



BERKELEY CITY COUNCILMEMBER
TERRY TAPLÍN
DISTRICT 2

**SUPPLEMENTAL
AGENDA MATERIAL
For Supplemental Packet 3**

Meeting Date: September 13, 2022

Item Number: 34

Item Description: Equitable Safe Streets and Climate Justice Resolution

Submitted by: Councilmember Taplin

Amendment would make the following additions to the referral:

- Amend the Resolution to clarify the intent and impact of the policy on residential street paving and street trees so that existing paving and tree removal policies are not interfered with
- Passage of these changes is important to ensure that the City's Street Repair Plan continues unabated



ACTION CALENDAR
9/13/2022

To: Honorable Mayor and Members of the City Council
From: Councilmember Taplin
Subject: Equitable Safe Streets and Climate Justice Resolution

RECOMMENDATION

Adopt a resolution committing the expenditure of City and state/federal matching/recurring funds on city-maintained roads, sidewalks, and bike lanes to accelerate safety improvements in a manner consistent with City, State, and Federal policy on street safety, equity, accessibility, and climate change; refer to the City Manager fully integrate Complete Streets design as defined by the NACTO Urban Street Design Guide in the default engineering standard for city streets; restrict city use of the Manual on Uniform Traffic Control Devices (MUTCD) to only documented cases that require its use for compliance with Federal/State regulations; in all other cases, restrict use of the MUTCD to “engineering judgment.”

POLICY COMMITTEE RECOMMENDATION

On June 1, 2022, the Facilities, Infrastructure, Transportation, Environment & Sustainability Committee adopted the following action: M/S/C (Robinson/Taplin) to send the item to Council with a positive recommendation. Vote: Ayes – Taplin, Robinson; Noes – None; Abstain – None; Absent – Harrison.

FINANCIAL IMPLICATIONS

According to the Federal Highway Administration:

“It is generally significantly less expensive to install safety improvements as part of a resurfacing project than to build it as a standalone project ... The cost for adding bike lanes during a resurfacing project costs approximately 40 percent of the cost of adding the lanes as a standalone project.”¹

¹ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/page04.cfm#cost_a2

This resolution calls for the full integration of safety features at the time of re-paving of all streets in the city, in a manner consistent with City, State,² and Federal³ policy, which will result in substantial material and staff time savings, while also saving the lives of Berkeley residents.

CURRENT SITUATION AND ITS EFFECTS

Under current practices in Berkeley, safe streets interventions like bikeways, separated lanes, raised pedestrian crossings, and corner bulb-outs are often implemented only after a pedestrian or cyclist has been injured or killed by a driver. Many examples exist of streets that had been recently re-paved without safety features that were then re-designed after residents expressed their anger over pedestrians and cyclists being severely injured or killed by a driver.

According to the Federal Highway Administration, implementing safe streets features at the time of re-paving, rather than as stand-alone, post-facto projects, can significantly cut the costs of these safety interventions.⁴ This resolution calls for the full integration of safety features at the time of re-paving of all streets in the city, which will result in substantial material and staff time savings, while also saving the lives of Berkeley residents.

The Equitable Safe Streets and Climate Justice Resolution is a Strategic Plan Priority Project, advancing our goal to provide state-of-the-art, well-maintained infrastructure, amenities, and facilities.

BACKGROUND

Personal cars and trucks are the leading source of climate pollution in the City of Berkeley, causing 59% of all greenhouse gasses within city limits – more than all residential and commercial energy use, combined.⁵ They are also among the leading causes of violent injury and death in the city, with a growing number of deadly and injurious conflicts between people driving cars and vulnerable road users including pedestrians, the elderly, residents who use mobility devices, and bicyclists. Lower income Berkeley residents and people of color are disproportionately impacted by the risk of traffic injuries and fatalities.⁶

² “Caltrans to Require ‘Complete Streets’ Features in Planning and Design of All New Projects <https://dot.ca.gov/news-releases/news-release-2021-039>

³ Under the Infrastructure Investment and Jobs Act of 2021, “MPOs must use 2.5 percent of their overall funding to develop and adopt complete streets policies, active transportation plans, transit access plans, transit-oriented development plans, or regional intercity rail plans.” <https://nacto.org/program/state-and-federal-policy/>

⁴ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/page04.cfm#cost_a2

⁵ [https://www.cityofberkeley.info/Clerk/City_Council/2020/07_Jul/Documents/2020-07-21_Presentations_Item_5_\(6pm\)_Pres_CMO_pdf.aspx](https://www.cityofberkeley.info/Clerk/City_Council/2020/07_Jul/Documents/2020-07-21_Presentations_Item_5_(6pm)_Pres_CMO_pdf.aspx)

⁶ Berkeley Vision Zero Action Plan, March 10, 2019, page 13.

