

THIS PRINT COVERS CALENDAR ITEM NO: 13

**SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY**

DIVISION: Streets

BRIEF DESCRIPTION:

Adopting a resolution supporting the proactive citywide expansion of NO TURN ON RED regulations to signalized intersections with high levels of pedestrian activity to improve walking conditions and safety.



SUMMARY:

- Members of the public, elected officials, Board Directors, and SFMTA staff have expressed interest in expansion of NO TURN ON RED regulations in San Francisco during the past decades, with interest peaking in 2023.
- Data suggests that while these regulations may not prevent a high number of injury crashes, they can help improve pedestrian crossing conditions at signalized crossings.
- Staff recommends proactive citywide expansion of NO TURN ON RED regulations to locations that have a high concentration of people walking.

ENCLOSURES:

1. SFMTAB Resolution

APPROVALS:

		DATE
DIRECTOR	 _____	<u>August 1, 2024</u>
SECRETARY	 _____	<u>August 1, 2024</u>

ASSIGNED SFMTAB CALENDAR DATE: August 6, 2024

PURPOSE

Adopting a resolution supporting the proactive citywide expansion of NO TURN ON RED regulations to signalized intersections where there are high levels of pedestrian activity to improve walking conditions and safety.

STRATEGIC PLAN GOALS:

The proposed endorsement of a citywide expansion of “No Turn on Red” regulations to signalized intersections with high levels of pedestrian activity supports the SFMTA Strategic Goal below:

Goal 4: Make streets safer for everyone.

DESCRIPTION

In 2023, the San Francisco Board of Supervisors passed Resolution 481-23 requesting that the SFMTA “develop a plan to expand and implement No Turn On Red (NTOR) to the greatest extent possible.” Prior to the passage of the Resolution, the SFMTA had been expanding these NTOR regulations in San Francisco. In the Fall of 2021, the SFMTA implemented a ban of all turns on red at 50 intersections in the Tenderloin neighborhood, which historically is an area of concentrated pedestrian activity and the heart of the city’s Vision Zero High Injury Network, the 12% of city streets that account for 68% of severe and fatal collisions. Analysis following implementation indicated that the NTOR changes had been effective in terms of vehicle compliance and keeping crosswalks clear, at least in the pedestrian-heavy context of the Tenderloin. In 2021, SFMTA recommended further expansion of NTOR easterly into the downtown area. SFMTA will now begin implementation of a federal grant obtained in 2023 that will allow the installation of hundreds of new “No Turn on Red” signs in the downtown area including Union Square, the Financial District, South of Market, and Chinatown under the Vision Zero Traffic Signs Upgrades and New Turn Restrictions project (Case Number 2023-007443ENV).

Past studies have concluded that turns on red are typically not a significant source of crashes. A 1995 federal National Highway Traffic Safety Administration (NHTSA) report entitled “The Safety Impact on No Turn on Red” concluded that, “there are a relatively small number of deaths and injuries each year caused by right-turn-on-red (RTOR) crashes.” Academic studies conducted in the 1980s following the federally mandated transition to turns on red in key states had noted that right turn crashes at study intersections had gone up by varying percentages from 40 to 107 percent in the immediate aftermath, but it is not clear what would happen now should those decisions be reversed decades later. In 2022, the Institute of Transportation Engineers released a report called “Prohibition on Turns on Red at Signalized Intersections” which concluded that “The information from literature and practice does not provide documented evidence of widespread safety concerns sufficient to support a blanket prohibition of RTOR.”

In 2000, the city studied the merits of banning turns on red citywide in response to a request

from Supervisor Mabel Teng. A 2001 San Francisco study conducted by former City Traffic Engineers Bond Yee and Jack Fleck came to similar conclusions as NHTSA, finding that “well under 1% of San Francisco’s collisions are caused” by right turns on red. The paper also noted a concern that since the vast majority of turning collisions were caused by vehicles turning on a green light, the potential safety benefits of banning turns on red were not clear. The authors argued that “Prohibiting right turn on red would require drivers to turn on green. This would most likely increase the number of collisions by right turning vehicles. It is also intuitive that collisions involving right turn on green are relatively more severe than right turn on red, as vehicles in the former case are moving nearly at full speed.” This and other studies guided the use of NTOR in San Francisco until 2019 as a tool primarily used for exceptional safety cases or conditions.

