Reuben Arceo

Planner
Land Use Services Department
Phone: 909-387-4387
Fax: 909-387-3223
385 N. Arrowhead Avenue
San Bernardino, CA 92415-0187

Our job is to create a county in which those who reside and invest can prosper and achieve well-being.

www.SBCounty.gov

County of San Bernardino Confidentiality Notice: This communication contains confidential information sent solely for the use of the intended recipient. If you are not the intended recipient of this communication, you are not authorized to use it in any manner, except to immediately destroy it and notify the sender.

From: Jordan, Frank
Sent: Friday, November 2, 2018 5:48 PM
To: Arceo, Reuben <Reuben.Arceo@lus.sbcounty.gov>
Cc: Steve Kupferman <stevek@lilburncorp.com>; Kenline, George <George.Kenline@lus.sbcounty.gov>
Subject: RE: Project No. P201600525; APN 0542-131-54, proposed Afton Travel Plaza, truck stop, auto repair, and restaurant

Reuben,

As we discussed, the proposed Afton Travel Plaza on the southeast side of the Afton exit off I-15 lies within the Cave Mountain Fault Zone first mapped by the USGS in 2005, re-issued in 2007, and finalized in 2013 by Dave Miller (Miller et al., 2005, 2007, 2013). The main trace of the Cave Mountain Fault is mapped in the immediate vicinity of the north boundary of the project. Additional mapped branches are located south of the larger parcel and north of the freeway. Lineament analysis of the project suggests that additional northeast-striking faults are visible northeast and southwest of the parcel. None of the branches have been included within an Alquist-Priolo Earthquake Fault Zone by CGS. In addition, the site straddles the former high-stand shoreline of paleo Lake Manix, although portions of the high-stand have previously been disturbed in the vicinity of the site. Since the project is located within a mapped fault zone, is a commercial development, includes on-site buried fuel storage (not shown on the plan) and above-ground water storage tank, and involves a subdivision of the parcel, a geologic investigation and report would be required for the project. The eastern portion of the site is located on a fairly recent borrow area with a southwest-facing cut slope. A retention basin is proposed in the southwest corner of the site. An on-site septic system is proposed as part of the project. And it appears that a buried fuel transmission pipeline may border or underlie portions of the site, while other buried pipelines are located northeast of the freeway. A geotechnical investigation and report, that also accommodates the conclusions and recommendations of the geologic report, will be required for the project.

I have attached GE images showing the conditions discussed above with respect to the project and proposed structures.

Please verify with Dave Prusch that Steve will be the official reviewer for your project.

Thanks for checking,

Civil Eng.
Sam

R G S Engineering Geology

ckrall@aol.com

1225 Chestnut Street
Upland, California 91784
(951) 315-3517

January 30, 2019

Gene Luu, PE
Soil Exploration Company, Inc.
7535 Jurupa Avenue
Riverside, California 92504

SUBJECT: LIMITED ENGINEERING GEOLOGIC REPORT
Proposed Afton Travel Plaza
45101 Afton Road (APN 0542-131-54)
Baker, California, Project No. 1734-01
SEC Project No. 17248-01

Mr. Luu:

In accordance with your authorization, we have completed a Limited Engineering Geologic study of the subject property. The purpose of our investigation was to evaluate the engineering geologic aspects of the site relative to the proposed development and provide geologic recommendations for site design and construction. Our work is limited to the geologic conditions of the site and is intended to accompany a soil investigation by your firm to provide the required geotechnical documents for agency review and approval.

Our geological findings, conclusions, and recommendations are presented herein. Should you have any questions, or require additional information, please do not hesitate to contact our office.

Sincerely,
RGS Engineering Geology

PROFESSIONAL GEOLOGIST
CHRISTOPHER M. KRALL
NO. CEG1816
CERTIFIED ENGINEERING GEOLOGIST
EXPIRES 03-31-19
STATE OF CALIFORNIA

Christopher Krall, CEG 1816
Engineering Geologist

Distribution: (1) Electronic Copy

ACCOMPANYING MAPS, ILLUSTRATIONS, AND APPENDICES

Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Regional Geologic Map
Figure 4 – Lineament Analysis

APPENDIX A - References

INTRODUCTION

SCOPE OF WORK

For this study, RGS conducted the following scope of work:

- Review related geologic and soils information available in our files including previous geotechnical reports for the project.
- Examination and interpretation of stereoscopic aerial photographs of the site and vicinity to evaluate geomorphic features related to faulting.
- Site reconnaissance and geologic mapping of the site and immediate vicinity.
- Qualitative analysis of site geologic hazards including faulting, seismicity, landslide, liquefaction, and rockfall hazard.
- Preparation of this report presenting our geologic findings, conclusions, and recommendations for site development.

Site Conditions

The subject site is located just south of Interstate 15 at the Afton Road off-ramp. The geographical location of the site and vicinity are depicted on our Site Location Map, Figure 1. More specifically, the site is south of, and adjacent to, a County frontage road that parallels the Interstate. The property is vacant and appears to be in a generally natural, undisturbed condition. Some minor embank construction appears to have been conducted in association with the improvements to Afton Road.

Topographically, the site slopes gently to the southwest with surface drainage directed as sheet flow and within poorly formed dendritic drainage patterns that become more incised and distinct to the southwest. Vegetation is sparse and consists of native desert brush.

Proposed Development

The property is proposed for development of a truck stop facility to include a single-story truck stop building, a single-story auto repair building with canopy, fuel dispensing canopy, and an accessory building with vehicle storage area. Parking and driveways are also proposed.

Although grading plans and pad elevations are not available at this stage of site planning, we assume that minor earthwork and grading will be required to achieve design grade considering the relatively gentle slope of the site. The proposed development is depicted on our Site Plan, Figure 2 of this report.

Regional Geologic Setting

From a regional geologic perspective, the site is located within the Mojave Desert Province characterized as a broad interior region of isolated mountain ranges separated by large, open plains. The Province exhibits interior closed drainage patterns which typically terminate at seasonally dry playas. This includes the Mojave River, which is the main drainage of the region with its source in the San Bernardino Mountains to the south.

The province is distinctly wedged shaped with the Garlock Fault forming the northwest boundary, and the San Andreas Fault zone forming the southwestern margin. The easterly boundary extends beyond the California boundary into southern Nevada and Arizona.

