Upper Market Street Safety Project

Technical Q&A

PEDESTRIAN SAFETY

How much does a standard concrete corner bulb-out cost at a standard corner?

The cost of a concrete corner bulb-out varies widely depending on street grade, sidewalk grade, drainage concerns, the presence of a sewer catch-basin, and other utilities or traffic signal concerns. A concrete bulbout can cost anywhere from $50,000 to $300,000. Utilities and drainage of the Market Street corridor are relatively complex. Detailed cost estimates will be provided by Public Works in early 2017.

What happens when a bulb-out is constructed and the travel lane is blocked due to construction or traffic collision?

Construction contractors and other agencies who work in the public right-of-way are governed by a set of city standard rules for traffic routing during construction projects. A central element of all construction projects that impact the flow of traffic is a comprehensive "traffic routing specification" that ensure the free movement of vehicles around any obstruction. If a collision occurs on a one-lane roadway, any first-response police officers that arrive on the scene will work to divert traffic in a safe manner.

Would it be possible to plant landscaping or install street furniture on these bulbouts?

The SFTMA will work with SF Public Works to evaluate concrete bulbouts for landscaping opportunities.

What can be done to improve safety for pedestrians crossing Market Street at Noe/16th Streets, specifically when cars are turning right from north- or southbound Noe Street and are often at speed when they reach the pedestrian crosswalk?

The SFMTA installed a painted safety zone at the corner of southbound Noe Street at 16th Street and painted new wider continental crosswalks across the mouth of Noe Street and across Market Street. The goal of these improvements was to reduce car speeds when making these right turns and notifying drivers of the presence of pedestrians crossing the street. These 6-legged Market Street intersections are very complex and the project team investigated a wide variety of possibilities, including closing Noe Street north of Market Street to all car traffic or making Noe Street a one-way street away from Market Street. Both options were ruled out due to substantial tradeoffs to neighborhood circulation.

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CIRCULATION CHANGES

Would it be feasible to convert any of the side streets that intersect with Market to one-way streets?

Converting side streets that intersect with Market Street to one-way operation was investigated as part of the circulation study portion of the Upper Market Street Safety Project. This treatment would have an extensive impact on the circulation of surrounding neighborhoods, and the safety benefits of this change for the 6-legged intersections on Market Street would be commensurate with the proposed left-turn restrictions. Other measures, like permanently closing Noe Street where the Castro Farmer's Market is held, were considered but discarded due to adverse impacts on neighborhood circulation. Extreme changes like altering the direction of the street would have far-reaching impacts, including affecting travel patterns on side streets to a great degree, and forcing left-turns to concentrate at other Market Street intersections.

Under the proposed left-turn restrictions, how would a driver get from Duboce Triangle to the 101 freeway?

Under the current proposal, motor vehicles will still be able to cross Market Street in the eastbound direction toward the 101 freeway on both 16th Street and 15th Street, and drivers will be able to turn left onto Market Street from eastbound 15th Street to access Downtown and the freeways.

Why not ban cars on Market Street?

Market Street is the main thoroughfare for motor vehicles to access Downtown and the eastern neighborhood of San Francisco when traveling from Twin Peaks, Noe Valley, Forest Hill, and points to the west of the City. Maintaining Market Street as a safe and predictable thoroughfare for cars is a priority for the Upper Market Street Safety Project in order to ensure that traffic diversion to side streets is as minimal as possible.

Given how dangerous left-turns are, why is the SFMTA proposing to add a left-turn from eastbound Market Street to northbound Castro Street?

The SFMTA is proposing to add a protected left-turn from eastbound Market Street to northbound Castro Street, meaning that vehicles will have a dedicated green arrow to turn left free of any conflicting movements, including pedestrians in the crosswalk. Similarly, pedestrians will have a dedicated walk phase that is free from left-turning vehicle conflicts. A protected left-turn is the safest possible way to allow for left-turning vehicles at an

intersection. Both Market Street and northbound Castro Street north of Market Street are designated arterial streets that are meant to carry larger numbers of vehicles.

What will happen to traffic that cannot turn left onto Market Street, won't these cars be diverted onto walkable residential streets? Why not restrict turns off Market Street?

Cars on eastbound 16th Street, north- and southbound Noe Street, and north- and southbound Sanchez Street will have to either continue straight across Market or turn right. We cannot accurately predict all route-modification decisions by drivers, but these left-turns will be distributed across the grid of streets to the north and south of Market Street. By making these targeted changes, the SFMTA is removing pressure from a documented conflict point – left turns onto Market Street. These left turns will be distributed away from the complex 6-legged intersections on Market Street with the heaviest numbers of pedestrians, and out into the distributed street grid onto more predictable 4-way intersections. It is the position of the SFMTA that the tradeoffs to traffic circulation are commensurate with the safety benefits of a more predictable and intuitive pedestrian and driver experience.