Berkeley also has among the highest percentages of people who take transit, walk, and ride bicycles of any city of its size in the United States.⁷ In spite of this fact, most of our streets are designed in such a way that makes them unsafe for pedestrians, transit users, or for use by people who use mobility devices or bicycles.

This disparity can be resolved through better engineering and design of our city streets, which will save lives and often result in substantial savings for the city. In addition, new state legislation (AB-43, 2021) recognizes that high vehicle speeds are a primary factor in deadly and dangerous street conditions, and empowers California cities to lower speed limits on certain city streets to reduce traffic collisions and protect vulnerable road users.⁸

Recent History: Safety Measures Follow Tragedy, Increase Costs

According to the Federal Highway Administration:

“It is generally significantly less expensive to install safety improvements as part of a resurfacing project than to build it as a standalone project ... The cost for adding bike lanes during a resurfacing project costs approximately 40 percent of the cost of adding the lanes as a standalone project.”⁹

Over the past several years, safety conditions for Berkeley residents and visitors who do not drive have deteriorated, as evidenced by the growing number of crashes in Berkeley that have resulted in pedestrian and cyclist injury or death.¹⁰ In spite of the deaths and injuries on our streets, these crashes often do not result in safety improvements.

However, when local residents express sufficient outrage to City Hall over deadly conditions, the City sometimes rapidly responds with permanent or semi-permanent safety features – but had these features preceded, rather than followed, the crashes, they would have resulted in both lower costs to the city, and fewer traumatic injuries and deaths.

Examples of recent Berkeley street re-paving projects that led to increased costs due to a lack of safety features include:

- **Fulton (Oxford):** In 2015, Berkeley Public Works repaved Fulton/Oxford Street between Bancroft Way and Dwight, but did not add a safe bikeway as called for in Berkeley’s 2000 Bicycle Plan. Shortly afterward, Megan Schwarzman was hit

⁷ <https://www.vitalsigns.mtc.ca.gov/commute-mode-choice>

⁸ Assembly Bill 43, Traffic Safety, 2021
https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB43

⁹ https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/page04.cfm#cost_a2

¹⁰ <https://www.sfchronicle.com/local/article/Berkeley-bicycle-activist-struck-by-car-hours-16037329.php>

and severely injured by a driver while bicycling.¹¹ After being pressured by the community to act, the City Council directed staff to re-stripe the roadway with a safer bikeway, adding 3 months of unplanned work and staff time. Costs would have been lower if the bikeway had been planned and implemented in a manner more consistent with existing city policy, and concurrent with re-paving.

- **Hearst:** After adoption of the 2000 Berkeley Bicycle Plan, Berkeley Public Works repaved Hearst Avenue, but did not include a safe bikeway, as called for in the Bicycle Plan. After years of pressure from residents concerned about street safety, Berkeley finally rebuilt and repaved the street in 2016 with safer facilities, and at significant cost. Costs would have been lower if the bikeway had been planned and implemented in a manner consistent with existing city policy, and concurrent with re-paving.
- **Milvia Street:** Berkeley repaved Milvia Street downtown using Measure BB funds (2014), and then in 2019, repaved Milvia Street in south Berkeley. But neither repaving included safe streets interventions called for in the then-approved bike plans. Berkeley then added extensive safe bicycling facilities in 2021/2022. Costs would have been lower if the bikeway had been planned and implemented in a manner consistent with existing city policy, and concurrent with re-paving.
- **Dwight/California:** In 2021, Berkeley embarked on safety improvements at the corner of Dwight and California, a “bicycle boulevard” and a “safe route to school,” after local residents expressed outrage over two children who were struck by drivers on their way to school. California and Dwight Streets were re-surfaced in 2015, but did not include enhancements to improve pedestrian and cyclist crossing conditions at this intersection.
- **Concrete diagonal diverters:** Berkeley installed many concrete diagonal diverters back in the 1970’s, and had to come back later with separate concrete work to make bicycle cut-throughs in these diverters for bikes to access neighborhood streets. Costs would have been lower if the cut-throughs had been included in the original design.

