



City of Palo Alto

City Council Staff Report

(ID # 7356)

Report Type: Action Items

Meeting Date: 10/17/2016

Summary Title: Approval of the Temporary Fire Station No. 3 Site

Title: Approval of 2000 Geng Road as the Temporary Location for Fire Station No. 3 During Construction of the Replacement Fire Station No. 3

From: City Manager

Lead Department: Fire

Recommendation

Staff recommends that Council:

- 1) Direct staff to locate Temporary Fire Station No. 3 at 2000 Geng Road while the permanent replacement Fire Station No. 3 facility is under construction; and
- 2) Amend the Fiscal Year 2017 Budget Appropriation Ordinance for the General Fund by decreasing the revenue estimate for rental of the Geng Road site by \$55,922

Executive Summary

The Fire Station No. 3 Replacement Project is part of the 2014 Council Infrastructure Plan. A temporary fire station is needed for approximately 18 months while the new fire station is constructed. Staff analyzed a number of potential sites, with more in-depth analysis of three sites: 2000 Geng Road, 1142/1146 Middlefield Road and the Rinconada Park Tennis Courts. Due to lower estimated construction costs, neighborhood concerns about the Middlefield Road site and impacts to Rinconada Park users and adjacent residents, staff recommends locating the temporary fire station at the 2000 Geng Road site. While the Geng Road site has the greatest impact on emergency response times, the Fire Department believes that this can be successfully mitigated by locating Engine 63 at Fire Station No. 1 during the daytime hours.

Background

The Fire Station No. 3 Replacement Project is part of the 2014 Council Infrastructure Plan. The project will provide a new facility built to meet essential services standards. The new fire station will be built on the existing location of Fire Station No. 3 at 799 Embarcadero Road. During the construction, the station must be relocated to an interim facility that will ensure continued fire, rescue and emergency medical services to the neighborhoods served by Fire Station No. 3.

Engine 63 generally responds to areas in the following neighborhoods: Community Center, Leland Manor/Garland, Professorville, University South, Duveneck/St. Francis, and Old Palo Alto. Engine 63 also responds to emergencies on Highway 101. Engine 63 serves as backup to many other neighborhoods including the Downtown area. In 2015, Engine 63 responded to 1274 calls or 15 percent of all calls in Palo Alto and Stanford.

The Palo Alto Fire Department's (PAFD) adopted performance goal is to have a responder arrive on scene of an emergency within 8 minutes or less, 90 percent of the time. Within the last quarter, the Fire Department has been able to meet this response goal for Emergency Medical Service responses 91 percent of the time. However, in regards to Fire Suppression calls, the goal was accomplished 81 percent of the time.

PAFD units are dispatched to emergencies via Automatic Vehicle Location (AVL) technology. This technology supports efficiency of operations, as the most appropriate unit that is geographically closest to the emergency will be dispatched to respond to the incident. The PAFD has been using this technology since 2014, specifically to reduce response times.

The PAFD uses an advanced software program that uses historical emergency incident data to simulate the response of a fire jurisdiction and test the effectiveness of alternate deployment scenarios. This software allows the Fire Department to test ideas and provides objective, quantitative results to support or refute potential changes in deployment. Deployment scenarios using response data from calendar year 2015 were used to determine the effectiveness of emergency response from the proposed temporary Fire Station No. 3 sites.

Discussion

The Temporary Fire Station No. 3 will need to accommodate the station's three on-duty personnel and two apparatus (fire engine, and smaller pickup truck suppression vehicle) for a span of approximately 18 months during existing site demolition and construction of the new fire station. The temporary site would provide living quarters and a garage facility. The temporary station will include various service hookups such as electric and backup power, water and sanitary sewer, security, alarm and communication linkages.

Staff identified six potential temporary site locations

1. 2000 Geng Road;
2. 1142/1146 Middlefield Road;
3. Rinconada Park Tennis Courts;
4. Rinconada Library parking lot;
5. Art Center Auditorium parking lot; and
6. The Art Center Lawn along the Embarcadero.

The sites were evaluated on the following elements: parcel size and zoning district; community opposition and impact; and station operations.

