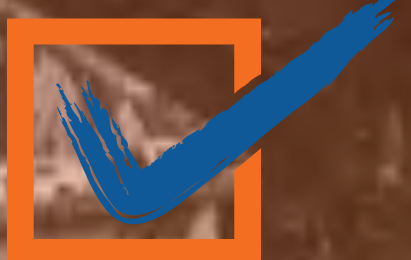


Santa Barbara County 1/9 Debris Flow Disaster Response and Recovery

Central Coast Climate Collaborative
April 24, 2018



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THOMAS FIRE

- **Largest wildfire in California history**
 - **281,893 acres; began 12/4**
- **Crossed into Santa Barbara County 12/7**
- **1,063 structures destroyed Ventura/SB County**
 - **SB Co: 27 structures destroyed and 53 damaged**
- **30,000 evacuated in for several days**



PREPARATION: PRE-STORM



SBCountyOEM @SBCountyOEM · 21 Dec 2017

Today the County & Jurisdiction began planning for flash floods and debris flows resulting from the #ThomasFire. There is a high probability over the next few years.



1 24 41

Multi agency collaboration:

- Fire
- Law Enforcement
- Cities
- County CEO and OEM
- County Counsel
- Planning & Development
- Public Works
- Utilities
- Public Health
- Social Services
- Behavioral Wellness
- Water District
- CalTrans
- VOAD
- Mutual Aid
- And More...



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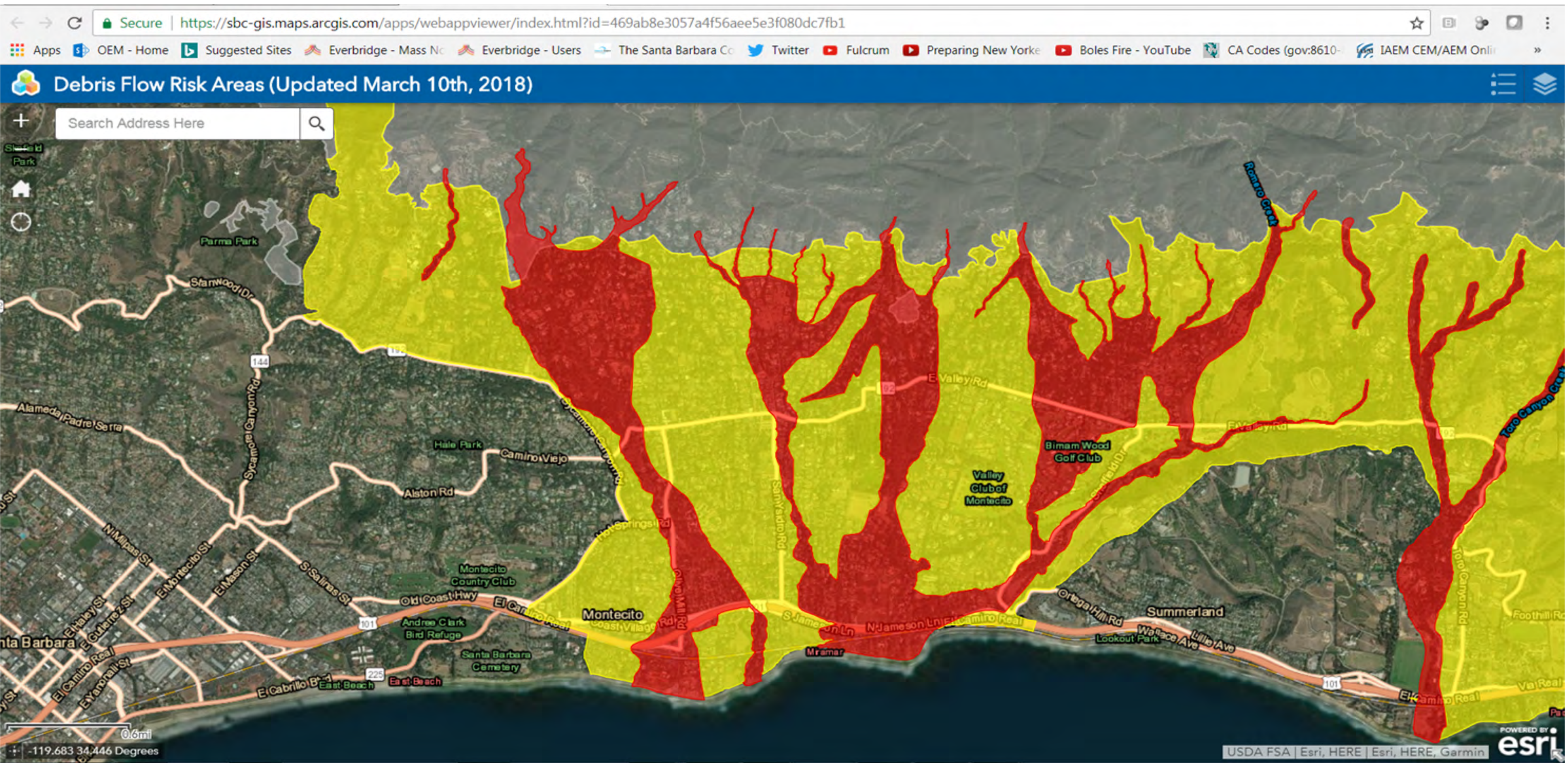


THE STORM

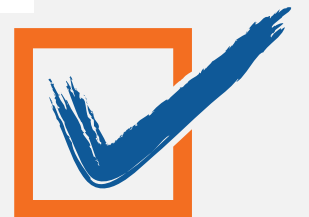
- 1/5 Press conference on upcoming storm
- 1/7 Evacuations announced –
- Mandatory evacuation order – 5,000
- Voluntary evacuation warning – 15,000
- Law enforcement went door to door informing residents



SAFETY PLANNING: DEBRIS FLOW RISK MAP



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THE STORM 1/9

- 30,000 evacuate
- 2,323 first responders
- 23 lives lost or missing
- 28 injured
- 120 evacuated by air
- 1000 large and small animals evacuated/rescued
- Federal/Presidential/Local Disaster Declarations
- 529 Structures lost



Photo Courtesy of Santa Barbara News Press



THE STORM 1/9

- Hwy 101 closed for 12 days
- Hwy 192 remains closed to through traffic
- Hwy 192 - 4 bridges destroyed, 2 damaged
- All utilities needed repair (gas, water, electricity, sewer)
- 11 Debris basin & 12 creek channels re-clearing begins (Montecito and Carpinteria)



CAUSE

- **“Perfect Storm” Fire / Flood cycle**
- **Classification of the event**
- **7 Year Drought**
- **200-Year Storm while portions of the Thomas fire was still burning**
- **Old Fuel Beds (ERC example)**
- **Geographical landscape (alluvial fans)**



LESSONS LEARNED

- Mapping process (use of interactive map)
- Community re-education on how to live safely amidst changed landscape and new threats
- Historical experiences with debris flows
- Learnings from scientists – hazard and risk mapping
- Rebuilding possibilities (AIASB)
- Strength of our community



