CITY OF OAKLAND

DALZIEL BUILDING . 250 FRANK H. OGAWA PLAZA . SUITE 4314 . OAKLAND . CALIFORNIA . 94612
Department of Transportation
Safe Streets Division

Bicyclist and Pedestrian Advisory Commission, Policy and Legislative Committee Meeting Agenda
Monday, February 12th, 2024; 5:30-7:00 pm
City Hall, Hearing Room 2

BPAC Home Page: www.oaklandca.gov/boards-and-commissions/bicyclist-and-pedestrian-advisory-commission
Resources for Commissioners: https://www.oaklandca.gov/resources/resources-for-bpac-members
Previous Meeting Information and Minutes: https://www.oaklandca.gov/meeting/august-2023-bicyclist-pedestrian-advisory-commission-bpac-policy-and-legislative-committee-meeting

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Commissioner Members (Chair in bold)
Alex Frank, David Ralston, Nick Whipps

Community Members
Anwar Baroudi, Ajah Burts, Kevin Dalley, Caleb Jones, Alison Knowles, Natalie Mall, Robert Prinz

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This is an in-person meeting. People participating in the meeting must attend in person. All Commission meetings will include procedures to comply with the open meeting requirements of the City's Sunshine Ordinance and the State's Brown Act. A survey has been created to gather feedback from the public regarding board and commission meetings in the City of Oakland: https://us.openforms.com/Form/d98a20d5-72e7-4d23-8fc3-be13f6cd32bb.

If you have any questions, please email Pierre Gerard (PGerard@oaklandca.gov) or Noel Pond-Danchik (NPond-Danchik@oaklandca.gov), staff liaisons to the Commission.

PARTICIPATION INSTRUCTIONS

Enter City Hall at the entrance on 14th Street. After receiving a security screening, proceed forward and immediately to the right. Hearing Room 2 is located on the 1st floor of City Hall on the side of the building closest to 14th Street. There will be a sign-in sheet and paper agenda packets for participants.

There is public bicycle parking in the Dalziel Garage and throughout Frank H. Ogawa Plaza, including 12 BikeLink eLockers at the corner of 14th Street and Broadway.

To request security escort services anywhere within Frank Ogawa Plaza and locations outside the Plaza within a two- to three-block radius, please visit the City Hall security station. The escort can assist visitors to the 12th Street BART Station stairway/elevator, the Dalziel Garage elevator inside 250 Frank Ogawa Plaza, the City Center West parking garage, and other public parking garages in the nearby area. Escort services are available until 11:30 pm every night and extended on nights coinciding with City Council meetings.

To access the Dalziel Garage elevators inside 250 Frank Ogawa Plaza, please visit the City Hall security station to request access to the gated wheelchair-accessible exit behind City Hall and exit through the gate across from the elevator entrance to the left of the front doors to 250 Frank Ogawa Plaza.

Time	#	Topic
5:30	1	**Introductions and Updates on Previous Agenda Items** (10 minutes)
5:40	2	**Open Forum / Public Comment** (10 minutes) – Members of the public may comment on any issue within the BPAC Policy and Legislative Committee's subject matter jurisdiction. Comments on a scheduled agenda item will be heard with that item. To request City services, please contact the City of Oakland Call Center; information at www.oaklandca.gov/services/oak311.
5:50	3	**Elections: Elect a Chair (commissioner), Co-Chair (member of the public) and discuss having a Secretary (either member of the public or commissioner)** (10 minutes) ● Let's get involved and increase public participation ● Positions are for 1-year terms
6:00	4	**Report from Ad-Hoc Committee on Fire Code Amendments:** *Attachment* (20 Minutes) – Kevin Dalley will present an update on the current status of the Amendments to Oakland's Fire Code.
6:20	5	**Discussion on Contribution to Oakland General Plan Update 2045** (20 minutes) – Commissioner Alex Frank will lead the Committee in a discussion on Oakland's General Plan Update, containing the Town's strategic goals for 2045, which includes a major opportunity to contribute to the vision during the Phase 2 update.
6:40	6	**Committee Goals** (15 minutes) – The Committee will discuss 2-3 goals to define future agenda items.
6:55	7	**Future Agenda Item Suggestions** (10 minutes) • Presentation from OakDOT Traffic Engineering on what factors are used to determine walk button use and placement • Update from OakDOT on recent changes to curb parking policy

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This meeting location is wheelchair accessible. To request disability-related accommodations or to request an ASL, Cantonese, Mandarin, or Spanish interpreter, please email bikeped@oaklandca.gov or call (510) 238-6313 or 711 (for Relay Service) at least five (5) working days before the meeting. Please refrain from wearing scented products to this meeting as a courtesy to attendees with chemical sensitivities.