A large contrast in topography occurs within the province with a high elevation on the order of 9000 feet in the Clark Mountains and a low elevation of 700 feet above sea level in the Soda Springs area. The western portion of the Province is relatively flat as compared to the mountainous eastern area which is dominated by northwest to southeast trending hills delineated or controlled by right lateral transform faults. The Mojave Desert also exhibits a number of volcanic flows and cones, including the Cima Volcanic Field. This field consists of numerous cinder cones and associated flows. The youngest flow is approximately 16,000 years old and retains a rough flow texture. Older flows are covered with heavily varnished basalt cobbles that form a desert pavement. This pavement consists of a monolayer of cobbles underlain by a meter or more of windblown silt and dust.

Local Geologic Setting

Locally, the site is situated just north of the Mojave River drainage where it enters Afton Canyon and drains easterly through the Cady Mountains to Soda Lake. This north flank of the Mojave River is underlain by alluvial sediment emanating from the hills to the northeast and draining south to the river. These drainages, including the Mojave River are generally dry and only yield surface flow seasonally during periods of heavy or prolonged rainfall. Pleistocene aged lacustrine deposits associated with paleo Manix Lake are also present locally and help to define the shoreline of the ancient lake. The local and regional geology is shown on Figure 3, Regional Geologic Map.

SITE INVESTIGATION

Our geologic investigation of the site began with review of regional geologic literature and maps pertaining to the site. This was followed by review of the site-specific geotechnical report conducted by Soil Exploration Company, Inc. Stereoscopic pairs of aerial photographs were also examined to identify the geologic features of the site and surrounding area. General descriptions of the earth materials encountered during field work and review are provided below.

SUMMARY OF FINDINGS

Earth Materials

Our review of available geologic and geotechnical literature indicates the site is underlain by older alluvial and older lacustrine deposits consisting of gravel with silt and sand. These materials are described as gray in color, fine to coarse grained, dry, and loose to medium dense by the previous soil report (SEC, 2018). Cobbles were noted to 7 inches in size. This material is generally classified as GP-GM following the Unified Soil Classification system.

These site-specific findings reported by Soil Exploration Company (2018) are generally consistent with the older alluvial material (Qoa) mapped by Dibblee and Minch (2008 – Figure 3). Minor fill or disturbed soil material may also be present on-site associated with past surficial activities. However, significant earthwork or construction does not appear to have occurred on-site and disturbed material was not differentiated for this report.

Groundwater

Groundwater was not encountered within site explorations to a depth of 15 feet below the existing ground surface, nor are any indications of shallow water noted. The depth to groundwater near the site is estimated to be on the order of 250 feet based on regional groundwater well information (SEC, 2018).

Considering this information, groundwater is not considered a significant hazard to the site area. Perched or seasonal seepage water, however, may be present and should be considered during all site planning and design.

FAULTING AND SEISMICITY

Faulting

The site is not located within any California Fault Rupture Hazard Zone (Bryant and Hart, 2007) designated for known active faults, nor are any active faults (defined as showing surface displacement during Holocene time – within the past 11,000 years) known to traverse the site.

The nearest known active fault is the Manix Fault located approximately 12 kilometers southwest of the project site. The easterly projection of the fault, with displacement confined Pleistocene aged, trends south-northeast approximately 6 kilometers south-southeast of the site. The Manix fault is characterized as a left-lateral strike-slip fault with a total length of approximately 35 kilometers. The most recent surface rupture was recorded in 1947 during a magnitude 6.5Mw earthquake. The eastern and western third of the fault has not ruptured during the Holocene but shows evidence of late Pleistocene or Mid-Pleistocene movement. The Manix fault is assigned a questionable slip rate of 0.1 mm/yr with a probable magnitude of 6.0Mw to 7.0Mw. It is noted that the 1947 rupture was small (5 kilometers) but notable and is likely the first historic example of surface rupture along a fault in the Mojave Block. (http://scedc.caltech.edu/significant/manix.html).

Another southwest-northeast trending un-named fault is shown by Dibblee and Minch (2008) traversing approximately 0.5 kilometers south of the site. This fault is shown offsetting older bedrock formations but is dotted and queried through late Pleistocene aged older alluvium and lake deposits. Concealment of this fault by late Pleistocene aged deposits demonstrates that surface displacement pre-dates the Holocene Epoch and may date back to mid-Pleistocene.

Other geologic mapping in the Mojave Desert has focused on displacement of surficial deposits and tectonic geomorphology, identifying several new principal faults and many more minor faults and fault splays. One newly identified tectonic feature named the Cave Mountain Fault (Reheis et al, 2007, Miller et al, 2007) traverses generally east-west near the site. This fault forms the steep north face of Cave Mountain marked by a short scarp in Pleistocene fanglomerate is reported. Westerly toward the site the fault consists of multiple strands some of which displace Pleistocene fan deposits and Lake Manix deposits as young as 22,000 years old. No evidence of Holocene surface displacement is reported. The fault appears to continue west marking the south flank of the Alvord Mountains but is obscured to the west by Coyote Lake. To better understand the potential impacts of ground rupture due to tectonic forces we have conducted a lineament analysis as reported in the latter sections of this report.

Seismicity

The primary geologic hazard that exists at the site is that of ground shaking. The strength of earthquake-induced ground shaking is commonly measured as maximum or peak ground acceleration. Acceleration is defined as the time rate of change of velocity of a referenced point during an earthquake, commonly expressed in percentage of gravity (g). Its value at a particular site is a function of many factors, including, but not limited to, earthquake magnitude, distance to causative earthquake, various seismic-source parameters, site location relative to direction of energy propagation, and geologic conditions at the site.

Considering the location of the site relative to the regional faults, the site is likely to experience strong ground shaking during the design life of the proposed development. Ground motions on

the order of 0.50g to 0.52 can be anticipated during future seismic events on local and regional faults based on a 10 percent chance of exceedance in a 50-year exposure period. (https://earthquake.usgs.gov/hazards/interactive/)

Photo Lineament Analysis

A lineament analysis was performed to evaluate local landforms and topographic features related to faulting. Our analysis included examination and interpretation of black and white stereoscopic pairs of aerial photographs dating back to 1974. A complete list of the photographs reviewed is provided in our references, Appendix A.

