LGC GEO-ENVIRONMENTAL, INC.

UPDATED GEOLOGIC FAULT HAZARD EVALUATION FOR THE PROPOSED 17-ACRE MULTI-USE "SKYLINE VILLAGE" DEVELOPMENT, LOCATED AT WEST CHASE DRIVE AND FOOTHILL PARKWAY IN THE CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA; APNS: 275-050-014-6 AND 275-080-041-3

Dated: July 16, 2020
Project No. G19-1802-10

Prepared For:

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LGC GEO-ENVIRONMENTAL, INC.
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

July 16, 2020

Project No. G19-1802-10

Mr. Chris Bowen
GF Investments, LLC
1871 California Avenue
Corona, California 92882

Subject: Updated Geologic Fault Hazard Evaluation for the Proposed 17-Acre Multi-Use "Skyline Village" Development, Located at West Chase Drive and Foothill Parkway in the City of Corona, Riverside County, California; APNs: 275-050-014-6 and 275-080-041-3.

LGC Geo-Environmental, Inc. (LGC) is pleased to submit our updated geologic fault hazard evaluation for the proposed 17-acre multi-use "Skyline Village" development located at West Chase Drive and Foothill Parkway in the city of Corona, Riverside County, California; APNs: 275-050-014-6 and 275-080-041-3. This report has been updated to address the revised civil engineering design for this site. This report presents the results of our field mapping, review of published geologic/geotechnical reports and/or maps, review of aerial photographs, previous on-site fault reporting, and our geologic judgment, opinions, conclusions, and recommendations pertaining to the geotechnical design aspects of the future development.

It has been a pleasure to be of service to you on this project. Should you have any questions regarding the content of this report or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

LGC GEO-ENVIRONMENTAL, INC.

Mark Bergmann, CEG 1348
Certified Engineering Geologist/President

JL/MB

Distribution: (4) Addressee

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

The purpose of our updated geologic fault hazard evaluation was to review evidence of active faulting on the subject site, and to provide geologic recommendations and design criteria for mitigation of the potential hazard of surface displacement due to faulting, for the proposed multi-use development at the site. This report presents the results of our fault hazard evaluation for the proposed development. The results of our study should be incorporated into the future design of the proposed development within the site.

Our scope of services included:

- Background review of previous geotechnical reports by LGC Inland, Inc. and pertinent documents regarding the Alquist-Priolo Earthquake Zone relative to the new development plan (Appendix A).
- Detailed air photo analysis to evaluate lineaments suggestive of active faulting with respect to the new development plan.
- Transfer of previous fault trench data to current base map. The approximate locations of the fault trenches are shown on the enclosed Geologic/Fault Location Map (Plate 1), and a descriptive log is presented on the Fault Trench Log (Plate 2).
- Geologic site reconnaissance and update geologic mapping of the site.
- Analysis of air photo data and previous fault trenching information with respect to faulting impacts to the proposed development.
- Provide an updated evaluation of faulting that was present as it pertains to the site and the proposed multi-use development.
- Preparation of this fault evaluation report presenting our findings, conclusions, and preliminary geologic and geotechnical recommendations for the proposed multi-use development.

1.2 Location and Site Description

The subject site is irregular in shape and is located to the southwest of the intersection of West Chase Drive and Foothill Parkway in the City of Corona, Riverside County, California. The site is bounded on the north and west by vacant lots, on the south by a plant nursery, and on the east by Foothill Parkway. Onsite surface elevations range from approximately 1,255 feet above mean sea level (msl) at the southerly property line to approximately 1,100 feet above msl in the northeast at the existing drainage inlet. Local drainage is generally directed away from the flattened ridge top in all directions and towards the northeast at the base of the ridge to existing storm drain inlet near the northerly property line. The general location and configuration of the site is shown on the Site Location Map (Figure 1).

The subject site is a vacant property with a graded ridge top (approximately 1,225 feet above msl elevation) and an approximately 130-foot high fill slope with associated terrace drains bordering the graded ridge top. A paved path leads onto the site from Foothill Parkway which transitions to a dirt path near the northern perimeter of the site. Annual weeds are abundant on the project site, along with trees, shrubs, and debris. Aerial stereo photography dating back to 1949 revealed the site was in a natural condition until about 1985.

1.3 Proposed Development and Grading

The revised referenced "Conceptual Grading Plan", prepared by KWC Engineering (KWC, 2020), indicates that the proposed multi-use development will be comprised of three parcels, with Parcels 1 and 2 proposed for commercial usage located closer to Foothill Parkway. A total of 41 condominiums within 6 complexes are proposed in Parcel 3 on the westerly portion of the site which are identified as C1 through C6 on the updated Conceptual Grading Plan (Plate 1).

More specifically, one commercial building (A), storage containers and five kiosks are proposed in Parcel 1. Parcel 2 indicates one commercial building (B) is proposed in this area. Parcel 3 contains the six proposed condominium complexes (C1 through C6), a pool, pool/recreational building and spa building.

FIGURE 1
SITE LOCATION MAP

Project Name	GF INVESTMENTS
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Geol./ Eng.	MB
Scale	NOT TO SCALE
Date	JULY 2020

A large 75 ± foot high cut slope is proposed along the westerly half of the southern property line and incorporates a 25-foot-high retaining wall at the toe. Another large retaining wall approximately 35 feet in height is proposed at the northern property line. Two approximately 8-foot retaining walls are proposed near the western property line and southern property line. Associated interior roadways and parking areas are also proposed for this development.

1.4 Previous Geologic Reports

Previous geotechnical investigations were conducted by LGC Inland, Inc. in 2004 and LGC Geo-Environmental, Inc. in 2020 (Appendix A). These reports were reviewed by LGC and pertinent data has been incorporated into this report. LGC Inland reviewed aerial imagery and stated that "no lineaments or any signs of faulting were observed traversing the site" (LGC Inland, 2004). Additionally, two fault trenches were excavated across portions of the Earthquake Fault Zone onsite and two bedrock faults trending east-west were encountered and are shown on the accompanying Geologic/Fault Location Map. LGC Inland concluded that these faults are not active. However, they stated no Holocene alluvium was encountered overlying these faults so it cannot be shown conclusively that these faults are not active. Subsequently, the site was rough graded to accommodate the originally proposed single family residence (LGC Inland, 2006).