Esta reunión es accesible para sillas de ruedas. Si desea solicitar adaptaciones relacionadas con discapacidades, o para pedir un intérprete en español, Cantones, Mandarín o de lenguaje de señas (ASL) por favor envié un correo electrónico a bikeped@oaklandca.gov o llame al (510) 238-6313 o al 711 para servicio de retransmisión (Relay Service) por lo menos cinco (5) dias hábiles antes de la reunión. Se le pide de favor que no use perfumes a esta reunión como cortesía para los que tienen sensibilidad a los productos químicos. Gracias.

會場有適合輪椅出入設施。需要殘障輔助設施, 手語, 西班牙語, 粵語或國語翻譯服務, 請在會議前五個工作天電郵 bikeped@oaklandca.gov或致電 (510) 238-6313 或711 (電話傳達服務). 請避免塗搽香氛產品，參加者可能對化學成分敏感. 請避免塗搽香氛產品，參加者可能對化學成分敏感.

Địa điểm tổ chức cuộc họp có đường dành riêng cho xe lăn. Để yêu cầu các phương tiện hỗ trợ phục vụ người khuyết tật hoặc yêu cầu thông dịch viên ASL, tiếng Quảng Đông, tiếng Quan Thoại hoặc tiếng Tây Ban Nha, vui lòng gửi email đến địa chỉ bikeped@oaklandca.gov hoặc gọi đến số 711 (với Dịch vụ Tiếp âm) ít nhất năm (5) ngày làm việc trước khi cuộc họp diễn ra. Vui lòng không sử dụng các sản phẩm có mùi thơm khi tham gia cuộc họp này như một phép lịch sự đối với những người tham dự nhạy cảm đối với các chất hóa học.

Policy and Legislative Committee Statement of Purpose

The City of Oakland Bicyclist and Pedestrian Advisory Commission (BPAC) Policy and Legislative Committee is composed of BPAC Commissioners and other volunteer members of the public. This Committee examines Oakland's streets through the lens of safety and movement challenges faced by pedestrians and bicyclists, and makes policy suggestions that city agencies can implement to these issues.

These meetings are held in public once per quarter, at which topics for subcommittees, which meet ad-hoc for specified periods of time to develop policy recommendations to be presented at the full committee, are decided upon. The quarterly meeting will follow all the requirements for a commissioner meeting, including proper noticing and minutes, and will be held in person.

During the quarterly meeting, the committee will discuss which topics to pursue, continue or close. Ad-hoc working groups will have the freedom to choose how and when they meet in the interim.

Agenda materials, presentations and schematics are distributed in advance of meetings when possible, to assist committee members with formulating questions and ideas. All presentation items used will be linked from the individual meeting notes documents, for public information purposes and as a historical record of the committee meetings, along with the written notes provided.

Topics are prioritized and selected for review by the committee using a number of factors. These factors include but are not limited to:

- Urgency: The risk a situation presents;
- Policy Relevance: Whether the issue can be solved with a change to city agency policy;
- Public interest: As expressed at BPAC meetings or via requests from the public to Commissioners, staff, or elected officials;
- Safety: Whether there is a history of injuries from the policy failure, or significant risk presented.

Oakland Fire Code and Vision Zero

Kevin Dalley

Mastodon @kevindalley@sfba.social

Traffic Violence Rapid Response

Overview

Wide streets encourage speeding.

OakDOT policy suggests a lane width of 10 feet for most lanes, and a width of 11 feet for bus lanes, or other lanes with large vehicles.

However, Oakland's fire code requires wide lanes near tall buildings, requiring an unobstructed width of 26 feet . This requirement creates unsafe streets. Wide lanes send drivers a signal that the street encourages speeding.

In 2022, Oakland city council will review the 2022 California Fire Code, and has a chance to change the fire code to make Oakland safer for pedestrians, cyclists, and drivers.

San Francisco does not have the same requirement for wide lanes as Oakland does. San Francisco has deleted the code requiring a width of 26 feet.

This is a chance for Oakland to improve its fire code to increase safety for pedestrians, cyclists, and drivers.

Narrow lanes are safer

Narrow lanes are safer for pedestrians and cyclists.

And narrow lanes work well with properly chosen fire trucks. Ladder trucks and pumper trucks can both be chosen to work with lanes which are more narrow. European and Japanese trucks are designed for narrow streets. Many fire departments, including Portland and Madera County, have purchased Rosenbauer Aerial Raptors, which can work on narrower streets.

The 20 feet wide and 26 feet wide rules for streets were adopted assuming cul-de-sacs in suburbia, “where there is only path to each fire. When a street can be entered from both ends, there is no longer a need to … park a big truck, put down its stabilizers, and drive another big truck past it.” (Speck 120)

More maneuverable ladder trucks can be chosen with equivalent or greater ladder height and reach.