The objective of our analysis was to identify geologic lineaments in the vicinity of the site and classify them as strong, moderate, or weak in nature. A strong lineament is described as a well-defined feature which can be continuously traced for several hundred to thousands of feet. A moderate lineament is less defined, somewhat discontinuous and may be obscured locally by geologic processes of erosion and deposition. Finally, a weak lineament is poorly defined topographically and may be largely discontinuous.

Through our analysis, a series of short but distinct photo lineaments are noted trending southwest to north east, just south of the project site (Figure 4). These features, which are generally consistent with the mapped Cave Mountain Fault (Miller et al, 2007), display linear topographic features within bedrock or older Pleistocene sediment and are obscured or buried by younger Holocene sediment. A photo lineament splays to the northwest and trends north of the site and Afton Canyon Road interchange with I-15. This feature is obscured near the site by recent improvements but does display strong linear geomorphology to the northwest and southeast.

The photo lineaments examined are confined to Pleistocene age sediment or bedrock and are obscured or buried where by younger Holocene deposits, suggesting they are not related to Holocene fault activity. More importantly, the older features do not trend through or toward the proposed site and are not expected to impact the proposed improvements.

SECONDARY SEISMIC HAZARDS

Landslide Hazard

There are no landslides known to exist in the study area and the bedrock materials comprising the local hillsides are generally not susceptible to landslide failure. Considering the site location and surrounding relatively stable bedrock, the potential for landslide hazard to impact the site is very low.

Liquefaction

Soil liquefaction is the loss of soil strength due to increased pore water pressures caused by a significant ground shaking (seismic) event. Liquefaction typically consists of the re-arrangement of the soil particles into a denser condition resulting, in this case, in localized areas of settlement, sand boils, and flow failures. Areas underlain by loose to medium dense cohesion less soils, where groundwater is within 30 to 40 feet of the surface, are particularly susceptible when subject to ground accelerations such as those due to earthquake motion. The liquefaction potential is generally considered greatest in saturated loose, poorly graded fine sands with a mean grain size (D_{50}) in the range of 0.075 to 0.2mm.

Our investigation indicates that the property is underlain by older alluvial and possible older lake deposits of Pleistocene age. Groundwater reported occurs at a depth of more than 200 feet below the ground surface. These geologic conditions are not susceptible to liquefaction hazard due to the consolidated condition of the earth material and depth to free water.

In summary, it is our opinion considering the location of the site and the underlying earth materials that the potential for liquefaction hazard to impact the proposed development is low.

Ground Rupture

Ground rupture usually occurs along pre-existing surface fault traces. As previously discussed, no active faults, as defined by showing displacement during Holocene) are known to traverse, or trend toward the site. Therefore, the potential for ground rupture during a seismic event is considered low. Please note that other possibly fault related features identified through our photo lineament analysis trend south and northeast of the site and display movement within Pleistocene age.

Earthquake Induced Settlement

Considering the coarse nature of relative density of the earth material that underlies the site, the potential for settlement induced by seismic activity is considered low. Static settlement is expected to be mitigated by the site preparation recommendations of the soil report.

Rockfall

There are no large rock outcrops located along hillsides on, or adjacent to the site, that could become dislodged during a seismic event and impact the proposed development. Accordingly, the potential for rockfall hazard to impact the site is nil.

CONCLUSIONS

- The site is considered feasible for development from an engineering geologic standpoint provided the findings of this report are considered during site design and construction.
- The subject site is underlain by coarse grained older alluvial and older lacustrine sediments.
- Groundwater is reported to occur approximately 250 feet below the site. Groundwater or seepage is not expected to impact the proposed development or construction activities.
- No active faults are known to traverse through or toward the site. Known active faults or seismic sources in the area include the Manix zone located approximately 12 kilometers to the southwest.
- The potential for secondary seismic hazards including liquefaction, rockfall, and earthquake-induced settlement are considered low.
- The potential for ground rupture during a seismic event is considered low based on the findings of our geologic map review and aerial photo lineament analysis.

RECOMMENDATIONS

Surface Drainage

Surface drainage should be directed away from site improvements in a controlled manner. All drainage should be directed toward streets or natural drainage patterns. Where landscaping and planters are proposed adjacent to foundations, subsurface drains should be provided to prevent standing water or saturation of soil by landscape irrigation water.

Grading/Foundation Plan Review

The final grading/foundation plans (40-scale or better) should be reviewed by RGS and the project geotechnical consultant when available to assure that the recommendations of this report are consistent with the proposed grading. Additional field and laboratory services may be required at that time depending on the earthwork proposed.