Throughout this project, the SFMTA has made tactical decisions to balance safety for roadway users with tradeoffs to circulation and route choice. The restriction of certain low-volume left-turns onto Market Street represents the lowest-impact proposal with the largest possible increase in safety and comfort for people walking, biking, and driving.

These traffic changes look like they will increase traffic on side streets that intersect with Market Street. Would it be possible to proactively install speed humps on these side streets that are likely to receive more traffic as a result of this proposal?

The SFMTA does install speed humps as part of the Residential Streets Traffic Calming Program, but speed humps first require a majority support by ballot from all households on the given block, followed by evidence of a documented speeding issue on that block. In order to submit a petition, residents must submit an application for traffic calming with at least 20 signatures from households on the street. Then SFMTA will conduct speed tests to verify speeding and mail ballots to households for a vote. The amount of diversionary traffic on side streets as a result of Upper Market Street proposed changes is expected to be low and more vehicles do not necessarily equate to higher speeds. Therefore, the SFMTA cannot make a determination on future speeding on these residential side streets at this time. All residents of residential streets in the project area are welcome to petition and apply for residential traffic calming, now or following construction of the proposed improvements.

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Would it be possible to install a protected left-turn arrow for eastbound Market Street to northbound 16th Street, or protected left-turn arrows for cars turning off Market at other locations?

The traffic signals along Market Street must account for vehicle and pedestrian movements for all 6 intersecting legs, and every second counts. The signals are currently timed so that pedestrians have enough time to cross both side streets as they walk along Market Street – a longstanding community priority. Left turn signals for vehicles turning off Market Street would subtract time from the crossing time for pedestrians walking along Market Street, along with vehicles and F-Line cars traveling across Market Street.

Currently, pedestrians only have the bare minimum amount of time to make these long crossings so there is no time available to reallocate from these crosswalks to new left turn signals. Left turn signals would also increase vehicle congestion on Market Street and cause added delay to the F-Line and its 20,000 daily passengers.

What is the expected impact of the proposed circulation changes on through-traffic on 15th Street and Henry Street?

Based on the circulation and traffic analysis conducted as part of the attached Circulation Study, the restriction of the eastbound left-turn from 16th Street onto Market Street would cause some drivers to choose 15th Street as a way to access eastbound Market Street. The estimate from the circulation study is that 11 more cars per hour would use eastbound 15th Street in the AM Peak and that 26 more drivers would use eastbound 15th Street in the PM peak period.

Will this project install intersection wayfinding markings for cars that need to cross Market Street, for instance at Church or Sanchez Streets?

The main concern that the SFTMA has heard in terms of intersection wayfinding and guidance is that drivers are unsure of where to line up while turning right off of Market Street into side streets, and that the long paths of travel along Market Street often lead to drivers and bicyclists weaving through the intersection. For this reason, we are focusing our intersection wayfinding markings on roadway users traveling along or turning off of Market Street.

Could you explain why you are installing a left-turn signal for eastbound vehicles turning left from Market Street onto northbound Castro Street? Why would cars divert off Market Street at this location?

This project is viewing the intersections of Castro/17th, Noe/16th, and Sanchez/15th as a connected system that distributes drivers to and from the main thoroughfare of Market Street. The current system, by not allowing driver to turn left onto northbound Castro Street, has the effect of concentrating left-turn demand at 2 out of 3 intersections – Noe/16th and Sanchez/15th.

Furthermore, many eastbound drivers divert off of Market Street onto 18th Street and turn left onto Castro Street in order to continue straight across Market Street to points north. This movement impacts the very congested intersection of Castro/18th Street, and the commercial corridor of Castro Street between 18th Street and Market Street. This new protected left turn will distribute the left-turn demand equally across the three study intersections and will reduce pressure on the overloaded commercial core of Castro Street and the intersection of Castro/18th Streets.

Finally, Market Street and northbound Castro Street north of Market are both classified as arterial streets that are designed to carry large numbers of vehicles. This left-turn signal will better connect these arterial routes.

BICYCLING

Double parking is a real issue for bicyclists riding between Castro Street and Duboce Street. I'd like to see an SFMTA proposal that includes parking-protected bike lanes where the bike lane is separated from loading activities that occur on Market Street.