Stabilizers are used for ladders, and need to extend on one or both sides of trucks to stabilize the ladders during use. Sidewalks will crack if stabilizers are placed on sidewalks, creating problems with stable use of ladders, as well as a need to repave the sidewalks.

Additional approaches available for reducing the footprint of ladder trucks include smaller stabilizers and stabilizers that can be shortened or only deployed on one side (“short-jacked”). This can reduce width requirements at a fireground by 10 feet, for example requiring only 9 feet instead of 19 feet of additional width. (Chiarenza et al.)

Other departments, particularly those in older communities with many narrow streets, use ladder trucks with stabilizers that fully deploy in less than 15 feet of width, and which can be short jacked (i.e., deployed at less than full width, or fully extended on just one side of the fire truck) within a width of less than 9 feet. (Snyder et al.)

The US Department of Transportation Volpe Center and NACTO have published documents detailing fire trucks which can work in narrower streets. They have already published webinars with this information.

“The 2009 revision of NFPA 1901 allows for the use of European-style ladders in the

U.S, which may open the door for European apparatus designs not available before.”

US Fire Departments which have used smaller fire trucks include:

1. Madera County
2. Portland

In “Unanswered Questions”, Chief Myers answered a few questions after the NACTO Webinar

- At that time, Portland Fire Department had downsized some of their apparatus, and had plans to downsize more
- Speed cushions have been used in Portland to slow traffic, but still allow the fire department to respond
- [Protected bike lanes] could be significantly problematic during peak traffic periods where vehicles are queued up in both directions and emergency apparatus cannot utilize the oncoming or center lane to clear the street segment. Agreed upon alternatives include pliable pylons that can be driven over and low-profile mountable curbing with minimum height of four inches. More restrictive protective bike lane deterrents such as permanent flower pots are approved by PF&R in some situations if appropriately spaced to provide truck placement in various locations along the city block. The removal of parking spaces is often considered in these types of design reviews.
- In your opinion, would a residential fire sprinkler ordinance help with anything? a. Yes. 100% yes. In fact, the fire service will not be able to completely remodel itself unless the construction/development community adopts residential sprinklers
- Have fire departments considered buying fire trucks from Europe, if American manufacturers aren't capable of producing smaller trucks? b. It appears that decades ago, FDNY and Chicago FD experimented with Magirus (German) and Morita (Japanese) apparatus for higher rescue heights. More recently, there seem to be some alliances between European and U.S. manufacturers, according to an overview presented here: Bronto, a Finnish manufacturer of aerial devices, entered the United States market in the early 2000s, aligning itself with a major manufacturer. It is currently aligned with E-ONE. In 1998, Rosenbauer International acquired the Metz Aerial Group located in Germany. The Kennett Fire Company, Kennett Square, Pennsylvania, purchased a Metz around the same time. In 2004, Metz Aerials USA LLC was established, also in Kennett Square. Today, Metz aerials are available through Rosenbauer.

Optimizing Large Vehicles for Urban Environments from Volpe Center and NACTO

Best Practices -- Emergency Access in Healthy Streets

NACTO Webinar - Fire Trucks and Vision Zero | National Association of City Transportation Officials

NACTO Webinar – Getting to Vision Zero: Rethinking Large Vehicles on City Streets

NACTO’s 5/24/18 Webinar – Unanswered Questions “Fire Trucks and Vision Zero"

[SF] Fire Department's New 'Vision Zero' Truck streetsblog

Fire Apparatus – United States vs. Europe

Current 2019 Oakland Fire Code

The current Oakland fire code adopts the 2019 California Fire Code, including Appendix D. This fire code took effect on January 1, 2020.

Appendix D requires 26 foot width of streets near tall buildings:

> **Section D105**
>
> **Aerial Fire Apparatus Access Roads**
>
> **D105.1 Where required.** Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the high roof surface shall be determined by measurement to the eave of a pitched roof, the inter
>
> of the roof to the exterior wall, or the top of parapet walls, whichever is greater.
>
> **D105.2 Width.** Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

While Oakland has adopted Appendix D, this appendix is an optional appendix, and not adopted by the state of California.

Appendix D says that

> The provisions provided in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

The appendix

> Is a tool for jurisdictions looking for guidance in establishing access requirements

The 26 foot requirement in appendix D dates back to at least the 2010 Oakland Fire Code.

Without appendix D, roads can be 20 feet wide, according to California state fire code 503.2.1

503.2.2 allows the fire department to modify access widths to meet public safety objectives. Does that include reducing widths to decrease deaths and injuries?