LESSONS LEARNED

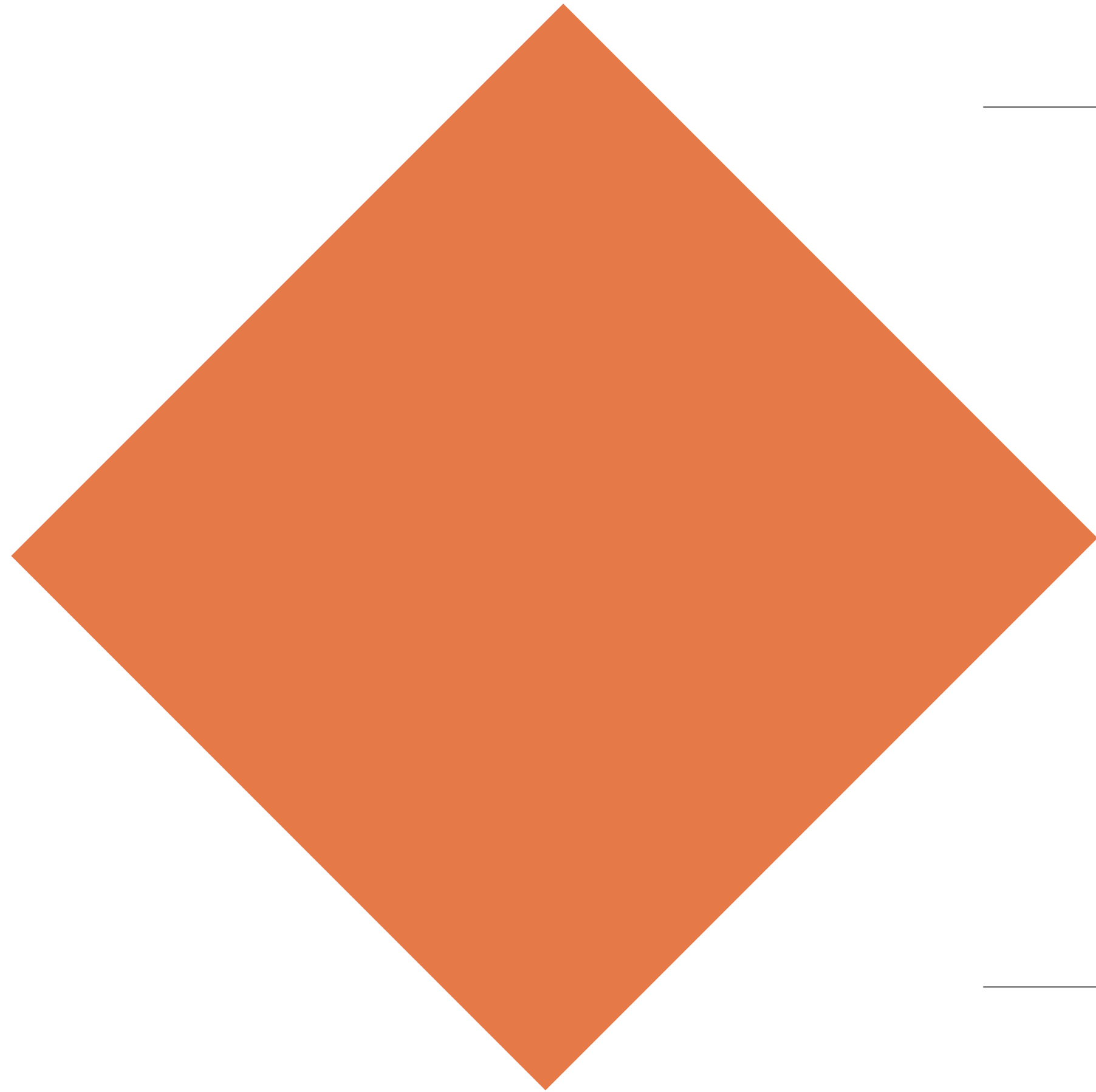
- Quote from this experience from the end of the movie “The Martian”
- Landscape hasn’t just *changed* as a result of the 1/9 debris flow, the landscape is *changing*. – MP
- We cannot be surprised by nature’s “normal processes” because our relative memory and history is so short.
- We have in California and need to use, the very best scientists and emergency management professionals in the world. We need to study and share the data so everyone can make decisions
- We need to learn from each other – communities across the state, country and world
- We need to acutely pay attention to what is happening around us, continue to evaluate the short, medium and long term conditions of our natural environment and the human pressures we have added to it.

Photo Courtesy of Santa Barbara News Press



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QUESTIONS?



IF THERE IS TIME.....



