

Appendix G

Ordinance Investigative Services Report

SkyView – Lafayette Street
Apple Valley, California
Project No: 2141.01

Northgate Environmental Management, Inc.
92 Argonaut, Suite 100
Aliso Viejo, California 92656

July 26, 2022

July 26, 2022

Mr. Chandler Clark
Redwood West
1111 Bayside Drive, Suite 150
Corona Del Mar, California 92625

RE: Ordnance Investigative Services Report
SkyView – Lafayette Street
Apple Valley, California
Project No: 2141.01

Dear Mr. Clark:

Northgate Environmental Management, Inc. (Northgate) is pleased to submit this report of our ordnance investigative services for the Skyview Property located at the southeast corner of Lafayette Street and Dale Evans Parkway in the City of Apple Valley, California (the Site).

BACKGROUND

The Site consists of approximately 75 acres of undeveloped land including the following 10 Assessor's Parcel Numbers (APNs) 0463-231-11-0000 through -16-0000 and APNs 0463-231-34-000 through -37-000, located south of Lafayette Street in the City of Apple Valley, California (the Site) as shown on Figure 1.

The Site is currently listed on the Formerly Used Defense Sites (FUDS) database as the Victorville Precision Bombing Range No. 1 (PBR 1). The Department of Defense (DOD) is ultimately responsible for the further action recommended in Parson's 2008 Site Investigation report. In that report, Parsons concluded that "there is potential munitions constituents' contamination present in soil." They recommended that the munitions response site proceed to remedial investigation/feasibility study. However, since this Site is a "low risk" Site, it may be many years before the DOD through the U.S. Army Corps of Engineers (USACE) takes further action.

Redwood Real Estate and Northgate participated in a meeting with the USACE to assess the willingness of the agency to participate in the decision making, investigation/remediation, and/or financial contribution toward restoration of the Site. We were informed by the USACE that they do not have current plans to take action on this Site nor would they contribute to the restoration

of the Site. The USACE did indicate, that if requested to clean up the site, they would put it on their schedule and the timeframe would be approximately seven years.

Northgate performed the first phase of ordnance investigative services of the Site. The scope of these services included the following:

1. Perform a Site reconnaissance to assess the surface conditions focusing on the existing vegetation, presence or absence of ordnance-related munitions debris (MD) or munitions and explosives of concern (MEC).
2. Perform a limited geophysical survey of the Site including:
 - a. Geophysical transect field surveying (at 125 feet spacing) using a towed EM-61, data acquisition, and data interpretation system;
 - b. An Instrument Verification Strip (IVS) for daily instrument functionality tests;
 - c. Preparation of maps showing data coverage, geophysical response, and anomaly density;
3. Evaluate the data collected and develop recommendations for additional work (if required) and;
4. Prepare a letter report presenting the results of the Site reconnaissance, the geophysical survey, and our recommended additional work.

The proposed project will be a warehouse distribution facility with an approximately 1,200,000 square-foot, one-story building, and associated truck loading and on-grade parking. The facility design also includes a partial perimeter drainage channel (encompasses north, west, and southern perimeter of the Site), two on-Site detention basins on the southern perimeter of the Site that will at times contain stormwater. The eastern portion of the Site will be improved with on-grade parking with ribbon drains for stormwater management. The detention basins will be approximately 5 to 10 feet deep. The perimeter drainage channel will be approximately 5 feet deep on the north and south side and up to 20 feet deep on the east side. Grading for the project will consist of cutting 20 or more feet in areas and filling other portions with as much as 10 feet of soil. The building pad will consist mostly of fill except in the northeast corner of the proposed building footprint area where a few feet of cut is proposed. In the former bombing target area, most of the area will be cut approximately 2-5 feet. Almost all the area will be capped for surface parking; however, a small portion will be occupied by the planned building, and an underground storm drain will be installed in a north-south orientation just east of the proposed building footprint.



SITE RECONNAISSANCE

A Site reconnaissance was performed by Northgate (Tom Danaher and Ricardo Munoz) and Northgate's geophysical subcontractor, In-Depth (Armando Lucero) (the Group) on May 2, 2022. The Site reconnaissance was performed by traversing the Site by foot. The Site reconnaissance began on the northeast corner of the Site. Leaving the northeast corner, the Group fanned out and proceeded to the northwest corner of the Site where the historic target is located. Evidence of the rings of the target is visible on the ground. The target has three rings, approximately 100 feet apart and the rings have a radius of 300 feet from the center of the target. Half of the target is located on the Site.

