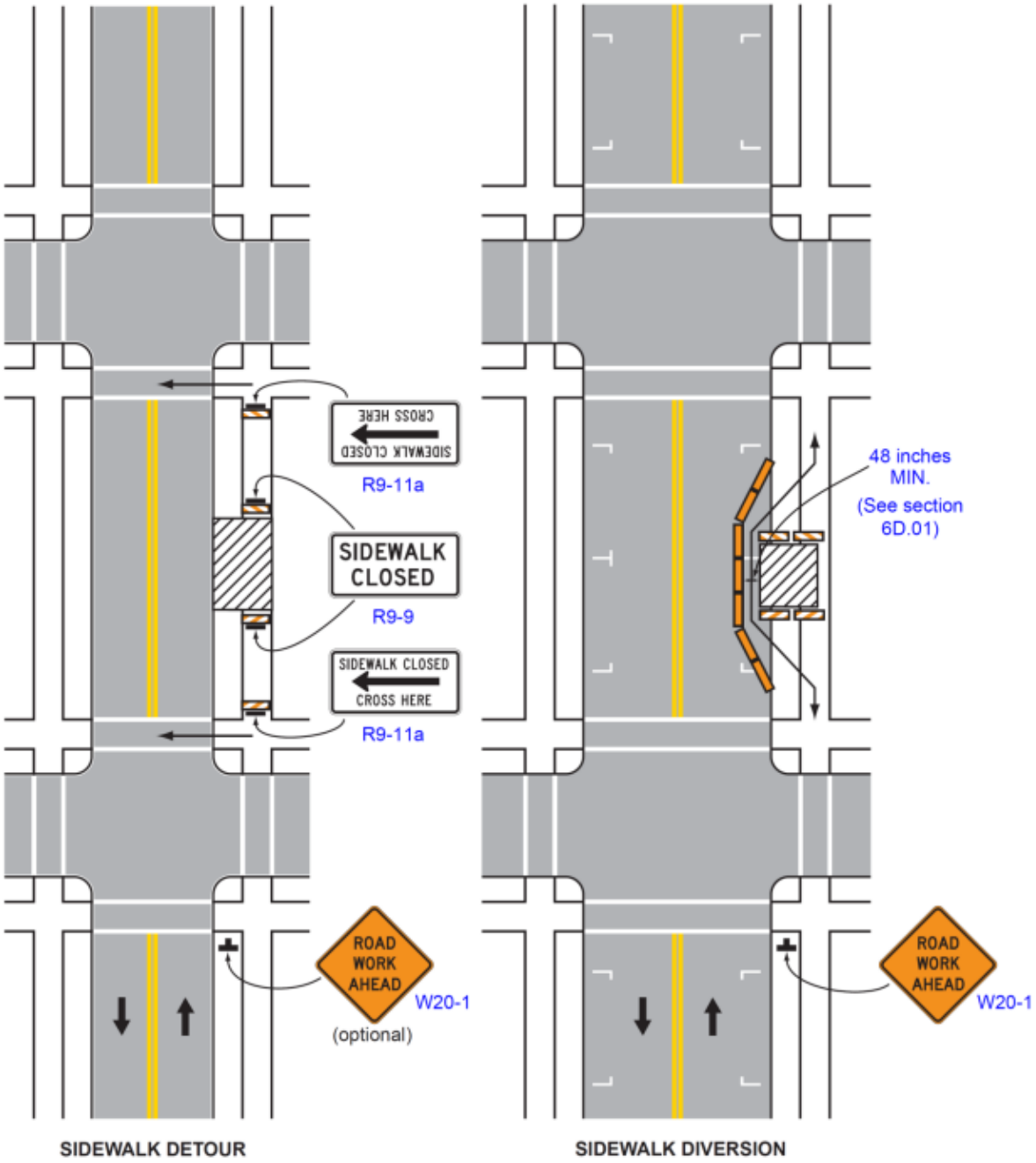


Figure 10: Corridors with Commercial from Map LUP-2 from Draft 2040 General Plan

Example Plans

Figure 6H-28. Sidewalk Detour or Diversion (TA-28)



Typical Application 28

Figure 11: Sidewalk Detour or Diversion (Figure 6H-28 from California Manual on Uniform Traffic Control Devices)