1.5 Aerial Photograph Review

Stereoscopic aerial photographs of the subject site and vicinity, from 1949 through 1999, were reviewed and evaluated by this firm to identify any apparent lineaments or other geomorphic features that may indicate faulting is present onsite. The photographs were obtained from Continental Aerial Photo, Inc. Scales of the photographs reviewed varied. A summary table of the photos reviewed is presented in Appendix A.

Based on our review of the stereo photographs, no geomorphic lineaments were interpreted to project across the subject site. About 300 feet east of the subject site, geomorphic lineaments can be seen trending northwest to southeast. This lineament coincides with the Elsinore fault as mapped by the USGS.

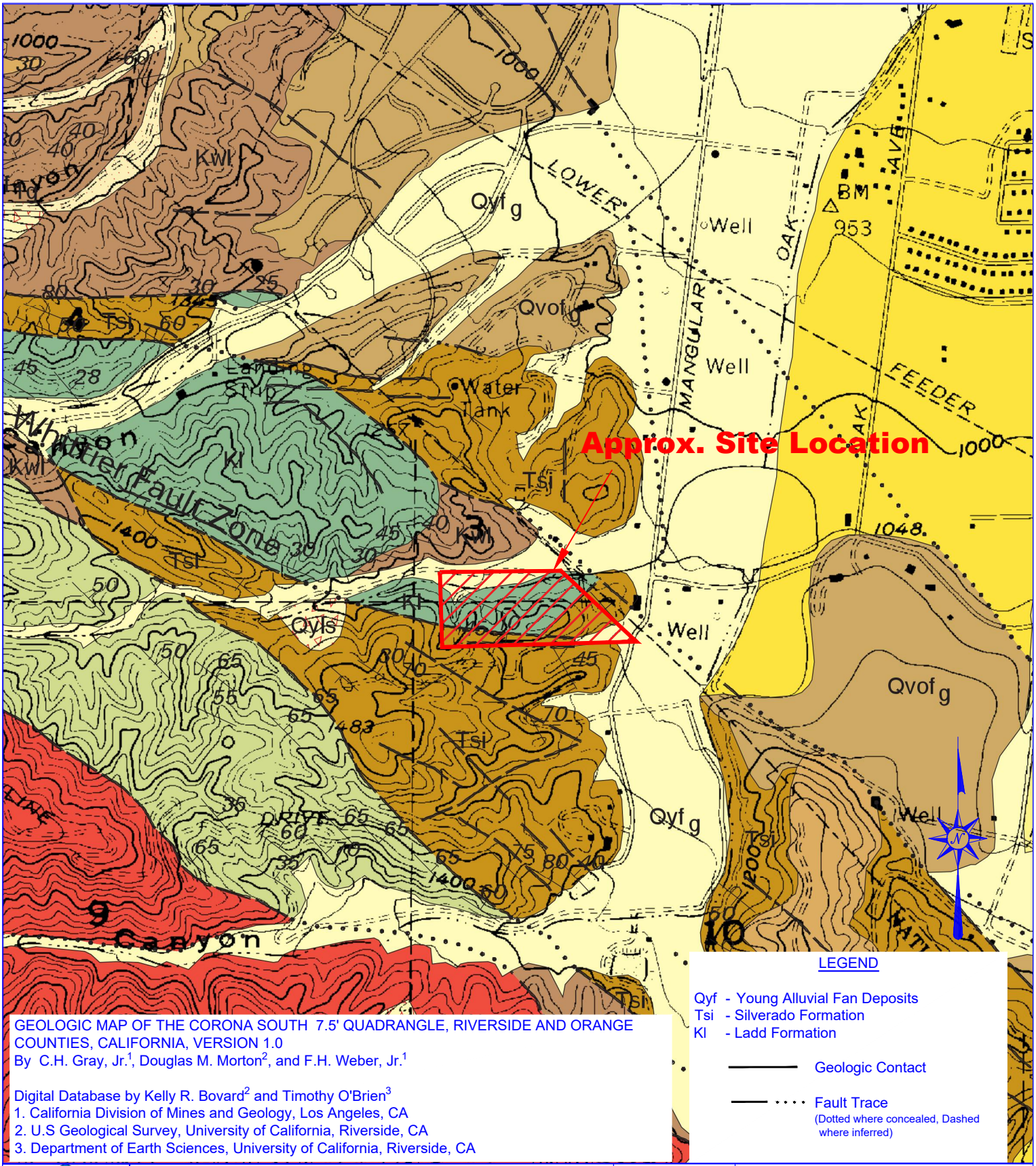
1.6 Subsurface Exploration

A subsurface exploration was conducted by LGC Inland in July of 2004 to address the development of a single-family residence within the site. Two (2) fault trenches approximately 5 feet to 7 feet deep and a total of 340 feet in length were excavated and geologically logged. The fault trenches were excavated across the southern margin of the Earthquake Fault Zone onsite, but only shadowed the proposed single-family residence location.

2.0 GEOTECHNICAL CONDITIONS AND FINDINGS

2.1 Regional Geologic Setting

Regionally, the site is located in the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by steep, elongated valleys that trend west to northwest. The northwest-trending topography is controlled by the Elsinore fault zone, which extends from the San Gabriel River Valley southeasterly to the United States/Mexico border. The Santa Ana Mountains lie along the western side of the Elsinore fault zone, while the Perris Block is located along the eastern side of the fault zone. The mountainous regions are underlain by Pre-Cretaceous, metasedimentary and metavolcanic rocks and Cretaceous plutonic rocks of the Southern California Batholith. Tertiary and Quaternary rocks are generally comprised of non-marine sediments consisting of sandstone, mudstones, conglomerates, and occasional volcanic units. A map of the regional geology is presented on the Regional Geologic Map (Figure 2).



GEOLOGIC MAP OF THE CORONA SOUTH 7.5' QUADRANGLE, RIVERSIDE AND ORANGE COUNTIES, CALIFORNIA, VERSION 1.0
By C.H. Gray, Jr.[1], Douglas M. Morton[2], and F.H. Weber, Jr.[1]

Digital Database by Kelly R. Bovard[2] and Timothy O'Brien[3]
1. California Division of Mines and Geology, Los Angeles, CA
2. U.S Geological Survey, University of California, Riverside, CA
3. Department of Earth Sciences, University of California, Riverside, CA

FIGURE 2
REGIONAL GEOLOGIC MAP

Project Name	GF INVESTMENTS
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Geologist	MB
Scale	NOT TO SCALE
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2.2 Local Geology and Soil Conditions

Based on our review of available geological and geotechnical literature, field mapping, and past subsurface investigation of the site, it is our understanding that the site is primarily underlain by undocumented artificial fill, compacted artificial fill, young alluvial fan deposits, Silverado Formation bedrock, and Ladd Formation bedrock. The subsurface geological units are described in greater detail below and presented on the Fault Trench Logs (Plate 2) where encountered. The observed geologic units are depicted on the Geologic/Fault Location Map (Plate 1).

- Artificial Fill, Undocumented (Afu) – Historical undocumented artificial fill was encountered in previous investigations to depths ranging from the existing ground surface to 2.0 feet below the surface. These materials consisted of unconsolidated clayey sand, which was various shades of brown, orange, and red, damp to moist, loose to medium dense and fine to medium grained with gravel and cobbles. Localized roots, roothairs, and minor debris was also observed in the undocumented artificial fill.
- Artificial Fill, Compacted (Afc) – Compacted artificial fill (LGC Inland, 2006) generally consisted of silty sand and clayey sand which was various shades of brown, orange, and red, damp to moist, loose to medium dense and fine to coarse grained. Localized gravel, cobbles, and roots were also encountered.
- Young Alluvial Fan Deposits (Qyf) – Quaternary young alluvial fan deposits were encountered on the site during previous subsurface exploration. The alluvium generally consists of alternating layers of poorly-graded sand, well-graded sand, silty sand, and clayey sand, and is various shades of brown, yellow, and gray, dry to moist and loose to medium dense. The material was also noted to be fine to coarse grained with gravel and cobbles, localized boulders, roothairs, pinhole porosity, and oxidation staining.
- Silverado Formation (Tsi) – Paleocene-aged Silverado Formation was encountered in previous investigations at the site. This bedrock is generally a clayey to silty sandstone and is characterized as being various shades of red, gray, and brown, dry to damp, moderately hard to hard, and fine to coarse grained with subangular to subrounded gravel and cobbles.
- Ladd Formation (Kl) – Cretaceous-aged Ladd Formation was encountered in fault trenches FT-1 and FT-2. This bedrock is generally a clayey to sandy conglomerate and is characterized as being various shades of yellow and gray, dry to damp, moderately hard to hard with subangular to subrounded gravel, cobbles, and boulders.

2.3 Landslides

Landslides or surficial failures were not observed at or directly adjacent to the site.

2.4 Groundwater

Groundwater was not encountered during previous subsurface investigation at the site. A review of the California Department of Water Resources, Water Data Library online database indicates the presence of groundwater approximately 2.3 miles away from the general site area at approximately 198 feet below the existing ground surface according to historical records at an elevation of approximately 729 feet above mean sea level (Well ID: Station 338729N1175842W001).

2.5 Surface Water

Surface water runoff relative to project design is within the purview of the project civil engineer and should be designed to be directed away from all structures and walls in accordance with the latest California Building Code (CBC) requirements.

2.6 Detailed Faulting Overview

The geologic structure of the Southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. Faults such as the Newport-Inglewood, Whittier, Elsinore, San Jacinto and San Andreas are major faults in this system and are known to be active and may produce moderate to strong ground shaking during an earthquake. In addition, the San Andreas, Elsinore and San Jacinto faults are known to have ruptured the ground surface in historic times.

Faults *are* known to project through the site. A portion of the subject site is located within a State of California Alquist-Priolo Earthquake Fault Zone and a Riverside County Earthquake Fault Zone for the Elsinore fault (Figure 3). During our evaluation, faulting associated with the Tin Mine fault was located trending generally east-west through the site in FT-1 (See Plate 2). Additionally, the fault contact between the Silverado Formation and Ladd Formation was encountered in trenches TR-1 and TR-8 excavated for the current geotechnical investigation of this site. The Riverside County Fault Map (Figure 4) indicates that the Tin Mine fault is the fault contact between the Silverado and Ladd Formations onsite and no earthquake fault zones have been established for this fault.

Stated in the CDMC Special Publication 42, "Fault-Rupture Hazard Zones in California", a fault is defined as, "a structure or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side." The following provides a summary of the faulting encountered during previous fault investigations at the site.

- **Fault Trench FT-1**

  Fault Trench FT-1 was previously excavated across a portion of the Alquist-Priolo Earthquake Fault Zone roughly perpendicular to the mapped trend of the Elsinore fault zone. This trench was approximately 270 feet in length and to a maximum depth of approximately 7 feet below existing ground surface (see Plate 2). Most of the trench generally exposed Ladd Formation bedrock. Two faults were mapped within the bedrock (see Plate 2). According to LGC Inland (2004), faulting was evident by a thin, green and white clay gouge zone within the bedrock. The observed faulting coincided with the approximate location of the USGS Tin Mine fault trace. Holocene aged overlying soil was not observed within this trench to further evaluate the recency of activity of this fault.

- **Fault Trench FT-2**

  Fault Trench FT-2 was excavated north of FT-1. This trench was approximately 70 feet in length, a maximum of approximately 7 feet deep, and generally exposed undocumented artificial fill directly overlying top soil and Ladd Formation bedrock on the northern end of the trench and generally exposed Ladd Formation bedrock on the southern end of the trench. No faults were observed in FT-2 (see Plate 2).

- **Trenches TR-1 and TR-8**

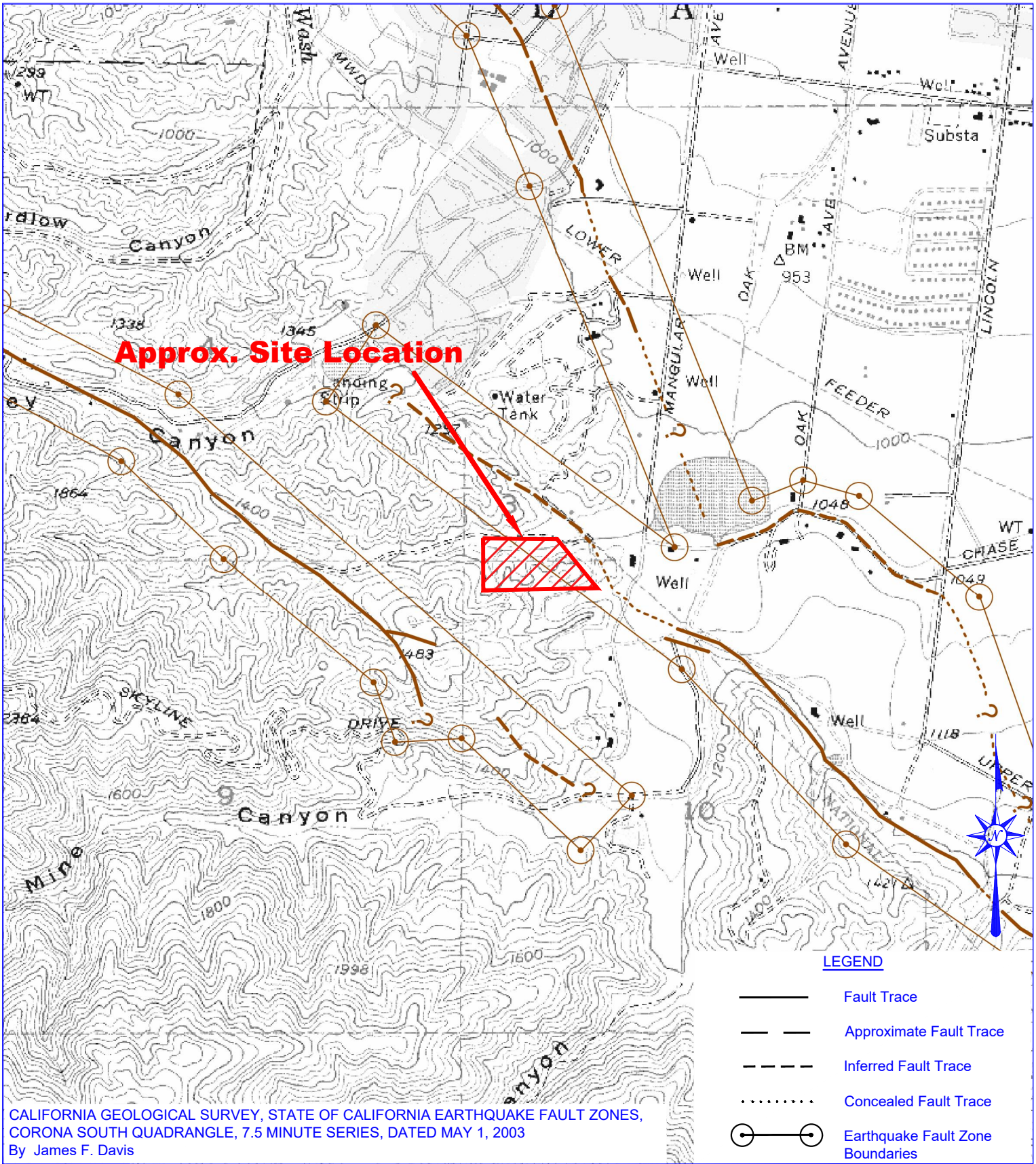
  Trenches TR-1 and TR-78, 38 and 44 feet in length respectively, encountered the Tin Mine fault. This fault as observed and as indicated on regional fault maps forms the contact between the Ladd Formation and Silverado Formation onsite. These bedrock materials are overlain by recent compacted artificial fill. No topsoil was encountered. No evidence of active faulting was observed in either trench.

- **Onsite Faulting Summary**

  Faulting associated with the approximate trace of the Tin Mine fault was observed within Cretaceous aged Ladd Formation bedrock by LGC Inland (2004) in Trench FT-1. Faulting was also observed in TR-1 and TR-8, forming the contact between the Silverado and Ladd Formations. No evidence of active faulting was observed in artificial fill soils overlying localized fault traces. Review of aerial imagery does not show geomorphic fault features associated with either splay of the Tin Mine fault transecting the site. With the absence of Holocene aged topsoil, it cannot be concluded that the fault is inactive or potentially active. However, with no lineaments observed that could indicate potential activity, LGC concludes that the Tin Mine fault is not active. Based on our evaluation and previous trenching, no structural setback zones have been recommended for this fault.

2.6.1 Secondary Seismic Effects

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the site, include soil liquefaction and dynamic settlement. Other secondary seismic effects include shallow ground rupture, lateral spreading, seiches and tsunamis. In general, these secondary effects of seismic shaking are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault, and the onsite geology. An evaluation of these secondary seismic effects is included herein.



CALIFORNIA GEOLOGICAL SURVEY, STATE OF CALIFORNIA EARTHQUAKE FAULT ZONES, CORONA SOUTH QUADRANGLE, 7.5 MINUTE SERIES, DATED MAY 1, 2003
By James F. Davis

FIGURE 3
ALQUIST-PRIOLO EARTHQUAKE FAULT ZONE MAP

Project Name	GF INVESTMENTS
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Geologist	MB
Scale	NOT TO SCALE
Date	JULY 2020

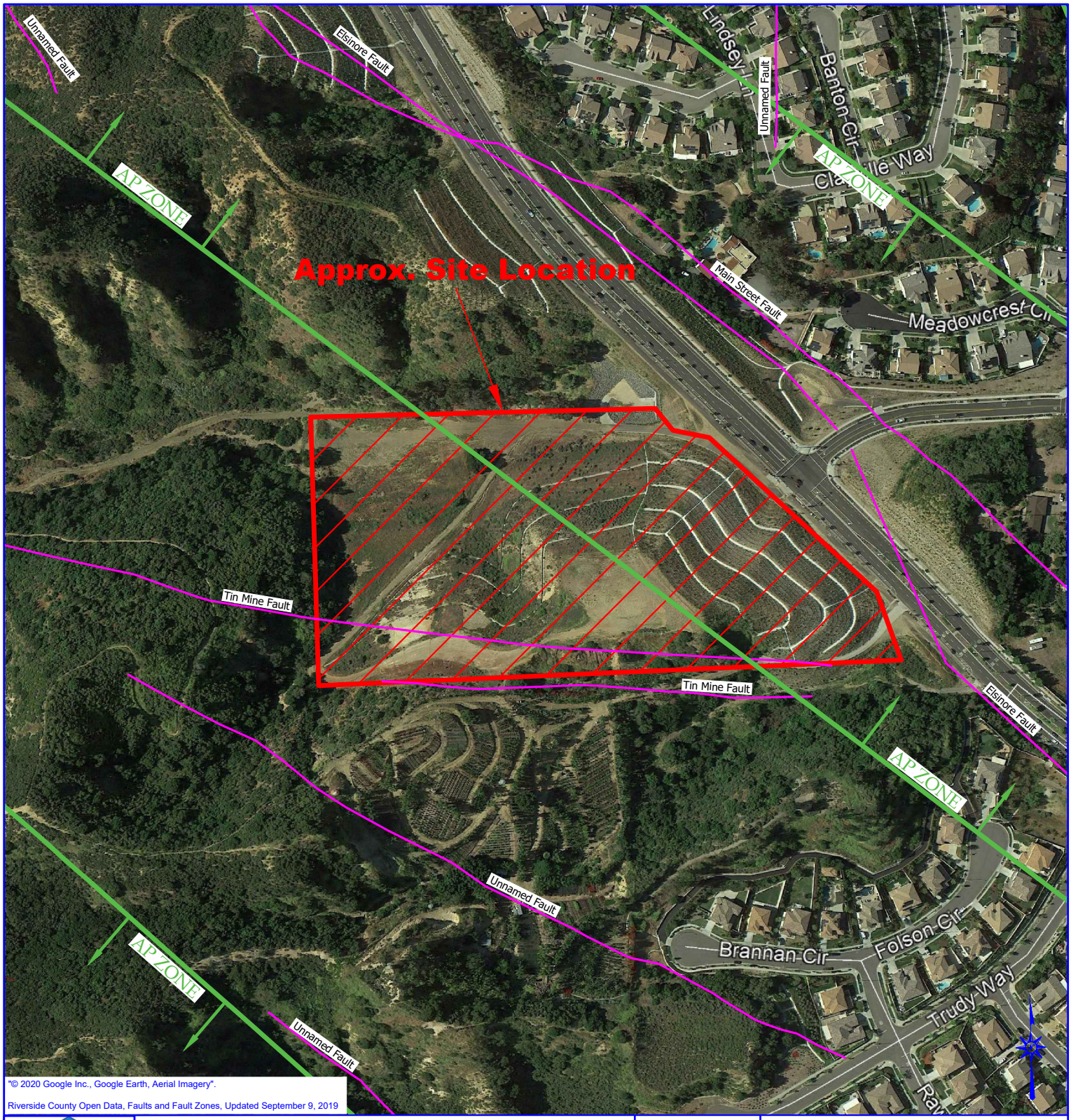

FIGURE 4
RIVERSIDE COUNTY FAULT MAP

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Scale	NOT TO SCALE
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2.6.2 Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. Bedrock was found as shallow as 0.5 feet in Trench TR-1 and TR-2. With shallow bedrock, the potential for liquefaction is considered nil.

2.6.3 Shallow Ground Rupture

Cracking from shaking from distant seismic events is not considered a significant hazard, although it is a possibility at any site.

2.6.4 Tsunamis and Seiches

Based on the elevation and location of the proposed development on the site with respect to sea level and its distance from large open bodies of water, the potential for seiches and/or tsunamis is not considered to be a possibility.

2.7 Seismicity

The following seismic design parameters, presented in Table 1, were developed based on the CBC 2019 and should be used for the proposed structures. A site coordinate of 33.8440° N, 117.6036° W was used to derive the seismic parameters presented below.

TABLE 1
Seismic Design Soil Parameters

SEISMIC DESIGN SOIL PARAMETERS (2019 CBC Section 1613)	
Site Class Definition (ASCE 7; Chapter 20) [Table 20.3-1]	D
Mapped Spectral Response Acceleration Parameter S_s (for 0.2 second) [Table 1613.5.3(1)]	2.49
Mapped Spectral Response Acceleration Parameter, S_1 (for 1.0 second) [Table 1613.5.3(2)]	0.94
Site Coefficient F_a (short period) [Table 1613.3.3(1)]	1.00
Site Coefficient F_v (1-second period) [Table 1613.3.3(2)]	1.50
Adjusted Maximum Considered Earthquake (MCE) Spectral Response Acceleration Parameter S_{MS} (short period) [Eq. 16-37]	2.49
Adjusted Maximum Considered Earthquake (MCE) Spectral Response Acceleration Parameter S_{M1} (1-second period) [Eq. 16-38]	1.41
Design Spectral Response Acceleration Parameter, S_{DS} (short period) [Eq. 16-39]	1.85
Design Spectral Response Acceleration Parameter, S_{D1} (1-second period) [Eq. 16-40]	0.94
Mean Peak Ground Acceleration (PGA_m)	1.15
Long-period transition period in seconds (T_L)	8.00
Probabilistic risk-targeted ground motion (SsRT) (0.2 second) (S_sRT)	2.67
Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration (SsUH)	2.95
Factored deterministic acceleration value (0.2 second) (S_sD)	2.49
Probabilistic risk-targeted ground motion (1.0 second) (S_1RT)	0.94
Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration (S_1UH)	1.05
Factored deterministic acceleration value (1.0 second) (S_1D)	0.99
Factored deterministic peak acceleration value (PGA_d)	1.05
Mapped value of risk coefficient at short periods (C_{RS})	0.90
Mapped value of risk coefficient at period of 1 second (C_{R1})	0.89

The following table is a list that is comprised of the significant seismic events within the general proximity of the subject site.

