ATTACHMENT 5
EXHIBIT D

Addendum to the City of Pleasanton Stoneridge Drive Specific Plan Amendment/Staples Ranch Environmental Impact Report and Supplement to the Environmental Impact Report for the CarMax Auto Superstore (PUD-98), Sign Design Review (P13-2518) City of Pleasanton, Alameda County, California

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Report Date: March 11, 2014

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SECTION 1: INTRODUCTION

1.1 - Project Details

1. Project Title and Number

CarMax Auto Superstore (PUD – 98), Sign Design Review (P13-2518)

2. Lead Agency Name and Address

City of Pleasanton
200 Old Bernal Avenue
Pleasanton, CA 94566

3. Contact Person and Phone Number

Shweta Bonn, Associate Planner
925.931.5611

4. Project Location and APN

South of I-580 and west of El Charro Road in Pleasanton, California
Assessor's Parcel Number: 946-4623-1

5. Project Sponsor's Name & Address

CarMax Auto Superstores California, LLC
12800 Tuckahoe Creek Parkway
Richmond, VA 23238

6. General Plan Designation

Medium Density Residential; High Density Residential; Parks and Recreation; and Retail/highway/Service Commercial, Business and Professional Offices as determined by the Specific Plan.

7. Specific Plan Designation

Stoneridge Drive Specific Plan Amendment - Auto Mall

8. Zoning

PUD-C (Commercial)

9. Description of Project

Major Planned Unit Development (PUD) application to accommodate construction of a CarMax Pre-owned Automobile Dealership (project) with three one-story buildings, consisting of a sales presentation building, service building, and quality control/carwash building, as well as parking areas, landscaped areas, and associated access drives.

As discussed in Section 1.2 below, the development of an auto mall was analyzed in two previously certified environmental documents. This Addendum analyzes the conclusions of the prior environmental documents to confirm whether the project as currently envisioned would result in any new significant environmental effects not previously disclosed, or increase the severity of any previously identified environmental effects such that preparation of a subsequent Environmental Impact Report or Mitigated Negative Declaration would be necessary pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15162.

1.2 - Background

On February 24, 2009, the City of Pleasanton (City) certified the Stoneridge Drive Specific Plan Amendment/Staples Ranch Environmental Impact Report (EIR), (State Clearinghouse Number 2006062053) which amended the 1989 Stoneridge Drive Specific Plan to revise land use designations, circulation improvements and financial obligations of the Staples Ranch site. On March 27, 2009, two environmental groups and a citizens' coalition called "Safe Streets Pleasanton" filed a lawsuit, claiming that the City should re-circulate the EIR with a new analysis of the impacts of the Four-Lane Concurrent Extension. The lawsuit also claimed that the EIR's analysis of biological resources, greenhouse gas (GHG) emissions, and cumulative impacts were insufficient. As the result of a settlement reached in September 2009, the City agreed to provide further analysis in all of the areas raised in the lawsuit.

On August 24, 2010, the City certified the Supplement to the Environmental Impact Report for the Stoneridge Drive Specific Plan Amendment/Staples Ranch Project (State Clearinghouse Number 2006062053), (hereinafter referred to as the Supplement to the EIR). The Supplement to the EIR reevaluated some of the potential environmental effects of the Specific Plan Amendment considered in the EIR, reevaluated an existing alternative, and evaluated a new alternative which the City approved on February 24, 2009. This approved alternative included a full four-lane extension of Stoneridge Drive to El Charro Road, which has been implemented.

Both the EIR and Supplement to the EIR considered changes to the 1989 Stoneridge Drive Specific Plan, including the development of an auto mall on 37.20 acres, as well as a continuing care community, retail center, neighborhood park, and community park.

The auto mall considered in the EIR and Supplement to the EIR consisted of six buildings totaling 331,000 square feet and 3,270 parking stalls on 37.20 acres. The project discussed herein would develop only 19.66 of the 37.20 acres or approximately 53 percent. Therefore, to provide an

accurate comparison, this percentage is also applied to the square footage considered in the EIR, resulting in 175,430 of the total 331,000 square feet. Future auto mall development could occur on the remainder of the 37.20 acres subject to the assumptions and mitigations of the EIR and Supplement to the EIR.

The auto mall site is bounded by Interstate 580 (I-580) to the north, the remainder of the auto mall designated lands to the East, Auto Mall Place to the south (now known as Stoneridge Drive), and the planned continuing care community to the west. The six buildings were anticipated to be one- to two- stories in height, with a maximum allowable height of 45 feet. Access to the site was to be provided from Auto Mall Place (Stoneridge Drive). Conceptual plans included a 48-foot-tall illuminated freeway sign at the northwest corner of the site, adjacent to I-580, and a monument sign near the El Charro Road/Auto Mall Place (Stoneridge Drive) intersection. Parking area lighting included ground-based light standards with a maximum height of 25 feet, and rooftop light standards with a maximum height of 10 feet. Landscaping was to be provided throughout the site, and designed to provide stormwater treatment.

The original EIR concluded that potential impacts resulting from the implementation of the Stoneridge Drive Specific Plan Amendment/Staples Ranch Project were either less than significant or could be reduced to a less than significant level after mitigation, with the exception of three significant unavoidable impacts:

- Aesthetics: Changes to the visual character of the site as a result of conversion from undeveloped to developed land and the loss of rural character in the project area;
- Air Quality: as a result of emissions of ozone precursors (reactive organic gases and oxides of nitrogen) and particulate matter from mobile and stationary sources, above thresholds used by the Bay Area Quality Management District;
- Transportation: because several affected intersections lie outside the jurisdiction of the City, the City cannot guarantee that the necessary mitigation would be implemented in a timely manner.

In addition, the EIR concluded that significant unavoidable cumulative impacts would occur related to aesthetics, air quality, and transportation.

The Supplement to the EIR identified four new significant impacts resulting from the implementation of the Stoneridge Drive Specific Plan Amendment/Staples Ranch Project, only one of which could be reduced to less than significant with the implementation of mitigation. The following new significant impacts remained significant and unavoidable as identified by the Supplement to the EIR:

- GHG emissions constituting a cumulatively considerable contribution to the significant cumulative impact of global climate change;
- Cumulatively considerable noise increase along Stoneridge Drive;

- Increase of traffic to southbound Santa Rita Road south of the I-580 segment by more than 3 percent.

In addition, the Supplement to the EIR identified the following additional significant and unavoidable impacts related to the four-lane alternative approved by the City:

- Significant noise increase along Stoneridge Drive;
- The Four-Lane Concurrent Extension Alternative would result in an unacceptable level of service (LOS) at the intersection of Dublin Blvd. at Fallon Road in the AM Peak Hour;
- The Four-Lane Concurrent Extension Alternative would exceed the standards established by the County Congestion Management Agency for designated roads or highways at the following segments:
  - Stoneridge Drive east of Santa Rita Road;
  - Stanley Blvd. east of Valley Avenue;
  - State Route (SR-84) between Stanley Blvd. and Vineyard Avenue;
  - SR-84 near Little Valley Road;
  - I-580 between Airway Blvd. and Isabel Ave.

The Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR (State Clearinghouse Number 2006062053) and Supplement to the Environmental Impact Report (EIR) for the City of Pleasanton Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR (State Clearinghouse Number 2006062053) are incorporated by reference into this document.

1.3 - Project Site

The project site consists of 19.66 acres located in the City of Pleasanton, California (Exhibit 1). The project site is bounded by Stoneridge Drive to the south, I-580 to the north, the remainder of the auto mall designated lands to the east, and a senior continuing care community to the west (Exhibit 2).

Historically, the project site was used for dry farming and/or cattle grazing through approximately 2007. In 2011, the site was graded and mowed with the onset of construction on adjacent parcels. Since that time, it has been actively used for construction staging and access. An unpaved gravel road extends in the northwestern portion of the property. A soil stockpile (approximately 31,300 cubic yard) is currently present on the central portion of the project site.

The project site is zoned Planned Unit Development – Commercial (PUD-C). The site has a Specific Plan land use designation of Auto Mall. The General Plan land use designations include Medium Density Residential; High Density Residential; Parks and Recreation; Retail/Highway/Service Commercial, and Business and Professional Offices as determined by the Specific Plan.

1.4 - Project Description

The applicant proposes to build a CarMax Pre-owned Automobile Dealership (CarMax Superstore) consisting of a sales inventory area, vehicle staging area, and parking lot for customers and employees. A total of three buildings are proposed, including a 45,000 square foot service building, a 3,708 square foot quality control/carwash building and a combination sales (9,691 square feet) and presentation (3,373 square feet) building. Table 1 summarizes the building square footages, which total 61,772 square feet. The buildings would have an average height of 24 feet with a maximum height of 28 feet. The sales building entry canopies would reach 37 feet.

Table 1: Project Building Summary

Building	Square Footage
Service	45,000
Quality Control/Carwash	3,708
Sales	9,691
Presentation	3,373
Total	**61,772**
Source: CarMax, 2014.	

The project's site plan is illustrated in Exhibit 3. The proposed buildings would be situated within, and adjacent to the vehicle staging area, which would be enclosed by a combination of the buildings, a six-foot high stucco wall on the north and east sides, a six-foot high masonry wall on the west side, and a seven foot high stucco wall on the south for screening and security purposes. The vehicle staging area would provide a non-public staging area, for either retail service vehicles or vehicles waiting to be moved offsite. Embassy-style security gates would provide access to the non-public retail staging area. As shown in Exhibit 3, designated parking spaces are not provided because the amount of vehicle storage and staging within this area would fluctuate from day to day. In addition to vehicle staging, an underground fuel tank and fuel pump are also located within the non-public retail staging area.

Customer and employee parking would be located to the east of the vehicle staging area and a sales/display area would be located to the north, along the I-580 frontage. The customer and employee parking lot would include 431 parking spaces, nine of which would be designated as handicap accessible spaces. The sales/display area would include 388 parking spaces. The customer and employee parking area would be separated from the sales/display area by the use of ornamental wrought-iron fencing. Embassy-style security gates and the use of a secured key-card would provide access to the display area. A highway guardrail will also be installed where the inventory display area fronts I-580.

Access to the project site would be provided by Stoneridge Drive and a proposed entry road. Two driveways are proposed off the entry road to be used by CarMax employees, customers, vehicle test drives, vehicle deliveries, and emergency vehicles. Onsite vehicle deliveries of parts, vehicles, and supplies would enter through the main access, and would load and unload in the designated loading area located to the east of the customer and employee parking lot.

1.5 - Operations

Service operations would include limited retail vehicle services, such as routine maintenance, tires, diagnostic and mileage services, and repairs of vehicles covered under extended service plans. In addition, all vehicles offered for sale undergo a reconditioning process in which most routine mechanical and cosmetic repairs would be performed on-site. Furthermore, all cars would be ran through the non-public carwash before being placed in the vehicle display area or presented to customers.

Vehicle auctions would be held on-site once a week, however, the frequency of auctions may vary depending on the amount of cars to be auctioned. These auctions would be held within an enclosed building; although, vehicle carriers for cars purchased by pre-qualified licensed automobile dealers may be brought to the site for quick car removal, as all purchased cars are to be removed from the property within 48 hours.

Exterior lighting would include “shoebox”-type lighting fixtures mounted on 25-foot-tall light poles with the exception of 14-foot light poles located in the western portion of the site. All exterior lighting would be dimmed after operating hours. Interior and exterior safety cameras would be located throughout the dealership for protection of inventory and overall safety. Loudspeaker systems would not be used, in accordance with the operations of other CarMax dealerships.

Proposed operational hours include showroom (sales), open to the public from 9:00 a.m. to 9:00 p.m. Monday thru Saturday, and 12:00 p.m. to 7:00 p.m. on Sunday. In addition, retail service areas would be open to the public from 7:30 a.m. to 6:00 p.m. CarMax associates would be present at the dealership several hours before and after operational hours.

1.6 - Project Comparison

Table 2 compares the project analyzed in the EIR and Supplement to the EIR to the currently proposed project. As the table illustrates, the project falls within the parameters originally analyzed in the EIR and Supplement to the EIR.

Table 2: Project Comparison

Development Standard	EIR/SEIR	CarMax Superstore
Site Area	37.20 acres	19.66 acres
Maximum Building Area	175,430 sq ft[1]	61,772 sq ft
Maximum Building Height	45 ft	28 ft, with entry canopies up to 37 ft
Parking Stalls	3,270	819[1]
Maximum Employees	623	166 full-time and 29 part-time
Maximum Lighting Height	25 ft	25 ft

Notes:
Sq ft = square feet
Ft = feet
[1] The EIR and SEIR considered a total of 331,000 square feet of building space on the full 37.20-acre auto mall area. However, this project would develop only 19.66 acres or approximately 53 percent. Therefore, to provide an accurate analysis, the project is compared to 53 percent of the previously considered building space or 175,430 square feet.
[2] Of the 819 parking stalls onsite, 431 would be designated for employee and customer parking and 388 would be designated for the display area as indicated by site plans.
Source: City of Pleasanton; CenterPoint Integrated Solutions 2014.

1.7 - Environmental Design Features

The following design features are incorporated to ensure impacts to environmental resources are minimized.

1.7.1 - Construction Emission Reduction Measures

The following measures would be implemented during project construction:

- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The Bay Area Air Quality Management District's phone number shall also be visible to ensure compliance with applicable regulations.

1.7.2 - LEED

The project applicant has demonstrated that the building design is certifiable under the U.S. Building Council's Leadership in Energy and Environmental Design (LEED) program. A LEED project checklist has been submitted to the City for review as part of the PUD application.

1.7.3 - Cultural Resources

Archaeological Resources

a) Project plans requiring ground-disturbing excavation would note that there is a potential for exposing buried cultural resources including prehistoric Native American Burials.

b) The project applicant would retain a Professional Archaeologist to provide pre-construction briefings to supervisory personnel of any excavation contractor, to alert them to the possibility of exposing significant prehistoric archaeological resources within the project area. The briefing would discuss any archaeological objects that could be exposed, the need to stop excavation at the discovery, and the procedures to follow regarding discovery, protection, and notification of the project proponent and archaeological team.

c) The project proponent would retain a Professional Archaeologist to perform regular periodic, or "spot-check" archaeological monitoring during ground disturbing to check for the inadvertent exposure of cultural materials. Full-time archaeological monitoring would not be required as the results of prior monitoring to the immediate west and southwest suggest a low-to-low-moderate sensitivity for the project. If any potentially significant cultural materials are exposed or discovered during either site preparation or subsurface construction activities within the project area, operations would stop within 50 feet of the find and a Professional Archaeologist would be contacted for further review (see d). Any Professional Archaeologists would be required to have appropriate regional experience. The completion of a formal Archaeological Monitoring Plan (AMP) would not be required. A Monitoring Closure Report (MCR) would be filed with the City at the conclusion of ground disturbing construction.

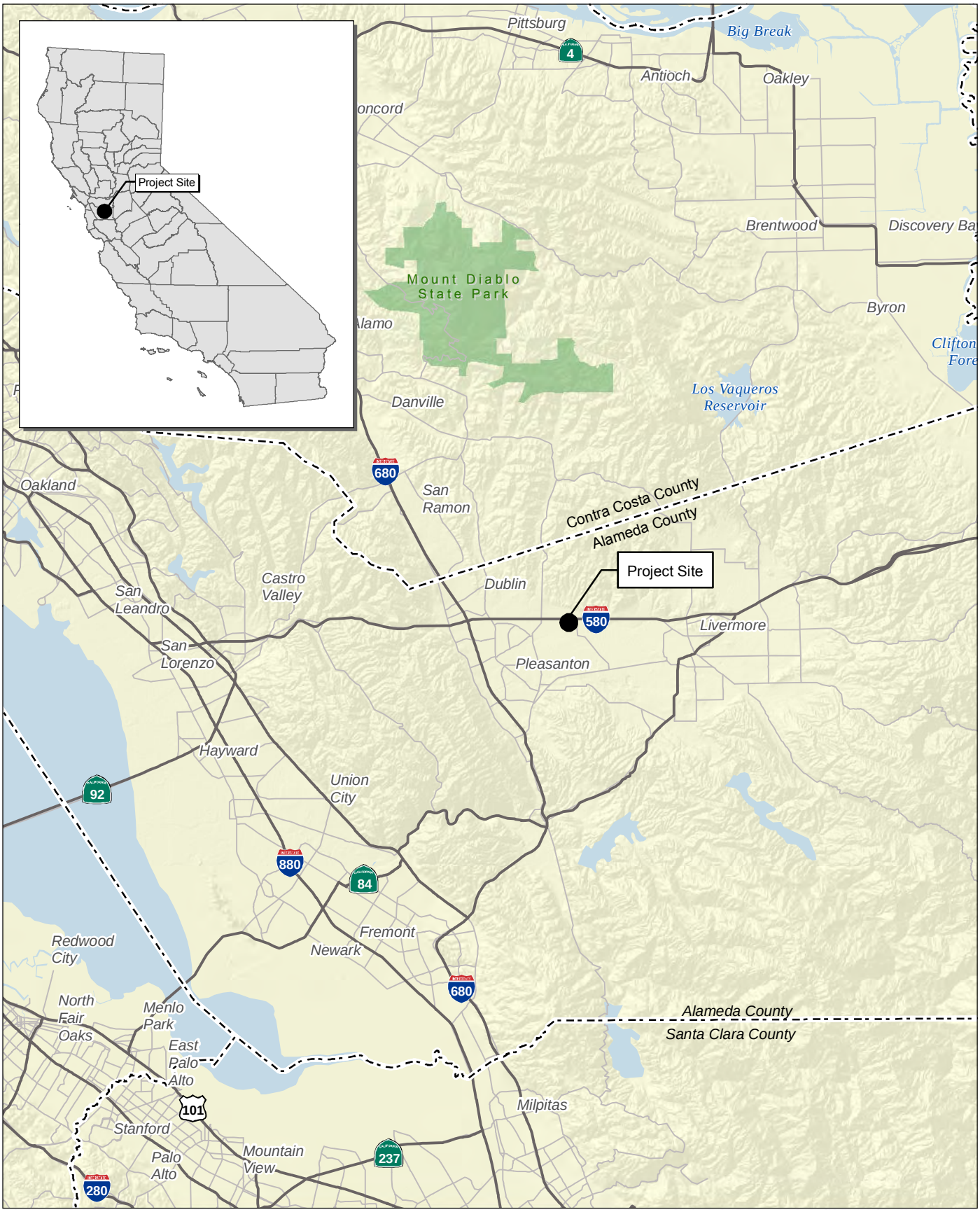
d) The project proponent would retain a Professional Archaeologist on an "on-call" basis during ground disturbing construction for the project to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist would review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).

e) If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource, he/she would notify the project proponent and other appropriate parties of the evaluation and recommend further action to ensure impacts are less than significant. Such actions may include avoidance, preservation in- place, recordation, additional archaeological testing, and

data recovery among other options. Treatment of any significant cultural resources would be undertaken with the approval of the project proponent and the City.

Human Remains

The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity within the project area would comply with applicable State laws. This would include immediate notification of the Alameda County Medical Examiner. In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission (NAHC) is required who would appoint a Most Likely Descendant (MLD) (Public Resources Code (PRC) Section 5097.98). The archaeological consultant, project sponsor, and MLD would make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project applicant would follow PRC Section 5097.98(b), which states that, "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."



Source: Census 2000 Data, The CaSIL

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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CITY OF PLEASANTON • CARMAX AUTO SUPERSTORE
ADDENDUM TO THE CITY OF PLEASANTON STONERIDGE DRIVE
SPECIFIC PLAN AMENDMENT/STAPLES RANCH ENVIRONMENTAL IMPACT
REPORT AND SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

Source: Google Imagery, 2012

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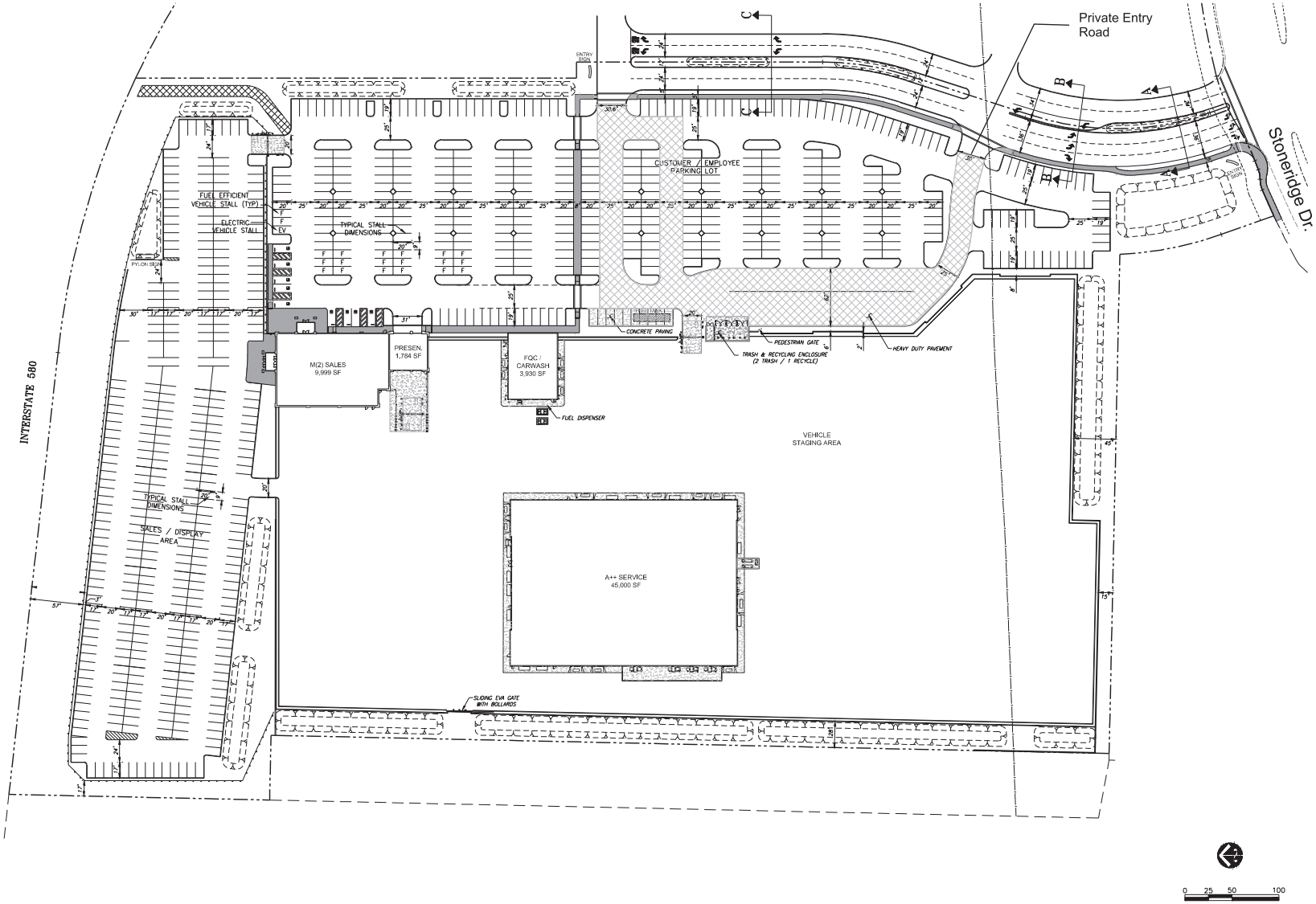
1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map
Aerial Base



Source: MacKay & Somps, 2013

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Exhibit 3
Site Plan

SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Determination

The EIR and Supplement to the EIR analyzed the development of a 46-acre senior continuing care community, a 37.20-acre auto mall, an 11-acre retail/commercial center, a 5-acre neighborhood park, and a 17-acre community park.

The project as currently envisioned includes the development of a 19.66-acre CarMax Superstore, which is within the parameters of the auto mall that was analyzed in the EIR and Supplement to the EIR.

As indicated by CEQA Guidelines Section 15162, when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the City determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous EIR;

   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

On the basis of the record and the analysis contained herein:

(1) The modifications proposed to the project do not require major revisions to the EIR or Supplement to the EIR, as modifications do not involve new significant environmental effects, nor do they involve a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes have not occurred with respect to the circumstances under which the project is undertaken, thus no major revisions of the EIR or Supplement to the EIR are required. None of the changes to the project involve any new significant environmental effects or any substantial increase in the severity of previously identified significant effects. The circumstances under which the project is undertaken are substantially the same as under the EIR and Supplement to the EIR;

(3) There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR and Supplement to the EIR were certified, that shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or Supplement to the EIR;

(B) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(C) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR and Supplement to the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

On the basis of the record and this evaluation, it is concluded that an addendum to the EIR and Supplement to the EIR is the appropriate document to be prepared.

Evaluation of Environmental Impacts

Discussion of Environmental Evaluation

The following analysis includes a discussion of each item identified in the current CEQA environmental checklist (Appendix G). Required mitigation measures are identified (if applicable) where necessary to reduce a projected impact to a level that is determined to be less than significant. The Stoneridge Drive Specific Plan Amendment/Staples Ranch Environmental Impact Report (EIR) (State Clearinghouse Number 2006062053) and Supplement to the Environmental Impact Report (Supplement to the EIR) for the City of Pleasanton Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR (State Clearinghouse Number 2006062053) are herein incorporated by reference in accordance with Section 15150 of the CEQA Guidelines. Copies of these documents and all other documents referenced herein are available for review at the City Pleasanton Planning Division, 200 Old Bernal Avenue Pleasanton, California.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics *Would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Environmental Setting

The site is characterized by ruderal/weedy vegetation and a soil stockpile that is located in the central portion of the site. Because of the undeveloped nature of the project site, views of the hills to the north and Mount Diablo to the northwest are largely unobstructed.

The project site is bounded to the north by I-580. I-580 is not an Officially Designated State Scenic Highway in the project vicinity; however, according to the California Department of Transportation (Caltrans), it is an Eligible State Scenic Highway (Caltrans 2014). The site is bounded to the west by a senior continuing care community; to the east by undeveloped land, El Charro Road, and the Livermore Premium Outlets; and to the south by Stoneridge Drive, land designated for park use by the Amended Specific Plan, and Arroyo Mocho.

Findings

The EIR concluded that the eventual development of the Specific Plan area, including an auto mall, would have a significant and unavoidable impact relating to changes in visual character and quality. The EIR concluded that all other impacts to visual resources, including scenic vistas and scenic resources within a state scenic highway corridor, and impacts related to light and glare, would be less than significant or less than significant after the implementation of mitigation. The Supplement to the EIR did not identify any additional aesthetic impacts.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR and Supplement to the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Scenic Vistas

The EIR and Supplement to the EIR concluded that impacts to scenic vistas would be less than significant, given that the site is not considered a scenic vista nor does it contain scenic resources. Furthermore, there are no scenic vistas in the vicinity of the project area that would be significantly affected. As indicated in Table 2, the project would result in less building area and lower building heights as those considered in the EIR, and therefore would not introduce any new impacts to scenic vistas not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

State Scenic Highway

The EIR concluded that impacts to scenic resources within a State Scenic Highway would be less than significant, given that the I-580 corridor is not officially designated as a State Scenic Highway, and does not contain any scenic resources in the project vicinity. As such, the project would not introduce any new impacts to scenic resources within a State Scenic Highway. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Visual Character

The EIR concluded that the project site would be changed from undeveloped to urbanized, and this change in the existing visual character and loss of open space would be considered a significant and unavoidable impact. Exhibit 4 provides a visual conceptualization of the project. The project would result in less building area and lower building heights as those considered in the EIR, and would similarly be required to implement design guidelines of the Specific Plan and Amended Specific Plan. The project's 45-foot pylon sign would be shorter than the 48-foot sign considered in the EIR. Furthermore, the project would be required to be consistent with the Auto Mall Site Design Standards of the amended Specific Plan. Therefore, the project would not introduce any new impacts to visual character that were not previously disclosed. Impacts would continue to be significant and unavoidable as disclosed in the EIR. No mitigation is feasible or necessary.

Light/Glare

The EIR concluded that new development—including the auto mall—would result in new sources of light and glare that could adversely affect day or nighttime views. The EIR specifically indicated that auto mall lighting related to pylon signs and security lighting could adversely affect adjacent residential areas and contribute to sky glow in an area that currently has minimal light sources. As indicated in the project description, the project would include lighting fixtures mounted on 25-foot tall light poles, consistent with those considered in the EIR and Supplement to the EIR. This lighting would contribute to increased nighttime lighting and sky glow.

Source: Charles J. O'Brien, 2014

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Exhibit 4
View of Project Looking Southeast from I-580

Implementation of Mitigation Measures VQ-3.1 (*prepare lighting plans*), VQ-3.2 (*minimize auto mall light and glare impacts*), VQ-3.3 (*commercial lighting operations timing*), were included in the EIR to ensure impacts from buildings were reduced to a less than significant level. The project's implementation of these measures would ensure that the project's impacts on light and glare would continue to be less than significant as disclosed in the EIR. No additional mitigation is necessary.

Conclusion

The project would not result in any aesthetic impacts beyond those considered in the EIR. All impacts continue to be less than significant, or less than significant with the implementation of mitigation from the EIR as included below, with the exception of visual character impacts, which would remain significant and unavoidable, as disclosed in the EIR.

Mitigation Measures

The following mitigation measures from the EIR are applicable to the project:

VQ-3.1 *Prepare Lighting Plan.* All exterior lighting shall be directed downward and designed or shielded to avoid shining on neighboring properties. Each developer shall submit a final lighting plan, and include drawings and/or manufacturer's specification sheets showing the size and types of light fixtures proposed for the exterior areas, including exterior building lighting and parking lot lighting. The light fixtures and their locations shall be subject to the review and approval of the Community Development Director prior to the issuance of a building permit.

Energy efficient lamp technologies shall be incorporated wherever possible. Mercury vapor shall be avoided. Incandescent light shall be avoided unless they are integrated with a control mechanism that limits their operation time. The use of such lighting shall help minimize impacts on reduced visibility of the night sky.

VQ-3.2 *Design Lighting System of the Auto Mall to Minimize Light and Glare Impacts.* The project developer for the auto mall shall design lighting systems to provide appropriate light illumination for the proposed auto mall and protect surrounding uses from spillover light and glare by incorporating the following guidelines and specifications.

a. Prior to the issuance of a building permit, a lighting plan for the auto mall that includes specifications for pylon signs, monument signs and exterior lighting shall be submitted for review and approval by the Community Development Director. The plan shall include a photometric diagram, prepared by a certified lighting professional, showing predicted maintained lighting levels produced by the proposed lighting fixture facilities that achieve the following during hours of operation at the auto mall:

i. The first row of light standards shall not exceed a foot candle level of 50.0 by the northern boundary and 35.0 by the eastern and southern boundaries as measured at ground level. The foot-candle level for the remainder of the auto mall shall not exceed 10.0 foot-candles as measured at ground level, except:

- In designated display areas near each dealership where merchandise is presented to customers, the foot-candle level may be up to, but not exceed, 30.0 at ground level; and
- At the senior continuing care community, foot -candle spill over from the auto mall shall not exceed 1.0 foot-candle at ground level.

ii. Lighting fixtures for automobile sales and services shall not exceed 25 feet in height, for ground-mounted poles, and up to 10 feet in height for roof top parking.

iii. Lighting fixtures for parking and security purposes within the auto mall that are adjacent to the senior continuing care community shall not exceed 14 feet in height to reduce spill light directly on to the residences at the community.

The location of the designated display areas shall be submitted for review and approval with the PUD development plan.

During non-operational evening hours at the auto mall, all exterior parking lot lighting levels shall be designed such that they do not exceed 10 foot-candles.

VQ-3.3 *Commercial Lighting Operations.* At the auto mall and the retail center site, and in all buildings without residents at the senior continuing care community, all interior lighting shall be turned off during non-operational evening hours, with the exception of lighting needed for security reasons.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Environmental Setting

The project is a part of the Staples Ranch site, which has been historically used for grazing and other agricultural uses. The project site is zoned PUD-C. The Farmland Mapping and Monitoring Program (FMMP) designates the project site as Grazing Land and Other, neither of which is considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance under FMMP criteria (FMMP 2010).

The project site is located in an area that is designated for urban uses by the City of Pleasanton General Plan, Specific Plan, and Zoning Map. The areas surrounding the project site are primarily composed of residential and commercial land uses, and undeveloped lands that are planned for urban development. There are no Williamson Act lands within or near the project site.

Findings

The EIR concluded that implementation of the Amended Specific Plan would result in less than significant impacts to agricultural resources. The Supplement to the EIR did not identify any additional agricultural or forestry resource impacts.

The CEQA Guidelines Appendix G Checklist was updated to include consideration of impacts to forestry resources after the publication of the EIR and Supplement to the EIR. Although the EIR and Supplement to the EIR do not discuss impacts to forestland, timberland, or timberland production; the project site is not designated or zoned as forest land, timberland, or timberland production and does not contain trees that would support timber production. Therefore, the project would not contribute to forestry resource impacts.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR and Supplement to the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Conversion of Farmland

The EIR concluded that implementation of the Amended Specific Plan would result in less than significant impacts related to the conversion of farmland to non-agricultural use. The project would be consistent with the auto mall location considered in the EIR and Supplement to the EIR and no changes have occurred to the status of the project site's FMMP designations of Grazing Land and Other. As such, the project would not introduce any new agricultural land conversion impacts not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Williamson Act Contract

The EIR and concluded that the implementation of the Amended Specific Plan would not result in any impacts to lands zoned for agriculture or existing Williamson Act contracts. The project site was annexed by the City on April 29, 2011 and is designated for development under the City's General Plan land use and zoning maps. The project site is not under a Williamson Act contract. As such, the project would not introduce any new agricultural zoning or Williamson Act impacts not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary

Conflict with Existing Zoning or Rezoning

The project as proposed is consistent with the commercial land use designation and zoning for the site. The project would be consistent with the auto mall location considered in the EIR. No other changes have occurred that would cause a conflict with existing zoning. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Loss or Conversion of Forest Land

The CEQA Guidelines Appendix G, Checklist was updated in 2010 to include consideration of impacts to forestry resources. The EIR and Supplement to the EIR were prepared prior to this update and therefore do not contain an analysis of these checklist questions. However, the project site does not contain forest lands or timberlands that would support timber production, and the project would have no impact upon forest lands or forestry resources. No mitigation is necessary.

Conclusion

The project would not result in any agricultural impacts beyond those considered in the EIR, nor would it result in impacts to forestry resources as analyzed herein. All impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.* *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The project site is located in the Bay Area Air Basin (Ari Basin). The Bay Area Air Quality Management District (BAAQMD) is the local air district. BAAQMD's 1999 CEQA Guidelines and thresholds were used in the EIR and Supplement to the EIR. Since the certification of the EIR and Supplement to the EIR by the City, BAAQMD released their 2010 CEQA Air Quality Guidelines (2010 Air Quality Guidelines).

On January 4, 2012, the Alameda County Superior Court issued a judgment, in *California Building Industry Association v. Bay Area Air Quality Management District*, finding that the BAAQMD had failed to comply with CEQA when it adopted its 2010 Air Quality Guidelines. On March 5, 2012, the Court ruled that the adoption of new thresholds (including new thresholds for toxic air contaminants and $PM_{2.5}$) is considered a "project" under CEQA, and, thus, the BAAQMD should have prepared the required CEQA review and documentation for the 2010 Air Quality Guidelines, which provided the 2010 Air Quality Thresholds. The Court issued a writ of mandate ordering the BAAQMD to set aside the 2010 Air Quality Thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. As such, this ruling effectively nullified the BAAQMD's adoption of the 2010 Air Quality

Thresholds, and the BAAQMD ceased recommending them for use in evaluating significance of projects. The BAAQMD appealed the Alameda County Superior Court's decision and the Court of Appeals reversed the trial court. However, the Court of Appeal's decision does not provide the means by which the BAAQMD may ultimately reinstate the GHG emissions and toxic air contaminant thresholds. Therefore, the BAAQMD cannot legally recommend the 2010 Air Quality Thresholds.

In view of the legal uncertainty regarding the 2010 Air Quality Thresholds, the BAAQMD released a new version of the Air Quality Guidelines in May 2012 removing the 2010 Air Quality Thresholds. The BAAQMD recommends that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record. Therefore, the City of Pleasanton, the lead agency, has determined that the 1999 Air Quality Guidelines and Thresholds are appropriate for the analysis of this project, consistent with the EIR and Supplement to the EIR, which also utilized the 1999 CEQA Guidelines and Thresholds. Pursuant to the 1999 CEQA Guidelines, if a project does not exceed the thresholds contained within the guidelines, it will result in a less than significant impact.

Table 3 shows the thresholds established in the 1999 CEQA Guidelines.

Table 3: BAAQMD Project-Level Construction- and Operational-Related Thresholds

Pollutant	Construction Thresholds	Operational Thresholds
ROG	None	80 lbs/day
NOx	None	80 lbs/day
PM_{10}	None	80 lbs/day
$PM_{2.5}$	None	None
PM_{10} / $PM_{2.5}$ (fugitive dust)	BMPs	9.0 ppm (8-hour average), 20 ppm (1-hour average)
TACs	None	• Increased cancer risk of >10 in a million • Increased non-cancer risk of >1 Hazard Index
Cumulative TACs	None	None
Accidental Release	None	Storage or use of acutely hazardous materials near receptors or new receptors near stored or used acutely hazardous materials
Odor	None	>1 confirmed complaint per year averages over three years or 3 unconfirmed complaints per year averaged over three years.

Table 3 (cont.): BAAQMD Project-Level Construction- and Operational-Related Thresholds

Pollutant	Construction Thresholds	Operational Thresholds

Notes:
lbs/day = pounds per day
NOx = nitrous oxides
CO = carbon monoxide
TACs = toxic air contaminants
ROG = reactive organic gases
PM = particulate matter
BMPs = best management practices
Source: Bay Area Air Quality Management District 1999

Findings

The EIR and the Supplement to the EIR concluded that the Amended Specific plan would have less than significant impacts related to consistency with the Clean Air Plan, localized air quality (CO hotspots) emissions, TACs, and exposure to objectionable odors; and less than significant impact with mitigation incorporated related to exposure to short-term (construction) air quality emissions. The EIR found a significant unavoidable impact related to operational ROG, NOx, and PM_{10} even after the implementation of mitigation. The Supplement to the EIR discussed air quality impacts only in relation to GHG, which are discussed in Section 2.7 of this document.

As shown in Table 1, the project includes the development of a 61,772-square-foot auto dealership on 19.66 acres. This would be less than a proportionally sized 175,430-square-foot auto mall analyzed under the EIR and Supplement to the EIR as indicated by Table 2. Project design features include meeting the minimum Leadership in Energy and Environmental Design (LEED) rating requirements, as required by the City's Green Building Ordinance for new commercial developments. The project also includes several project design features including skylights, low emissivity glass, a white thermoplastic membrane roof, energy efficient building insulation, LED lighting for building mounted signage, and filtration systems capable of capturing approximately 98 percent of particulate emitted from paint booths and prep stations.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR and Supplement to the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Air Quality Plan

The EIR based the Air Quality consistency analysis on the 2000 Clean Air Plan and concluded that impacts would be less than significant. Since the certification of the EIR, the 2010 Clean Air Plan was adopted by BAAQMD. A project would be judged to conflict with or obstruct implementation of the 2010 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

The project is not a residential development and would not result in a substantial unplanned increase in population. Furthermore, the project has been planned and anticipated by the City and would not result in a substantial increase in employment or vehicles miles traveled not previously disclosed. According to the Trip Generation Memorandum, the project would only generate 50 percent of the a.m. trips and 45 percent of the p.m. trips of a proportionally sized auto mall as analyzed in the EIR. Also, as discussed below, the project would not exceed impacts previously concluded regarding air quality standards, cumulative contribution of non-attainment pollutants, exposure of sensitive receptors to substantial air pollution concentrations, or creation of objectionable odors. The project would not result in a substantial unplanned increase in population, employment, or regional growth in vehicle miles traveled, or emissions, so it could not conflict with or obstruct implementation of the air quality plan. As such, the project would be consistent with the 2010 Clean Air Plan and would not introduce any new impacts not previously disclosed in the EIR. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Air Quality Standards or Violations

The EIR concluded that the Amended Specific Plan would result in increased long-term emissions of criteria pollutants associated with construction activities that could contribute substantially to an air quality violation. Development anticipated by the EIR would involve grading, and site preparation and construction of new structures. Emissions generated during construction activities would include exhaust emissions from heavy-duty construction equipment, trucks used to haul construction materials to and from sites, worker vehicle emissions, as well as fugitive dust emissions associated with earth-disturbing activities. These emissions would have the potential to result in carbon monoxide hotspots and fugitive dust impacts, each of which are discussed below.

Carbon Monoxide Hotspot

The EIR indicated that although the addition of the Amended Specific Plan's traffic to nearby roadway intersections would increase congestion, the ambient air quality standards for carbon monoxide (CO) would not be exceed at any intersection within the vicinity of the Amended Specific Plan area. This conclusion was based on CALINE4 CO concentration model outputs. Therefore, the EIR concluded that the Amended Specific Plan would not result in CO hotspot impacts and impacts would be less than significant.

The project would generate trips that could contribute to CO hotspots. However, as indicated in the Trip Generation Memorandum, the project would generate only 50 percent of the AM trips and 45 percent of the PM trips of a comparable sized (20-acre portion of the 37 acres) auto mall as analyzed in the EIR. As such, the project would result in a reduced contribution to CO hotspot. Furthermore, vehicle emission factors have been further reduced from what was analyzed in the EIR as a result of additional vehicle emission standards imposed at the state and federal levels. Therefore, the project would not introduce any new impacts related to localized carbon monoxide emissions not previously disclosed in the EIR. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Construction: Fugitive Dust

The EIR concluded that the Amended Specific Plan would have the potential to result in significant air quality impacts during construction related to fugitive dust that would be reduced to less than significant with the implementation of Mitigation Measure AQ-2.1 (*Implement construction dust measures)*. As indicated in Section 1.3.3, the project would include dust emission reduction features. These features in combination with the implementation of Mitigation Measure AQ-2.1 (*Implement construction dust measures)* from the EIR would ensure impacts related to fugitive dust would continue be less than significant. Therefore, the project would not introduce any new impacts related to fugitive dust not previously disclosed in the EIR. Impacts would continue to be less than significant with the implementation of mitigation as disclosed in the EIR. No additional mitigation is necessary.

In summary, the project would not introduce any new impacts related to air quality standards or violations not previously disclosed in the EIR. Impacts would continue to be less than significant with the implementation of Mitigation Measure 2-1 from the EIR. No additional mitigation is necessary.

Cumulative Increase in Nonattainment Pollutants

Non-attainment pollutants of concern for this impact are ozone, PM_{10} and $PM_{2.5}$. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Construction Exhaust Pollutants

The EIR concluded that construction emissions related to the Specific Plan would result in less than significant impacts because construction exhaust emissions are included in the regional emissions inventory that is the basis for regional air quality plans, and as a result, these emissions would not impede attainment or maintenance of ozone or PM_{10} standards.

The project is consistent with the construction assumptions of the EIR and Supplement to the EIR and would actually result in a proportionally smaller building footprint than considered therein. As such, construction emissions would be proportionally smaller. Impacts would continue to be less than significant and no mitigation is necessary.

Operational Pollutants

The EIR concluded that the Specific Plan would result in operational emissions of ROG, NOx, and PM_{10} that exceed the 1999 BAAQMD significance threshold of 80 pounds/day, and that this impact would remain significant and unavoidable after the implementation of Mitigation Measure AQ-3.1 (*develop and implement plan to reduce operational air emissions*). Implementation of Mitigation Measure AQ-3.1 requires project developers to demonstrate to the City, that measures have been included to reduce both mobile and stationary operational emissions resulting from development of the project site to the maximum extent practicable. The EIR indicated that, while Mitigation Measure AQ-3.1 could result in some trip reductions, it would not be sufficient to reduce the

project's operational air emissions to a less-than-significant level. Therefore, the EIR concluded that operational emission impacts would remain significant unavoidable. Project specific emissions are broken down by mobile source emissions and stationary source emissions, as was done in the EIR and Supplement to the EIR. The results are found in Table 4 below.

Table 4: Project Daily Operational Stationary and Mobile Source Emissions

Emission Source	Emissions in Pounds Per Day		
	ROG	NOx	PM_{10}
Stationary/Area	1.55	0.45	0.03
Mobile	13.63	23.85	8.40
Total Emissions	**15.18**	**24.30**	**8.43**
BAAQMD 1999 Thresholds	80	80	80
Significant Impact?	No	No	No
Source: FirstCarbon Solutions, 2014.			

Despite being below 1999 BAAQMD significance threshold, an Operational Air Emissions Plan (Appendix A) has been prepared for the project consistent with Mitigation Measure AQ-3.1. The Plan includes measures to reduce emissions from mobile sources, including efficient onsite vehicular movement, bike racks, pedestrian pathways, and proximity to bus drop offs. In addition, the Operational Air Emissions Plan includes the following measures to reduce stationary emissions: 1) form an Environmental, Health & Safety Committee, 2)implement an Energy Management System to manage operating times, use efficiency, and cost efficiency for lighting, HVAC systems, and computer systems, 3) install CO2 monitoring, and 4) utilize service building vehicle ventilation systems. The Operational Air Emissions Plan prepared for the project meets all of the requirements of Mitigation Measure AQ-3.1, and therefore, the mitigation measure has been fulfilled and impacts from operational pollutants would be less than significant.

In summary, the project would not introduce any new impacts related to cumulatively considerable net increases of nonattainment pollutants not previously disclosed in the EIR, and the required mitigation has been fulfilled. Impacts would continue to be less than significant and no additional mitigation is necessary.

Sensitive Receptors

A sensitive receptor is defined as the following (BAAQMD 2011): "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas." There are residential and commercial buildings adjacent to the project. The nearest sensitive

receptor to the project site is the senior continuing care community directly west of and adjacent to the project site.

Construction Localized Fugitive Dust

Activities associated with site preparation, and construction would generate short-term emissions of fugitive dust resulting in increased dust fall and locally elevated levels of PM_{10} and $PM_{2.5}$ downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. Implementation of Mitigation Measure AQ-2.1, as included in the EIR, and the construction dust reduction design features of the project (Section 1.3.3) would ensure that the current best management practices (BMPs) would be implemented to reduce fugitive dust emissions from construction activities to less than significant. As such, the project would not introduce any new impacts related to fugitive dust not previously disclosed. Impacts would continue to be less than significant with implementation of Mitigation Measure AQ-2.1 from the EIR and no additional mitigation is necessary.

Toxic Air Contaminants: On-site Residents

The EIR concluded that implementation of the Amended Specific Plan would have the potential to expose future on-site residents to substantial Toxic Air Contaminants (TACs). The exposure to TACs would be a potentially significant impact. Therefore, Mitigation Measure AQ-5.1 (*conduct a health risk assessment for proposed residential units within 500 feet of the closest ultimate travel lane adjacent to the Staples Ranch site assumed under Caltrans' ultimate freeway expansion plans for I-580*) was required to reduce impacts to less than significant. However, the auto mall portion of the Specific Plan would not include any future on-site residents and therefore, the mitigation measure is not applicable to the project. Since there are no residences included in the project, there is no potential for exposure of on-site residences to TACs and, therefore, there would be no impact. No mitigation is necessary

Toxic Air Contaminants: Off-site Residents

The EIR indicated that implementation of the Amended Specific Plan would generate trips to and from the site resulting in increased traffic emissions and exposure of TACs to off-site residents. However, the increase in traffic on I-580 and nearby roadways would not exceed CARB's screening health-risk threshold for high-traffic roadways of 100,000 vehicles per day for an urban roadway. Therefore, implementation of the Amended Specific Plan's exposure of off-site residents to TACs would be less than significant.