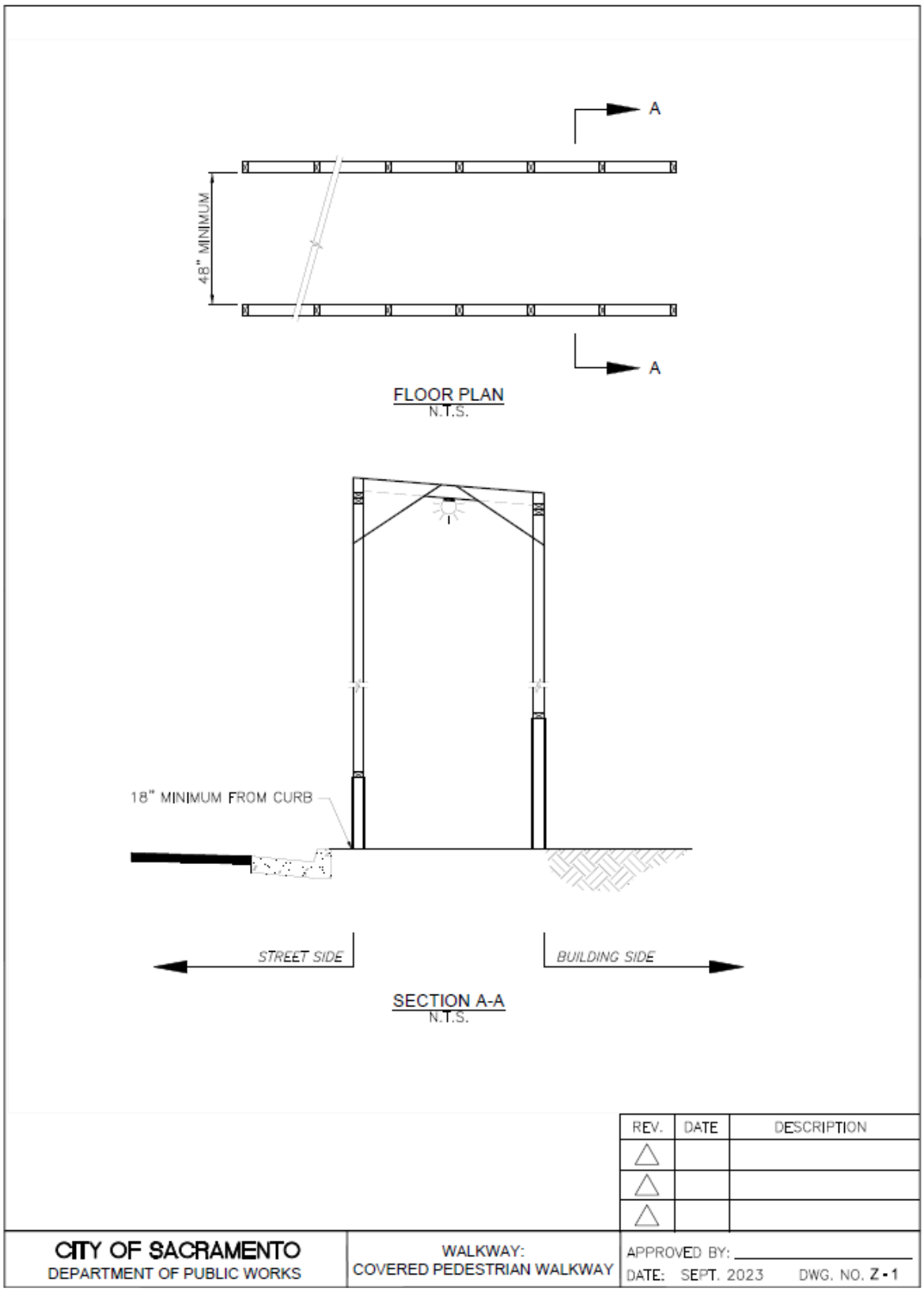
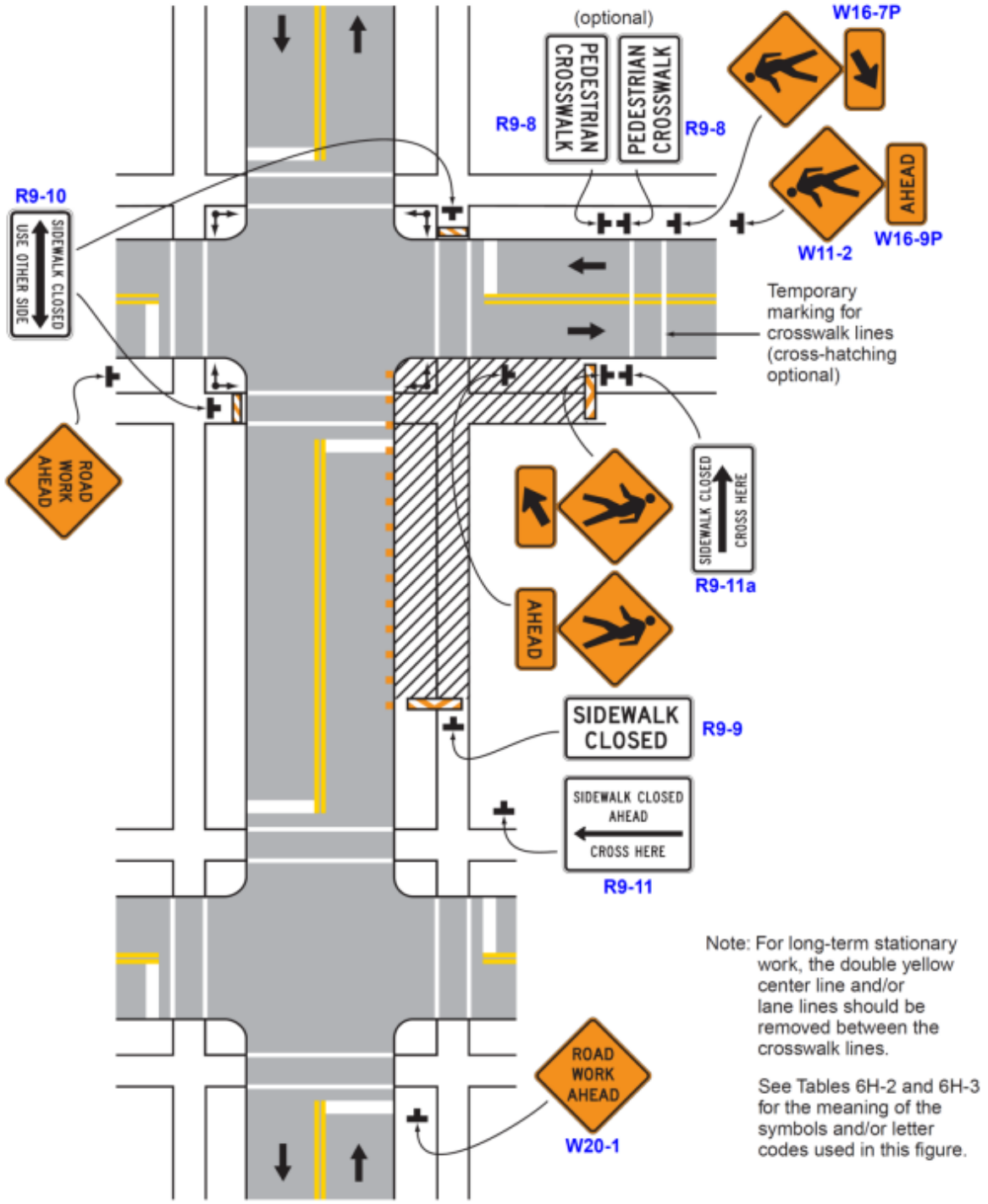