TABLE 2
Significant Seismic Events in Proximity of the Project Site

EARTHQUAKE NAME	*MAGNITUDE (Mw)*	*DATE/TIME*
Elsinore Earthquake	6.0	May 15, 1910 / 7:47 am

Source: http://scedc.caltech.edu/significant/index.html

The following table is comprised of a list of the significant faults located within 20 miles of the proposed project site. We have also included the Maximum Earthquake Magnitude predicted for each of these faults.

TABLE 3
Significant Faults in Proximity of the Project Site

ABBREVIATED FAULT NAME	*APPROXIMATE DISTANCE (mi)*	*MAXIMUM EARTHQUAKE MAGNITUDE (Mw)*
Chino-Central Ave. (Elsinore)	1.9	6.7
Elsinore-Glen Ivy	2.0	6.8
Whittier	2.7	6.8
Elysian Park Thrust	17.7	6.7
San Jose	18.8	6.5

Source: EQFAULT for Windows Version 3.00b

3.0 CONCLUSIONS

Based on the results of our geologic fault hazard evaluation, it is our opinion that the proposed development is feasible from a geologic and geotechnical standpoint, provided the conclusions and recommendations contained within this fault hazard report are considered and incorporated into the project design process, and implemented during construction. The following is a summary of the primary geologic and geotechnical factors determined from our fault investigation.

- The site is partially located within a State of California Alquist-Priolo Earthquake Fault Zone and County of Riverside Earthquake Fault Zone for the Elsinore fault.
- No active faults are believed to transect the subject site and no fault related structural setback zones are recommended for the site.
- Inactive or potentially active faulting associated with both splays of the Tin Mine fault were encountered during previous fault trenching conducted onsite. The Tin Mine fault is not considered active based on the following:
    - No topographic evidence or lineaments suggestive of active faulting were observed to transect the site in current or previous stereoscopic air photo analysis of the site.
    - The faults encountered in previous trenching trended generally east-west which is in contrast to the northwest-southeast trend of the current tectonic stress regime and the nearby Elsinore fault.
    - Previous fault trenching across onsite faulting concluded that the fault was not active.
    - A lineament suggestive of active faulting was observed in our stereoscopic aerial photographic analysis of the site and is located several hundred feet northeast of the property. This lineament is believed to be associated with the active Elsinore fault.
    - There is no state and county designated Earthquake Fault Zone established for the Tin Mine Fault, suggesting there is no regional evidence of recent activity.
- Based on our subsurface exploration and review of pertinent geologic maps and reports, the subject site is underlain by undocumented artificial fill, compacted artificial fill, young alluvial fan deposits, and bedrock of Silverado Formation and Ladd Formation.
- There are no identified landslides impacting the site.
- Groundwater is not considered a constraint for the proposed multi-use development.
- The potential for liquefaction is not considered a possibility.
- The potential for lateral spreading is considered remote due to proposed engineered compacted artificial fill directly overlying dense bedrock.
- During previous rough grading on the site, fault trenches FT-1 and FT-2 were overexcavated to the full depth of the trench and replaced with properly compacted fill (LGC Inland, 2006).
- Supplemental trenching to evaluate faulting within the entire Alquist-Priolo Earthquake Fault Zone onsite could not be performed due to the extensive depth of fill soils onsite and previously graded slopes in excess of 120 feet in height.

4.0 RECOMMENDATIONS

4.1 Grading Operations

Detailed geologic mapping should be performed during rough grading operations onsite to accurately locate any fault traces with respect to the proposed development. Emphasis must be placed on properly mapping and locating the Tin Mine fault splay in addition to evaluating areas north and east of the end of fault trench FT-2 for possible faulting in this area.

4.2 Future Subsurface Investigation, Plan Reviews, & Construction Observation and Testing

This report has been prepared for the exclusive use of GF Investments, LLC. This report presents a geological evaluation of faulting within the subject site. Throughout the design of the project, geological and geotechnical issues may become apparent and should be considered in the design, feasibility, and construction of the project. Future plan reviews are necessary to ensure that recommendations and conclusions from LGC's preliminary studies have been incorporated into the design. Modifications to the design may arise from our review, therefore our review should be performed as soon as practical. Such reviews should include, but are not limited to:

- Rough Grading Plans
- Foundation/Structural Plans
- Retaining Wall Plans
- Storm Drain/Sewer/Water Plans

Plans should be forwarded to the project geotechnical engineer and/or engineering geologist for review and comments, as deemed necessary.

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis, as well as review of previous pertinent reporting. The interpolated subsurface conditions should be checked in the field during construction by a representative of LGC.

Construction observation and testing should also be performed by the geotechnical consultant during future grading, excavations, backfill of utility trenches, preparation of pavement subgrade and placement of aggregate base, foundation or retaining wall construction or when an unusual soil condition is encountered at the site. Grading plans, foundation plans, and final project drawings should be reviewed by this office prior to construction.