The project site is bounded by Stoneridge Drive and undeveloped land to the south; I-580 and commercial land uses to the north; the remainder of the auto mall designated lands, El Charro Road, and commercial land uses to the east; and a senior continuing care community and residential land uses to the west (Exhibit 2). These directly adjacent off-site residents have the potential to be exposed to TACs from the operation of the project. However, as indicated in the Trip Generation Memorandum prepared for the CarMax Superstore, the project would generate only 50 percent of the AM trips and 45 percent of the PM trips originally analyzed in the EIR. Since a majority of the potential sources of TACs from the project are mobile sources, a reduced trip generation means the

project would have less of a potential to expose off-site residents to TACs. In addition, exposure to project construction-generated TACs at nearby off-site residents would be brief and substantially limited due to the quick dispersion of construction emissions. If backup generators or paint spray-booths are operated onsite, the project operator would be required to acquire a permit from BAAQMD and the permitting process would ensure that there would be no significant impacts to off-site residents from such uses. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Toxic Air Contaminants: Schools

The EIR concluded that implementation of the Amended Specific Plan would not result in exposure of nearby schools to substantial TACs and impacts would be less than significant. The project is within the parameters of the auto mall project evaluated in the EIR and Supplement to the EIR. Therefore, the project would not introduce any new air quality impacts related to schools not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Toxic Air Contaminants: Livermore Municipal Airport

The EIR concluded that implementation of the Amended Specific Plan would not result in significant impacts related to TACs generated in association with the Livermore Municipal Airport. The project is within the parameters of the auto mall project evaluated in the EIR and Supplement to the EIR. Therefore, the project would not introduce any new air quality impacts related to schools not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

In summary, impacts from the project's construction and operational TACs would be less than significant with the implementation of Mitigation Measure AQ-2.1 from the EIR. The project would not introduce any new air quality impacts related to sensitive receptors not previously disclosed. Impacts would continue to be less than significant with the implementation of mitigation as disclosed in the EIR and no additional mitigation is necessary.

Objectionable Odors

The EIR concluded that implementation of the Amended Specific Plan would not result in the creation of odors affecting a substantial number of people. The project is within the parameters of the corresponding 20-acre portion of the 37-acre auto mall project evaluated in the EIR. Therefore, the project would not introduce any new air quality impacts related to schools not previously disclosed. Impacts would continue to be less than significant as disclosed in the EIR and no mitigation is necessary.

Conclusion

The project would not result in any new substantial or more severe air quality impacts beyond those considered in the EIR. All impacts would be less than significant or less than significant with the implementation of mitigation from the EIR as included below. No additional mitigation is necessary.

Mitigation Measures

The following mitigation measure from the EIR is applicable to the project:

AQ-2.1 *Implement construction dust measures*. The proposed project shall be required to implement the following mitigation measures during all construction phases to reduce impacts associated with construction dust to the extent feasible, as determined by the City Engineer. These measures shall be incorporated into the construction documents describing procedures and specifications for contractors to follow.

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials to or from the Project Area or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil materials are carried on to adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Suspend excavation and grading activities to the extent feasible when instantaneous wind gusts exceed 25 mph.
- Limit, to the extent feasible, the number of areas adjacent to residences subject to excavation, grading, and other construction activity to any one time.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

Ecologically, the project site consists primarily of disturbed areas and non-native annual grassland areas. Disturbed areas are a result of construction staging and access activities associated with the

adjacent senior continuing care community. Arroyo Mocho is located approximately 0.2 mile to the south. No trees are present onsite.

As indicated by a biological reconnaissance and wetland assessment site visit conducted by WRA on May 7, 2013 (WRA 2013), the project site is unlikely to support a majority of special-status plant and wildlife species that occur in the vicinity. The project site does not contain any sensitive habitats or areas of potential jurisdictional wetlands.

A review of historical aerials shows that the project site was actively cultivated for agricultural purposes through approximately 2007. In 2011, the project site was graded and mowed with the onset of construction on adjacent parcels. Since that time, the project site has been actively used for construction staging and access, thus precluding the presence of suitable habitat for special-status plant species and most special status wildlife species. It is possible that some foraging and nesting habitat remains that is suitable for special-status raptors and common bird species protected by the Migratory Bird Treaty Act (WRA 2013).

Findings

The EIR and Supplement to the EIR concluded that implementation of the Amended Specific Plan would have no impact related to Habitat Conservation Plans, Natural Community Conservation Plan, or other Approved Plans. The EIR and Supplement to the EIR concluded that implementation of the Amended Specific Plan would have a less than significant impact after the implementation of mitigation related to special status species; riparian habitat or other sensitive natural communities; state or federally protected wetlands; wildlife corridors; and local policies or ordinances.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR and Supplement to the EIR due to project modifications, physical changes on the property, new information, or changed circumstances.

Sensitive Species

San Joaquin Spearscale

The EIR concluded that the project would not result in a significant loss of San Joaquin Spearscale. The San Joaquin Spearscale population on the Staples Ranch site was anticipated to be impacted by activities associated with the 2003 Arroyo Mocho Realignment project, and as mitigation for the removal of this population, seeds from the population were collected and planted in the newly widened Arroyo Mocho channel. This was a successful revegetation effort and any populations that would be impacted by the Amended Specific Plan were successfully mitigated in advance. However, the Supplement to the EIR concluded that despite this mitigation, the Amended Specific Plan would result in a significant impact and would require mitigation because spearscale still existed within the Amended Specific Plan area after the revegetation effort. The Supplement to EIR required the implementation of Mitigation Measure S -BIO-1 (preserve off-site San Joaquin Spearscale habitat) to reduce impacts to less than significant. According to the City and the Alameda County Surplus Property Authority, Mitigation Measure S-BIO-1 has been fulfilled (Bonn, pers. com.) Therefore, this

mitigation measure is no longer applicable. Furthermore, no San Joaquin Spearscale plants were ever identified within the project site. Therefore, the project would not introduce any new impacts related to San Joaquin Spearscale. Impacts would continue to be less than significant and no mitigation is necessary.

California Red-legged Frog

The EIR and Supplement to the EIR concluded that development of the Amended Specific Plan could affect California red-legged frog (CRLF). The EIR indicated that although CRLF are unlikely to be found within the Amended Specific Plan area due to limited suitable aquatic habitat, barriers to migration, and lack of identification onsite, the proximity of recorded occurrence in Arroyo Las Positas makes it possible that CRLF could be found within Arroyo Mocho. Therefore the EIR and Supplement to the EIR required implementation of Mitigation Measure BIO-2.1 (*conduct preconstruction surveys for CRLF*), applicable only to construction activities within the Arroyo Mocho channel or its riparian vegetation. The project site is located 0.2 mile north of Arroyo Mocho, and, as indicated in the WRA letter report, does not have suitable habitat for CRLF (WRA 2013). In addition, previous protocol-level surveys for CRLF at the project site were negative (City of Pleasanton 2008). Therefore, the project would not introduce any new impacts to CRLF not previously disclosed, and implementation of Mitigation Measure BIO-2.1 from the EIR and Supplement to the EIR is not necessary. Impacts would be less than significant and no mitigation is necessary.

California Tiger Salamander

The EIR and Supplement to the EIR concluded that development of the Amended Specific Plan could affect California Tiger Salamander (CTS) and required Mitigation Measures BIO-3.1 (*complete California tiger Salamander surveys*) and BIO-3.2 (*provide construction monitoring for California tiger salamanders if surveys identify California tiger salamanders on the Staples Ranch property*) to reduce impacts to less than significant. According to the Supplement to the EIR, a two-year protocol level survey for CTS was completed in 2008, and the negative results were transmitted to the US Fish and Wildlife Service. As a result of the negative survey, the Supplement to the EIR concluded that Mitigation Measures BIO-3.1 and BIO-3.2, as required in the EIR, were no longer required. Therefore, it can be concluded that CTS do not utilize the Staples Ranch property and, therefore, would not be affected by the development of the project. As such, the project would not introduce any new impacts to CTS not previously disclosed and implementation of Mitigation Measure BIO-3.1 and BIO-3.2 are not necessary. Impacts would continue to be less than significant and no mitigation is necessary.

Western Pond Turtle

The EIR and Supplement to the EIR concluded that development of the Amended Specific Plan could affect western pond turtle (WPT) and its habitat within Arroyo Mocho. The EIRs required implementation of Mitigation Measure BIO-4.1 (*provide exclusion preconstruction surveys for western pond turtle*) and BIO-4.2 (*provide exclusion fencing for western pond turtle*), although these measures are applicable only to construction activities within the Arroyo Mocho channel or its riparian vegetation.

The project site is located 0.2 mile north of Arroyo Mocho, and, as indicated in the WRA letter report, does not have suitable habitat for WPT (WRA, 2013). Therefore, the project would not introduce any new impacts to WPT not previously disclosed and implementation of Mitigation Measures BIO-4.1 and BIO-4.2 are not necessary. Impacts would be less than significant and no mitigation is necessary.

Nesting Birds

The EIR concluded that the removal of trees and grassland vegetation could affect nesting habitat for birds protected under the Migratory Bird Treaty Act. As such, Mitigation Measure BIO-5.1 (*conduct nesting bird surveys*) would be required to ensure impacts are mitigated.

While the project site does not contain any trees, it does include grassland vegetation. As such, implementation of Mitigation Measure BIO-5.1 from the EIR would ensure impacts would continue to be less than significant as disclosed in the EIR. The project would not introduce any new impacts to nesting birds not previously disclosed and no additional mitigation is necessary.

Riparian Habitat or Other Sensitive Natural Community

The EIR concluded that development of the Amended Specific Plan could impact riparian vegetation along Arroyo Mocho, and required the implementation of Mitigation Measure BIO-6.1 (*Obtain streambed alteration agreement), BIO-6.2 (Erect exclusion fencing around spearscale mitigation area)* and BIO-6.3 *(Replace removed vegetation)* to ensure impacts were less than significant.

The project site is located approximately 0.2 mile north of Arroyo Mocho and does not include any riparian habitat. As such, Mitigation Measures BIO-6.1 through BIO-6.3 from the EIR are not applicable. The project would not introduce any new impacts related to riparian habitat or other sensitive natural communities that were not previously disclosed in the EIR. Impacts would continue to be less than significant and no mitigation is necessary.

Wetlands

The EIR concluded that the Amended Specific Plan could affect waters of the state and Waters of the U.S. because the project area includes a portion of Arroyo Mocho, which is considered a "water of the U.S." Mitigation Measure BIO-7.1 (*provide compensation for impacts to jurisdictional water*) would need to be implemented in order to reduce impacts to wetlands, waters of the state, and waters of the U.S. to a less than significant level.

The project site is located approximately 0.2 mile north of Arroyo Mocho and therefore would not affect the Arroyo Mocho channel. Furthermore, as indicated by the WRA letter report, the project site does not contain any wetlands (WRA, 2013). Therefore, the project would not result in any impact to protected wetlands that were not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Wildlife Movement

The EIR concluded that development of the Amended Specific Plan could substantially interfere with the movement of native or migratory terrestrial wildlife in Arroyo Mocho. Movement within Arroyo Mocho could be affected by nighttime lighting spillover during construction and operation of proposed new land uses. With more nighttime lighting, the behavior of migratory species could be disturbed to the point where their movements are delayed, disrupted, or individuals are subject to increase predation. Therefore, Mitigation Measures BIO-8-1 (*minimize lighting spillover*) and BIO-8.2 (*incorporate wildlife habitat into landscaping plans for community and neighborhood park*) were required to reduce impacts to a less than significant level.

The project site is more than 0.2 mile north of Arroyo Mocho. As required by Mitigation Measure BIO-8.1, all onsite lighting would be shielded away from Arroyo Mocho. Mitigation Measure BIO-8.2 is not applicable because the project does not include any parklands. With the implementation of Mitigation Measure BIO-8.1 from the EIR, the project would not introduce any new impacts related to movement of native or migratory terrestrial wildlife not previously disclosed. Impacts would continue to be less than significant after the implementation of mitigation from the EIR.

Local Policies or Ordinances

The EIR concluded that development of the Amended Specific Plan could conflict with the provisions of the City tree preservation policies or ordinances. The Amended Specific Plan area contains over 100 trees that qualify as "heritage trees" as defined in Chapter 17.16 of the City Code. Implementation of Mitigation Measures BIO-9.1 (*conduct tree appraisal*) and BIO-9.2 (*provide tree replacement*) would ensure that there would be no net loss of trees, and would reduce impacts to tress to a less than significant level.

There are no trees within the project site. As such, there is no potential for impacts to heritage trees and no mitigation would be necessary. The project would not introduce any new impacts related to local policies or ordinances not previously disclosed. No impact would occur and no mitigation is necessary.

Habitat Conservation Plan, Natural Community Conservation Plan, or other Approved Plan

The EIR concluded that development of the Amended Specific Plan would not result in conflicts with a habitat or natural community conservation plan because the Amended Specific Plan area is not located within the boundaries of such a plan. No changes have occurred that would alter this conclusion. As such, no impact would occur.

Conclusion

The project would not introduce any new substantial or more severe impacts to biological resources beyond those considered in the EIR and Supplement to the EIR. All impacts would continue to remain less than significant with implementation of mitigation from the EIR as included below, less than significant without mitigation, or have no impact at all. No additional mitigation is necessary

Mitigation Measures

The following mitigation measures from the EIR are applicable to the project:

BI0-5.1 *Conduct nesting bird surveys.* Prior to the beginning of tree removal or mass grading, between February 15 and August 15, including grading for major infrastructure improvements, an avian nesting survey shall be conducted of all habitat within 350 feet of any grading or earthmoving activity. The survey shall be conducted by a qualified biologist, as determined by the City, and occur no more than 21 days prior to disturbance. If no active nests are found, no further action is required.

If active nests for special-status avian species or raptor nests are found within the construction footprint, construction activities shall be delayed within a minimum 500-foot buffer zone surrounding active raptor nests and a minimum 250-foot buffer zone surrounding nests of other special-status avian species until the young have fledged. This buffer zone shall not extend beyond the Staples Ranch site. The appropriate buffer can be modified by the City in consultation with qualified biologists and the CDFG. No action other than avoidance shall be taken without CDFG consultation. Completion of the nesting cycle shall be determined by a qualified ornithologist or biologist, as determined by the City.

The buffer zone shall be delineated by highly visible temporary construction fencing, and no intensive disturbance (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the established buffer zone of an active nest.

BI0-8.1 *Minimize lighting spillover.* All outdoor lighting shall be equipped with devices that will direct lighting away from the Arroyo Mocha and outdoor lighting within 200 feet of the centerline of the arroyo shall be of the minimum wattage required for the particular use and shall be shielded and directed away from the corridor to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) to prevent stray light spillover onto sensitive habitat.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

A review of historical aerials shows that the project site was actively cultivated for agricultural purposes through approximately 2007. In 2011, the site was graded and mowed with the onset of construction of adjacent parcels. No unique geologic features are present on the project site and a review of historical aerials dating back to 1949 confirms that the project area has never been developed for urban uses (NetrOnline, 2014).

Findings

The EIR included all discussion related to cultural resources in Section 4.6 Effects Found Not to be Significant. The Supplement to the EIR did not identify any additional impacts to cultural resources. The EIR concluded that there would be no impacts to historic resources, and impacts to subsurface archeological resources and human remains would be less than significant with the implementation of mitigation from the 1989 Specific Plan EIR. The EIR did not discuss impacts to paleontological resources.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Historical Resource

The EIR concludes that as discussed in the EIR prepared for the 1989 Stoneridge Drive Specific Plan, all structures located on the former Staples Ranch site were surveyed, determined not to be of historical significance, and demolished. Therefore, the development of the Amended Specific Plan would not result in impacts to historic resources. No changes have occurred that would affect this conclusion and no known historical resources are located on the project site. As such, no impacts would occur as a result of implementation of the project.

Archaeological Resources

The EIR concluded that the Amended Specific Plan is located within an area of high archaeological sensitivity due to certain sites in the Amended Specific Plan area being covered with a relatively thin layer of alluvium. Other sites in the area similarly covered with alluvium have yielded human remains, middens, pottery pieces, charred rock, and other artifacts. Grading and excavation prior to project construction has the potential to disturb buried archaeological resources. As such, the EIR incorporated and amended Mitigation Measure CR-1 from the EIR prepared for the 1989 Stoneridge Drive Specific Plan to reduce subsurface cultural resources impacts from implementation of the Amended Specific Plan to a less than significant level.

According to a Cultural Resources Feasibility Review prepared by Basin Research Associates (2013), the project site is located within a sensitive archeological area due to at least four recorded prehistoric archeological resources in the general area, and the presence of various sources of flowing water including Arroyo Mocho. Archeological monitoring of subsurface construction to the immediate west and southwest of the project site did not result in the discovery of any archeological resources. As such, the Review concluded that the project site has a low to low-moderate sensitivity for surface and subsurface prehistoric archeological resources and recommended periodic archeological monitoring of subsurface construction to ensure impacts to archeological resources are less than significant.

Monitoring and related activities recommended by Basin Research Associates have been incorporated into the project as indicated in Section 1.3.2, Environmental Design Features. Furthermore, the City requires a standard condition of approval for projects requiring Planning Department approval, which would require that all construction stop in the event that a cultural resource is uncovered during project grading or excavation. As such, compliance with City regulations, incorporation of the Environmental Design Features, and implementation of Mitigation Measure CR-1 would ensure the project would continue to have a less than significant impacts after the implementation of mitigation imposed under the prior EIR. No additional mitigation is necessary.

Paleontological Resources

The EIR did not discuss potential impacts to paleontological resources. As noted by the City's Housing Element and Climate Action Plan General Plan Amendment and Rezoning Supplement to the EIR (SCH Number 2011052002) (City of Pleasanton 2011), the City is directly underlain by Quaternary

Alluvium, which is unlikely to contain vertebrate fossils. However, it is possible that the City is also underlain by older Quaternary deposits that are known to contain vertebrate fossils. Fossils have been found within five miles of areas in similar deposits. Therefore, the project site has a moderate paleontological sensitivity. While shallow grading is unlikely to uncover paleontological resources, deeper excavation into older sediments may uncover significant fossils.

If a paleontological resource is uncovered and inadvertently damaged, the impact to the resource could be significant. However, the City requires a standard condition of approval for projects requiring Planning Division approval requiring that all construction stop in the event that paleontological resources are uncovered during excavation. With implementation of this standard condition, the project would not introduce any new impacts to paleontological resources that were not previously disclosed. Impacts would be less than significant and no mitigation is necessary.

Human Remains

The EIR concluded that the Amended Specific Plan is in an area of high archaeological sensitivity. Grading and excavation prior to project construction has the potential to disturb buried archaeological resources including human remains. As such, the EIR incorporated and amended Mitigation Measure CR-1 from the EIR prepared for the 1989 Stoneridge Drive Specific Plan to reduce subsurface cultural resources impacts to a less than significant level.

According to the Cultural Resources Feasibility Review prepared by Basin Research Associates, previously unknown Native American human remains could be exposed during ground disturbing construction operations associated with the project. The Review provided recommendations for the appropriate actions in the case of accidental discovery of human remains, which have been incorporated into the project as indicated in Section 1.3.2, Environmental Design Features. Furthermore, the City implements a standard condition of approval that requires all construction to stop in the event that human remains are uncovered during excavation. As such, compliance with City regulations, incorporation of the Environmental Design Features, and implementation of Mitigation Measure CR-1 would ensure the project would continue to have a less than significant impact after the implementation of mitigation imposed under the prior EIR. No additional mitigation is necessary.

Conclusion

The project would not result in any new substantial or more sever cultural resource impacts beyond those considered in the EIR. All impacts would continue to be less than significant or less than significant after the implementation of mitigation imposed under the EIR and no additional mitigation is necessary.

Mitigation Measures

The following mitigation measure from the EIR is applicable to the project:

CR-1 *Each project developer shall retain the services of a qualified archaeological consultant having expertise in California prehistoric archaeology.* The archaeological consultant shall determine if planned development could potentially impact important archaeological resources and shall then design an appropriate archaeological monitoring program. Upon completing the archaeological monitoring program, the archaeological consultant shall submit a written report of findings first and directly to the Director of the Department of Planning and Community Development. At a minimum, the archaeological monitoring program shall include the following:

- An archaeological monitor shall be onsite during native soils disturbing activities.
- The archaeological consultant shall advise all project contractors to be on the alert for evidence of expected resources, of how to identify the evidence of the expected resources, and of the appropriate protocol in the event of discovering an archaeological resource.
- The archaeological monitor shall be present on the Staples Ranch site until the Director of the Planning and Community Development Department, in consultation with the archaeological consultant, determines that project construction activities could have no effects on significant archaeological resources.
- The archaeological monitor shall record and be authorized to collect soil samples and artifactua/ecofactual material as warranted for analysis.
- If an intact archaeological deposit were to be encountered, all soil disturbing activities in the vicinity of the deposit shall cease. The City shall empower the archaeological monitor to temporally [sic] redirect demolition/excavation/construction crews and heavy equipment until the resource is evaluated. The archaeological consultant shall immediately notify the Director of the Planning and Community Development Department of the encountered resources.
- Should archaeological resources be encountered during construction, the Project Developer shall consult with City and tribal representatives to determine the appropriate disposition of findings. Mitigation measures shall include one of the three alternatives below:

  1. In-Situ Preservation: The project developer shall preserve artifacts and resources as found and shall apply suitable open space, capping, or

monumentation to the site. The project developer shall alter development plans to accommodate this alternative, as necessary.

2. Excavation/Recovery: The archaeological consultant shall excavate the site, evaluate the site for historical references, recover artifacts as appropriate, and cover the shall [sic] site to preserve remaining artifacts. The project developer shall maintain sufficient buffering between development subsurface construction and the location of resources.

3. Excavation/Removal: The archaeological consultant shall excavate and recover the cultural resources as described above and remove artifacts as necessary. However, due to the depth of development excavation, the site would be permanently disturbed.

If the City requires data recovery, the archaeological consultant shall first prepare an Archaeological Data Recovery Plan that s/he shall submit to the Director of the Planning and Community Development Department for review and approval.

If development plans call for trenching within 200 feet of Arroyo Mocho, a program of subsurface mechanical trenching along the impacted route shall precede project trenching in an attempt to locate additional archaeological sites and/or the original meander of [Arroyo] Mocho, where such sites would most likely be. If additional sites were to be found, the project developer shall adhere to the above mitigation measures.

If human remains are discovered, the project developer shall contact the County Coroner immediately. If the coroner determines that the human remains are Native American remains, the Project Developer shall notify the California State Native American Heritage Commission.

The archaeological consultant shall prepare a Final Archaeological Resources Report, meeting City and state standards, evaluating the historical importance of the archaeological resource and describing the archaeological and historical research methods employed in the testing, monitoring, and data recovery programs. The Director of the Planning and Community Development Department shall review and approve this document. The project developer shall file the report with appropriate state offices.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Geology and Soils *Would the project:*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Environmental Setting

The project site is relatively level, and is located at approximately 352 feet above mean sea level.

According to the City's General Plan, active faults in or near the Pleasanton Planning Area include the Calaveras, Verona, Concord-Green Valley, Greenville, Hayward, Mt. Diablo Thrust, and San Andreas Faults. Figure 5-3 of the City's General Plan indicates that the project site is located in an area susceptible to a severe peak ground-shaking intensity during earthquakes. The Calaveras and Verona Faults are the nearest faults designated as Alquist-Priolo Earthquake Fault Zones; however, these faults do not transverse the project site (City of Pleasanton 2009).

According to the Natural Resources Conservation Service, and consistent with the EIR, site soils consist of Clear Lake clay and Sycamore silt loam (NRCS 2013). These soils are considered to have slight to no erosion hazard. Clear Lake Clay has a moderate to high expansion potential.

Figure 5-4 of the City of Pleasanton General Plan indicated the project site is located in an area designated as susceptible to liquefaction.

Findings

The EIR included all discussion related to geology and soils in Section 4.6 Effects Found Not to be Significant. The Supplement to the EIR did not identify any additional geologic or soil related impacts. The EIR concluded that implementation of the Amended Specific Plan would have no impacts related to fault rupture, landslides, and soils for septic systems; less than significant impacts related to ground shaking and ground failure; and less than significant impacts after mitigation related to erosion, and expansive soils.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Fault Rupture

The EIR states that the Alquist-Priolo map for the project vicinity shows no fault trace or Alquist-Priolo special studies zone on or adjacent to the project site. The project site is located about 1.5 miles west of the Livermore Fault and approximately 6 miles east of the Calaveras Fault. Therefore, fault rupture would not affect the project. No changes have occurred to the project site that would alter this conclusion. As such, the project would not result in any impacts related to fault rupture not previously disclosed. No impact would occur.

Strong Seismic Ground Shaking

The EIR stated that the Amended Specific Plan area has a relatively high susceptibility to seismic shaking due to the presence of unconsolidated fluvial and alluvial deposits. The EIR concluded that compliance with the California Building Code (as amended by Pleasanton Municipal Code Chapter 20.08: Building Code), as required by the City, would mitigate, to the extent feasible, potential impacts to the project resulting from seismic-related ground shaking. Compliance with the California Building Code is required under state law and as a condition of building occupancy permits. As such,

the project would not introduce any new impacts related to seismic ground shaking not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Seismic-related Ground Failure

The EIR states that strong seismic shaking could result in secondary ground failure. The EIR concluded that compliance with the California Building Code (as amended by Pleasanton Municipal Code Chapter 20.08: Building Code), as required by the City, would mitigate, to the extent feasible, potential impacts resulting from seismic-related ground failure.

The project would be required to comply with the California Building Code as a condition of building occupancy permits. Furthermore, a Geotechnical Report prepared for the project concluded that any liquefaction issues at the site are minimal and implementation of the construction recommendations would ensure impacts would be less than significant (ENGEO 2013). As such, the project would not introduce any new impacts related to seismic ground shaking not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Landslides

The EIR concluded that because of the flat topography, development within the Amended Specific Plan area would not expose people or structures to landslides. The project site is generally flat and no changes have occurred to the project site that would later alter this conclusion. As such, the project would not introduce any new landslide-related impacts not previously disclosed. No impact would occur.

Erosion

The EIR indicated that the soils in the Amended Specific Plan area are considered to have slight to no erosion hazard; however, erosion could occur during construction. The EIR concluded that with the implementation of Mitigation Measure GEO-1, and a required National Pollutant Discharge Elimination System (NPDES) permit, impacts related to soil erosion would be less than significant.

Consistent with the requirements of Mitigation Measure GEO-1 (*Master geotechnical report)* a Geotechnical Report was prepared for the project site and submitted to the City. The Geotechnical Report includes recommendations to control erosion during earthwork activities. The project would also be required to adhere the NPDES General Construction Permit, which contains requirements for erosion control of exposed soils including implementation of a Stormwater Pollution Prevention Program (SWPPP) and Best Management Practices (BMPs). In addition, policies in the Public Safety Element of the General Plan minimize the risk of soil erosion and mitigate its effects further (Goal 1, Policy 2; Goal 2, Policy 5). As such, with the implementation of Mitigation Measure GEO-1, the project would not introduce any new erosion related impacts not previously disclosed. Impacts would continue to be less than significant after implementation of mitigation from the EIR and no additional mitigation is necessary.

Unstable Soils

The EIR does not specifically address impacts to unstable geological units or soils. However, the Geotechnical Report prepared for the project in compliance with Mitigation Measure GEO-1 assessed the potential for unstable soils related to lateral spreading, subsidence, liquefaction, and undocumented fill. Impacts related to unstable fill were found to be less than significant with the implementation of the recommendations set forth in the Geotechnical Report. Furthermore, foundation designs must conform to the California Building Code, and City codes and policies that ensure maximum practicable protection from unstable soils. As such, the project would not introduce any new impacts related to unstable soils not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Expansive Soil

The EIR concluded that the Clear Lake Clay (Cc) soils found on the project site have a moderate to high expansion potential and indicated that with the implementation of Mitigation Measure GEO-1, impacts would be reduced to less than significant.

Consistent with Mitigation Measure GEO-1, the Geotechnical Report prepared for the project analyzed potential onsite expansion impacts and provided recommendations to be incorporated into the project design. Furthermore, adherence to the City's codes and policies, and the California Building Code, Chapter 16 and 18, would ensure maximum practicable protection from expansive soils, thereby reducing impacts to a less than significant level. As such, with the implementation of Mitigation Measure GEO-1, the project would not introduce any new impacts related to soil expansion not previously disclosed. Impacts would continue to be less than significant after the implementation of mitigation from the EIR and no additional mitigation is necessary.

Septic Tanks or Alternative Wastewater Disposal Systems

The EIR concluded that sanitary sewers would serve the Amended Specific Plan area and the continued or proposed use of septic systems would not occur. Therefore, there would be no risk of failure of septic systems due to unsuitable soils. The project would be required to connect to the City sewer system and would not utilize a septic tank or alternative wastewater disposal system. As such, the project would continue to have no impacts.

Conclusion

The project would not result in any new substantial or more severe geologic or soil impacts beyond those considered in the EIR. All impacts would continue to be less than significant after the implementation of mitigation from the EIR as included below, less than significant without mitigation, or have no impact at all. No additional mitigation is necessary.

Mitigation Measures

The following mitigation measure from the EIR is applicable to the project:

GEO-1 *The Project Sponsor, or a designee approved by the City, shall submit a master geotechnical report for the entire Staples Ranch site.* The master geotechnical report shall be subject to the review and approval of the City of Pleasanton Engineer prior to Tentative Map approval. The content of the report shall be subject to the review and approval of the City Engineer and shall address general items for the site such as removing expansive soil, general secondary earthquake impacts, [and] stockpiling native soils as fill. Each project developer shall submit detailed geotechnical engineering studies specific to its development project for the review and approval [by] the City of Pleasanton Engineer for review prior to the issuance of a building permit for its development project. All buildings shall be set back a minimum of 20 feet from the top of the arroyo bank, in case there is a seismically induced bank failure.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Environmental Setting

As discussed earlier in Section 2.3, Air Quality, of this Addendum, since the certification of the EIR by the City, BAAQMD released their 2010 California Environmental Quality Act Air Quality Guidelines (2010 Air Quality Guidelines). The EIR and Supplement to the EIR evaluated the Amended Specific Plan's compliance with significance criterion established by the City at that time. The City has determined that the significance criterion used in the EIR and Supplement to the EIR, shall also be used to analyze GHG impacts for this project.

Findings

The EIR concluded that implementation of the Amended Specific Plan would generate GHGs, which would contribute to the cumulative impact of global climate change. However, the project's contribution to regional GHG emissions would not be considerable, indicating that no individual development project could by itself, generate sufficient GHG emissions to result in a significant impact in the context of the cumulative effects of GHG emissions. However, the Supplement to the EIR updated the project-specific and cumulative GHG analyses and concluded that GHG emissions related to implementation of the Amended Specific Plan would be considerable and unavoidable and would remain so after application of reduction measures outlined by the California Air Pollution Control Officers Association (CAPCOA), the Office of Planning and Research's (OPR's) GHG project design features, the General Plan's GHG Reduction BMPs measures, VQ-3.1, VQ-3.3, TR-9.1, and TR-9.2. Therefore, GHG emission impacts would be significant and unavoidable.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR or Supplement to the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Greenhouse Gas Emissions

The Supplement to the EIR determined that implementation of the Amended Specific Plan would result in emissions of greenhouse gases due to fuel combustion in motor vehicles, mobile construction equipment, and building heating and water systems that would be significant and unavoidable.

Construction

As indicated by the Supplement to the EIR, implementation of the Specific Plan would generate approximately 2,353 MTCO2e of greenhouse gases during construction. Since the total estimated amount of construction related greenhouse gas emissions is below the significance threshold of 3,750 MTCO2e per year, the Supplement to the EIR concluded that impacts from construction greenhouse gas emissions would be less than significant.

The project would develop only 19.66 of the 37.20 acres or approximately 53 percent. If this percentage is also applied to the building square footage considered in the EIR, the resulting allowable building square footage for the project site is 175,430 of the total 331,000 square feet. The project's 61,772 square feet of building space is far less than the allowable 175,430 square feet. As such, construction GHG emissions would be expected to be equally reduced. Therefore, the project would not introduce any new impacts related to operational greenhouse gas emissions not previously disclosed. Impacts would be less than significant and no mitigation is necessary.

Operation

Operational GHG emissions by source are shown in Table 5. Total operational emissions were estimated at 2,224.69 $MTCO_2e$ (The CalEEMod output is included in Appendix A.)

Table 5: Project Greenhouse Gas Emissions

Source	Annual Emissions ($MTCO_2e$)
Area Sources	0.0015
Energy	253.80
Mobile (Vehicles)	1,843.52
Waste	107.34
Water	20.03
Total Emissions*	**2,224.69**
Significance Threshold	**1,100 $MTCO_2e$**
Does project exceed threshold?	**Yes**

Notes:
* Based on non-rounded emissions output
$MTCO_2e$ = metric tons of carbon dioxide equivalent
Source: FCS 2014, Appendix A.

The Supplement to the EIR indicated that a total of 43,078 MTCO2e per year is a cumulatively considerable contribution to a significant cumulative impact because it exceeds the significance threshold of 1,100 MTCO2e per year used by the City. The project would also individually exceed this significance threshold. The Supplement to the EIR concluded that even after implementation of project Mitigation Measures (VQ-3.1, VQ-3.3, VQ-3.4, AQ-3.1, TR-9.1 and TR-9.2), CAPCOA reduction measures, the Office of Planning and Research GHG reduction measures, General Plan GHG Reduction BMPs, and project design features, the 97.5% reduction required to reduce the Amended Specific Plan's greenhouse gas emissions from 43,078 MTCO2e per year to 1,100 MTCO2e per year would not be achieved, nor would the Amended Specific Plan's mixed-use service population standard be reduced below 4.6 MTCO2e. Therefore, the Supplement to the EIR concluded that operational greenhouse gas emissions impacts would be significant and unavoidable, and would remain so after application of feasible reduction and mitigation measures.

While the project's 61,772 square feet of building space on 19.66 acres is less than the proportionally sized 175,430 square feet of building space considered in the EIR and Supplement to the EIR, and the project would include all feasible mitigation measures and reduction measures, its operational GHG emissions would still contribute to the cumulative GHG impact. However, the project would not introduce any new impacts related to operational greenhouse gas emissions not previously disclosed. Therefore, as disclosed in the Supplement to the EIR, impacts would continue be significant and unavoidable after the implementation of mitigation.

Applicable Plan, Policy, or Regulation

The City's Climate Action Plan was adopted in February 2012, after the certification of the EIR and Supplement to the EIR and therefore the Amended Specific Plan's consistency was not analyzed therein. However, the Supplement to the EIR did address consistency with CAPCOA's emission reduction measures, OPR's GHG reduction measures, and the General Plan's BMPs, as indicated above. The Supplement to the EIR concluded that with the implementation of mitigation in the EIR and Supplement to the EIR, as well as the General Plan's GHG Reduction BMPS, the Amended Specific Plan would comply with the relevant GHG reduction measures recommended by CAPCOA and OPR. Therefore, any impact to applicable plan, policy, or regulation would be less than significant with the implementation of mitigation.

Since the certification of the EIR and Supplement to the EIR, the City adopted a Climate Action Plan. A Climate Action Plan checklist was prepared for the project. According to the Climate Action Plan checklist, located in Appendix A, the project is consistent with all applicable measures. Therefore, with the implementation of mitigation, the project's impacts would be less than significant in this regard.

Conclusion

The project would not result in any new substantial or more severe greenhouse gas emission impacts beyond those considered in the EIR and Supplement to the EIR. Impacts would remain significant and unavoidable even after the implementation of mitigation, as disclosed in the EIR.

Mitigation Measures

Implement Mitigation Measures VQ-3.1, VQ-3.3, VQ-3.4, TR-9.1, and TR-9.2

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Environmental Setting

According to Phase I Environmental Site Assessment (ESA) prepared by ENGEO, dated May 31, 2013 (Appendix D), the project site is not listed on any federal, state, or local databases of hazardous sites for conditions (ENGEO 2013b). Furthermore, a review of databases did not identify contaminated facilities in the project vicinity that would reasonably be expected to impact the project site. The Phase I ESA concluded that the site contains no hazardous conditions or significant environmental concerns.

Findings

The EIR concluded that implementation of the Amended Specific Plan would have no impacts related to hazardous materials sites, emergency plans, and wildland fires; less than significant impacts related to routine hazardous material use, and hazards materials within proximity of a school; and less than significant impacts after the implementation of mitigation related to hazardous material upset or accident and airports. The EIR did not address private airstrips. The Supplement to the EIR did not identify any additional impacts related to hazards or hazardous materials.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR due to project modifications, physical changes on the property, new information, or changed circumstances.

Routine Hazardous Material Use

The EIR concluded that implementation of the Amended Specific Plan would involve the routine use, storage, transport, or disposal of hazardous materials, but no significant hazard to the public or the environment would be anticipated to occur, therefore impacts would be less than significant. The EIR indicates that proposed uses, including the auto mall, are not expected to introduce any highly acute or large volumes of hazardous materials to the area; however, some hazardous materials would be used in varying amounts during construction and operation. Each project phase is discussed below.

Construction

The EIR indicated that construction of the Amended Specific Plan land uses would require the use of vehicles and other construction equipment that use hazardous materials such as fuels, lubricants, and other solvents, and accidental release of small quantities of these substances during construction is possible. Compliance with federal, state, and local regulations for the use, storage, and transport of hazardous materials would reduce the risk of an accidental release to a less than significant level. The project would be consistent with the construction characteristics considered in the EIR and would not introduce any new impacts not previously disclosed related to transport, use, or disposal of hazardous materials. As such, impacts would continue to be less than significant and no mitigation is necessary.

Operation

The EIR indicated that operation of the Amended Specific Plan land uses would include the use of a variety of hazardous materials such as fuels, cleaners, degreasers, solvents, paints, lubricants, adhesives, sealers, and pesticides/herbicides. Although there is a potential for the releases of hazardous materials and waste from operation from the Amended Specific Plan land uses as a result of improper use, storage, or disposal, compliance with federal, state, and local regulations for hazardous materials would reduce the risk of an accidental release to a less than significant level. The project would be consistent with the operational characteristics considered in the EIR and would not introduce any new impacts not previously disclosed related to transport, use, or disposal of hazardous materials. As such, impacts would continue to be less than significant and no mitigation is necessary.

Hazardous Material Upset or Accident

The EIR concluded that earth-moving activities associated with the implementation of the Amended Specific Plan land uses could release unknown hazardous materials into the environment through reasonably foreseeable upset and accident conditions during construction and operation, creating a potentially significant impact to the public or environment. Each project phase is discussed below.

Construction

The EIR indicated the potential for exposure to hazardous materials during construction is considered to be low. However, an underground Pacific Gas and Electric (PG&E) natural gas pipeline runs along the northern edge of the Amended Specific Plan area, along I-580, and there is potential to disrupt the pipeline during grading, trenching, and excavating. The EIR required implementation of Mitigation Measure HZ-2.1 (*prevent disruption of on-site utilities)* to ensure the potential impact would be less than significant.

The project's northern boundary runs along I-580 where the natural gas pipeline is located. Therefore, implementation of Mitigation Measure HZ-2.1 would apply to the project. Implementation of this mitigation would also protect disruption of existing onsite underground utilities and new underground utilities installed as part of the adjacent senior continuing care facility. As such, construction of the project would not introduce any new impacts or violations related to upset and accident conditions not previously disclosed. Construction impacts would continue to be less than significant with the implementation of mitigation and no additional mitigation is necessary.

Operation

The EIR indicated that operation of the Amended Specific Plan land uses could expose the public or environment to hazardous materials, particularly the auto mall, which may include the handling of waste oil, antifreeze, gasoline, and other motor vehicle fluids. In addition typical cleaning products, fertilizers, and pesticides would be used. The EIR concluded that the preparation of a hazardous material business plan in accordance with applicable regulations would ensure operational hazardous material impacts would be less than significant.

The project would include a belowground fuel storage tank with a non-public fuel pump. Because the fuel tank would exceed 55 gallons, a hazardous material business plan would be required. The plan would provide measures to reduce the potential for accidental release of hazardous material and provide response measures in the event of an accidental release. As such, the project would be consistent with the operational assumptions considered in the EIR and would not introduce any new impacts or violations related to upset and accident conditions not previously disclosed. Operational impacts would continue to be less than significant and no mitigation is necessary.

Hazard in Proximity to Schools

The EIR indicated that Mohr Elementary School is located approximately 0.5 miles to the southwest of the Amended Specific Plan site. The EIR concluded that, although the Amended Specific Plan land uses would involve the routine use of hazardous materials, no significant hazard to the public or environment would be anticipated to occur, and impacts would be less than significant.

The project would be located approximately 0.5 miles northwest of Mohr Elementary School, 0.75 miles south of Kolb Elementary School, and 1.15 miles north of a potential school site in the East Pleasanton Specific Plan area. The project would be consistent with the construction and operational hazardous material use assumptions of the EIR and, therefore, would not introduce any new impacts related to hazards within 0.25 miles of an existing or proposed school not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Contaminated Sites

The EIR concluded that the Amended Specific Plan site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or environment. Therefore, no related impact would occur. A Phase I ESA conducted specifically for the project similarly concluded that the project site is not listed on any federal, state, or local databases of hazardous sites (ENGEO 2013b). As such, the project would not introduce any new impacts related to hazardous material sites not previously disclosed and would continue to have no impact in this regard. No mitigation is necessary.

Public Airport Safety

The EIR concluded that the aircraft operations associated with the Livermore Municipal Airport would not present a safety hazard for people residing or working in the Amended Specific Plan area; however, implementation of the Amended Specific Plan land uses would potentially create light and glare hazards to aircraft utilizing the Livermore Municipal Airport. Nighttime lighting for security purposes may create light, glare, and electrical interferences that are potential air navigation hazards and potentially significant impacts. Therefore, the EIR required implementation of Mitigation Measures VQ-3.1 through VQ-3.3, (as discussed in section 2.1, Aesthetics of this document) to ensure impacts are reduced to less than significant.

As indicated in Section 2.1, Aesthetics, implementation of Mitigation Measures VQ-3.1 through VQ-3.3 would be required of the project and would ensure that light and glare hazards to aircraft would be reduced to less than significant.

As indicated in the EIR, the Amended Specific Plan site is within the Airport's General Referral Area and Height Referral Area and therefore must be referred to the Airport Land Use Commission (ALUC) for consistency with the Airport Land Use Policy Plan (ALUPP). Review of the Amended Specific Plan by the ALUC concluded that the Amended Specific Plan was consistent with the compatibility criteria for the Livermore Airport as defined by the ALUPP. Since the completion of the EIR, the ALUPP has been replaced by an updated Airport Land Use Compatibility Plan (ALUCP) (August 2012).

The project would be consistent with uses allowed by the ALCUP zones in which it is located (Safety Zones 6 and 7, Airport Protection Area, and Airport Influence Area). Submittal of the project's plans for review by the ALUC would be required and would ensure the project is consistent with the updated ALUCP and impacts are less than significant.

In summary, the project would not introduce any new impacts related to air safety not previously disclosed. Impacts would continue to be less than significant after the implementation of the required ALUCP review and lighting mitigation as concluded in the EIR. No additional mitigation is necessary.

Private Airstrips

Although the EIR does not address potential impacts related to private airstrips, no private airstrips exist near the City. Therefore, there would be no safety hazards related to the use of private airstrips and no impact would occur related to the development of the Amended Specific Plan land uses. As such, the project would not introduce any new private airstrip safety hazards not previously disclosed. The project would continue to have no impacts in this regard and no mitigation is necessary.

Emergency Response or Evacuation Plan

The EIR concluded that the Amended Specific Plan would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan and no impacts would occur. No changes have occurred that would alter this conclusion. As such, the project would not introduce any new impacts or violations related to emergency response or emergency evacuation plans not previously disclosed. The project would continue to have no impacts in this regard and no mitigation is necessary.

Wildland Fires

The EIR concluded that the Amended Specific Plan land uses would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, and no impact would occur. No changes have occurred to the status of the project site's location outside of the wildland-urban interface area that would alter this conclusion. Furthermore, the project would be required to comply with the policies of the Public Safety Element of the City of Pleasanton General Plan and the

Pleasanton Building Code, which sets standards for building sprinklers, fire response systems, and built-in fire protections systems. As such, the project would not introduce any new wildland fire hazards not previously disclosed. The project would continue to have no impacts in this regard and no mitigation is necessary.

Conclusion

The project would not result in new substantial or more sever hazard or hazardous material impacts beyond those considered in the EIR. All impacts would continue to be less than significant after the implementation of mitigation from the EIR as included below, less than significant without mitigation or have no impact at all. No additional mitigation is necessary.

Mitigation Measures

The following mitigation measures from the EIR are applicable to the project:

Mitigation Measure VQ-3.1, VQ-3.2, and VQ-3.3 as included in Section 2-1, Aesthetics of this report.

HZ-2.1 *Prevent disruption of on-site utilities.* The project developer(s) shall implement the following measures:

a. Prior to initiation of any on-site construction activities, the project developer shall contact the Underground Service Alert (USA)[,] whose purpose is to receive planned excavation reports from public and private excavators[,] and to transmit those planned excavation reports to all participating members of USA who may have underground facilities at the location of excavation. The USA will contact local utilities and inform them that construction is about to begin in their service area. This notice allows local utilities to mark the areas where their underground facilities are located near the construction site so that they may be avoided during project construction.

b. Prior to construction activities within 50 feet of the PG&E gas line, the project contractor shall identify and demarcate the location of the natural gas pipeline using highly visible markers that will remain in place throughout project construction in the vicinity of the pipeline[,] and ensure that all construction workers are aware of the location of the line. The location of the pipeline shall be noted on the site and construction plans. Further, the project contractor shall take all appropriate measures necessary to ensure that the line is not disturbed.

c. The project developers shall develop an emergency response plan prior to construction that will include response measures in the event that there is disturbance of any underground utilities. The plan will be subject to review and approval by the City.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The Project site is currently undeveloped and does not contain any impervious surfaces. There are no drainage ways within the project site. Arroyo Mocho is located approximately 0.2 mile to the south.

Findings

The EIR concluded that the Amended Specific Plan would have less than significant impacts related to groundwater, drainage resulting in erosion or siltation, and stormwater drainage; and less than significant impacts with mitigation incorporated related to water quality, and flooding. The EIR did not address impacts related to seiches, tsunamis, or mudflows. The Supplement to the EIR did not include any additional hydrology or water quality impacts.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Water Quality

The EIR concluded that the Amended Specific plan could have potential construction and operational impacts on water quality and create additional sources of polluted runoff. While existing regulations and standards sufficiently protect water quality and beneficial uses during the construction period, operational impacts would be potentially significant. Each project phase is discussed below.

Construction

The EIR indicated that construction activities within the Amended Specific Plan area could result in potentially significant water quality impacts. However, all construction activities would be subject to existing regulatory requirements, including a General Permit for Discharges of Stormwater Associated with Construction Activity, the Alameda Countywide NPDES Municipal Stormwater Permit, and individual Waste Discharge Requirements for construction dewatering if groundwater is encountered. As part of the Construction General Permit, land uses disturbing more than one acre are required to prepare a SWPPP for construction-related control of erosion and sedimentation

contained in stormwater runoff, as well as for control of other pollutants that might enter the storm drain system through the implementation of BMPs. The Alameda Countywide Clean Water program requires monitoring and inspection of construction sites for compliance with regulatory requirements, which would prevent violation of the aforementioned General Construction Permit or construction dewatering Waste Discharge Requirements. Therefore, implementation of existing regulatory requirements would ensure that any violation of water quality standards during construction would be less than significant. Because the project would disturb more than one acre, it would be required to implement all aforementioned water quality standard regulations to ensure impacts to water quality are less than significant. As such, the project would not introduce any new construction related water quality impacts not previously disclosed in the EIR. Impacts would continue to be less than significant and no mitigation is necessary.