> **Section 503**
>
> **Fire Apparatus Access Roads**
>
> **503.2 Specifications**

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6 and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

503.2.2 Authority.
The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

Section 503.4 Obstruction of fire apparatus access roads.

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Sections 503.2.1 and 503.2.2 shall be maintained at all times.

Section 503.4.1 Traffic calming devices.

Traffic calming devices shall be prohibited unless approved by the fire code official.

Oakland Projects Affected by Fire Code

14th Street Safe Routes review by Oakland Fire Department

The 14th St safe routes design was reviewed by the Oakland Fire Department, which required wider lanes, and decreased bike lane width. OFD changes made the safe routes less safe. OFD required 26 feet in width, quoting CFC D10.5.2, city ordinance 13577, which is California Fire Code, Appendix D105.2 quoted above. See page 3 and 4 of the OFD review.

Grand Ave and San Pablo Ave projects are also affected by the current fire code.

14th Street Safe Routes review by Oakland Fire Department

San Pablo bus lane

The fire code may prohibit protected bus lanes along San Pablo in areas which have taller buildings.

International bus lane

The fire code may prohibit protected bus lanes along International in areas which have taller buildings.

98th & San Leandro (Madison Park) Residential/Commercial Development

Fire code Appendix D105 forced wider streets and narrower sidewalks in this development

98th & San Leandro (Madison Park)

Madison Park PLN18523 Attachment D and E

DTRAC Checklist

Lower speed limits under 25 mph

California law VEH 22358.3 allows a city to lower the speed limit on some streets to 15 or 20 mph, but only if the street does not exceed 25 feet in width. The current Fire Code requires 26 feet streets near tall buildings, requiring higher speed limits.

VEH 22358 allowing speed limits to be lower under 25 mph

Other Projects

There are 15 pending projects with the city of Oakland which create problems with streets which are too narrow for OFD's current equipment.

Howard Terminal may also create a need for fire trucks which can handle narrow areas.

Oakland is building more multi-story housing, encouraging the residents to walk, cycle, and use public transit. The current fire code forces an unobstructed width of 26 feet near this pedestrian-friendly housing, which risks the lives of the residents.

Suggestions for changes to Oakland Fire Code

Oakland should follow San Francisco's path and do the following:

1. Expand the fire department's mandate to optimize public safety, not just response times. (Speck p120,)
2. Do not adopt optional Section D105.2 of the Fire Code, matching San Francisco's Fire code. This would remove the 26 feet requirement, which gives more discretion to the Fire Dept and to OakDOT for safe streets.
3. Adopt a resolution to reconcile the City's pedestrian safety improvement policies with the Fire Code's minimum street width requirements:
    - 3.1. A Fire Code provision that unobstructed sidewalks or medians of 6 inches or less in height count toward the 20-foot minimum (similar to San Francisco 503.4)
    - 3.2. Establishment of a street design review committee, comprised of city officials including the fire chief or fire marshal, for the purpose of facilitating the resolution, at a high administrative level, of policy conflicts and

project-specific conflicts in the design and engineering phase of each individual street project

3.3. A resolution urging the California State Legislature to adopt legislation allocating local jurisdictions flexibility to amend local fire code street width standards in order to maximize pedestrian and cyclist safety goals

4. The Fire Department should establish a formal policy of designing and purchasing fire engines and trucks which can accommodate traffic calming and pedestrian safety improvements and maneuver on Oakland's narrow streets. The memo to Supervisor Wiener has details on specifications for these specialized vehicles, including
   4.1. Rear-mounted pumpers
   4.2. Tight turning radius
   4.3. Roll-up doors for equipment compartments on vehicles
   4.4. Ground ladders that can be retrieved manually
   4.5. Stabilizers for aerial ladder trucks which can deploy in small spaces, that can fully deploy in less than 15 feet of width, and that can be short-jacked within a width of 9 feet. Rosenbauer Aerial Raptor ladder truck is one vehicle which meets these specifications. (San Francisco Budget and Legislative Analyst)
5. Take advantage of space saving set up techniques
   5.1. Oakland's Pierce trucks can have the stabilizers placed between parked cars
   5.2. Stabilizers can be placed on bare ground
   5.3. Stabilizers may be placed on medians, sidewalks, or across mountable curbs. The stabilizers for Oakland's Pierce trucks are designed in compliance with NFPA 1901, and do not exceed 75 pounds per square inch between the stabilizer and the ground.
6. If 2022 fire code D105.2 is adopted, then discuss changes to the 2022 changes to D105.1, which does not require 26 foot unobstructed width on streets near buildings which are built to withstand fire by meeting specific requirements, if the fire marshal allows the exceptions.
7. Develop an analysis comparing:
   7.1. Lives and property saved in fires by having 26 feet wide streets near tall building
   7.2. Lives and property lost in traffic collisions due to 26 feet wide streets

Oakland Status

Commissions

The Bicyclist and Pedestrian Advisory Commission (BPAC) will discuss Oakland's fire code.