5.0 LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The samples taken and submitted for laboratory testing, the observations made are believed representative of the entire project; however, soil and geologic conditions revealed by excavation may be different from our preliminary findings. If this occurs, the changed conditions must be evaluated by the project soils engineer and geologist and design(s) adjusted as required or alternate design(s) recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and/or project engineer and incorporated into the plans, and the necessary steps are taken to see that the contractor and/or subcontractor properly implements the recommendations in the field. The contractor and/or subcontractor should notify the owner if they consider any of the recommendations presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

The opportunity to be of service is appreciated. Should you have any questions regarding the content of this report, or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

APPENDIX A

REFERENCES

APPENDIX A

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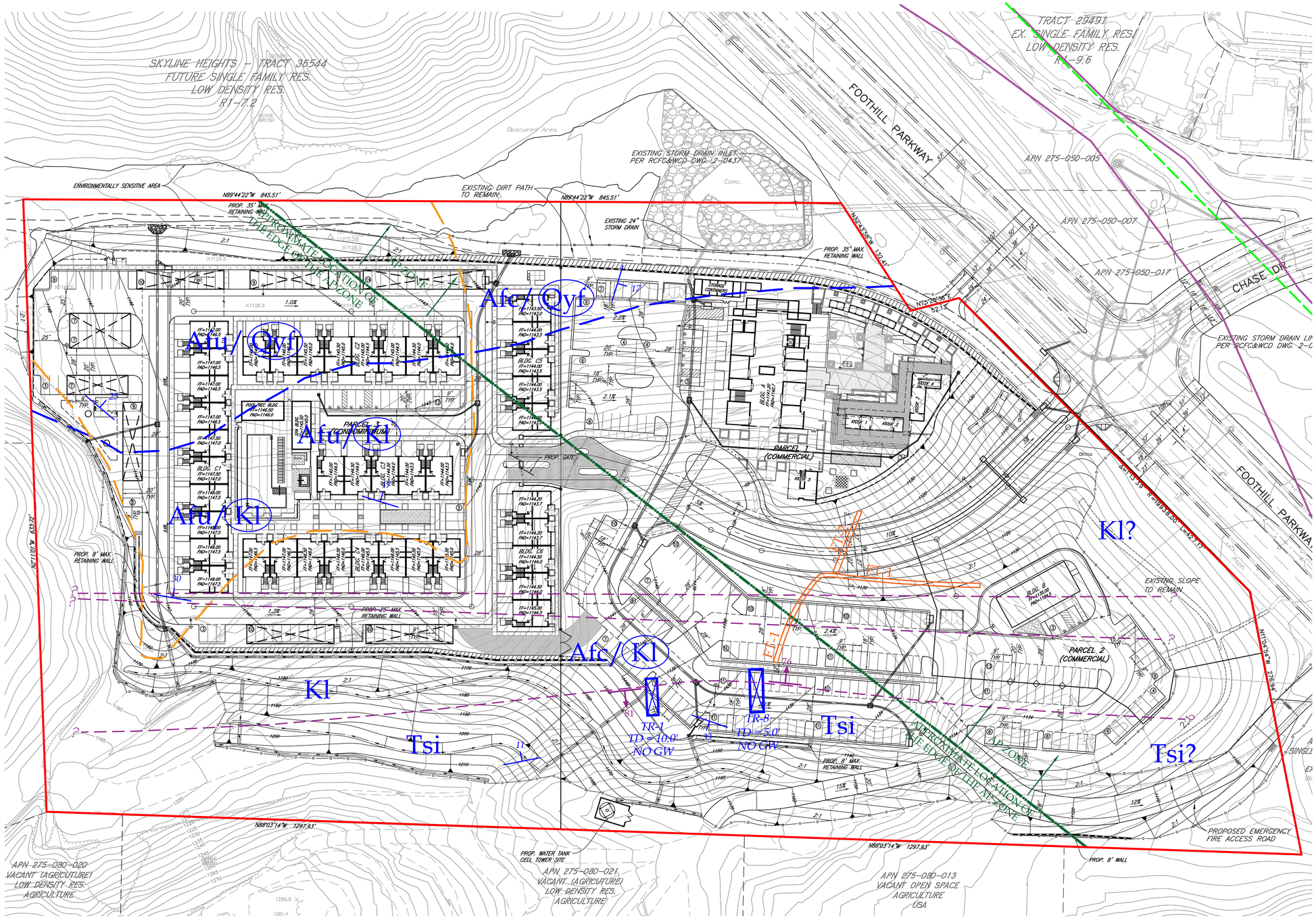
Aerial Photographs Reviewed

FLIGHT	*FRAME(S)*	*FLIGHT DATE*
AXM-4F	97-98	5/5/49
AXM-18W	165	11/6/59
AXM-4HH	181-182	5/15/67
60-4	99-101	1/30/70
-	15-16	1/15/76
RIV 4	1-2	2/15/77
PC-CF10	5 & 8	10/14/85
F	140	1/8/87
C84-15	25-26	6/12/90
C92-14	300-301	5/19/93
C103-34	169-170	1/29/95
C118-34	92-93	10/16/97
C-134-34	35-36	2/24/99

Photographs supplied by Continental Aerial Photo, Inc.



LEGEND
(Locations are Approximate)

Geologic Earth Units

- Afu - Artificial Fill, Undocumented
- Afc - Artificial Fill, Compacted
- Qyf - Young Alluvial Fan Deposits (Circled Where Buried)
- Tsi - Silverado Formation (Circled Where Buried)
- Kl - Ladd Formation (Circled Where Buried)

Symbols

- Limits of This Report
- Approximate Geologic Contact
- Approximate Afu/Afc Contact
- Fault Location per Riverside County
- Approximate Location of Tin Mine Fault (LGC, 2020)
- Bedding Attitude
- Fault Contact Attitude
- Limits of Alquist-Priolo (AP) Zone
- Fault Trench Location (LGC Inland, 2004)
- Approximate Location of Air Photo Lineament
- Exploratory Trench Location (LGC, 2020)

0 50' 100'