Operation

The EIR indicated that the Amended Specific Plan area would change from an open space area to a mixed-use development area with increased impervious surfaces. Pollutants in urban stormwater runoff would have the potential to significantly impact water quality in nearby waterways.

Table 3.5-5 of the EIR illustrates the impacts of pollutants without implementation of stormwater quality BMPs. According to the table, future runoff during operation would likely result in a substantial increase in pollutant loads to Arroyo Mocho and downstream water bodies. In addition to the BMPs that would be required by the Municipal NPDES permit, the EIR included Mitigation Measures HY-1.1 (*implement Water Quality Management Plan with targeted pollutant removal rates*) and HY-1.2 (*implement an integrated Pest Management Plan and Pesticide Management Program*) to ensure that appropriate water quality protection is implemented and to reduce impacts to less than significant.

The project would create proportionally less impervious surface than the auto mall evaluated in the EIR. The project would be subject to the same regulatory requirements and specific mitigation as described in the EIR. In addition, the project has submitted a Stormwater Management Plan that demonstrates compliance with the Alameda Countywide Clean Water Program requirements detailed in their C.3 Storm Water Technical Guidance. As such, the project would not introduce any new water quality impacts not previously disclosed in the EIR. Impacts would continue to be less than significant with the implementation of mitigation from the EIR and no additional mitigation is necessary.

Groundwater

The EIR concluded that Amended Specific Plan land uses would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. No new wells would be installed and no new or existing groundwater supplies would be developed or expanded. Temporary dewatering of shallow groundwater may be required during construction; however dewatering would cease once construction of the structures is complete and the potential effect of dewatering on lowering the local ground water table would not be substantial. Furthermore, the EIR indicated

there is an adequate supply of water for the Amended Specific plan and no impacts of additional groundwater drawdown would occur.

The project would not include the use of groundwater, would not substantially interfere with groundwater recharge, and would not result in groundwater drawdown. As such, the project would not introduce any new groundwater impacts not previously disclosed in the EIR. Impacts would continue to be less than significant and no mitigation is necessary.

Drainage Resulting in Erosion or Siltation

The EIR concluded that construction and operation of the Amended Specific Plan land uses would alter runoff characteristics at the Amended Specific Plan site that could lead to more onsite and offsite erosion, resulting in potentially significant impacts. Each project phase is discussed below.

Construction

The EIR concluded that construction activities could result in the potential for increased erosion and siltation. However, implementation of a SWPPP would include erosion and sediment controls that would ensure construction activities would not directly cause substantial erosion or siltation. The project would be subject to the same SWPPP and related BMPs to reduce potential impacts. As such, the project would not introduce any new construction related erosion or siltation impacts not previously disclosed, impacts would continue to be less than significant and no mitigation is necessary.

Operation

The EIR indicated that development of the Amended Specific Plan land uses could potentially increase site runoff that could result in erosion or siltation both on and offsite. However, implementation of a required SWPPP, and related Municipal and County mandated BMPs would ensure adequate soil stabilization, and erosion and sediment controls. The project would be required to implement these same applicable regulations, and would therefore have a less than significant impact on onsite erosion as concluded in the EIR.

In summary, the project would not introduce any new erosion or siltation impacts not previously disclosed in the EIR. Impacts would continue to be less than significant as concluded in the EIR and no mitigation is necessary.

Flood Hazards

The EIR concluded that implementation of the Amended Specific Plan would place residences and structures within a FEMA 100-year flood hazard area. The EIR indicated that implementation of the Livermore Flood Protection Improvements, part of the approved El Charro Specific Plan, would provide sufficient detention to prevent inundation of the Amended Specific Plan site for both the 100-year storm event and the 100-year storm event with levee failure. The City of Livermore has implemented these improvements and FEMA issued a Conditional Letter of Map Revision in February 2010 reflecting these changes. Therefore, Mitigation Measures HY-4.1 (*obtain FEMA flood*

hazard areas updates prior to construction) and HY-4.2 (*implement Livermore Flood Protection Improvements*) as required by the EIR have been implemented and are no longer necessary.

The project would not include the alteration of drainage patterns that could result in flooding on or offsite. The project does not include housing but would include the construction of buildings within the current FEMA reflected 100-year flood plain. The project must be reviewed by the City's Engineering Division of the Community Development Department, to ensure compliance with city codes regarding flooding and drainage, including properly sized storm sewers and appropriate construction within FEMA flood hazard zones, such as raising ground-level floors above the 100-year flood elevation. Therefore, the project would not introduce any new flood hazard impacts not previously disclosed in the EIR. Impacts would continue to be less than significant as concluded in the EIR and no mitigation is necessary.

Stormwater Drainage

The EIR concluded that implementation of the Amended Specific Plan would require the construction of additional stormwater detention features. The significant environmental effects from their construction were analyzed under CEQA as part of the City of Livermore El Charro Specific Plan. As described above, construction of the Livermore Flood Protection Improvements would detain the runoff from a 100-year levee failure and would prevent flooding of the Amended Specific Plan site. In addition, a stormwater detention basin has already been constructed within the Specific Plan area, directly south of the project site and designed to accommodate Amended Specific Plan development. Construction of this stormwater basin included implementation of applicable mitigation measures in the EIR. Stormwater from the project site would be directed to the detention basin.

The improvements have been implemented, and no changes have occurred to the site or the offsite stormwater detention features that would alter the less than significant impact conclusion of the EIR. The project would not introduce any new stormwater drainage impacts not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Seiche, Tsunami, or Mudflow

The EIR does not address impacts related to seiche, tsunami, or mudflow. The project site is not located near any bodies of water capable of producing seiches. The project site is located inland from the ocean and would not be susceptible to tsunamis. The project site is in a relatively flat area and would not be susceptible to mudflow. Therefore, no impacts would occur related to seiche, tsunami, or mudflow and no mitigation is necessary.

Conclusion

The project would not result in any new substantial or more severe hydrology or water quality impacts beyond those considered in the EIR. All impacts would continue to be less than significant

with the implementation of mitigation from the EIR as included below, less than significant without mitigation or have not impact at all. No additional mitigation is necessary.

Mitigation Measures

The following mitigation measures from the EIR are applicable to the project:

HY-1.1 *Implement Water Quality Management Plan with Targeted Pollutant Removal Rates.* In accordance with the Municipal NPDES Permit C.3 provisions, implementation of stormwater quality BMPs is required. However, to ensure that implemented BMPs are effective for reducing potential pollutant loads to a sufficient level of protection, each project developer shall prepare and implement a site-specific Water Quality Management Plan (WQMP) with BMPs targeted to reduce post-construction pollutants listed in Table 3.5-5.

This WQMP shall identify specific stormwater BMPs for reducing potential pollutants in stormwater runoff. BMPs shall be selected to target pollutants listed in Table 3.5-5; selection criteria and documentation shall be incorporated into the WQMP. The WQMP must be approved by a qualified engineer of the City's Engineering Division prior to the beginning of construction activities.

The WQMP shall include the following BMPs along with selected BMPs to target pollutant removal:

- Waste and materials storage and management BMPs (design and construction of outdoor materials storage areas and trash and waste storage areas, if any, to reduce pollutant introduction).
- Spill prevention and control BMPs.
- Slope protection BMPs.
- Water efficient irrigation practices.
- Permanent erosion and sediment controls (e.g., hydroseeding, mulching, surface covers). Project developers are encouraged to consider the following BMPs:
- Incorporation of rain gardens or cisterns to reuse runoff for landscape irrigation.
- Site design and landscape planning.
- Sand filters for parking lots and rooftop runoff.
- Frequent street and parking lot sweeping.
- Media filter devices for rooftop drain spouts (including proprietary devices).
- Biofiltration devices (bioretention features, swales, filter strips, and others).

- Proprietary control measures (if supporting documentation is provided).
- Drain inlet filters.

Unless sufficient objective studies and review are available and supplied with the WQMP to correctly size devices and to document expected pollutant removal rates, the WQMP shall not include:

- Hydrodynamic separator type devices as a BMP for removing any pollutant except trash and gross particulates, and
- Oil and grit separators.

The WQMP shall not include infiltration BMPs unless they comply with design guidelines and requirements specified in TC-1 : Infiltration Basins in the CASQA Stormwater Quality BMPs Handbook for New Development and Significant Redevelopment (2003) or are specifically approved by the City Engineer and shall meet Municipal NPDES Permit minimum requirements including adequate maintenance and that the vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet.

Each individual developer shall be responsible for implementation and maintenance of BMPs. A BMP Monitoring and Maintenance Plan shall be incorporated as part of the WQMP and shall include, at a minimum, inspection and maintenance of all structural BMPs on the property, a report of non-structural BMP inspection and compliance, and reporting requirements. The Monitoring and Maintenance Plan must be approved by the City of Pleasanton City Engineer prior to the beginning of occupancy. The Monitoring and Maintenance Plan can be administered through lease agreements assigning responsibility to the occupants, through the creation of a Community Services Authority (CSA) or by other means as approved by the City. If property titles are transferred, the new owner shall be responsible for their respective portion of the plan.

HY-1.2 *Implement an Integrated Pest Management Plan and Pesticide Management Program.* An Integrated Pest Management Plan shall be prepared by each project developer and for the City parks on the Staples Ranch site, and implemented to minimize the risk of pollutants associated with landscape establishment and maintenance practices in surface water runoff and infiltration to groundwater. All Integrated Pest Management Plan guidelines shall comply with California Department of Pesticide Regulation and Alameda County Agricultural Commissioner rules and regulations in regards to pesticide storage, use, transportation, reporting, and safety. The plan shall encourage minimization and efficiency of chemical and

fertilizer use. Because the receiving water have been listed as impaired by diazinon, diazinon use shall also be severely limited or prohibited.

Each property owner shall be responsible for implementation of the Integrated Pest Management Plan. The plan must be approved by the City Engineer prior to the beginning of occupancy.

Each property owner shall be responsible for implementation of the Integrated Pest Management Plan. The plan must be approved by the City Engineer prior to the beginning of occupancy.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

Environmental Setting

The project site is designated by the City of Pleasanton General Plan as Medium Density Residential; High Density Residential; Parks and Recreation; and Retail/Highway/Service Commercial, Business and Professional Offices as determined by the Amended Specific Plan. The Amended Specific Plan designates the project site as Auto Mall. The project site is zoned PUD-C.

Findings

The EIR concluded that the Amended Specific plan would have no impacts related to division of an established community or habitat conservation or natural community conservation plans; a less than significant impact related to consistency with applicable County, Local Agency Formation Commission (LAFCo) and City policies related to annexation and compatibility with surrounding land uses; and a less than significant impact after the implementation of mitigation related to consistency with General Plan land use densities and consistency with the ALUCP. The Supplement to the EIR did not identify any additional impacts to land use and planning.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Division of an Established Community

The EIR concluded that the Amended Specific Plan would not physically divide an established community and no impacts would occur. The project is consistent with the uses analyzed in the EIR

and would not introduce any new impacts related to the division of an established community. No impact would occur and no mitigation is necessary.

Land Use Plan, Policy, or Regulation

The EIR made several conclusions regarding impacts related to land use plans, policies, or regulations, as discussed below.

Annexation

The EIR indicated that the Amended Specific Plan would not conflict with County, LAFCo, and City policies regarding annexation of the Amended Specific Plan area to the City and impacts would be less than significant. The project would be consistent with the auto mall land use considered in the EIR and would not introduce any new impacts related to annexation not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Consistency with Surrounding Land Uses

The EIR indicated that the Amended Specific Plan land uses would be compatible with surrounding existing and proposed land uses and impacts would be less than significant. The Amended Specific Plan included policies to ensure that landscape buffers would provide protection for the senior continuing care community from noise, light, and glare from the auto mall. Conceptual plans included in the EIR indicated that the auto mall would be approximately 180 feet from the adjacent senior continuing care community residential structures, and included a minimum 8-foot landscaped wall between the two land uses. The EIR noted that the conceptual plans were subject to change and would be modified as necessary during the PUD review process.

Site plans for the project indicate that a six-foot masonry wall with landscaping would be located along the site's western side, approximately 100 feet from the senior continuing care community's parcel and more than 200 feet from the residential structures. As such, the project has been designed to be consistent with the requirements of the EIR and impacts would continue to be less than significant. No mitigation is necessary.

General Plan Density Consistency

The EIR indicated that the Amended Specific Plan would not exceed the allowable land use densities identified in the General Plan for the proposed land uses, but may exceed the average density for commercial uses at the senior continuing care community and at the 11-acre commercial site. Both of these land uses could exceed the General Plan's 35 percent average Floor Area Ratio (FAR) for commercial development. The EIR included Mitigation Measure LU-4.1 (*Provide additional amenities)* to ensure impacts are reduced to less than significant

The project as currently designed has a FAR of 7 percent and does not exceed the General Plan's 35 percent FAR. Therefore, Mitigation Measure LU-4.1 does not apply and impacts would be less than significant. No mitigation is necessary.

Regarding the adopted Alameda county ALUPP, the EIR included Mitigation Measure LU-5.2 (*require a deed rider or aviation easement on other development projects*) to reduce potential impacts to the Livermore Airport operations to less than significant. The project includes a deed rider in its conditions of approval and would not introduce any new impacts related to land use plan, policy, or regulation not previously disclosed. Therefore, Mitigation Measure LU-5.2 has been fulfilled and impacts would continue to be less than significant, and no additional mitigation is necessary.

Habitat Conservation Plan or Natural Communities Conservation Plan

The EIR concluded that development of the Amended Specific Plan would not result in conflicts with a habitat or natural community conservation plan because the Amended Specific Plan area is not located within the boundaries of such a plan. No changes have occurred that would alter this conclusion. As such, no impact would occur and no mitigation is necessary.

Conclusion

The project would not result in any new substantial or more severe impacts to land use and planning beyond those considered in the EIR. All impacts would continue to be less than significant, or have no impact at all, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Setting

The project site is not within a mapped mineral resources zone.

Findings

The EIR included all discussion related to mineral resources in Section 4.6 Effects Found Not to be Significant. The EIR concluded that the Amended Specific Plan would not result in impacts related to the loss or depletion of any mineral resources areas. The Amended Specific Plan is not within a mapped mineral resources zone and the nearest Aggregate Resources Area as identified by the City's General Plan is south of the Amended Specific Plan site. The Supplement to the EIR did not identify any additional impacts to mineral resources. No changes have occurred that would alter this conclusion. As such, no impact would occur.

Conclusion

The project would not result in any new substantial or more sever mineral resources impacts beyond those considered in the EIR. As concluded in the EIR, no impacts would occur.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise *Would the project result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☒	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Noise at the site is primarily from vehicle traffic on I-580 located directly to the north. As illustrated by general Plan Figure 11-2 the project site is partially or completely within the future 60, 65, and 70 dBA L_{dn}[1] noise contours of I-580. As illustrated by General Plan Figure 11-3, the project site is not located within the existing or future 60 dBA noise contours of the Livermore Municipal Airport.

As shown on General Plan Figure 11-4, the senior continuing care community, located west of the project, is designated as a sensitive noise receptor (City of Pleasanton 2009).

[1] A-weighted sound pressure level (or noise level) represents the noisiness or loudness of a sound by weighting the amplitudes of various acoustical frequencies to correspond more closely with human hearing. A-weighting is specified by the EPA, OSHA, Caltrans, and others for use in noise measurements. All sounds levels (i.e., dB) discussed in this section are in A-weighted terms.

The Noise Element of the General Plan contains land use compatibility guidelines for environmental noise in the community. Table 6 summarizes these guidelines for office buildings, business, commercial, and professional land uses.

Table 6: Noise and Land Use Compatibility Guidelines

Office Buildings, Business, Commercial and Professional (DNL Value in Decibels)	Compatibility Level
70 dB or less	Normally Acceptable: Specified Land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements
70 to 80 dB	Conditionally Acceptable: Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features are included in the design.
Greater than 80 dB	Unacceptable: New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.
Source: City of Pleasanton 2009.	

In addition to the land use compatibly guidelines, the Noise Element outlines the following noise level goals:

- Interior noise goal of 45 dBA Leg or less or should generally be maintained for interior noise-sensitive spaces (e.g., offices).
- Locate new noise sources away from noise-sensitive land uses unless development plans include appropriate mitigation measures.

The City Municipal Code also establishes applicable noise limits summarized as follows:

- Noise levels in excess of 70 dBA at any point outside of a commercial site's property plane shall not be allowed.
- The noise level produced on a business's premises between the hours of 10:00 pm and 6:00 am shall not exceed the residential noise standard at the property plane between the residential zoning district and the commercial zoning district.
- Noise levels from mechanical equipment such as air-conditioners are limited to 60 dB at residential property lines (Section 9.04.030).
- Construction noise is limited via prescribed days and hours for construction activities; maximum noise limitations for individual pieces of equipment and at surrounding property

lines; stipulations on stationary equipment placement; designated offsite construction vehicle routes; requirements that construction vehicles be muffled and meet DMV noise standards; and requirement of a designated noise disturbance coordinator (Section 9.04.100).

Finally, the EIR requires sound walls and setbacks along Stoneridge Drive, El Charro Road, and I-580.

Findings

The EIR concluded that the implementation of the Amended Specific Plan would have no impact or less than significant impact after implementation of mitigation for all checklist questions except for permanent increases in ambient noise levels, which would remain significant and unavoidable after the implementation of mitigation. In addition, the Supplement to the EIR concluded that additional significant and unavoidable impacts would occur in relation to noise increases along Stoneridge Drive even after the implementation of additional mitigation and these impacts would be cumulatively considerable.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Excessive Noise Levels

Off-site Noise Sources

The EIR concluded that the implementation of the Amended Specific Plan would expose future occupants of the project site to noise levels in excess of established standards resulting in potentially significant impacts. Specifically, the EIR indicated that, due to its proximity to I-580, the auto mall land uses would experience exterior noise exposures approaching or exceeding the City's land use compatibility standard of 70 dBA CNEL. While noise levels between 70 and 80 dBA are considered conditionally acceptable, interior noise levels for commercial uses must be reduced to the acceptable interior noise standard of 45 dBA. Therefore, implementation of Mitigation Measure NO-1.1 (*provide exterior to interior noise reduction features for residential, retail, and commercial structures to meet City interior noise level standards)* would require the preparation of a noise study to ensure that interior noise standards would be reduced 45 dBA, thereby reducing impacts to less than significant.

The majority of the project's northwestern portion would be located within the 70 dBA L_{dn} noise contour of I-580 and therefore, could be exposed to interior noise levels in excess of 45 dBA. However, implementation of Mitigation Measure NO-1.1 would ensure appropriate noise reduction measures are included in project plans and implemented onsite. As such, with the implementation of mitigation from the EIR, the project would not introduce any new impacts related to offsite noise sources not previously disclosed. Impacts would continue to be less than significant after the implementation of mitigation from the EIR. No additional mitigation is necessary.

Onsite Noise Sources

The EIR concluded that development of the auto mall land use may include a car wash on the western side of the auto mall site that could expose residents of the senior continuing care community to excessive noise levels. Therefore, the EIR included Mitigation Measure NO-1.5 (*limit noise levels from auto mall car wash stations to 60 dBA at the senior continuing care community facility)* to ensure impacts were reduced to less than significant.

Also indicated in the EIR, the auto mall land uses would include stationary noise sources such as mechanical equipment, delivery trucks, and loud speakers; however, the EIR concluded that these sources were not anticipated to be audible at the adjacent senior continuing care community and would not result in significant impacts.

The project would not use loud speakers. Noise levels generated by exterior mechanical equipment typically range between 55 and 85 dBA at three feet from the source (EPA 1971). A conservative assumption, in which unshielded mechanical equipment is located on the western side of the service building and producing a noise level of 85 dBA at a distance of three feet would generate a noise level of approximately 51 dBA at the property line adjacent to the senior continuing care community (approximately 150 feet away). This sound level is well within the 70 dBA noise standard established by the Municipal Code for commercial properties.

The project would include a car wash located more than 350 feet west of the project's western boundary. Line of sight from the car wash to the adjacent senior continuing care community would be blocked by the 45,000-square-foot service building, a six-foot masonry wall, and landscaping. These structures would reduce noise levels related to the car wash as heard from the adjacent senior continuing care community. Furthermore, the project is conditioned by the City to design the car wash station so that related noises do not exceed 60 dBA at any habitable structure. Implementation of Mitigation Measure NO-1.5 from the EIR would ensure the project would not result in any new offsite noise impacts not previously disclosed. Impacts would continue to be less than significant with the implementation of mitigation from the EIR and no additional mitigation is necessary.

Construction Vibration Levels

The EIR concluded that pile driving associated with the construction of the Stoneridge Drive Bridge over Arroyo Mocho could result in potentially significant groundborne vibration impacts to adjacent existing residences. The EIR indicated that non-bridge pile driving construction activities, including grading and construction of roads, infrastructure, and structures (such as the auto mall land use) would not be expected to generate significant impacts related to groundborne vibrations and impacts would be less than significant with no mitigation required. The project would not require pile driving. Therefore, the project would not introduce any construction related groundborne vibration impacts beyond those considered in the EIR. All impacts would continue to be less than significant and no mitigation is necessary.

Permanent Increase in Ambient Noise Levels

The EIR concluded that development of the Amended Specific Plan land uses would result in both a substantial increase in traffic noise levels and noise levels in excess of the standards (60 dBA CNEL) in nearby residential areas. The EIR indicated that implementation of Mitigation Measure NO-4.1 (*Provide noise attenuating pavement to new portions of Stoneridge Drive),* would reduce this potential impact to nearby residences to less than significant. However, the Supplement to the EIR concluded that the Amended Specific Plan would result in a significant and unavoidable impact related to additional traffic noise, even after the implementation of Mitigation Measure S-NO-1.1 (*Repave Stoneridge Drive between Kamp Drive and Trevor Parkway with noise-attenuating pavement).*

The extension of Stoneridge Drive, which has already occurred, and therefore, Mitigation Measure NO-4.1 does not apply. Similarly, implementation of S-NO-1.1 was required prior to the extension of Stoneridge Drive.

While the project would contribute to the increased traffic noise on Stoneridge Drive, the project would generate only 50 percent of the AM trips, and 45 percent of the PM trips that would be generated by the auto mall project analyzed in the EIR and Supplement to the EIR, for a 20-acre equivalent development. As such, the project would contribute less roadway noise than considered in the EIR and Supplement to the EIR and would not introduce any new impacts related to permanent increases in ambient noise levels not previously disclosed. Nonetheless, impacts would continue to be significant and unavoidable and no mitigation is applicable.

Temporary or Periodic Increase In Ambient Noise Levels

The EIR concluded that implementation of the Amended Specific Plan land uses would create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels during project construction, and potentially significant impacts would occur. Therefore the EIR included Mitigation Measure NO-3.1 (*require project developers to implement construction best management practices to reduce construction noise)* to reduce construction related noise impacts would be reduced to less than significant.

Mitigation Measure NO-3.1 would apply to the project, ensuring that any noise levels would be less than significant. The project would also be required to abide by the City's Municipal Code regulations, which limit construction noise to 83 dB at a distance of 25 feet from a project site and total construction noise exposure to 86 dB outside of project boundaries. As such, the project would not introduce any new impacts related to construction noise not previously disclosed. Impacts would continue to be less than significant with the implementation of mitigation from the EIR and no additional mitigation is necessary.

Aviation Noise

The EIR concluded that implementation of the Amended Specific Plan would expose persons to single-event noise levels from aircraft operations that could result in annoyance, speech

interference, and/or sleep disturbance, resulting in potentially significant impacts. Significant interior noise impacts could occur if noise from aircraft overflights were allowed to penetrate into interior spaces. To avoid this impact, noise insulation features sufficient to meet the City and Occupational Safety and Health Administration (OSHA) interior standards would be required as applicable. Furthermore, implementation of Mitigation Measure NO-1.1 would ensure exterior to interior noise reduction features are implemented during construction. As such, with the implementation of mitigation from the EIR, the project would not introduce any new impacts related to public airport noise not previously disclosed. Impacts would continue to be less than significant after the implementation of mitigation as concluded in the EIR. No additional mitigation is necessary.

Conclusion

The project would not introduce any new substantial or more severe noise impacts beyond those considered in the EIR and the Supplement to the EIR. All impacts would continue to be less than significant with the implementation of mitigation from the EIR as included below, less than significant without mitigation, or have no impact at all with the exception of traffic noise on Stoneridge Drive, which would be significant and unavoidable, as disclosed in the EIR and Supplement to the EIR.

Mitigation Measures

The following mitigation measures from the EIR are applicable to the project:

N0-1.1 Provide exterior-to-interior noise reduction features for residential, retail, and commercial structures to meet City interior noise level standards. Prior to the City's issuing building permits, the senior continuing care community, auto mall, and commercial developers shall submit to the City noise analyses prepared by a qualified acoustical consultant that demonstrate that all structures will meet City interior noise level standards. Commercial and office uses will need to meet the City standard of 45 dBA peak hour Leq that would allow the conduct of normal business activities inside these facilities. All proposed structures where people will reside will need to be below the City's interior noise level standard of 45 dBA Ldn. Noise reduction features may include, but are not limited to, building siting, upgraded insulation, sound-rated windows and doors, sound-rated exterior wall assemblies, and acoustical caulking. At the senior continuing care community if exterior-to-interior noise reduction features for a unit where people will sleep require inoperable or closed windows to meet the noise standard, an energy efficient HVAC system meeting California Building Code requirements must be provided.

N0-1.5 *Limit noise levels from auto mall car wash stations to 60 dBA at the senior continuing care community facility.* At the auto mall, all car washes shall be located and designed such that noise from the car washes, including the vacuuming areas, shall

not exceed 60 dBA at any point on the senior continuing care community property. The project developer shall submit a noise study to the Community Development Director verifying that the carwashes adhere to this requirement, prior to the issuance of a building permit.

N0-3.1 *Require project developers to implement construction best management practices to reduce construction noise, including:*

a) Locate stationary construction equipment as far from adjacent occupied buildings as possible.

b) Select routes for movement of construction-related vehicles and equipment so that noise-sensitive areas, including residences, and outdoor recreation areas, are avoided as much as possible. Include these routes in materials submitted to the City of Pleasanton for approval prior to the issuance of building permits.

c) All site improvements and construction activities shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Saturday. In addition, no construction shall be allowed on State and federal holidays. If complaints are received regarding the Saturday construction hours, the Community Development Director may modify or revoke the Saturday construction hours. The Community Development Director may allow earlier "start-times" for specific construction activities (e.g., concrete-foundation/floor pouring), if it can be demonstrated to the satisfaction of the Community Development Director that the construction and construction traffic noise will not affect nearby residents.

d) All construction equipment must meet DMV noise standards and shall be equipped with muffling devices.

e) Designate a noise disturbance coordinator who will be responsible for responding to complaints about noise during construction. The telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site and shall be provided to the City of Pleasanton. Copies of the construction schedule shall also be posted at nearby noise sensitive areas.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Population and Housing *Would the project:*				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Environmental Setting

According to the California Department of Finance, as of January 2013, the City had a population of 71,871 persons, an average of 2.82 persons per household, and a total of 26,174 housing units (California Department of Finance 2013).

Findings

The EIR concluded that the Amended Specific plan would not have any impacts related to displacement of housing and displacement of people; would have a less than significant impacts related to ratio of jobs to employed residents; and would have a less than significant impact after the implementation of mitigation related to population growth. The Supplement to the EIR did not identify any additional impacts related population and housing.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the project site, new information, or changed circumstances.

Population Growth

The EIR indicated that the Amended Specific Plan would increase population and employment within the Amended Specific Plan area and that overall project growth would be consistent with growth forecasts for the City. The EIR concluded that, after the implementation of mitigation related to the senior continuing care community, impacts related to population growth would be less than significant.

The project does not include any residential development and would not have any effect on population growth. The number of employees (166 full-time and 29 part-time) are less than the 623 evaluated in the EIR. As such, the project would not result in any impacts related to population growth not previously disclosed. Impacts would to be less than significant and no mitigation is necessary.

Displacement of Housing and People

The EIR concluded that implementation of the Amended Specific Plan would not result in the displacement of people or housing because the land is currently vacant and undeveloped. No changes have occurred to the project site that would alter this conclusion. As such, the project would not introduce any new impacts related to displacement of housing or people. No impact would occur.

Ratio of Jobs to Employed Residents

The EIR concluded that implementation of the Amended Specific Plan would increase the ratio of jobs to employed residents in the development area, but this increase would not substantially add to the citywide imbalance of jobs to employed residents. The Amended Specific Plan would add a maximum of 1,585.5 onsite employees, but no additional new employed residents because the senior continuing care community would be occupied by retirees. Therefore, the Amended Specific Plan would not substantially change the City's job to employed residents ratio.

The project is within the employment projections evaluated in the EIR, and would not introduce any new impacts related to ratio of jobs to employed residents and would continue to have a less than significant impact in this regard.

Conclusion

The project would not introduce any new substantial or more severe impacts to population growth or housing beyond those considered in the EIR. All impacts would continue to be less than significant and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Environmental Setting

Fire protection is provided by the Livermore-Pleasanton Fire Department (LPFD). The nearest fire station to the project site is Fire Station 3, located at 3200 Santa Rita Rd, Pleasanton, CA, approximately 1.4 miles west of the project site.

Police services are provided by the City Police Department. The nearest police station is approximately 3.30 miles southwest of the project site on Bernal Avenue.

Findings

The EIR included all discussions related to public services in Section 4.6 Effects Found Not to be Significant and concluded that all impacts would be less than significant and no mitigation was necessary. The Supplement to the EIR did not identify any additional impacts to public services.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR due to project modifications, physical changes on the property, new information, or changed circumstances.

Fire Protection

The EIR concluded that implementation of the Amended Specific Plan would have a less than significant impact related to fire protection because it is consistent with planned growth. In accordance with General Plan's Public Safety Element, Program 8.2, the project developer is required to pay a Public Facilities Fee to effectively mitigate any increase in demand for services. As such, the project would not introduce any new impacts related to fire services not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Police Protection

The EIR concluded that implementation of the Amended Specific Plan would have a less than significant impact related to law enforcement because it is consistent with planned growth. In accordance with Program 26.2, the project developer would be required to pay for police safety improvements required of the project, which would provide for capital facilities and equipment costs. As such, the project would not introduce any new impacts related to police protection not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Schools and Other Public Facilities

The EIR concluded that development of the Amended Specific Plan land uses would not impact schools or any other public facilities in the City. The project would be consistent the auto mall considered by the EIR and would not introduce any new impacts related to schools or other public facilities. Impacts would continue to be less than significant and no mitigation is necessary.

Parks

The EIR concluded that implementation of the Amended Specific Plan would provide a 17-acre park and a 5-acre neighborhood park, thereby resulting in a net addition of parks. The project would not affect the provision of the planned park spaces, and therefore would not introduce any impacts related to parks not previously indicated. Impacts would continue to be less than significant and no mitigation is necessary.

Conclusion

The project would not introduce any new substantial or more severe public services impacts beyond those considered in the EIR. All impacts would continue to be less than significant and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Setting

There are no existing or planned recreational or park facilities on the project site. The nearest existing parks to the project site are Stoneridge Creek Neighborhood Park, Meadows Park and Amaral Park. With the development of the Amended Specific Plan, a community park would be located directly south of the project.

Findings

The EIR and Supplement to the EIR do not specifically address potential impacts related to recreation. Implementation of the Amended Specific Plan would potentially result in increased park usage by the senior continuing care community residents. However, the Amended Specific Plan would provide a net addition of parks thereby reducing any potential impacts related to the use of existing parks. Construction of the Amended Specific Plan's parks would be required to implement mitigation from the EIR and Supplement to the EIR, ensuring that impacts related to the use or construction of recreational facilities would be less than significant. The project would not substantially increase park usage and would not include the construction of park facilities. As such, the project would not introduce any new substantial recreational impacts.

Conclusion

The project would not result in any new substantial impacts to recreational facilities. All impacts would be less than significant and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒	☐	☐

Environmental Setting

The project site is currently undeveloped. Access to the project site would be provided by Stoneridge Drive and a proposed entry road. Two driveways are proposed off the entry road to be used by project employees, customers, vehicle test drives, vehicle deliveries, and emergency vehicles. An emergency vehicle access point would be located on the project site's western boundary.

Major local roadways that would serve the project include Stoneridge Drive and El Charro Road. Regional access is provided by Interstate 680 (I-680) and I-580. The project site would be served by the Livermore-Amador Valley Transit Authority's (LAVTA's) Wheels Bus Service (Wheels). Pedestrian crosswalks, push buttons, and signals are provided at signalized intersections in the project vicinity. Existing and planned bicycle and pedestrian trails are located along Arroyo Mocho and Lake 'I' (part of the Chain of Lakes) south of the Amended Specific Plan area.

According to a Trip Generation memorandum prepared by TJKM Transportation Consultants on May 21, 2013 (appendix E), the project would result in a total of 185 AM peak hour trips and 215 PM peak hour trips (TJKM 2013). The Trip Generation Memorandum compared these trip generation rates to those analyzed in the EIR and the Supplement to the EIR by converting the total auto mall trip generation to a 20-acre equivalent. The analysis concluded that the project would result in only 50 percent of AM trips and 45 percent of PM trips previously considered for a similar sized auto mall development.

Findings

The EIR concluded that implementation of the Amended Specific Plan would result in no impacts related to changes in air traffic patterns; less than significant impacts related to congestion management agency standards and hazards or incompatible uses; less than significant impacts after mitigation related to emergency access and public transit; and significant unavoidable impacts related to levels of services at two intersections outside the jurisdiction of the City.

The Supplement to the EIR concluded that implementation of the Amended Specific Plan would result in an additional significant and unavoidable impact because it would increase of traffic to southbound Santa Rita Road south of I-580 by more than 3 percent. The Supplement to the EIR also concluded that significant and unavoidable impacts related to LOS and congestion management standards would occur as a result of the Four-Lane Concurrent Extension Alternative, which was the project alternative approved by the City.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR and the Supplement to the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Plan, Ordinance or Policy

The EIR indicated that implementation of the Amended Specific Plan would result in conflicts with LOS policies at five intersections within the City and two intersections outside of the City.

Impacts to the five intersections within the City's jurisdiction can be mitigated to less than significant through the implementation of Mitigation Measure TR-1.1 (*improve Hopyard Road at I-580 Eastbound off-ramp),* TR-1.2 (*improve Hopyard Road at Owens Drive)*, TR-1.3 (*Improve Hopyard Road at Stoneridge Drive),* TR-1.4 (*Improve Santa Rita Road at Valley Avenue)* and TR-1.5 (*Improve El Charro/I-580 eastbound off-ramp)*. These roadway improvements are either covered by the City's

Traffic Development Fee or are the responsibility of the City. Note that TR-1.3 (*Improve Hopyard Road at Stoneridge Drive)* and TR-1.5 (*Improve El Charro/I-580 eastbound off-ramp)* have been fully implemented and are, therefore, no longer applicable.

Impacts to the two intersections outside of The City would remain significant and unavoidable, because the City has no authority to implement mitigations in other jurisdictions. The EIR included three mitigation measures: TR-2.1 (*Improve Fallon Road at Dublin Boulevard*), TR-2.2 (*Improve Murrieta/East Jack London),* and TR-2.3 (*Seek an interagency cooperative agreement)* for impacts outside of The City.

The Supplement to the EIR also concluded that the Four-Lane Concurrent Extension Alternative, which was ultimately approved by the City, would result in additional LOS impacts at two locations, requiring the implementation of the additional Mitigation Measure S-TR-2.1 (*Improve Santa Rita Road at Stoneridge Drive)* to reduce impacts to less than significant for one location. The second intersection is outside the City jurisdiction, and therefore, would remain significant and unavoidable. Note that Mitigation Measure S-TR-2.1 has been fully implemented and is, therefore, no longer applicable.

The project would be consistent with the auto mall land use considered in the EIR and the Supplement to the EIR. According to the Trip Generation Memorandum, the project would not generate traffic beyond the levels evaluated in the EIR for the auto mall use. The project would result in only 50 percent of the AM trips and 45 percent of the PM trips considered in the EIR for a similar sized auto mall development. The project would be required to pay the City's Traffic Development Fee to fund necessary roadway improvements consistent with the above-mentioned applicable mitigation measures. As such, the project would not result in any new impacts not previously disclosed. Impacts would continue to be significant and unavoidable after the implementation of mitigation as concluded in the EIR and Supplement to the EIR. No additional mitigation is necessary.

Congestion Management Program

The EIR concluded that implementation of the Amended Specific Plan would not exceed the standards established by the applicable county congestion management agency for designated roads or highways. However, the Supplement to the EIR concluded that the Amended Specific Plan land uses would increase traffic on southbound Santa Rita Road south of I-580 by more than three percent, in conflict with the Alameda County Congestion Management Program. Mitigation Measure S-TR-1.1 (*implement MM TR-1.4 and pay Tri-Valley Transportation Development fees)*, required funding of alternative route capacity improvements, however, no feasible mitigation measure was available to directly ensure that the impact to the roadway segment would be less than significant after mitigation. Therefore, a significant and unavoidable impact was identified in the Supplement to the EIR.

The Supplement to the EIR also concluded that the Four-Lane Concurrent Extension Alternative, which was ultimately approved by the City, would result in additional congestion management plan

conflicts at five roadway segments. While implementation of Mitigation Measure S-TR-4.1 (*Payment of Tri-Valley Transportation Development fees)* was required, impacts remained significant and unavoidable.

The project is within the scope of development consider in the EIR and Supplement to the EIR, and would be required to pay applicable local and regional transportation development fees consistent with the above-mentioned applicable mitigation measures. As such, the project would not introduce any new impacts not previously disclosed. Impacts would continue to be significant and unavoidable after the implementation of mitigation from the EIR and Supplement to the EIR. No additional mitigation is necessary.

Air Traffic Patterns

The EIR concluded that implementation of the Amended Specific Plan would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks and no impact would occur. The project is consistent with the auto mall land use considered in the EIR, and therefore would not introduce any new impacts not previously disclosed. As concluded in the EIR, no impacts would occur and no mitigation is necessary.

Design Feature or Incompatible Use

The EIR concluded that implementation of the Amended Specific Plan would not substantially increase hazards due to design features or incompatible uses. The project would be consistent with the auto mall uses considered in the EIR and Supplement to the EIR and therefore would not result in any new impacts related to design features or incompatible uses not previously disclosed. Impacts would continue to be less than significant as concluded in the EIR and no mitigation is necessary.

Emergency Access

The EIR concluded that implementation of the Amended Specific Plan would potentially result in inadequate emergency access and required the implementation of Mitigation Measure TR-7.1 (*provide adequate emergency vehicle access*) to reduce impacts to less than significant.

The project includes two access points from the proposed entry road and a third, emergency vehicle access point, located on the western property boundary adjacent to the senior continuing care community. Therefore, the project conforms to Mitigation Measure TR-7.1. The project would not introduce any new impacts related to emergency access not previously disclosed. Impacts would continue to be less than significant with the implementation of mitigation form the EIR. No additional mitigation is necessary.

Public Transit, Bicycle, or Pedestrian Facilities

Bay Area Rapid Transit

The EIR concluded that implementation of the Amended Specific Plan could conflict with future expansions of I-580 to accommodate future Bay Area Rapid Transit (BART) extensions, or other multi-modal improvements by impeding roadway widening or shoulder development.

Implementation of Mitigation Measure TR-5.1 (*Maintain adequate I-580 frontage setbacks)* would require adequate I-580 setbacks. As indicated on the site plans, the project would maintain the existing easements located along the project's frontage consistent Mitigation Measure TR-5.1. Therefore, the project would not introduce any impacts not previously disclosed in the EIR and Supplement to the EIR. Impacts would continue to be less than significant after the implementation of mitigation from the EIR. No additional mitigation is necessary.

Bicycle, Pedestrian, and Public Transit Access

The EIR concluded that the project would conflict with adopted policies, plans, or programs supporting bicycle, pedestrian, and public transit access. Implementation of Mitigation Measure TR-9.1 (*provide acceptable bicycle and pedestrian access*) and TR-9.2 (*Provide adequate bus and paratransit service*) would ensure each development project within the Amended Specific Plan area would provide appropriate alternative transportation facilities.

Consistent with Mitigation Measures TR-9.1 and TR-9.2, the project includes onsite pedestrian facilities connecting to Stoneridge Drive and the future bus shelter as required by the conditions of approval. Note that part d. of TR-9.2 is not applicable to the project. As such, the project would not introduce any impacts not previously disclosed. Impacts would continue to be less than significant after the implementation of mitigation from the EIR. No additional mitigation is necessary.

Truck Traffic

The EIR concluded that development of the Amended Specific Plan land uses would result in less than significant impacts related to an increase in freight and truck traffic levels. Truck trips generated by the project would be consistent with those considered in the EIR and Supplement to the EIR. Furthermore, truck traffic would be subject to General Plan policies and programs regarding truck traffic. As such, the project would not introduce any impacts not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Residential Street Traffic

The EIR concluded that development of the Amended Specific Plan land uses would result in less than significant impacts related to increases in traffic on neighborhood residential streets. Access to the project would be provided by El Charro Road and Stoneridge Drive. No cut-through or parallel routes through neighborhoods exist that could be used by project traffic. As such, the project would not introduce any impacts not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Construction Traffic

The EIR concluded that development of the Amended Specific Plan land uses would result in potentially significant impacts related to increases in construction traffic. The EIR required the implementation of Mitigation Measure TR-12.1 (*Develop Construction Access Plan)* to reduce these impacts to less than significant. Implementation of Mitigation Measure TR-12.1 would ensure construction deliveries, parking, detours, land closures, and staging areas would be appropriately

located and scheduled as applicable. As such, the project would not introduce any impacts not previously disclosed. Impacts would continue to be less than significant with the implementation of mitigation from the EIR. No additional mitigation is necessary.

Conclusion

The project would not result in any new substantial or more severe transportation impacts than those considered in the EIR and Supplement to the EIR. All impacts would continue to have no impact, be less than significant, or be less than significant with the implementation of mitigation from the EIR and Supplement EIR as provided below, with the exception of LOS impacts outside the City and conflicts with congestion management agency thresholds, which would remain significant and unavoidable as disclosed in the EIR.

Mitigation Measures

The following mitigation measures from the EIR and Supplement to the EIR are applicable to the project:

TR-1.1 *Improve Hopyard Road at I-580 Eastbound off-ramp (#9).* To reduce project-related PM impacts to this intersection re-stripe one eastbound left-tum lane to become a shared left-right turn lane (there are no through movements allowed at this off-ramp).

This Mitigation Measure would improve the PM operations from LOS E to LOS C. This mitigation would be covered by the City's Traffic Development Fee. The project developers shall pay City traffic fees to address this mitigation.

TR-1.2 *Improve Hopyard Road at Owens Drive (#10).* To reduce project-related PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Northbound leg - 2 left-tum lanes, 3 through-lanes, and 1 right-tum lane
- Southbound leg - 3 left-tum lanes, 3 through-lanes, and 1 free right-tum lane
- Eastbound leg - 2 left-tum lanes, 2 through-lanes, 1 right-tum lane
- Westbound leg - 2 left-tum lanes, 2 through-lanes, 1 free right-tum lane
- Remove eastbound and westbound signalized splits
- Narrow lanes to reduce pedestrian clearance to 20 seconds

This mitigation would improve the PM operations from LOS F to LOS D.

These improvements are included as projects in the City's Traffic Development Fee. The project developers shall pay the traffic fees to address this mitigation.

TR-1.4 *Improve Santa Rita Road at Valley Avenue (#34).* To reduce project-related PM impacts to this intersection, widen the northbound approach to provide a separate right-tum lane. Implementing this mitigation would improve PM operations from LOSE to LOS D.

These improvements are included as projects in the City's Traffic Development Fee. The project developers shall pay the traffic fees to address this mitigation.

TR-2.1 *Improve Fallon Road at Dublin Boulevard (#56).* To reduce project-related PM impacts to this intersection, the following lane configurations and modifications are recommended.

- Widen the northbound approach to provide a third left-tum lane and a second through lane.
- Widen the eastbound approach to provide a second right-tum lane.
- This mitigation would improve the PM operations from LOS F to LOS D.

This intersection is located in City of Dublin. See Mitigation Measure TR-2.3 below concerning an interagency cooperative agreement that could provide a mechanism for cost sharing among multiple jurisdictions to address a project's impact in a neighboring community.

TR-2.2 *Improve Murrieta I East Jack London (#EC 13).* To reduce project-related AM and PM impacts to this intersection, the following lane configurations and modifications are recommended.

- Adding a second eastbound right-tum lane to provide dual right-tum lanes.
- Restriping bike lanes and removing the existing median and improving the signal operations.

This mitigation would improve the AM operations from LOS E to LOS D. PM operations would remain at LOS D, but with a smaller delay (from 48 to 42).

This intersection is located in City of Livermore. See Mitigation Measure TR-2.3 below concerning an interagency cooperative agreement that could provide a mechanism for cost sharing among multiple jurisdictions to address a project's impact in a neighboring community.

TR-2.3 *Seek an Interagency Cooperative Agreement.* The City of Pleasanton will confer with the City of Livermore, the City of Dublin, and Alameda County on a strategy to fund

and complete Mitigation Measures within each other's jurisdictions. More specifically, the City of Pleasanton will seek to enter into one or more binding agreements with each of these other local agencies in order to facilitate a fair and equitable sub-regional approach to traffic mitigation, to the mutual benefit of all of the affected jurisdictions. Depending on the willingness of these other local agencies to enter into such agreements, the ultimate result may be a single multijurisdictional agreement or one or more agreements between Pleasanton and one or more of the other agencies. The strategy will address fair-share mitigation for projects approved by one jurisdiction that contribute cumulatively considerable traffic to intersections and roadway segments in neighboring jurisdiction(s) with cumulatively substandard LOS.

The applicable standard for LOS will be that established by each local agency for its current jurisdictional area and its sphere of influence. If spheres of influence overlap or jurisdiction over an intersection is split between two local agencies, the standard to be achieved by mitigation, where feasible, will be determined by mutual agreement of the jurisdictions involved.

The City of Pleasanton is willing to ensure that projects it approves contribute fair share mitigation cost for improvements in other jurisdictions but only if the other jurisdictions are also willing to reciprocate for projects within their jurisdictions that contribute considerably to traffic occurring within the City of Pleasanton. The strategy also may allocate mitigation responsibility to each jurisdiction for improvements within its jurisdiction on the understanding that each jurisdiction will be addressing the cumulative contributions from projects in neighboring jurisdictions.

If a mutually agreeable strategy cannot be reached with the City of Livermore, City of Dublin and Alameda County, or any one of them, then the City of Pleasanton will not require the contribution of mitigations for contributions to impacts in any other jurisdiction unwilling to agree to reciprocity within the City of Pleasanton. This is because, under such circumstances, the City could not be assured that projects it approves are being assessed for mitigation only in proportion to their impact and because the City may need to require reallocation of the mitigation contribution to intersections and roadway segments within Pleasanton itself, lacking assurance of mitigation funding from projects that may be approved by other jurisdictions. In the event that a mutually agreed upon strategy is not reached, then mitigation of the project's contribution to the impacted intersection or roadway segment would be infeasible, and the impact would be considered significant and unavoidable.