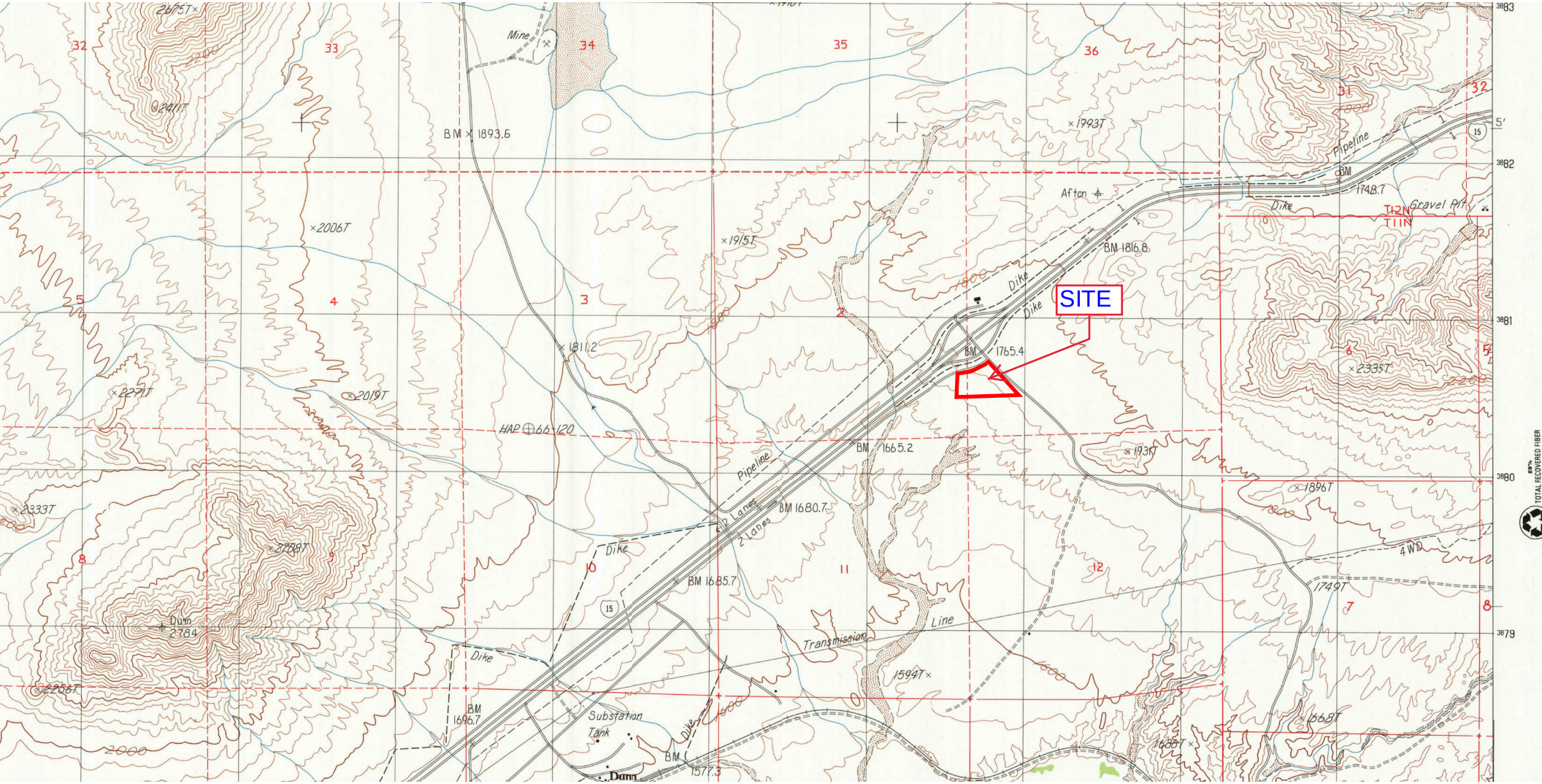
CLOSURE

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers and geologists practicing in this and other localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The samples taken and used for testing, and the observations made are believed to be representative of the entire project; however, soil and geologic conditions can vary significantly between test locations. As in most projects, conditions revealed during construction may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the project geotechnical engineer and/or geologist and designs adjusted as required or alternate designs recommended.

This report is issued with the understanding that it is the responsibility of the owner, or his representatives, to ensure the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps taken to see that the contractor and subcontractors carry out such recommendations in the field. This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions 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 occur with the passage of time, whether they are 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. Therefore, this report is subject to review and revision as changed conditions are identified.