Interdepartmental meetings with the City Manager's Office, Fire, Public Works, Community Services and Planning were held to discuss the potential impact of the temporary site locations. The top three sites (Geng Road, Middlefield Road and the tennis courts) were chosen for further analysis to determine which would have the least negative impacts on the community, could be constructed at a reasonable cost and could meet the fire department's performance goals which are essential to public safety. Attachment A contains a location map of the top sites along with aerial photos of each site. A brief analysis of each site is provided below and summarized in matrix format on Attachment B.

2000 Geng Road

The Geng Road site is located near the intersection of Geng Road and Embarcadero Road. The site is zoned Public Facility with a Site and Design Overlay (PF(d)). The site is located within the area covered by the Baylands Master Plan. The site is 1.3 miles from Fire Station No. 3. Currently home to GreenWaste of Palo Alto, the Geng Road lot is a fully developed and operational site with an existing garage/storage structure and two office buildings that may be modified for the temporary fire station. Per Council action on [staff report #7082](#), GreenWaste of Palo Alto will vacate the facility at the end of 2016. The

estimated construction cost of locating the temporary fire station at this site is \$141,000.

Staff met with Baylands environmental stakeholders to discuss the proposed temporary fire station. The Baylands stakeholders were not concerned about the potential use of the site for the temporary fire station, but expressed interest in a future dedication of the 2000 Geng Road site as parkland.

In order to effectively occupy this site during construction, the Fire Department would split the location of Engine 63 determined by the time of day. During the day, Engine 63 would respond from Fire Station No. 1 located at 301 Alma Street. If Engine 63 responds from this location during the day, the response times would improve in Downtown Palo Alto, and on Stanford Campus— the call volume and the risk is the highest in these two districts during daytime hours due to increased population of students, workers and visitors. However, the response times would increase by an average of 60 seconds in Station No. 3's area. After 7:00 pm, Engine 63 would relocate to the Geng Road site. In the evening, the call volume and traffic congestion decreases and residents return from school and work. Therefore, relocating the engine to this site is more practical. Lastly, due to the relocation of Engine 63 during the day, adjacent Fire Station No. 4's engine, located at 3600 Middlefield Road, will be responding into Station No. 3's area more often.

1142/1146 Middlefield

Located 0.6 miles west of Fire Station No. 3, the city owned parcels are within the residential zoned district. The site is currently vacant and undeveloped. The estimated construction cost of locating the temporary fire station at this site is \$384,000. The adjacent neighborhood has raised issues about potential adverse impacts of the temporary station related to transportation impacts, noise, trees, street parking and serviceability. Attachment C is a letter from a number of adjacent neighbors expressing these concerns.

Relocation to this site would increase the response times by 6 seconds in Station No. 3's general response area. The Fire Department acknowledges the benefit of the minimal change in response times; however, responding from this site would be impacted by daytime traffic on Middlefield.

Rinconada Park Tennis Courts

The third site is located on dedicated parkland and is one block north of Fire Station No. 3. This site accommodates three community tennis courts and a parking lot which is partially used as a sand bag station. Placing the temporary station at this location would temporarily eliminate the use of 2 tennis courts, the sand bag station and at least 4 public parking spaces. The estimated construction cost of locating the temporary fire station at this site is \$290,000.

Due to the close proximity to Station 3, responding to emergencies from a temporary fire station at this location would emulate current response times.

After careful consideration of neighborhood and community impacts, emergency response time impacts and temporary fire station construction costs, staff recommends that the temporary fire station be located at the 2000 Geng Road site.

Timeline

The design of the new Fire Station No. 3 is scheduled to be completed in early spring of 2017, with construction to begin in late spring or early summer.

Resource Impact

Funding for the Fire Station No.3 Replacement Project including the temporary station is available in Capital Improvement Program (CIP) Project PE-15003. Locating the temporary fire station at 2000 Geng Road is expected to result in a decrease in rental revenue in FY 2017. GreenWaste of Palo Alto was paying \$172,350 in FY 2017 rent for the site, but is moving to the Los Altos Treatment Plant site at the end of calendar year 2016. The Real Estate office intends to rent space at 2000 Geng Road for parking and staging. The temporary fire station is anticipated to occupy 65 percent of the 2000 Geng Road site, resulting in an estimated rent revenue reduction of \$55,922 for FY 2017 and \$111,844 for FY 2018.

Policy Implications

This recommendation does not represent any change to existing City policies.