Figure 12: Walkway: Covered Pedestrian Walkway

Figure 6H-29. Crosswalk Closures and Pedestrian Detours (TA-29)



Typical Application 29

Figure 13: Crosswalk Closures and Pedestrian Detours (Figure 6H-29 from California Manual on Uniform Traffic Control Devices)

NOTE:

1. TABLES PROVIDED FOR QUICK REFERENCE. VALUES MAY BE SUPERSEDED BY UPDATES TO THE CA MUTCD, WHICH GOVERNS

TABLE 3. RECOMMENDED ADVANCE WARNING SIGN SPACING

Road Type	Distance Between Signs**		
	A	B	C
URBAN – 25 MPH OR LESS***	100 feet	100 feet	100 feet
URBAN – MORE THAN 25 MPH TO 40 MPH***	250 feet	250 feet	250 feet
URBAN – MORE THAN 40 MPH***	350 feet	350 feet	350 feet

SOURCE: CA MUTCD 2014 EDITION, CHAPTER 6H TYPICAL APPLICATIONS, PART 6 TEMPORARY TRAFFIC CONTROL, TABLE 6H–3.

** THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN DWG. NO. Z–3 THROUGH Z–8. THE A DIMENSION IS THE DISTANCE FROM TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "FIRST SIGN" IS THE SIGN IN THE THREE–SIGN SERIES THAT IS CLOSEST TO THE TTC ZONE. THE "THIRD SIGN" IS THE SIGN THAT IS FURTHEST UPSTREAM FROM THE TTC ZONE).

*** POSTED SPEED LIMIT, OFF–PEAK 85TH–PERCENTILE SPEED PRIOR TO WORK STARTING, OR OTHER ANTICIPATED OPERATING SPEED IN MPH.

TABLE 4. TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES (FOR 12 FEET OFFSET WIDTH)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50
75	900	450	300	50

SOURCE: CA MUTCD 2014 EDITION, CHAPTER 6H TYPICAL APPLICATIONS, PART 6 TEMPORARY TRAFFIC CONTROL, TABLE 6H–4(CA)

* POSTED SPEED LIMIT, OFF–PEAK 85TH–PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

** FOR OTHER OFFSETS USE THE FOLLOWING MERGING TAPER LENGTH FORMULA FOR L:
FOR SPEEDS OF 40 MPH OR LESS, $L=WS^2/60$
FOR SPEEDS OF 45 MPH OR MORE, $L=WS$

WHERE: L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED LIMIT, OFF–PEAK 85TH–PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