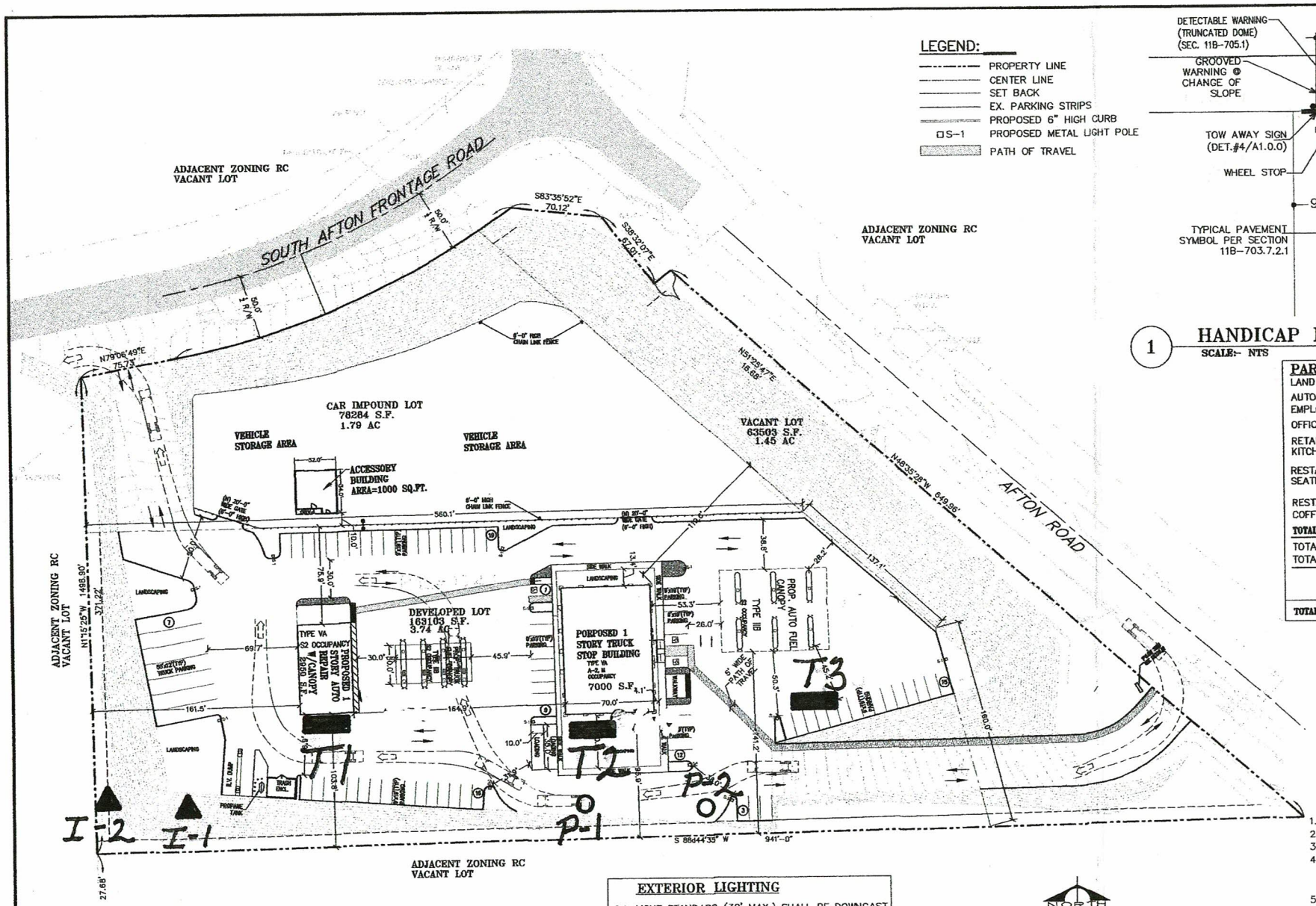
SITE LOCATION MAP



Source: USGS Dunn 7.5' Quadrangle, 1996
Scale 1:24,000

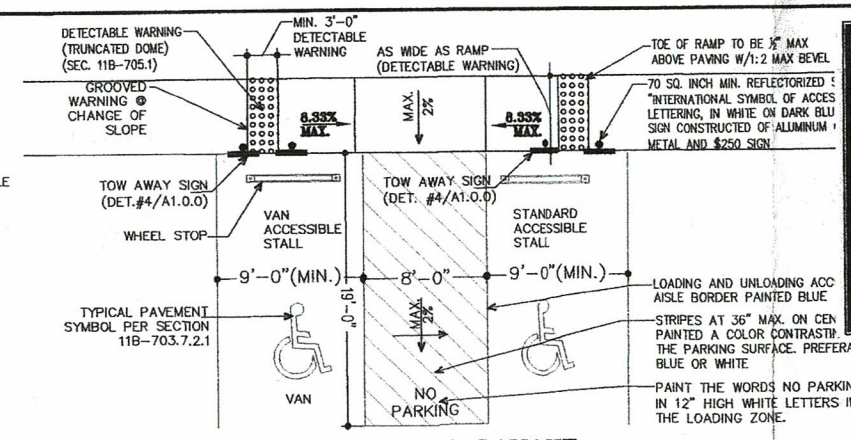
RGS Engineering Geology
Project No. 1734-01
Figure 1

Proposed Afton Travel Plaza
45101 Afton Road
Baker, San Bernardino County, California



LEGEND:

- PROPERTY LINE
- CENTER LINE
- SET BACK
- EX. PARKING STRIPS
- PROPOSED 6" HIGH CURB
- □S-1 PROPOSED METAL LIGHT POLE
- PATH OF TRAVEL



1 HANDICAP PARKING STALL LAYOUT
SCALE:- NTS REF. A1.0.0

PARKING ANALYSIS

LAND USE/REQUIREMENT	PARKING RATE	BLDG. SIZE/RATE	PARKING REQUIRED	PARKING PROVIDED
AUTO REPAIR – (2 PER BAY, 3 EMPLOYEES, 0 VEHICLES)			7	7
OFFICE	2/1000	150/500 SQ.FT	1	1
RETAIL, LOUNGE, LAUNDRY, OFFICE, KITCHEN, STORAGE ETC.	2/1000	5478/500 SQ.FT	11	11
RESTAURANT (FAST FOOD) SEATING:	1/3 FIXED SEAT	96/3 FIXED SEATS	32	32
RESTAURANT (CINNABON AND COFFEE BEAN)	1/3 FIXED SEAT	26/3 FIXED SEATS	9	9
TOTAL REQUIRED/PROVIDED FOR PROJECT			60	74
TOTAL STANDARD PARKING PROVIDED :				74
TOTAL RV PARKING PROVIDED				(7)
HANDICAP – VAN			(1)	(1)
HANDICAP–STANDARD			(2)	(2)
TOTAL			60	74

PROJECT DATA

ASSESSOR'S PARCEL NUMBER: 0542-131-54
PROJECT ADDRESS: TRAVEL PLAZA
45101 AFTON CANYON RD., BAKER, CA 92309

PROJECT DESCRIPTION: TRAVEL PLAZA
PROPOSED ZONING: CR
JURISDICTION: CITY OF BAKER
BUILDING CODES: 2013 CALIFORNIA BUILDING CODE, 2013 CALIFORNIA PLUMBING CODE, 2013 CALIFORNIA MECHANICAL CODE, 2013 CALIFORNIA ELECTRICAL CODE, 2013 CALIFORNIA FIRE CODE, 2013 CALIFORNIA ENERGY CODE, 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE

CODE ANALYSIS (TRUCK STOP BUILDING)

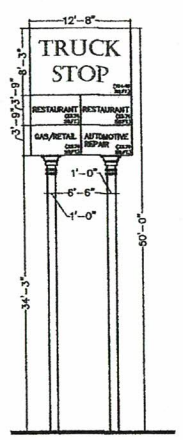
1. OCCUPANCY CLASSIFICATION: A-2 — SEC. 303.3
2. TYPE OF CONSTRUCTION: V-A — CHAPTER 6
3. FIRE SPRINKLERS: YES
4. HEIGHT (MAX.)
   - ALLOWABLE: 50' (TABLE 503)
   - ACTUAL: 25'-0" (TOP OF INCLINED PARAPET) 32'-0" (TOP OF PROPOSED TOWER)
5. STORIES (MAX.)
   - ALLOWABLE: 2 (TABLE 503)
   - ACTUAL: 1
6. AREA BREAKDOWN:
   - GROSS SITE AREA: 7 AC (304912 SQ.FT)
   - NET SITE AREA:(DEVELOPED AREA): 3.74 AC (163103 SQ.FT)
   - PROPOSED TRUCK STOP BUILDING: 7000 SQ.FT
   - PROPOSED AUTO FUELING CANOPY: 5376 SQ.FT
   - PROPOSED TRUCK FUEL CANOPY: 1800 SQ.FT
   - PROPOSED STORY AUTO REPAIR CANOPY: 2950 SQ.FT.
   - GROSS BUILDINGS AREA: 17126 SQ.FT.
   - CAR IMPOUND LOT AREA: 78284 SQ.FT.
   - VACANT LOT: 63503 SQ.FT.
7. LOT COVERAGE
   - GROSS SITE AREA: 7 AC (304912 SQ.FT)
   - NET SITE AREA (DEVELOPED AREA): 3.74 AC (163103 SQ.FT, 53.52% OF GROSS SITE AREA)
   - CAR IMPOUND LOT AREA: 78284 SQ.FT. (25.67% OF GROSS SITE AREA)
   - VACANT LOT: 63503 SQ.FT. (20.82% OF GROSS SITE AREA)
   - PROPOSED BUILDING FOOTPRINT: 9950 SQ.FT. (6.09% OF NET SITE AREA)
   - TOTAL LANDSCAPED AREA: 37525 SQ.FT. (22.99% OF NET SITE AREA)
   - TOTAL PAVED AREA: 115628 SQ.FT (70.85% OF NET SITE AREA)
   - TOTAL OPEN SPACE: 153153 SQ.FT.(93.84% OF NET SITE AREA)
8. OCCUPANT LOAD:
   - 8.1) CUSTOMER AREA: 644/15 = 43
   - 8.2) COUNTER: 157/200=1
   - 8.3) COUNTER: 226/200=1
   - 8.4) COLD & DRY STORAGE: 400/300=2
   - TOTAL OCCUPANT LOAD: 47
9. EXIT
   - REQUIRED: 2 (SEC. 1015.1)
   - PROVIDED: 2
10. REQUIRED FIRE RESISTANCE OF EXTERIOR WALLS AND PROTECTION OF OPENINGS DUE TO LOCATION ON PROPERTY: NO
11. FIRE RESISTIVE CONSTRUCTION REQUIREMENTS: NO
12. SPECIAL INSPECTIONS REQUIRED: YES
13. PROPOSED BUILDING USE: RESTAURANT IN TRUCK STOP
14. HOURS OF OPERATION: 24 HRS.