LOGICAL GEOTECHNICAL CONSULTANTS
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PHONE: 951.297.2450 FAX: 951.719.2998
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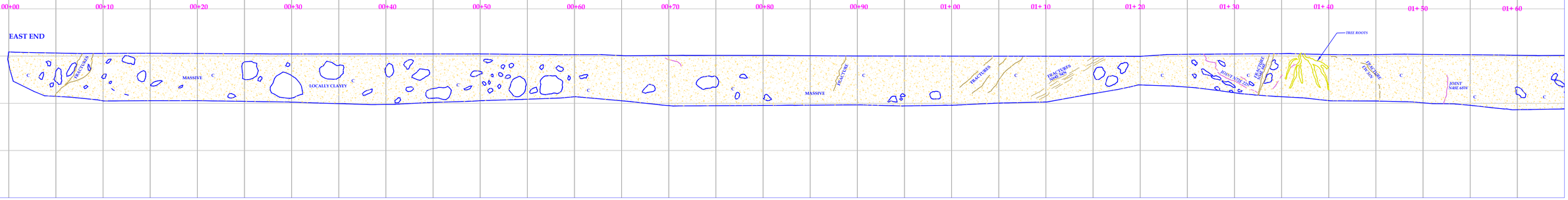
Mark Bergmann
Engineering Geologist

GEOLOGIC/FAULT LOCATION MAP

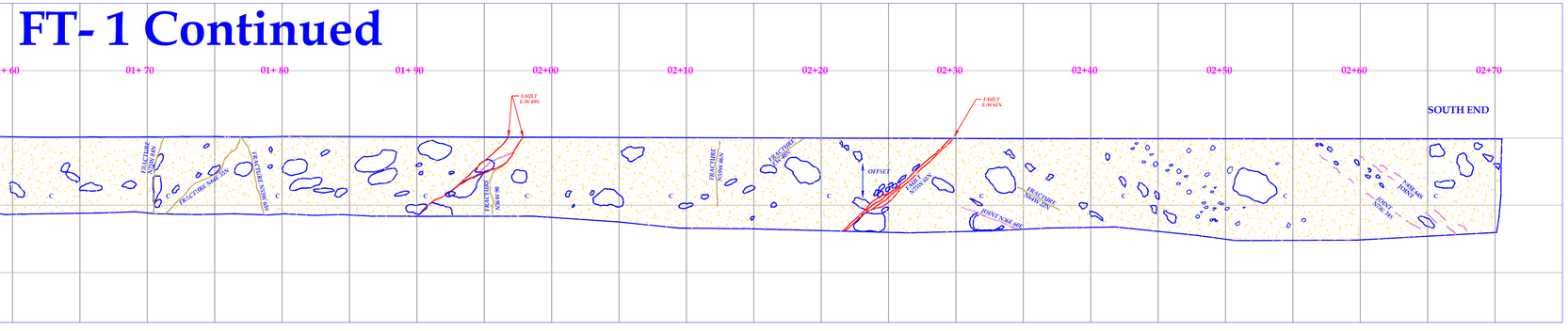
APNs 275-050-014-6 and 275-080-041-3, Located at West Chase Drive and Foothill Parkway
City of Corona, County of Riverside, State of California

Name:	GF Investments
Project No.	G19-1802-10
Client:	GF Investments, LLC
Scale:	1" = 50'
Date:	July 2020
Reference:	KWC Engineers, Conceptual Grading Plan, Skyline Village Project, Scale 1"=40' dated 6/19/20
Plate No.	Plate 1 of 2

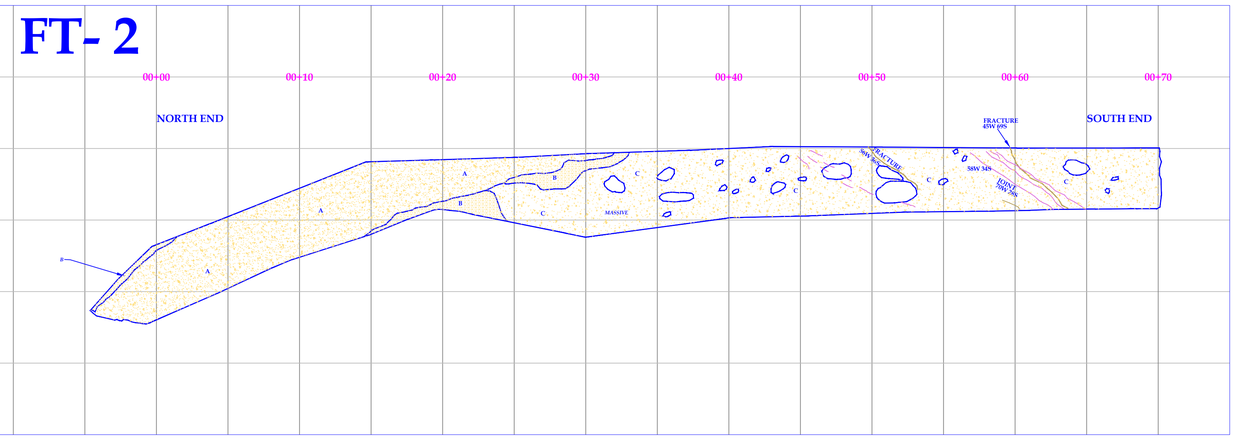
FT- 1



FT- 1 Continued



FT- 2



LEGEND

(Locations are Approximate)

Earth Units

A - Undocumented Fill (Map Symbol Afu): SAND with cobbles and gravel; dry, loose.

B - Topsoil: Silty SAND; medium brown, dry, loose, rootlets.

C - Ladd Formation Bedrock (Map Symbol Kl): conglomerate, yellow gray, slightly moist, dense, massive.

LGC INLAND

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Temecula, California 92591
(909) 719-1076 Fax (909) 719-1077

Mark Bergmann	Stephen Poole
Principal Geologist	Principal Engineer

FAULT TRENCH LOGS

TRENCH 1 & 2

LOGGED BY MRF ON JULY 15, 2004

Name:	COREY ADDISON
Project No.	I04481-10
Client:	MR. COREY ADDISON
Scale:	1" = 5'
Date:	AUGUST 2004
Sheet No.	
Plate No.	PLATE NO. 2 OF 2