*** MAXIMUM DOWNSTREAM TAPER LENGTH IS 100 FEET. SEE SECTION 6C.08.

REV.	DATE	DESCRIPTION
△		
△		
△		

CITY OF SACRAMENTO
DEPARTMENT OF PUBLIC WORKS

RECOMMENDED ADVANCE WARNING SIGN SPACING, FORMULAS FOR TAPER LENGTH,

APPROVED BY: _____
DATE: SEPT. 2023 DWG. NO. Z-2

Figure 14: Recommended Advance Warning Sign Spacing, Formulas for Taper Length

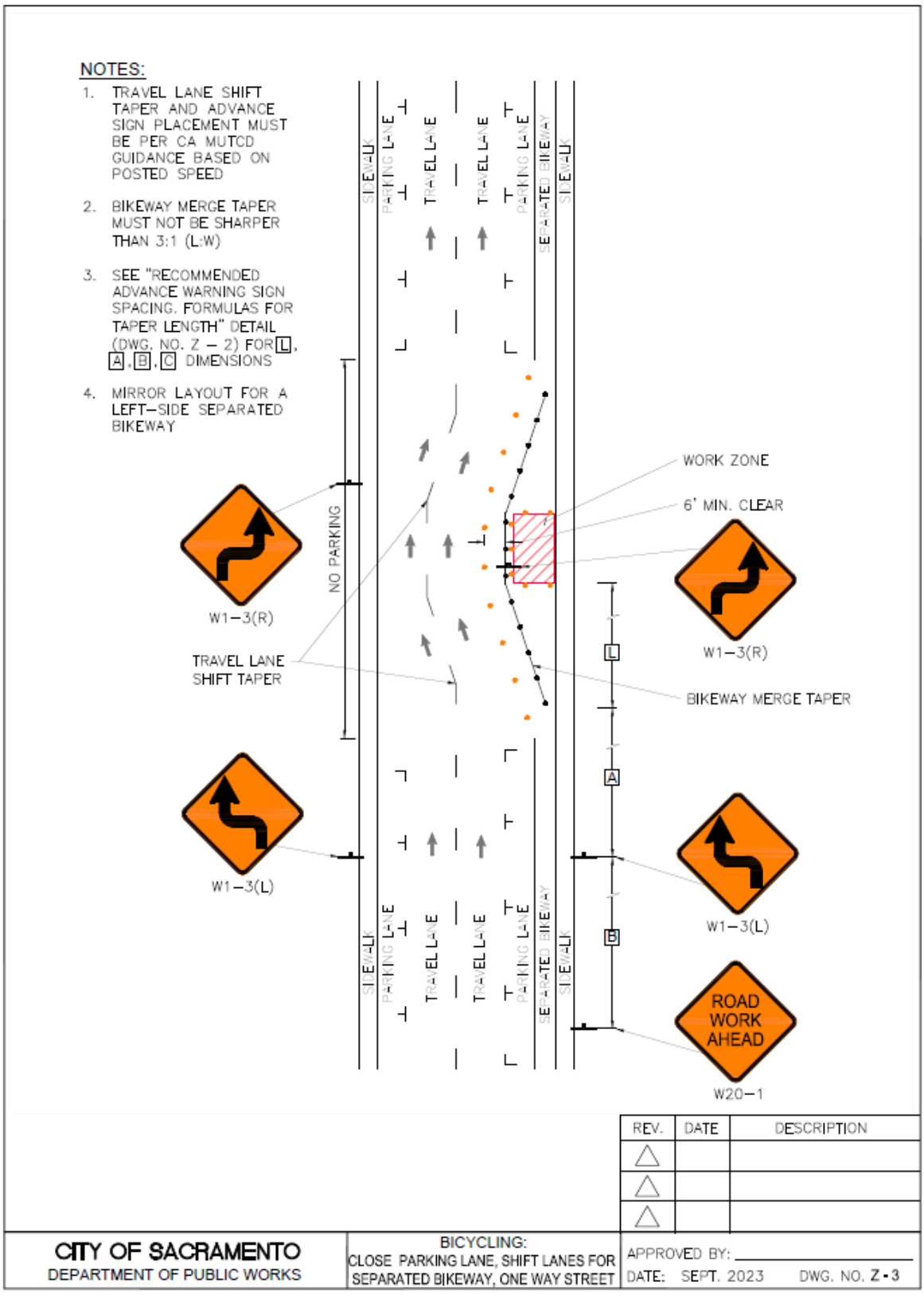


Figure 15: Bicycling: Close Parking Lane, Shift Lanes for Separated Bikeway, One-Way Street