Assuming a cooperative agreement, the Staples Ranch owners/developers will pay their share of costs of improvements in question in proportion to the benefits received. The fair-share costs will be contributed to the local agency that has

entered into an agreement with the City of Pleasanton when the local agency is ready to implement the improvements at issue, provided the aforementioned strategy has been mutually agreed upon by the City of Pleasanton and such other local agency prior to final approval of Staples Ranch development.

S-TR-1.1. Implementation of EIR MM TR-1.4 and payment of the Tri-Valley Transportation Development fees to fund improvements to State Route 84 and High-Occupancy Vehicle (HOV) lanes on I-580 and I-680. Improvements to parallel corridors will provide alternative routes and additional capacity to reduce local traffic impacts.

S-TR-4.1 Payment of Tri-Valley Transportation Development fees Mitigation for CMP Impacts: Payment of Regional Tri-Valley Transportation Development Fees. Payment of the Tri-Valley Transportation Development fees to fund improvements to State Route 84, and High-Occupancy Vehicle (HOV) lanes on I-580 and I-680. Improvements to parallel corridors will provide alternative routes and additional capacity to reduce local traffic impacts.

TR-5.1 *Maintain adequate 1-580 frontage setbacks*. As part of the Planned Unit Development (PUD) review and approval process, the City of Pleasanton shall ensure that development plans for the proposed senior continuing care community and auto mall do not conflict with potential future 1-580 corridor acquisition and improvements[,] by requiring that all buildings be located outside the anticipated Caltrans widening area. If Caltrans' widening plans have not been adopted by the time of PUD approval, the City will assume that the closest travel lane (including the off ramp) by CLC and Hendrick Automotive Group will shift south 32 feet.

TR-7.1 *Provide adequate Emergency Vehicle Access.* Each development shall include a minimum of two points of emergency vehicle access consistent with the City of Pleasanton's Circulation Element (Policy 5, Program 5.2). The location and the design of the emergency vehicle access shall be subject to the review and approval of the City of Pleasanton.

TR-9.1 *Provide acceptable bicycle and pedestrian access.* As part of the PUD process, each individual project developer shall work with the City to develop acceptable on-site pedestrian and bicycle facilities, including access to planned sidewalks and bike lanes on Stoneridge Drive and Auto Mall Place, as well as appropriate access to the future regional trail along the Arroyo Mocho.

TR-9.2 *Provide adequate bus and paratransit access.* The following measures shall be provided:

a. The City shall encourage LAVTA to provide regular bus service to the Project Area as soon as possible.

b. The Project Sponsor shall design and construct the vehicular barriers on the EVA between Stoneridge Drive and Auto Mall Place for emergency vehicles[,] and to allow (if the City so approves) convenient and rapid entry and exit by public transit buses, as well as emergency vehicles.

c. The Project Sponsor shall provide bus turnouts on Stoneridge Drive near the access road to the senior continuing care community and the neighborhood park, and on Auto Mall Place near the auto mall/retail intersection, if required by the City prior to the first occupancy of any of the uses.

d. The senior continuing care community developer shall work with the City of Pleasanton to develop a shuttle system for the residents that will minimize any potential impacts on existing paratransit services.

TR-12.1 *Develop Construction Access Plan.* Prior to the issuance of final improvement plans or grading permits, each developer within the project shall develop and provide a construction access plan to be reviewed and approved by the City's Engineering Department. This plan will include, at a minimum, the following construction traffic management strategies for each phase of development:

- Using El Charro Road for construction-related access for all phases of development, to the maximum extent feasible, rather than Stoneridge Drive.
- A set of comprehensive traffic control measures, including the scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs and flag persons if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information will include a construction staging plan for any public right-of-way used of each phase of the proposed project.
- Provisions of parking management and spaces for all construction workers for each phase of construction.
- Notification procedures for adjacent property owners regarding when major deliveries, detours, and lane closures will occur.
- The location of construction staging areas for materials, equipment, and vehicles.
- The identification of haul routes for the movement of construction vehicles that would minimize impacts on vehicular traffic, circulation, and safety; and a provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul tracks can be identified and corrected by the project developers.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
17. Utilities and Service Systems *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Setting

Utilities and services including water, sewer, stormwater, and solid waste collection would be provided to the project site by the City. The project would connect to existing water, sewer, and stormwater lines located onsite, and within Stoneridge Drive and the adjacent senior continuing care community.

Findings

The EIR included all discussion related to utilities and service systems in Section 4.6 Effects Found Not to be Significant with the exception of water supply. The EIR concluded that impacts related to water supply would be less than significant after the implementation of mitigation and all other impacts to utilities would be less than significant with no mitigation required. The Supplement to the EIR did not identify any additional impacts to utilities.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR, due to project modifications, physical changes on the property, new information, or changed circumstances.

Wastewater Treatment Requirements

The EIR does not specifically discuss the Amended Specific Plan's impact on wastewater treatment requirements. The Amended Specific Plan area, including the project, would be served by the City's sewer collection services, which directs wastewater to the Dublin-San Ramon Services District's Regional Wastewater Treatment Facility (Wastewater Treatment Facility). The Wastewater Treatment Facility treats and disposes of wastewater in accordance with applicable requirements of San Francisco Bay Regional Water Quality Control Board (RWQCB). The project would be consistent with the assumptions considered in the EIR and would not introduce any new impacts or violations related to wastewater treatment requirements. Therefore, as concluded in the EIR impacts related to the exceedance of wastewater treatment requirements would be less than significant and no mitigation is necessary.

Construction or Expansion of Water or Wastewater Treatment Facilities

The EIR concluded that additional water supply needs resulting from implementation of the Amended Specific Plan would not exceed the available capacity for water treatment and distribution, such that it would result in the need for new or expanded facilities. The Amended Specific Plan's additional water demands have been planned and accounted for by the City and the City's water purveyor, the Livermore-Amador Valley Water Supply and Flood Protection's Zone 7 Water Agency (Zone 7). The project is smaller than the proportionally equivalent building space considered in the EIR, and therefore, would result in lower water use than assumed in the EIR. As such, as concluded in the EIR, the project would not result in the need for, or construction of additional or expanded water facilities. The project would not introduce any new impacts related to water facilities and impacts would continue to be less than significant. No mitigation is necessary

The EIR concluded that adequate capacity exits at the Wastewater Treatment Facility to serve the Amended Specific Plan's land uses. The project is smaller than the proportionally equivalent building space considered in the EIR and, therefore, would result in lower wastewater production than assumed in the EIR. As such, as concluded in the EIR, the project would not produce wastewater requiring additional treatment facilities. The project would not introduce any new impacts related to

wastewater treatment facilities and impacts would continue to be less than significant. No mitigation is necessary.

Construction or Expansion of Stormwater Drainage Facilities

The EIR discussed stormwater drainage in Section 3.5, Hydrology and Water Quality. As indicated therein, development of the Amended Specific Plan land uses would require the construction of additional stormwater detention features. The significant environmental effects from their construction were analyzed under CEQA as part of the City of Livermore El Charro Specific Plan. As previously discussed, construction of the Livermore Flood Protection Improvements would detain the runoff from a 100-year levee failure and would prevent flooding of the Amended Specific Plan site. In addition, a stormwater detention basin has already been constructed within the Amended Specific Plan area directly south of the project site, and was designed to accommodate Amended Specific Plan development. Construction of this stormwater basin included implementation of applicable Mitigation Measures in the EIR and Supplement to the EIR. Stormwater from the project site would be directed to the detention basin.

These improvements have been implemented, and no changes have occurred to the site or the offsite stormwater detention features that would alter the less than significant impact conclusion. The project would not introduce any new stormwater drainage impacts not previously disclosed. Impacts would continue to be less than significant and no mitigation is necessary.

Water Supplies

The EIR concluded that development of the Amended Specific Plan land uses would not exceed available sources of water. However, unless an affirmative written verification of sufficient water supply, in accordance with Government Code Section 66473.7(a)(1), is included as a condition of approval of the tentative or final subdivision map, a potentially significant impact would occur. The EIR included implementation of Mitigation Measure WS-1.1 (*verify water supply prior to tentative map approval*) to reduce this impact to less than significant.

Water uses required by the project would be less than that considered in the EIR because the project's building space is smaller than the proportionally equivalent building space considered in the EIR. Therefore, sufficient water supplies exist to serve the project. With the implementation of WS-1.1 from the EIR, impacts would continue to be less than significant. No additional mitigation is necessary.

In an effort to assure that development is consistent with the City's Green Building Ordinance, the EIR included Mitigation Measure UT-1 (*Irrigation plan)*, which requires irrigation plans to incorporate low-flow irrigation and/or drip irrigation, appropriate watering times, and proper soil preparation. Preparation and submittal of an irrigation plan to the City is required and is a condition of approval for the project. Furthermore, the project would be required to comply with the City's Green Building Ordinance. With the implementation of Mitigation Measure UT-1 from the EIR, impacts would continue to be less than significant and no additional mitigation is necessary.

Landfill Capacity

The EIR concluded that development of the Amended Specific Plan land uses would incrementally increase demand on landfill capacity, but this impact is not considered to be significant because the increase would not exceed amounts expected and provided for in the area. The project is smaller than a proportionally equivalent auto mall project considered in the EIR and, therefore, would not generate construction or operational solid waste in excess of the capacity of waste-disposal services. As such, the project would not introduce any new impacts related to landfill capacity and impacts would continue to be less than significant. No mitigation is necessary.

Solid Waste Regulations

The EIR does not specifically address the Amended Specific Plan's potential impacts to solid waste regulations. However, the City is compliant with Assembly Bill 939 regarding solid waste management, and General Plan Program 26.18 would require the project to implement construction and operational Waste Diversion Plans. As such, the project would not introduce any new impacts related to solid waste regulations and impacts would continue to be less than significant. No mitigation is necessary.

Conclusion

The project would not result in any new substantial or more severe utility impacts beyond those considered in the EIR. All impacts would continue to be less than significant, or less than significant after the implementation of mitigation from the EIR, as provided below, and no additional mitigation is necessary.

Mitigation Measures

WS-1.1 *Verify water supply prior to tentative map approval.* The conditions of approval for any tentative subdivision map shall include a condition requiring that sufficient water supply shall be available for the project. The water supply verification must include documentation of historical water deliveries for the previous 20 years, as well as a description of reasonably foreseeable impacts of the proposed subdivision on the availability of water resources of the region.

UT-1 *Irrigation plan.* Irrigation plans shall incorporate low-flow irrigation head and/or drip irrigation with electric controllers set to water after 7:00p.m[.] and before 10:00 a.m., and proper soil preparation for landscaped areas that includes a minimum of two inches of mulch and two inches of organic soil amendment, as recommended by a qualified landscape architect.

Environmental Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Mandatory Findings of Significance				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Environmental Setting

The project site is located in an area that is being developed for urban uses. Recent development includes the senior continuing care community located to the west and the Livermore Premium Outlets located to the east. I-580 is located directly to the north. Undeveloped areas surrounding the project site are planned for additional auto mall, commercial, and park land uses. The project proposes the construction of a 61,772 square foot CarMax Superstore on 19.77 acres.

Findings

The EIR and Supplement to the EIR concluded that implementation of the Amended Specific Plan would result in adverse effects related to aesthetics, air quality, greenhouse gasses, noise, and transportation that would remain significant and unavoidable after the implementation of mitigation. The EIR also concluded that cumulatively considerable and unavoidable impacts would result related to aesthetics, air quality, and transportation. The Supplement to the EIR concluded

that in addition to those impacts further cumulative impacts would result in relation to GHG emissions and noise.

As discussed below, the project would not result in any new substantial impacts and would not exceed the level of impacts previously identified in the EIR or Supplement to the EIR, due to project modifications, physical changes on the property, new information or changed circumstances.

Impacts to Environment, Animals, Plants, or Historic/Prehistoric Resources

The EIR and Supplement to the EIR concluded that the development of the Amended Specific Plan would result in less than significant impacts with mitigation incorporated regarding the potential to significantly degrade the quality of the environment, including effects on animals or plants, and historic or prehistoric resources.

As discussed in the preceding sections, the project's impacts would be reduced to less than significant with the implementation of mitigation from the EIR and Supplement to the EIR. As such, the project does not have the potential to significantly degrade the quality of the environment, including effects on animals, plants, and historic or prehistoric resources.

Cumulatively Considerable Impacts

The EIR and Supplement to the EIR concluded that implementation of the Amended Specific Plan would result in significant and unavoidable impacts under cumulative conditions related to aesthetics, air quality, greenhouse gas emissions, noise, and transportation.

As indicated in the EIR, no mitigation is available to reduce aesthetics, air quality, and greenhouse gas emissions cumulative impacts to less than significant.

The Supplement to the EIR included Mitigation Measure S-NO-1.1 (*Repave Stoneridge Drive between Kamp Drive and Trevor Parkway with noise-attenuating pavement*) in order to reduce cumulative noise impacts. However, the mitigation measure would not reduce the overall increase in ambient noise levels in two locations and the cumulative noise impact would be significant and unavoidable.

The following Mitigation Measures were provided for the significant transportation impacts that would result under the cumulative traffic scenario:

- TR-IC Improve Hopyard Road at Owens Drive
- TR- 2C Improve Hopyard Road at Stoneridge Drive
- TR-3C Improve Santa Rita Road at I-580 Eastbound off-ramp/Pimlico Road
- TR-4C Improve West Las Positas at Stoneridge Drive
- TC-5C Improve Santa Rita Road at Valley Avenue
- TR-6C Improve El Charro at I-580 eastbound off-ramp (completed)
- TR-7C Improve El Charro at Stoneridge Drive
- TR-8C Improve Fallon Road at Dublin Boulevard
- TR-9C Improve Tassajara Road at Central Parkway

- TR-10C Improve Dublin Boulevard at Dougherty Road
- TR-11C Seek an Interagency Cooperative Agreement

Because some of the above mitigation measures are directed at intersections located outside of the City's jurisdiction, and it is not certain that other jurisdictions would implement the improvements, cumulative intersections impacts would remain significant and unavoidable.

The EIR and Supplement to the EIR considered the auto mall's contribution to each of these cumulative impacts and, therefore, identified it as a contributor to these significant and unavoidable impacts. Because the project is consistent with and proportionally smaller in size than the auto mall considered in the EIR and Supplement to the EIR, it would not result in greater cumulative impacts than those that have already been evaluated and disclosed. The project would be required to implement the transportation mitigation measures (pay applicable traffic impact fees); however, as disclosed in the EIR and Supplement to the EIR, certain significant and unavoidable cumulative impacts would remain.

Adverse Effects on Human Beings

The EIR and Supplement to the EIR concluded that the Amended Specific Plan would result in significant and unavoidable impacts after the implementation of mitigation related to aesthetics, air quality, greenhouse gas emissions, and noise that would directly or indirectly adversely affect human beings. Note that these impacts are not life threatening and would not be likely to result in harm or injury. The project is consistent with and proportionally smaller in size than the auto mall considered in the EIR and Supplement to the EIR, and therefore, its contribution to these significant and unavoidable impacts have already been accounted for and no additional potential direct or indirect adverse effects on human beings would occur.

Conclusion

The project would not introduce any new substantial or more severe impacts than those considered in the EIR and Supplement to the EIR. Implementation of the applicable mitigation measures contained in the EIR and Supplement to the EIR as outlined herein, cited below, and in the conditions of approval as defined by the City, as well as consistency with applicable General Plan policies and project plans, would ensure that impacts related to mandatory findings of significance would be less than significant with the exception of cumulatively considerable impacts related to aesthetics, air quality, greenhouse gas emissions, noise, and transportation as identified in the EIR and Supplement to the EIR.

Mitigation Measures

In addition to the mitigation measures identified as applicable to the project throughout this document, the following mitigation measures appear in the EIR and Supplement to the EIR, and apply to this project:

TR-1C *Improve Hopyard Road at Owens Drive (#10).* To reduce the project's contribution to cumulative PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Northbound leg - 2 left-tum lanes, 3 through lanes, and 1 right-tum lane
- Southbound leg - 3 left-tum lanes, 3 through lanes, and 1 free right-tum lane
- Eastbound leg - 2 left-tum lanes, 2 through lanes, 1 right-tum lane
- Westbound leg - 2 left-tum lanes, 2 through lanes, 1 free right-tum lane
- Un-split eastbound/westbound
- Narrow lanes to reduce pedestrian clearance to 20 seconds
- Change cycle length to 130 seconds

This mitigation would improve the cumulative PM operations from LOS F to LOS D. This project is included in the City of Pleasanton Traffic Impact Fee and payment of fees by project developers would mitigate the impact.

TR-2C *Improve Hopyard Road at Stoneridge Drive (#1/).* To reduce the project's contribution to cumulative PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Eastbound leg - Provide free right tum lane
- Change cycle length to 120 seconds

This mitigation would improve the cumulative PM operations from LOS F to LOS D.

This project is included in the City of Pleasanton Traffic Impact Fee and payment of fees by project developers would mitigate their impact.

TR-3C *Improve Santa Rita Road at I-580 Eastbound off-ramp/ Pimlico Road (#26).* To reduce the project's contribution to cumulative PM impacts to this intersection, widen the southbound leg to provide a second left-tum lane and change the cycle length.

This mitigation would improve the cumulative PM operations from LOSE to LOS D.

This project is not currently included in the City of Pleasanton Traffic Fee. The City of Pleasanton Traffic Fee is currently being updated and this project will be included in the new traffic fee. It is anticipated that the fee update will be completed prior to the payment of fees by this project, the payment of the revised traffic fee will mitigate this impact.

TR-4C *Improve West Las Positas at Stoneridge Drive (#30).* To reduce the project's contribution to cumulative PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Widen the southbound approach to provide a second left-tum lane
- Restripe the eastbound approach to provide an exclusive right-turn lane; and removing one left-tum lane
- Change the cycle length to 120 seconds in the PM

This mitigation would improve the cumulative PM operations from LOS E to LOS D.

This project is not currently included in the City of Pleasanton Traffic Fee. The City of Pleasanton Traffic Fee is currently being updated and this project will be included in the new traffic fee. It is anticipated that the fee update will be completed prior to the payment of fees by this project, the payment of the revised traffic fee will mitigate this impact.

TR-5C *Improve Santa Rita Road at Valley Avenue (#34).* To reduce the project's contribution to cumulative PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Widen the westbound approach to provide a second left-tum lane
- Change the cycle length to 120 seconds in the PM

This mitigation would improve the cumulative PM operations from LOS E to LOS D.

This project is included in the City of Pleasanton Traffic Fee and payment of fees by project developers would mitigate their impact.

TR-7C *Improve El Charro at Stoneridge (#53).* To reduce cumulative contribution to PM impacts to this intersection, the following lane configurations and modifications are recommended:

- Construct Free Southbound Right Turn Lane
- Construct third Eastbound Left Turn Lane

This mitigation would improve the cumulative PM operations from LOS F to LOS D.

This mitigation will be included in the overall funding plan for the Extension of Stoneridge Drive, which will be developed by the City of Pleasanton at a future date.

TR-8C *Improve Fallon Road at Dublin Boulevard (#56).* To reduce the project's contribution to cumulative PM impacts to this intersection, provide a free single eastbound right-

tum lane. This mitigation would improve the cumulative PM operations from LOS E to LOS D.

This intersection is located in the City of Dublin. See Mitigation Measure TR-11C about an interagency cooperative agreement that could provide a mechanism for cost sharing among multiple jurisdictions to address a project's impact in a neighboring community.

TR-9C *Improve Tassajara Road at Central Parkway (#60).* To reduce the project's contribution to cumulative PM impacts to this intersection, widen the eastbound lane to provide a separate right-turn lane. This mitigation would improve the cumulative PM operations from LOSE to LOS D.

This intersection is located in the City of Dublin. See Mitigation Measure TR-11C about an interagency cooperative agreement that could provide a mechanism for cost sharing among multiple jurisdictions to address a project's impact in a neighboring community.

TR-10C *Improve Dublin Boulevard at Dougherty Road (#D1).* The mitigations listed in the Fallon Shopping Center EIR for this intersection would reduce the cumulative impacts at this intersection to less than significant.

This intersection is located in the City of Dublin. See Mitigation Measure TR-11C about an interagency cooperative agreement that could provide a mechanism for cost sharing among multiple jurisdictions to address a project's impact in a neighboring community.

TR-11C *Seek an Interagency Cooperative Agreement.* The City of Pleasanton will confer with the City of Livermore, the City of Dublin and Alameda County on a strategy to fund and complete mitigation measures within each other's jurisdictions. More specifically, the City of Pleasanton shall seek to enter into one or more binding agreements with each of these other local agencies in order to facilitate a fair and equitable sub-regional approach to traffic mitigation, to the mutual benefit of all of the affected jurisdictions. Depending on the willingness of these other local agencies to enter into such agreements, the ultimate result may be a single multijurisdictional agreement or one or more agreements between Pleasanton and one or more of the other agencies. The strategy will address fair-share mitigation for projects approved by one jurisdiction that contribute cumulatively considerable traffic to intersections and roadway segments in neighboring jurisdiction(s) with cumulatively substandard LOS.

The applicable standard for LOS will be that established by each local agency for its current jurisdictional area and its sphere of influence. If spheres of influence overlap

or jurisdiction over an intersection is split between two local agencies, the standard to be achieved by mitigation, where feasible, will be determined by mutual agreement of the jurisdictions involved.

The City of Pleasanton is willing to ensure that projects it approves contribute fair share mitigation cost for improvements in other jurisdictions but only if the other jurisdictions are also willing to reciprocate for projects within their jurisdictions that contribute considerably to traffic occurring within the City of Pleasanton. The strategy also may allocate mitigation responsibility to each jurisdiction for improvements within its jurisdiction on the understanding that each jurisdiction will be addressing the cumulative contributions from projects in neighboring jurisdictions.

If a mutually agreeable strategy cannot be reached with the City of Livermore, City of Dublin and Alameda County, or any one of them, then the City of Pleasanton will not require the contribution of mitigations for contributions to impacts in any other jurisdiction unwilling to agree to reciprocity within the City of Pleasanton. This is because, under such circumstances, the City could not be assured that projects it approves are being assessed for mitigation only in proportion to their impact and because the City may need to require reallocation of the mitigation contribution to intersections and roadway segments within Pleasanton itself, lacking assurance of mitigation funding from projects that may be approved by other jurisdictions. In the event that a mutually agreed upon strategy is not reached, then mitigation of the Project's contribution to the impacted intersection or roadway segment would be infeasible, and the impact would be considered significant and unavoidable.

Based on this cooperative agreement, the Staples Ranch Specific Plan area owners/developers will pay their share of costs of improvements in question in proportion to the benefits received. The fair-share costs will be contributed to the local agency that has entered into an agreement with the City of Pleasanton when the local agency is ready to implement the improvements at issue provided the aforementioned strategy has been mutually agreed upon by the City of Pleasanton and such other local agency.

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Appendix A:
Air Quality Data

A.1 - LEED Checklist

LEED 2009 for New Construction and Major Renovations

Project Checklist

CarMax Pleasanton

11.25.2013

Sustainable Sites — Possible Points: 26

Y	?	N			
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
		5	Credit 2	Development Density and Community Connectivity	5
		1	Credit 3	Brownfield Redevelopment	1
		6	Credit 4.1	Alternative Transportation—Public Transportation Access	6
		1	Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
		2	Credit 4.4	Alternative Transportation—Parking Capacity	2
		1	Credit 5.1	Site Development—Protect or Restore Habitat	1
1			Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
1			Credit 6.2	Stormwater Design—Quality Control	1
		1	Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
4			Credit 1	Water Efficient Landscaping	2 to 4
		2	Credit 2	Innovative Wastewater Technologies	2
3	1		Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
4		17	Credit 1	Optimize Energy Performance	1 to 19
		7	Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
		2	Credit 4	Enhanced Refrigerant Management	2
1		2	Credit 5	Measurement and Verification	3
	2		Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y			Prereq 1	Storage and Collection of Recyclables	
		3	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2	Construction Waste Management	1 to 2
		2	Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
		1	Credit 6	Rapidly Renewable Materials	1
		1	Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
		1	Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
	1		Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
	1		Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
	1		Credit 5	Indoor Chemical and Pollutant Source Control	1
	1		Credit 6.1	Controllability of Systems—Lighting	1
	1		Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
1			Credit 7.2	Thermal Comfort—Verification	1
1			Credit 8.1	Daylight and Views—Daylight	1
	1		Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

1			Credit 1.1	Innovation in Design: Exemplary Performance MR-4	1
1			Credit 1.2	Innovation in Design: Exemplary Performance MR-5	1
1			Credit 1.3	Innovation in Design: Process Water Use Reduction -Car Wash	1
	1		Credit 1.4	Innovation in Design: Green Cleaning	1
1			Credit 1.5	Innovation in Design: Exemplary Performance MRP-1	1
1			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

1			Credit 1.1	Regional Priority: EQ 8.1	1
		1	Credit 1.2	Regional Priority: Specific Credit	1
		1	Credit 1.3	Regional Priority: Specific Credit	1
		1	Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

43	10	59	Total

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

A.2 - Air Emissions Plan

Date: December 17, 2013

To: Brian Dolan, Community Development Director

From: Keith Henderson, CarMax Auto Superstores

Re: CarMax Auto Superstores, Pleasanton, PUD-98- Operational Air Emissions Plan

The proposed Pleasanton CarMax Auto Superstores project is located in the Stoneridge Drive Specific Plan/Staples Ranch Project Area. The environmental Impact Report for the Specific Plan contains mitigation measures for Air Quality. The subject of this memorandum is to address mitigation measures *AQ-3.1: Develop and Implement plan to reduce operational air emissions.*

The Planned Unit Development submittal package consists of a set of site layout drawings showing buildings and parking layout and preliminary lighting, landscaping and building exteriors. The City's Green Building Checklist is also included in the submittal requirements. Many of the planned measures to reduce the operational emissions are demonstrated in those two documents.

Measures to Reduce Emissions from Mobile Sources

1. *Traffic Circulation*

   The traffic circulation pattern on the site has been designed to efficiently move vehicular traffic into and out of the site without requiring internal stop signs or long queues where cars could lie idle and create unnecessary exhaust. There is a "T" intersection at the end of the main entry road. The entrance has been designed with two-lanes entering the site, two-lanes exiting the site with a left turn pocket at Stoneridge Drive.

2. *Bike Racks, Pedestrian Pathways & Bus drop offs*

   a. Bus stop along Stoneridge Dr. - A designated bus pad and shelter are located along Stoneridge Dr., immediately adjacent to the project. The bus stop will make it convenient for employees and potential customers to take public transportation to the site.
   b. Pedestrian walk way from Stoneridge to the Sales Building- A pedestrian connection will be provided from Stoneridge Dr., along the private entrance road, through the customer/employee parking lot to the sales building entrance.
   c. Bike Racks at customer building entrance - Adequate bicycle parking will be provided near the customer entrance to the sales building.
   d. Encourage employee use of alternative transportation - Employees will be encouraged to use alternative transportation.

Measures to Reduce Emissions from Stationary Sources

1. *Operating Systems*

    a. Environmental, Health & Safety (EH&S) Committee - Each store has an Environmental, Health & Safety (EH&S) Committee that includes managers and associates. The committee meets quarterly to conduct a 15 page audit and then devise action plans to resolve all noted issues.
    b. Energy Management System -manages operating times, use efficiency, and cost efficiency for lighting, HVAC systems and computer systems. Also manages power load during peak hours to minimize energy use (prevents utilities from having to provide temporary additional power during peak time).Low VOC Emitting Materials – Interior Paint, flooring, adhesives, sealants.
    c. CO2 monitoring within breathing zones - there is CO2 monitoring in the show room, the appraisal lounge, and in the service break and training room.
    d. HVAC – Utilize service building vehicle ventilation systems. The system provides diagnostic information for energy efficiency. Innovative energy recovery wheels to re-circulate already heated and cooled air.

2. *Energy Saving Building Elements*

    a. Daylight Harvesting – The use of Sky lights in the show room and in the Service facility allow for natural light to permeate into the majority of the indoor space. A 10ft tinted Glass store front system is used around the showroom to allow for natural light at all times of day. Individual office light dimmers and a roller shade system is supplied in each of the individual offices and conference rooms.
    b. Low emissivity glass – The tinted curtain wall system allows for day light to permeate throughout the building but reduces the amount of heat that comes through the glass into the occupied space.
    c. White thermoplastic membrane roof - Reflects light and reduces heat gain within the building to allow cool air to stay in and heat to be reflected during the day. At night it allows hot air to stay in the building and keep it insulated to cut down on energy consumption and cost.
    d. Energy efficient building insulation – Is used in all the CarMax facilities to keep the maximum amount of conditioned air in the building to cut down on energy consumption and cost.
    e. Building mounted signage uses LED lighting to reduce energy use
    f. Paint Booths & Prep Stations- Paint booths and prep stations are contained within the fully conditioned service buildings (production stores only). Used for painting panels and bumpers (entire vehicles are not painted). Filtration systems capture approx. 98% of particulate. Operate under permits where required.

A.3 - CalEEMod Output

CarMax Superstore- GHG

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	18.24	Acre	18.24	0.00	0
Automobile Care Center	61.77	1000sqft	1.42	61,772.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Based on site plan

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	794,534.40	0.00
tblLandUse	LandUseSquareFeet	61,770.00	61,772.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003
Energy											0.0000	252.6248	252.6248	9.0700e-003	3.1700e-003	253.7994
Mobile											0.0000	1,841.6792	1,841.6792	0.0851	0.0000	1,843.4652
Waste											47.8978	0.0000	47.8978	2.8307	0.0000	107.3419
Water											1.8437	12.7745	14.6181	0.1899	4.5900e-003	20.0301
Total											**49.7414**	**2,107.0799**	**2,156.8213**	**3.1147**	**7.7600e-003**	**2,224.6380**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003
Energy											0.0000	252.6248	252.6248	9.0700e-003	3.1700e-003	253.7994
Mobile											0.0000	1,841.6792	1,841.6792	0.0851	0.0000	1,843.4652
Waste											47.8978	0.0000	47.8978	2.8307	0.0000	107.3419
Water											1.8437	12.7745	14.6181	0.1899	4.5800e-003	20.0271
Total											**49.7414**	**2,107.0799**	**2,156.8213**	**3.1147**	**7.7500e-003**	**2,224.6351**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.13**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,841.6792	1,841.6792	0.0851	0.0000	1,843.4652
Unmitigated											0.0000	1,841.6792	1,841.6792	0.0851	0.0000	1,843.4652

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,829.74	3,829.74	3829.74	3,815,134	3,815,134
Parking Lot	0.00	0.00	0.00		
Total	3,829.74	3,829.74	3,829.74	3,815,134	3,815,134

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542001	0.061858	0.168333	0.112636	0.031145	0.004643	0.019061	0.047615	0.001767	0.003701	0.005606	0.000207	0.001427

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	162.2708	162.2708	7.3400e-003	1.5200e-003	162.8955
Electricity Unmitigated											0.0000	162.2708	162.2708	7.3400e-003	1.5200e-003	162.8955
NaturalGas Mitigated											0.0000	90.3540	90.3540	1.7300e-003	1.6600e-003	90.9039
NaturalGas Unmitigated											0.0000	90.3540	90.3540	1.7300e-003	1.6600e-003	90.9039

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	1.69317e+006											0.0000	90.3540	90.3540	1.7300e-003	1.6600e-003	90.9039
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**90.3540**	**90.3540**	**1.7300e-003**	**1.6600e-003**	**90.9039**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	1.69317e+006											0.0000	90.3540	90.3540	1.7300e-003	1.6600e-003	90.9039
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**90.3540**	**90.3540**	**1.7300e-003**	**1.6600e-003**	**90.9039**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	557801	162.2708	7.3400e-003	1.5200e-003	162.8955
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**162.2708**	**7.3400e-003**	**1.5200e-003**	**162.8955**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	557801	162.2708	7.3400e-003	1.5200e-003	162.8955
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**162.2708**	**7.3400e-003**	**1.5200e-003**	**162.8955**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003
Unmitigated											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003
Total											**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**0.0000**	**1.5100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5100e-003
Total											**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**0.0000**	**1.5100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.6181	0.1899	4.5800e-003	20.0271
Unmitigated	14.6181	0.1899	4.5900e-003	20.0301

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	5.81139 / 3.56182	14.6181	0.1899	4.5900e-003	20.0301
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**14.6181**	**0.1899**	**4.5900e-003**	**20.0301**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	5.81139 / 3.56182	14.6181	0.1899	4.5800e-003	20.0271
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**14.6181**	**0.1899**	**4.5800e-003**	**20.0271**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.8978	2.8307	0.0000	107.3419
Unmitigated	47.8978	2.8307	0.0000	107.3419

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	235.96	47.8978	2.8307	0.0000	107.3419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**47.8978**	**2.8307**	**0.0000**	**107.3419**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	235.96	47.8978	2.8307	0.0000	107.3419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**47.8978**	**2.8307**	**0.0000**	**107.3419**

CarMax Superstore

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	18.24	Acre	18.24	0.00	0
Automobile Care Center	61.77	1000sqft	1.42	61,772.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on site plan

Construction Phase -

Architectural Coating -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	794,534.40	0.00
tblLandUse	LandUseSquareFeet	61,770.00	61,772.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Energy	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Mobile	12.6488	21.8733	90.3864	0.1327	8.1371	0.2590	8.3961	2.1798	0.2379	2.4176						
Total	**14.1981**	**22.3282**	**90.7768**	**0.1355**	**8.1371**	**0.2935**	**8.4307**	**2.1798**	**0.2724**	**2.4522**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Energy	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Mobile	12.6488	21.8733	90.3864	0.1327	8.1371	0.2590	8.3961	2.1798	0.2379	2.4176						
Total	**14.1981**	**22.3282**	**90.7768**	**0.1355**	**8.1371**	**0.2935**	**8.4307**	**2.1798**	**0.2724**	**2.4522**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.6488	21.8733	90.3864	0.1327	8.1371	0.2590	8.3961	2.1798	0.2379	2.4176						
Unmitigated	12.6488	21.8733	90.3864	0.1327	8.1371	0.2590	8.3961	2.1798	0.2379	2.4176						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,829.74	3,829.74	3829.74	3,815,134	3,815,134
Parking Lot	0.00	0.00	0.00		
Total	3,829.74	3,829.74	3,829.74	3,815,134	3,815,134

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542001	0.061858	0.168333	0.112636	0.031145	0.004643	0.019061	0.047615	0.001767	0.003701	0.005606	0.000207	0.001427

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
NaturalGas Unmitigated	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	4638.82	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.0500**	**0.4548**	**0.3820**	**2.7300e-003**		**0.0346**	**0.0346**		**0.0346**	**0.0346**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	4.63882	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.0500**	**0.4548**	**0.3820**	**2.7300e-003**		**0.0346**	**0.0346**		**0.0346**	**0.0346**						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Unmitigated	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1765					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.3219					0.0000	0.0000		0.0000	0.0000						
Landscaping	8.2000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Total	**1.4992**	**8.0000e-005**	**8.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1765					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.3219					0.0000	0.0000		0.0000	0.0000						
Landscaping	8.2000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Total	**1.4992**	**8.0000e-005**	**8.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**						

CarMax Superstore

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	18.24	Acre	18.24	0.00	0
Automobile Care Center	61.77	1000sqft	1.42	61,772.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Based on site plan

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	794,534.40	0.00
tblLandUse	LandUseSquareFeet	61,770.00	61,772.00
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Energy	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Mobile	13.6294	23.8515	125.5777	0.1257	8.1371	0.2626	8.3997	2.1798	0.2412	2.4210						
Total	**15.1786**	**24.3064**	**125.9681**	**0.1284**	**8.1371**	**0.2972**	**8.4343**	**2.1798**	**0.2758**	**2.4555**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Energy	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Mobile	13.6294	23.8515	125.5777	0.1257	8.1371	0.2626	8.3997	2.1798	0.2412	2.4210						
Total	**15.1786**	**24.3064**	**125.9681**	**0.1284**	**8.1371**	**0.2972**	**8.4343**	**2.1798**	**0.2758**	**2.4555**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.6294	23.8515	125.5777	0.1257	8.1371	0.2626	8.3997	2.1798	0.2412	2.4210						
Unmitigated	13.6294	23.8515	125.5777	0.1257	8.1371	0.2626	8.3997	2.1798	0.2412	2.4210						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	3,829.74	3,829.74	3829.74	3,815,134	3,815,134
Parking Lot	0.00	0.00	0.00		
Total	3,829.74	3,829.74	3,829.74	3,815,134	3,815,134

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.542001	0.061858	0.168333	0.112636	0.031145	0.004643	0.019061	0.047615	0.001767	0.003701	0.005606	0.000207	0.001427

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
NaturalGas Unmitigated	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	4638.82	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.0500**	**0.4548**	**0.3820**	**2.7300e-003**		**0.0346**	**0.0346**		**0.0346**	**0.0346**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	4.63882	0.0500	0.4548	0.3820	2.7300e-003		0.0346	0.0346		0.0346	0.0346						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.0500**	**0.4548**	**0.3820**	**2.7300e-003**		**0.0346**	**0.0346**		**0.0346**	**0.0346**						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Unmitigated	1.4992	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1765					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.3219					0.0000	0.0000		0.0000	0.0000						
Landscaping	8.2000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Total	**1.4992**	**8.0000e-005**	**8.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**						

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1765					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.3219					0.0000	0.0000		0.0000	0.0000						
Landscaping	8.2000e-004	8.0000e-005	8.3800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005						
Total	**1.4992**	**8.0000e-005**	**8.3800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**						

A.4 - Climate Action Plan Checklist

CLIMATE ACTION PLAN
CHECKLIST

Project Name: Car Max at Staples Ranch **Project Address: TBD**

Case No.: **Residential Units:** 0 **Commercial S.F.: Approximately 61,772**

	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	Yes	No	N/A	Comments
LU1: Support Infill and High Density Development					
LU1-2	Project is infill development within the existing urban fabric that helps complete, reinforce, and repair the surrounding area.	X			The project is envisioned in the City's General Plan and the Staples Ranch Specific Plan.
LU1-3	Project is mixed-use development which incorporates higher density and affordable residential units consistent and with the Downtown Specific Plan with easy access to activity areas. (Applies to projects in the downtown area only).			X	
LU1-4	Project is transit-oriented development near BART station, along transportation corridors, in business parks, and/or in the downtown area.	X			The project is located within the Staples Ranch Specific Plan, and will be developed in conformance with the existing zoning.
LU1-5	Project is high density development near and/or around transportation hubs and employment centers.			X	
LU1-6	Project is TOD (transit oriented development): located within 1/4 mile of commuter rail, BART, and other transportation hubs.			X	
LU1-7	Project incorporates affordable housing on a vacant infill site.			X	
LU2: Support Mixed-use Infill and New Development near Local-serving Commercial Areas					
LU2-1	Project is located within convenient walking distance to work, residences, and services.	X			The project is located within 1/2 miles of existing residences, the Livermore Outlet Mall and the Target Retail development to the north of the freeway.
LU2-2	Project provides new housing and/or new employment located within ½-mile walking/biking proximity of complementary land uses, including retail, employment, institutional, or recreational.	X			The project is located within 1/2 mile of existing residences, the Livermore Outlet Mall and the Target Retail development to the north of the freeway.
LU2-4	Project reconnects streets and adds streets; minimizes parking to below code requirements; and includes attractive and functional urban plazas. (Applies to development near Pleasanton BART station in Hacienda and development near West Pleasanton BART)			X	
LU2-9	Project includes live-work units.			X	The project is consistent with the existing commercial zoning which does not include the live-work provision.
LU2-10	Project incorporates elements of LEED for Neighborhood Development (LEED ND)	X			The project has prepared the LEED-NC checklist which includes several shared elements with the NEED ND rating system.
LU3: Improve Transportation Efficiency through Design Improvements					
LU3-1	Project provides key services within a ½-mile walking distance of residential clusters or areas. (Applies to non-residential projects)	X			The project is located within 1/2 mile of existing residences, the Livermore Outlet Mall and the Target Retail development to the north of the freeway.
LU3-2	Project provides building, landscape, and streetscape development design features that encourage transit, bicycle, and pedestrian access.	X			The development provides pedestrian access to transit facilities and bike parking for employees and visitors.
LU3-3	Project encourages transit use and provides pedestrian and bicycle facilities.	X			The development provides pedestrian access to transit facilities and bike parking for employees and visitors.
LU3-4	Project provides infrastructure to facilitate 'NextBus' technologies for tracking buses and predicting arrival times. (Applies to projects that include two or more bus shelters.)			X	
LU3-5	Project provides street improvements that meet the municipal street standards and AB 1358 Complete Streets and increase the safety, convenience, and efficiency of pedestrians, bicyclists, motorists, and transit riders.	X			Although the project access road is proposed to be private, it has been designed in accodance with the City's design criteria.
LU3-6	Project includes pedestrian and bicycle access through cul-de-sacs in new projects, except where prohibited by topography.			X	
LU3-7	Project includes neighborhood traffic calming to slow traffic speeds, reduce cut-through traffic and traffic-related noise, improve the aesthetics of the street, and increase safety for pedestrians, bicyclists, and vehicles.			X	
TR1: Improve and Increase Transit Ridership with Incentives, Partnerships, and Related Investments					
TR1-6	The project offers discounted transit passes as part of HOA amenities, payable through the HOA dues. (Applies to residential development within 1/2 mile of transit.)			X	

Project Name: Car Max at Staples Ranch **Project Address: TBD**

Case No.: **Residential Units:** 0 **Commercial S.F.: Approximately 61,772**

	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	Yes	No	N/A	Comments
TR1-9	The project includes a condition of approval to limit diesel vehicle idling. (Applies to projects with associated bus or truck traffic.)	X			The developer would be supportative of a condition of approval limiting idling trucks.
NM1: Enhance and Maintain a Safe, Convenient, and Effective System for Pedestrians and Bicyclists					
NM1-1	Project provides a community trail, bike lane, staging area or other facility consistent with the Community Trails Master Plan or the Pedestrian and Bicycle Master Plan.			X	
NM1-4	Project provides bicycle-related improvements (i.e., work-place provision for showers, bicycle storage, bicycle lanes, etc.).	X			
NM1-5	Project provides bike parking. (Applies to non-residential and multi-family projects.)	X			
NM1-7	Project provides bicycle detection at signalized intersections.			X	
NM1-8	Project provides safe and convenient bike racks. (Applies to private schools, business and office projects.)	X			
NM1-9	Project completes a section of the Iron Horse Trail. (Applies to developments adjacent to the trail location.)			X	
NM1-10	Project contributes to the bicycle/pedestrian underpass at 580/680 interchange (Johnson Drive canal) for connection to Dublin. (Applies to new projects in the immediate vicinity.)			X	
TDM1: Use Parking Policy/Pricing to Discourage Single Occupancy Vehicle (SOV) Travel					
TDM1-1	Project shares parking with adjacent use to reduce paved areas that contribute to urban heat islands and reduce stormwater infiltration.			X	
TDM1-2	Project separates fee-based parking from home rents/purchase prices or office leases. (Applies to projects within 1/2 mile of BART stations to increase housing and office affordability for those without a car or cars.)			X	
TDM1-3	Project tenants will participate in the City's TSM program to reduce auto trips. (Applies to non-residential projects.)	X			CarMax will ensure the implementation plan of the transit-system management plan, as part of the project's Operational Air Emissions Plan in Exhibit B.
TDM1-5	Project will participate in a parking demand management program.			X	
TDM1-6	Project provides one or more electric charging stations for plug-in vehicles.	X			
TDM1-7	Project provides motorcycle or scooter parking. (Applies to projects located in Downtown.)			X	
TDM2: Promote Alternatives to Work and School Commutes					
TDM2-4	Project provides a neighborhood telecommuting center.			X	
TDM2-7	Project provides transit passes or other transit use incentives for an interim period to establish transit use patterns for employees. (Applies to new non-residential projects of more than 20,000 s.f. within 1/4 mile of transit)			X	
TDM2-10	Project provides dedicated parking spaces for carpool, vanpool, alternative-fuel, and car-share vehicles.	X			Yes dedicated parking spaces in the customer employee lot for these types of vechicles have been added.
TDM2-11	Project incorporates a car-sharing service.	X			Dedicated car share spaces have been added to the plan.
EC1: Use City Codes, Ordinances and Permitting to Enhance Green Building, Energy Efficiency, and Energy Conservation					
EC1-1	Project meets LEED *Certified* rating level and achieves 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to civic projects and commercial projects over 20,000 s.f.)	X			The project meets the Green Building Ordinance.
EC1-2	Project meets the City's residential green rating standard, including 25% above T-24, and incorporates new requirements for shade trees, cool roofs and landscape lighting. (Applies to residential projects.)			X	

Project Name: Car Max at Staples Ranch **Project Address: TBD**

Case No.: **Residential Units:** 0 **Commercial S.F.: Approximately 61,772**

	Project Aspects that reduce Greenhouse Gas (GHG) Emissions	Yes	No	N/A	Comments
EC1-3	Project provides light-colored paving material for roads and parking areas, as well as parking lot shade trees.		X		Concrete paving is cost prohibitive, shade trees have been provided for the customer / employee lot.
EC4: Develop Programs to Increase Energy Efficiency and Conservation					
EC4-4	Project incorporates solar tubes, skylights, and other daylighting systems within the design .	X			The project includes skylights in the service building to allow for natural light with in the building. The office spaces have dimable lights, and large windows and a large protion of the building is a tinted curtain wall contributing to the daylighting system.
ER1: Implement Local Ordinances and Permitting Processes to Support Renewable Energy					
ER1-1	Project provides residential renewable energy installations (e.g., wind turbines). (Applies to residential projects.)			X	
ER2: Develop Programs to Promote On-Site Renewable Energy in the Community					
ER2-3	Project incorporates distributed generation, especially PV, solar thermal, solar hot water, and solar cooling, and/or providing bloom box or other fuel cell technologies.	X			Project Includes solar hot water.
ER2-5	Project includes a solar grid to power one or more EV charging stations.	X			Project will install 1 electrical vehicle station.
SW2: Increase Recycling, Organics Diversion, and Waste Reduction Associated with the Entire Community					
SW2-12	Project provides adequate space and logistics for handling of recyclable and compostable materials. (Applies to commercial and multifamily residential projects.)	X			The trash enclosure provides sufficient room for both trash and recycling carts.
WA1: Conserve Community Water through Building and Landscape Design and Improvements					
WA 1-7	Project incorporates a water-saving landscape plan that includes xeriscaping and drought-resistant planting in lieu of lawns.	X			The project complies with the Water Efficient Landscape Oridinance (WELO) and proposes to use recycled water for all landscape areas.
WA 1-8	Project limits lawn areas to designated play areas.		X		The project proposes limited lawn areas and complies with the Water Efficient Landscape Oridinance (WELO) and proposes to use recycled water for all landscape areas.
WA3: Increase or Establish use of Reclaimed/Grey Water Systems					
WA3-2	Project utilizes reclaimed wastewater.	X			
WA3-4	Project incorporates rain harvesting.	X			Meet the intent of Strategy WA-3. On-site irrigation will be recycled water, not potable water.

Appendix B:
Biological Resource Assessment

May 24, 2013

Ms. Annamarie Usher
Staff Engineer
ENGEO Incorporated
2010 Crow Canyon Pl, Suite 250
San Ramon, California 94583

Dear Ms. Usher

The purpose of this letter is to inform you of the results of the biological reconnaissance and wetland assessment site visit for the Carmax property on Stoneridge Drive in eastern Pleasanton, Alameda County, California (Study Area; Figure 1). The Study Area is an undeveloped lot which was part of a larger parcel (Staples Ranch) under the *Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR* (Specific Plan; PBS&J 2008); this area has been historically disturbed by agricultural activities and the restoration of Arroyo Mocho in 2004. Furthermore, the Study Area has been used as an access and staging area for development of the rest of the Staples Ranch site. The WRA site visit took place on May 7, 2013. The proposed project ("Project") entails development of an auto mall and is consistent with the approved Specific Plan.