EXTERIOR LIGHTING

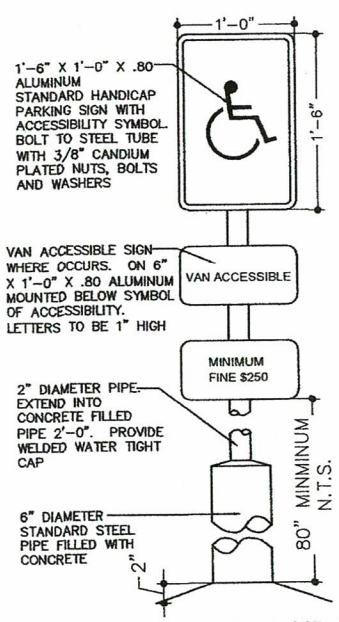
S-1 LIGHT STANDARD (30' MAX.) SHALL BE DOWNCAST
□ (FULL CUTOFF TYPE) WITH HOUSE SIDE SHIELD

NORTH

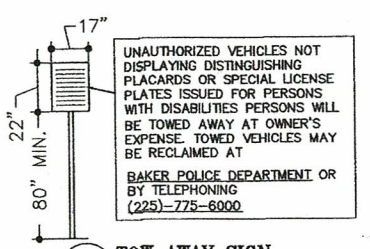
GRAPHIC SCALE
-50 0 25 50 100 200
(IN FEET)
1 INCH = 50 ft.



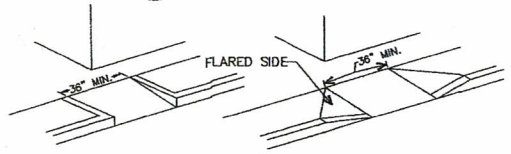
#1 PYLON SIGN
SCALE: 3/32"=1'-0"



5 DISABLED PARKING SPACE SIGN
SCALE:- NTS

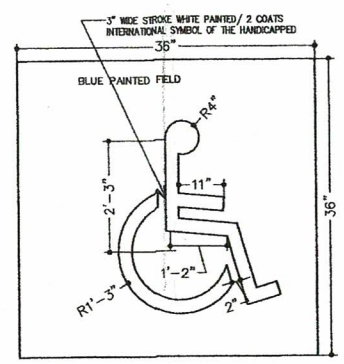


4 TOW AWAY SIGN
SCALE:- NTS



NOTE: IF "X" IS LESS THAN 36" THE SLOPE OF THE FLARED SIDES SHALL NOT EXCEED 1:12

2 HANDICAP CURB RAMPS
SCALE:- NTS



NOTE:
INTERNATIONAL SYMBOL OF ACCESSIBILITY IN WHITE OR A SUITABLE CONTRASTING COLOR. THE CENTERLINE OF THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE A MAXIMUM OF 6" FROM THE CENTERLINE OF PARKING SPACE, ITS SIDES PARALLEL TO THE LENGTH OF THE PARKING SPACE AND ITS LOWER CORNER AR, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE.

3 HANDICAP STALL GRAPHIC
SCALE:- NTS

NOTES:

1. THE WALKING SURFACE OF THE ACCESSIBLE ROUTE SHALL HAVE A SLOPE NOT TO EXCEED 5% WITH A CROSS SLOPE OF 2% AS PER CBC 11B-403.3. RAMPS SHALL BE PROVIDED WHERE THE WALKING SURFACE EXCEEDS 5% SLOPE COMPLYING PER CBC 11B-402.2, 403.3 & 405.
2. NO PROTECTED PLANTS EXISTS ON SITE.

UTILITIES

WATER COMPANY/SEWER DISPOSAL:
NAME OF PROVIDER: RAVINDER S. GREWAL

ELECTRIC:
NAME OF PROVIDER: SOUTHERN CALIFORNIA EDISON

GAS:
NAME OF PROVIDER: FERRELL GAS CO.

TELEPHONE:
NAME OF PROVIDER: AT&T

CABLE TV: DISH NETWORK

7-1

EXPLORATORY TRENCH, INFILTRATION & PERCOLATION TEST LOCATION MAP
PLATE 1

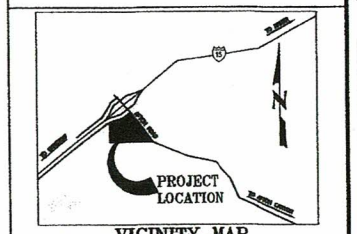
LEGEND

- T3 ■ Approximate Location of Trench
- I-2 ▲ Approximate Location of Infiltration Test
- P-2 O Approximate Location of Percolation Test

Soil Exploration Co., Inc.