As the Group approached the target area, numerous pieces of ordnance-related scrap were noted on the ground surface or partially buried in the ground. The density of the scrap increased within the former target area.

The Group then proceeded in a fanned-out configuration from the northeast corner to the southwest corner diagonally across the Site. No ordnance scrap was noted after leaving the general target area. Occasional pieces of metal trash (cans and other debris) were observed.

GEOPHYSICAL SURVEY

A geophysical survey was performed at the Site between May 2 to May 5, 2022. The geophysical survey consisted of three tasks including: 1) conducting an IVS survey; 2) performing a geophysical survey; and 3) processing the data and preparing data maps.

Instrument Verification Strip

An IVS was constructed on the Site to verify that the geophysical detection system, (a Geonics EM-61[EM-61] metal detector), was operating properly. The IVS targets (industry standard objects [ISOs] 2-inch by 8-inch schedule 80 black steel pipe nipples) were buried at depths and orientations expected at the Site. The data observed was compared to historical measurements and physics-based model predictions. Adjacent measurements of Site noise were also determined to assess whether targets of interest could be detected reliably at the depth of interest under the Site conditions. The instrument was checked daily in the IVS before mapping began to verify the system was operating properly.

Geophysical Survey and Digital Data Evaluation

The geophysical survey was performed using a tow-behind EM-61. The location of the EM-61 was tracked in real-time using precision global positioning system (GPS) equipment and was recorded



during mapping with the survey data. The survey was performed in 41 transects taken in a north-south direction to generate 10.8 miles of transect data. The transects were approximately 60 feet apart as shown on Figure 2. The transect alignments vary from a straight line due to the equipment moving laterally to avoid vegetation or other obstructions during mapping. A statistical kriging model was employed to interpolate the estimated number of anomalies in between the transects.

FINDINGS AND RECOMMENDATIONS

Site Reconnaissance

The findings of the Site reconnaissance was consistent with the documented history of the use of the Site contained in the Northgate Phase I Environmental Site Assessment Report, dated March 23, 2022. Specifically, the ordnance-related scrap visible on the ground surface or partially buried at the Site was primarily found in relatively close proximity to the target in the northeast corner of the Site. All of the ordnance-related scrap appeared to be associated with 100-pound sand-filled bombs equipped with spotting charges. No energetic materials were observed. No intact bombs were identified. No ordnance related scrap was noted in other areas of the Site.

Metallic items were seen during the reconnaissance in areas outside the vicinity of the general vicinity of the bombing target. These items appeared to be non-ordnance related metal including car parts, cans and debris.

Geophysical Survey

The geophysical survey was performed in accordance with the Northgate's proposal dated April 19, 2022. The survey was successful in identifying the location and estimated density of surface and buried metal at the transect locations. The 10.8 miles of transect resulted in 626 detected anomalies as shown in Figure 3. A total of 382 anomalies were detected within roughly 250 feet of the target. The results of the kriged data model identified a high-density area, denoted by a gray line, around the target area where 810 anomalies per acre were predicted as shown on Figure 4.

Figure 5 shows the proposed development overlain on the digital geophysical map. The results of the geophysical survey indicate that the high anomaly density area will be developed as parking, and a corner of the proposed building. In addition, an underground storm-drain line will be installed just east of the building wall. This area is proposed to be cut to reach final pad and parking lot elevation.



Recommendations

Based on the results of the reconnaissance and the geophysical survey, it is Northgate's opinion that no further MEC investigation is necessary. It is the intent of these recommendations to use clearance and avoidance as the primary techniques for construction at the Site. Using clearance and avoidance should mitigate the high-density anomaly area and allow construction without further investigation. In addition, Northgate recommends placing a minimum of 2 feet of fill between the final elevation and native soil in the high anomaly area and development of a post-remediation Soil Management Plan (SMP). This approach will minimize the potential for future workers to come in contact with ordnance related materials. The SMP would be prepared by Northgate following completion of construction and would contain the procedures and protocols for future excavations at the Site. Northgate has developed the following construction-related recommendations to address intrusive activities and avoidance measures:

- During intrusive grading operations in the target and high-density area (within roughly 250 feet of the target area), full time construction support using a two-man technician crew should be performed to identify any ordnance related scrap or MEC items;
- In the target/high density area Northgate recommends that the area be cleared using excavation, stockpiling and sifting to remove the ordnance-related scrap metal. A depth of 3 feet below final elevation is recommended for this operation. The cleared soil will then be returned to this area;
- Intrusive work in the target/high density area for stormwater transfer line and drainage (after clearance) should be performed by excavator or backhoe equipment and the construction support technician (Unexploded Ordnance [UXO] Technician) should be present during intrusive excavations;
- Ordnance related scrap encountered during intrusive excavations will be collected, inspected, properly handled, and disposed of by the construction support technicians;
- In the area(s) where fill will be placed in the target/high density area, the fill should be a minimum of 2 feet thick;
- Avoid coming in contact with ordnance-related metal whenever possible;
- In proposed fill areas, utilize grading techniques that are not intrusive into the subgrade;
- Excavation of the soil for clearance and stockpiling operations can be performed using a dozer and loader to create the stockpiles for sifting; and
- If any items are identified as containing energetic materials, the MEC representatives will assess the item and take appropriate action.



CLOSING

We appreciate this opportunity to support you with MEC consulting services. Please feel welcome to contact me at (949) 716-0050, ext. 101, or via e-mail at derrick.willis@ngem.com should you have any questions.

Sincerely,
Northgate Environmental Management, Inc.

DRAFT

Derrick S. Willis
Principal

Enclosures: Figure 1. Site Plan
 Figure 2. Survey Transects
 Figure 3. DGM Response with Anomalies
 Figure 4. Anomaly Density
 Figure 5. Conceptual Building Design and Anomaly
 Density



ENCLOSURES



D:\Work\N\GEM\2146\2146.01\Figure 1 - Site Plan.dwg Layout: F1 User: oleg Jul 19, 2022 - 9:20pm

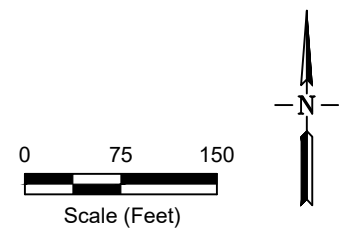
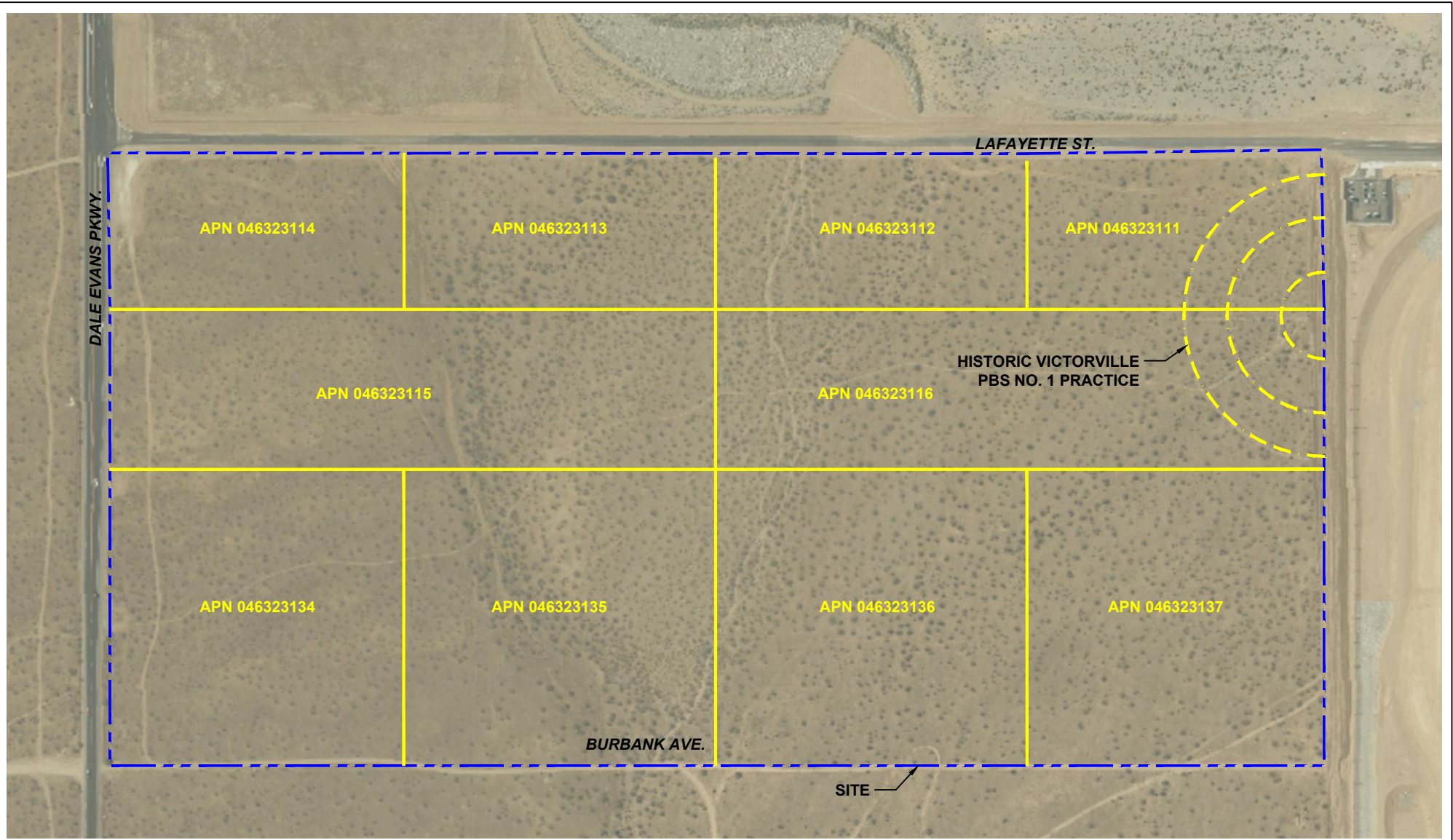