Street Safety First: Berkeley City Policy

In recent years, the traffic engineering profession has developed extensive tools and engineering guidelines for cities that seek to safely meet the mobility needs of all residents, including those who drive cars, walk, use mobility devices, ride bicycles, and/or use transit.

Many of these new tools, such as the Urban Streets Design Guide by the National Association of City Transportation Officials (NACTO), provide turnkey solutions for cities seeking to design and engineer roads to improve street safety for all road users. The Design Guide was developed in part to help cities seeking to enhance safety, and in part out of growing concern over the proven inadequacy of the Federal Highway

¹¹ Raguso, E. (2016). Bike lane opens by near-fatal crash site. *Berkeleyside*. Retrieved from <https://www.berkeleyside.org/2016/05/12/bike-lane-opens-in-berkeley-by-near-fatal-crash-site-no-charges-filed-yet-against-driver-who-police-say-was-high>

Administration's Manual on Uniform Traffic Control Devices (MUTCD), which has led to dangerous and deadly conditions for vulnerable road users.¹²¹³¹⁴

In fact, in several cases, the proscriptions of the MUTCD have delayed or precluded street safety improvements in Berkeley.¹⁵ Part of the reason may be that, under current case law, engineers may sometimes be held personally liable for deaths or injuries that can be proven to be the result of street engineering and design.

Over the past year, both the Federal Highway Administration¹⁶¹⁷ and Caltrans¹⁸ have issued guidance that allows city traffic engineers to use NACTO's Urban Streets Design Guide in place of the MUTCD for projects that use Federal or State transportation funds. In addition, FHWA has issued guidance that, in states where vulnerable road users make up 15% or more of the total number of fatalities in a state in a given year, the state is required to dedicate at least 15% of its Highway Safety Improvement Program funds the following fiscal year to projects that address the safety of these road users. Additionally, the new guidance incorporates legislative changes to permit 100% Federal funding for certain pedestrian and bicyclist projects.¹⁹

Adopt New Complete Streets Engineering Guidelines

This resolution directs all City departments with a role in the design, engineering, maintenance, and administration of Berkeley surface streets to formally adopt the NACTO Urban Streets Design Guide as the primary design and engineering manual for Berkeley city streets.

The resolution further directs all City departments to restrict use of the MUTCD, which has been proven to lead to unsafe street designs,²⁰ to only those projects where the Public Works Director certifies, in writing, that the MUTCD is better suited to achieving the City's goal of reducing vehicle speeds, enhancing safety features for pedestrians,

¹² Schmitt, A. (2021). Let's Throw Away These Rules of the Road. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2021-05-05/it-s-time-to-rewrite-the-road-builders-rule-book>

¹³ National Association of City Transportation Officials. (2021). 25,000 Comments Calling for Safety and Equity Reforms to Once-Obscure Federal Street Manual. *NACTO*. Retrieved from <https://nacto.org/2021/05/20/25000-comments-call-for-reforming-mutcd/>

¹⁴ Shill, G. & Bronin, S. (2021). Rewriting Our Nation's Deadly Traffic Manual. *Harvard Law Review*. Retrieved from <https://harvardlawreview.org/2021/10/rewriting-our-nations-deadly-traffic-manual/>

¹⁵ Harrington, T. (2021). Berkeley's plans to make Dwight and California safer get mixed reviews. *Berkeleyside*. Retrieved from <https://www.berkeleyside.org/2021/05/16/berkeleys-plans-to-make-dwight-and-california-safer-get-mixed-reviews>

¹⁶ "National Roadway Safety Strategy," US Department of Transportation, Jan 2022 <https://www.transportation.gov/NRSS>

¹⁷ "Bicycle and Pedestrian Facility Design Flexibility," US Department of Transportation - FHWA, Aug 2013 https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_flexibility.cfm

¹⁸ "Caltrans to Require 'Complete Streets' Features in Planning and Design of All New Projects," Dec 20, 2021 <https://dot.ca.gov/news-releases/news-release-2021-039>

¹⁹ https://safety.fhwa.dot.gov/hsip/rulemaking/docs/BIL_HSIP_Eligibility_Guidance.pdf

²⁰ See footnote 12.

cyclists, and people who use mobility devices, and ending traffic conflicts between cars and other road users.