Based on the site visit and a review of background literature and databases, the Study Area is unlikely to support a majority of special-status plant and wildlife species that occur in the vicinity. A review of historic aerials shows that the Study Area was actively cultivated for agricultural purposes through approximately 2007. In 2011, the Study Area was graded and mowed with the onset of construction of adjacent parcels. Since that time, the Study Area has actively been used for construction staging and access, thus precluding suitable habitat for special-status plant species and most special-status wildlife species (described below).

Methods

Prior to the site visit, background literature was reviewed to determine potential presence of sensitive vegetation types, aquatic communities, and special-status plant and wildlife species. Resources reviewed include the Specific Plan, aerial photography, mapped soil types, the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB 2013), the Livermore and Dublin USGS 7.5' quadrangle maps (1980), the National Wetland Inventory (NWI; USFWS 2013), the California Native Plant Society (CNPS) Online Database (2013), and species habitat requirements as noted in available literature.

On May 7, 2013, a WRA biologist traversed the Study Area on foot to evaluate the potential presence of sensitive vegetation communities and aquatic features and evaluate on-site habitat to determine the potential for occurrence of special-status plant and wildlife species. Observed plant communities, aquatic features, and plant and wildlife species were noted. Site conditions were noted as they relate to habitat requirements of special-status plant and wildlife species known to occur in the vicinity as determined by the background literature research.

Results

Vegetation and Aquatic Communities

The Study Area is historically disturbed by agricultural activities, by the restoration of Arroyo Mocho in 2004, and, most recently, by construction activities on adjacent parcels. The Study Area has two basic components: disturbed areas for construction staging and access, and non-native annual grassland areas. These latter areas are dominated by upland species, including yellow star thistle (*Centaurea solstitialis*), wild oat (*Avena fatua*), field mustard (*Brassica rapa*), and bristly ox-tongue (*Picris echioides*). Non-native grassland occurs mostly on the mounds of fill and potentially provides foraging habitat for many raptor species in the region including white-tailed kite, red-tailed hawk, and northern harrier.

According to the wetland delineation report WRA, Inc prepared in 2006, and verification by the Corps in 2007, the Staples Ranch site does not contain any jurisdictional wetlands; this report and verification included the current Study Area. According to the 2006 delineation, the Study Area has two native soil types: Clear Lake Clay, and Sycamore Silt Loam. While Clear Lake Clay is considered a hydric soil, the soils in the Study Area have been disturbed by decades of annual tilling. In addition, since the commencement of construction of Staples Ranch in 2011, the site has been actively used for construction staging and access. No areas with wetland indicators were observed and no aquatic or wetland features potentially regulated by the U.S. Army Corps of Engineers (Corps) (including hydrophytic vegetation, hydric soils, or wetland hydrology) were observed during the May 7, 2013 site visit.

	
Photograph of a construction staging area within the western portion of the Study Area. This area is dominated by yellow star thistle and other weeds.	Photograph of existing cut and fill disturbance in the center of the Study Area. This area is dominated by non-native grassland.

Special Status Plant Species

Special-status plant surveys occurred within the Study Area in 2005, 2006 (PBS&J 2008), and 2009 (WRA, 2009) and covered the following species with potential to occur on the entire Staples Ranch site: alkali milk-vetch (*Astragalus tener* var. *tener*); heartscale (*Atriplex cordulata*); brittlescale (*Atriplex depressa*); San Joaquin spearscale (*Atriplex joaquiniana*); big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*); big tarplant (*Blepharizonia plumosa*); Mt. Diablo fairy-lantern (*Calochortus pulchellus*); Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*); palmate-bracted bird's-beak (*Cordylanthus palmatus*); Diablo helianthella (*Helianthella castanea*); brewer's western flax (*Hesperonlinon breweri*); Contra Costa goldfields (*Lasthenia conjugens*); saline clover (*Trifolium depauperatum* var. *hydrophilum*); and caperfruited tropidocarpum (*Tropidocarpum capparideum*). None of these special-status plant species were observed within the Carmax Study Area during any of the previous focused, protocol-level surveys referenced above.

Special Status Wildlife Species

The 2007 Specific Plan determined that seven special-status wildlife species have a potential to occur in the Staples Ranch site, including the nearby Arroyo Mocho: California red-legged frog *(Rana aurora draytonii),* California tiger salamander *(Ambystoma californiense),* western pond turtle *(Emys (Clemmys) marmorata marmorata),* northern harrier *(Circus cyaneus),* white-tailed kite *(Elanus leucurus*) California horned lark *(Eremophila alpestris actia),* and loggerhead shrike *(Lanius ludovicianus).* The Study Area does not have suitable habitat for California red-legged frog, California tiger salamander, and western pond turtle, predominantly due to a lack of aquatic features and extensive site disturbance. In addition, recent protocol level surveys for these species were negative (PSB& J 2008). The following raptors have the potential to forage within the Study Area: northern harrier, white-tailed kite, California horned lark, and loggerhead shrike.

Summary and Recommendations

Based on the results of the May 7, 2013 site visit, and a review of previous site investigations, the Study Area does not contain any sensitive habitats or areas of potential jurisdictional wetlands. In addition, the Study Area is unlikely to support special-status plant species.

Some foraging and nesting habitat may be present for special-status raptors and common bird species. Shrubs and dense vegetation may contain the nests of birds protected by the Federal Migratory Bird Treaty Act (MBTA). The MBTA-protected breeding birds include common bird species and special-status species such as the white-tailed kite, northern harrier, California horned lark, and loggerhead shrike. The Study Area contains viable nesting habitat. For instance, the California horned lark typically makes its nest in depressions on the ground in the open; grasses, shrubs, forbs, rock, litter, clods of soil and other ground materials provide cover for the bird. Should of mass grading commence between February 15 and August 15, including grading for major infrastructure improvements, an avian nesting survey shall be conducted of all habitat within 350 feet of any grading or earthmoving activity. The survey shall be conducted by a qualified biologist, and occur no more than 21 days prior to disturbance. If no active nests are found, no further action is required. If nesting birds are discovered in the tree, it will likely be necessary to implement mitigation measures outlined in the 2008 Specific Plan:

> If active nests for special-status avian species or raptor nests are found within the construction footprint, construction activities shall be delayed within a minimum 500-foot buffer zone surrounding active raptor nests and a minimum 250-foot buffer zone

surrounding nests of other special-status avian species until the young have fledged. This buffer zone shall not extend beyond the Staples Ranch site. The appropriate buffer can be modified by the City in consultation with qualified biologists and the CDFG. No action other than avoidance shall be taken without CDFG consultation. Completion of the nesting cycle shall be determined by a qualified ornithologist or biologist, as determined by the City. The buffer zone shall be delineated by highly visible temporary construction fencing, and no intensive disturbance (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the established buffer zone of an active nest.

-Mitigation Measure BIO-5.1; Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR (PBS&J 2008)-

Please feel free to contact me with any questions or comments.

Sincerely,

Leslie Lazarotti

Leslie Lazarotti
Associate Biologist
WRA, Inc.

Attachments

1. Figure: Study Area and Location Map

References

California Department of Fish and Wildlife (CDFW). 2013. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA.

California Native Plant Society (CNPS). 2013. Inventory of Rare and Endangered Plants of California. California Native Plant Society, Sacramento, California. Online at: http://www.rareplants.cnps.org; most recently accessed: May 13, 2013.

PBS&J. 2008. Stoneridge Drive Specific Plan Amendment/Staples Ranch EIR. Prepared for the City of Pleasanton.

United States Fish and Wildlife Service (USFWS). 2013. Dublin and Livermore Quadrangle Species Lists, Sacramento Fish and Wildlife Service.

WRA, Inc. 2009. Letter Correspondence to Brian Dolan of the City of Pleasanton: Staples Ranch San Joaquin Spearscale Survey. August 18, 2009.

WRA, Inc. 2006. Delineation of Section 404 Potentially Jurisdictional Wetlands and Waters: Staples Ranch, Pleasanton, Alameda County, California.

Figure 1. Study Area

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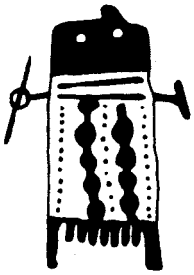
wra
ENVIRONMENTAL CONSULTANTS

Carmax Pleasanton
Alameda, California

Date: May 2013
Map By: Michael Rochelle
Basemap: Google Earth Aug. 2012 Aerial

Path: L:\Acad 2000 Files\22000\22302\gis\arcmap\Location_2012 Image.mxd

Appendix C:
Cultural Resources Feasibility Review



June 20, 2013

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Mr. Pedro Espinosa, PE, GE
Senior Engineer
ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA 94583

RE: Cultural Resources Services - Feasibility Review, Interstate 580 and El Charro Road, APN 946-4623-1, City of Pleasanton, Alameda County

Dear Mr. Espinosa,

Please let this letter stand as Basin Research Associates' report for a *Cultural Resources Feasibility Review* for the above project. This document report provides the results of a records search conducted by the California Historical Resources Information System, Northwest Information Center (CHRIS/NWIC), Sonoma State University, Rohnert Park; a limited literature review of materials on file with BASIN and with ENGEO; and, focused consultation with the Native American Heritage Commission (NAHC) in order ascertain whether cultural resources are located in or adjacent to the proposed project. A field review was not conducted.

PROJECT DESCRIPTION AND LOCATION

The proposed project plans to construct a commercial facility on a currently undeveloped parcel in the southwest corner of the Fallon Road and El Charro Road interchange with Interstate 580, Pleasanton, Alameda County (APN 946-4623-1). The approximately 19.77 acre project is bounded by I-580 on the north; a proposed entry drive from Stone Ridge Drive on the south with undeveloped land and El Charro Road to the east; Stoneridge Drive on the south; and, a Continuing Life Communities development to the west (United States Geological Survey (hereafter USGS) Livermore, Calif. 1980; T 3 South R 1 East, unsectioned) [Figs. 1-4].

ARCHAEOLOGICAL REVIEW RATIONALE

This report was prepared to determine the presence/absence of cultural resources that could affect development within the parcel based on a literature and archive review. A systematic field inspection was not undertaken.

RESEARCH SOURCES CONSULTED

A prehistoric and historic site record and literature search was conducted by the CHRIS/NWIC (File No. 12-1259 dated May 21, 2013 by Much).

Reference material from the Bancroft Library, University of California, Berkeley and Basin Research Associates, San Leandro was also consulted. Specialized listings included the *Historic Properties Directory* for Alameda County (CAL/OHP 2012) and list of *California Historical Resources* (CAL/OHP 2013) with the most recent updates of the National Register of Historic Places; California Historical Landmarks; and, California Points of Historical Interest as well as other evaluations of properties reviewed by the State of California Office of Historic Preservation. Other sources included: *California History Plan* (CAL/OHP 1973); *California Inventory of Historic Resources* (CAL/OHP 1976); *Five Views: An Ethnic Sites Survey for California* (CAL/OHP 1988); *Historic Civil Engineering Landmarks of San Francisco and Northern California* (ASCE 1977); list of *Historic Civil Engineering Landmarks* (ASCE 2013), and other lists and maps (see References Cited and Consulted). In addition, ENGEO provided various client supplied documents including the Staples Ranch EIR previously completed for the City of Pleasanton that includes the present project area.

INDIVIDUALS, AGENCIES AND GROUPS

The Native American Heritage Commission (NAHC) was requested to review the *Sacred Lands Inventory* for resources within and adjacent to the project (Busby 2013).

No other agencies, departments or local historical societies were contacted.

FINDINGS

No potentially significant archaeological, Native American (Pilas-Treadway 2013) or built environment resources listed or eligible for the National Register of Historic Places (NRHP) and/or California Register of Historical Resources (CRHR) are present within or adjacent to the proposed project.

RECORDS SEARCH RESULTS (CHRIS/NWIC File No. 12-1259)

No prehistoric, combined prehistoric/historic or historic sites have been recorded or reported in or adjacent to the project.

One historic structure, P-01-001776, a portion of the channelized Arroyo Mocho Canal (Anonymous 1974; Canzonieri 2006/forms) is located approximately 1300 feet to the south of the parcel's southern boundary. This natural watercourse was channelized and used as a drainage canal in the late 19th century. As part of flood control efforts continuing since the mid-1960s to 2003, it was realigned, straightened, widened and deepened by Zone 7 of the Alameda County Flood Control and Water Conservation District. Ongoing maintenance operations consist of weed removal, bank repair, and silt removal with the silt removed about every five years with a dragline and disposed of off-site. It is illustrative of the general type and/or method of flood control channels built after World War II.

Nine (9) cultural resources compliance reports on file at the CHRIS/NWIC include the project and/or area adjacent (Love et al. 1976/S-898; Holman 1988/S-10456; Busby 1999/S-23085; Basin Research Associates 2000/S-24986; Rosenthal et al./2006/S-31701; Rosenthal and Byrd 2006/S-33555; Pastron and Touton 2011/S-39330; Pastron and Touton 2011/S-39331). The reports are negative for cultural resources in and/or adjacent to the proposed project.

The Pastron and Touton (2011a-b) reports include the project area and present both an archaeological testing plan and a supplemental archaeological monitoring plan for the Stoneridge Creek Project to the immediate west of the project parcel and the rerouting and extension of Stoneridge Drive to El Charro Road including the construction of a new bridge over *Arroyo Mocho*. Subsurface testing and archaeological monitoring were undertaken from June 2011 to July 2012 (Pastron and Touton 2013). The testing program did not expose and subsurface cultural deposits either within the new Stoneridge Drive alignment near the banks of the Arroyo Mocho or in the area slightly west of Stoneridge Drive near the former alignment of *Arroyo Las Positas*. Archaeological monitoring by one and two-person teams for the Continuing Life Communities Stoneridge Creek development immediately west and southwest of the current project also did not expose any surface or subsurface archaeological deposits.

OTHER RESOURCES REVIEW

- The map of *Archaeological Sensitivity in Alameda County* shows the project within an area of high sensitivity (Quaternary Research Group 1976).[1]
- None of the known late 19th and/or early 20th century "Indian Mounds" have been reported or mapped in or adjacent to the project (Whitney 1873).
- No known Native American ethnographic villages have been identified in or adjacent to the project (e.g., Kroeber 1925:465, Fig. 42; Levy 1978:485, Fig. 1; Milliken 1995:229, Map 5; Milliken 2008:5, Fig. 2). The closest Ohlone tribelet was the *sewnen* (El Valle) centered near Livermore (Bennyhoff 1977:Map 2; Levy 1978:485, Fig. 1, #7). Following Milliken (1995:251, 254-255), the *Souyen* were the closest to the project – they held the north side of the marsh that once existed in the western Livermore Valley and area north up the Tassajara Creek drainage into the southern foothills of Mount Diablo.
- No recorded, reported, and/or known Hispanic historic archaeological sites have been identified in or adjacent to the project (Hendry and Bowman 1940). The project was located within former *Rancho Santa Rita* (e.g., Dyer 1862; USGS 1980; USNPS 1995).
- No recorded, reported, and/or known American era historic archaeological sites have been identified in or adjacent to the project (Higley 1857; Thompson and West 1878:52 USGS 1906 [surveyed 1904]; US War 1943 [photography 1937]; USGS 1953).

1. Note: the map was compiled using recorded archaeological site information current as of 1975.

SUMMARY

The general area is located within a sensitive archaeological area due at least four recorded prehistoric archaeological resources in the general area and the presence of various sources of flowing water including the channelized Arroyo Mocho to the south (see Pastron and Touton 2013). Watercourses and immediately adjacent areas were key points of prehistoric occupation in the TriValley area with Native American groups exploiting a variety of ecological niches in the vicinity of riparian, marsh, lacustrine and riverine resources.

The review of reports and other archival materials for the proposed project suggests a low to low-moderate sensitivity for surface and subsurface prehistoric archaeological resources within the proposed project. Archaeological monitoring of subsurface construction to the immediate west and southwest of the current project did not result in the discovery of any prehistoric cultural deposits.

No other local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified within or adjacent to the project.

POTENTIAL CULTURAL RESOURCE IMPACTS AND MITIGATION MEASURES

No recorded archaeological resources are present within the project area. Archaeological monitoring of subsurface construction to the immediate west and southwest did not result in the discovery of any archaeological resources. However, due to the perceived archaeological sensitivity of the general area, two mitigation measures are recommended to protect any unexpected cultural resource discoveries including Native American burials from construction impacts during future excavation

IMPACTS

A project that may cause a substantial adverse change in the significance of a cultural resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of a cultural resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. The significance of a cultural resource is materially impaired when a project:

> Demolishes or materially alters in an adverse manner those physical characteristics of a cultural resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or,
>
> Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of cultural resources pursuant to section PRC 5020.1(k) or its identification in a cultural resources survey meeting the requirements of PRC 5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or,
>
> Demolishes or materially alters in an adverse manner those physical characteristics of a cultural resource that convey its historical significance and that justify its eligibility for

inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Potential Impacts

The project could potentially affect as yet unknown prehistoric cultural resources within the parcel. Potential impacts include:

Potential Impact CR-1: The potential to cause a substantial adverse change in the significance of archeological resources pursuant to §15064.5.

Previously unknown archaeological resources could be exposed during ground disturbing construction operations associated with roadway, utility, and/or drainage improvements and/or residential development. Construction operations could result in the inadvertent exposure of buried prehistoric or historic archaeological materials that could be eligible for inclusion on the CRHR (PRC Section 5024.1) and/or meet the definition of a unique archeological resource as defined in Section 21083.2 of the Public Resources Code (PRC).

This significant impact would be reduced to a less-than-significant impact with implementation of Mitigation Measure CM-1 which requires the review, identification, evaluation and treatment of any significant archaeological finds by a Professional Archaeologist at the time of discovery.

Potential Impact CR-2: The potential to disturb any human remains, including those interred outside of formal cemeteries.

Previously unknown Native American human remains could be exposed during ground disturbing construction operations associated with roadway, utility, and/or drainage improvements and/or residential development. Construction operations could result in the inadvertent exposure of buried prehistoric or protohistoric (ethnographic) Native American human remains.

This significant impact would be reduced to a less-than-significant impact with implementation of Mitigation Measure CM-2 which requires that the treatment of human remains and or associated or unassociated funerary objects during any soil-disturbing activity must comply with applicable state law.

MITIGATION MEASURES

Mitigation measures for potential project impacts are provided below.

CM-1

(a) The project proponent shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials.

(b) The project proponent shall retain a Professional Archaeologist to provide pre-construction briefing(s) to supervisory personnel of any excavation contractor to alert them to the possibility of exposing significant prehistoric archaeological resources within the project area. The briefing shall discuss any archaeological objects that could be exposed, the need to stop excavation at the discovery, and

the procedures to follow regarding discovery protection and notification of the project proponent and archaeological team.

(c) The project proponent shall retain a Professional Archaeologist to perform regular periodic or "spot-check" archaeological monitoring during ground disturbing to check for the inadvertent exposure of cultural materials. Full-time archaeological monitoring is not required as the results of prior monitoring to the immediate west and southwest suggest a low to low-moderate sensitivity for the project. If any potentially significant cultural materials[2] are exposed or discovered during either site preparation or subsurface construction activities within the project area, operations should stop within 50 feet of the find and a Professional Archaeologist contacted for further review (see CM-1(d)). Any professional archaeologists shall have appropriate regional experience. The completion of a formal *Archaeological Monitoring Plan* (AMP) is not required. A *Monitoring Closure Report* (MCR) shall be filed with the City of Pleasanton at the conclusion of ground disturbing construction.

(d) The project proponent shall retain a Professional Archaeologist on an "on-call" basis during ground disturbing construction for the project to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).

(e) If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommended mitigation measures to mitigate to a less-than significant impact. Mitigation measures may include avoidance, preservation in-

---

2. Significant prehistoric cultural resources may include:

   a. Human bone - either isolated or intact burials.
   b. Habitation (occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
   c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
   d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
   e. Isolated artifacts

   Historic cultural materials may include finds from the late 19th through early 20th centuries. Objects and features associated with the Historic Period can include.

   a. Structural remains or portions of foundations (bricks, cobbles/boulders, stacked field stone, postholes, etc.).
   b. Trash pits, privies, wells and associated artifacts.
   c. Isolated artifacts or isolated clusters of manufactured artifacts (e.g., glass bottles, metal cans, manufactured wood items, etc.).
   d. Human remains.

   In addition, cultural materials including both artifacts and structures that can be attributed to Hispanic, Asian and other ethnic or racial groups are potentially significant. Such features or clusters of artifacts and samples include remains of structures, trash pits, and privies.

place, recordation, additional archaeological testing and data recovery among other options. Treatment of any significant cultural resources shall be undertaken with the approval of the project proponent and the City of Pleasanton.

CM-2

The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity within the project shall comply with applicable State laws. This shall include immediate notification of the Alameda County Medical Examiner.

In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission (NAHC), is required who shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California Public Resources Code allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project will follow PRC Section 5097.98(b) which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

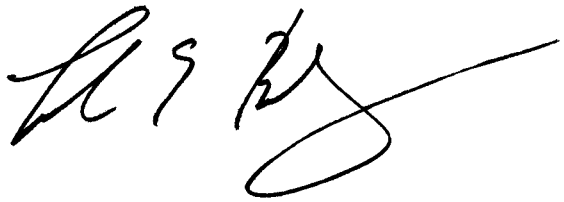
RECOMMENDATIONS

It is recommended, based on the review of pertinent records, maps and other documents that the proposed project can proceed as planned with the recommended mitigation measures to protect potential archaeological resources that could be exposed during construction. No additional archival or field research appears warranted.

CLOSING REMARKS

If I can provide any additional information or be of further service please don't hesitate to contact me.

BASIN RESEARCH ASSOCIATES, INC.



Colin I. Busby, Ph.D., RPA
Principal

CIB/dg
Enclosures

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Abbreviations

n.d. no date
v.d. various dates
N.P. no publisher noted
n.p. no place of publisher noted

Note: "CHRIS/NWIC, Sonoma State University, Rohnert Park" is used for material on file at the California Historical Resources Information System, Northwest Information Center, Sonoma State University, Rohnert Park.

ATTACHMENTS

LIST OF FIGURES

Figure 1: General Project Location

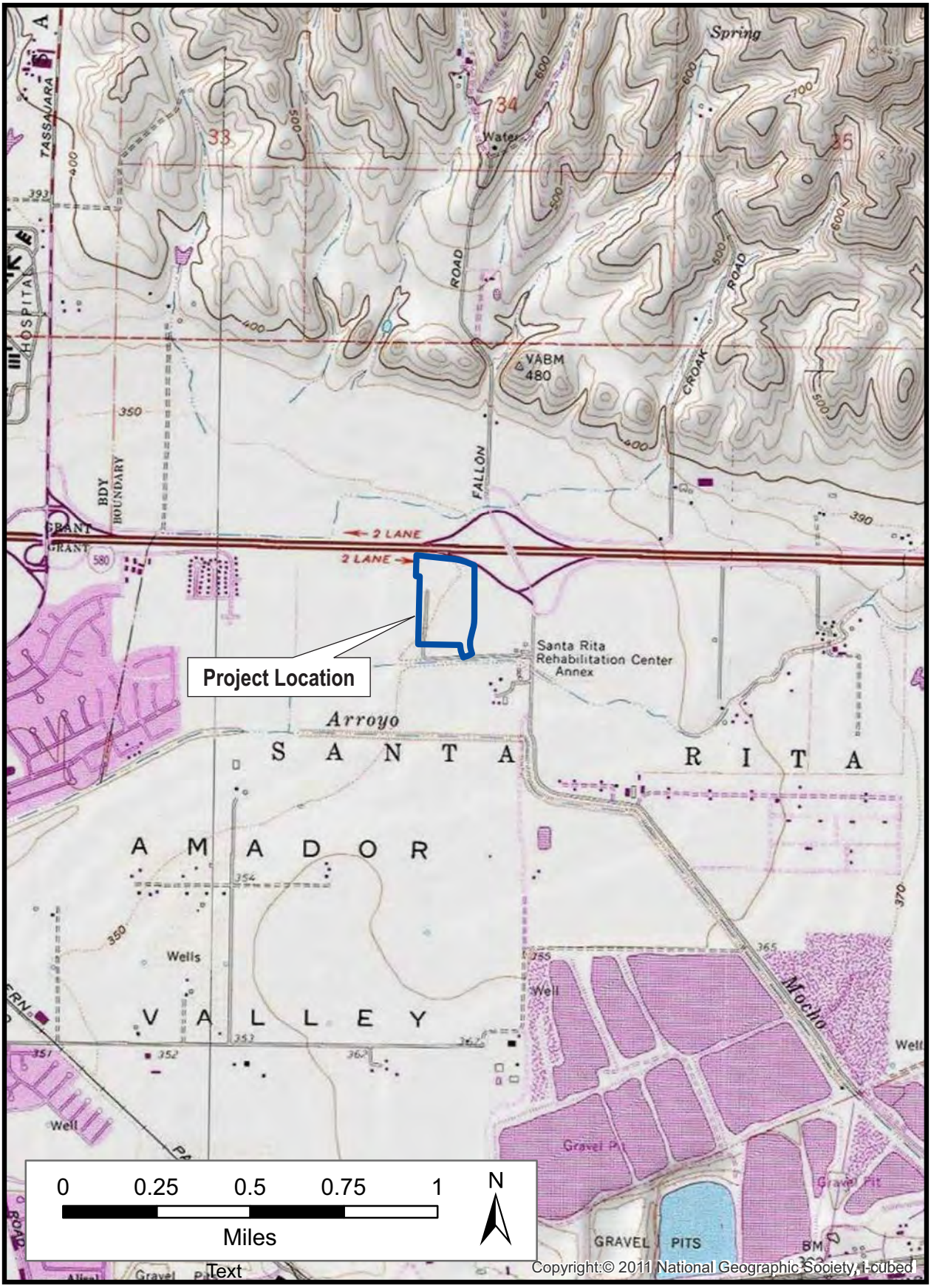

Figure 2: Project Location (USGS Dublin, Calif. 1980 and Livermore, Calif. 1980)

Figure 3: Aerial View of Project Area

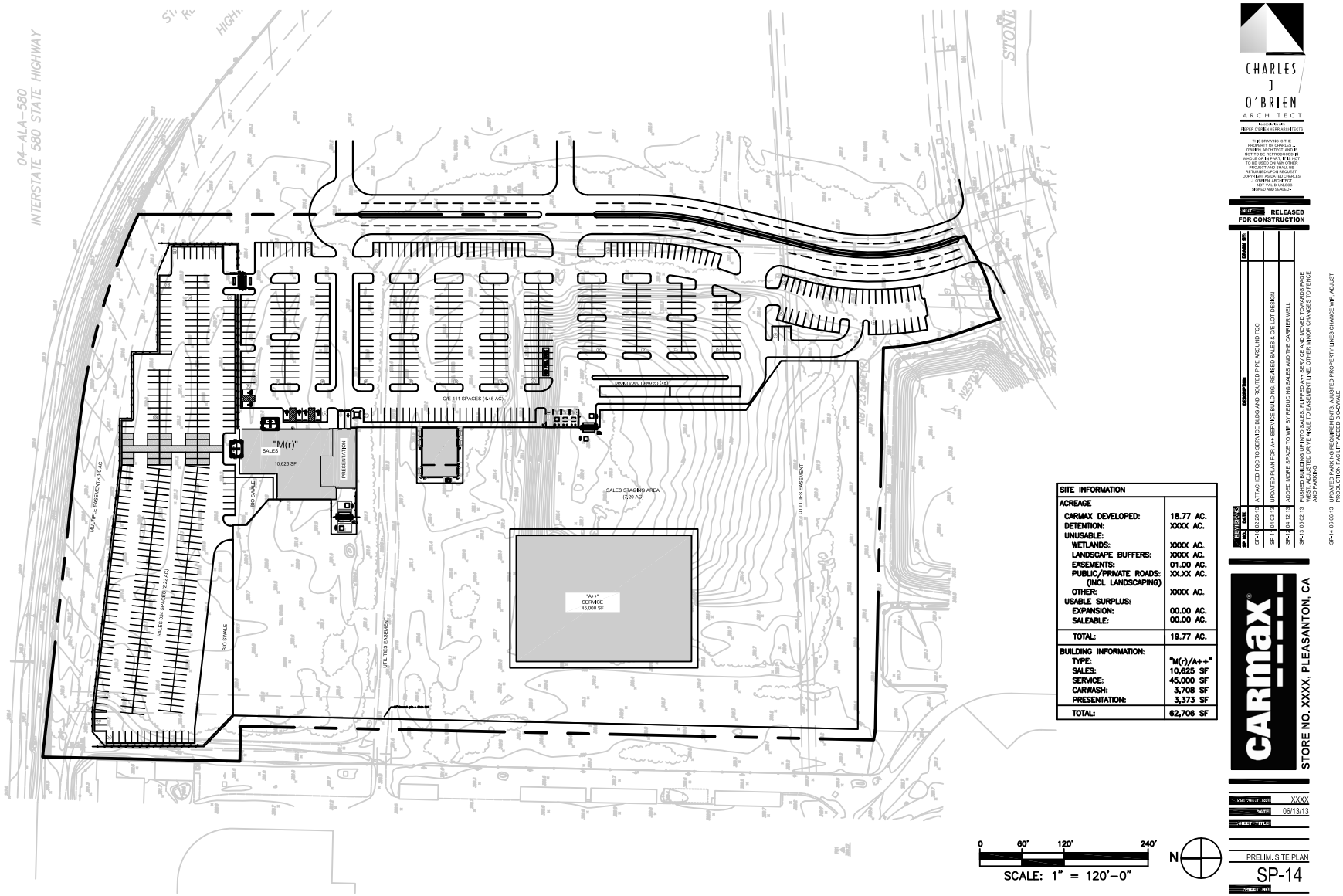

Figure 4: Proposed Plan

Appendix D: Geotechnical Report

GEOTECHNICAL REPORT

CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

Submitted to:
Ms. Amanda Steinle
CenterPoint Integrated Solutions, LLC
1240 Bergen Parkway, Suite A-250
Evergreen, Colorado

Prepared by:
ENGEO Incorporated

June 24, 2013

Project No:
10237.000.000

Project No.
10237.000.000

June 24, 2013

Ms. Amanda Steinle
CenterPoint Integrated Solutions, LLC
1240 Bergen Parkway, Suite A-250
Evergreen, CO 80439

Subject: CarMax Automotive Dealership
I-580 and El Charro Road
Pleasanton, California

GEOTECHNICAL EXPLORATION REPORT

Dear Ms. Steinle:

We are pleased to present this geotechnical report for the CarMax Automotive Dealership in Pleasanton, California, as outlined in our agreement executed on May 7, 2013. Based on the exploration data and laboratory test results, it is our opinion that from a geotechnical standpoint the proposed development is feasible, provided the recommendations included in this report are incorporated into design and implemented during construction.

The main geotechnical concerns regarding the planned addition are (1) proper foundation types for support of the commercial structure to reduce differential movement (2) potential adverse impact expansive soil may pose on future site improvements and foundations; and (3) presence of undocumented fill within proposed building footprints.

Our experience and that of our profession clearly indicate that the risk of costly design, construction, and maintenance problems can be significantly lowered by retaining the design geotechnical engineering firm to review the project plans and specifications and provide geotechnical observation and testing services during construction. Please let us know when working drawings are nearing completion, and we will be glad to discuss these additional services with you.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated

Annamarie Usher, EIT

Pedro Espinosa, GE

Theodore P. Bayham, GE

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

We prepared this geotechnical report for design of the CarMax Automotive Dealership in Pleasanton, California as outlined in our agreement dated April 17, 2013. CenterPoint Integrated Solutions, LLC authorized us to conduct the proposed scope of services, which included the following:

- Service plan development
- Subsurface field exploration
- Soil laboratory testing
- Data analysis and conclusions
- Report preparation

For our use, we received the following:

1. Request for Proposal for Geotechnical and Environmental Services for Automotive Dealership in Pleasanton, California, dated December 7, 2012.

2. The Proposed Boring Location Plan and Preliminary Site Plan provided by CenterPoint Integrated Solutions, dated April 24, 2013.

3. Preliminary Site Plan provided by CenterPoint Integrated Solutions, dated June 13, 2013.

4. ALTA Survey, Surplus Property Authority Alameda County, MacKay & Somps, dated April 29, 2013.

5. Topographic Survey, Portion of Lot 1 Tract 8020, MacKay & Somps, dated May 2013.

6. Preliminary Geotechnical Investigation, Staples Ranch, Highway 580 and El Charro Road, Pleasanton, California, Berlogar Geotechnical Consultants, dated September 30, 2008.

7. Design-Level Geotechnical Investigation, Stoneridge Drive Extension and 5-Acre Neighborhood Park, Staples Ranch at El Charro Road, Pleasanton, California, Berlogar Geotechnical Consultants, dated September 4, 2009.

8. Assessment of Existing Soil Stockpiles, Staples Ranch, El Charro Road and Highway 580, Pleasanton, California, Berlogar Geotechnical Consultants, dated December 13, 2010.

9. Preliminary Geotechnical and Geologic Due Diligence Evaluation for the Proposed 37-Acre Hendrick Automotive Mall Site, Pleasanton, California, Kleinfelder, dated October 24, 2006.

10. Geotechnical Evaluation of Sol Stockpile at the Proposed 37-Acre Hendrick Automotive Mall Site, Pleasanton, California, Kleinfelder, dated August 16, 2007.

This report was prepared for the exclusive use of CenterPoint Integrated Solutions, CarMax Auto Superstores California, LLC and their consultants for design of this project. In the event that any changes are made in the character, design or layout of the development, we must be contacted to review the conclusions and recommendations contained in this report to determine whether modifications are necessary. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without our express written consent.

1.2 PROJECT LOCATION

The project site is currently an undeveloped parcel located near the intersection of I-580 and El Charro Road off Stoneridge Drive in Pleasanton, California (Figure 1). The approximately 19.77-acre site is the western portion of the parcel identified as Assessor's Parcel Number (APN) 946-4623-1 on the Alameda County Assessor's Parcel Map. Based on the ALTA-Survey provided by MacKay & Somps, the site is generally level terrain with an approximate elevation of 351 feet (NGVD 29). An existing stockpile is located on the southern side of the site. It is our understanding that the approximately 30,000 cubic yards stockpile will remain on site for use in future grading or off-haul. Prior to May 15, 2013, the existing stockpile was approximately 60,000 cubic yards. We understand that the southern half of the stockpile was moved to an adjacent location outside of the study area.

The project site boundary was adjusted based on the Preliminary Site Plan dated June 13, 2013, after our field exploration. In general, the adjusted site plan is a boundary shift of approximately 50 feet east. The proposed buildings layouts were shifted east as a result of the boundary adjustment.

1.3 PROJECT DESCRIPTION

We understand the proposed development for the site is an automotive dealership consisting of the following:

- A sales office with an approximate area of 10,625 square feet (sq. ft.).
- A service center with an approximate area of 45,000 sq. ft.
- A car wash with an approximate area of 3,708 sq. ft.
- Car lifts with a capacity of 10,000 pounds and an assumed weight of 2,000 pounds.
- Asphalt and Portland Concrete paved parking and drives.
- Site masonry walls.
- Underground utilities.
- Other associated improvements.

According to the Request for Proposal, maximum building column loads of 120 kilo-pounds (kips) and maximum wall loads of 4 kips are expected. We understand settlements of 1 inch total and ½ inch differential over 40 feet are tolerable.

1.4 EXISTING GEOTECHNICAL DATA

We reviewed available geotechnical reports for previous projects within the site vicinity. The attached list of Selected References includes the existing geotechnical reports reviewed as part of this exploration.

2.0 FINDINGS

2.1 FIELD EXPLORATION

Our field exploration included drilling 48 borings, and advancing 5 Cone Penetration Test (CPT) soundings at various locations on the site. We performed our field exploration between May 6, 2013 and May 15, 2013. The locations of our explorations shown on Figure 2 are approximate and were estimated by pacing from points of interest on the site and the elevations are based on ALTA-Survey prepared by MacKay & Somps; these should be considered accurate only to the degree implied by the method used. We permitted and backfilled the explorations in accordance with the requirements of Alameda County Water District Zone 7.

2.1.1 Borings

We retained a truck-mounted rig equipped with 8-inch-diameter hollow stem auger drill bit to drill seven exploratory borings to a maximum depth of approximately 40 to 50 feet below existing grade. We retained a truck-mounted rig equipped with 6-inch-diameter solid flight auger to drill forty-one exploratory borings to a maximum depth of approximately 20 to 40 feet below existing grade. The borings were logged in the field and soil samples were collected using either a 2½-inch inside diameter (I.D.) California-type split-spoon sampler fitted with 6-inch-long steel liners, a 2-inch outside diameter (O.D.) or a Standard Penetration Test split-spoon sampler. The penetration of the samplers was recorded as the number of blows needed to drive the sampler 18 inches in 6-inch increments. The boring logs record blow count results as the actual number of blows required for the last one foot of penetration; no conversion factors have been applied. The samplers were driven with a 140-pound hammer falling a distance of 30 inches employing an automatic trip system for the hollow stem auger drilling and a rope and cathead system for the solid flight auger drilling. We used the field logs to develop the report logs in Appendix A.

The boring logs graphically depict the subsurface conditions encountered at the time of the exploration, and they describe the soil type, color, consistency, and visual classification in general accordance with the Unified Soil Classification System (USCS). Subsurface conditions at other locations may differ from conditions occurring at these boring locations, and the passage of time may result in altered subsurface conditions. In addition, stratification lines represent the approximate boundaries between soil types, and the transitions may be gradual. Select samples

recovered during drilling activities were tested to determine various soil characteristics as described in Section 2.2.

2.1.2 Cone Penetration Tests

We retained a CPT rig to push the cone penetrometer to a maximum depth of about 50 feet. The CPT has a 20-ton compression-type cone with a 15-square-centimeter (cm^2) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm^2. The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with ASTM D-3441. Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and pore pressure (U) (Robertson and Campanella, 1988). CPT logs are presented in Appendix C.

2.2 LABORATORY TESTING

Select samples recovered during drilling activities were tested to determine various soil characteristics as presented on the following table.

TABLE 2.2-1
Laboratory Testing

Soil Characteristic	Testing Method	Location Of Results
Unit Weight and Moisture Content	ASTM D-2216 ASTM D-2937	Appendix A
Plasticity Index	ASTM D-4318	Appendix B
Passing #200 Sieve	ASTM D-1140	Appendix B
Unconfined Compression	ASTM D-2166	Appendix B
Unconsolidated Undrained Triaxial	ASTM D-2850	Appendix B
Resistance Value (R-Value)	Caltrans 301	Appendix B
Swell Test	ASTM D-2850	Appendix B
Corrosivity	ASTM D-1498, D-4972, G-57, D-4327, D-4327	Appendix B

The laboratory test results are shown on the borelogs (Appendix A), with individual test results presented in Appendix B.

2.3 GEOLOGY AND SEISMICITY

2.3.1 Geology

The project site is located in the Coast Ranges geologic province of California, which is dominated by a series of northwest-trending valleys and ridges. The Coast Ranges physiographic province is typified by a system of northwest-trending, fault-bounded mountain ranges and intervening alluviated valleys. Bedrock in the Coast Ranges consists of igneous, metamorphic and sedimentary rocks that range in age from Jurassic to Pleistocene. The present physiography and geology of the Coast Ranges are the result of deformation and deposition along the tectonic boundary between the North American plate and the Pacific plate. Plate boundary fault movements are largely concentrated along the well-known fault zones, which in the area include the San Andreas, Hayward, and Calaveras faults, as well as other lesser-order faults.

According to Dibble (2006), the site is situated in an area mapped as Quaternary alluvial deposits (Qa). The alluvium consists of interbedded layers of sand, silt, and clay with isolated gravelly lenses as shown on Figure 3.

2.3.2 Seismicity

The parcel is not located within a currently designated State of California Earthquake Fault Zone and no known faults are mapped on the site.

The region surrounding the proposed development contains numerous active earthquake faults. An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years) (Hart, 1997). We used the United States Geologic Survey (USGS) 2008 National Seismic Hazard Maps Fault Parameters to determine the distances of active faults to the subject site. The four nearest earthquake faults zoned as active by the USGS are the Mount Diablo Thrust fault, located approximately 2.6 miles to the north; the Calaveras fault, located approximately 4.2 miles to the west; the Greenville Connected fault, located approximately 7.7 miles to the east; and the Hayward Roger Creek fault, located approximately 10.8 miles to the west.

Numerous small earthquakes occur every year in the San Francisco Bay Region, and larger earthquakes have been recorded and can be expected to occur in the future. Figure 4 shows the approximate locations of these faults and significant historic earthquakes recorded within the San Francisco Bay Region.

The Working Group on California Earthquake Probabilities (WGCEP) (2007) evaluated the 30-year probability of a Magnitude 6.7 or greater earthquake occurring on the known active fault systems in the Bay Area. The WGCEP calculated an overall probability of 63 percent for the Bay Area as a whole and a probability of 31 percent for the Hayward fault.

2.4 SURFACE CONDITIONS

During our field exploration, we performed a brief site reconnaissance and observed the following site features:

- The site was generally level terrain. Based on the Topographic Survey prepared by MayKay & Somps, dated May 2013, the site elevation generally ranged from 349 to 352 feet (NGVD29).

- A stockpile was observed on southern portion of the site. Prior to May 15, 2013, the stockpile was observed to be approximately 60,000 cubic yards and after May 15, 2013, the stockpile was observed to be approximately 31,300 cubic yards. Based on the Topographic Survey prepared by MayKay & Somps, dated May 2013, the top of the stockpile was at elevation 369 feet (NGVD29). Thus, the height of the observed stockpile was approximately 20 feet.

- Seasonal tall grasses and vegetation were observed across the site. An unpaved gravel road extends on the western edge of the site.

- The surrounding area consists of I-580 to the north, a senior living community currently under development to the west, a neighborhood park currently under development to the south, and undeveloped open space and El Charro Road to the east.

Please refer to the Site Plan, Figure 2, for more information on site features.

2.5 SUBSURFACE CONDITIONS

Outside of the existing stockpile, generally the ground covering at the explored locations consisted of topsoil with light vegetation and tall seasonal grasses. Outside the stockpile our borings encountered fill consisting of a stiff to hard sandy lean clay in the upper 3 to 4 feet below the existing ground surface. Underlying the fill, native soils consisting of very stiff to hard plastic clays with an approximately thickness of 2 feet to 6 feet generally extending to depths of 7 to 10 feet below the existing ground surface were observed. Plasticity Indexes (PIs) ranged from 32 to 56 qualifying the material as highly expansive. Underlying the highly expansive clay, medium stiff sandy lean clay interbedded with layers of medium dense to dense clayey sand and stiff silts were observed.

Based on empirical correlations of the CPT data, the subsurface strata encountered in our CPTs are dominated by medium stiff to hard fine-grained material interbedded with sandy silt layers. A deeper sand layer was encountered in 1-CPT4 and was approximately 3 to 4 feet thick at a depth of 42 feet below the existing ground surface.

Based on our review of previous explorations, and the results of our current exploration, we understand that exiting stockpile is of clayey nature, with low to moderate expansion potential. The native material beneath the existing stockpile was found to be of the same nature as the native material outside of the stockpile.

The soil encountered in each boring is depicted on the exploration logs in Appendix A and the specific stratigraphy in each CPT sounding is depicted on the CPT logs in Appendix C.

2.6 GROUNDWATER CONDITIONS

The groundwater levels encountered during our field exploration ranged from 18 to 40 feet below ground surface, elevations of 310 to 330 (NGVD29). The California Geologic Survey (CGS, 2008) mapped the historical groundwater depth at site from 15 to 20 feet below ground surface. For design, we recommend using a depth to groundwater of 15 feet below existing ground surface or an elevation of 335 feet (NGVD29).

Fluctuations in groundwater levels may occur seasonally and over a period of years because of precipitation, changes in drainage patterns, irrigation, and water flow in nearby creeks, and other factors not evident at the time measurements were made.

3.0 DISCUSSION AND CONCLUSIONS

Based on the exploration data and laboratory test results, it is our opinion that, from a geotechnical standpoint, the proposed development is feasible provided the recommendations included in this report are incorporated into design and implemented during construction. The main geotechnical concerns regarding the planned addition are (1) proper foundation types for support of the commercial structure to reduce differential movement (2) potential adverse impact expansive soil may pose on future site improvements and foundations; and (3) presence of undocumented fill within proposed building footprints. Our conclusions and recommendations pertaining to these items, as well as related grading measures as discussed in the following sections of this report.

3.1 EXPANSIVE SOIL

As described in Section 2.5 of this report, we observed potentially expansive clays near the surface of the site in the exploratory borings. Our laboratory testing indicates that these soils exhibit high shrink/swell potential with variations in moisture content. Expansive soils change in volume with changes in moisture. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by (1) using a rigid mat or slab foundation which is designed to resist the deflections associated with the soil expansion; (2) deepening the foundations to below the zone of significant moisture fluctuation; or (3) using footings at normal depths but bottomed on a layer of soil receiving special subgrade treatment. Expansive soil mitigation recommendations are presented in Section 5.0 of this report.

Successful construction on expansive soils requires special attention during construction. It is imperative to keep exposed soils moist. It is extremely difficult to moisturize dry soil (because of its clayey nature) without excavation, moisture conditioning, and compaction.

3.2 EXISTING FILL AND EXISTING STOCKPILE

Based on our exploratory borings and historical photos we understand that in the past years the existing stockpile extended and additional 350 feet to the north. That section of the stockpile was removed sometime in early 2011 based on Google Earth historical images and historical aerials. This correlates well with our borings which indicate that the site is underlain by fill north of the current location of the stockpile. Based on our exploration, the fill is of the same nature as the existing stock pile and can be re-used as engineered fill. However, the fill under current conditions is undocumented since no test data was provided regarding compaction effort use to place it. Outside of the stockpile, the fill extends across the majority of the site in the upper 3 to 4 feet.

The presence of non-engineered (undocumented) fill can lead to excessive foundation settlement of structures as well as pavement subgrade instability due to variable soil density and material properties. We recommend complete removal and compaction of the existing fill within all building footprints. We present fill removal recommendations in Section 4.3.

3.3 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking and ground lurching. The following sections present a discussion of these hazards as they apply to the site. Based on topographic and lithologic data, the risk of lateral spreading, landslides, seiches is considered low to negligible at the site.

3.3.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

3.3.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the 2010 California Building Code (CBC) requirements, as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads.

3.3.3 Liquefaction

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses

associated with earthquakes. Empirical evidence indicates that loose fine-grained soil including low plasticity silt and clay are also potentially liquefiable. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop and liquefaction of susceptible soil to occur. If liquefaction occurs, and if the soil consolidates or vents to the surface during and following liquefaction, ground settlement and surface deformation may occur. Liquefaction is generally considered possible when the depth to groundwater is within about 50 feet from the ground surface and was analyzed as such in this report.

Based on the California Department of Conservation, California Geologic Survey (2006), the site is mapped within an area classified as having a "moderate to high" susceptibility to liquefaction (Figure 5). This liquefaction susceptibility mapping is based on regional geologic mapping of soil and rock deposits and is not based on site-specific exploration or analyses. However, the borings generally encountered medium stiff to hard clay material. In addition, the layers of sand encountered were interbedded and thin in nature.