FIGURE 1
Site Plan





SkyView Property
Apple Valley, California

 **northgate**
environmental management, inc.

Project No. 2146.01



Legend

-  Skyview Investigation Area
-  Former Bombing Target
-  Proposed Transects
-  Survey Transects

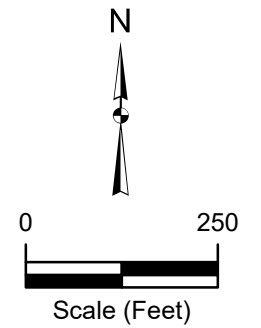


FIGURE 2
Survey Transects

Skyview Property
Apple Valley, California



Project No. 2146.01.04S

D:\Work\GEM\2146\2146.01\Figure 3 - DGM Response w Anomalies.mxd 7/24/2022



Legend

- + Geophysical Anomalies
- Proposed Transects
- ▭ Skyview Investigation Area
- Former Bombing Target
- ~ Survey Transects
- DGM Digital Geophysical Mapping

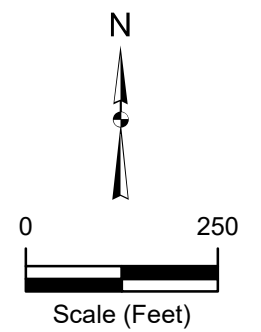
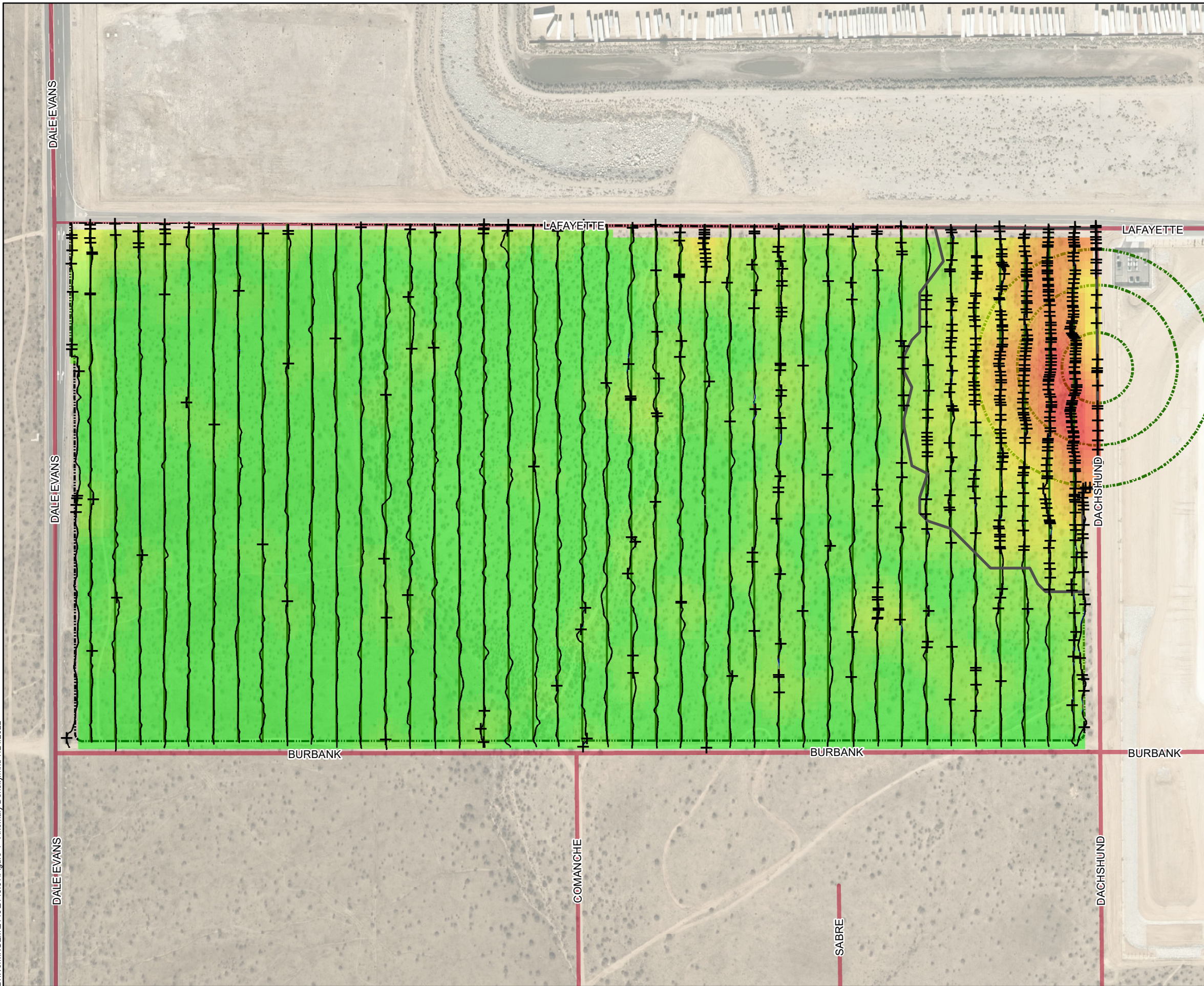


FIGURE 3
DGM Response with Anomalies

Skyview Property
 Apple Valley, California



Project No. 2146.01.04S



Legend

- + Geophysical Anomalies
- ▭ Delineated_High_Density-8.7acres
- Proposed Transects
- ~ Survey Transects
- ▭ Skyview Investigation Area
- ▭ Former Bombing Target
- VSP Kriging
- Value
- High : 1620.91
- Low : 0