In all cases where the MUTCD must be used, all City departments shall first exercise “engineering judgment,” as defined in the MUTCD, to ensure safe street designs, including such judgment as may result in modification or overruling of MUTCD standards. In cases where “engineering judgment” can not be used to reduce vehicle speeds or otherwise enhance street safety conditions for all road users, all City departments shall issue formal findings, approved by the Public Works director, that document why a street can not be made safe for all road users, and vehicle speed and throughput must be prioritized.

The resolution directs city departments to ensure that all requests for funding related to any project, on any surface street, sidewalk, bicycle facility, or other transportation infrastructure within city borders, prioritize and implement designs that ensure the safety of vulnerable users who are not in private automobiles, as established in numerous past policy directives of the Berkeley City Council.²¹

This resolution further prohibits all City departments from spending any city financial resources on any street that does not include the “best in class” design for Complete Streets unless the safety benefits are outweighed by other considerations.

It further prohibits City departments from requiring traffic studies or other measurements related to impacts on “Level of Service” (vehicle speed/throughput) in consideration of street safety improvements, if such improvements will either a) improve safe travel conditions for vulnerable road users, or b) reduce Vehicle Miles Traveled, as established by State of California²² and City of Berkeley climate and land use policies, or c) if such improvements are otherwise consistent with guidance in the Complete Streets provisions of NACTO and Caltrans.

It further directs all departments to maintain the priority of street safety interventions in situations where budget is a limiting factor in street repair/improvements, by prioritizing the use of “quick build”²³ approaches which improve street safety via rapidly-deployed, lower-cost, temporary measures.

²¹ e.g. Berkeley Bicycle Plan, 2017; Berkeley Pedestrian Plan, 2020; BIBIMBAP [[https://www.cityofberkeley.info/Clerk/City_Council/2019/10_Oct/Documents/2019-10-29_Item_31_Referral_Develop_a_Bicycle_Lane_-_Rev_\(2\).aspx](https://www.cityofberkeley.info/Clerk/City_Council/2019/10_Oct/Documents/2019-10-29_Item_31_Referral_Develop_a_Bicycle_Lane_-_Rev_(2).aspx)]; Berkeley Pedestrian Safety Report 1998; Downtown Area Plan, 2012; West Berkeley Plan, 1993; Adeline Corridor Specific Plan (in progress); University Avenue Plan, 1996.

²² California Senate Bill 743, passed in 2013, mandates that jurisdictions can no longer use automobile delay – commonly measured by Level of Service (LOS) – in transportation analysis under the California Environmental Quality Act (CEQA). Full implementation was delayed until 2019. <https://www.vta.org/projects/level-service-los-vehicle-miles-traveled-vmt-transition>

²³“Quick build” projects are reversible, adjustable traffic safety improvements that can be installed relatively quickly. Unlike major capital projects that may take years to plan, design, bid and construct, quick-build projects are constructed within weeks or months and are intended to be evaluated and

Definitions:

- **Complete Streets:** On December 11, 2012, Berkeley City Council adopted a Complete Streets Policy (Resolution 65,978-N.S.) to guide future street design and repair activities. “Complete Streets,” describes a comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, emergency vehicles, seniors, children, youth, and families.²⁴
- **NACTO Urban Street Design Guide:** An engineering manual for cities that adopt Complete Streets policies.
- **Level of Service (LOS):** A discontinued method of evaluating transportation infrastructure projects based on vehicle speed and throughput; SB 743, passed in 2013, prohibited LOS in CEQA analysis in the State of California, but the law is under-enforced and LOS is still commonly used.
- **Vehicle Miles Traveled (VMT):** A measure of the impact of car use on air quality and street safety based on the number of miles traveled by car. It is long-standing policy of the City of Berkeley and the State of California to reduce VMT to achieve climate and safe streets policies.
- **MUTCD:** The Manual on Uniform Traffic Control Devices. This controversial manual has been blamed for dangerous street designs throughout the United States. Federal and State transportation authorities are in the process of revising it, and have encouraged jurisdictions that seek to accelerate progress on safe streets to use other engineering and street design guidelines.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

While cars represent the majority of the climate pollution within the city at 59%, Berkeley also has a very high mode share²⁵ among residents and visitors who walk, ride transit, use mobility devices, and ride bicycles. These modes of travel are the lowest-carbon options available, and the City has many policies focused on incentivizing and increasing their use.