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“MORE “FIRSTS” NOTES

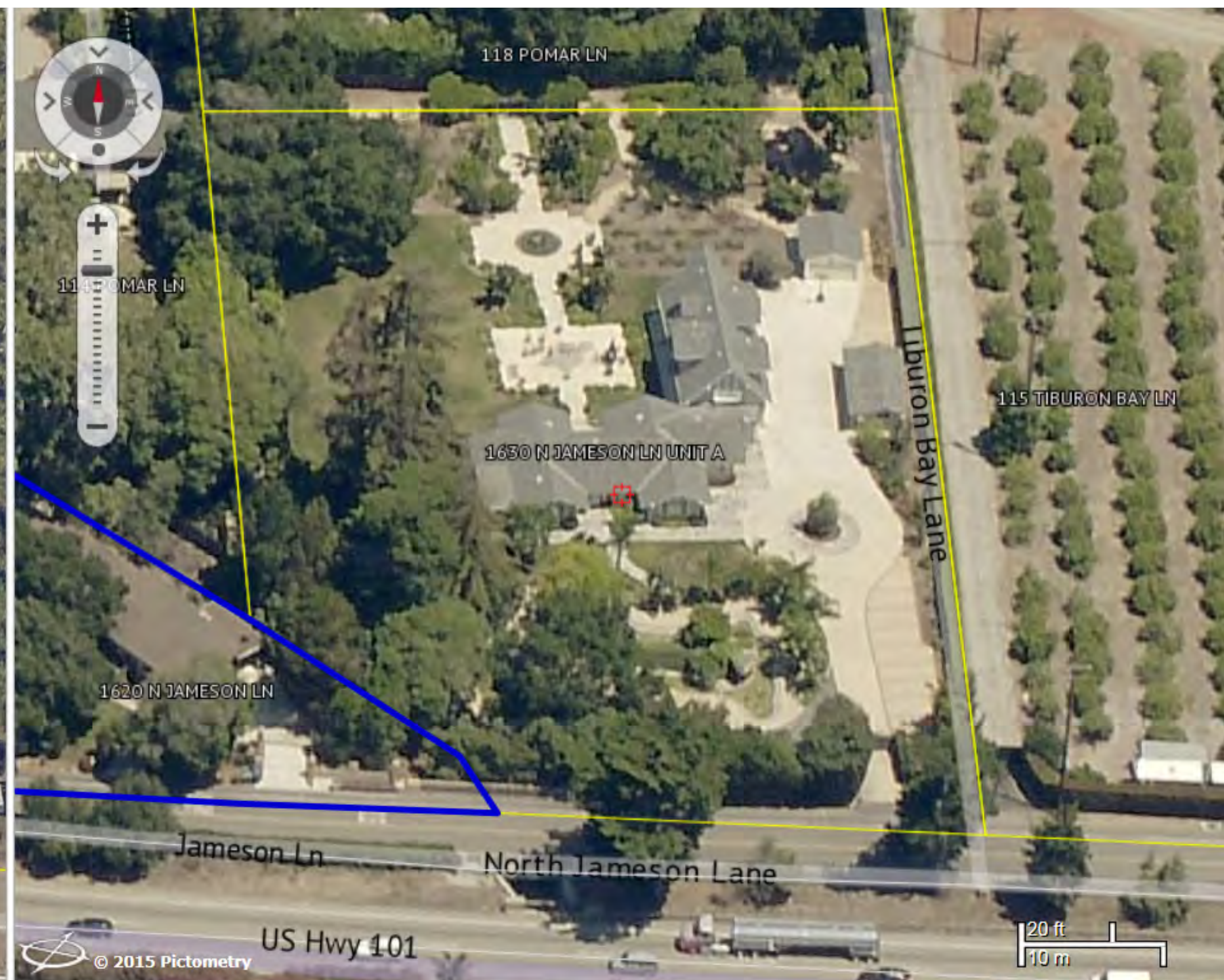
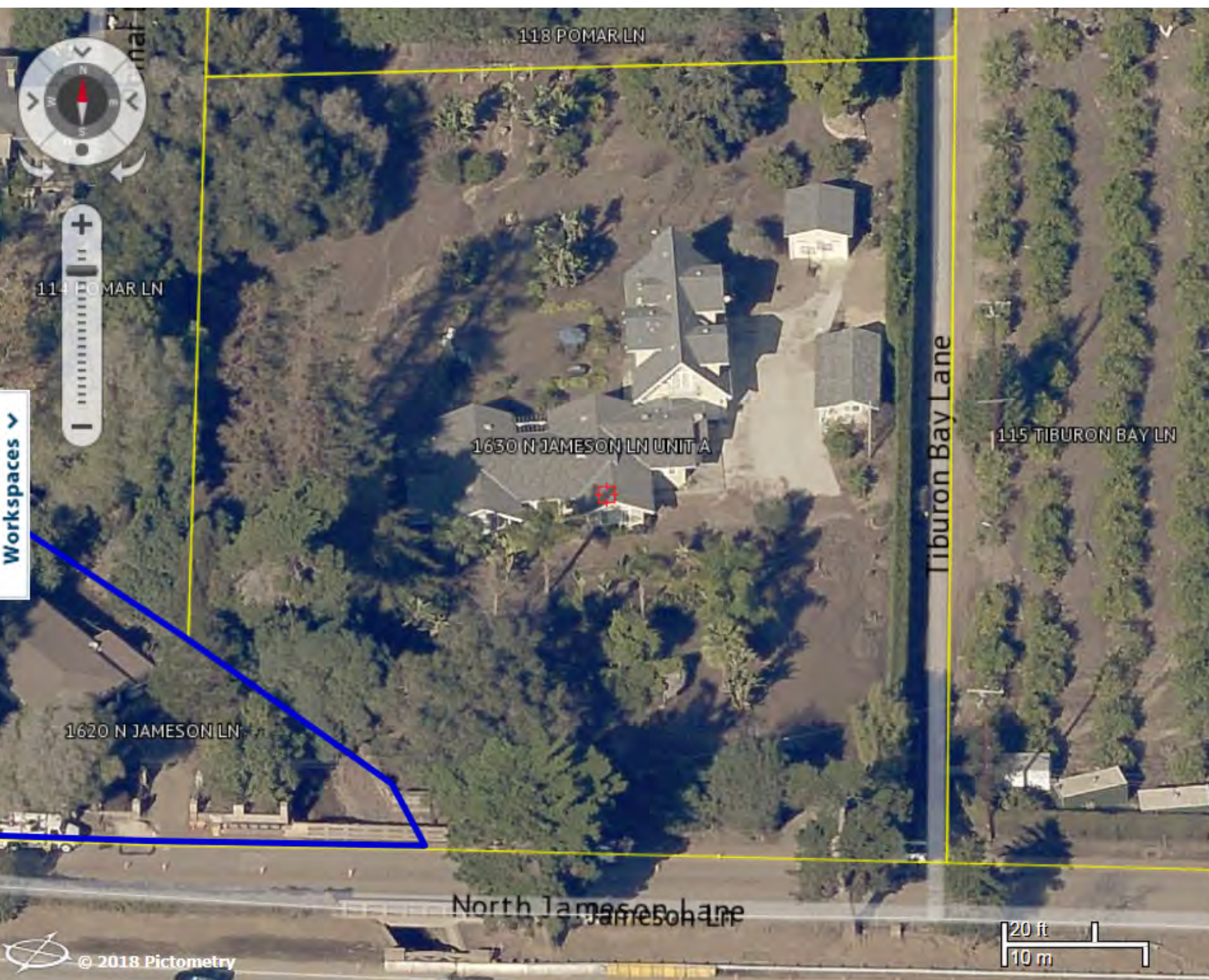
- Largest number of firefighters on any wildfire - ever
- Largest Number of Fatalities in SBCO
- Largest Cost of Disaster in SBCO
- Most complex incident in SBCO, possibly the State
- Highest Cost of any incident (Short / Medium / Long term impacts) SBCO
- Largest Deployment of S&R dogs - in the State
- First *Ash Mitigation Plan* developed due to a wildfire in the State
- Largest amount of Debris (est 2,000,000 cubic yards = 200,000 truckloads)
- First time State / FEMA accepted the Fire / Flood nexus in terms of disaster / incident
- First time SBCO used a web based interactive map for evacuations (5.6 Million views)
- Largest deployment of Mental Health professionals (5800 contacts so far) in SBCO
- Literally re-writing FEMA maps on the watercourses that were impacted

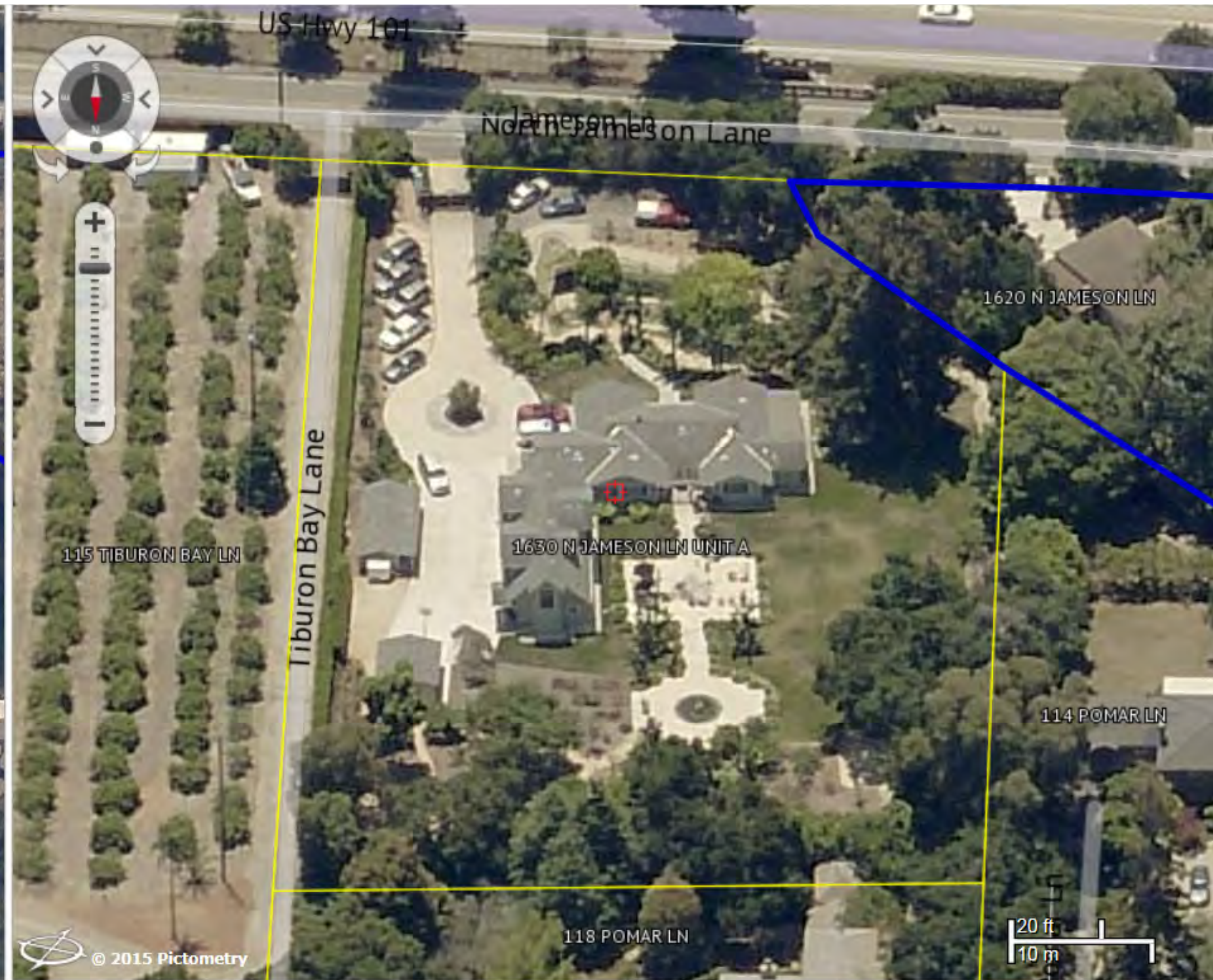
Photo Courtesy of Santa Barbara News Press