The Fire Marshal will coordinate a forum for discussing the adoption of the 2022 California Fire Code. The current Fire Marshal is Felicia Bryant.

The 2022 Fire Code will be reviewed by Departments of (conversation with Fire Department representative):

- Fire
- Planning & Building
- Transportation

Committees reviewing fire code

If process is same as 2019

Community and Economic Development Committee

Members:

- **Dan Kalb (chairperson)**
- Carroll Fife
- Noel Gallo
- Kevin Jenkins

Community and Economic Development Committee: 2nd and 4th Tuesday, as needed at 2:00 PM

Public Safety Committee

Members

- **Rebecca Kaplan (chairperson)**
- Carroll Fife
- Treva Reid
- Janani Ramachandran

Public Safety Committee: 2nd and 4th Tuesdays at 6:00PM

BPAC meeting 2022-12-15

Fire Chief Freeman presented information to BPAC (starting at 1:15 on video). Chief Freeman's statements included:

- Take a softer stance on 26 feet rule, based upon conversations with council president Nikki Fortunato Bas, if public is willing to take that risk
- not productive to draw a line in the sand and back down
- Continue to work with OakDOT
- Oakland buildings are different from other cities
    - More buildings are missing modern sprinkler systems
    - Buildings without sprinklers need 26 feet streets
    - Chief Freeman said that OFD has a list of buildings which are not sprinklered. In email, he assigned Fire Marshal Bryant to get list of these buildings
    - Public records request for list of unsprinklered tall buildings
    - Chief Freeman is fine with 20 feet width when tall buildings are sprinklered
- Vehicles will drive on curbs when necessary, though it is preferred to avoid
- Work with OakDOT on alternative curbs and alternative designs
- Short jacking is not done with OFD
- Welcome idea of having BPAC meet regularly with OakDOT and OFD, as suggested by commissioner Alex Frank. Either Chief Freeman or a deputy could participate in these meetings
- SFFD and OFD compared specs on tillers. Specs seem similar, though new SFFD tillers can be jacked to more narrow

Public Safety Meeting 2023-01-23 1:30PM

2023 Public Safety Committee members are:

Rebecca Kaplan (Chairperson)

Carroll Fife

Treva Reid

Janani Ramachandran

Oakland City Council Committee Assignments

Background and History

Fire Code

2019 Fire Code

The 2019 Fire Code was passed through ordinance 13577.

On November 12, 2019, the Community and Economic Development Committee, and the Public Safety Committee passed ordinance 13577.

And the city council passed ordinance 13577 on December 10, 2019.

Ordinance 13577

2019 California Fire Code Appendix D

2019 California Fire Code Chapter 5

2016 Fire Code

Oakland City Council adopted 2016 Fire Code, including Appendix D on November 29, 2016

Ord. No. 13401, §§ 2, 3(Exh. A), adopted November 29, 2016

2010 Fire Code

Adoption of Appendix D dates back to at least 2010 fire code.

2010 Oakland Fire Code

Other Cities

San Francisco

In 2015, then-Supervisor Scott Wiener requested information on the minimum allowable width of access roads. The Budget and Legislative Analyst's Office produced a report, linked to below. The report notes that Appendix D was not adopted by San Francisco at the time of the letter. The report notes areas where fire code conflicts with San Francisco's desire to have pedestrian friendly streets. (San Francisco Budget and Legislative Analyst)

The report gives detailed information about purchasing fire trucks which can be operated in narrow streets, including purchase of ladder trucks, pumpers, etc. This report also identifies areas where California should change their fire code, or allow cities to do so.

San Francisco 2016 Fire Code did not adopt Appendix D. Appendix D was originally in the resolution, but this appendix was deleted via Board amendment

> ~~APPENDIX D. FIRE APPARATUS ACCESS ROADS.~~
>
> ~~Section D105 of the California Fire Code is adopted~~

San Francisco 2019 Fire Code deletes Section D105.2 of the Fire Code, which would require a minimum unobstructed width of 26 feet

> **APPENDIX D. - FIRE APPARATUS ACCESS ROADS.**
>
> Section D105.2 of the International Fire Code is deleted.

2016 San Francisco ORDINANCE NO. 234-16

2019 San Francisco ORDINANCE NO. 255-19

2015 Policy Analysis Report California Fire Code Governing Street Width and Specifications for Fire Engines in San Francisco

San Jose

San Jose does not require aerial fire apparatus access roads for high-rise structures.