In 2019, SFMTA Board Director Amanda Eaken asked Agency staff to look at the issue of expanding the use of NTOR. In 2019-2020, given the lack of thorough recent studies on the crash reduction potential of NTOR, SFMTA and the San Francisco Department of Public Health conducted an extensive study of all 2014-2018 crash reports where a right turn or one-way to one-way street left turn was made at a signal. Detailed review of the police collision reports resulted in the following findings:

1. Of the total San Francisco injury crashes in the three-year time period (15,979), 755 (5 percent) reported signal right turn or legal left turn at the intersection of two one-way streets (which can also be made on red).
2. Of the 755 eligible turn crashes, 129 were turns on red or made when the light had just turned from red to green. The 129 crashes were slightly less than 1 percent of the total number of injury crashes in the city (similar to the findings in the 1995 NHTSA report and the Yee and Fleck study). Turns on Red were thus not a frequent cause of severe or fatal crashes.
3. Of the 129 turn on red crashes, 103 (80 percent) involved pedestrians. The 103 crashes constituted about 2.5 percent of citywide pedestrian crashes during the same analysis period.
4. Ninety percent of all turn on red crashes happened on the High Injury Network at that time (2017 version).

While the 2020 study suggested that turns on red are overall a small percentage of injury crashes, even in a pedestrian-oriented city like San Francisco, they constituted a significant enough percentage of pedestrian crashes at traffic signals to merit policy attention. The study did confirm prior concerns that right turns on green constituted a much larger percentage of crashes, providing further support for the Agency’s already widespread adoption of leading pedestrian signal intervals. Related to this, professional guidance had started to recommend the use of NTOR regulations for leading pedestrian intervals to improve their effectiveness. Finally, even if close calls or blocked crosswalks due to vehicular turns on red did not always lead to injury crashes, they degraded the walking environment and the priority that pedestrians should have when crossing a street. The argument on walkability merits alone, even if it was not resulting in reduced reported injuries, was persuasive to SFMTA considering that many of the most walkable cities outside of the United States generally had blanket NTOR regulations already in place.

In Fall 2021, the SFMTA implemented a ban of all turns on red at 50 intersections in the

Tenderloin neighborhood, historically an area of concentrated pedestrian activity and the heart of the city's High Injury Network. Analysis following the changes indicated that these had been successful, at least in the pedestrian-heavy context of the Tenderloin:

- 92 percent of drivers were complying with the regulations despite little or no enforcement;
- Vehicle blockage of crosswalks was reduced by 70 percent, one of the goals of the project (increasing walkability and pedestrian comfort); and
- No significant increase in close calls or decreased yielding during the green light.

Preliminary crash analysis indicates that right turn vehicle-pedestrian collisions at traffic signals did not increase in the Tenderloin in 2022-23 compared to recent years. This did not immediately support the concerns in the prior San Francisco study (2001, Fleck and Yee) that reducing right turns on red could increase crashes from right turns on green.

In 2021, the San Francisco *Vision Zero Action Strategy for 2021-2024* proposed an action item to reduce conflicts for vulnerable road users that committed the SFMTA by 2022 to "Evaluate Tenderloin No Turn on Red (NTOR) policy and develop expansion plan based on results." The positive reception to the Tenderloin project and the 2020 study led SFMTA staff to recommend further expansion of no turns on red in the downtown in 2022, obtaining state funding in 2023. In 2024, the SFMTA has begun implementation of a state grant that will allow the installation of hundreds of new "No Turn on Red" signs in Union Square, the Financial District, parts of South of Market, and Chinatown.

Since 2022, other major cities with pedestrian densities comparable to San Francisco have considered expanding restrictions on turns on red. Some cities are starting to look at San Francisco's efforts as inspiring their own reconsiderations.

1. Washington D.C. conducted a study of 100 intersections and concluded that NTOR signs "decreased overall conflicts between pedestrians and vehicles" with "overall minor impacts to traffic operations." Their City Council is now considering banning all turns on red starting in 2025 (though the measure appears to lack funding).¹
2. Seattle adopted a new policy in March 2023 to establish "broad use" of NTOR restrictions. Seattle's approach will be to prohibit turns on red as the default signal operation unless review indicates an exception should be made. Like San Francisco, Seattle plans to start their expansion downtown and then proceed to other locations as resources and projects allow.²

¹ "Analysis of Expanding No Turn on Red Operations in Washington, DC, USA," Journal of the Institute of Transportation Engineers, [May 2022 \(ygsclibook.com\)](#)

² "SDOT Policy for No Turn on Red," March 2, 2023.