Project No. 17248-01 | **February 7, 2018**

ACE Design LLC
6283 Dean Martin Drive, Suite B
LAS VEGAS, NEVADA 89118
Phone: (702) 396-5114, Fax: (702)446-8155
Land Planning • Civil Engineering • Architectural Design • Structural Engineering



VICINITY MAP

A. ASSESSOR'S PARCEL NUMBER: 0542-131-54
B. CUP TO DEVELOP 7 AC OF A 60.41 AC PARCEL FOR A TRUCK STOP, AUTOMOTIVE REPAIR BUILDING AND AN IMPOUND LOT
C. OWNER:
NAME: JESSE R MCROBERTS & EVELYN F MCROBERTS.
ADDRESS: 1774 SAGEBRUSH DR, SHERIDAN WY 82801

APPLICANT:
NAME: RAVINDE S GREWAL
FIRM NAME: HAPPY HIGHWAY INC.
ADDRESS: PO BOX 729
BAKER, CA 92309
PHONE: (760) 733-1048, FAX: (760) 733-1046

REPRESENTATIVE:
NAME: AMARDEEP KHOSA
FIRM NAME: HAPPY HIGHWAY INC.
ADDRESS: PO BOX 729
BAKER, CA 92309
PHONE: (760) 733-1048, FAX: (760) 733-1046

PLAN PREPARER:
NAME: JASPAL S SIDHU
FIRM NAME: ACE DESIGN LLC
ADDRESS: 6283 DEAN MARTIN DRIVE, LAS VEGAS, NV 89118
PHONE: (702) 396-5114, FAX: (702) 446-8155

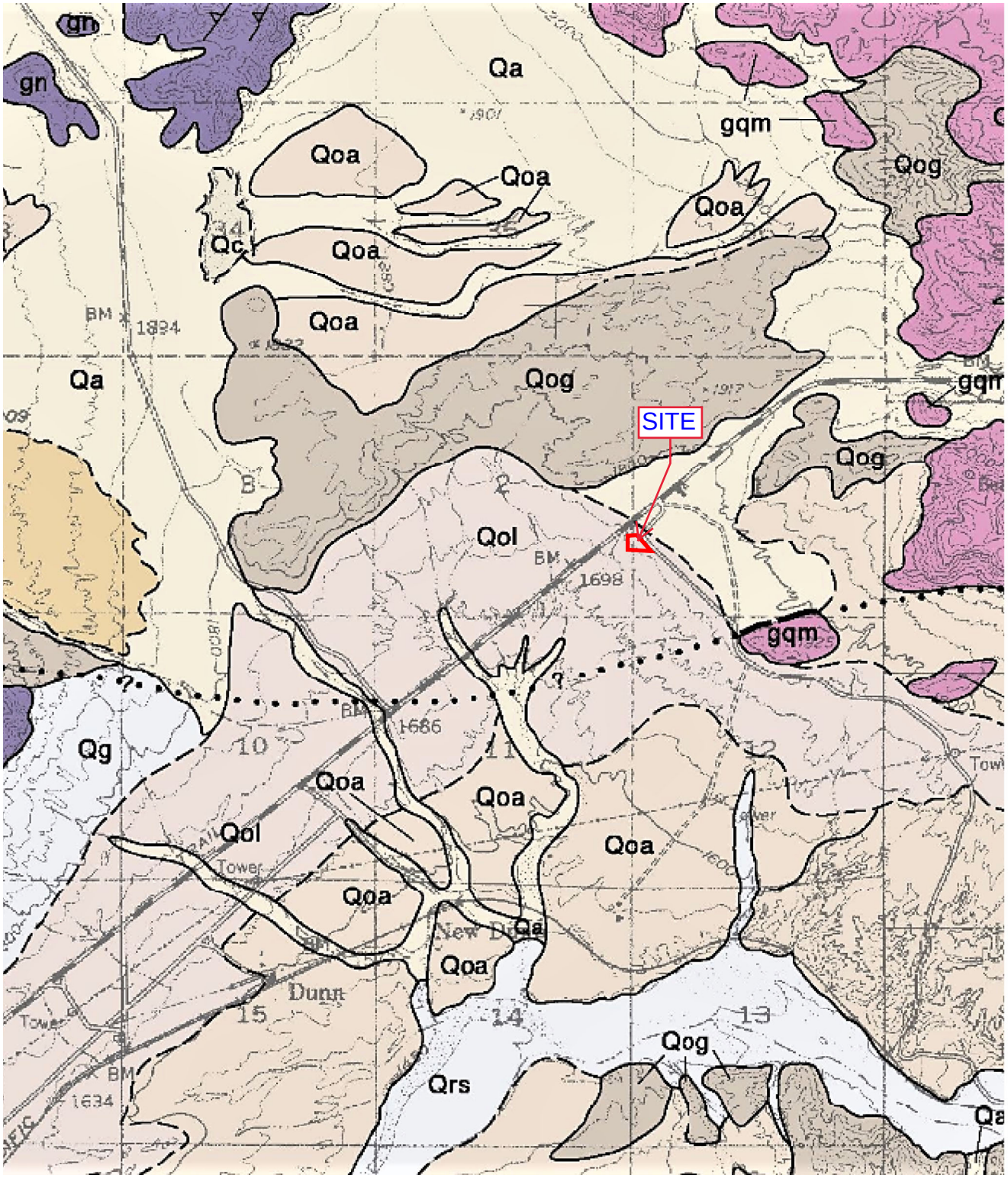
D. EXISTING LAND USE: RC (RESOURCE CONSERVATION)
PROPOSED LAND USE: CR (RURAL COMMERCIAL)
E. PLOT PLAN PREPARATION DATE: 01/19/2017

TITLE: SITE PLAN
PROJECT: AFTON TRAVEL PLAZA
45101 AFTON CANYON ROAD
BAKER, CA 92309

PROFESSIONAL ENGINEER-STATE OF CALIFORNIA
JASPAL S. SIDHU
EXP. DATE 06/30/2017
CIVIL
No.56924

DATE: 01/23/2017
JOB: 15-22
DWG. BY: LSJ
CHK. BY:

A1.0.0
SHEET 1 OF 3



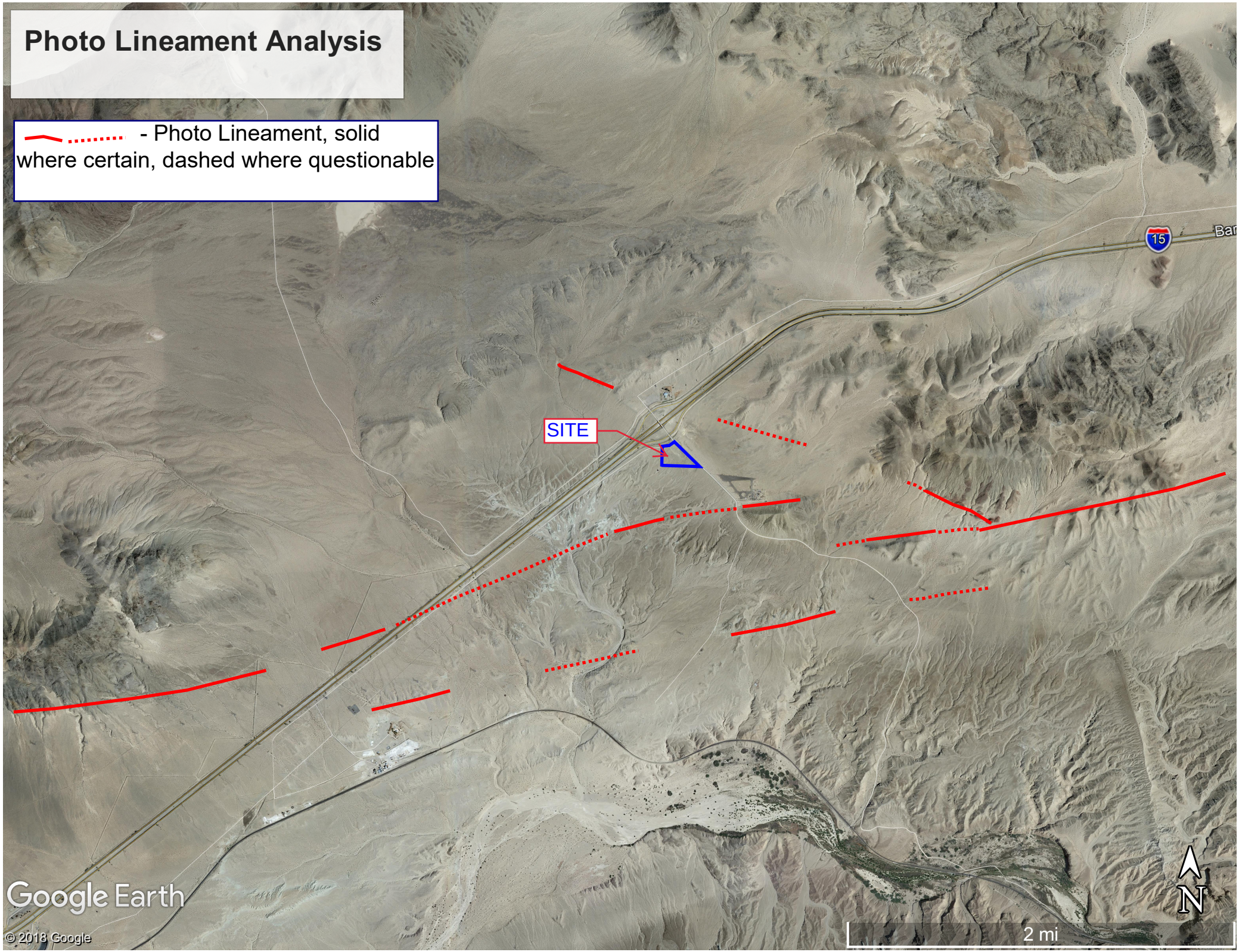
REGIONAL GEOLOGIC MAP

Source: Dibblee and Minch, 2008
Scale: 1:24,000

Proposed Afton Travel Plaza
45101 Afton Road
Baker Area
San Bernardino County, Calif.

RGS Engineering Geology
Project No. 1734-01
Figure 3

Photo Lineament Analysis



APPENDIX A

REFERENCES

REFERENCES

California Building Code, 2016, Volume 2, California Building Standards Commission and International Conference of Building Officials.

California Division of Mines and Geology, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, CDMG Special Publication 117A

Dibblee, T.W., and Minch, J.A., 2008, Geologic map of the Alvord Mountain & Cave Mountain 15-minute quadrangles, San Bernardino County, California, Dibblee Geological Foundation Map DF-398, Scale: 1:62,500

Hart, E.W. and Bryant, William A., 2007, "Fault-Rupture Hazard Zones in California", California Division of Mines and Geology Special Publication 42;

Jennings, Charles W. (1994). Fault Activity Map of California and Adjacent Areas with Location and Ages of Recent Volcanic Eruptions. California Geologic Data Map Series, Map No. 6. California Division of Mines and Geology.

Miller, David, et al, 2007, A new Quaternary View of Northern Mojave Desert Tectonics Suggests Changing Fault Patterns During Late Pleistocene, in Miller, David, M. and Valin, Zenon C., editors, 2007, Geomorphic and Tectonics at the Intersection of Silurian and Death Valleys, Southern California, 2005 Guidebook, Pacific Cell Friends of the Pleistocene, United States Geological Survey, Open File Report 2007-1424, 171 p.

Reheis, M.C., Miller, D.M., and Redwine, J.L., 2007, Quaternary Stratigraphy, Drainage-Basin Development, and Geomorphology of the Manix Lake Basin, Mojave Desert – Guidebook for Fall Field Trip, Friends of the Pleistocene, Pacific Cell: United States Geological Survey Open File Report 2007-1281, 31p.

Southern California Earthquake Center, http://scedc.caltech.edu/

Soil Exploration Company Inc., 2018, Preliminary Soil Investigation and Infiltration Tests Report, Proposed Afton Travel Plaza, 45101 Afton Road (APN 0542-131-54), Baker, San Bernardino County, California, Project No. 17248-01, February 7, 2018

Aerial Photographs

Source	Date	Photo ID	Scale
USGS	07-nov-74	ID-AR1VDQM00010074	scale 80000
USGS	07-nov-74	ID-AR1VDQM00010075	scale 80000
USGS	07-nov-74	ID-AR1VDQM00010076	scale 80000
USGS	01-sep-83	ID- AR1VFGCC0010096	scale 24000
USGS	01-sep-83	ID-AR1VFGCC0010078	scale 24000
USGS	01-sep-83	ID-AR1VFGCC0010079	scale 24000
USGS	01-sep-83	ID-AR1VFGCC0010095	scale 24000
USGS	29-sep-89	ID AR5890039520150	scale 46000
USGS	29-sep-89	ID-AR5890039520151	scale 46000