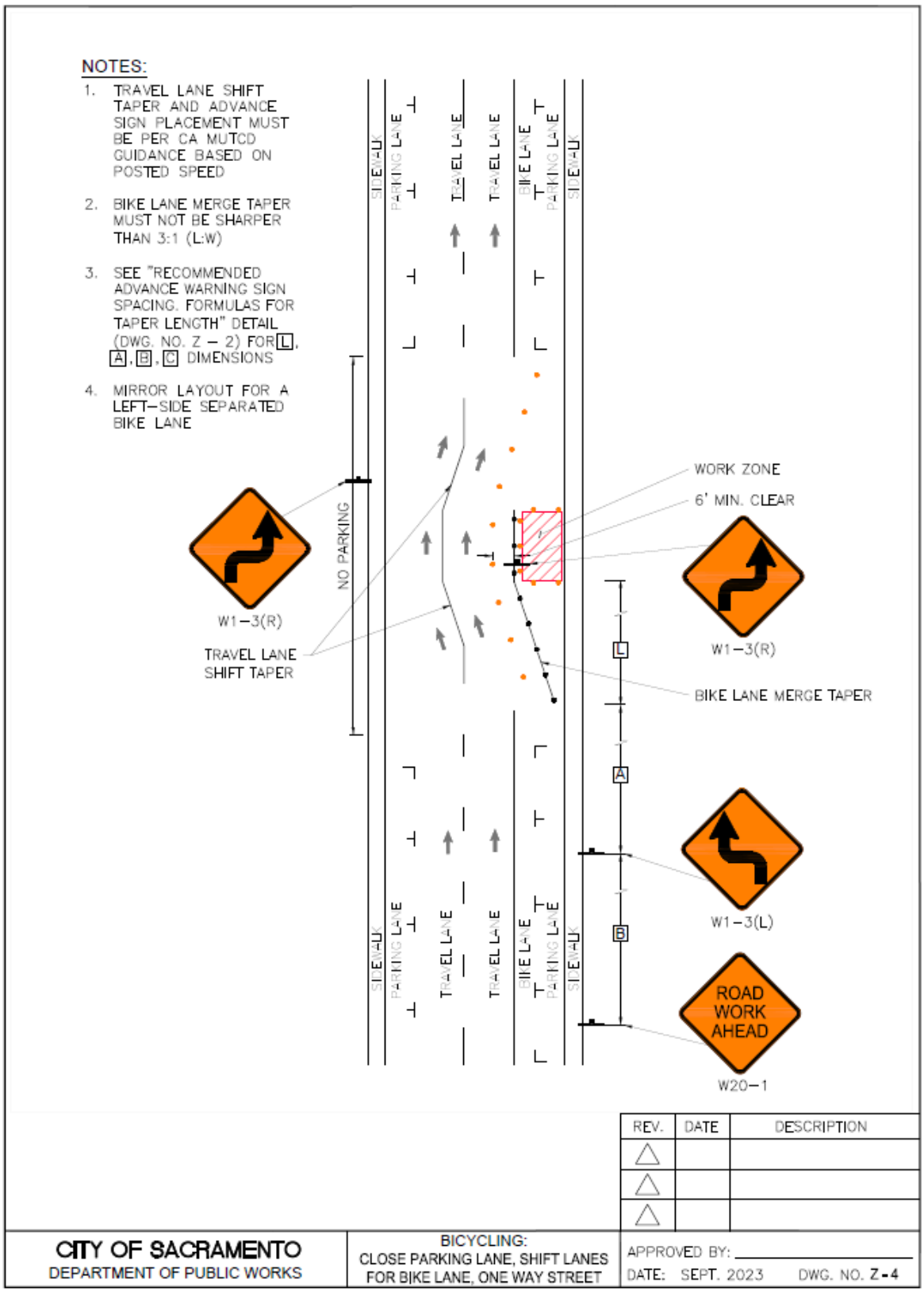


Figure 16: Bicycling: Close Parking Lane, Shift Lanes for Bike Lane, One Way Street