In conjunction with the Market/Octavia Public Realm Plan, this project will install a parking-protected bike lane in the uphill westbound direction between Octavia Boulevard and the Duboce Bikeway. This section of roadway has, by far, the highest bicycle ridership numbers on the Upper Market Street corridor. This section of roadway also has the greatest speed differential between people riding uphill and vehicles driving in the travel lanes. In both directions on Market Street, between Duboce/Buchanan Streets and Castro/17th Streets, the SFMTA will be painting the existing bike lanes with green paint and will be making wayfinding/visibility changes to right turn pockets on the corridor.

Future improvements to bicycle infrastructure on this corridor will be investigated as part of the recurring long-range bicycle planning undertaken by the SFMTA and no improvements

proposed by this plan preclude future bicycle improvements on this stretch of Market Street. We will continue to evaluate the effectiveness of green painted lanes on double parking rates and loading behavior on Market Street.

Furthermore, the SFMTA is planning to take a comprehensive look at parking and loading regulations on Market Street with the aim of reducing double parking.

SIGNALS

Could the SFMTA alter the signal timing to add more green time for pedestrians crossing Market Street at either Castro/17th, Noe/16th, or Sanchez/15th Streets?

The SFMTA made several near-term improvements to the Upper Market Street corridor in 2015, including installing painted safety zones and increasing the signal time for pedestrians crossing Market Street at Castro/17th, Noe/16th, and Sanchez/15th Streets. When the concrete corner bulb-outs are constructed as part of the upcoming streets, sidewalks and signals phase of the project, the SFMTA will re-examine the signal timing to maximize green time for pedestrians crossing Market Street.

What are the drawbacks to increasing the overall signal cycle times on Market Street?

Generally, increasing the overall cycle length of a traffic signal increases delay for most people for all modes of transportation, whether you are walking, biking, driving, or taking transit. It can be justified in certain locations when engineers are addressing a specific safety issue (e.g. installing a new signal to separate drivers and pedestrians to resolve a particular crash pattern). The overall cycle lengths for the three corridor intersections on Market Street have already been maximized to the fullest extent possible under current conditions and increasing or decreasing them would make it harder to cross the street as a pedestrian and would further delay drivers and transit vehicles traveling through these intersections.

ENFORCEMENT

Can the SFMTA work with the SFPD to increase enforcement of traffic regulation on this corridor?

The SFMTA has documented the concerns raised by the community surrounding enforcement of traffic regulations on the Upper Market Street corridor, including double

parking violations. We have passed this information to our liaison at the SFPD and they will take these documented concerns into account when they make staffing and patrol decisions. The SFMTA does not directly oversee the enforcement of traffic laws in San Francisco.

PARKING

Is this project proposing to install parking meters on residential streets in the project area?

Many of the side streets in the Upper Market Street corridor contain a mix of residential and commercial properties. Many drivers who wish to access the commercial businesses on Market Street park on these residential streets to shop. This project proposes to install metered parking on side streets in front of commercial businesses to meet the current demand for commercial parking along this corridor. This project will not install any parking meters in front of single-family residential properties.

For the potential addition of parking meters in front of commercial properties on side streets, does the rear access/loading area for a commercial property count?

The SFMTA will not install new metered parking in front of any single-family residential properties. Parking spaces that directly front a commercial building, including the loading dock or rear wall of a commercial property, could be considered for reassignment from general unmetered parking to metered parking spaces.

Is there a way for this project to maintain the current level or residential parking in the area?

The Residential Permit Program (RPP) does not guarantee a constant number of parking spaces will remain with any given RPP zone. The SFMTA is taking steps where possible to replace any lost parking spaces with spaces at other locations along the project corridor to maintain a constant level of street parking spaces.

For the Upper Market Street corridor, SFMTA is investigating installing 45 degree angled parking on Buchanan Street, north of Market Street, and converting Hermann Street to a one-way eastbound street between Buchanan Street and Laguna Street in order to convert parallel parking on that street to 45 degree parking. Both measures would add

considerable numbers of parking spaces to the project corridor to mitigate any parking losses due to roadway safety improvements elsewhere along the corridor.

MISCELLANEOUS

Could this project install additional street lighting?

We understand that side street lighting is a priority for the neighborhood. The San Francisco Public Utilities Commission (SFPUC) is responsible for maintaining and installing new street lighting in San Francisco. SFMTA will forward the community concerns over street lighting to the correct representative at the SFPUC. There is currently no funding allocated for street lighting in the current budget, which can only be spent on transportation-related infrastructure.

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