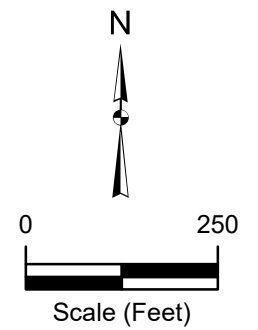
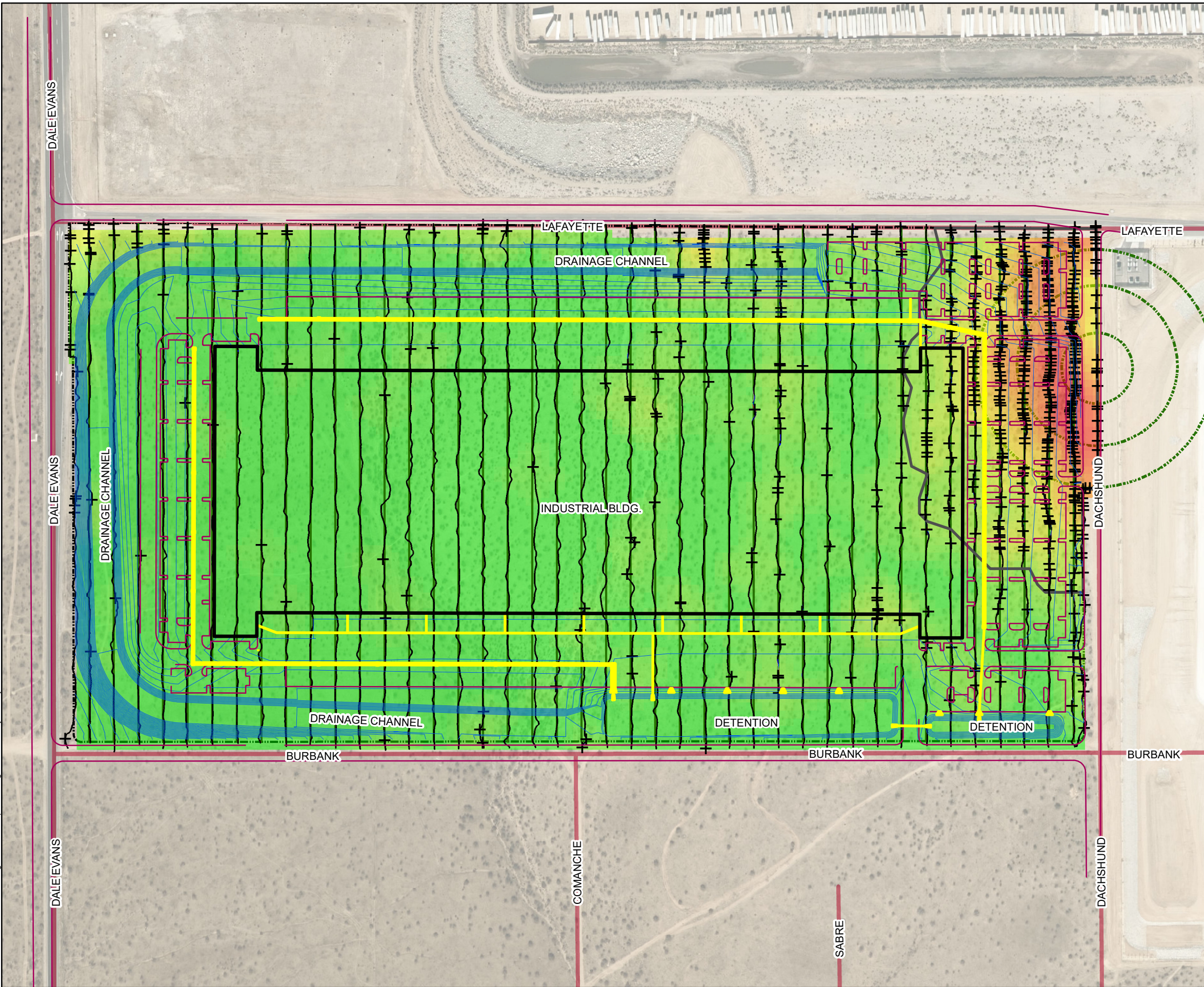


FIGURE 4
Anomaly Density

Skyview Property
Apple Valley, California



Project No. 2146.01.04S



- Legend**
- Proposed Industrial Building Footprint
 - Storm Drain
 - Geophysical Anomalies
 - Delineated_High_Density-8.7acres
 - Proposed Transects
 - Survey Transects
- VSP Kriging
Value
- High : 1620.91
 - Low : 0
- Skyview Investigation Area
 - Former Bombing Target

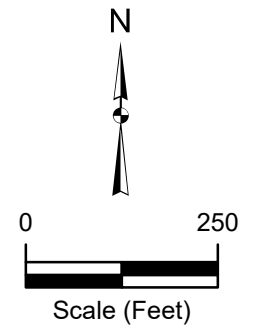


FIGURE 5
Conceptual Building Design and Anomaly Density

Skyview Property
Apple Valley, California



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