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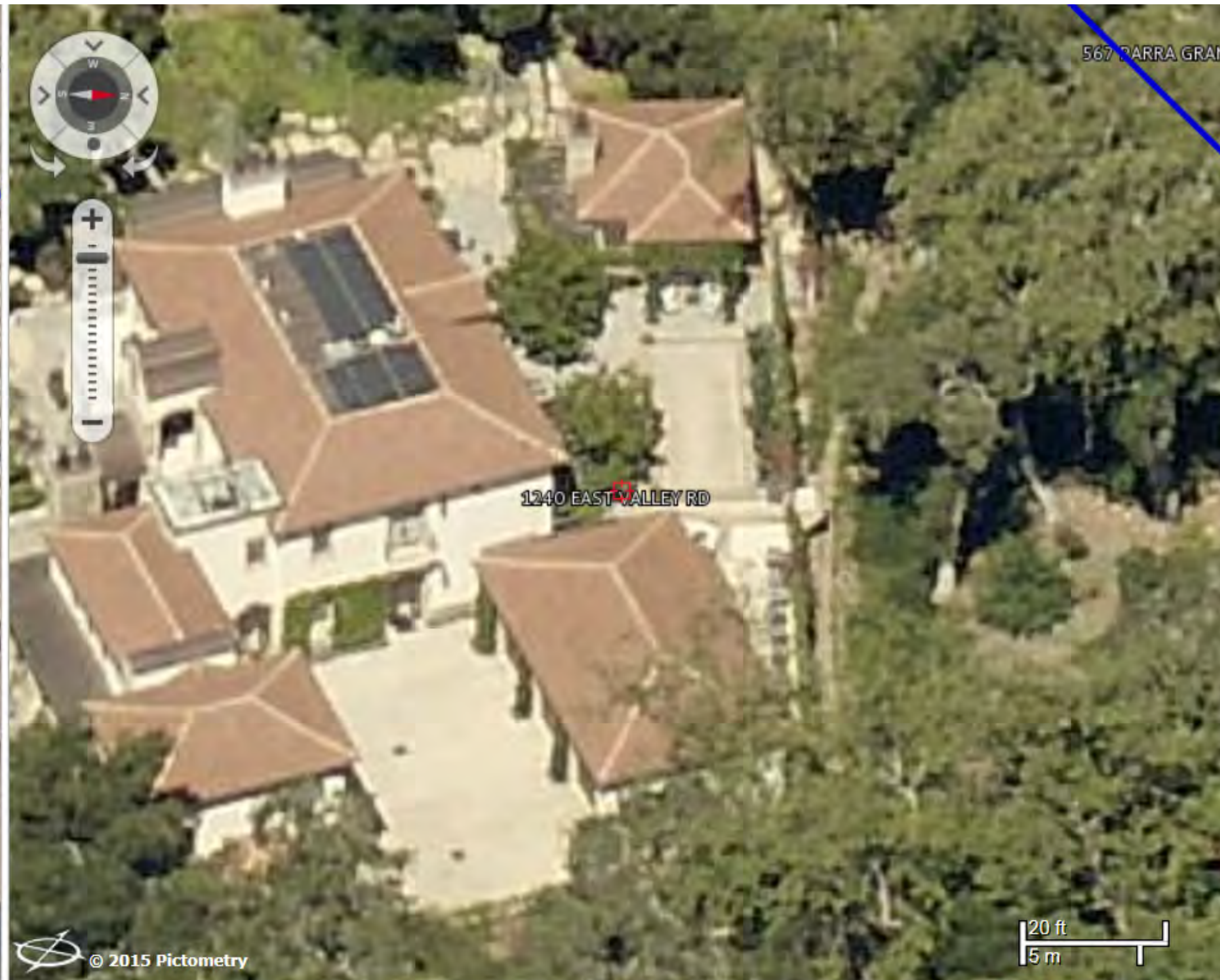