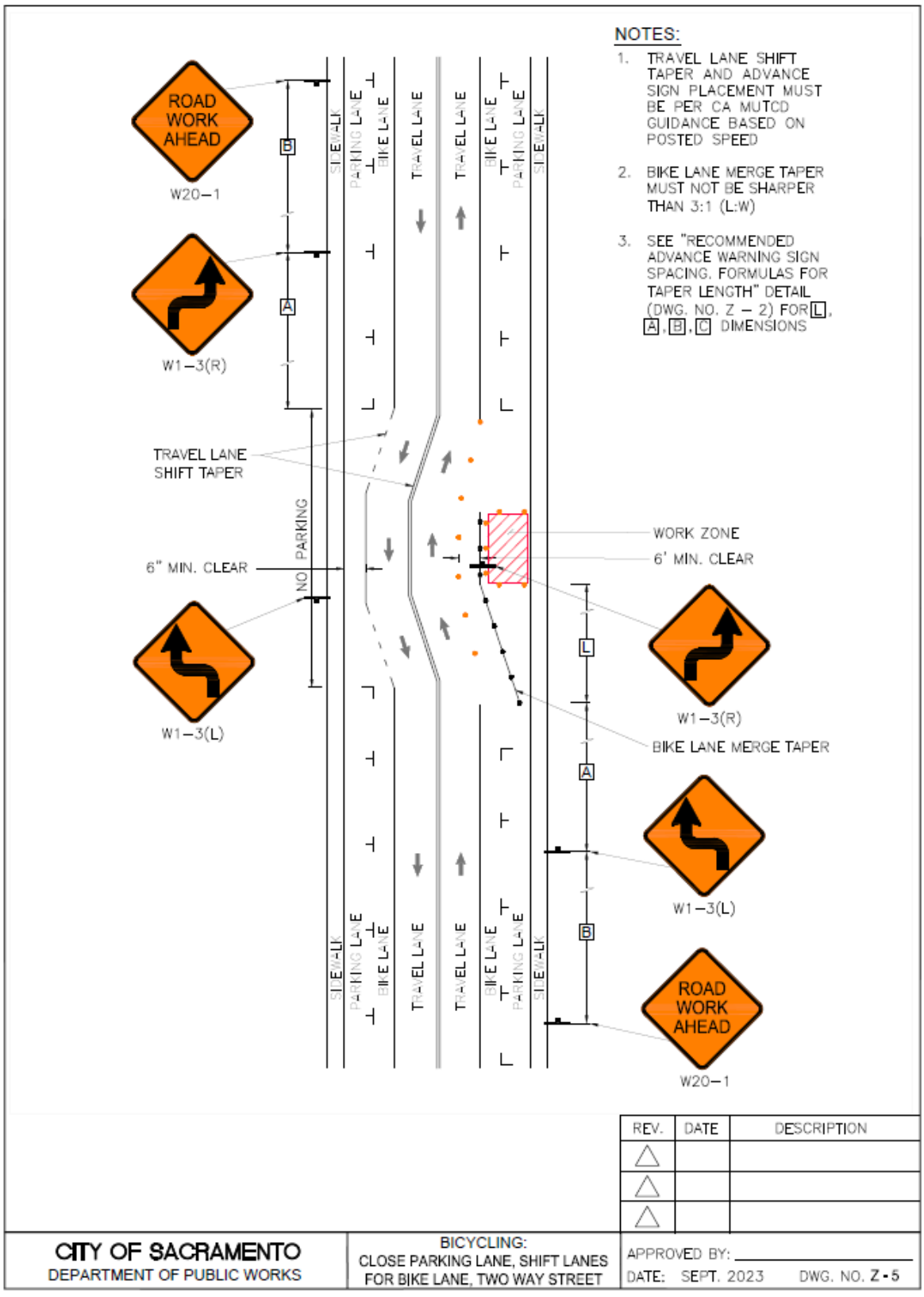


Figure 17: Bicycling: Close Parking Lane, Shift Lanes for Bike Lane, Two Way Street

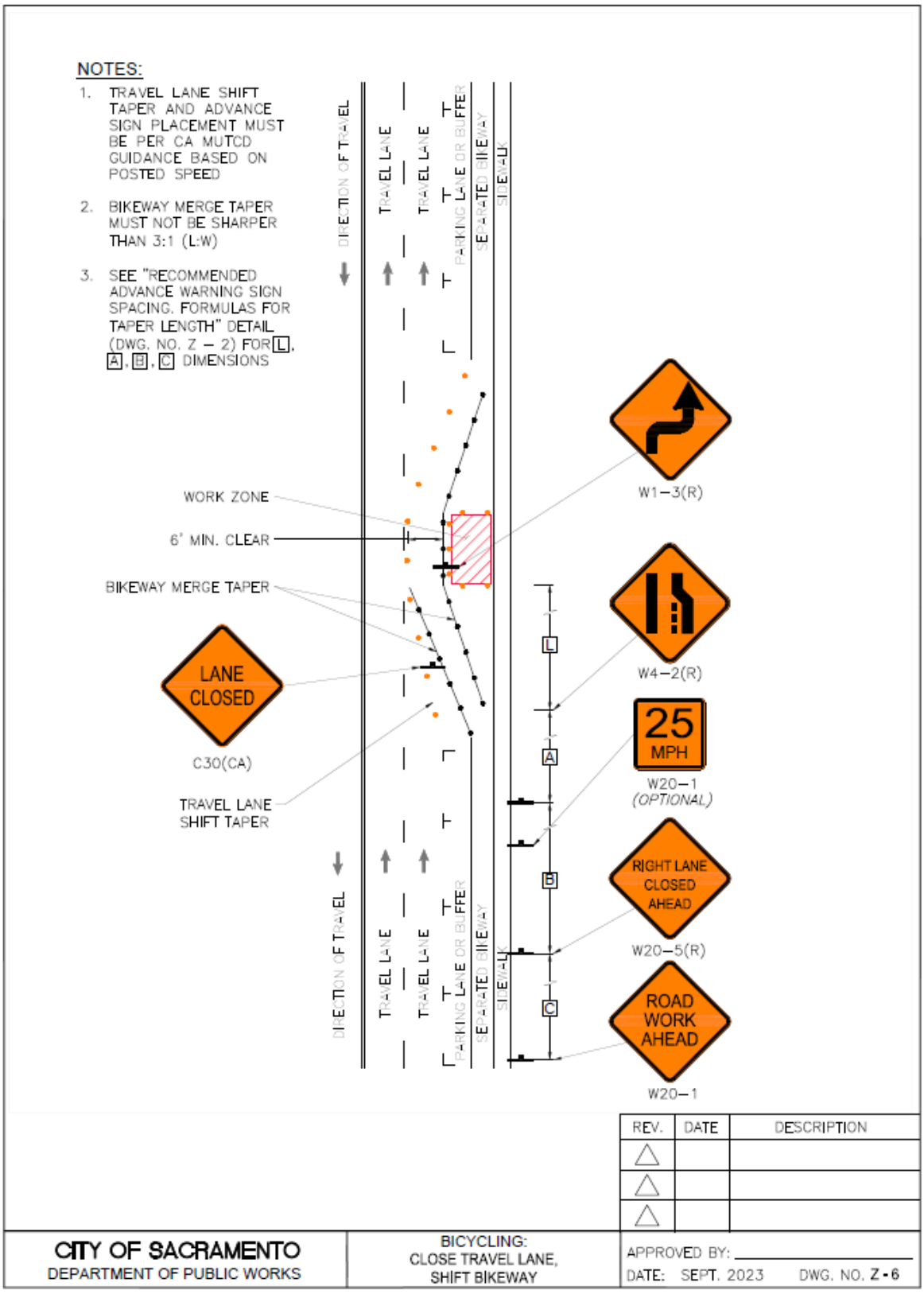


Figure 18: Bicycling: Close Travel Lane, Shift Bikeway

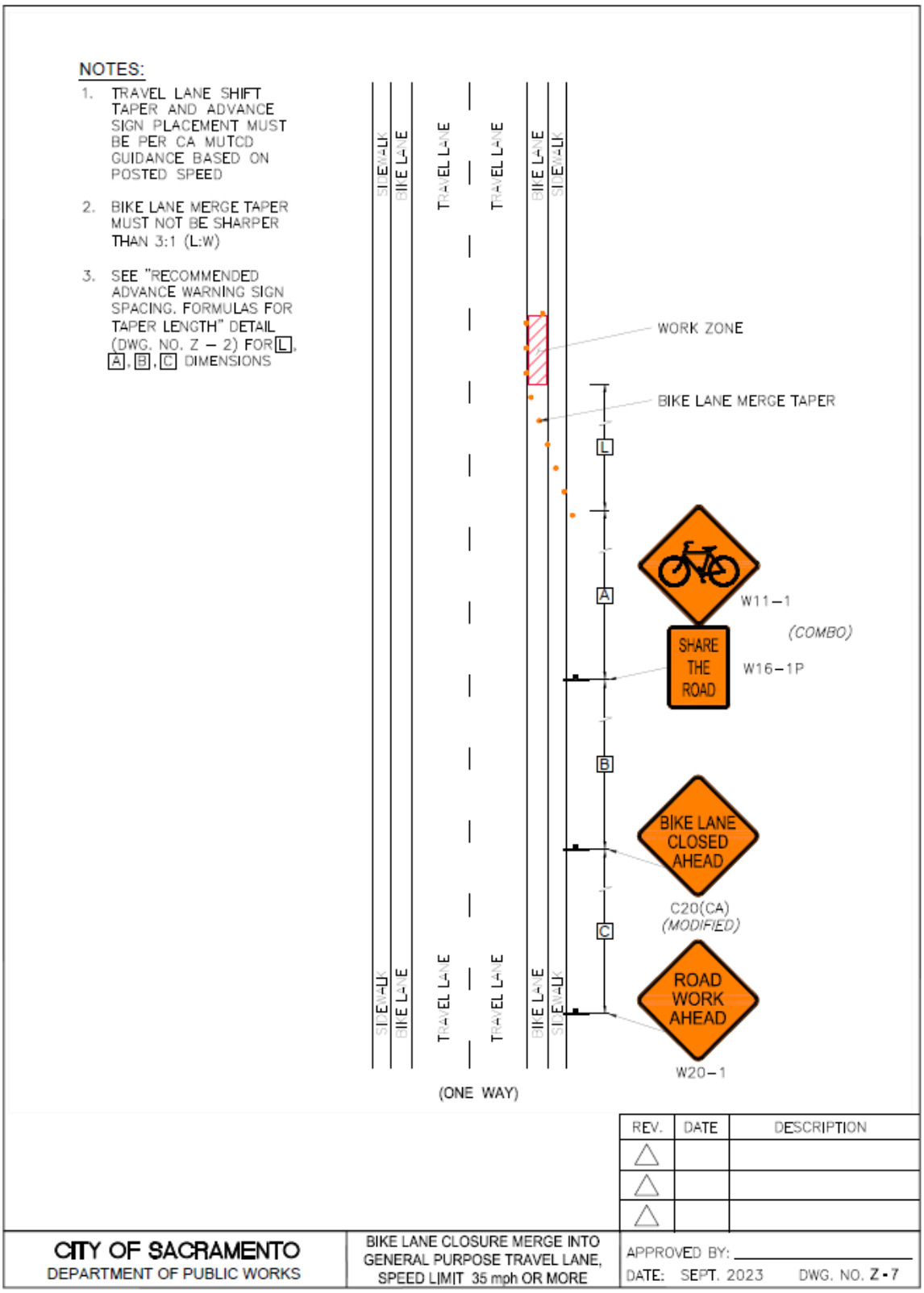


Figure 19: Bike Lane Closure Merge into General