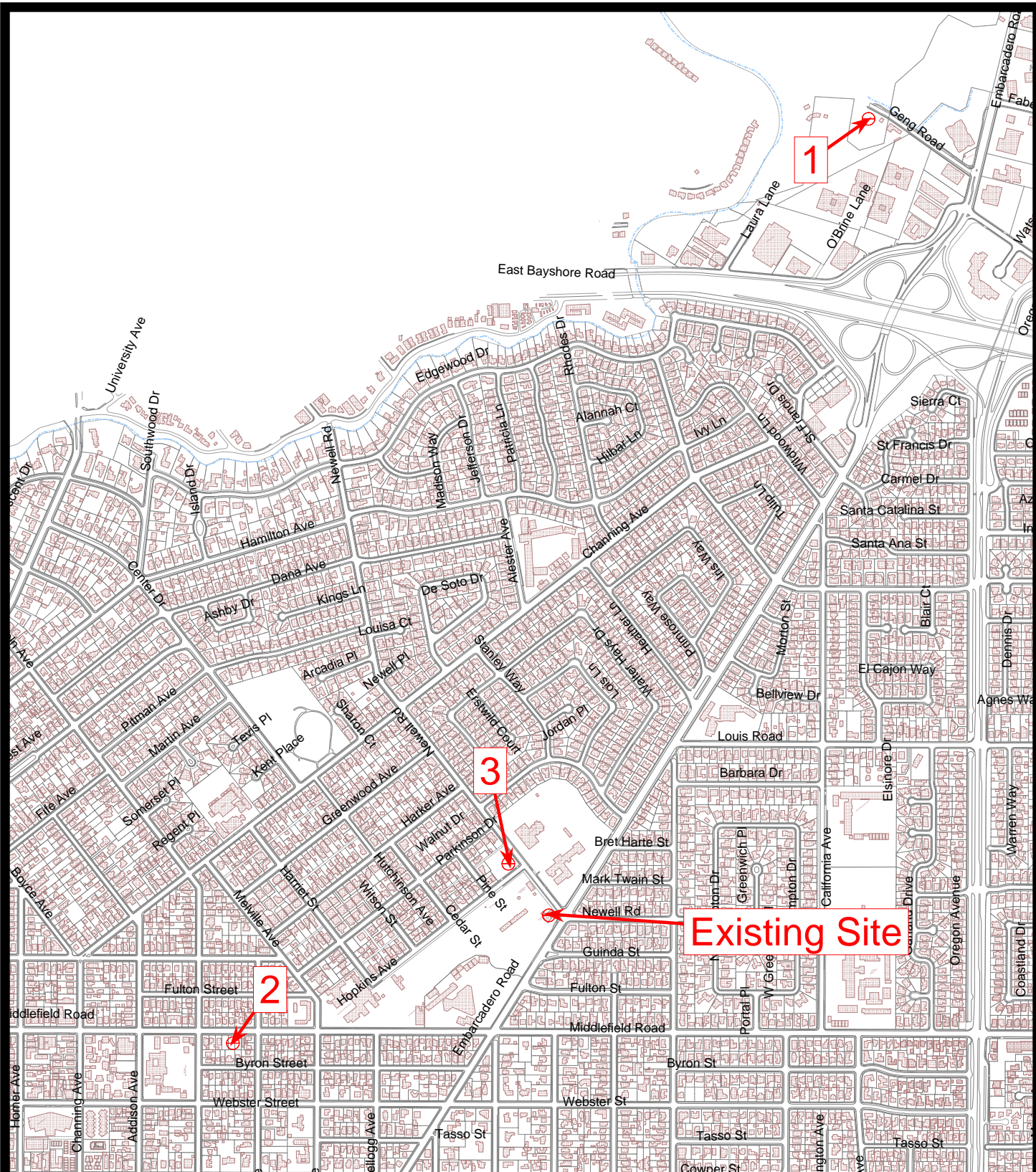
Environmental Review

This project is categorically exempt from the provisions of the California

Environmental Quality Act (CEQA) under Section 15301 of the CEQA Guidelines as repair, maintenance or minor alteration of an existing facility and no further environmental review is necessary.

