

March 8, 2017

update: Laguna Honda Boulevard Senior Housing Housing Project Below a Cliff Starts Sampling Soil

by Patrick Monette-Shaw

Just after posting an update on March 3 to the [article](#) “*Housing Bond Lurches Down a Cliff*,” news surfaced that in February Langan, Treadwell & Rollo began drilling for soil samples at 250 Laguna Honda Boulevard, and it has applied for permits to drill directly on Castenada Avenue above the senior housing proposed site.

A group of 150 residents surrounding the proposed senior housing site at 250 Laguna Honda Boulevard have formed a Google group called *Save Forest Hill*. They’re concerned about the safety of homes in the neighborhood, given that the proposed site is in a landslide risk zone, and the hill behind the existing church on the property is unstable.

Christian Church Homes has hired Langan, Treadwell & Rollo, a geotechnical engineering firm to run the soil tests. Neighbors are unsettled by this news, and don’t understand how the developers are still able to operate.

The firm’s name may sound familiar since — as *NBC Bay Area News* [reported](#) on August 26, 2016 — Treadwell & Rollo was the geotechnical consultants who performed soil reports for both the 52-story project at 80 Natoma Street (subsequently halted by the City), and the 58-story Millennium Towers project that is now sinking more, and faster, than predicted.

NBC reported that Treadwell and Rollo had predicted both buildings “would sink just a few inches.”

To be fair, it’s unclear what its role had been beyond soil sampling in the Natoma Towers and Millennium Towers projects, or whether it was involved in either building’s foundation designs. Langan, Treadwell & Rollo is a geotechnical engineering firm that assists project developers and architects with **building foundation design**, earth-retaining structures, and soil and rock slope stabilization, among other technical services. For further fair balance, it should be noted the company has extensive experience in San Francisco on many successful building projects.

[**Note:** Langan Engineering & Environmental Services acquired Treadwell & Rollo, a premier geotechnical and environmental engineering firm based in San Francisco in 2010, after the Millennium Towers project was completed in 2009.]

It’s a Landslide Hazard Zone, Remember?

NBC reported that “The then head of [the City’s] building inspection department, Frank Y. Chiu, said in a legal declaration in October 2004 that he ordered a work stoppage in light of experts’ warnings that 80 Natoma St. project could sink more [than] geotechnical consultants [had] estimated in the sandy, watery clay soils South of Market.”

NBC also cited “Massachusetts Institute of Technology geotechnical professor Charles Ladd, [who] estimated that the 52-story planned Natoma Tower would likely sink at twice the extent predicted by the builder’s consultants of five inches.”

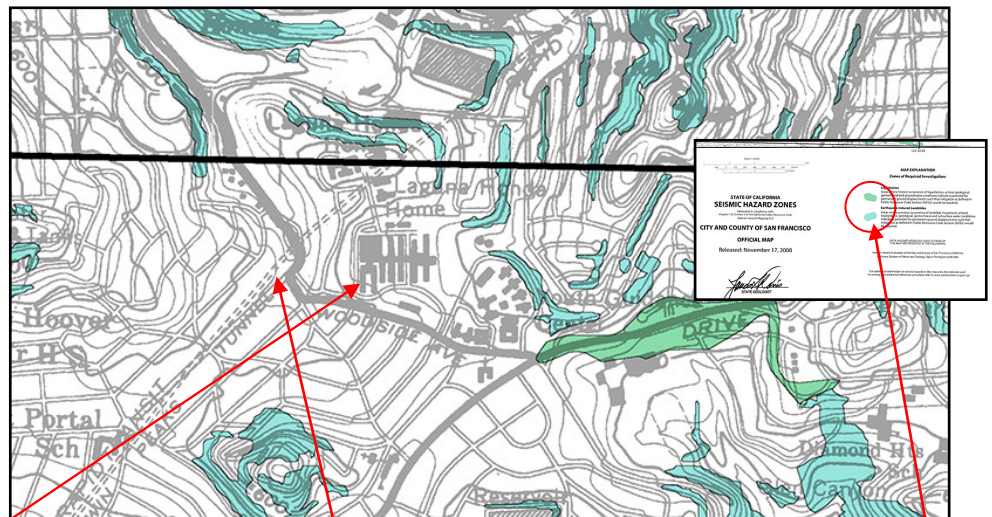


Illustration: Patrick Monette-Shaw

Soil Sampling Underway: Neighbors are already concerned about soil sampling now underway at 250 Laguna Honda Boulevard, the site for a proposed 150-unit senior housing project, which is thought to be unsuitable due to being in a landslide risk zone.

The proposed site is in a landslide risk zone, and the hill behind the existing church on the property is unstable.

“ Over 150 residents concerned about the safety of homes in the area — given that a proposed senior housing site is in a landslide risk zone — have formed a Google group called ‘Save Forest Hill’ . ”



Seismic Hazards Near Laguna Honda: An official map shows liquefaction and landslide hazards in the Forest Hills neighborhood. The legend shows green shading represents liquefaction hazards, and blue shading represents landslide hazards. Dashed lines in the map shows the MUNI rapid transit tunnel, and Laguna Honda Hospital at 375 Laguna Honda Boulevard is here.

Ladd had warned the Natoma Tower might sink 11 inches and tilt due to uneven soil conditions. “Mr. Chiu, the city’s top building official, took the extraordinary step of stopping the Natoma project in mid-2004,” *NBC* reported.

Since the 58-story Millennium Towers was completed in 2009, it has already sank 16 inches, [according](#) to the *San Francisco Chronicle*, and there are estimates it may ultimately sink nearly three feet.

Although the Natoma Tower project was ultimately halted, the same type of foundation design was also used on the Millennium project: Thick concrete slab foundations supported by piles drilled into Bay mud and sand, not drilled down into bedrock.

The *Chronicle* reported the Millennium’s structural shortcomings may be due to the “developer not using what are called ‘end bearing piles,’ which would have reached down 200 feet into the bedrock. Instead, it [the building’s concrete foundation] rests on more than 900 ‘friction piles’ between 60 and 91 feet in length driven into the dense mud.”

Then there are reliable reports the Transbay Tower building may also rest on a 50-vertical-feet concrete “slab.” The Transbay Tower’s once-planned 1,200-foot-tall height was unceremoniously reduced to just 1,070-feet, in part due to concerns about the sheer *weight* of the building resting on a concrete slab, even if it is 50-feet thick.

Reports are beginning to surface that the developers of 250 Laguna Honda are claiming that the project will help “stabilize” the hill behind it, perhaps using concrete reinforcement of the hill. If the history of the rock-and-boulder revetment along Ocean Beach to sustain that embankment and prevent the Great Highway from disappearing into the ocean is any lesson, concrete reinforcement of the hill behind 250 Laguna Honda Boulevard is not of significant comfort to neighbors living up on Castenada Avenue. If a concrete revetment wall would do the trick, why didn’t the City use a concrete wall along Ocean Beach rather than a rocks-and-boulders approach?

Nor is this comforting the *Save Forest Hill* group. And it shouldn’t comfort residents crammed into micro-units of the 150-unit senior housing project. Landslides are simply not very forgiving of elderly people with limited mobility.

Given soil sampling at the Natoma Tower and Millennium Tower projects, neighbors may have good reason to worry about soil sampling at 250 Laguna Honda Boulevard being done by the same firm. Wouldn’t you, if it were *your* home or your neighborhood?

Also consider, for example, the Loma Prieta earthquake that occurred in the Santa Cruz mountains. If the next San Andreas Fault trembler occurs much closer to San Francisco and is much, much stronger than the 6.9 moment magnitude quake on October 17, 1989, all hell could break loose on the hill behind 250 Laguna Honda Boulevard, concrete-wall revetment experiment in public safety, or not.

Could we see the entire 250 Laguna Honda Boulevard senior housing project floating down Laguna Honda Boulevard on a two-foot-thick concrete slab, endangering on-coming traffic and mere *Vision Zero* pedestrians, not to mention vulnerable residents living in the building? Or would it be much worse?

Who wants to wake up the morning after such an event and read a potential future article in the *Chronicle* reporting: “Hundreds of senior citizens at 250 Laguna Honda were crushed by a major landslide and Castenada Avenue homes sliding down the hill after a concrete revetment wall to protect the hillside proved to be impotent against Mother Nature’s will.”?

Monette-Shaw is a columnist for San Francisco’s Westside Observer newspaper, and a retired San Francisco City employee. He received a James Madison Freedom of Information Award in the “Advocacy” category from the Society of Professional Journalists–Northern California Chapter in 2012. He’s a member of the California First Amendment Coalition (FAC) and the ACLU. He can be contacted at monette-shaw@westsideobserver.com.

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