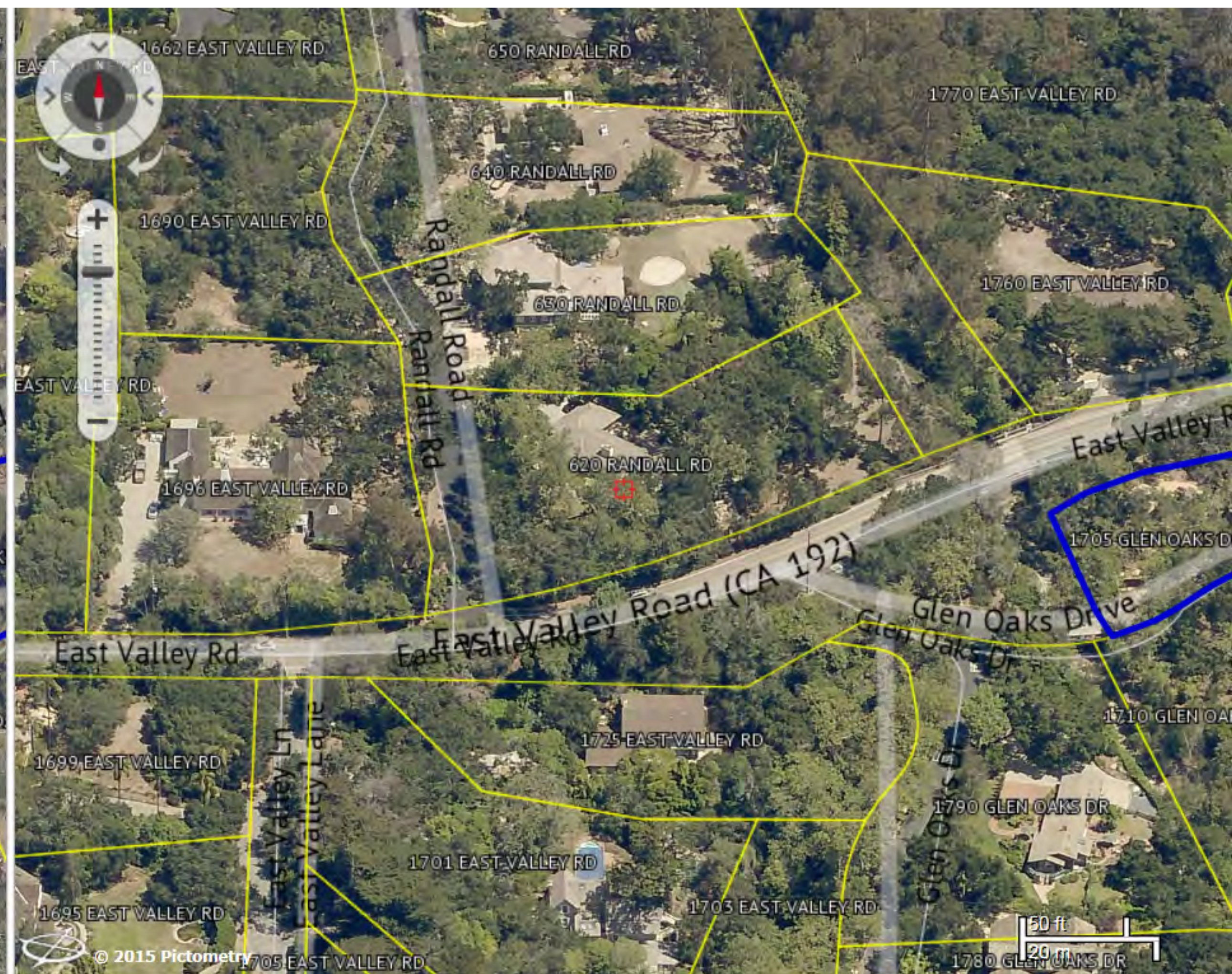
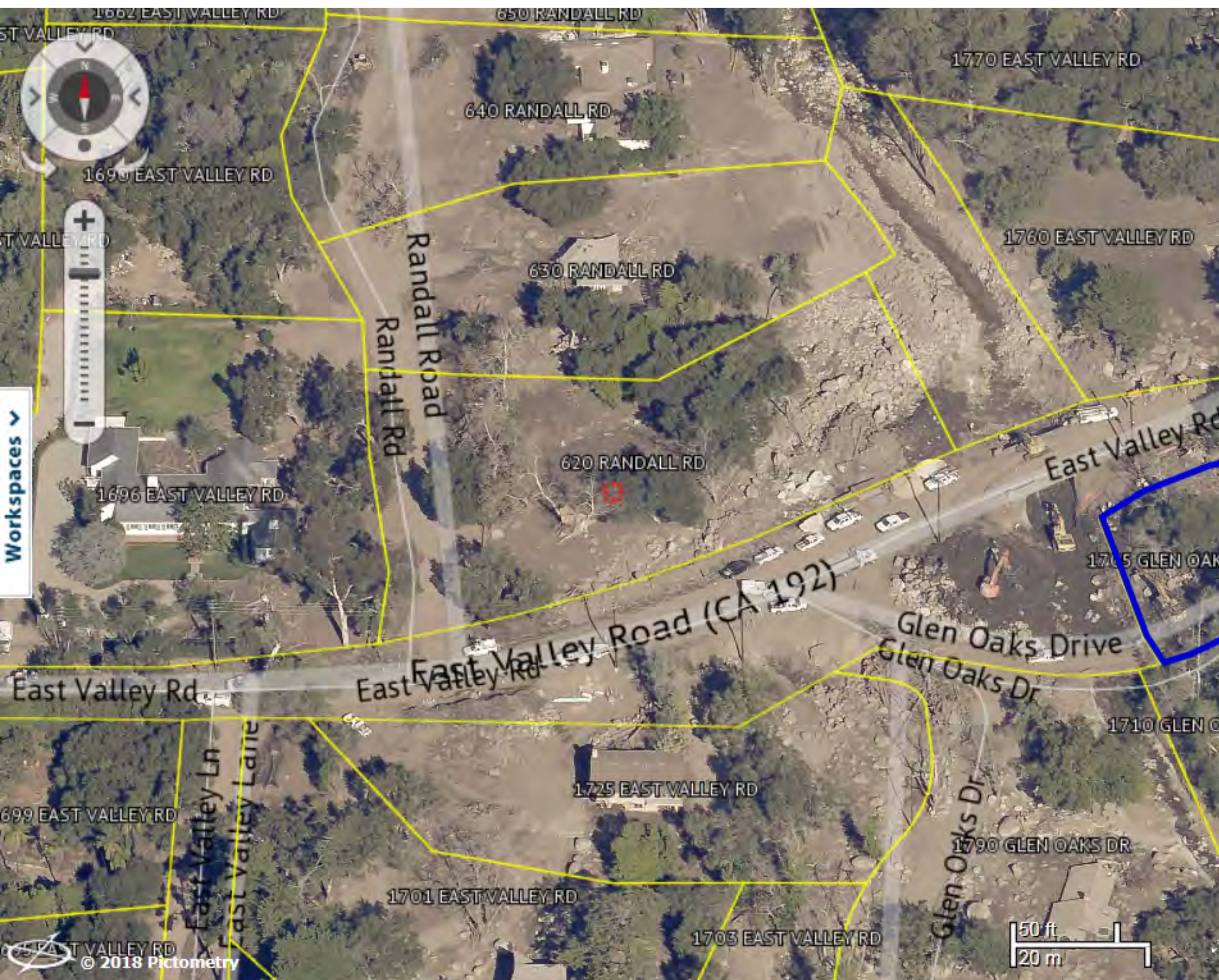


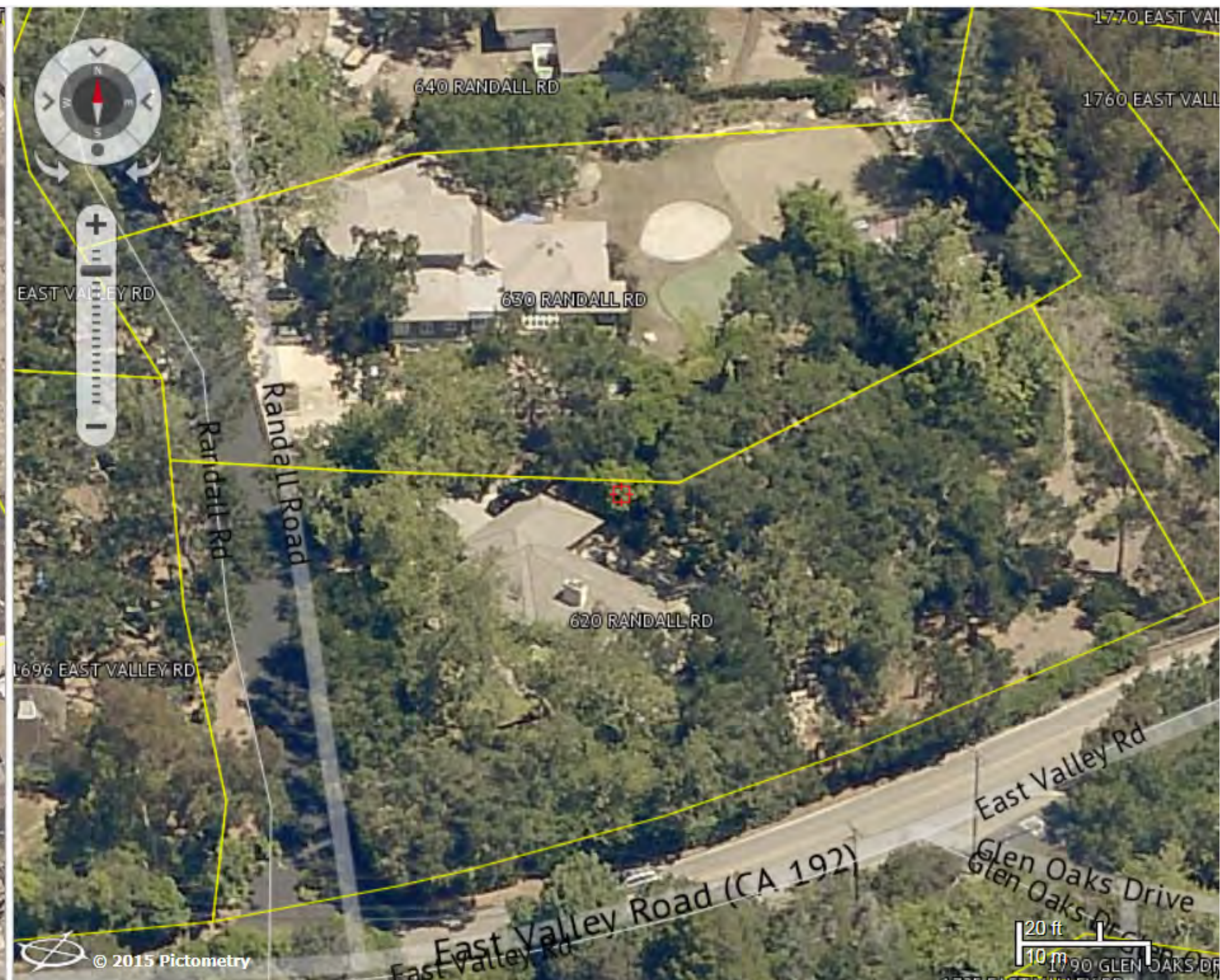


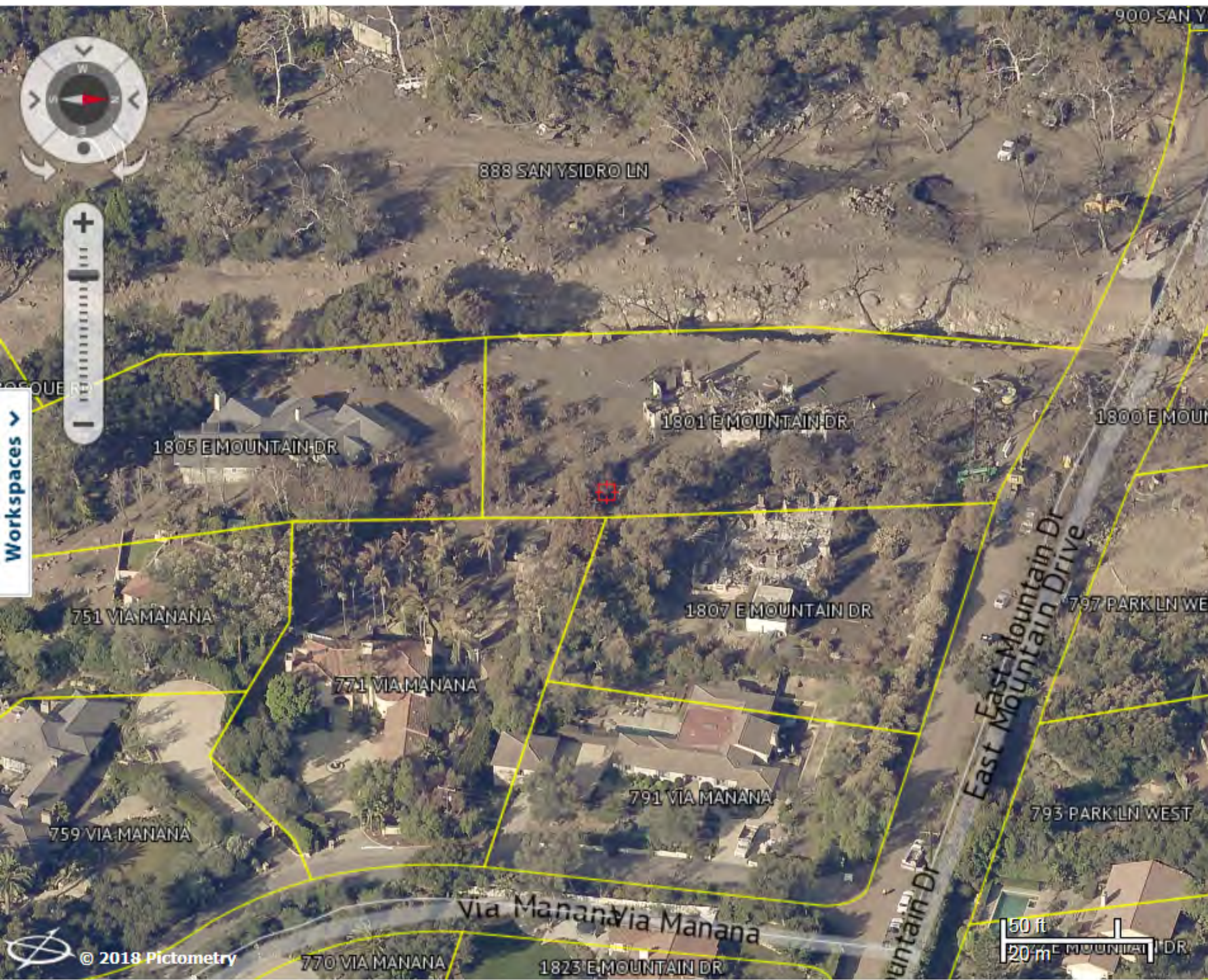