Attachments:

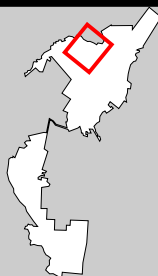
- Attachment A: Temporary Fire Station 3 Site Location Options (PDF)
- Attachment B: Fire Station 3 Temporary Site Matrix (PDF)
- Attachment C: Letter regarding fire station at 1142 Middlefield (PDF)



Existing Site



The City of Palo Alto



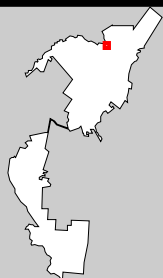
Temporary Fire Station 3 Site Location Options

This map is a product of the City of Palo Alto GIS





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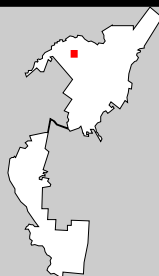
Site Option 1 2000 Geng Road

This map is a product of the
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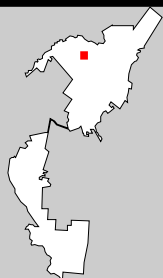
Site Option 2 1142/1146 Middlefield Rd

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Site Option 3 Rinconada Park Tennis Courts (Near Sand Bag Station)

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FIRE STATION #3 TEMPORARY SITE LOCATION MATRIX

	Location	Zoning	Available Site Size (sqft)	Pros	Cons	Public Opposition	Estimated Construction Cost	Negative Impact Summary	Comments
1	2000 Geng Rd	PF(d)	12,000 ±	<ul style="list-style-type: none"> Minimal development issues or constraints Geng Rd has low traffic congestion Close to freeway Large available space for double apparatus bay and FD equipment 	<ul style="list-style-type: none"> Response time longer and increased workload for surrounding stations Need to reprogram ringdown system for Fire Station 1 	No known Public opposition.	\$141,000	<ul style="list-style-type: none"> FD Response time Fire Dept Operations 	Fire Station 1 would host Fire Station 3 during the day and then Fire Station 3 would relocate to the Geng Road site during the night when the call volume is low. Geng Road Site is 1.3 miles from FS3.
2	1142/1146 Middlefield Rd	R-1	11,250	<ul style="list-style-type: none"> No FD service disruption Concept plans show site is feasible Tree removals can be mitigated FD inspected site - ok to maneuver in tight space 	<ul style="list-style-type: none"> Large mature eucalyptus/cedar trees to be removed Overhead/underground utilities to be relocated Initial study & probable Mitigated Negative Declaration required to address parking, noise, & tree impacts Decrease in public parking on Middlefield Road Fire Truck will be required to back into the site Existing Middlefield traffic congestion FD may need to implement noise mitigation measures Cost to remove temp station and restore site 	Current Neighborhood opposition is high. This site was initially the primary candidate for the temporary station.	\$384,000	<ul style="list-style-type: none"> Neighborhood Parking FD Truck Circulation 	May need to integrate signal controls to hold vehicle traffic at Melville and Homer during alarms. Middlefield site is 0.6 miles from FS3.
3	Rinconada Park Tennis Courts near sandbag station	PF	12,000 ±	<ul style="list-style-type: none"> No FD service disruption 	<ul style="list-style-type: none"> Dedicated Park Land: needs Council approval/Park Improvement Ordinance (PIO) Rinconada Park is already deficient in parking spaces Community programs and events disrupted No Utility Connection available Cost to remove temp station and rebuild Tennis Courts 	Public opposition likely high due to loss of parking and estimated loss of 2 tennis courts. Also nearby homes would likely oppose.	\$290,000	<ul style="list-style-type: none"> Neighborhood Parking Community Programs 	Rinconada Tennis Crts are 0.1 miles from FS3.

September 19, 2016

Dear Matt Raschke,

It has come to our attention that there is an evaluation of the 1142 Middlefield Road lot for use as a temporary fire station during the re-construction of Fire Station No 3. at 799 Embarcadero Road. To our knowledge, this has never been directly communicated to the surrounding neighborhood, so if there is no such plan, it would be great to get that statement from you. If there is such a plan, we believe it to be deeply flawed.

We appreciate having emergency services in our neighborhood and look forward to having a modern fire station on Embarcadero Road. We also understand that you are navigating difficult tradeoffs in selecting a site for a temporary fire station during this project.

We believe that the proposed site for the temporary fire station at 1142 Middlefield Road has serious challenges due to:

1. Traffic congestion and safety issues on this segment of Middlefield Road
2. Noise disruption to multiple homes in close proximity
3. Permanent damage to Palo Alto's urban forest.

We ask that you consider alternate locations for the temporary fire station along Embarcadero Road that do not face these challenges.