> Appendix D, Section D105.1 of the 2019 California Fire Code is amended to read as follows:
>
> D105.1 Where required. Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.
>
> Exception: High-rise structures shall not require aerial fire apparatus access roads.

San Jose Fire Code

Portland, Oregon

Portland does not require aerial access roads when the buildings are sufficiently fire safe

D105.7 Alternate to Aerial Fire Apparatus Roads. The alternatives to aerial access roads specified in D105.2, D105.3 and D105.6 are allowed provided a building exceeding 30 feet in height is provided with all the following:

> 1. Building is equipped with an approved automatic sprinkler system,
>
> 2. There are no combustible concealed attic spaces,
>
> 3. All stairway exit enclosures shall have a fire-resistance rating of not less than 2 hours,
>
> 4. The roof is essentially flat (33-percent slope or less) and,

5. Approved access is provided to the roof from all stairways. In buildings without an occupied roof, access to the roof

from the top story shall be permitted to be by an alternating tread device, a ship stair or ladder that provides a clear width of not less than 30 inches between handrails through a roof hatch or trap door not less than 30 inches (762 mm) wide and 8 feet (2438 mm) long

6. Building requiring standpipes are equipped with at least one standpipe that terminates on the roof

Portland fire code

Seattle, Washington

Seattle has exceptions from the requirements for 26 feet fire apparatus access roads when the buildings are sufficiently fire safe.

D105.1

Exceptions:

1. Buildings that are equipped throughout with an approved automatic sprinkler system.

2. One and two family dwelling and townhouse

Seattle Fire Code

Long Beach, California

Long Beach does not seem to have adopted Appendix D, requiring 26 feet fire apparatus access roads.

Long Beach Fire Code Adoption 2019

Long Beach Fire Code

Baltimore, Maryland

Baltimore repealed Appendix D in 2019

Baltimore repeal of Appendix D

2019 Fire Code

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Ordinance 13577

2019 California Fire Code Appendix D

2019 California Fire Code Chapter 5

2022 California Fire Code

The 2022 California Fire Code was released July 1, 2022. The sections related to street width are mostly identical to the 2019 California Fire Code, with one significant exception.

2022 has one change to Appendix D which could make a difference to Oakland even if Oakland chooses to adopt Appendix D in full.

D105.1 has added an exception to the requirements for 26 foot unobstructed width:

> Exception: Where approved by the fire code official, buildings of type 1A, Type 1B, or Type IIA construction equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and having fire fighter access through an enclosed stairway with a Class I standpipe from the lowest level of fire department vehicle access to all roof surfaces.

After each new revision of the California Fire Code, Oakland reviews the code, and passes a resolution adopting the code, with revisions. This code would take effect on January 1, 2023.

The city of Oakland should review the adoption of appendix D and decide whether it is necessary to have 26 feet lanes.

The city of Oakland approves the fire code sometime between the release of the code and the end of the year. In 2019, the committees and city council reviewed the code in November and December.

2022 California Fire Code Appendix D

2022 California Fire Code Chapter 5

2016 Fire Code

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Ord. No. 13401, §§ 2, 3(Exh. A), adopted November 29, 2016

2010 Fire Code

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2010 Oakland Fire Code

San Francisco Fire Code history

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The report gives detailed information about purchasing fire trucks which can be operated in narrow streets, including purchase of ladder trucks, pumpers, etc. This report also identifies areas where California should change their fire code, or allow cities to do so.

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>
> Section D105.2 of the International Fire Code is deleted.

2016 San Francisco ORDINANCE NO. 234-16

2019 San Francisco ORDINANCE NO. 255-19

2015 Policy Analysis Report California Fire Code Governing Street Width and Specifications for Fire Engines in San Francisco

Oakland Fire Trucks

Aerial ladders need stabilizers to make the ladders stable, and to prevent the ladders from tipping over. Oakland's current requirement for 26 foot wide streets allows ladders with stabilizers to be set up, while still allowing a second fire truck to pass by.

This requirement is important for cul-de-sacs, where there is only one street to get to the end of the cul-de-sac. In a street which allows through traffic, the additional fire trucks can travel from the other side of the street.