<https://seattle.gov/documents/Departments/SDOT/SDOT%20Policy%20-%20No%20turn%20on%20red%20signs%20-%20Final%20-%20signed.pdf>

3. Boston announced in May 2023 a “Safety Surge” program that included an expanded use of “No Turn on Red” regulations.³

As part of its ongoing street safety projects, SFMTA will programmatically expand the use of “No Turn on Red” regulations to areas that:

1. Have a high concentration of pedestrians during most of the day, following the findings of the 2020 NTOR study and Tenderloin expansion study. Examples of high pedestrian activity areas include Downtown, areas designated as business districts, 20 MPH business district streets posted under Assembly Bill 43, and other land uses that generate high pedestrian activity. High concentration of pedestrians means that during any typical daytime hour, there would be at least one or more pedestrians crossing at any crosswalk during each signal cycle.
2. Are on or adjacent to the current High Injury Network (HIN) or a high crash location for pedestrians, following the findings of the 2020 safety study that showed this is where the vast majority of turn on red crashes occur. However, since not all streets that are part of the High Injury Network have high concentration of pedestrian activity, it signals being in the latest HIN by itself should not automatically result in a “No Turn on Red” recommendation.
3. Consider whether there is a leading pedestrian leading interval (LPI), following recommendations in the professional literature and San Francisco’s 2020 NTOR study that suggest LPIs work better accompanied by NTOR regulations.

The SFMTA will prioritize proactive efforts funded by special grants on areas that have all three characteristics above. Consideration will also be given to high pedestrian activity areas in general that may not be in the High Injury Network. We will look at applying for future grants to allow us to continue NTOR proactive projects such as those completed in the Tenderloin and now in progress Downtown. Other locations will be reviewed and implemented as part of capital, quick build, or other safety projects that may be more location specific. Engineers will also review NTOR as part of other types of safety reviews at intersections that are done as part of a follow up to constituent requests, intersection crash reviews, and other intersection specific studies.

STAKEHOLDER ENGAGEMENT

This proposal was discussed at the February 2024 meeting of the SFMTA Board of Directors Vision Zero Subcommittee. The SFMTA has discussed this matter with the District 5 Supervisor Dean Preston’s staff, who was instrumental in the passage of Resolution 481-23, as well as with Luke Bornheimer, who was instrumental in the circulation of an online petition signed by over 7,000 people supporting a citywide ban on turns on red. The matter has been well covered by local media, with dozens of stories last year on the topic of turns on red, with additional stories this year on the planned SFMTA downtown expansion. A public hearing was held on March 22, 2024 for the downtown expansion with the item moving forward to implementation. Internal outreach was conducted with Muni and Fire Department staff who have expressed concerns about the possible delay impacts of this measure on transit and emergency response. Both of these issues will be monitored during the ongoing expansion

process.

³ Boston Transportation Department Signals Operations Design Policy, May 2023. [BTD Signal Policy 03/24/2023 DRAFT \(boston.gov\)](#)

ALTERNATIVES CONSIDERED

The 2023 online petition requesting citywide ban on turns on red at all signals was accompanied by numerous emails to the SFMTA expressing a preference “for a policy that implements NTOR at every signalized intersection in San Francisco” arguing that a “citywide NTOR policy will increase public safety and roadway safety, especially for children, seniors, and people with disabilities, as well as help address SFMTA’s budget crisis and the climate crisis by reducing roadway crashes, bureaucracy, and wasted staff time and taxpayer money and helping more people shift trips to walking, biking, and public transit.”

SFMTA staff does not recommend establishing a citywide ban on turns on red at this time, a policy that would require any signal red light to automatically be accompanied by a NO TURN ON RED sign. Under existing California law, turns on red will continue to remain legal unless expressly prohibited.

The SFMTA policy relies on objective criteria around pedestrian activity, the High Injury Network, the presence of leading pedestrian intervals, and leveraging measured and applicable data. From a resource prioritization perspective, we believe attention is best directed now to expanding “No Turn on Red” restrictions to areas like downtown and neighborhood commercial districts that historically have the highest number of turning vehicles and pedestrians, leading pedestrian intervals and proximity to the High Injury Network and would therefore benefit the most from new NO TURN ON RED restrictions.

Given limited traffic enforcement resources, the City also needs to ensure that the public intuitively understands the rationale for these regulations so that there is voluntary compliance. “No Turn on Red” signs posted where pedestrian volumes are low or there are no documented safety conflicts could potentially be ignored and lower the respect paid to all these signs. Even cities that have citywide NTOR policies do allow some intersections to be exempt from these rules. We believe it reasonable to not prohibit turns on red at locations where the safety and walking promotion benefits are likely to be minimal given low volumes or low crash potential. We need to ensure that we the public sees city City’s overall regulatory efforts as clearly targeted.