Purpose Travel Lane, Speed Limit 35 mph or More

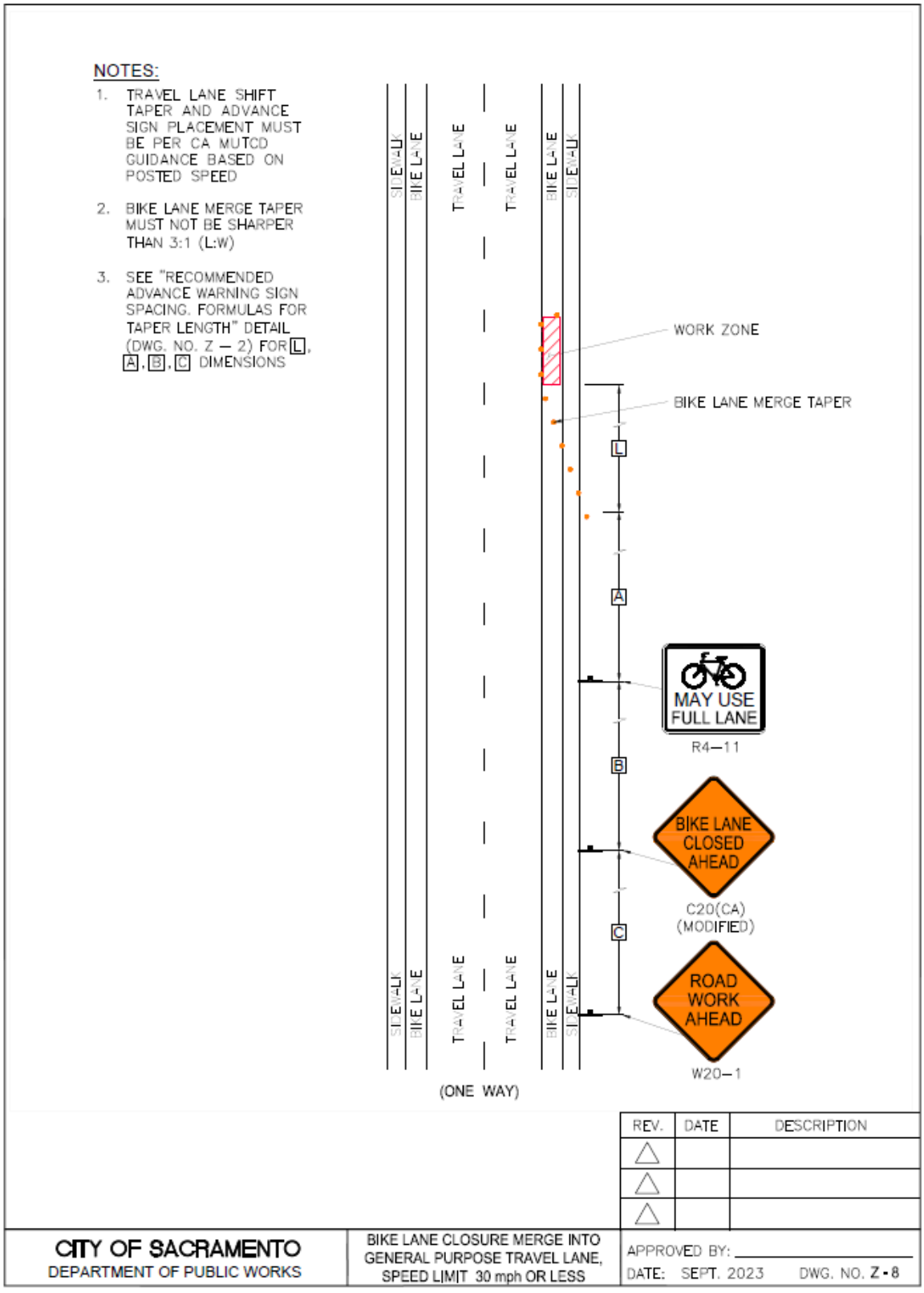


Figure 20: Bike Lane Closure Merge into General Purpose Travel Lane, Speed Limit 30 mph or Less