There are a few ways to make more room for ladder trucks:

- Choose a ladder truck which has a smaller stabilizer spread
    - Oakland's Pierce tiller ladders have a maximum spread of 17'
    - Rosenbauer Aerial Raptor has a maximum spread of 14 ft 9 in, though the vertical reach may be shorter
    - Rosenbauer Viper Tiller has a stabilizer spread of 13 ft 6 in to 15 ft 6 in
- Short jack the stabilizers. Short jack only has a stabilizer on 1 side, reducing the spread, but also reducing the ability of the ladder to rotate a full 360 degrees. Modern ladder trucks include a fail safe mechanism so that the ladders do not rotate into an unsafe position. Older vehicles required fire fighters to manually limit ladder rotation, increasing the risk of unsafe ladder position.
- Take advantage of space saving set up techniques
    - Oakland's Pierce trucks can have the stabilizers placed between parked cars
    - Stabilizers can be placed on bare ground
    - Stabilizers may be placed on medians, sidewalks, or across mountable curbs. The stabilizers for Oakland's Pierce trucks are designed in compliance with NFPA 1901, and do not exceed 75 pounds per square inch between the stabilizer and the ground.

Oakland owns Pierce tractor-drawn aerial ladders

- maximum spread of 17 ft (page 92, public records)
- short-jacked to 13.5 feet (vehicle is 96 inches wide, stabilizer width is 66 inches)
- Turning radius
    - Inside turn 12 ft 3 in
    - Curb to curb 25 ft 5 in
    - Wall to wall 29 ft 7 in
- 107 ft tiller ladder at full extension and elevation, 70 degree angle

Other available fire trucks

Rosenbauer aerials and raptors can be deployed in more narrow areas

Rosenbauer Aerial Raptor

- Maximum spread of 14 ft 9 in, H-style stabilizer
- Short-jacked to under 9 ft
- Turning radius
- 105 ft ladder, 90 ft vertical reach, 87 ft side reach

Rosenbauer Viper Tiller

- Stabilizer spread 13 ft 6 in to 15 ft 6 in
- 100 ft vertical reach

Public records request for fire truck information

Specs for pumpers and tankers manufactured by Pierce

Rosenbauer Aerial Raptor

Rosenbauer Tiller Viper

Aerials Get into Tight Spaces by Having Shorter Jack Spreads

Aerial Jacking Systems Evolve

Includes mention of short jacking, with Pierce

Thousands of California Apartment Buildings Lack Fire Sprinklers

Choosing the right ground ladders

Do we need tiller trucks for 2 story buildings?

Fire Sprinklers

At the 15 December, 2022, BPAC meeting, Fire Chief Freeman announced a policy to only require 26 feet unobstructed width near buildings which do not have modern fire safety equipment. This is mostly fire sprinkler systems.

Buildings with modern fire safety systems have a minimal risk of burning quickly.

In 1989, California mandated fire sprinklers in new apartments.

Oakland has a searchable permit database of all work done from 1987 onward

Oakland Permit search

Optional Fire Code Appendix M would require all high rises to have fire sprinklers installed, though it allows 13 years from the passage of Appendix M.

Fire Code Appendix M

When buildings are renovated above a certain amount (perhaps 30%) the renovation must include modernizing fire safety.

There are many buildings which do not currently meet modern standards. There is not currently a list of these buildings. Fire Chief Freeman said that OFD does know which buildings are a problem.

Do some neighborhoods have a large number of buildings with insufficient fire safety?

In a private email, Fire Chief Freeman has stated that OFD will provide the list of buildings lacking modern safety equipment. Fire Marshal Bryant will lead this estimate. There is not currently an estimate of when that list will be available.

Fire Chief Freeman does not know whether anything can be done to encourage buildings to upgrade their fire safety equipment. Oakland has policies of forcing certain fixes when property is sold. These changes include repairs to sewer laterals and sidewalks. Sidewalk repairs can also be forced when reported. Can fire safety equipment modernization be required when property is sold?

The Fire Sprinkler Association has a retrofit guide for installed fire sprinklers in existing properties.

Fire sprinklers in buildings will make building residents safer, and also will allow safer streets outside these buildings.

Fire Sprinkler Retrofit Guide

Mountable curbs

7th Street OFD review of mountable curbs

OFD opposes mountable curbs, even though the 26 feet section is no longer in the code

> OFD expressed that mountable medians, with the intent of allowing emergency vehicle passing, would not meet the requirements of roadway clearance as dictated by California Fire Code 530.2.1 [actually 503.2.1]. The code requires a minimum 20’ unobstructed width on fire apparatus access roads and a minimum 26’ unobstructed width adjacent to buildings exceeding 30 feet in height

2021 International Fire Code

2022 California Fire Code Appendix D was derived from 2021 International Fire Code Appendix D, which has an explanation of the reasons for this change.

2021 International Fire Code Appendix D

2018 GROUP A PROPOSED CHANGES TO THE I-CODES COLUMBUS COMMITTEE ACTION HEARINGS

In the hearings, item F324-18 discusses changes to D105.1, and the reason for the changes.

2021 International Fire Code modified section D105.1 was modified to add an exception to 26 feet street width when building is sufficiently fire safe, both sprinklered and having fire fighter access through an enclosed stairway with a Class I standpipe. The comments are available from iccsafe.org link above, but only if subscription is chosen. A 14 day trial is available for free.