FUNDING IMPACT

The cost to install two NO TURN ON RED signs is typically \$1,000 per intersection approach, including staff analysis, materials, and installation labor. An intersection that receives NO TURN ON RED on all four approaches would thus cost approximately \$4,000. These installation costs would typically be paid out of capital funds, except for isolated cases where installations may be done as part of a request or spot review funded by the SFMTA Streets Division operational budget. The Agency would bear additional maintenance responsibility to replace all these traffic signs approximately every 15 to 20 years.

The SFMTA will apply for a future Highway Safety Improvement Program grant to proactively expand existing NTOR restrictions adjacent to the Tenderloin, Downtown Core, and SOMA as follows:

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- Northerly to include Polk, Russian Hill, and Nob Hill;
- Westerly to include Hayes Valley; and
- Southerly to include the Mission District.

The SFMTA believes that proactive expansion into areas contiguous with existing NTOR restrictions will improve overall pedestrian comfort and vehicle compliance.

ENVIRONMENTAL REVIEW

On June 10, 2024, the SFMTA, under authority delegated by the Planning Department, determined that the proposed endorsement of a citywide expansion of “No Turn on Red” regulations is not defined as a “project” under the California Environmental Quality Act (CEQA) pursuant to Title 14 of the California Code of Regulations Sections 15060(c) and 15378(b).

Some projects that would implement no turn on red restrictions may have already undergone environmental review and received project approval and, with the necessary funding, may proceed. On August 18, 2023, the Planning Department determined that the Vision Zero Traffic Signs Upgrades and New Turn Restrictions project (Case Number 2023-007443ENV), which included the NTOR restrictions associated with the state grant obtained in 2023 and referenced above, is statutorily exempt under Title 14 of the California Code of Regulations Section 21080.25. For no turn on red projects that have not yet undergone environmental review and that are subject to CEQA, the SFMTA will not seek approval for such projects until compliance with CEQA and Chapter 31 of the San Francisco Administrative Code is completed.

A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors and is incorporated herein by reference.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The City Attorney’s Office has reviewed this calendar item.

RECOMMENDATION

SFMTA staff recommend that the SFMTA Board of Directors adopt a Resolution supporting a proactive citywide expansion of NO TURN ON RED regulations to signalized intersections with high levels of pedestrian activity to improve walking conditions and safety.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. _____

WHEREAS, Prohibiting vehicles from turning at red lights can improve the walking environment by reducing conflicts at signalized crosswalks; and,

WHEREAS, Many cities in the world generally ban turns on red in their densest areas or as a matter of general driving law, including New York City; and,

WHEREAS, San Francisco extensively evaluated the safety of turns at signalized intersections in 2020 and conducted a successful “No Turn on Red” expansion pilot in the Tenderloin; and,

WHEREAS, The San Francisco Board of Supervisors passed Resolution 481-23 requesting SFMTA develop a plan to expand and implement No Turn On Red “to the greatest extent possible”; and,

WHEREAS, Data indicates turns on red constitute about 1 percent of overall injury crashes and 2.5 percent of pedestrian injury crashes; and,

WHEREAS, Based on national and San Francisco studies, past and recent requests, and the experience of changes in the Tenderloin, SFMTA staff recommends expansion of “No Turn on Red” where justified by pedestrian activity; and,

WHEREAS, On June 10, 2024, the SFMTA, under authority delegated by the Planning Department, determined that the proposed endorsement of a citywide expansion of “No Turn on Red” regulations is not defined as a “project” under the California Environmental Quality Act (CEQA) pursuant to Title 14 of the California Code of Regulations Sections 15060(c) and 15378(b); and,

WHEREAS, The SFMTA will not proceed with any No Turn on Red projects that have not already undergone environmental review and received any necessary approvals or until there has been complete compliance with the CEQA, the CEQA Guidelines, and the City’s regulations implementing CEQA (San Francisco Administrative Code Section 31); and,

WHEREAS, A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors and is incorporated herein by reference; now, therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors supports a citywide expansion of NO TURN ON RED regulations to signalized intersections with high levels of pedestrian activity to improve walking conditions and safety; and, be it further

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors instructs staff to implement and monitor the downtown NO TURN ON RED expansion and seek funding to proactively expand these restrictions to other priority signalized crosswalks in San Francisco.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of August 6, 2024.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency