June 16, 2026

Project No.
5188.002.025

Mr. Kevin Jenkins
Leona Quarry Geologic Hazard Abatement District
Oakland City Hall
One Frank Ogawa Place
Oakland, CA 94612

Subject: Monte Vista Villas and Campus Drive Residences
Oakland, California

GEOLOGIC HAZARD ABATEMENT DISTRICT MONITORING – SPRING 2026

Dear Mr. Jenkins:

ENGEO is pleased to submit this monitoring report for the Leona Quarry Geologic Hazard Abatement District (GHAD). As described in the Leona Quarry Plan of Control (Reference 1), the purpose of this monitoring is to observe and report on the conditions of the open space and associated improvements within the Monte Vista Villas development and adjacent residences on Campus Drive. This monitoring event was conducted on April 22, 2026, and included the following parcels.

TABLE 1: Assessor's Parcel Numbers

ASSESSOR'S PARCEL NUMBER	PARCEL DESIGNATION (VESTING TENTATIVE MAP)	TRACT
37A-3163-9	A	7351
37A-3163-2	C	7351
37A-3163-3	D	7351
37A-3163-4	E	7351
37A-3163-5	F	7493
37A-3163-11	R	7493

SCOPE OF SERVICES

Site monitoring included the observation of the following items.

- Open-space slopes and debris benches
- Concrete-lined, asphaltic, and earthen surface drainage ditches
- Fencing, locks, and signage
- Rockfall protection barriers
- Emergency vehicle access and maintenance roadways
- Designated trails
- Drainage courses
- Subdrain outlets
- Storm drain inlets, outfalls, and pipelines
- Debris basin
- Detention basin
- Piezometers and inclinometers
- Settlement monuments

OPEN-SPACE SLOPES AND DEBRIS BENCHES

The open-space slopes and debris benches were observed for evidence of slope instability, including landslides, earthflows, rockfall hazards, or erosion. During our site visit, we did not observe significant distress to the slopes or debris benches within the six parcels that were accepted by the Leona Quarry GHAD with the exception of the conditions described below on Parcel F.

Slopes on Parcel F and along the edge of Parcel R are in an oversteepened condition and are subject to shallow slope instability, erosion, and raveling. We previously noted in Fall 2022 that an erosion gully was located on Parcel F above the concrete-lined drainage ditch and wood-lagging debris wall. Access to the Parcel F slope has been prevented in years past by fallen tree debris (Figure 1 – Site Condition A, attached). The tree debris should be removed to increase flow within the drainage ditch. However, the most recent maintenance has provided a path to lower portions of the concrete-lined drainage ditch. We observed that soil material from this erosion gully continues to deposit in the concrete-lined drainage ditch below these slopes. These oversteepened slopes shed debris, leaves, soil, and fallen trees into the concrete-lined drainage ditch located below the erosion gully and also near the intersection of concrete-lined drainage ditches on Parcel F. Debris has continued to accumulate within the concrete-lined drainage ditch, reducing its capacity. The GHAD should remove debris as part of the annual maintenance. We expect the shedding of material from these slopes to continue.

ROCKFALL PROTECTION BARRIERS AND WALLS

Rockfall barriers were installed to protect a portion of Skyview Drive, along with the adjacent residences and improvements, from unstable materials on the oversteepened uphill slope. There appears to be adequate catchment capacity behind these rockfall barriers. There were no rocks in the nets, the nets were not damaged, and braking elements had not been engaged. There were no rubble or debris ramps observed behind the system. The GHAD will remove material that collects behind the debris walls and barriers as it accumulates to maintain the catchment capacity and reduce the risk of jump platforms forming.

The GHAD installed wood-lagging debris walls between the concrete-lined drainage ditch and the uphill oversteepened slope, where significant raveling is occurring, including on Parcel F above Blue Rock Court. We previously noted in Spring 2020 that there was significant raveling and erosion from the uphill slope, and there was no longer any catchment capacity behind the wood-lagging debris wall. This condition was addressed during previous maintenance, though during our most recent visit, the erosion continued to accumulate behind the wood-lagging wall and should be removed. The approximately 90 feet of the wood-lagging debris wall on the western side of Parcel R is in good condition. As part of the ongoing GHAD maintenance activities, debris will be removed from behind the debris walls.

MAINTENANCE ROADWAYS AND DESIGNATED TRAILS

We observed the condition of the maintenance roadway paralleling Interstate 580 at the southern end of the site, as well as the maintenance roadway surrounding the detention basin in that same area. The gravel-surfaced roadways appeared to be in good condition. As part of the ongoing GHAD maintenance activities, vegetation will be removed on and along the maintenance roadways.

A trail is located along the southeastern edge of Parcel R that extends from Bayview Drive to Campus Drive. The trail alignment also serves as an access route to debris benches located along the slope. We did not observe significant erosion or slope instability on the trail segment.

DRAINAGE COURSES

Chimes Creek, located in the eastern portion of Parcel F, was observed for potential creek-bank failures. In general, the creek has moderate to dense vegetation cover and appears to be in stable condition. Water was not flowing at the time of our visit. We did not observe areas of significant creek-bank failure or creek channels that could potentially impact site improvements.

SURFACE DRAINAGE DITCHES

Concrete, asphaltic, and earthen surface drainage ditches were viewed for evidence of sediment accumulation and distress, such as cracking or shifting. As shown in Figure 1, there are approximately 22,500 linear feet of concrete-lined drainage ditches within the GHAD-maintained parcels. The concrete-lined drainage ditches were relatively free of debris and overgrowth. We expect that regular maintenance of the concrete-lined drainage ditches to remove debris and overgrowth will be necessary to maintain the conditions observed. This maintenance should include trimming all branches and plants 6 inches back from the ditch on either side to allow proper access for monitoring.

Additionally, some surface drainage ditches are undergoing erosion along their downslope side. We observed some minor cracking in the concrete drainage ditches that did not appear to significantly impair ditch integrity, and several ditches collected debris from the raveling of the oversteepened uphill slopes. As part of the ongoing GHAD maintenance activities, debris will be removed from the drainage ditch.

SUBDRAIN OUTLETS

Table 2 below presents subdrain flow rates as measured during this monitoring event. In general, the located subsurface drains appeared to be in good order and free of obstructions and debris.

TABLE 2: Subdrains

LABEL	FLOW (gallons/day)	COMMENTS
SD1	-	Unable to Monitor
SD2	-	Unable to Monitor
SD3	-	Unable to Monitor
SD4	0	Damp
SD5	0	Dry
SD6	0	Dry
SD7	0	Dry
SD8	1,150	Steady Flow (Estimate)
SD9	0	Damp with Moss
SD10	0	Dry
SD11	10	Steady Drip
SD12	0	Dry
SD13	0	Damp

LABEL	FLOW (gallons/day)	COMMENTS
SD14	-	Unable to Monitor
SD15	0	Damp
SD16	0	Dry
SD17	700	Steady Flow (Estimate)
SD18	-	Unable to Monitor
SD19	0	Dry
SD20	0	Damp
SD21	-	Unable to Monitor

PIEZOMETERS

Table 3 below presents piezometer groundwater levels measured during this monitoring event.

TABLE 3: Piezometers

LABEL	GROUNDWATER LEVEL FROM TOP OF PIEZOMETER (feet)	COMMENTS
PZ-1	14.6	
PZ-2	7.9	
PZ-5	174.3	Possibly dry. Reading is near bottom of piezometer.
PZ-6	Unable to Locate	
PZ-7	Unable to Locate	
PZ-8	Unable to Locate	
PZ-9	28.1	Possibly dry. Reading is near bottom of piezometer.
PZ-10	54.15	Possibly dry. Reading is near bottom of piezometer.

We have not located Piezometers PZ-3, PZ-4, and PZ-6 through PZ-8. The GHAD will locate these piezometers in the field for future monitoring.

INCLINOMETERS

There are four inclinometers within the GHAD, as shown in Figure 1. The GHAD obtained readings for Inclinometers SI-1, SI-2, and SI-3. A review of the readings of Inclinometers SI-1 and SI-2 did not show displacement indicative of slope movement. Due to abnormalities in previous readings from SI-3, possibly due to deformation of the casing, the October 2022 reading will be used as a new baseline. The inclinometer data from SI-3 obtained during this monitoring event indicate a continued deflection downslope of the casing since 2024. The deflection begins at approximately 90 feet below the surface and indicates approximately 0.25 inch in the fall 2025 and another 0.25 inch since then. The shift does not alter the trend of measurements, indicating some casing deflection rather than a sharp break caused by a developing slide plane. The GHAD will continue monitoring the inclinometers periodically for indications of slope movement during scheduled monitoring events or as needed.

DETENTION BASIN AND DEBRIS BASIN

A detention basin (located on Parcel C) and a debris basin (located on Parcel F) were observed for evidence of trash and debris within the inlets, outfalls, and trash racks, and to see that vegetation within the basins did not exceed 5 feet in height. There was minimal litter and debris at the inlets within the basins. As part of the scheduled maintenance, the GHAD will cut and remove vegetation and remove litter and debris from the basins. Attached is the monitoring report form for the detention basin located on Parcel C. Other than annual vegetation growth, the debris basin on Parcel F appeared to be in good condition.

FENCING, LOCKS, AND SIGNAGE

Fences, locks, and signage were observed for damage within the GHAD.

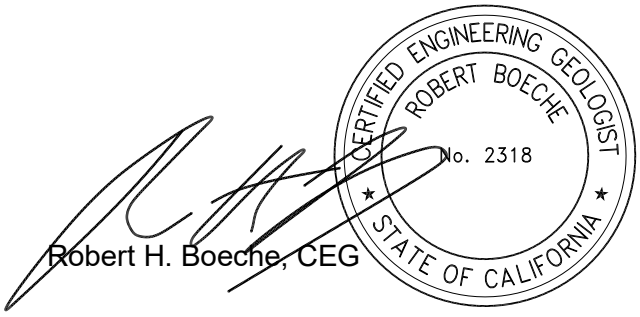
We previously noted in Spring 2018 that a section of fence along the maintenance roadway on the southwestern portion of Parcel E, paralleling Interstate 580, was pulled back, allowing access. This damage to the fence remained during this monitoring event. Since the fence borders Interstate 580 and is within the State of California property, the GHAD put in a maintenance request in 2018 with Caltrans to have the fence repaired. The work has yet to be completed at the time of this monitoring, and the GHAD will follow up with Caltrans on the status of this work.

If you have any questions concerning the observations made during this reconnaissance, please do not hesitate to contact us.

Sincerely,

ENGEO Incorporated

Angelo Campiglia



Robert H. Boeche, CEG

ac/rhb/ss

Attachments: Selected References
Parcel C Water Quality/Detention Pond, Site Monitoring and Maintenance Form
Figure 1 – Site Plan

SELECTED REFERENCES

1. ENGEO. 2005. Amendment 1 to the Plan of Control for Leona Quarry Geologic Hazard Abatement District (GHAD), Oakland, California. August 13, 2004; Latest Revision February 23, 2005. Project No. 5188.1.001.02.

2. ENGEO. 2010. Geologic Hazard Abatement District (GHAD) Plan of Control Transfer Monitoring, Leona Quarry Geologic Hazard Abatement District (GHAD), Monte Vista Villas, Oakland, California. October 28, 2010. Project No. 5188.002.010.

3. H. T. Harvey & Associates. 2004. Leona Quarry Slope Revegetation Plan, Prepared for the DeSilva Group. April 16, 2004. Project No. 1950-04.

4. ENGEO. 2025. Geologic Hazard Abatement District Monitoring – Fall 2025, Monte Vista Villas and Campus Drive Residences, Oakland, California. December 15, 2025. Project No. 5188.002.025.

PARCEL C WATER QUALITY/DETENTION POND

Site Monitoring and Maintenance Form

5188.002.025
June 16, 2026

MONITORING REPORT

Leona Quarry
Oakland, California

PARCEL "C" WATER QUALITY/DETENTION POND
OPERATIONS AND MAINTENANCE
SITE MONITORING AND MAINTENANCE REPORT FORM

(TO BE COMPLETED QUARTERLY IN JANUARY, APRIL, JULY, AND OCTOBER AND AS NECESSARY DURING HEAVY RAINFALL)

Inspector: Nick Inserra Date: 4/22/2026

Weather Conditions: Sunny

Days since last rainfall: > 30 days Dry Season? X Wet Season?

Pond Water Level: Less than 12 inches

Sediment Accumulated since Last Monitoring Event: Yes

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
1. Are inlet and outlet structures functioning properly, allowing the pond to drain and are they in satisfactory condition?	X			Parcel F uphill concrete-lined ditches require cleaning to remove tree debris.
2. Are access roads in satisfactory condition?	X			
3. Is all perimeter fencing in good condition without breaks, gaps or damage?	X			
4. Have the debris racks been cleaned and are they in good condition?	X			
5. Are embankments surrounding the pond in good condition without rills or failures?	X			
6. Is the vegetation less than 5 feet in height?	X			
7. Are embankment slopes protected with mulch or vegetation?	X			
8. Has sediment removal been undertaken in the last 3 months?	X			

MONITORED CONTROL	YES	NO	N/A	COMMENTS/ SUGGESTED MAINTENANCE
9. Is there evidence of chemical sheen or odor, contaminated runoff, litter or blowing debris in or near the pond?		X		
10. Do any pond devices require maintenance to provide more effective function?		X		
11. Are there signs of leaking irrigation systems?		X		
12. Are there any signs of vandalism?		X		
13. Are mosquitoes evident?		X		
14. Has mosquito abatement been undertaken since the last monitoring event?		X		
15. Are there remedial/repair tasks that should be undertaken in the near future?		X		
16. Is there evidence or information received in the last 3 months to indicate a lengthy drain time?		X		

"No" answers to Items 1-7 or "Yes" answers to Items 8-16 may require a corrective action.