An evaluation of liquefaction potential was performed using the CPT data with the software program Cliq (version 1.7.1.6) applying the methodologies published by Robertson (2009). We used the methods outlined by Robertson (2009) to estimate volumetric strains on "claylike" soils. Robertson recommends capping the volumetric strain for cohesive soils at 0.5%. We assumed a design groundwater level of 15 feet below existing ground surface, a peak ground acceleration (PGA) of 0.40g, and a moment magnitude (M_w) of 6.6. We evaluated the liquefaction potential for the soil encountered below the assumed water table. The results indicate that in general the fine-grained clay material at depths below 16 feet are potentially liquefiable. The results of the liquefaction analyses are attached as Appendix C.

Additionally, the PGA value of 0.68g corresponding to the estimated 2013 CBC seismic design parameters as discussed in Section 3.6 of this report was assumed for the evaluation of liquefaction potential.

3.3.3.1 Liquefaction-Induced Ground Settlement

We evaluated potential post-liquefaction ground settlement at the site using the CPT sounding and methods outlined in Zhang (2002). Based on our analysis of the CPTs from this study, we estimate that liquefaction-induced settlement of less than 0.5 inches may occur during a design seismic event. We estimate that the resulting differential settlement will be negligible.

Based on the PGA for the estimated 2013 CBC seismic design parameters, we estimate that liquefaction-induced settlement of less than 0.8 inches may occur during a design seismic event.

3.3.3.2 Lateral Spreading

Lateral spreading is a failure within weak soils, typically due to liquefaction, which causes a soil mass to move toward a free face, such as an open channel, or down a gentle slope. Even though

there are susceptible liquefiable layers identified on the site, the risk of lateral spreading is considered low due to the general flatness of the site.

3.3.4 Ground Lurching

Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form in weaker soils. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other locations in the Bay Area Region, but based on the site location, it is our opinion that the offset is expected to be nominal.

3.4 FLOODING

The project site is mapped within Zone AH as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for Alameda County, dated August 3, 2009, indicating that it is within an area of 1% annual chance flood. FEMA Flood Insurance Rate Map Zone AH indicts flood depths of 1 to 3 feet and usually areas of ponding. The Civil Engineer should review pertinent information relating to possible flood levels for the subject site based on the final pad elevation and provide appropriate design measures for improvement of the project, if necessary.

3.5 SOIL CORROSION POTENTIAL

A selected soil sample was collected and transported under proper chain-of-custody to CERCO Analytical, Inc. for laboratory testing. Samples were tested for redox potential, pH, resistivity, sulfate ion and chloride ion concentration. These tests provide an indication of the corrosion potential of the soil environment on buried concrete structures and metal pipes. The results of each of these tests are summarized below.

TABLE 3.5-1
Soil Corrosivity Test Results

Sample No.	Redox (mV)	pH	Resistivity* (ohms-cm)	Sulfate* (mg/kg)	Chloride* (mg/kg)
1-B14 @ 0.5’	310	8.2	2,600	31	91
1-B28 @ 0.5’	300	8.2	1,800	55	250

*Results reported on a wet weight basis

The 2010 CBC references 2008 American Concrete Institute Manual, ACI 318 (Chapter 4, Sections 4.2 and 4.3) for concrete requirements. ACI Tables 4.2.1 and 4.3.1 (reproduced below) provide the following sulfate exposure categories and classes and concrete requirements in contact with soil based upon the exposure risk.

TABLE 3.5-2
Sulfate Exposure Categories and Classes

Sulfate Exposure Category S	Exposure Class	Water- Soluble Sulfate in Soil % by Weight
Not Applicable	S0	$SO_4 < 0.10$
Moderate	S1	$0.10 \leq SO_4 < 0.20$
Severe	S2	$0.20 \leq SO_4 \leq 2.00$
Very Severe	S3	$SO_4 > 2.00$

TABLE 3.5-3
Requirements for Concrete by Exposure Class

Exposure Class	Max w/cm	Min f'c (psi)	Cement Type			Calcium Chloride Admixture
			ASTM C150	ASTM C595	ASTM C1157	
S0	N/A	2500	No Type restriction	No Type restriction	No Type restriction	No restriction
S1	0.5	4000	II†‡	IP(MS), IS(<70), (MS)	MS	No restriction
S2	0.45	4500	V‡	IP(HS), IS(<70), (HS)	HS	Not permitted
S3	0.45	4500	V + pozzolan or slag§	IP(HS) + pozzolan or slag or IS(<70) (HS) + pozzolan or slag§	HS + pozzolan or slag§	Not permitted

Notes: † For seawater exposure, other types of portland cements with tricalcium aluminate (C3A) contents up to 10 percent are permitted if the w/cm does not exceed 0.40.

‡ Other available types of cement such as Type III or Type I are permitted in Exposure Classes S1 or S2 if the C3A contents are less than 8 or 5 percent, respectively.

§ The amount of the specific source of the pozzolan or slag to be used shall not be less than the amount that has been determined by service record to improve sulfate resistance when used in concrete containing Type V cement. Alternatively, the amount of the specific source of the pozzolan or slag to be used shall not be less than the amount tested in accordance with ASTM C1012 and meeting the criteria in ACI 4.5.1.

In accordance with the criteria presented in the tables above, the test results are classified in the "not applicable" sulfate exposure range. Cement type, water-cement ratio and concrete strength are not specified by the CBC for this range. However, only limited testing was performed. Once more specifics of the proposed improvements are known, we can provide additional testing and/or guidance regarding the exposure risk for sulfates. It should be noted that the structural engineering design requirements for concrete might result in more stringent concrete specifications, and the final disposition of potential concrete elements is not known at this time.

We recommend a corrosion consultant be retained to determine if specific corrosion recommendations are necessary for the project. We present the analytical lab test results in Appendix B.

3.6 2010 AND 2013 CBC SEISMIC DESIGN PARAMETERS

We provide the 2010 and estimated 2013 California Building Code (CBC) seismic parameters in Table 3.6-1 for your use and comparison. The to-be-published 2013 CBC is scheduled to be adopted for implementation in January 2014. The seismic design parameters presented in the 2013 CBC seismic parameters will be based upon the 2012 International Building Code and the ASCE standard "Minimum Design Loads for Buildings and Other Structures" (ASCE 7-10) published in 2010. As an estimate of 2013 CBC seismic parameters, we used recently developed USGS Seismic Design Map online tool to develop ASCE 7-10 seismic design parameters (http://geohazards.usgs.gov/designmaps/us/application.php). Due to changes in methodology, the 2013 CBC seismic design parameters are higher than the 2010 CBC values. We used both the 2010 CBC Peak Ground Acceleration (PGA) of 0.4g based on the values presented in ASCE 7-05 and the Mapped MCE Geometric Mean PGA of 0.68g for liquefaction analysis based on values presented in ASCE 7-10. We classified this site as Site Class D.

TABLE 3.6-1
2010 and 2013 CBC Seismic Design Parameters

Parameter	Current Design Value 2010 CBC	Future Design Value 2013 CBC
Site Class	D	D
0.2 second Spectral Response Acceleration, S_S	1.50	1.80
1.0 second Spectral Response Acceleration, S_1	0.60	0.60
Site Coefficient, F_A	1.0	1.0
Site Coefficient, F_V	1.5	1.5
Maximum considered earthquake spectral response accelerations for short periods, S_{MS}	1.50	1.80
Maximum considered earthquake spectral response accelerations for 1-second periods, S_{M1}	0.90	1.90
Design spectral response acceleration at short periods, S_{DS}	1.00	1.20
Design spectral response acceleration at 1-second periods, S_{D1}	0.60	0.60
Long period transition-period, T_L	8 seconds	8 seconds

Site: Latitude = 37.6999; Longitude = -121.8525

4.0 EARTHWORK RECOMMENDATIONS

4.1 GRADING

All grading and site development plans should be reviewed by the project Engineering Geologist and the Geotechnical Engineer. Review of the corrective grading procedures for the site

including a quantitative analysis of the grading should be done prior to commencement of any construction work.

The project Geotechnical Engineer or qualified representative should be present during the site work to observe demolition, site preparation and grading operations. The Geotechnical Engineer should be notified a minimum of 72 hours prior to the commencement of any grading or stripping operations at the site. This is to provide time to coordinate the work with the Grading Contractor.

Ponding of stormwater, other than within engineered detention basins, should not be permitted at the site, particularly during work stoppage for rainy weather. Before the grading is halted by rain, positive slopes should be provided to carry the surface runoff to storm drainage structures in a controlled manner to prevent erosion damage.

4.2 GENERAL SITE CLEARING

Site development will commence with the general clearing of the site and the excavation and removal of buried structures, including abandoned utilities. Site development should include removal of vegetation, debris, loose soil, and soft compressible materials in any location to be graded. Any soft compressible soils should be removed from areas to receive fill or structures. Subject to approval by the Landscape Architect, strippings and organically contaminated soils can be used in landscape areas. Otherwise, such soils should be removed from the project site. Any topsoil that will be retained for future use in landscape areas should be stockpiled in areas where it will not interfere with grading operations.

All excavations from demolition and stripping below design grades should be cleaned to a firm undisturbed soil surface determined by the Geotechnical Engineer. This surface should then be scarified, moisture conditioned, and backfilled with compacted engineered fill. The requirements for backfill materials and placement operations are the same as for engineered fill.

No loose or uncontrolled backfilling of depressions resulting from demolition or stripping is permitted.

4.3 EXISTING FILL REMOVAL

Remove all existing fill to competent native soil in the planned building and CMU wall areas, as determined by an ENGEO representative. It is not anticipated that the existing fills will need to be completely removed in the pavement areas, provided these are demonstrated during grading to be stiff and suitable to remain in place. The extent of fill removal in pavement areas should be determine by the Geotechnical Engineer or Certified Engineering Geologist during site grading. The lateral extent and depth of fill is expected to vary; however, based on our borings the non-engineered fill extends across the site in the upper 3 to 4 feet.

As a minimum in areas of existing fill removal and recompaction, we recommend removal of existing fill) a minimum horizontal extend of 5 feet outside of the building footprints and 2 feet outside the CMU footprint.

The fill and loose soils outside the building footprint "zone" should be overexcavated to a depth of at least 12-inches and replace with engineered fill (the required subexcavation depth may vary depending on whether these are demonstrated to be stiff and suitable to remain in place during grading). After removal, the exposed non-yielding surface should be scarified to a depth of 12 inches and recompacted to provide adequate bonding with the initial lift of fill.

4.4 OVER-OPTIMUM SOIL MOISTURE CONDITIONS

The contractor should anticipate encountering excessively over-optimum (wet) soil moisture conditions during winter or spring grading, or during or following periods of rain. Wet soil can make proper compaction difficult or impossible. Wet soil conditions can be mitigated by:

1. Frequent spreading and mixing during warm dry weather;
2. Mixing with drier materials;
3. Mixing with a lime, lime-flyash, or cement product; or
4. Stabilizing with aggregate, geotextile stabilization fabric, or both.

Options 3 and 4 should be evaluated and approved by ENGEO prior to implementation.

4.5 ACCEPTABLE FILL

Onsite soil is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and particles greater than 4 inches in maximum dimension. Imported fill materials should be approved by the Geotechnical Engineer, meet the above requirements and have a plasticity index similar to, or less than, the onsite site materials. Allow ENGEO to sample and test proposed imported fill materials at least 72 hours prior to delivery to the site.

The existing stockpile currently on site is suitable for use as select engineered fill based on our subsurface exploration and our review of the existing geotechnical data mentioned in Section 1.4.

4.6 FILL COMPACTION

4.6.1 Grading in Structural Areas

We define "structural areas" as any area sensitive to settlement of compacted soil. These areas include, but are not limited to building pads, sidewalks, pavement areas, and retaining walls. After removal of the loose/disturbed soil, the exposed non-yielding surface of areas to receive backfill/structures should be scarified to a depth of 8 inches, moisture conditioned, and recompacted. All fills should be placed in thin lifts that do not exceed 8 inches. The loose lift

thickness should not exceed 8 inches or the depth of penetration of the compaction equipment used, whichever is less.

The following compaction control requirements should generally be applied to general fills:

Test Procedures:	ASTM D-1557 (most recent).
Required Moisture Content:	Not less than 3 percentage points above optimum moisture content for non-expansive select fill (PI<15). Not less than 5 percentage points above optimum moisture content for moderately to highly expansive material (PI>15).
Minimum Relative Compaction:	Not less than 90 for non-expansive select fill (PI<15). Between 87 to 90 for moderately to highly expansive material (PI>15).

4.7 SITE SURFACE DRAINAGE

The project civil engineer is responsible for designing surface drainage improvements. With regard to geotechnical engineering issues, we recommend that finish grades be sloped away from buildings and pavements to the maximum extent practical to reduce the potentially damaging effects of expansive soil. The latest California Building Code Section 1804.3 specifies minimum slopes of 5 percent away from foundations. Where lot lines or surface improvements restrict meeting this slope requirement, we recommend that specific drainage requirements be developed. As a minimum, we recommend the following:

1. Discharge roof down spouts into closed conduits and direct away from foundations to appropriate drainage devices.

2. Consider the use of rear lot surface drainage collection systems to reduce overland surface drainage from back to front of lot.

3. Do not allow water to pond near foundations, pavements, or exterior flatwork.

4.8 EXTERIOR FLATWORK

Exterior flatwork includes items such as concrete sidewalks, steps, and outdoor courtyards exposed to foot traffic only. Provide a minimum section of 6 inches of concrete over 4 inches of aggregate base. The thickness of concrete can be reduced to 4 inches if the subgrade consists of 18 inches of non-expansive soil. The contractor should:

1. Compact the aggregate base to at least 90 percent relative compaction (ASTM D1557).

2. Thicken flatwork edges to at least 8 inches to help control moisture variations in the subgrade and place wire mesh or rebar within the middle third of the slab to help control the width and offset of cracks.

3. Construct control and construction joints in accordance with current Portland Cement Association Guidelines.

5.0 FOUNDATION RECOMMENDATIONS

The main considerations in foundation design for this project are expansive soil or differential movement due to the swell potential of the site's foundation soils. We developed foundation recommendations using data obtained from our field exploration, laboratory test results, and engineering analysis. The following three recommended foundation options address the effects of the native expansive soil and differential soil movement:

- Structural mat foundation;
- Post-tensioned mat;
- Shallow foundations with slab-on-grade.

5.1 STRUCTURAL MAT FOUNDATIONS

The proposed commercial structure can be supported on a structural mat foundation system. We anticipate that structural mats constructed on swelling soils will move differentially. Structural mats may need to be stiffened to reduce differential movements due to swelling/shrinkage to a value compatible with the type of superstructure that will be constructed on them. The structural engineer should be consulted on this matter.

A minimum mat thickness of 12 inches is recommended. The perimeter should be thickened by 2 inches, and the minimum soil backfill height against the slab at the perimeter should be 6 inches. Mat foundations should be designed for a uniform bearing pressure of 1,500 pounds per square foot (psf) for dead-plus-live load. This value may be increased to 2,000 psf under individual columns or walls to accommodate stress concentrations at those locations. These values can be increased by one-third for seismic loading. If a structural mat is used, we recommend that it be designed for an edge cantilever length of 8 feet with a random, interior unsupported span of 25 feet.

5.1.1 Subgrade Modulus for Structural Slab Design

Provided the site earthwork is conducted in accordance with the recommendations of this report, a subgrade modulus of 100 psi/in can be used for structural slab design.

5.2 POST-TENSIONED MAT FOUNDATIONS ON EXPANSIVE SOIL

Alternatively, we recommend that the commercial structures be supported on post-tensioned mat foundations bearing on at least 8 inches of.

Design post-tensioned mats using the criteria presented in Table 4.2-1 below.

TABLE 4.2-1
Post-Tension Mat Expansive Soil Design Criteria

Condition	Center Lift	Edge Lift
Edge Moisture Variation Distance, e_m (ft.)	7.1	3.8
Differential Soil Movement, y_m (in.)	0.5	1.2

The above design criteria are based on the procedure presented by the Post-Tensioning Institute "Design of Post-Tensioned Slabs-on-Ground" Third Edition, including appropriate addenda. (2004). We recommend that post-tensioned mats be constructed with a moisture reduction system as recommended above.

5.3 SHALLOW FOUNDATIONS WITH SLAB-ON-GRADE

5.3.1 Continuous and Interconnected Strip Footings

The proposed commercial structures may be supported by a conventional continuous and interconnected strip footing foundation system. The slab-on-grade should bear on at least 18 inches of non-expansive material or chemically treated subgrade as described in Section 5.3.5. Conventional footings should be designed utilizing to the following design criteria:

TABLE 4.3.1-1
Minimum Footing Dimensions

Footing Type	Minimum Depth (inches)	Minimum Width (inches)
Continuous	36	12
Isolated	36	24

Minimum footing depths shown above are taken from lowest adjacent pad grade, and are deepened to counteract the expansive nature of the native soils. The cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent exterior grade. The top 8-inches of subgrade of the conventional footings should scarified and moisture conditioned per Section 4.6.

Design foundations recommended above for a maximum allowable bearing pressure of 2,500 pounds per square foot (psf) for dead-plus-live loads. Increase this bearing capacity by one-third for the short-term effects of wind or seismic loading.

All footings located adjacent to utility trenches should have their bearing surfaces below an imaginary 1:1 (horizontal:vertical) plane projected upward from the bottom edge of the trench to the footing.

5.3.2 Reinforcement

The structural engineer should design footing reinforcement to support the intended structural loads without excessive settlement. Reinforce all continuous footings with top and bottom steel to provide structural continuity and to permit spanning of local irregularities. At a minimum, design continuous footings to structurally span a clear distance of 5 feet.

5.3.3 Lateral Resistance

Lateral loads may be resisted by friction along the base and by passive pressure along the sides of foundations. The passive pressure is based on an equivalent fluid pressure in pounds per cubic foot (pcf). We recommend the following allowable values for design:

- Passive Lateral Pressure: 300 pcf
- Coefficient of Friction: 0.30

Increase the above values by one-third for the short-term effects of wind or seismic loading. Passive lateral pressure should not be used for footings on or above slopes.

The recommendations for slab moisture vapor reduction in Section 5.3.6.2 should be used when water vapor migrating through the slab would be undesirable. The recommendations will reduce, but not stop, upward water vapor transmission through the mat foundations.

5.3.4 Waterstop

If a two-pour system is used for footings and slab, the cold joint between the exterior footing and slab-on-grade should be located at least 4 inches above adjacent finish exterior grade. If this is not done, then we recommend the addition of a waterstop between the two pours to reduce moisture penetration through the cold joint and migration under the slab. Use of a monolithic pour would eliminate the need for the waterstop.

5.3.5 Expansive Soil Mitigation

The effects of the expansive soil can be reduced and the recommendations for stiffness of surface improvements likewise reduced by constructing the upper 18 inches of the building pad with non-expansive fill. As an alternative to importing non-expansive fill for grading the building pad, it may be cost effective to chemically treat the upper 18 inches of the structural areas.

5.3.5.1 Chemically Treated Subgrade

The upper 18 inches of soil in structural areas may be chemically treated to reduce the expansive index. The type of chemical treatment (lime, quicklime or cement) and percentage of chemical additive to be used should be based on testing of the actual subgrade soil after mass grading is completed. Chemical treatment should be performed by a specialty contractor experienced in this type of work. In addition, excavations perform in chemically treated soils, such as for utility trenches, should be stockpiled and protected for reuse in the upper backfill area to match the section. Based on our experience, we estimate that chemical treatment with approximately 4 percent lime (by dry unit weight) would be appropriate to treat the on-site soil.

5.3.6 Slab-on-Grade Interior Concrete Floor Slabs

5.3.6.1 Minimum Design Section

We recommend the following minimum design:

1. Provide a minimum concrete thickness of 5 inches.

2. Place minimum steel reinforcing of No. 3 rebar on 18-inch centers each way within the middle third of the slab to help control the width of shrinkage cracking that inherently occurs as concrete cures.

The structural engineer should provide final design thickness and reinforcement, as necessary, for the intended structural loads.

5.3.6.2 Slab Moisture Vapor Reduction

When buildings are constructed with concrete slab-on-grade, such as post-tensioned mats, water vapor from beneath the slab will migrate through the slab and into the building. This water vapor can be reduced but not stopped. Vapor transmission can negatively affect floor coverings and lead to increased moisture within a building. When water vapor migrating through the slab would be undesirable, we recommend the following to reduce, but not stop, water vapor transmission upward through the slab-on-grade.

1. Install a vapor retarder membrane directly beneath the slab. Seal the vapor retarder at all seams and pipe penetrations. Vapor retarders shall conform to Class A vapor retarder in accordance with ASTM E 1745-97 “Standard Specification for Plastic Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs”.

2. Concrete should have a concrete water-cement ratio of no more than 0.50.

3. Provide inspection and testing during concrete placement to check that the proper concrete and water cement ratio are used.

4. Moist cure slabs for a minimum of 3 days or use other equivalent curing specific by the structural engineer.

The structural engineer should be consulted as to the use of a layer of clean sand or pea gravel (less than 5 percent passing the U.S. Standard No. 200 Sieve) placed on top of the vapor retarder membrane to assist in concrete curing.

6.0 RETAINING WALLS

6.1 LATERAL SOIL PRESSURES

Retaining walls not restrained from the top should be designed for active lateral loading conditions, while walls restrained at the top should be designed for at-rest lateral loading conditions. The recommended lateral equivalent fluid pressures (static case) are presented below:

TABLE 6.1-1
Lateral Earth Pressures

Loading Condition	Equivalent Fluid Pressures (pcf)
Cantilevered (Active)	45
Cantilevered (Active) 2 to 1 Backfill	60
Restrained (At-Rest)	70

Where surcharge loads from vehicles are expected within a distance equal to the height of the walls, the walls should be designed for an additional uniform lateral pressure of 250 psf to be applied over the entire height of the wall or 10 feet, whichever is less.

Passive pressures acting on retaining walls may be assumed as 300 pounds per cubic foot (pcf), provided that the area in front of the retaining wall is level for a distance of at least 10 feet or three times the depth of foundation and keyway, whichever is greater. The upper one foot of soil should be excluded from passive pressure computations unless it is confined by pavement or concrete slab.

6.2 RETAINING WALL DRAINAGE

Wall drainage may be provided using a 4-inch-diameter perforated pipe embedded in Class 2 permeable material, or free-draining gravel surrounded by synthetic filter fabric. The width of the drain blanket should be at least 12 inches. The drain blanket should extend to about one foot below the finished grades. As an alternative, prefabricated synthetic wall drain panels can be used. The upper one foot of wall backfill should consist of clayey soils. Drainage should be collected by perforated pipes and directed to sump.

All backfill should be placed in accordance with recommendations provided above for engineered fill. Light equipment should be used during backfill compaction to minimize possible overstressing of the walls.

6.3 RETAINING WALL FOUNDATIONS

Retaining walls may be supported on continuous footings designed for an allowable bearing pressure of 2,500 psf embedded to a minimum depth of 24 inches. Subgrade treatment of retaining wall foundations that are not within building footprints should follow the recommendations in Sections 4.3 and 5.3.5 of this report.

7.0 MISCELLANEOUS STRUCTURES

7.1 LIGHT POLE FOUNDATIONS

We understand that as part of the parking area improvements, light poles will be constructed. Typical light pole design is controlled by lateral loads, and conventional drilled piers are used to resist these loads. Passive pressures acting on one pier diameter may be assumed as 300 pounds per cubic foot (pcf) provided that the area in front of pier is level for a distance of at least 10 feet or three times the depth of foundation, whichever is greater. The upper one foot of soil should be excluded from passive pressure computations unless it is confined by pavement or concrete slab.

7.2 CMU WALL FOUNDATIONS

We understand that part of the parking area improvements, free-standing CMU walls are planned throughout the site. CMU walls may be supported on continuous footings designed for an allowable bearing pressure of 2,500 psf at 24 inches embedment depth. Subgrade treatment of CMU wall foundations that are not within building footprints should follow the recommendations in Sections 4.3 and 5.3.5 of this report.

8.0 PAVEMENT DESIGN

We obtained a representative bulk sample of the surface soil from the pavement area and performed a Resistance-Value (R-Value) test to provide data for pavement design. The results of the test are included in Appendix B and indicate the R-Value of 14, which we judged to be appropriate for design. The Equivalent Single Axle Loads (ESALs) provided in the RFP are 75,000 ESALs for heavy duty paving and 7,500 ESALs for light duty paving

We have developed the pavement recommendations based on the Caltrans Highway Design Manual design method, as this method is the preferred method for pavement design in California. The methods and calculations for the pavement sections are shown in Appendix D.

8.1 FLEXIBLE PAVEMENTS

Based on the R-Value of 14 and the provided ESALs, we developed recommended pavement sections using Chapter 630 of the Caltrans Highway Design Manual (including the asphalt factor of safety), presented in the following table.

TABLE 8.1-1
Recommended Asphalt Concrete Pavement Sections

Traffic Loading		R-Value of 14 Subgrade Section	
Design Loading Type	**Traffic Index**	**AC (inches)**	**AB (inches)**
Light Duty	5	3	9
Light to Heavy Duty	6	3.5	11
Heavy Duty	7	4	14

Notes: AC is asphalt concrete
AB is Class 2 aggregate base material with a minimum R-value of 78

The Traffic Index (TI) is a measure of the number of ESALs expected in the traffic lane over the pavement design life of the facility based on the 20-year pavement design life. The 75,000 ESALs for heavy duty paving correlated to a TI of 7 and 7,500 ESALs for light duty paving correlates to a TI of 5.

When the AC thickness is greater than 3 inches, it should be placed in 2 lifts. The lower lift of AC (binding course) should conform to the ¾ inch maximum, medium aggregate gradation, and the upper lift of AC (wearing course) should conform to the ½ inch maximum, coarse aggregate gradation. These gradations are as specified in the Caltrans Standard Specifications. The minimum thickness of the upper lift of AC should be 1½ inches.

8.2 RIGID PAVEMENTS

We developed recommended pavement sections using Chapter 620 of the Caltrans Highway Design Manual based on the R-value of 14 and the provided ESALs. We recommend the following minimum design sections for rigid pavements:

- Use a minimum section of 9 inches of Portland Cement concrete over 12 inches of Caltrans Class 2 Aggregate Base.
- Concrete pavement should have a minimum 28-day compressive strength of 3,000 psi.
- Provide minimum control joint spacing in accordance with Portland Cement Association guidelines.

8.3 SUBGRADE AND AGGREGATE BASE COMPACTION

Fill placed within 1 foot of subgrade level in roadway and pavement areas should be compacted to at least 90 percent relative compaction, at a minimum moisture content of 3 points over optimum, prior to placing aggregate base. The contractor should compact the pavement Caltrans Class 2 Aggregate Base section to at least 95 percent relative compaction (ASTM D1557). Moisture condition aggregate base to or slightly above the optimum moisture content prior to compaction. Aggregate Base should meet the requirements for ¾-inch maximum Caltrans Class 2 Aggregate Base in accordance with Section 26-1.02B of the latest Caltrans Standard Specifications.

8.4 CUT-OFF CURBS

Saturated pavement subgrade or aggregate base can cause premature failure or increased maintenance of asphalt concrete pavements. This condition often occurs where landscape areas directly abut and drain toward pavements. If desired to install pavement cutoff barriers, they should be considered where pavement areas lie downslope of any landscape areas that are to be sprinklered or irrigated, and should extend to a depth of at least 4 inches below the base rock layer. Cutoff barriers may consist of deepened concrete curbs or deep-root moisture barriers.

If reduced pavement life and greater than normal pavement maintenance are acceptable to the owner, then the cutoff barrier may be eliminated.

9.0 UTILITIES

It is recommended that utility trench backfilling be done under the observation of a Geotechnical Engineer. Pipe zone backfill (i.e. material beneath and immediately surrounding the pipe) may consist of a well-graded import or native material less than ¾ inch in maximum dimension compacted in accordance with recommendations provided above for engineered fill. Trench zone backfill (i.e. material placed between the pipe zone backfill and the ground surface) may consist of native soil compacted in accordance with recommendations for engineered fill.

Where import material is used for pipe zone backfill, we recommend it consist of fine- to medium-grained sand or a well-graded mixture of sand and gravel, and that this material not be used within 2 feet of finish grades. In general, uniformly graded gravel should not be used for pipe or trench zone backfill due to the potential for migration of (1) soil into the relatively large void spaces present in this type of material, and (2) water along trenches backfilled with this type of material. All utility trenches entering buildings and paved areas must be provided with an impervious seal consisting of native materials or concrete where the trenches pass under the building perimeter or curb lines. The impervious plug should extend at least 4 feet to either side of the crossing. This is to prevent surface water percolation into the sands under foundations and pavements where such water would remain trapped in a perched condition.

Care should be exercised where utility trenches are located beside foundation areas. Utility trenches constructed parallel to foundations should be located entirely above a plane extending

down from the lower edge of the footing at an angle of 45 degrees. Utility companies and Landscape Architects should be made aware of this information.

Utility trenches in areas to be paved should be constructed in accordance with City of Pleasanton requirements. Compaction of trench backfill by jetting should not be allowed at this site. If there appears to be a conflict between the City or other agency requirements and the recommendations contained in this report, this should be brought to the Owner's attention for resolution prior to submitting bids.

10.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This report presents geotechnical recommendations for design of the improvements discussed in Section 1.3 for the CarMax Automotive Dealership project. If changes occur in the nature or design of the project, we should be allowed to review this report and provide additional recommendations, if any. It is the responsibility of the owner to transmit the information and recommendations of this report to the appropriate organizations or people involved in design of the project, including but not limited to developers, owners, buyers, architects, engineers, and designers. The conclusions and recommendations contained in this report are solely professional opinions and are valid for a period of no more than 2 years from the date of report issuance.
We strived to perform our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty is expressed or implied. There are risks of earth movement and property damages inherent in building on or with earth materials. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our services.

This report is based upon field and other conditions discovered at the time of report preparation. We developed this report with limited subsurface exploration data. We assumed that our subsurface exploration data is representative of the actual subsurface conditions across the site. Considering possible underground variability of soil, rock, stockpiled material, and groundwater, additional costs may be required to complete the project. We recommend that the owner establish a contingency fund to cover such costs. If unexpected conditions are encountered, notify us immediately to review these conditions and provide additional and/or modified recommendations, as necessary.

Our services did not include excavation sloping or shoring, soil volume change factors, flood potential, or a geohazard exploration. In addition, our geotechnical exploration did not include work to determine the existence of possible hazardous materials. If any hazardous materials are encountered during construction, then notify the proper regulatory officials immediately.

This document must not be subject to unauthorized reuse that is, reusing without our written authorization. Such authorization is essential because it requires us to evaluate the document's applicability given new circumstances, not the least of which is passage of time.

Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to our documents. Therefore, we must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If our scope of services does not include on-site construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

We determined the lines designating the interface between layers on the exploration logs using visual observations. The transition between the materials may be abrupt or gradual. The exploration logs contain information concerning samples recovered, indications of the presence of various materials such as clay, sand, silt, rock, existing fill, etc., and observations of groundwater encountered. The field logs also contain our interpretation of the subsurface conditions between sample locations. Therefore, the logs contain both factual and interpretative information. Our recommendations are based on the contents of the final logs, which represent our interpretation of the field logs.

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FIGURES

FIGURES

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

CARMAX AUTOMOBILE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000	FIGURE NO. 1
SCALE: AS SHOWN	
DRAWN BY: LL	CHECKED BY: BB

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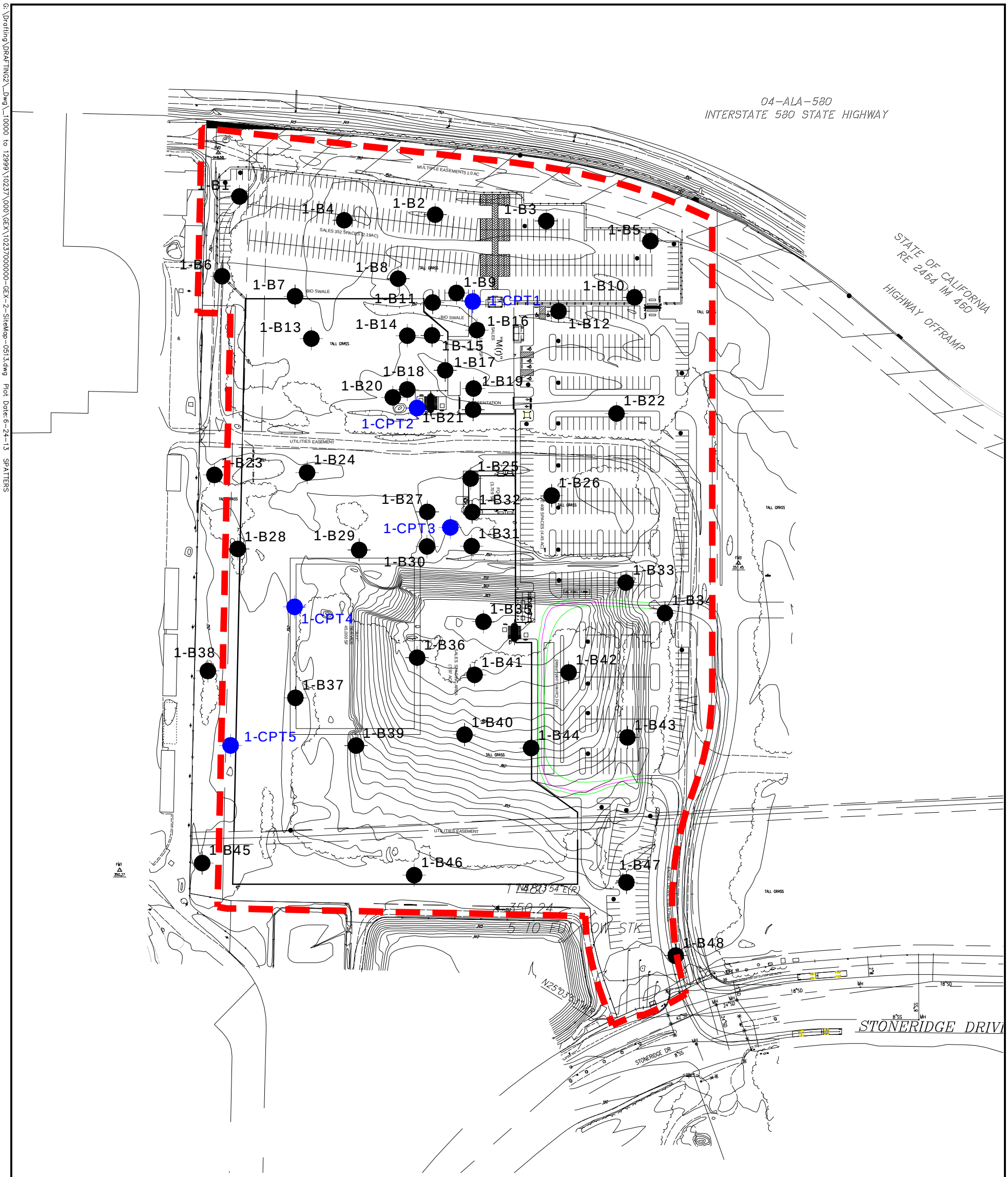
ORIGINAL FIGURE PRINTED IN COLOR



EXPLANATION

1-B48 — APPROXIMATE LOCATION OF BORING (ENGEO, 2013)

1-CPT5 — APPROXIMATE LOCATION OF CONE PENETRATION TEST (ENGEO, 2013)

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

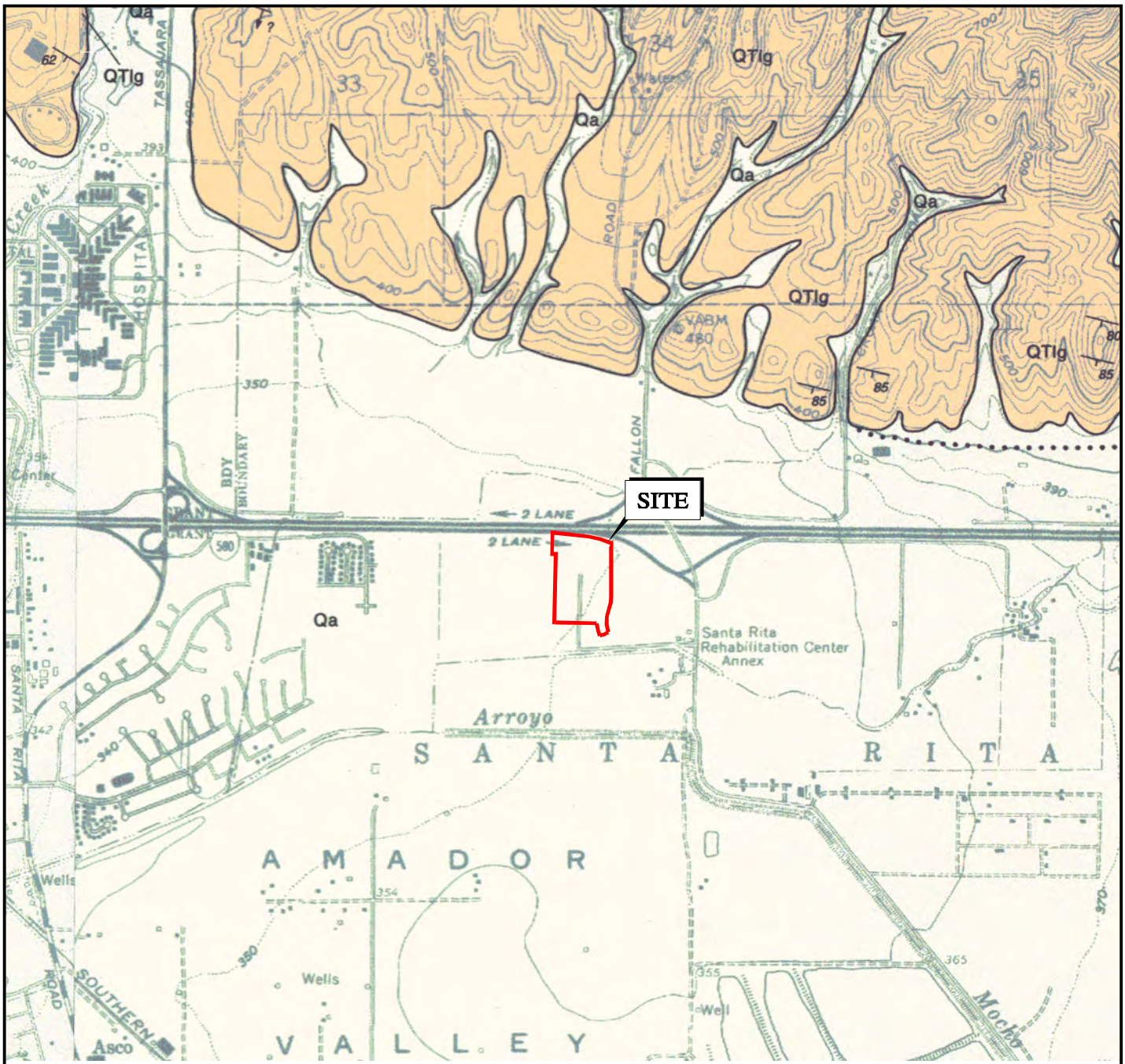
SITE PLAN

CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000	FIGURE NO. 2
SCALE: AS SHOWN	
DRAWN BY: LL	CHECKED BY: BB

ORIGINAL FIGURE PRINTED IN COLOR



N

EXPLANATION

DIRECTION OF LANDSLIDE MOVEMENT

Qa ALLUVIUM

QTlg LIVERMORE GRAVEL

STRIKE AND DIP OF STRATA

INCLINED VERTICAL OVERTURNED

0 FEET 2000

0 METERS 1000

BASE MAP SOURCE: DIBBLE, 2006

ENGEO Expect Excellence

REGIONAL GEOLOGY MAP

CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 3
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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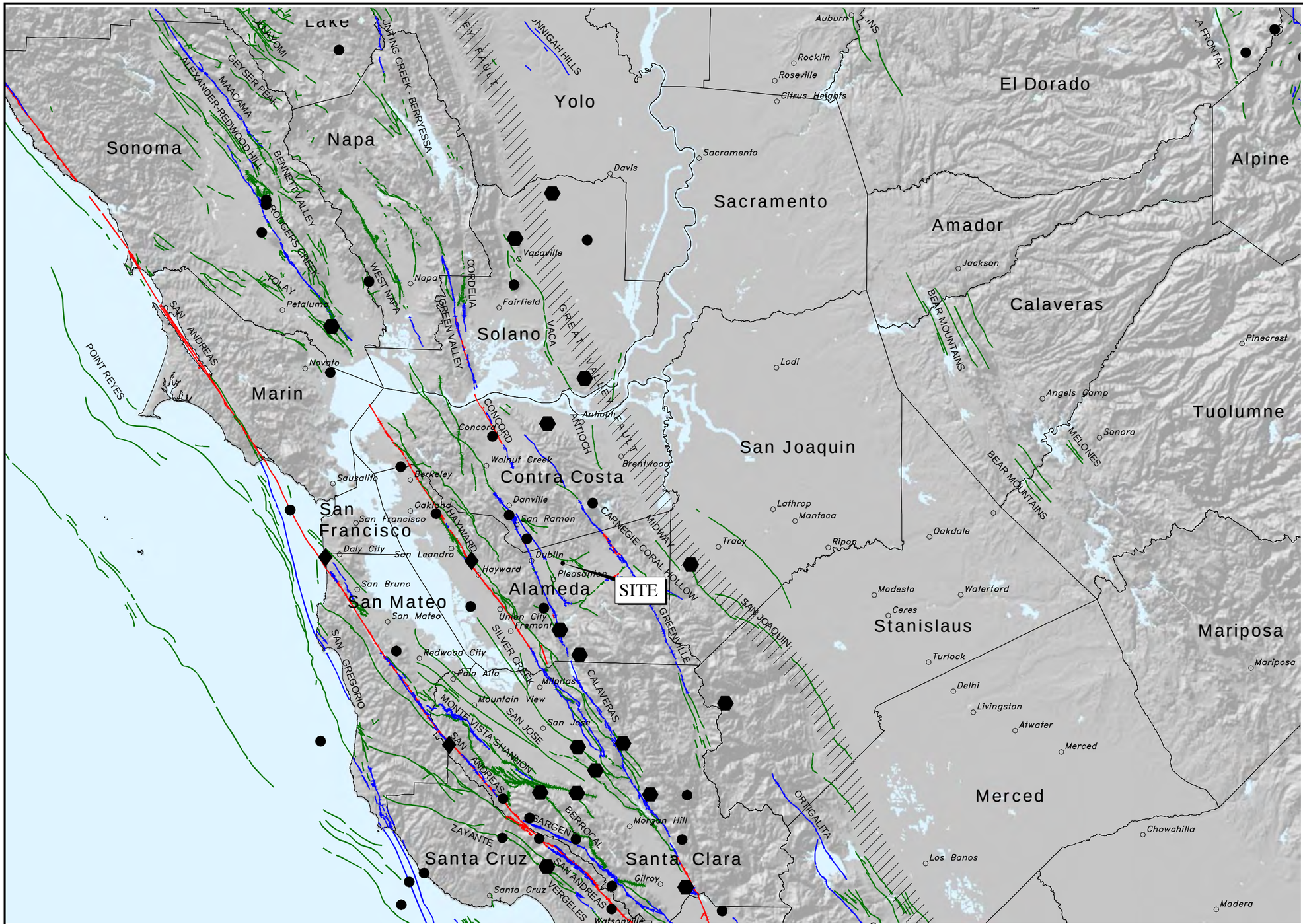

BASE MAP SOURCE:
HILLSHADE IMAGE BASED ON 1-ARC SECOND S.R.T.M. DATABASE
U.S.G.S. QUATERNARY FAULT DATABASE, NOVEMBER, 2010
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800-2000)

ENGEO Expect Excellence

REGIONAL FAULTING AND SEISMICITY

CARMAX AUTOMOTIVE DEALERSHIP
PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO 4
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

ORIGINAL FIGURE PRINTED IN COLOR

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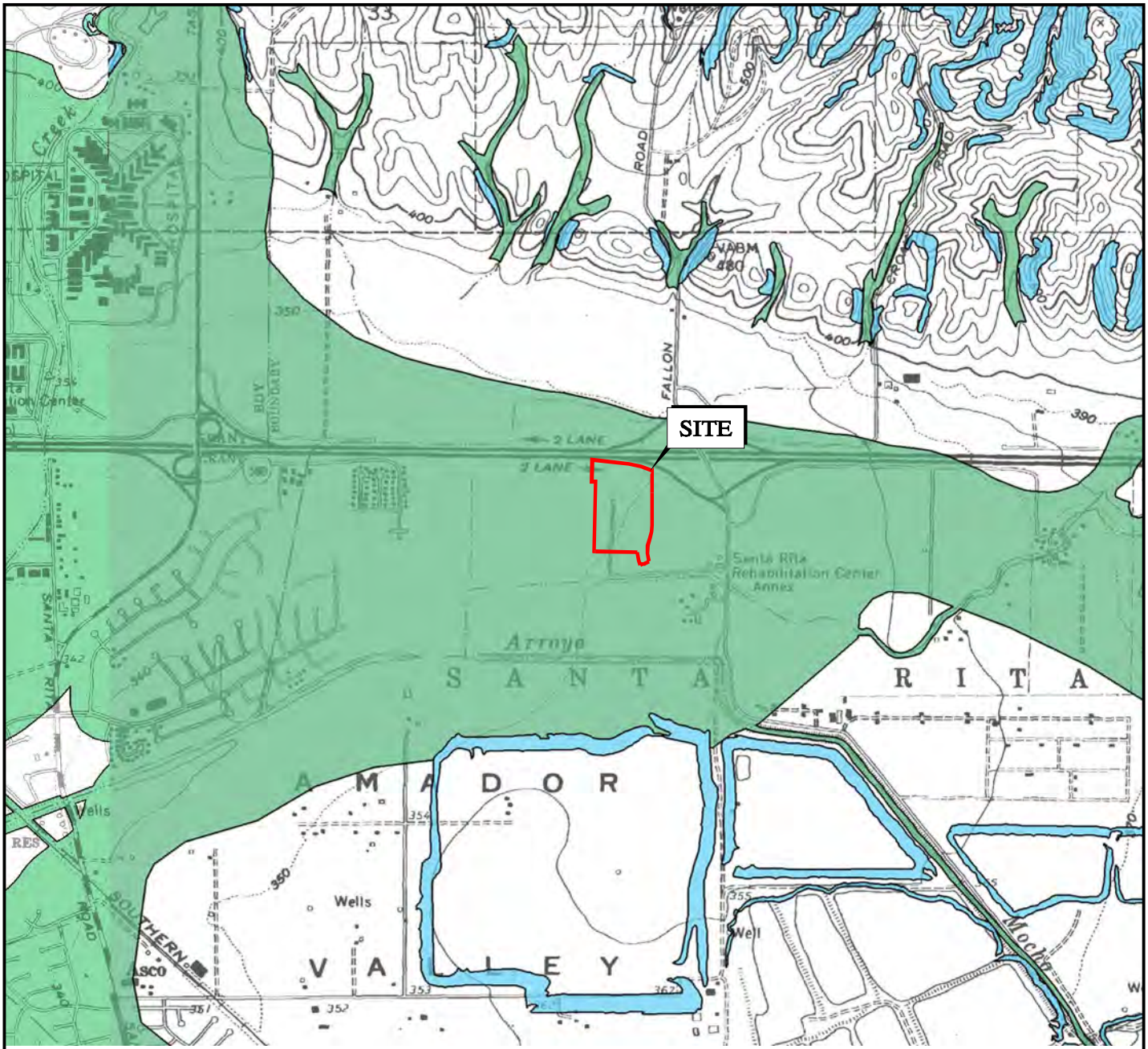

EXPLANATION

LIQUEFACTION

AREAS WHERE HISTORIC OCCURRENCE OF LIQUEFACTION, OR LOCAL GEOLOGICAL, GEOTECHNICAL AND GROUNDWATER CONDITIONS INDICATE A POTENTIAL FOR PERMANENT GROUND DISPLACEMENTS SUCH THAT MITIGATION AS DEFINED IN PUBLIC RESOURCES CODE SECTION 2693(c) WOULD BE REQUIRED

EARTHQUAKE-INDUCED LANDSLIDES

AREAS WHERE PREVIOUS OCCURRENCE OF LANDSLIDE MOVEMENT, OR LOCAL TOPOGRAPHIC, GEOLOGICAL, GEOTECHNICAL AND SUBSURFACE WATER CONDITIONS INDICATE A POTENTIAL FOR PERMANENT GROUND DISPLACEMENTS SUCH THAT MITIGATION AS DEFINED IN PUBLIC RESOURCES CODE SECTION 2693(c) WOULD BE REQUIRED

BASE MAP SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, CALIFORNIA GEOLOGICAL SURVEY, 2006

ENGEO Expect Excellence

SEISMIC HAZARD ZONE MAP

CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 5
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

Key to Boring Logs
Exploration Logs

APPENDIX A

LOG OF BORING 1-B1

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 348¼ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			CLAY (CH), dark brown, moist												
	1														
5			SANDY LEAN CLAY (CL), brown mottled with gray, hard, moist, contains carbonates and fine grained sand			22					15.8			4*	PP
	2														
			LEAN CLAY (CL), brown mottled with gray, stiff to very stiff, moist												
10	3					21								2*	PP
			CLAYEY SAND (SC), dark brown and brown, dense, moist, fine grained to coarse grained sand												
			LEAN CLAY (CL), dark olive brown to reddish brown, moist												
	4														
15					▽										
	5														
	6														
20						41									
			Becomes very stiff												
			Bottom of boring at 21 1/2 feet below existing grade. Ground water encountered at 18 feet below existing grade.												