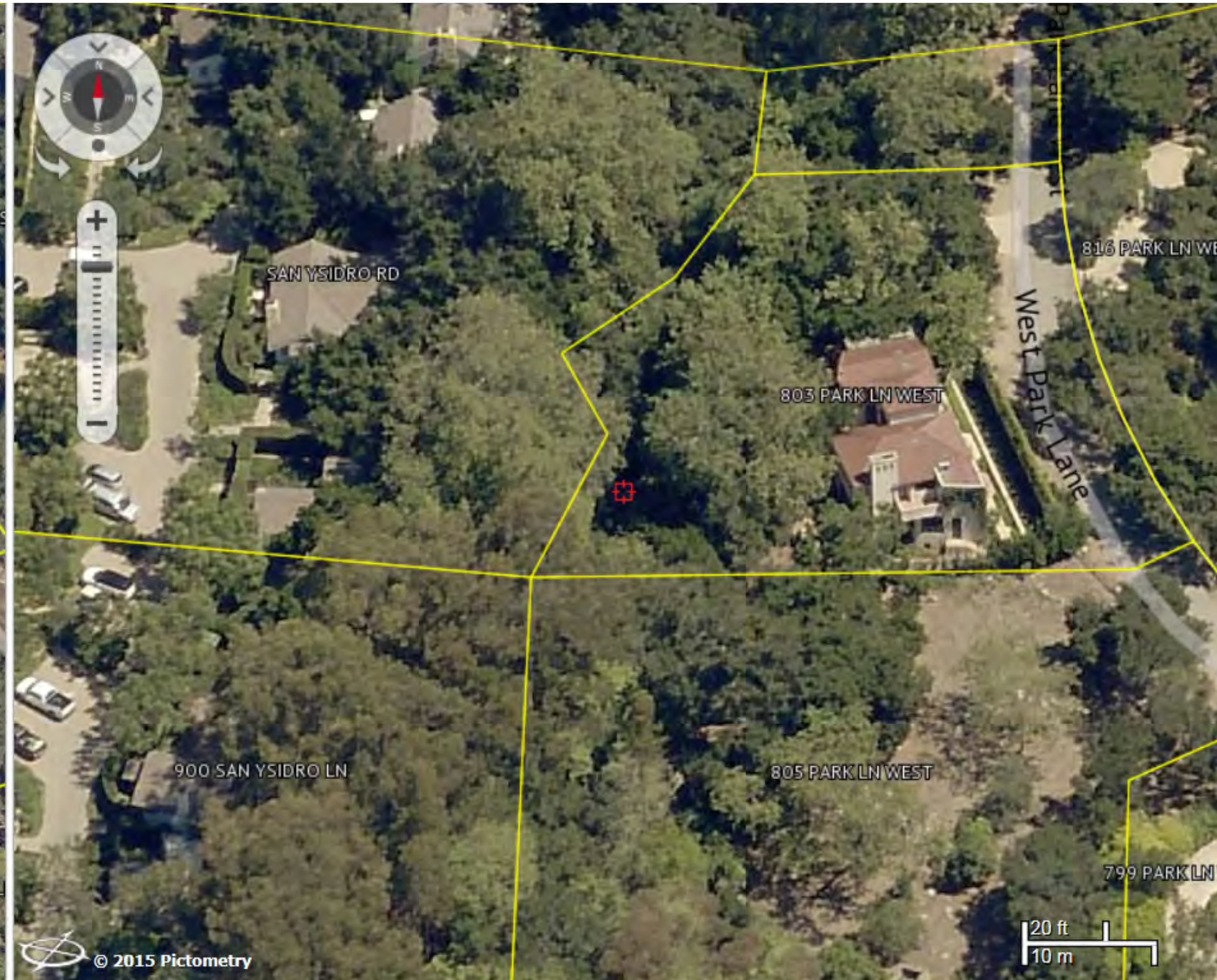
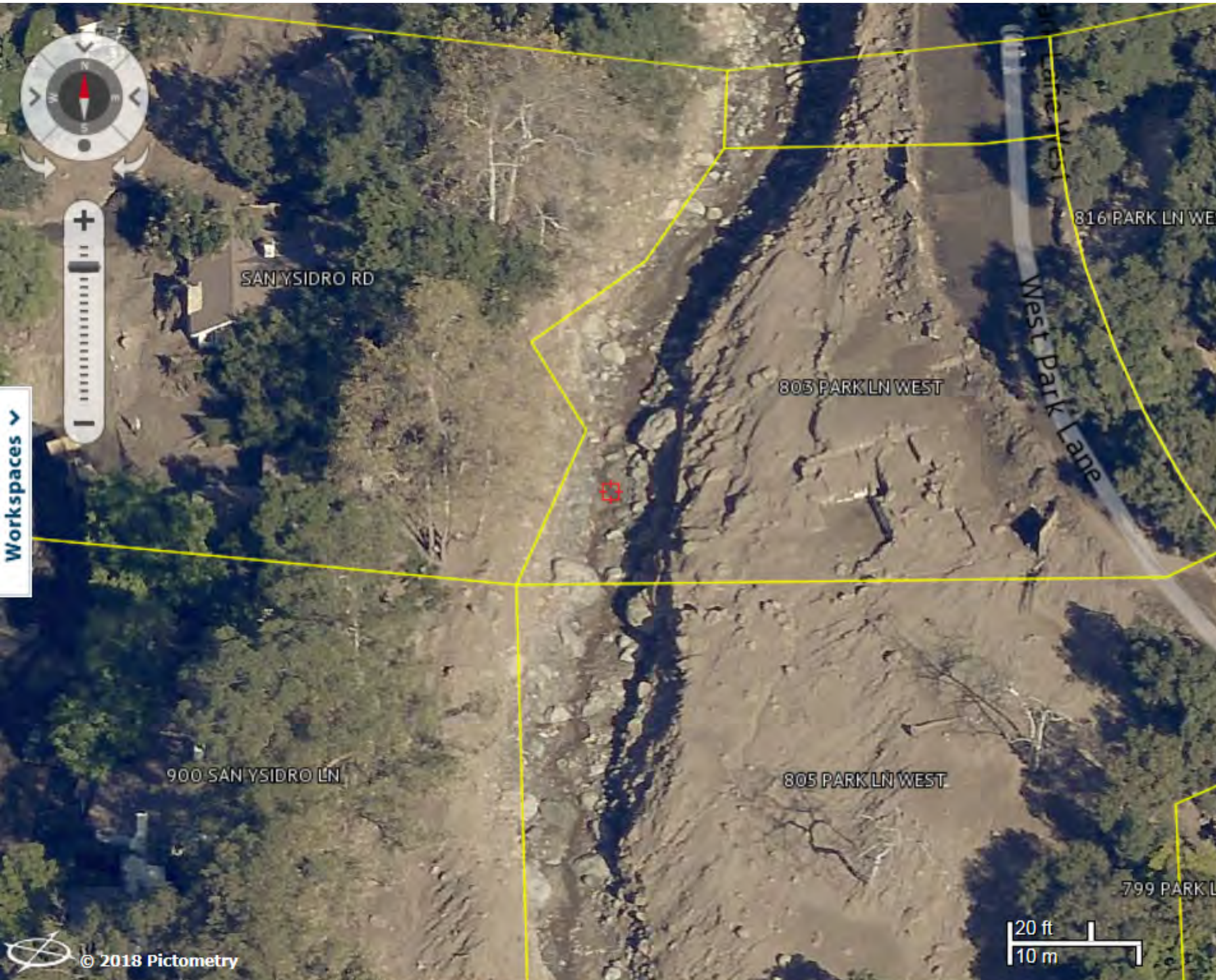