Sincerely,

Inge Infante, 1110 Middlefield Road

Pramoda Ramachandra, 1120 Middlefield Road

Thai and Anita Tran, 1130 Middlefield Road

Mark and Nina Homnack, 1145 Middlefield Road

Brent Le Blanc and Zuzia Perkowska, 1150 Middlefield Road

Scott Plemons, Owner of 1150 Middlefield Road

John and Laura Sturino, 1151 Middlefield Road

Edith Cohen and Alex Wang, 1139 Byron Street

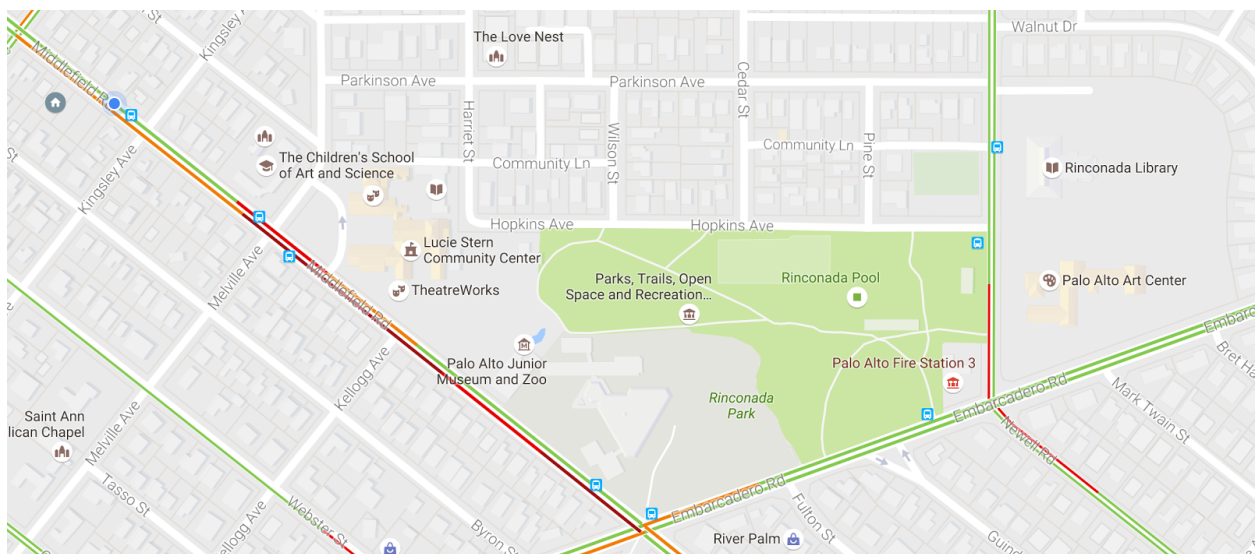
Beth Libby, 1222 Fulton Street

Congestion on Middlefield Road

The current location of Fire Station No 3 is along Embarcadero Road, which has two lanes in each direction with good traffic flow, and is on a corner with a traffic signal. The proposed location of the temporary fire station is along a section of Middlefield Road that has one lane in each direction with cars often parked on both sides of the street. This section of Middlefield Road can become congested during commute hours and whenever there is a traffic incident on 101, Middlefield becomes backed up for blocks. This would make it nearly impossible for emergency vehicles to quickly respond to issues.



Example of heavy congestion on Middlefield in front of the proposed fire station due to a slowdown on 101. All of these cars are currently stopped due to red lights on Middlefield. (Photo taken on Sept 15, 2016 at 5:50pm)



Google traffic map showing the congestion on Middlefield Road extending from Lincoln Ave to Embarcadero Road (orange and red lines). During this time, traffic is flowing on Embarcadero Road (green lines).

Safety issues on Middlefield Road

At other times of the day, Middlefield Road is prone to speeding drivers and aggressive passing. In the 6 month period between March and August 2016, there were 7 reported auto accidents on Middlefield Road along just the 5 blocks surrounding the proposed location (between Channing Ave and Kellogg Ave).

To reduce speeding and limit unsafe passing, the City of Palo Alto is planning on narrowing the lanes on Middlefield Road and adding crosshatching with raised traffic buttons at intersections. The residents of Middlefield Road are looking forward to these safety improvements, but they may make it harder for cars to pull aside to let an emergency vehicle pass, especially during times of congestion.