LOG OF BORING 1-B2

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			FAT CLAY (CH), dark brown, moist												
	1														
5			LEAN CLAY (CL), grayish brown, very stiff, moist, contains silt and fine-grained sand			36									
	2														
	3														
10			SANDY SILT (ML), brown mottled with orange brown, stiff, moist, contains fine-grained to coarse-grained sand			13					12.7				
	4														
15															
	5														
	6														
20			SANDY LEAN CLAY (CL), grayish brown, very stiff, wet		▽	21								3*	PP
														3*	PP
			Bottom of boring at 21 1/2 feet below existing grade. Ground water encountered at 21 feet below existing grade.												

LOG OF BORING 1-B3

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350¾ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
5	1		SANDY LEAN CLAY (CL), dark brown, hard, moist, contains carbonates			53					14.4			4.5+*	PP
10	2		SANDY LEAN CLAY (CL), brown, hard, moist, contains gravel and fine-grained to coarse-grained sand			30									
15	3		LEAN CLAY (CL), brown, very stiff, moist, contains coarse-grained sand and gravel			16									
20	4		CLAYEY SAND (SC), brown, medium dense, wet, contains gravels		▽	11									
	5		SANDY LEAN CLAY (CL), brown, stiff, wet, contains medium-grained to coarse-grained sand and gravels												
	6		Bottom of boring at 21 1/2 feet below existing grade. Ground water encountered at 21 feet below existing grade.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B4

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		FAT CLAY (CH), black, moist												
5			LEAN CLAY (CL), dark brown, hard, moist, contains fine-grained sand, contains carbonates			86									
	2														
10	3		LEAN CLAY (CL), brown, very stiff, moist, manganese staining			28					18.3				
	4														
15						16					20.9				
	5														
20	6		Contains fine-grained to coarse-grained sand			23									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B5

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
5	1														
			LEAN CLAY (CL), brown mottled with gray, hard, moist, contains silt			38					16			4.5*	PP
	2														
10	3		SANDY LEAN CLAY (CL), brown, medium stiff, moist, contains gravels and coarse-grained sand			8									
	4														
15	5														
20	6				▽	9									
			Bottom of boring at 21 1/2 feet below existing grade. Ground water encountered at 20 feet below existing grade.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B6

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		FAT CLAY (CH), dark brown, hard, moist, contains fine-grained sand and gravel, contains roots			70					10.6			4.5+*	PP
5	2														
			LEAN CLAY (CL), olive brown mottled with brown, very stiff, moist, contains silt and gravel, manganese staining			66					10.4			4.5+*	PP
10	3														
	4		CLAYEY SAND (SC), brown, moist, fine-grained to coarse-grained sand												
15	5														
	6		LEAN CLAY (CL), olive brown mottled with brown, stiff, moist, contains silts and gravel, manganese staining			39								1.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												
20															

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B7

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), grayish brown, very stiff, moist, contains fine-grained sand and roots (FILL)												
	1		FAT CLAY (CH), dark brown, very stiff, moist, contains gravels and fine-grained sand, contains roots			44					12				
5															
	2		CLAYEY SAND (SC), brown, moist												
10	3		SANDY SILT (ML), olive brown mottled with brown, stiff to very stiff, contains fine-grained sand, manganese staining			15					16.3				
	4														
15															
	5														
	6														
20			LEAN CLAY (CL), light brown mottled with dark brown, hard, moist, manganese staining			70									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B8

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351½ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		FAT CLAY (CH), dark brown, very stiff, moist, contains rootlets			45									
5	2														
			SANDY SILT (ML), light olive brown mottled with dark brown, very stiff, moist			20					19.8			2.75*	PP
10	3														
	4														
15	5														
	6					20									
20			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B9

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)			22					11.6	90.9		4.5+*	PP
	1		FAT CLAY (CH), dark brown and black, hard, moist, contains fine-grained sand and silt, contains organics			42					16.9			4.5+*	PP
5															
	2														
			LEAN CLAY (CL), brown mottled with dark brown, hard, moist, contains fine-grained sand and gravels			19								4.25*	PP
10	3		CLAYEY SAND (SC), brown, medium dense, moist, fine-grained to coarse-grained sand, contains gravel			23				34	9				
	4														
15			LEAN CLAY (CL), brown, very stiff, moist, contains silt			35								2.25*	PP
	5														
	6														
20			Becomes, grayish brown			45								3.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B10

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		LEAN CLAY (CL), grayish brown, very stiff, moist, contains fine-grained sand and roots (FILL)												
5			FAT CLAY (CH), dark brown, hard, moist, contains carbonates, contains gravel			27					14.5	108.1		3.83	UC
	2		LEAN CLAY (CL), dark yellowish brown mottled with dark brown, hard, moist, contains fine-grained sand											4.5+*	PP
10	3		LEAN CLAY (CL), brown mottled with gray, very stiff to hard, contains fine-grained to coarse-grained sand			21								4.0*	PP
	4														
15						13									
	5														
20	6					40								2.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B11

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350¾ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)												
			FAT CLAY (CH), black, hard, moist, contains silt, contains organics			44				84	15.1	106.1		4.5+*	PP
5	1					46					13.6			4.5+*	PP
	2		SANDY LEAN CLAY (CL), brown, hard, moist, contains fine-grained sand and gravel			21					13.5			4.25*	PP
10	3		SILTY SAND (SM), brown, loose, moist, fine-grained to medium-grained sand, contains fine gravel			22								3.5*	PP
	4		LEAN CLAY (CL), brown mottled with grayish black, stiff to very stiff, moist, contains coarse gravel												
15	5					24								1.75*	PP
20	6					50								3*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B12

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses, loose gray clay topsoil												
	1		LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)												
5	2		LEAN CLAY (CL), brown, hard, moist, contains fine-grained sand and silt			33								4.5+*	PP
			CLAYEY SAND (SC), brown, moist, fine-grained sand, contains fine gravel												
10	3		LEAN CLAY (CL), brown, stiff, moist, contains coarse gravel			9									
			CLAYEY SAND (SC), brown, moist, fine-grained sand												
	4														
15	5		LEAN CLAY (CL), brown mottled with gray, very stiff, moist, contains fine-grained sand and carbonates												
20	6					52								3*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B13

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350¾ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)												
5			FAT CLAY (CH), dark brown, hard, moist, contains carbonates			55					15.2			4.5+*	PP
	2														
			CLAYEY SAND (SC), light brown, medium dense, moist, fine-grained sand, contains gravel												
10	3					29									
	4														
15			LEAN CLAY (CL), dark olive brown mottled with reddish brown, stiff, moist, manganese staining			15									
	5														
	6														
20						62								2*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B14

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses, gravelly clay topsoil			31					10.4	110.2		3.84	UC
			LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)											4.5+*	PP
	1		FAT CLAY (CH), dark grayish brown, hard, moist, contains organics and carbonates			20					23.5	100.4		4.5*	PP
5						38								4.5+*	PP
	2		LEAN CLAY (CL), grayish brown mottled with black, hard, moist, contains fine gravel												
10	3					22					11.7			4.5+*	PP
			SILTY SAND (SM), brown, medium dense, moist												
	4														
15			LEAN CLAY (CL), grayish brown mottled with black, stiff, moist			22					19.1			1.75*	PP
	5														
20	6					36								2.75*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B15

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil			35	45	15	30					4.5*	PP
	1		LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots (FILL)												
5			FAT CLAY (CH), grayish brown and dark brown, hard, moist, contains fine gravel and organics			35	72	17	55		17.9	109.3		4.5+*	PP
	2					55					15.7	109.8		4.5+*	PP
			LEAN CLAY (CL), brown, hard, moist, contains fine-grained sand and fine to coarse gravel												
10	3					21					12.2			4.25*	PP
			SILTY SAND (SM), brown, medium dense, moist, coarse-grained sand												
	4		LEAN CLAY (CL), gray mottled with black, stiff to very stiff, moist												
15						23								2*	PP
	5														
	6														
20						31								3.25*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B16

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), light brown mottled with black, hard, dry, contains silt and organics (FILL)			17					10	84.1		4.5+* 1.29	PP UC
			FAT CLAY (CH), dark brown, hard, moist, contains organics and carbonates												
	1														
5						72					13.9	118.3		4.5+*	PP
	2														
			SANDY LEAN CLAY (CL), light brown mottled with gray, hard, moist			33					9.6	108.5		4.5+*	PP
10	3					28									
	4														
15			Becomes stiff, contains silt and manganese staining			28					17.4	109.8		1.29 2*	UC PP
	5														
	6														
20			Becomes very stiff, contains carbonates			46								3.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B17

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 51½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 352 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			GRAVELLY LEAN CLAY (CL), yellowish brown to brown, hard, dry to moist, (FILL)			18	37	15	22		9.9	108		4.5+*	PP
5	1		FAT CLAY (CH), black, very stiff, moist, contains carbonates			21	71	15	56		24.5	100.5		3.5*	PP
	2		Becomes brown			20					18.6	110.7		4.0* 3.15	PP UC
10	3		LEAN CLAY (CL), brown, medium stiff, moist, contains silt and sand			8					15.2				
	4														
15	5		FAT CLAY (CH), brown, stiff, moist, manganese staining			12					19.8	109.9	2580*	1.2*	PP
20	6		Becomes mottled with gray			9									
	7														
25	8		LEAN CLAY (CL), grayish brown, stiff, moist, manganese staining			10					27				
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B17

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 51½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 352 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			LEAN CLAY (CL), grayish brown, stiff, moist, manganese staining			13					34.2	88.5		2.2*	PP
	10		Becomes very stiff												
35															
	11				▽										
	12		CLAY (CL-CH), brown, stiff, moist to wet												
40						11					23.4				
	13														
45															
	14														
	15		LEAN CLAY (CL), brown, stiff, wet to moist, contains carbonates, manganese staining												
50						10					19				
			Bottom of boring at 51 1/2 feet below existing grade. Ground water encountered at 37 feet below grade.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B18

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), grayish brown, hard, moist, contains fine-grained sand and roots, (FILL)			30				79	9.6	107.4		4.5+*	PP
	1														
5			FAT CLAY (CH), black, hard, dry, contains carbonates and roots			30					17.6			4.5+*	PP
	2		LEAN CLAY (CL), dark brown mottled with gray, hard, moist, contains carbonates			44								4.5+*	PP
			SANDY SILT (ML), brown, hard, moist, contains gravel												
10	3					14					14.2			4*	PP
			LEAN CLAY (CL), brown mottled with gray, stiff, moist, manganese staining												
	4														
15						21								1.7*	PP
	5														
20	6		Becomes grayish brown			30					21.4			3.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B19

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seaonal grasses and topsoil												
	1		LEAN CLAY (CL), light brown and gray, hard, moist, contains roots (FILL)			30					7.6	100.6		4.5+*	PP
5			FAT CLAY (CH), black, hard, moist, contains roots			25					18.7			4.5+*	PP
	2		LEAN CLAY (CL), dark brown to brown, hard, moist, contains carbonates and silts			37								4.0*	PP
10	3		Contains fine-grained sand			17					18.4			2.75* 4.5+*	PP PP
	4														
15			Contains gravel, manganese staining			21								2.25*	PP
	5														
20	6					32								2.75*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B20

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		LEAN CLAY (CL), grayish brown, very stiff, moist, contains fine-grained sand and roots (FILL)												
5			FAT CLAY (CH), dark brown, very stiff, moist, contains coarse-grained sand and gravel			29					19.7			3.25*	PP
	2														
			SANDY LEAN CLAY (CL), brown, very stiff, moist, contains fine-grained sand and gravel, contains silt												
10	3					22								2.5*	PP
			SANDY SILT (ML), brown, very stiff, moist, contains gravel											4.5+*	PP
	4														
15			LEAN CLAY (CL), brown, very stiff, moist, contains fine-grained to coarse-grained sand, carbonates, manganese staining			25									
	5														
	6														
20			Becomes grayish brown			43								3.0*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B21

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/6/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil			25					8.3	112.3		4.5+*	PP
	1		LEAN CLAY (CL), light brown, hard, dry, contains fine to coarse gravel and silt (FILL)												
5			FAT CLAY (CH), black, very stiff, moist, contains carbonates			24					27.9	94			
	2													3*	PP
			LEAN CLAY (CL), brown mottled with gray, hard, moist, contains fine-grained sand			32	38	14	24		16			4.5+*	PP
10	3		Becomes light brown mottled with gray, manganese staining			23								3.75*	PP
														4.5+*	PP
	4														
15			Becomes dark brown mottled with gray, stiff, contains gravel			22					18			2.5*	PP
	5														
	6														
20			Contains carbonates			45								4*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B22

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		LEAN CLAY (CL), grayish brown, very stiff, moist, contains fine-grained sand and roots (FILL)												
5			FAT CLAY (CH), very dark brown to black, very stiff, moist, contains carbonate stringers			45								3.75*	PP
	2														
10	3		SILT (ML), brown mottled with gray, very stiff, moist, contains gravel and coarse-grained sand			26					13			3*	PP
	4														
15			LEAN CLAY (CL), brown mottled with gray, very stiff, moist			29								2.5*	PP
	5														
20	6		Becomes light brown			23									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B23

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			FAT CLAY (CH), black, very stiff, moist, contains carbonates, roots and gravel												
	1					52					15.4	110			
5															
	2		LEAN CLAY (CL), olive brown mottled with brown, stiff to very stiff, moist, contains silt and fine-grained sand												
10	3					16					16.9			2* 3.5*	PP PP
	4														
15															
	5														
20	6					42								2.75* 3.5*	PP PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B24

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			FAT CLAY (CH), black, hard, moist, contains carbonates, gravel and roots												
5	1					61								4.5+*	PP
	2														
			LEAN CLAY (CL), brown mottled with olive gray, very stiff to hard, moist, contains carbonates and fine-grained sand												
10	3					25								4*	PP
	4														
15	5														
20	6					31								3.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B25

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		FAT CLAY (CH), black, very stiff, moist, contains carbonate stringers												
5						29								3*	PP
	2														
			LEAN CLAY (CL), grayish brown mottled with gray, hard, moist, contains gravels and sand												
10	3					36									
			SILT (ML), grayish brown, very stiff, moist, contains clay and fine-grained sand												
	4														
			LEAN CLAY (CL), brown mottled with gray, very stiff, moist, contains silt												
15						20								2.5*	PP
	5														
	6														
20			Manganese staining			37								3.5*	PP
			Bottom of boring at 21 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B26

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), brownish gray												
	1														
5			FAT CLAY (CL-CH), very dark brown, hard, moist, contains carbonate stringers			54					20.8			4.5+*	PP
	2														
10	3		LEAN CLAY (CL), light brown mottled with tan, hard, moist, containsfine-grained sand with gravel, manganese staining			39								4.5+*	PP
	4														
15															
	5														
20	6		LEAN CLAY (CL), grayish brown mottled with orange, hard, moist, contains silt, manganese staining			45								4.25*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B27

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), light gray, stiff, dry, contains rootlets (FILL)			33									
5	1		FAT CLAY (CH), black, hard, dry, contains rootlets			34								4.5+*	PP
	2					46								4.5+*	PP
10	3		CLAY (CL-CH), brown, hard, dry, contains gravel and silt, manganese staining			23								4.5+*	PP
	4													4.5+*	PP
15	5		LEAN CLAY (CL), grayish brown mottled with reddish brown, stiff, moist, contains gravel			12									
20	6					53								4.5+*	PP
			Bottom of boring at 21 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B28

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 28 ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil			30								4.5+*	PP
	1		LEAN CLAY (CL), dark brown, hard, moist, contains fine grained-sand and carbonate stringers												
5			FAT CLAY (CH), dark brown, hard, moist			51	67	16	51		15.6	112.6		4.5+*	PP
	2		SILTY SAND (SM), light brown, medium dense, dry, contains gravel and coarse-grained sand			25									
10	3		LEAN CLAY (CL), brown mottled with gray, stiff to very stiff, moist, manganese staining			12					19.7	104.7		1.59 3*	UC PP
	4														
15			SILT (ML), brown, stiff, moist, contains clay and coarse-grained sands			11					14.3				
	5		LEAN CLAY (CL), grayish brown mottled with reddish brown, stiff to very stiff, moist, manganese staining												
20	6					20								2.5*	PP
	7		Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												
25	8														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B29

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), brown mottled with black, hard, dry, contains gravel, sand and organics (FILL)			28	31	14	17					4.5+*	PP
	1														
5			FAT CLAY (CH), black mottled with gray, stiff, moist, contains rootlets												
						21					30.2	90.6		1.72	UC
	2		LEAN CLAY (CL), brown mottled with gray, very stiff, moist, contains fine-grained sand, carbonate stringers, manganese staining											2.5*	PP
						28					23			3.5*	PP
10	3		Contains gravel and coarse-grained sands			15				75	18.2			2.5*	PP
	4														
			LEAN CLAY (CL), grayish brown, very stiff, moist, contains fine-grained sand, manganese staining												
15						20					16			3.5*	PP
	5														
	6														
20			Contains carbonate stringers			31								2.75*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B30

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		SANDY LEAN CLAY (CL), grayish brown, stiff, moist			16								1.5*	PP
5			FAT CLAY (CH), dark brown mottled with gray, very stiff, contains carbonates			25								2.75*	PP
	2					26								3.5*	PP
10	3		LEAN CLAY (CL), brown, hard, moist, manganese staining			27								4.5+*	PP
	4														
15						17									
	5		SILT (ML), brown mottled with dark brown, medium stiff, moist, manganese staining												
	6														
20			LEAN CLAY (CL), dark brown mottled with gray, very stiff, moist			39								3.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B31

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), light brown, stiff, moist			22									
	1														
5						26								3.5*	PP
	2		LEAN CLAY (CL), brownish gray, very stiff, moist, contains rootlets												
			Becomes brown mottled with gray			20					20			3*	PP
10	3		Becomes stiff, contains gravel			17								3* 2*	PP
	4														
15			Contains coarse-grained sand, manganese staining			13					21.2			1.5*	PP
	5														
20	6					31									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B32

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/8/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352¼ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), grayish brown, very stiff, moist, (FILL)												
	1														
5						18								3.5*	PP
			CLAYEY SAND (SC), light brown, loose, moist, contains rootlets												
	2		FAT CLAY (CH), very dark brown, hard, moist, contains rootlets and carbonates			61								4.5+*	PP
			LEAN CLAY (CL), light grayish brown, hard, dry, contains gravel												
						51								4.5+*	PP
			SANDY LEAN CLAY (CL), yellowish brown, hard, dry, contains gravel and fine-grained to coarse-grained sand												
10	3														
	4														
15															
			LEAN CLAY (CL), brown mottled with gray, very stiff, moist, contains coarse grained sand			15								3*	PP
	5														
	6														
20						29								2.75*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B33

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 28 ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 354 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), brown, (FILL)												
	1														
5			Becomes dark brown (FILL)												
	2														
			FAT CLAY (CH), black, very stiff, moist, contains carbonate stringers												
10	3					55					24.1			3.5*	PP
	4														
			LEAN CLAY (CL), brown, very stiff, moist, contains fine-grained to coarse-grained sand and gravel												
15						17									
	5														
20	6		Becomes grayish brown												
	7														
25															
	8		FAT CLAY (CH), light olive brown mottled with gray, very stiff, moist			27									
			Bottom of boring at 28 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B34

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), brownish gray, (FILL)												
	1														
5			FAT CLAY (CH), black, hard, moist, contains carbonate stringers			12								4.5+*	PP
	2													1.5*	PP
10	3		GRAVELLY LEAN CLAY (CL), brown, very stiff, dry, rounded, subrounded, contains silt			25									
	4		LEAN CLAY (CL), yellowish brown, very stiff, moist, contains silt												
15						31								2.75*	PP
	5														
20	6		Becomes grayish brown			23									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B35

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 369 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), light brown, (FILL)												
5	1														
	2														
10	3														
	4														
15	5														
	6														
20			FAT CLAY (CH), black, stiff, moist												
	7														
25						9									
	8														
	9														
30															

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B35

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 369 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			LEAN CLAY (CL), brown, hard, moist, contains gravel and fine-grained sand			16								3.75*	PP
	10														
35			Becomes medium stiff, grayish brown			7									
	11														
	12														
40			Becomes very stiff, brown mottled with gray, manganese staining			21								4.25*	PP
			Bottom of boring at 41 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B36

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 368 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), grayish brown, contains gravel and fine-grained sand (FILL)												
5	1														
	2														
10	3		Becomes brown with gravel and fine grained-sand (FILL)												
	4														
15	5														
20	6					10									
	7		FAT CLAY (CH), black, stiff, moist, contains carbonate stringers			14									
25	8														
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B36

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 368 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SANDY LEAN CLAY (CL), dark brown, very stiff, moist, contains gravel			15								4*	PP
	10														
35			LEAN CLAY (CL), brown, stiff to medium stiff, moist, manganese staining			8									
	11														
	12														
40			CLAY (CL-CH), grayish brown mottled with reddish brown, very stiff, moist, contains carbonate stringers			26								3*	PP
			Bottom of boring at 41 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B37

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 51½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			LEAN CLAY (CL), brown and gray, very stiff, moist to dry, contains gravel and organics (FILL)			9					18.7	100		2.75*	PP
5	1														
						9				79				2.5*	PP
	2		FAT CLAY (CH), black, hard, moist, contains carbonates			17	53	14	39		19.3	108.8	6573*	4.5+*	PP
10	3		LEAN CLAY (CL), olive brown mottled with gray, medium stiff, moist, contains silt, manganese staining			7					18.6				
	4														
15			SANDY SILT (ML), brown, very stiff, moist, contains clay and gravel			16					14.3	107.6		3.25*	PP
	5														
20	6		LEAN CLAY (CL), grayish brown, stiff, moist, contains sand, manganese staining			8									
	7														
25						13					34.1	88.3		2*	PP
	8													2.5*	PP
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B37

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 51½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SANDY SILT (ML), light reddish brown, stiff, moist			12					21.8				
35	10														
	11														
	12				▽										
40			LEAN CLAY (CL), grayish brown, medium stiff, wet, contains fine-grained sand, manganese staining			7									
	13														
45			LEAN CLAY (CL), light brown, very stiff, wet, contains carbonates			21					21.5	107.1		3.25*	PP
	14														
	15														
50						12									
			Bottom of boring at 51 1/2 feet below existing grade. Ground water encountered at 40 feet below existing grade.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B38

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350 ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			FAT CLAY (CH), black, hard, moist, contains gravel, roots and carbonates			32								4.5+*	PP
5	1														
	2		LEAN CLAY (CL), olive brown mottled with grayish brown, very stiff, moist, manganese staining												
10	3					20								4*	PP
	4														
15	5														
20	6		Becomes stiff			15								1.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B39

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/7/2013
HOLE DEPTH: Approx. 28 ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
	1		SANDY LEAN CLAY (CL), light orangeish brown, stiff, dry, contains gravel (FILL)			22									
5															
	2		Becomes gray to dark gray (FILL)			7								2.5*	PP
			FAT CLAY (CH), black, very stiff, moist, containes carbonates and coarse-grained sand												
10	3					29	45	13	32		20.8	106.6		3.5*	PP
	4					28					23.3			3.5*	PP
15			LEAN CLAY (CL), brown, very stiff, moist, contains silt, manganese staining			27					20.1	106.7		3.5*	PP
	5														
	6														
20			SILTY SAND (SM), dense, dry to moist			27					3.9				
	7														
25			LEAN CLAY (CL), brown, stiff, moist, contains gravels, manganese staining			17					18.6			1.25*	PP
	8					26									
			Bottom of boring at 28 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B40

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/14/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 363 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetaion												
			SANDY LEAN CLAY (CL), light grayish brown, contains gravel and fine-grained to coarse-grained sand (FILL)												
5	1														
	2														
10	3														
	4														
15			FAT CLAY (CH), black, stiff, moist, contains carbonate stringers			9									
	5														
			Becomes very stiff			15								3.5*	PP
20	6														
	7														
25			SANDY SILT (ML), brown, stiff, dry to moist, contains gravel			15									
	8														
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B40

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/14/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 363 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			LEAN CLAY (CL), brown, stiff, moist, contains fine-grained sand			9									
	10														
35						11									
	11														
	12														
40						10									
			Bottom of boring at 41 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B41

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 367½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), light gray, contains gravel and fine-grained to coarse-grained sand												
5	1														
	2														
10	3		Becomes light brown												
	4														
15	5														
20	6														
	7		FAT CLAY (CH), very dark brown mottled with gray, very stiff, moist, contains fine grained sand			19								3* 2.5*	PP PP
25	8														
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B41

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/13/2013
HOLE DEPTH: Approx. 41½ ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 367½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SANDY LEAN CLAY (CL), brown, very stiff, moist, contains gravel and fine-grained sand			17									
	10														
35															
	11														
						15									
	12														
40			Bottom of boring at 41 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B42

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/14/2013
HOLE DEPTH: Approx. 43 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 364 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
0	0		Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), light gray, contains gravel and fine-grained to coarse-grained sand												
5	1														
	2														
10	3														
	4														
15	5														
20	6					9									
	7		LEAN CLAY (CL), brown, very stiff, moist, contains fine-grained sand, manganese staining												
25	8					16					16.3				
30	9														

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B42

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/14/2013
HOLE DEPTH: Approx. 43 ft.
HOLE DIAMETER: 8.0 in.
SURF ELEV (NAVD88): Approx. 364 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: V & W Drilling
DRILLING METHOD: Hollow Stem Auger
HAMMER TYPE: Automatic Trip Hammer

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			SILTY SAND (SM), yellowish brown, loose, dry, contains gravel, manganese staining			21									
			LEAN CLAY (CL), dark brown, medium stiff to stiff, moist, contains fine-grained sand												
	10														
35						8									
	11														
	12														
40			LEAN CLAY (CL), grayish brown mottled with orange, very stiff, moist			23								3*	PP
	13					13									
			Bottom of boring at 43 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B43

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 26½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 357 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), light brown, dry, (FILL)												
5	1														
	2		FAT CLAY (CH), black, moist												
10	3		SANDY LEAN CLAY (CL), very dark brown mottled with orange, hard, moist, contains gravel, manganese staining			36								4.5+*	PP
	4														
15	5		SANDY SILT (ML), light reddish brown, stiff, moist to dry, contains gravel and clay, manganese staining			15									
			SANDY LEAN CLAY (CL), brown, stiff, moist												
20	6					21								1.5*	PP
	7														
25			Becomes very stiff			30									
	8		Bottom of boring at 26 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B44

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 36½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 362 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
0	0		Stockpile and light vegetation												
			SANDY LEAN CLAY (CL), light gray, contains gravel and fine-grained to coarse-grained sand												
5	1														
	2														
10	3														
	4														
15	5		FAT CLAY (CH), very dark brown mottled with gray, hard, moist, contains fine-grained sand, manganese staining												
20	6					87								4.5+*	PP
	7		SANDY SILT (ML), brown, very stiff, moist, contains gravel, manganese staining												
25	8					27									
	9		LEAN CLAY (CL), brown mottled with yellowish brown, very stiff, moist, contains sand												
30															

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B44

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 36½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 362 ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
	10		LEAN CLAY (CL), brown mottled with yellowish brown, very stiff, moist, contains sand												
35	11					24									
			Bottom of boring at 36 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B45

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/9/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 349½ ft.

LOGGED / REVIEWED BY: A. Usher / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
	1		FAT CLAY (CH), dark brown mottled with grayish black, hard, moist, contains gravel and carbonates			22								4.5+*	PP
5															
	2		LEAN CLAY (CL), olive brown mottled with brown, very stiff to hard, moist, contains fine-grained sand, manganese staining												
10	3					23								3.5* 4.5+*	PP PP
	4														
15															
	5														
20	6					24								2.5*	PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG OF BORING 1-B46

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 350½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), brown, contains fine-grained to coarse-grained sand (FILL)												
	1		FAT CLAY (CH), black, very stiff, moist, contains carbonates												
5						30								2.5*	PP
	2													3.5*	PP
10	3		LEAN CLAY (CL), grayish brown, very stiff, moist, contains sand			22									
	4														
15															
	5		Contains gravel												
20	6					27									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B47

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 351½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), brown, contains fine-grained to coarse-grained sand (FILL)												
	1		FAT CLAY (CH), very dark brown to brown, very stiff, moist, contains carbonate stringers			21	47	3	44					3.5*	PP
5	2														
10	3		LEAN CLAY (CL), brown mottled with gray, very stiff to hard, moist, contains fine-grained to medium-grained sand			36									
	4														
15	5					9									
20	6					35								1.75* 2.5*	PP PP
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

LOG OF BORING 1-B48

ENGEO INCORPORATED

Geotechnical Exploration
CarMax Automotive Dealership
Pleasanton, CA
10237.000.000

DATE DRILLED: 5/15/2013
HOLE DEPTH: Approx. 21½ ft.
HOLE DIAMETER: 6.0 in.
SURF ELEV (NAVD88): Approx. 352½ ft.

LOGGED / REVIEWED BY: J. Kelson / PE
DRILLING CONTRACTOR: West Coast Exploration
DRILLING METHOD: Solid Flight Auger
HAMMER TYPE: 140 lb. Rope and Cathead

Depth in Feet	Depth in Meters	Sample Type	DESCRIPTION	Log Symbol	Water Level	Blow Count/Foot	Atterberg Limits: Liquid Limit	Atterberg Limits: Plastic Limit	Atterberg Limits: Plasticity Index	Fines Content (% passing #200 sieve)	Moisture Content (% dry weight)	Dry Unit Weight (pcf)	Shear Strength (psf) *field approximation	Unconfined Strength (tsf) *field approximation	Strength Test Type
			Seasonal grasses and topsoil												
			SANDY LEAN CLAY (CL), grayish brown, contains gravel (FILL)												
			FAT CLAY (CH), black mottled with brown, very stiff, moist												
	1														
5						18	68	16	52		26.9			2.75*	PP
	2														
	3														
10			LEAN CLAY (CL), brown mottled with gray, very stiff, moist, contains fine-grained sand			21					13.4				
			Contains gravel												
15	4														
	5		SANDY LEAN CLAY (CL), brown, stiff, moist												
20	6					14									
			Bottom of boring at 21 1/2 feet below existing grade. No ground water encountered.												

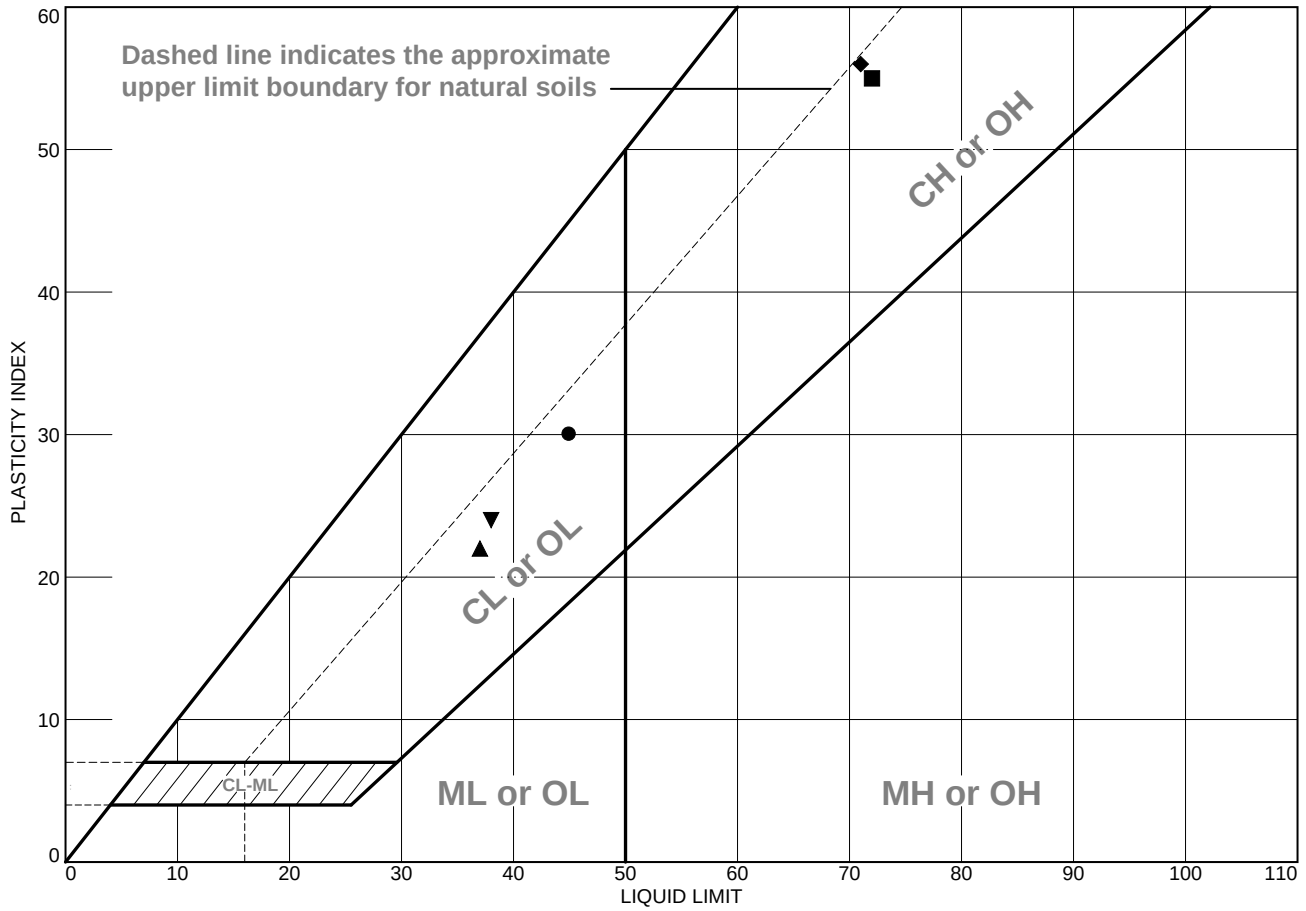
LOG - SHEAR AND UNCONF STRENGTH GINT LOGS.GPJ ENGEO INC.GDT 6/21/13

APPENDIX B
LABORATORY TEST DATA

Liquid and Plastic Limits Test Report
Unconfined Compression Test
Unconsolidated Undrained Triaxial Test
Swell Potential Method B
Particle Size Distribution Report
R-Value Test Report
Analytical Results of Soil Corrosion (2 pages)

APPENDIX B

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	See exploration logs	45	15	30			
■	See exploration logs	72	17	55			
▲	See exploration logs	37	15	22			
◆	See exploration logs	71	15	56			
▼	See exploration logs	38	14	24			

Project No. 10327.000.000 **Client:** CenterPoint Integrated Solutions, LLC

Project: CarMax Dealership - Pleasanton, CA

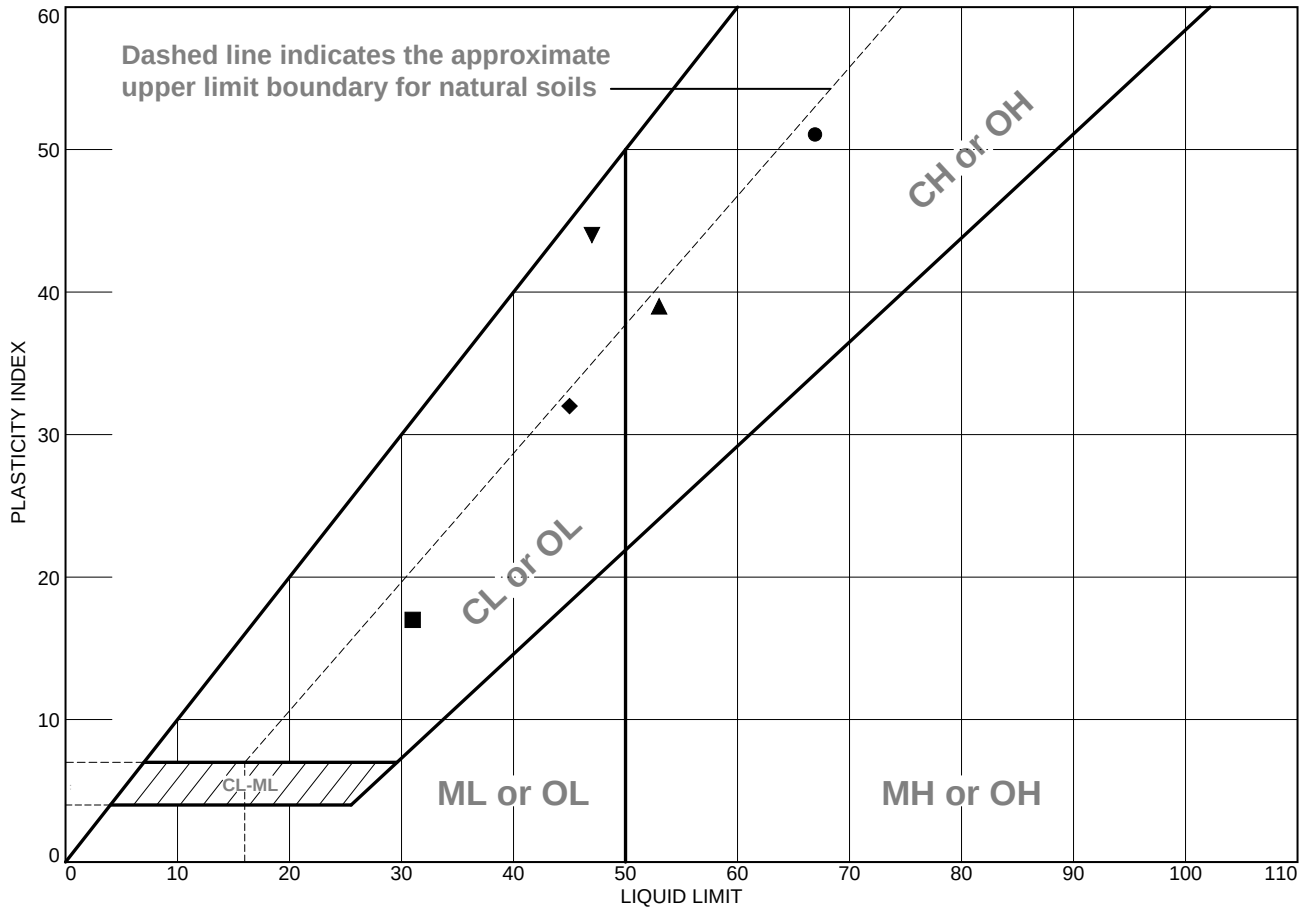
●**Depth:** 1.5 feet **Sample Number:** 1-B15 @ 1.5
■**Depth:** 5.0 feet **Sample Number:** 1-B15 @ 5
▲**Depth:** 2.0 feet **Sample Number:** 1-B17 @ 2
◆**Depth:** 6.0 feet **Sample Number:** 1-B17 @ 6
▼**Depth:** 8.5 feet **Sample Number:** 1-B21 @ 8.5

ENGEO INCORPORATED

Remarks:
●PI: ASTM D4318, Method A
■PI: ASTM D4318, Method A
▲PI: ASTM D4318; Method A
◆PI: ASTM D4318; Method A
▼PI: ASTM D4318, Method A

Tested By: ○ JL □ JL △ GC ◇ GC ▽ GC **Checked By:** DS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	See exploration logs	67	16	51			
■	See exploration logs	31	14	17			
▲	See exploration logs	53	14	39			
◆	See exploration logs	45	13	32			
▼	See exploration logs	47	3	44			

Project No. 10327.000.000 **Client:** CenterPoint Integrated Solutions, LLC

Project: CarMax Dealership - Pleasanton, CA

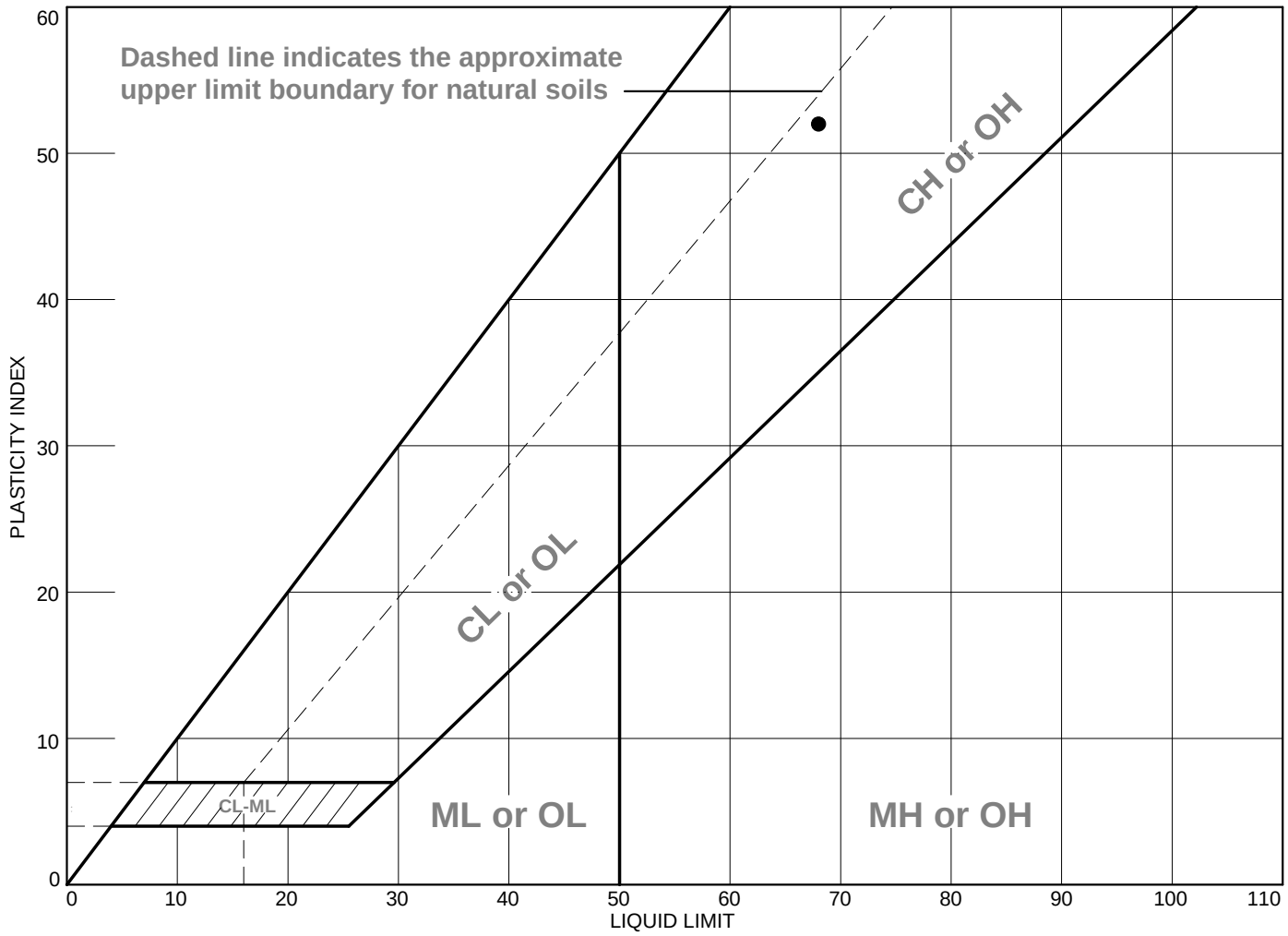
●**Depth:** 5.0 feet **Sample Number:** 1-B28 @ 5
■**Depth:** 2.0 feet **Sample Number:** 1-B29 @ 2
▲**Depth:** 8.0 feet **Sample Number:** 1-B37 @ 8
◆**Depth:** 11.0 feet **Sample Number:** 1-B39 @ 11
▼**Depth:** 4.0 feet **Sample Number:** 1-B47 @ 4

ENGEO INCORPORATED

Remarks:
●PI: ASTM D4318, Method A
■PI: ASTM D4318, Method A
▲PI: ASTM D4318, Method A
◆PI: ASTM D4318, Method A
▼PI: ASTM D4318, Method A

Tested By: ○ GC □ GC △ GC ◇ GC ▽ TB **Checked By:** DS

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	See exploration logs	68	16	52			

Project No. 10327.000.000 **Client:** CenterPoint Integrated Solutions, LLC

Project: CarMax Dealership - Pleasanton, CA

● **Depth:** 5.5 feet **Sample Number:** 1-B48 @ 5.5

Remarks:

● PI: ASTM D4318, Method A

ENGEO INCORPORATED

Tested By: GC **Checked By:** DS

EN GEO

Unconfined Compression Test Report (ASTM D2166)