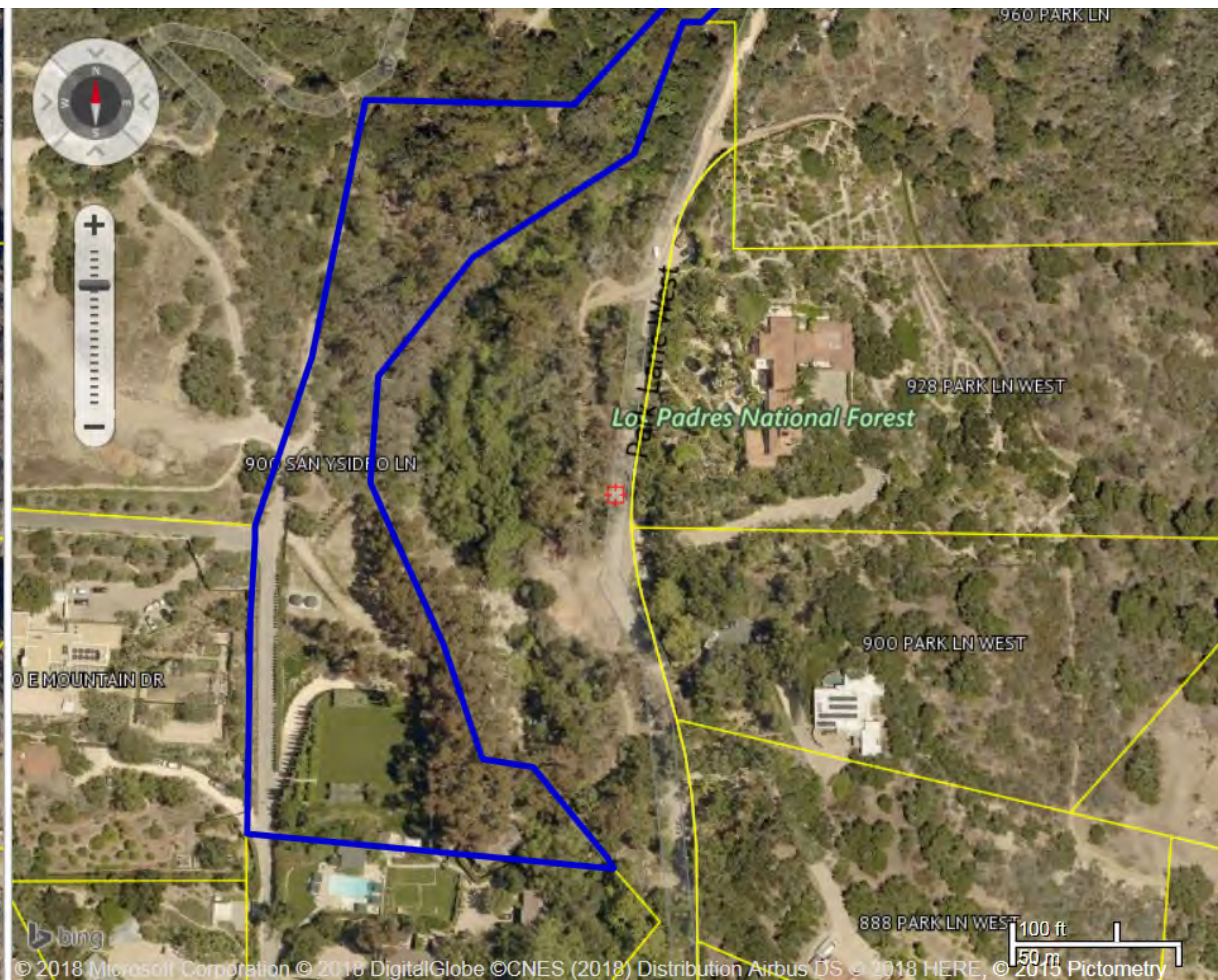
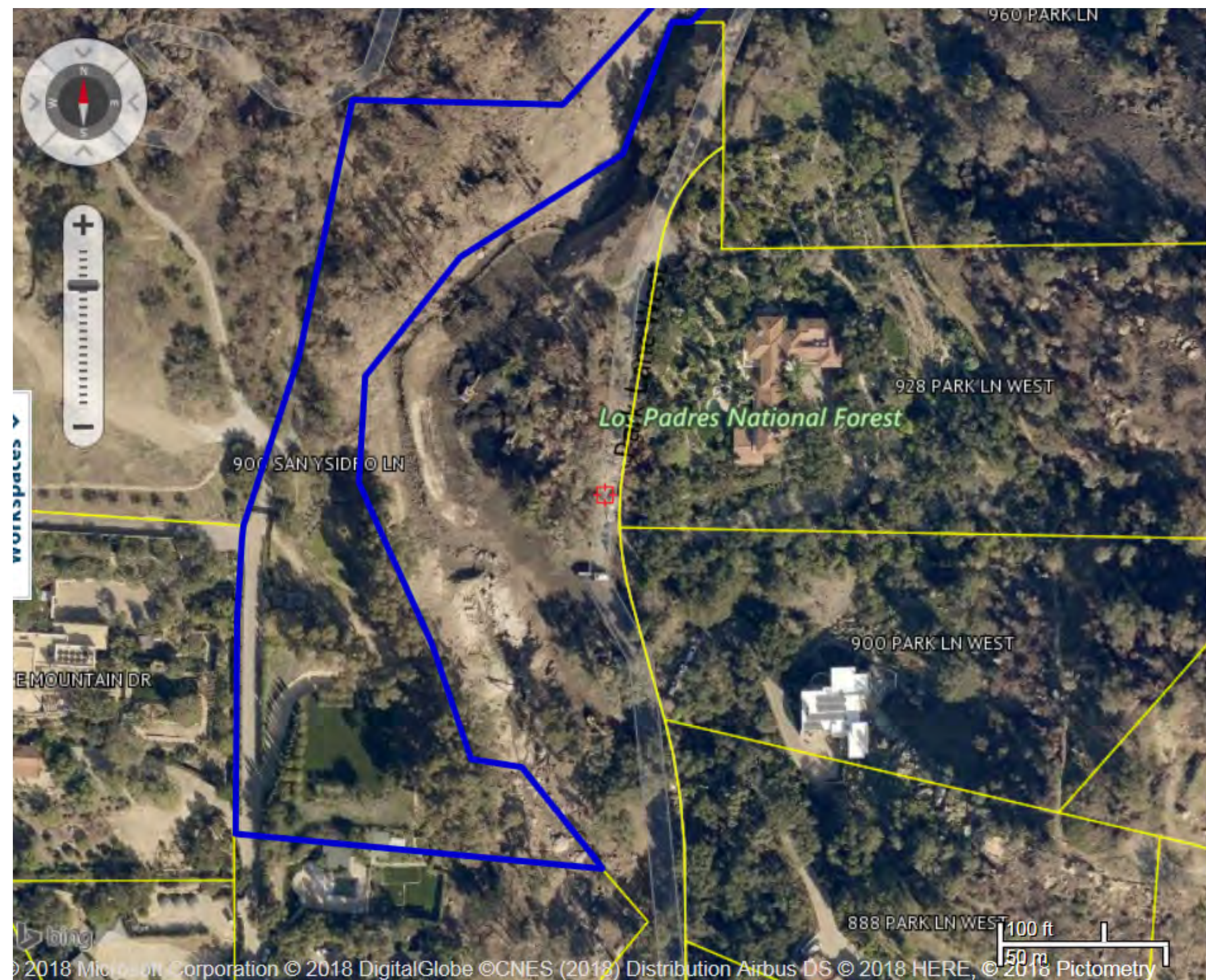












DEBRIS FLOW 1934



Jan. 1, 1934: Mud, rocks and damaged cars on Montrose Avenue in Montrose, after New Years flooding. This photo was published in the Jan. 2, 1934 Los Angeles Times.



DEBRIS FLOW 1934



Jan. 2, 1934: Car caught in mud from flooding in La Canada-Montrose. The car is sitting on the pavement of Montrose Ave. This photo was published in the Jan. 3, 1934 Los