Example of a typical intersection

1 Reduce Speeding

Narrow lanes, painted **crosshatching** at intersections, and **simplified centerline** striping encourages reduced vehicle speeds. Pre- and post-project speed data will be collected and analyzed to determine effectiveness.

2 Limit Aggressive + Unsafe Passing

To lessen the likelihood of unsafe passing, the shoulder at intersections will be striped with **crosshatching** complimented by raised **traffic buttons**.

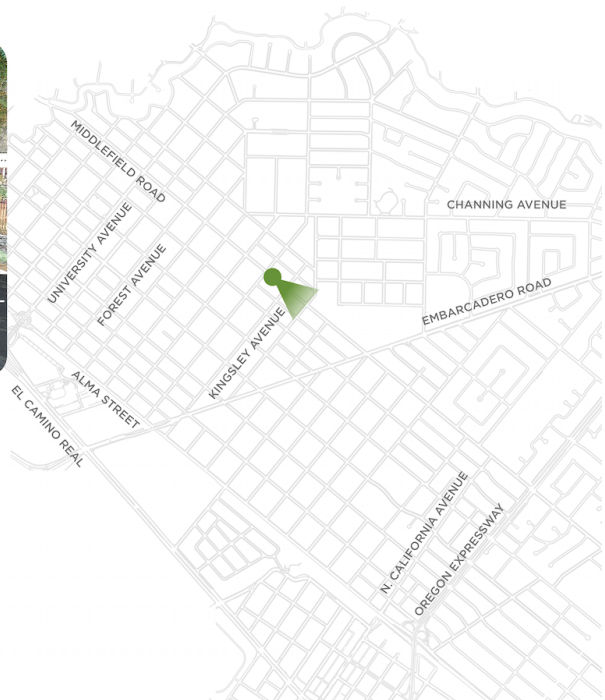


Illustration of the planned changes to Middlefield Road at Kingsley Ave

Children crossing Middlefield Road

At the beginning and end of the school day, many young children cross Middlefield Road at Addison Ave to get to and from Addison Elementary School. This is just one block away from the proposed location of the temporary fire station.

Because Lincoln Ave is a through street to University Ave (and by extension 101), the school mornings are already dangerous for children. Several years ago, before the current levels of traffic, one mother and her two elementary-age boys -- who live near the proposed location of the fire station -- were hit while crossing Lincoln Ave at Middlefield Road by a car rushing to avoid the traffic. We are concerned that emergency vehicles pulling out of the fire station with their sirens blaring would further aggravate this situation.



Children crossing Middlefield Road at Addison Ave

Negative effects of loud noises

The current location of Fire Station No 3 borders with Rinconada Park to the west, Rinconada Pool to the north, and the Palo Alto Art Center to the east. The closest homes are to the south across four lanes of Embarcadero Rd and we presume that the people who chose to live there did so with the prior knowledge of the traffic on Embarcadero Road and the nearby fire station.

The proposed location of the temporary fire station is adjacent to houses on all sides, including ones with young children whose bedrooms directly overlook the lot. Fire engine sirens can be 120 dB or louder in close proximity. The World Health Organization (WHO) recommends that children should not be exposed to noises at 120 dB for any period of time, and warns that sudden, unexpected noises can lead to startle reactions and unintentional injuries.



The Tran's 4 month old baby's bedroom is directly next to the location of the proposed fire station.

Preserving Palo Alto's urban forest

The lot at 1142 Middlefield Road features three towering manna gum (eucalyptus) trees that are 120 to 130 feet tall with a crown radius of 55 to 60 feet. The appraised value of these three trees is \$24,400.

Quoting from the report of certified arborist Ray Morneau who was commissioned by the City of Palo Alto to assess the trees on this lot in 2013:

The trees, however, make some prominent statements — both as excellent elements of Palo Alto's urban forest and as substantial challenges to work around in the future. Although there are no small or young trees here at this time, that merely leaves room for designing more urban forest into the next stage of each parcel's use.

The manna gums (#12, #13, and #14) are the most ostentatious and effective as trees. These provide all the benefits we expect from our trees, including: shade, carbon sequestration, wind attenuation, homes for wild things from mammals to microbes, storm water interception, leaf litter (mulch) production. We are enveloped by a trio of awesome aesthetic accents punctuating the atmosphere with their pungent oils up close and with their visual dominance as one backs away ... even offering perspective from blocks away.