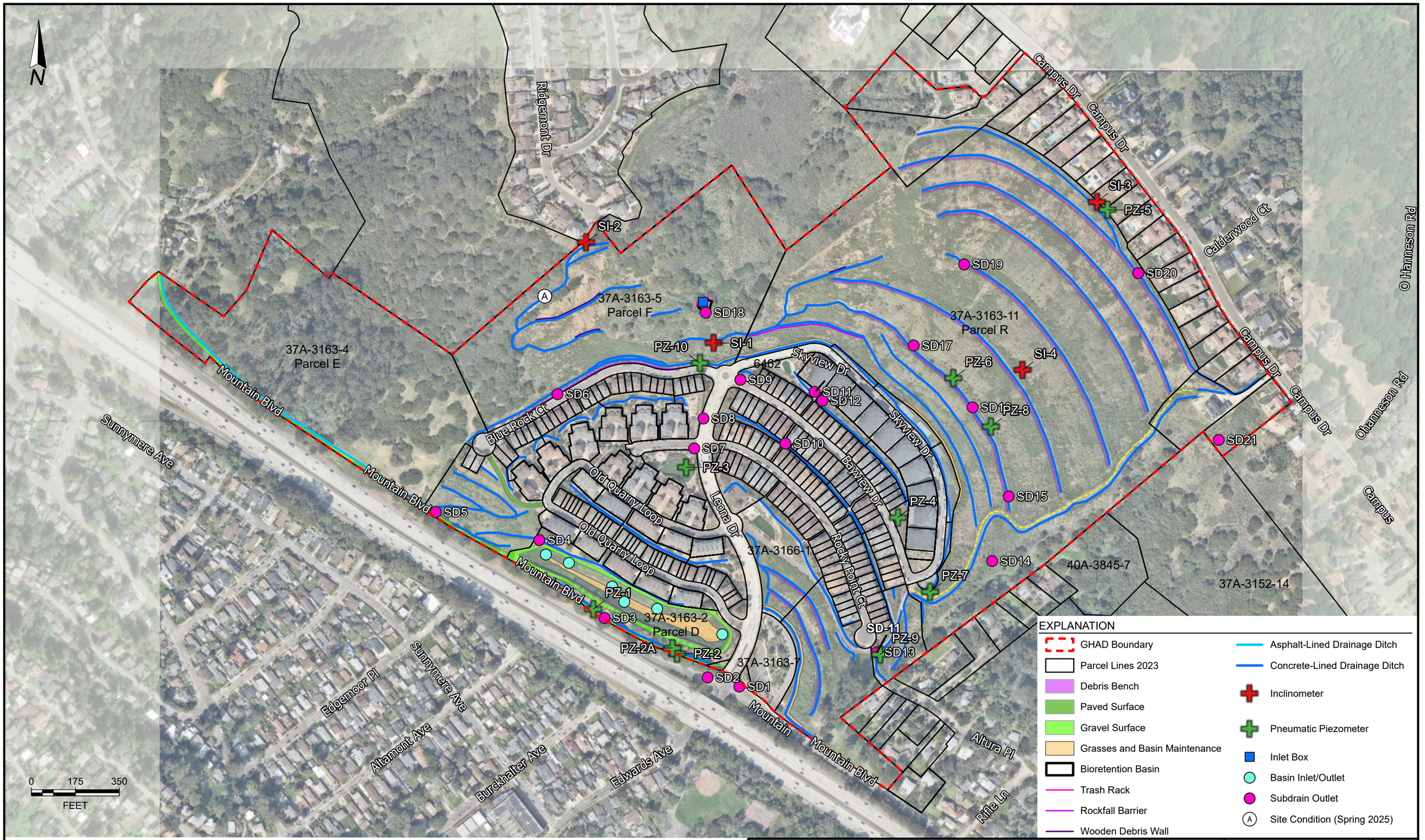
PARCEL "C" WATER QUALITY/DETENTION POND
OPERATIONS AND MAINTENANCE
SITE MONITORING AND MAINTENANCE REPORT FORM (CONTINUED)

CORRECTIVE ACTIONS UNDERTAKEN (If none required, enter date and "none")

DATE	DEFICIENCY NOTED	CORRECTIVE ACTION

FIGURE 1

Site Plan



EXPLANATION

- GHAD Boundary
- Parcel Lines 2023
- Debris Bench
- Paved Surface
- Gravel Surface
- Grasses and Basin Maintenance
- Bioretention Basin
- Trash Rack
- Rockfall Barrier
- Wooden Debris Wall
- Asphalt-Lined Drainage Ditch
- Concrete-Lined Drainage Ditch
- Inclinometer
- Pneumatic Piezometer
- Inlet Box
- Basin Inlet/Outlet
- Subdrain Outlet
- Site Condition (Spring 2025)

BASEMAP SOURCE: NEARMAP MAPPING SERVICE, 03/2023

ENGEO Expect Excellence

SITE PLAN

LEONA QUARRY GHAD

OAKLAND, CALIFORNIA

PROJECT NO.:	5188.002.025
SCALE:	AS SHOWN
DRAWN BY:	NLK
CHECKED BY:	RHB
FIGURE NO.	1

ORIGINAL FIGURE PRINTED IN COLOR

PATH: G:\DRAFTING\PROJECTS\5188\5188002025\GHAD\GIS\5188002025_GHAD_0626.APRX
LAYOUT: 01. SITE PLAN 11X17 LANDSCAPE USER: NLAMOTTEKERR