The Role Played by "Fire Access Roads" in LAH

Not many residents are aware of a system of "Fire Access Roads" that exists in our town, and the safety role they are designed to play in the face of a wildfire.

At the broadest level, this is a system of emergency access "roads" set up to provide alternate access routes for emergency responders to areas that have become inaccessible via normal routes because of some form of blockage (Earthquake, landslide, fire…)

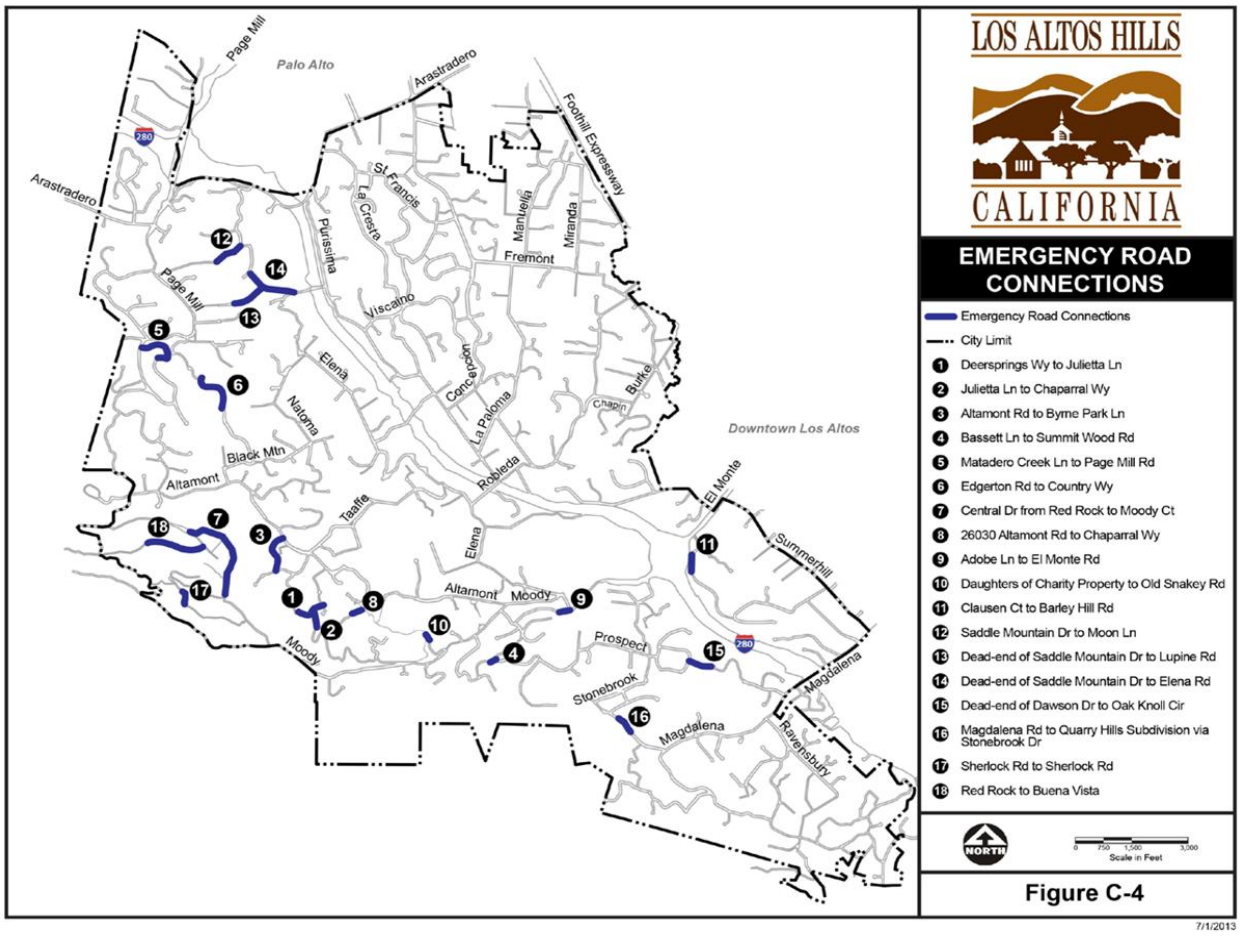
These are not formal paved roads, but generally little more than a trail (frequently traversing private property) that is kept clear of trees or bushes, maybe not suitable for a Lincoln Town Car, but maybe only safely traversable by a purpose-built all-wheel drive vehicle. The "road" is usually protected either by a locked gate or chain across it at either end, to protect it from being used as a thoroughfare by the general public.

These are particularly important in areas that have only a single access route with no alternative available in case this single route becomes impassable for any reason. The bigger the area served by such a route, the more critical is the importance of such a fire access road for alternate access by first responders. Two or three residences on a cul-de-sac is not going to be as much of a problem (if at all…). However, an area consisting of potentially many roads that are "tributaries" connected to larger roads which in turn flow into a significant "artery" could be a major issue if that "artery" gets blocked somehow.

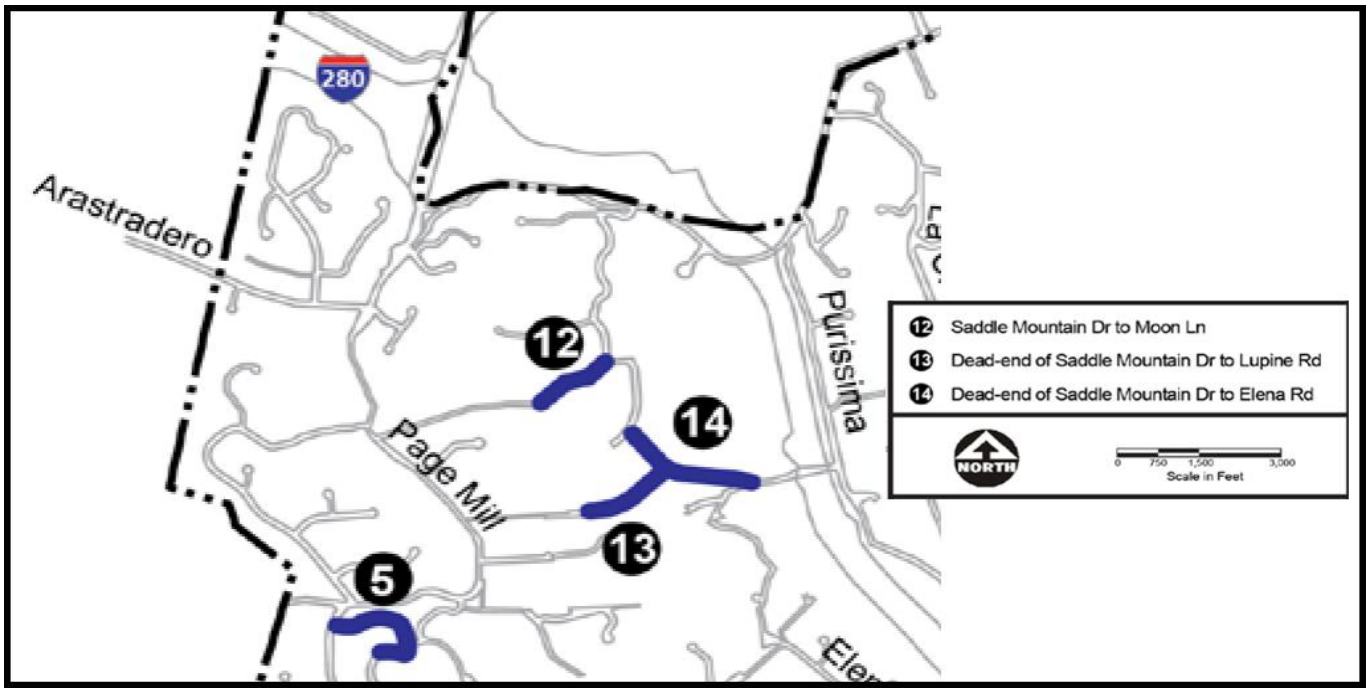
As outlined in another document, Page Mill Road is just such an artery with a potential choke point (just north of the intersection with Paseo del Roble) that could cut access to around 25% of the town. The shortest alternate route would involve going via El Monte and Altamont and then come down Page Mill from the opposite direction.

(While we are on the subject of this example – just a side thought…. This alternative may not sound so bad when you figure that a responding engine would be coming from the El Monte Station anyway – and traversing Altamont rather than Highway 280 or Elena/Purissima is not that huge a difference. However, don't forget that Palo Alto Fire would almost always also be part of the action, and any mutual aid coming from that quarter (leaving aside the mutually funded Station 8 at Foothill Park that is only staffed during high fire season) they would also have to go all the way round via El Monte – a huge diversion in their case. The usual alternate for them via Alpine Road to Ladera and then Arastradero, itself a bad enough diversion impacting response time, would in fact be useless in this example because it feeds Page Mill on the wrong side of the blockage)

The Fire Access Roads in LAH have existed for many years, there are nearly twenty of them and they are documented in the following map.



For the example situation on Page Mill Road, we can zoom in to see better detail:



Curiously, Number 13 is documented on this map as providing access between Saddle Mountain and Lupine Rd, rather than access between Lupine and Elena, which could potentially be far more important in the example blockage of Page Mill.

Maintenance of Fire Access Roads.

Obviously some effort has to go into making sure these Fire Access Roads are maintained in usable condition – some homeowners (more typically renters) are not aware of their existence on a property and will "landscape" the apparently bare patch with something like Oleanders or even plant an Oak Tree right in the middle.

Besides general community awareness, our local Fire Department leverages on other routine activities to check on the continued status and usability of these fire access roads.

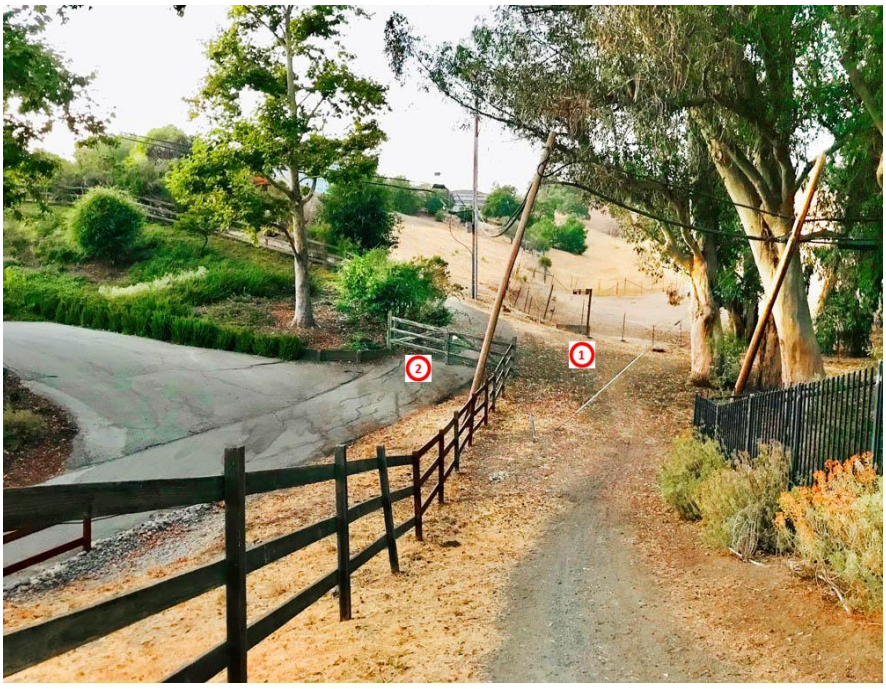
Usually the El Monte Fire Station has a crew of four people on duty 24 hours a day 365 days a year – standing by on call in the station near Foothill College. But during the annual so-called "High Fire Season" (which generally runs from approximately mid-June through the end of September) an extra crew is deployed to help cover this higher-risk period. This crew is based at Palo Alto's Station 8 in Foothill Park and jointly funded by our own Fire District and Palo Alto to provide extra coverage during this period. By having two crews on duty during these periods of high exposure, this allows for one of the crews to be on stand-by in the station for any emergency call, thus giving the other crew the lee-way to go out "on patrol" using a smaller more agile Fire Engine (designed and optimized for use in wildfire engagements) and just cruise around town. This is not only to check neighborhoods for obvious fire dangers, but also for the crew to become familiar with our geography and streets – and also to check our fire access roads. The intent is to ensure that each fire road in town is either "used" or at least checked once a year and thus assure that the terrain is passable for the Engine, as well as check that any locks on gates or chains are still operative, and that some overly helpful resident has not added an extra lock for security.

To see how effective this arrangement is, it is instructive to take a look at the fire access road(s) discussed earlier and identified as numbers 13 and 14 in the map above. While these are identified on the map as two fire roads, it is more useful to regard them as three separate roads that join at a point in a "Y" configuration. If we label the three arms contributing to this confluence as A, B, and C respectively, then in fact it is evident that there are three distinct connectivity paths, namely AB, BC, and CA. This means that this particular segment of fire roads is probably the most important one in Los Altos Hills – it is the only one with three legs – all the others are merely single connectors joining two roads.

Following are a few pictures of this spot that may give you an idea of what it looks like (taken in August 2021)

The Elena Leg. In the above picture we see a signpost at the spot where the three arms of the fire access road come together. (We will refer to this spot as the "Nexus" further below) We are looking towards the arm that connects to Elena Road – and as you can see the "trail" there is wide enough to accommodate a Fire Engine and even the center has a hardened surface of some kind.

The Saddle Mountain Drive Leg. In this second picture (above), we see the Saddle Mountain leg of the fire access road, looking downhill towards the signpost again (marked with **1**) . In the distance beyond the signpost we can see the Elena Leg going over that hill. Here again there is a pedestrian path (on the left) and a wider "trail" with a chain across it that is clearly wide enough for an emergency vehicle.



The Lupine Leg. Finaly we see the Lupine leg - the above picture was taken on the pedestrian path next to the driveway of the last house on Lupine Road. We are looking towards the sign post at the "nexus" of the three legs again (See the number **1** in the picture). To the left we see the driveway of the residence curving left to continue up to the house, but this driveway also serves as the fire access road, and leads to the gate (Number **2**) to join the other two legs.

But the sharp eyed reader will have observed in this last picture that there is a heavy Eucalyptus presence to the right of the picture – almost right at the nexus… Let's take a closer look at this from another angle:

This is the view looking down towards the nexus as seen from the path coming down from Saddle Mountain – in the gap in the middle between the Eucalyptus trees we can see the Elena leg of the Fire Access Road.

So here we have an emergency access route that first responders would have to rely on in case (for example) the Eucalyptus trees on Page Mill blocked that primary path – ironic (or possibly tragic) that this backup contingency route is threatened by the very same kind of peril. The nexus of the three legs is beset by Eucalyptus trees. We can get another perspective on this situation if we look at it from the direction of the Elena leg.

In the following picture, we see the Elena leg leading towards the three-way nexus which is out of sight but just over the rise of the hill in the distance – where the row of Eucalyptus trees on the right of the picture (these trees happen to be quite well spaced at this point) converges with some Eucalyptus trees to the left of the trail where the latter goes over the hill – see the red dot for approximate location of the nexus.

Lesson to be learned

In checking the major access roads in town for potential high risk situations caused by Eucalyptus, we need to check the Fire Access Roads at the same time. The provision of a redundant safety backup mechanism should not be prone to the exact same risk that threatens the primary mechanism.

The Promise and the Peril of a Fire Access Road.

The good news is that such a Fire Access Road could be a vital link that enables responders to reach the scene of a fire (or other disaster) in case the more conventional route (e.g. Page Mill Road) was blocked.

The bad news is that it would be equally as attractive to provide an alternate evacuation route for residents in case the more conventional route (e.g. Page Mill Road) was blocked. All the people coming down Page Mill (from the Palo Alto Hills area, or Three Forks, or Via Ventana, or side roads off Altamont, or…) would find a welcome escape route by turning off Page Mill and coming down Lupine, then continuing on to the Elena Leg of the fire access road, and eventually reaching Purissima to escape that way… via the single-lane rough trail which was not designed for passage by either your basic Lincoln Town Car nor even your pet low-slung Lamborghini. It takes just one such vehicle, heavily-laden with evacuees and their most precious goods and chattels, to get stuck…

When that happens, this will inevitably deny access to Emergency Vehicles coming in the opposite direction. Which means the fire will grow worse, which will trigger even more evacuees, which clog up the fire access road even more, which will… You get the picture.

This problem contributed considerably to the disaster that became the Oakland Firestorm of 1991

> *"…At its height, 1,500 firefighters and 450 engines from all over Northern California were fighting it. By the time it burned out, it had consumed 2.5 square miles of mostly residential neighborhoods. Twenty-five people were killed and 150 injured. The fire destroyed 3,469 homes and apartment units and 2,000 automobiles. Ten thousand people were evacuated…"*

The topology, vegetation and demographics of that area are not that different from LAH.

So it is critical that these Fire Access Roads in LAH are maintained and not forgotten or neglected – just because they are not as prominent or in the Public Eye as much as some other issues concerning Fire Safety.

It is comforting to see from this spot check on just one such Fire Road (i.e. a sample of one), that the system appears to be in good shape. In fact, this particular one looks in much better shape than it was a decade ago in terms of maintenance and even a sign post to disambiguate Saddle Mountain from Lupine for a responder unfamiliar with the locality, and driving a rig up from the Elena entrance – the most likely scenario.