...

On a general note, it could be good that these trees have been stressed by lack of attention and care in recent years. It is a sign of relative "strength" for them to be doing this well without needing to be pampered.

Palo Alto's unique appeal is the beauty of its urban forest. Removing these mature trees for a fire station that would be in service for less than two years would create a hole in our neighborhood's aesthetic that would be difficult to recover.

Can the City preserve these manna gum (eucalyptus) trees when building the temporary fire station? If the trees are removed because the City forces us to accept this location, will the City commit to developing this lot after the temporary fire station is removed, such as building a park or community garden, or selling this lot so that one or two houses can be built that are comparable to the rest of our neighborhood?



Alternate locations for the temporary fire station

Has the City considered alternate locations for the temporary fire station that have good access to Embarcadero Road and are less disruptive to nearby homes and Palo Alto's urban forest? Here are two examples very near the current location of Fire Station No 3...



Grassy field between Palo Alto Art Center and Embarcadero Road



Palo Alto Art Center parking lot next to Embarcadero Road

Further information

If the City decides to propose the Middlefield site for the temporary fire station, we would expect to see the following information in the proposal:

- How will the City maintain its emergency response rate with all of the logistical issues surrounding the site?
- What is the expected noise impact during and after construction?
- What will be done to minimize noise disruption due to the fire station?
- Given the sustained disruption that this facility will mean for the neighborhood, what form will the compensation to homeowners take?
- What is the plan for the Middlefield site following the completion of the Embarcadero site? What guarantees will the City be giving that those plans will be realized?
- What is the plan for the replacement of the tree coverage of the affected area?
- What other sites were evaluated and why is the Middlefield site superior to those?

References

Planned changes to Middlefield Road

- Palo Alto Online: Narrower lanes on Middlefield Road could slow traffic, improve safety: <http://www.paloaltoonline.com/news/2016/07/01/narrower-lanes-on-middlefield-road-could-slow-traffic-improve-safety>
- City of Palo Alto announcement: <http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=3420&TargetID=107>
- Photosimulation of changes at Middlefield Road & Kingsley Ave: <http://www.cityofpaloalto.org/civicax/filebank/documents/52768>
- Plans: <http://www.cityofpaloalto.org/civicax/filebank/documents/53429>

Accidents cited

These are only recent accidents in the immediate vicinity of the proposed site for the temporary fire station. Due to the heavy traffic and often speeding cars on this segment of Middlefield, many other accidents have taken place in the prior months and years.

1. **DUI / Accident** - Mar 19, 2016 @ 1000 Block of Middlefield Rd (Incident ID: 753402082, Case No.: 160001370)
2. **Accident with minor injury** - Apr 16, 2016 @ Middlefield Rd & Channing Ave (Incident ID: 757109131, Case No.: 160001880)
3. **Accident with property damage** - May 26, 2016 @ Middlefield Rd & Lincoln Ave (Incident ID: 760655004, Case No.: 160002607)
4. **Accident with property damage** - Jun 13, 2016 @ 1400 Block of Middlefield Rd (Incident ID: 762212369, Case No.: 160002895)
5. **Accident with property damage** - Jul 14, 2016 @ Middlefield Rd & Channing Ave (Incident ID: 765044686, Case No.: 160003477)
6. **Accident with property damage** - Jul 29, 2016 @ Middlefield Rd & Lincoln Ave (Incident ID: 766539032, Case No.: 160003792)
7. **Accident with property damage** - Aug 13, 2016 @ Middlefield Rd & Channing Ave (Incident ID: 767860914, Case No.: 160004098)

Impact of noise on children

- NY Post: Fire truck sirens made me lose my hearing: Retired firefighter: <http://nypost.com/2015/03/03/fire-truck-sirens-made-me-lose-my-hearing/>
- Noise Help: Noise Exposure Limits: <http://www.noisehelp.com/noise-dose.html>
- World Health Organization: Children and Noise: <http://www.who.int/ceh/capacity/noise.pdf>

Certified Arborist Report

- Tree Inventory with Appraisal and Tree Protection Report for 1142 Middlefield Road: <https://www.dropbox.com/s/ulutuleuvy41my5/Tree%20Report%20Middlefield%201142%20CPA%20July%202013.pdf?dl=0>