However, abundant research about mode choice shows that people hesitate to shift to more sustainable forms of mobility in areas with deadly and dangerous car traffic – which describes most of the City of Berkeley.²⁶

reviewed within the initial 24 months of construction. <https://www.sfmta.com/vision-zero-quick-build-projects>

²⁴ <https://www.cityofberkeley.info/completestreetspolicy/>

²⁵ https://www.cityofberkeley.info/uploadedFiles/Public_Works/Level_3_-_Transportation/Berkeley-Bicycle-Plan-2017-Executive%20Summary.pdf

²⁶ Raguso, E. (2020). Berkeleyside interactive maps: Cyclist and pedestrian injury crashes in 2019. *Berkeleyside*. Retrieved from <https://www.berkeleyside.org/2020/01/28/berkeleyside-interactive-maps-cyclist-and-pedestrian-injury-crashes-in-2019>

In addition to having a high mode share for non-car modes, Berkeley also has among the highest rates, per capita, of traffic violence involving people not in cars. The correlation is direct: Our unsafe streets are harming people, and preventing the city from achieving its goals on both climate action, and safe mobility.

CONTACT PERSON

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ATTACHMENTS

1. Resolution
2. City of Palo Alto resolution adopting the NACTO Urban Bikeway Design Guide
3. City of Oakland Public Works Director letter of endorsement of NACTO Urban Street Design Guide
4. Assembly Bill 43 (2021)

RESOLUTION NO. ##,###-N.S.

EQUITABLE SAFE STREETS AND CLIMATE JUSTICE RESOLUTION

WHEREAS, Berkeley's climate action plan calls for an 80% reduction in climate pollution by 2050, and private automobiles represent 59% of the City's climate pollution; and

WHEREAS, progress on Berkeley's climate action plan will depend in large part on reducing "vehicle miles traveled," or the amount people drive private cars within city limits; and

WHEREAS, Berkeley's bicycle plan proposed in 1971 called for a city-wide network of safe bicycle routes; and

WHEREAS, Berkeley adopted an action plan for Vision Zero in 2019; and

WHEREAS, Berkeley's existing policy on street engineering and safety calls for "Complete Streets" as defined by the National Association of City Transportation Officials (NACTO);

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Berkeley that any and all funds that are to be used for the design of major roadway projects such as roadway reconstruction/repaving of more than one city block of city streets and related facilities shall ~~only~~ be disbursed for projects that ~~fully~~ integrate Complete Streets (as defined by NACTO) and ~~practical~~~~all~~ ~~feasible~~ safety interventions designed to reduce automobile speed and protect the lives of people outside of automobiles;

BE IT FURTHER RESOLVED that the application of this policy shall not preclude residential streets from rehabilitation, repair, and/or repaving work on streets presently scheduled for repaving under the Council-approved Street Repair Plan nor any residential streets scheduled for repaving on any subsequent paving plan thereafter;

BE IT FURTHER RESOLVED that improvements applied under this policy shall be consistent with the existing Street Maintenance and Rehabilitation Policy in ensuring street trees are only removed as a last resort;

BE IT FURTHER RESOLVED that in all cases where Complete Streets can not be fully implemented, or in cases where the MUTCD must be used in place of the NACTO Urban Streets Design Guide, City Staff shall use "engineering judgment" to prioritize the safety of vulnerable road users, and not rely solely on MUTCD "warrants" and other proscriptions;

BE IT FURTHER RESOLVED that pursuant to AB-43 (2021), no city official shall apply the "85th percentile" rule in the process of setting speed limits on city streets when there

~~are provisions within State law that allow the setting of lower speed limits based on, but rather, determine via~~ safety studies and other documented engineering findings by the Public Works Director, ~~and lower when higher~~ speeds are appropriate and are the safest option for all road users ~~and, provided however,~~ that all criteria for setting lower local speed limits set forth in the California Vehicle Code, including Sections 22358.6 to 22358.9, ~~shall be~~ applied ~~with~~ in setting speed limits, ~~even if inconsistent with this clause.~~