Section(s): D105.1 (New)

Proponents: C Thomas Parsons, representing myself

2018 International Fire Code

Revise as follows:

D105.1 Where required.

Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For

purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

Exception: Where approved by the fire code official, buildings of Type IA, Type IB or Type IIA construction equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and having fire fighter access through an enclosed stairway with a Class I standpipe from the lowest level of fire department vehicle access to all roof surfaces.

This is Code Change No: F324-18. This is an explanation of the reasons for the code change.

Report of Committee Action

Hearings

Reason: Fire Department Aerial Apparatus Access is rarely needed for Buildings of Type IA, Type IB, or Type IIA Construction, equipped throughout with an automatic sprinkler system in accordance to NFPA 13; and having firefighter access through an enclosed stair or stair(s) with a Type I Standpipe System from the lowest level of fire department vehicle access to all roof surfaces. Firefighting operations including ventilation can be achieved through the interior of these buildings using enclosed stairs as means of egress from the hazard area. The requirement for a Class I standpipe is for fire suppression and firefighter protection when operating hoselines at the roof or at a lower floor level. High rise buildings as required by 403.4.7 shall have means for smoke removal. These means do not require aerial apparatus access.

Cost Impact: The code change proposal will decrease the cost of construction

The cost of widening existing streets and roads, and the cost of removing overhead obstructions along existing streets would be unnecessary if aerial apparatus access is not required for these types of buildings where aerial apparatus access would be rarely necessary.

International Fire Code 2021, section 503.4.1 bans traffic calming unless approved:

503.4.1 Traffic calming devices shall be prohibited unless *approved* by the *fire code official*

This code is also used in the California Fire Code. This code was added in the 2012 International Fire Code

IFC Fire 2021 503.4.1

California Fire Code 2022 503.4.1

2024 IFC section 503

San Francisco removed 503.4.1 in 2019, link is elsewhere in this document.

Orange County Fire Authority Traffic Calming Devices

Orange County has a form to fill out when requesting traffic calming devices

Clark County Nevada

Description of traffic calming allowed, with approval of fire code official

USDOT Module 5: Effects of Traffic Calming Measures on Non-Personal Passenger Vehicles

5.2 covers emergency service vehicles and traffic calming

5.6 covers transit vehicles

5.9 Brief History of Relationship of Traffic Calming and Emergency Vehicles

USDOT Traffic Calming ePrimer

Best Practices Emergency Access In Healthy Streets

National Fire Protection Association (NFPA) provides codes and standards to protect from the danger of fires. The NFPA has many standards relating to a wide range of topics. Standard 1141, titled "Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas," addresses traffic calming.

USDOT Traffic Calming ePrimer, module 5.2 Emergency Services - Fire

> The International Association of Fire Chiefs agrees that fire officials and engineers will need to collaborate on traffic calming installations to "meet traffic-engineering needs and include the least impact on response time to emergencies."

Choosing the Right Ground Ladder

According to this document, a fire department should choose a “24-foot ladder to reach the second floor (or the roof of a two-story building)”

NACTO Emergency Response Traffic Calming and Traditional Neighborhood Streets

Questions

1. Should OFD and OakDOT present to BPAC?
2. What is the economic impact of deaths and injuries due to wide streets versus the cost of purchasing new fire trucks? Putting a dollar value on people’s lives is disturbing, but may convince some people.
3. Can ladder truck stabilizers be used around mountable curbs? Both current trucks and possible new trucks should be examined.

Works Cited

Chiarenza, Jonah, et al. “Optimizing Large Vehicles for Urban Environments.” *National Association of City Transportation Officials*, U.S.DOT Volpe Center, 21 December 2018, https://nacto.org/wp-content/uploads/2018/12/2018USDOTVolpe_Downsizing_FINAL_updated12-21-18.pdf. Accessed 29 July 2022.

San Francisco Budget and Legislative Analyst. “California Fire Code Governing Street Width and Specifications of Fire Engines in San Francisco.” 11 January 2017, https://sfbos.org/sites/default/files/FileCenter/Documents/51265-Fire%20Trucks.011214.pdf. Accessed 10 August 2022.

Snyder, Ryan, et al. “Best Practices -- Emergency Access in Healthy Streets.” *National Association of City Transportation Officials*, Los Angeles County Department of Public Health, 23 March 2013, https://nacto.org/wp-content/uploads/2015/04/Best-Practices-Emergency-Access-in-Healthy-Streets.pdf. Accessed 29 July 2022.

Speck, Jeff. *Walkable City Rules: 101 Steps to Making Better Places*. Island Press, 2018.