Date 5.24.13

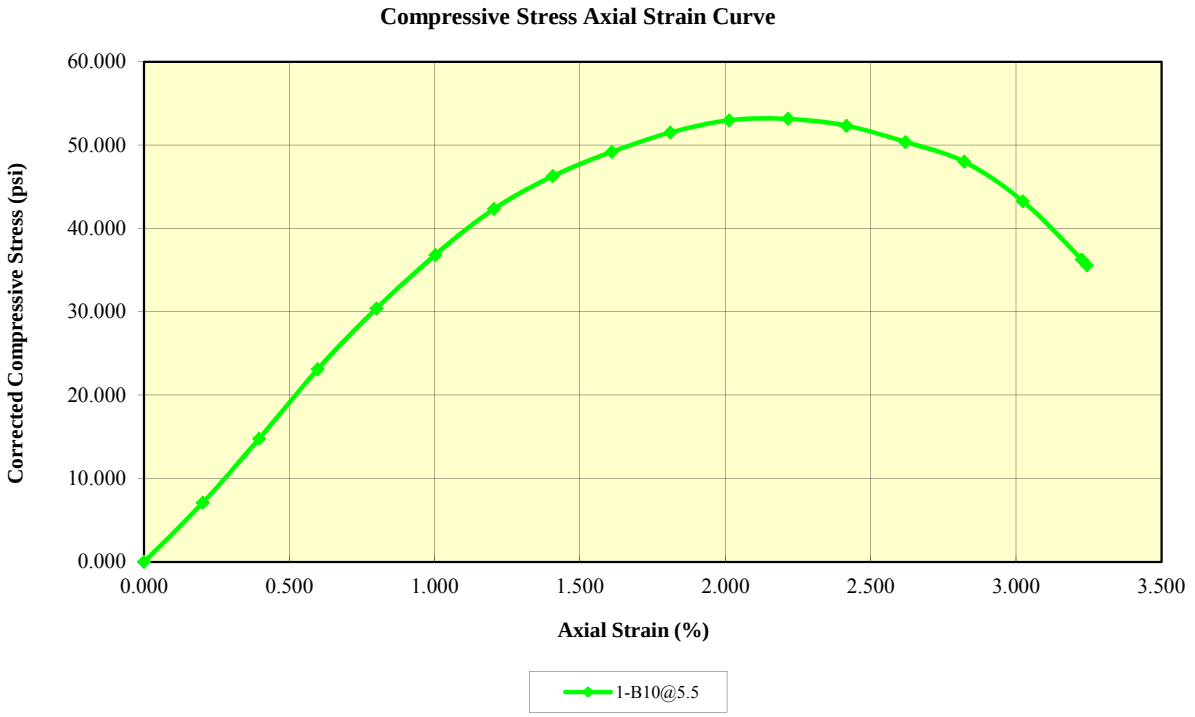
Checked By G. Criste

Date 5.24.13

Computed By D. Seibold

Date 5.24.13

Tested By D. Seibold



Before Test	Specimen 1-B10@5.5			
Water Content (%)	14.46			
Dry Density (pcf)	108.100			
Saturation (%)	72.20			
Void Ratio	0.53			
Diameter (in)	2.390			
Height (in)	4.990			
Test Data	**1-B10@5.5**			
Unconfined Compressive Strength (psi)	53.165			
Unconfined Compressive Strength (tsf)	3.825			
Undrained Shear Strength (psi)	26.582			
Rate of Strain (in/min)	0.050000			
Strain at Failure (%)	2.21			
Height-to-Diameter Ratio	2.088			

Project Information		Sample ID	Description
Project Number	10237.000.000	1-B10@5.5	See exploration logs
Project Name	CarMax Dealership		
Test Date	5.24.13		
Location	Pleasanton, California		
Client	CenterPoint Integrated Solutions, LLC		
Remarks			

Index Properties	1-B10@5.5			
Specific Gravity:	2.65			
Liquid Limit:				
Plastic Limit:				

EN GEO

Unconfined Compression Test Report (ASTM D2166)

Date 5.22.13

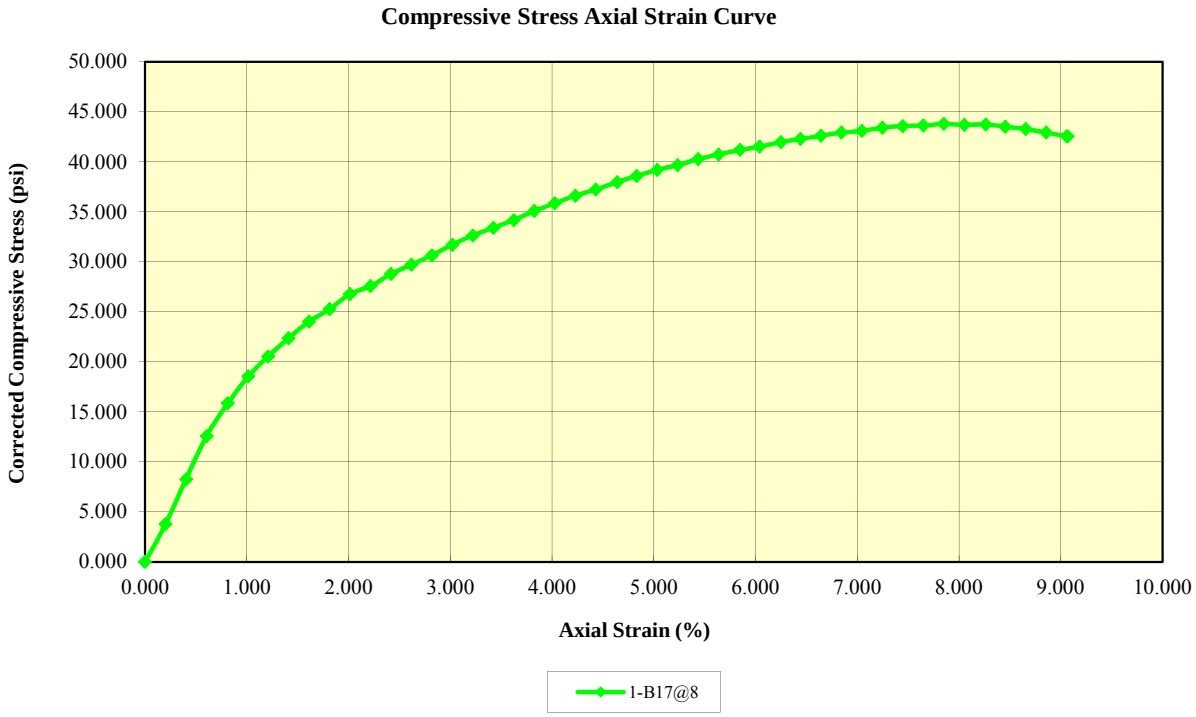
Checked By G. Criste

Date 5.22.13

Computed By D. Seibold

5.22.13 Date

Tested By D. Seibold



Before Test	Specimen 1-B17@8			
Water Content (%)	18.58			
Dry Density (pcf)	110.700			
Saturation (%)	99.53			
Void Ratio	0.49			
Diameter (in)	2.390			
Height (in)	5.010			
Test Data	**1-B17@8**			
Unconfined Compressive Strength (psi)	43.804			
Unconfined Compressive Strength (tsf)	3.151			
Undrained Shear Strength (psi)	21.902			
Rate of Strain (in/min)	0.050000			
Strain at Failure (%)	7.85			
Height-to-Diameter Ratio	2.096			

Project Information		Sample ID	Description
Project Number	10237.000.000	1-B17@8	See exploration logs
Project Name	CarMax Dealership		
Test Date	5.22.13		
Location	Pleasanton, California		
Client	CenterPoint Integrated Solutions, LLC		

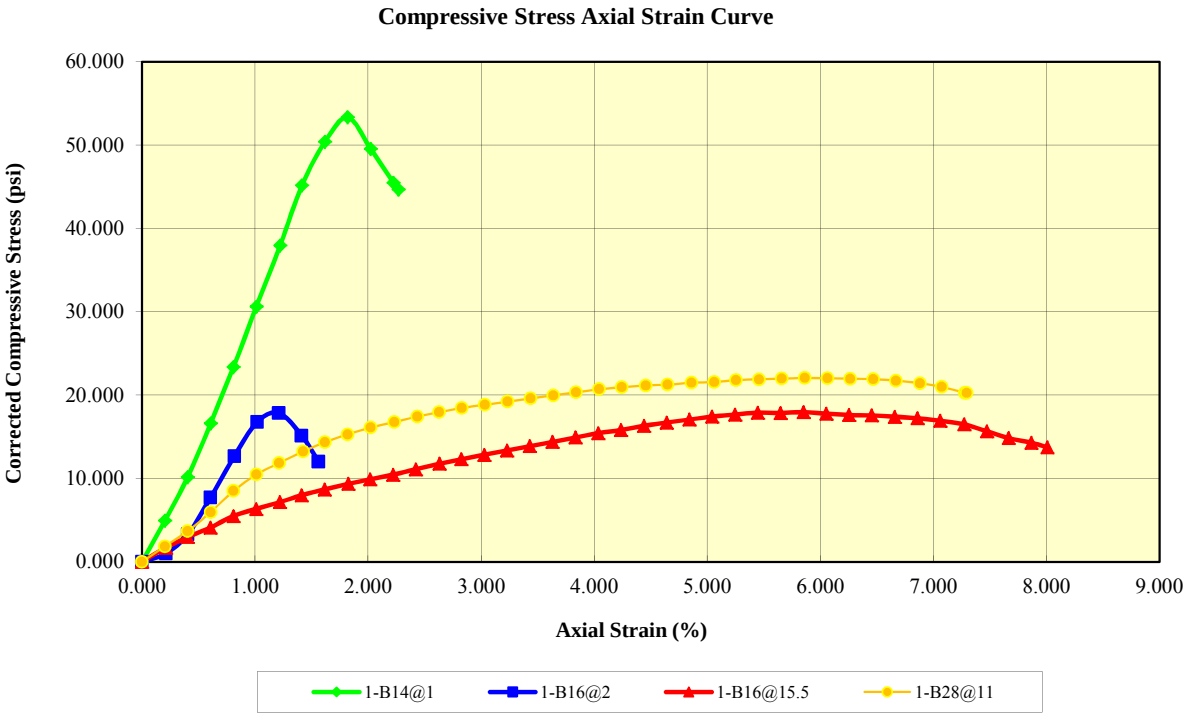
Index Properties	1-B17@8
Specific Gravity:	2.65
Liquid Limit:	
Plastic Limit:	

Remarks

EN GEO

Unconfined Compression Test Report (ASTM D2166)

Date 5.15.13
Checked By G. Criste
Date 5.15.13
Computed By D. Seibold
Date 5.15.13
Tested By D. Seibold



Before Test	Specimen 1-B14@1	1-B16@2	1-B16@15.5	1-B28@11
Water Content (%)	10.39	9.99	17.39	19.74
Dry Density (pcf)	110.200	84.100	109.800	104.700
Saturation (%)	54.87	27.39	90.87	90.12
Void Ratio	0.50	0.97	0.51	0.58
Diameter (in)	2.419	2.405	2.415	2.410
Height (in)	4.990	5.000	5.000	4.990
Test Data	**1-B14@1**	**1-B16@2**	**1-B16@15.5**	**1-B28@11**
Unconfined Compressive Strength (psi)	53.361	17.870	17.962	22.072
Unconfined Compressive Strength (tsf)	3.839	1.286	1.292	1.588
Undrained Shear Strength (psi)	26.681	8.935	8.981	11.036
Rate of Strain (in/min)	0.050000	0.050000	0.050000	0.050000
Strain at Failure (%)	1.82	1.21	5.85	5.86
Height-to-Diameter Ratio	2.063	2.079	2.070	2.071

Project Information		Sample ID	Description
Project Number	10237.000.000	1-B14@1	See exploration logs
Project Name	CarMax Dealership - Pleasanton,	1-B16@2	See exploration logs
Test Date		1-B16@15.5	See exploration logs
Location	Pleasanton, California	1-B28@11	See exploration logs
Client	CeterPoint Integrated Solutions, LLC		

Index Properties	1-B14@1	1-B16@2	1-B16@15.5	1-B28@11
Specific Gravity:	2.65	2.65	2.65	2.65
Liquid Limit:				
Plastic Limit:				

Remarks: Specific gravity was assumed

EN GEO

Unconfined Compression Test Report (ASTM D2166)

Date 5.15.13

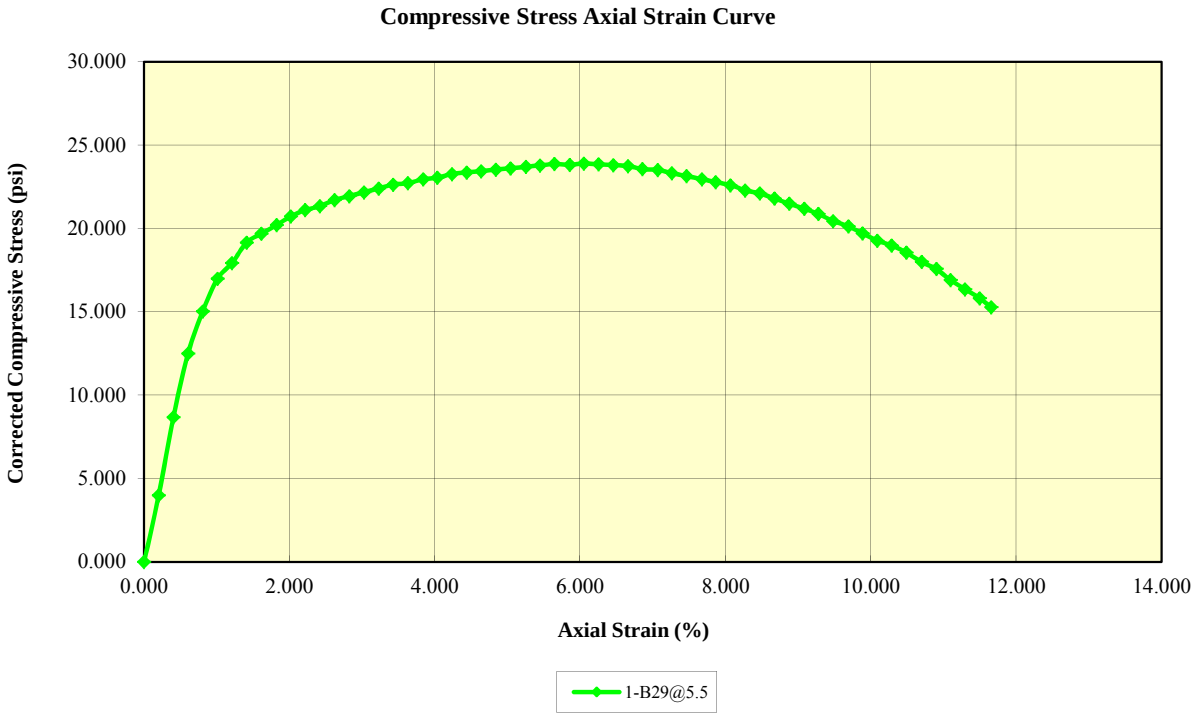
Checked By G. Criste

Date 5.15.13

Computed By D. Seibold

Date 5.15.13

Tested By D. Seibold



Before Test	Specimen 1-B29@5.5			
Water Content (%)	30.18			
Dry Density (pcf)	90.600			
Saturation (%)	96.71			
Void Ratio	0.83			
Diameter (in)	2.410			
Height (in)	5.000			
Test Data	**1-B29@5.5**			
Unconfined Compressive Strength (psi)	23.908			
Unconfined Compressive Strength (tsf)	1.720			
Undrained Shear Strength (psi)	11.954			
Rate of Strain (in/min)	0.050000			
Strain at Failure (%)	6.05			
Height-to-Diameter Ratio	2.075			

Project Information		Sample ID	Description
Project Number	10237.000.000	1-B29@5.5	See exploration logs
Project Name	Carmax Dealership - Pleasanton,		
Test Date	5.15.13		
Location	Pleasanton, California		
Client	CenterPoint Integrated Solutions, LLC		

Index Properties	1-B29@5.5			
Specific Gravity:	2.65			
Liquid Limit:				
Plastic Limit:				

Remarks

EN GEO

Unconsolidated Undrained Triaxial Test (ASTM D2850)

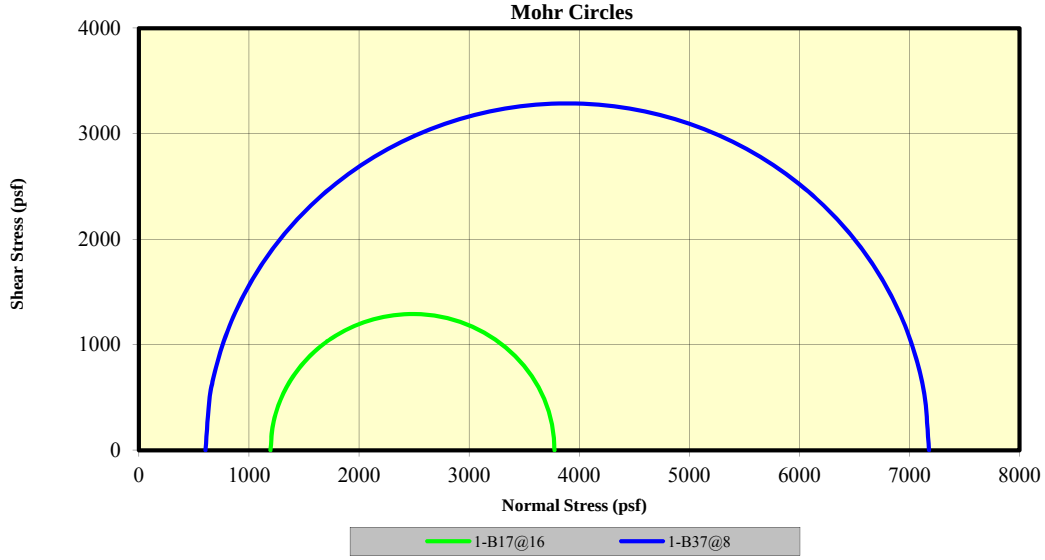
Date: 5.22.13

Checked By: G. Criste

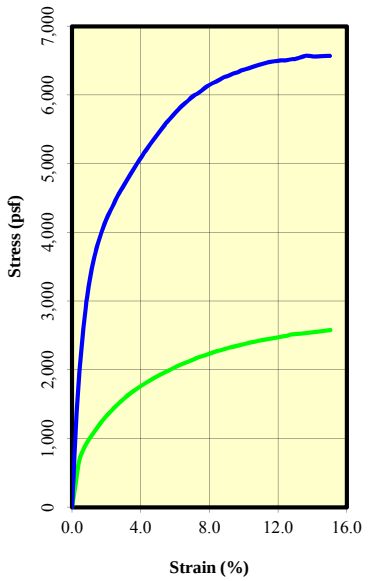
Date: 5.22.13

Tested By: D. Seibold

Mohr Circles



Stress-Strain Curve



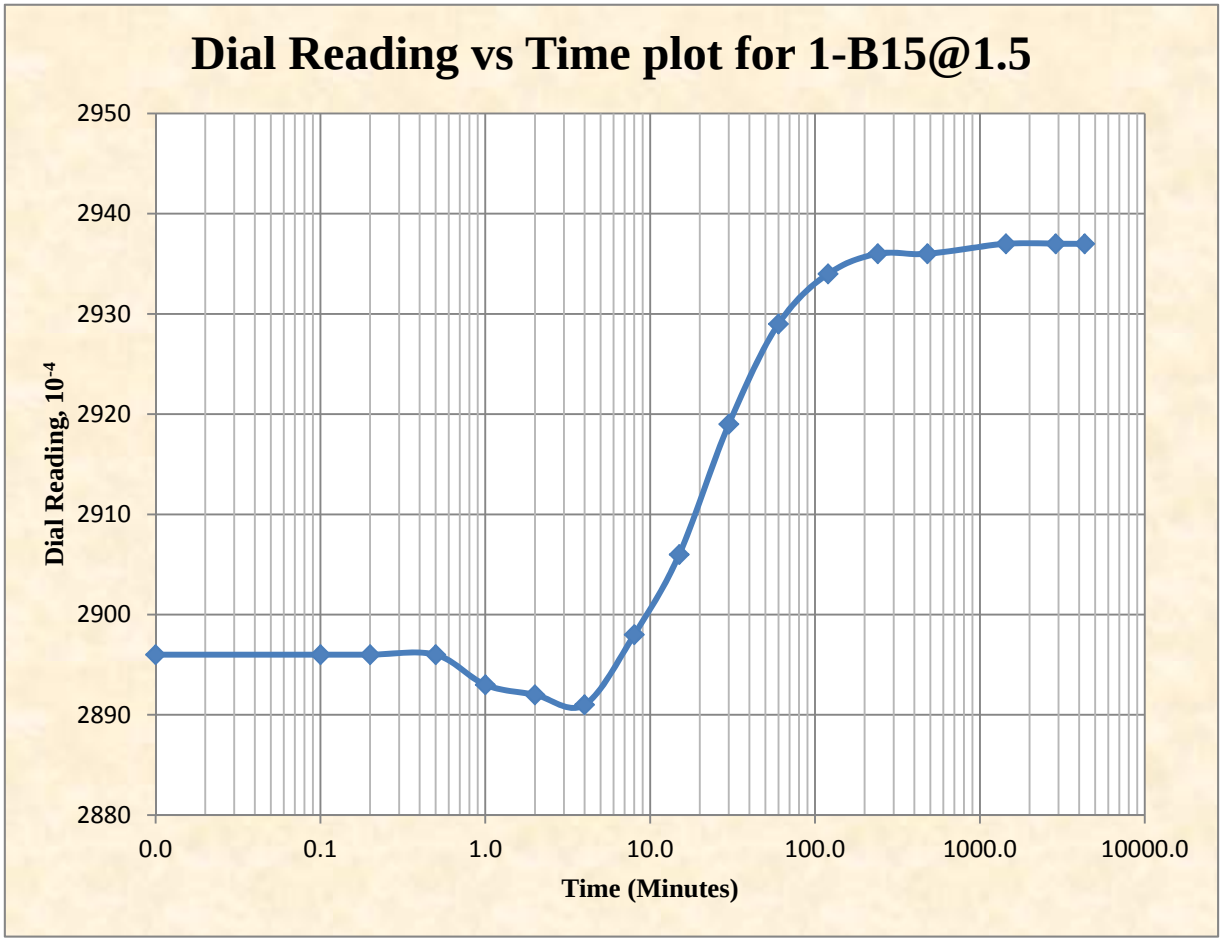
Before Test	Specimen 1-B17@16	1-B37@8		
Water Content (%)	19.84	19.36		
Dry Density (pcf)	109.96	108.84		
Saturation (%)	100.00	98.66		
Void Ratio	0.50	0.52		
Diameter (in)	2.400	2.390		
Height (in)	5.000	4.990		
Liquid Limit	-	-		
Plastic Limit	-	-		
Specific Gravity	2.650	2.650		
Height-to-Diam. Ratio	2.083	2.088		
After Test	**1-B17@16**	**1-B37@8**		
Water Content (%)	19.84	19.36		
Saturation (%)	100.00	98.66		
Strain Rate (in/min)	0.05	0.05		
Peak Deviator Stress (psf)	2580.3	6572.9		
Axial Strain @ Failure (%)	15.046	13.622		
	Cell Pressure			
Cell (psf)	1195.2	604.8		
Back (psf)	n/a	n/a		
	Principle Stresses at Failure			
σ1 (psf)	3775.5	7177.7		
σ3 (psf)	1195.2	604.8		

Mohr-Coulomb Strength Parameters		Sample Description
Cohesion, c (psf)	0.0	See Exploration Logs
Friction Angle Ø	0.00	

Project Information			
Project Name:	CarMax Dealership		
Project Number:	10237.000.000	Job Number:	10237.000.000
Location:	Pleasanton, California	Boring Number:	Various
Client:	CenterPoint Integrated Solutions, LLC	Sample Number:	Multiple
Remarks:			

ONE DIMENSIONAL SWELL POTENTIAL - METHOD 'B'

ASTM D4546



Initial sample height (in) = 1.000
Initial dial reading (in) = 0.3000

Surcharge pressure (psf) = 1500
Time-rate duration (min) = 1440

SAMPLE ID / DATA FOR: **B15 @ 1.5**
SAMPLE DESCRIPTION: **See exploration logs**
REMOLDING SPECS: **none**
TYPE OF WATER USED: **De-aired**

	Initial	Final	%Displacement
%Moisture:	**10.0**	**24.5**	**-0.63**
Dry density:	**100.9**	**101.5**	

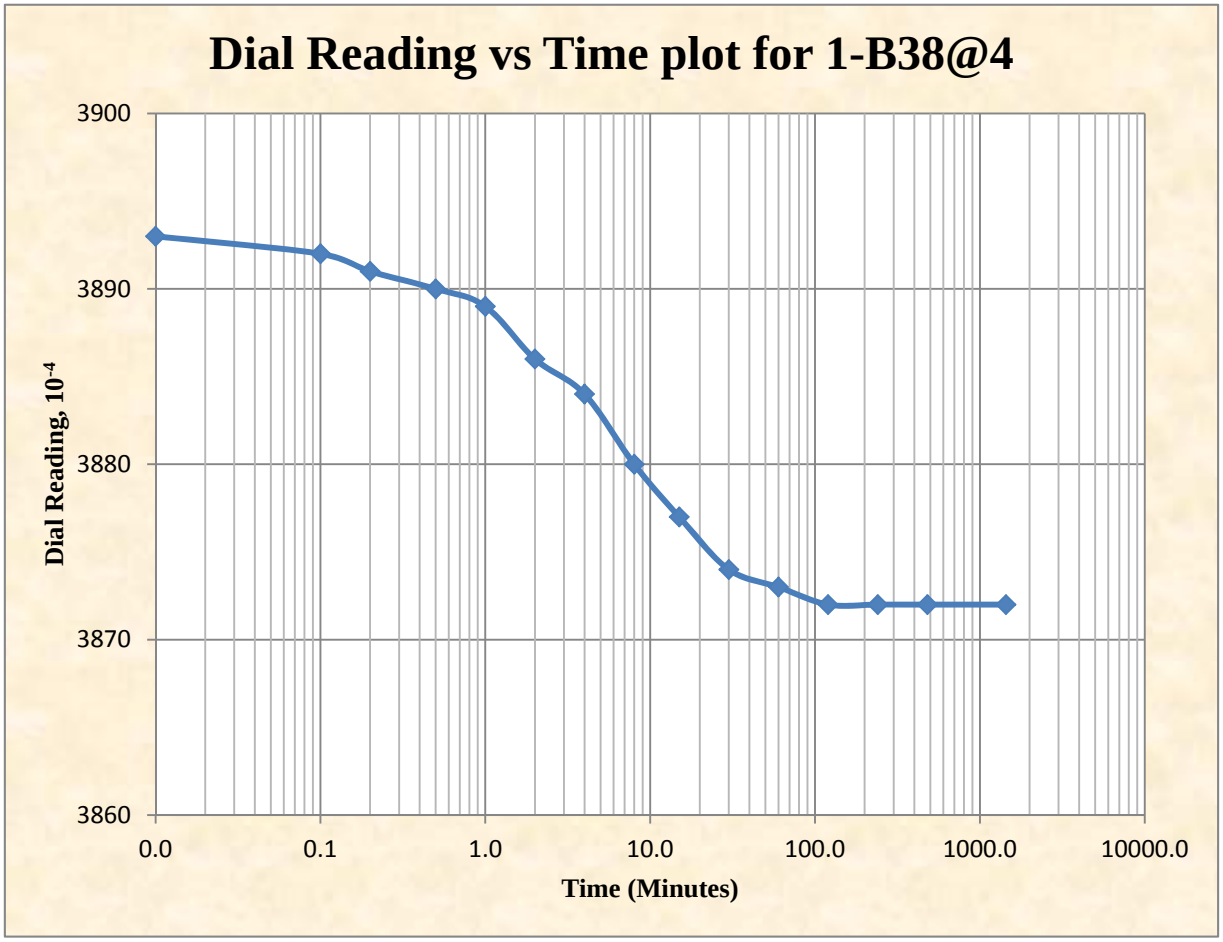
PROJECT NAME: **CarMax Dealership - Pleasanton, CA** **DATE:** **05/13/13**
PROJECT NUMBER: **10237.000.000**
CLIENT: **CenterPoint Integrated Solutions, LLC**
PHASE NUMBER: **001**

Tested by: GC
Reviewed by: DS

ENGEO INCORPORATED

ONE DIMENSIONAL SWELL POTENTIAL - METHOD 'B'

ASTM D4546



Initial sample height (in) = 1.003
Initial dial reading (in) = 0.4000

Surcharge pressure (psf) = 2000
Time-rate duration (min) = 1440

SAMPLE ID / DATA FOR: 1-B38 @ 4
SAMPLE DESCRIPTION: See exploration logs
REMOLDING SPECS: None
TYPE OF WATER USED: De-aired

	Initial	Final	%Displacement
%Moisture:	**24.1**	**26.5**	**-1.28**
Dry density:	**97.1**	**98.3**	

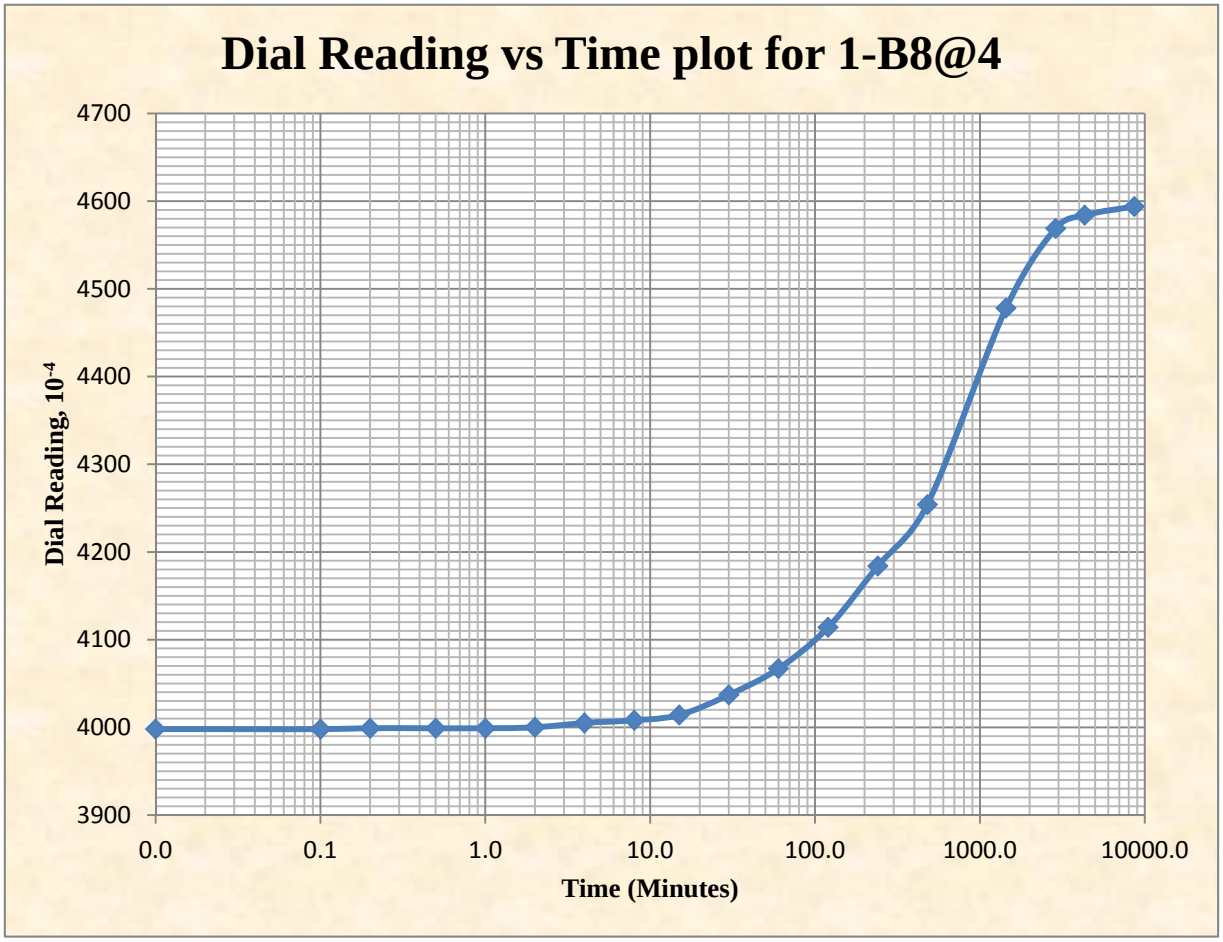
PROJECT NAME: CarMax Dealership - Pleasanton, CA **DATE: 05/29/13**
PROJECT NUMBER: 10237.000.000
CLIENT: CenterPoint Integrated Solutions, LLC
PHASE NUMBER: 001

Tested by: GC
Reviewed by: DS

ENGEO INCORPORATED

ONE DIMENSIONAL SWELL POTENTIAL - METHOD 'B'

ASTM D4546



Initial sample height (in) = 1.003
Initial dial reading (in) = 0.4000

Surcharge pressure (psf) = 500
Time-rate duration (min) = 8640

SAMPLE ID / DATA FOR: 1-B8 @ 4
SAMPLE DESCRIPTION: See exploration logs
REMOLDING SPECS: None
TYPE OF WATER USED: De-aired

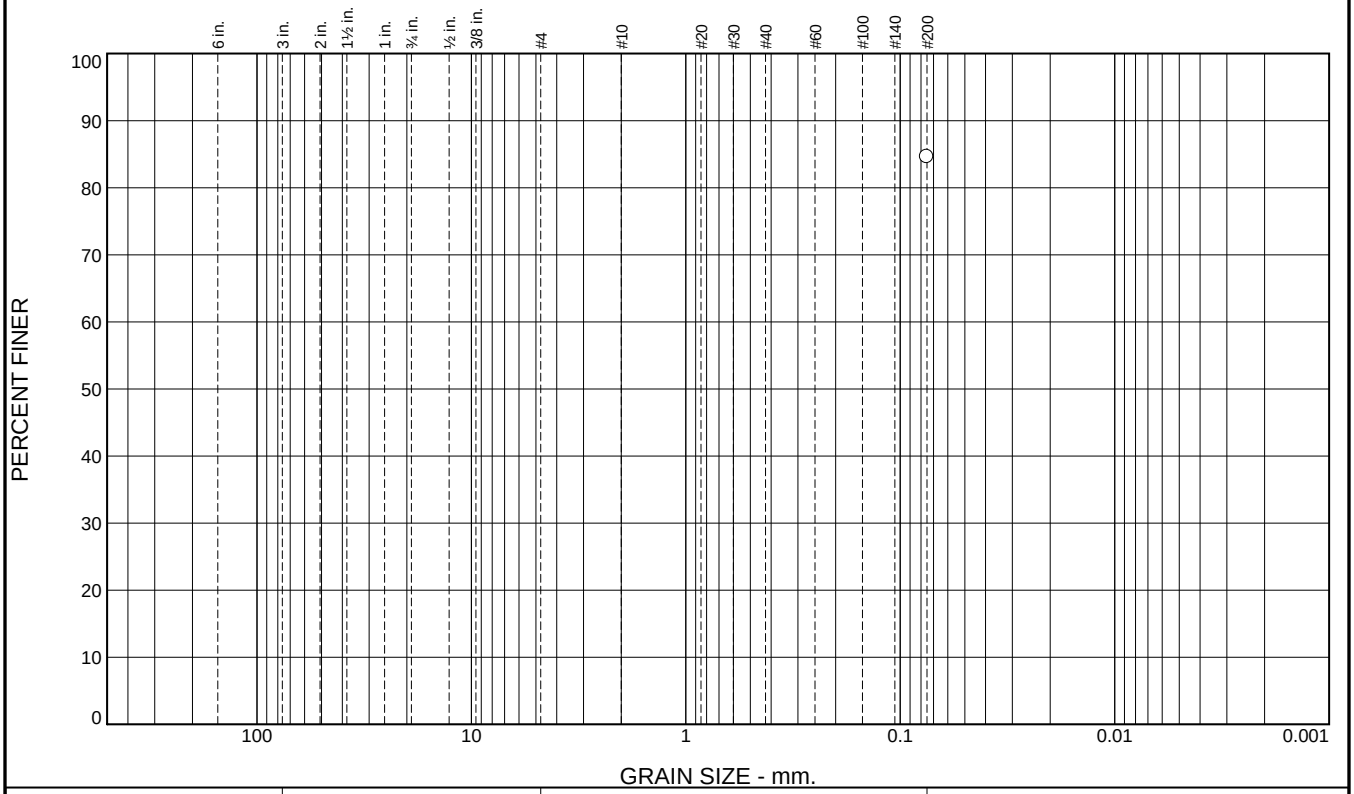
	Initial	Final	%Displacement
%Moisture:	**15.7**	**23.3**	**5.92**
Dry density:	**110.8**	**104.6**	

PROJECT NAME: CarMax Dealership - Pleasanton, CA **DATE: 05/21/13**
PROJECT NUMBER: 10237.000.000
CLIENT: CenterPoint Integrated Solutions, LLC
PHASE NUMBER: 001

Tested by: GC
Reviewed by: DS

ENGEO INCORPORATED

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						84.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	84.6		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= D_{85}= D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

GS: ASTM D1140

Sample Number: 1-B11 @ 3 **Depth:** 3.0 feet

Date: 5.13.13

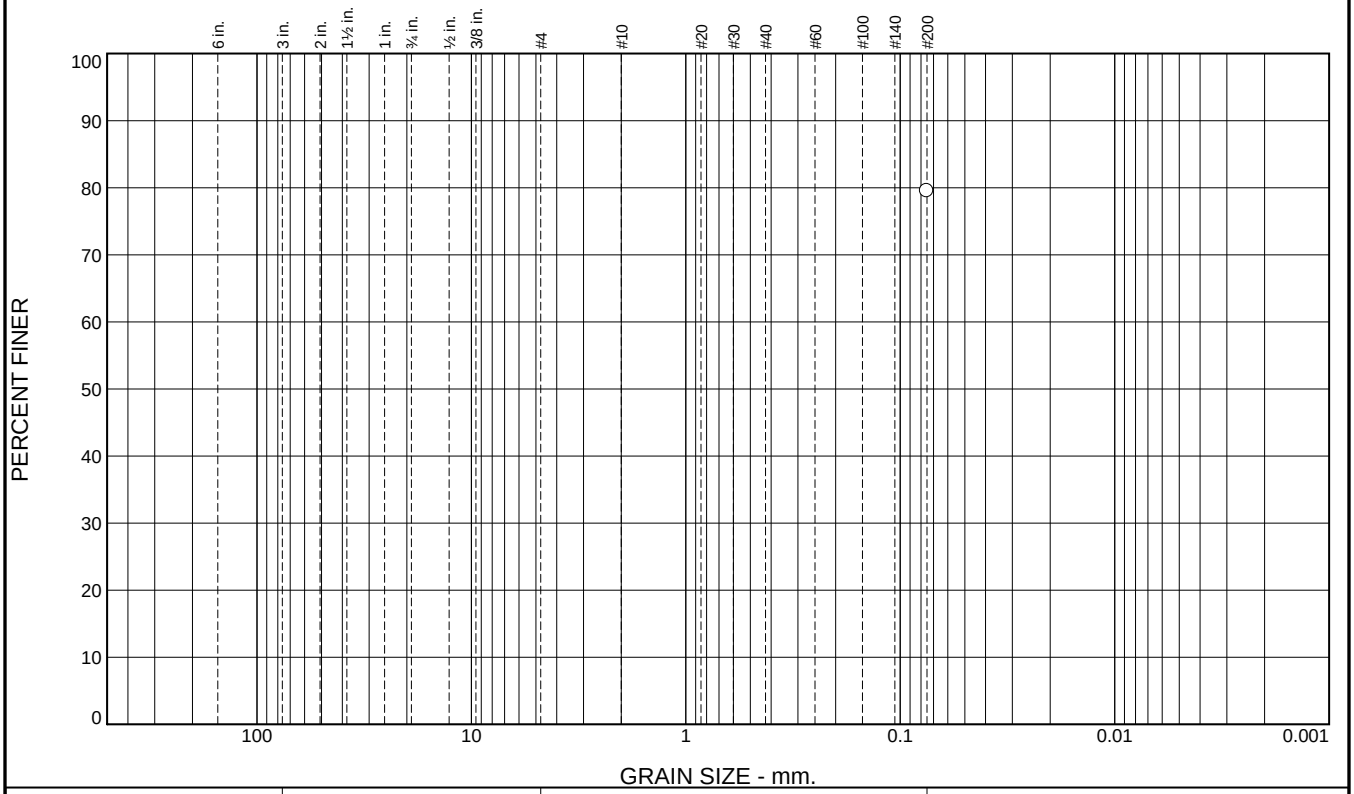
ENGEO INCORPORATED

Client: CenterPoint Integrated Solutions, LLC
Project: CarMax Dealership - Pleasanton, CA

Project No: 10327.000.000

Tested By: TB **Checked By:** DS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						79.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	79.5		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= D_{85}= D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

GS: ASTM D1140

Sample Number: 1-B18 @ 2 **Depth:** 2.0 feet

Date: 5.13.13

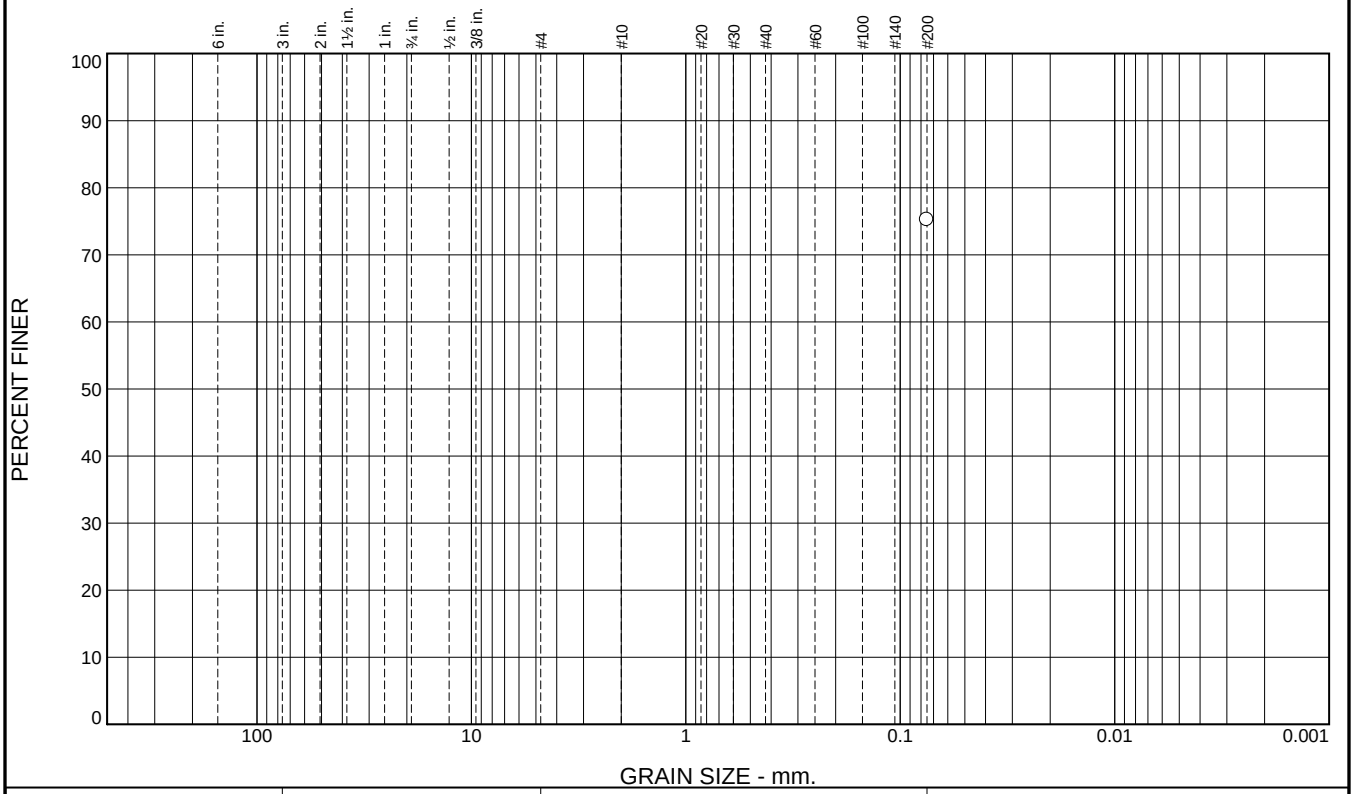
ENGEO INCORPORATED

Client: CenterPoint Integrated Solutions, LLC
Project: CarMax Dealership - Pleasanton, CA

Project No: 10327.000.000

Tested By: TB **Checked By:** DS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						75.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	75.2		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= D_{85}= D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

GS: ASTM D1140

Sample Number: 1-B29 @ 10 **Depth:** 10.0 feet

Date: 5.13.13

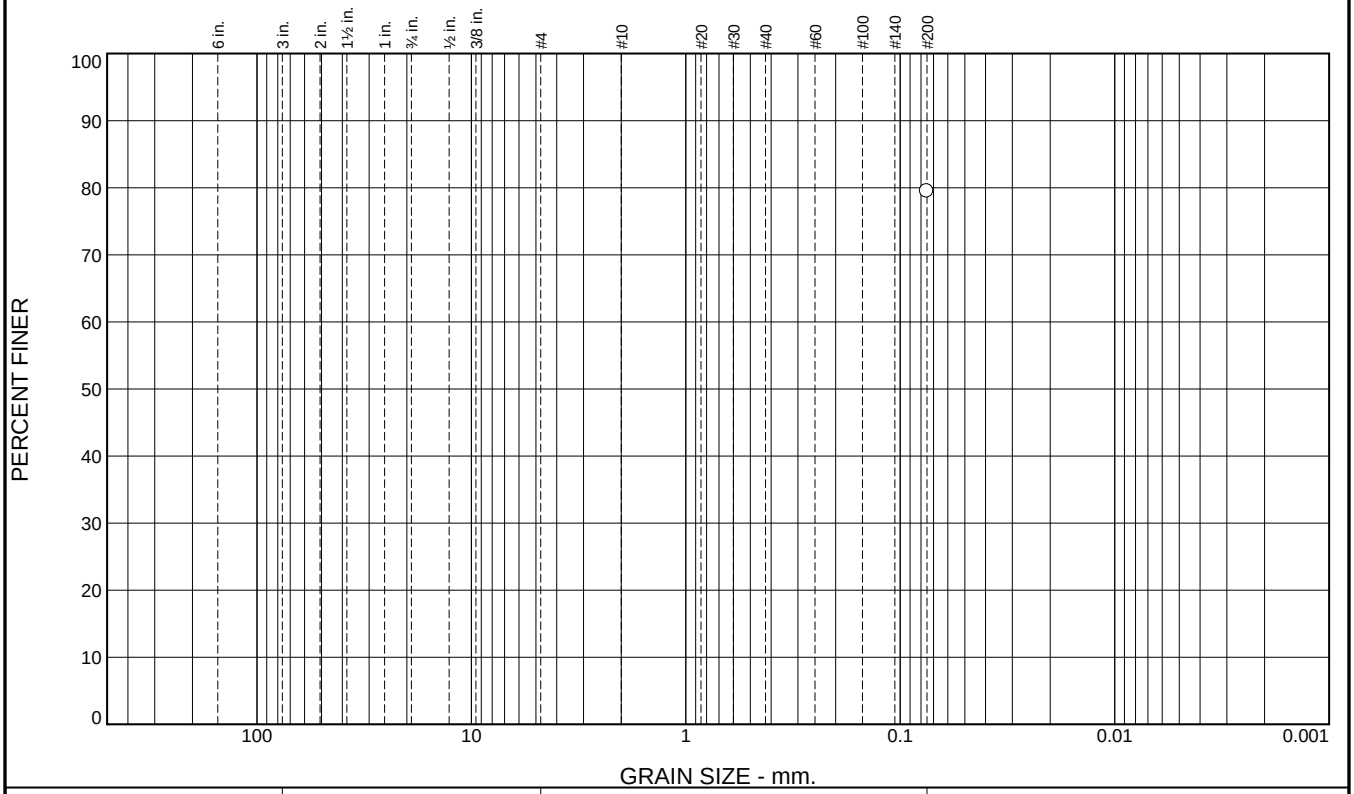
ENGEO INCORPORATED

Client: CenterPoint Integrated Solutions, LLC
Project: CarMax Dealership - Pleasanton, CA

Project No: 10327.000.000

Tested By: TB **Checked By:** DS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						79.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	79.5		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= D_{85}= D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

GS: ASTM D1140

Sample Number: 1-B37 @ 6 **Depth:** 6.0 feet

Date: 5.22.13

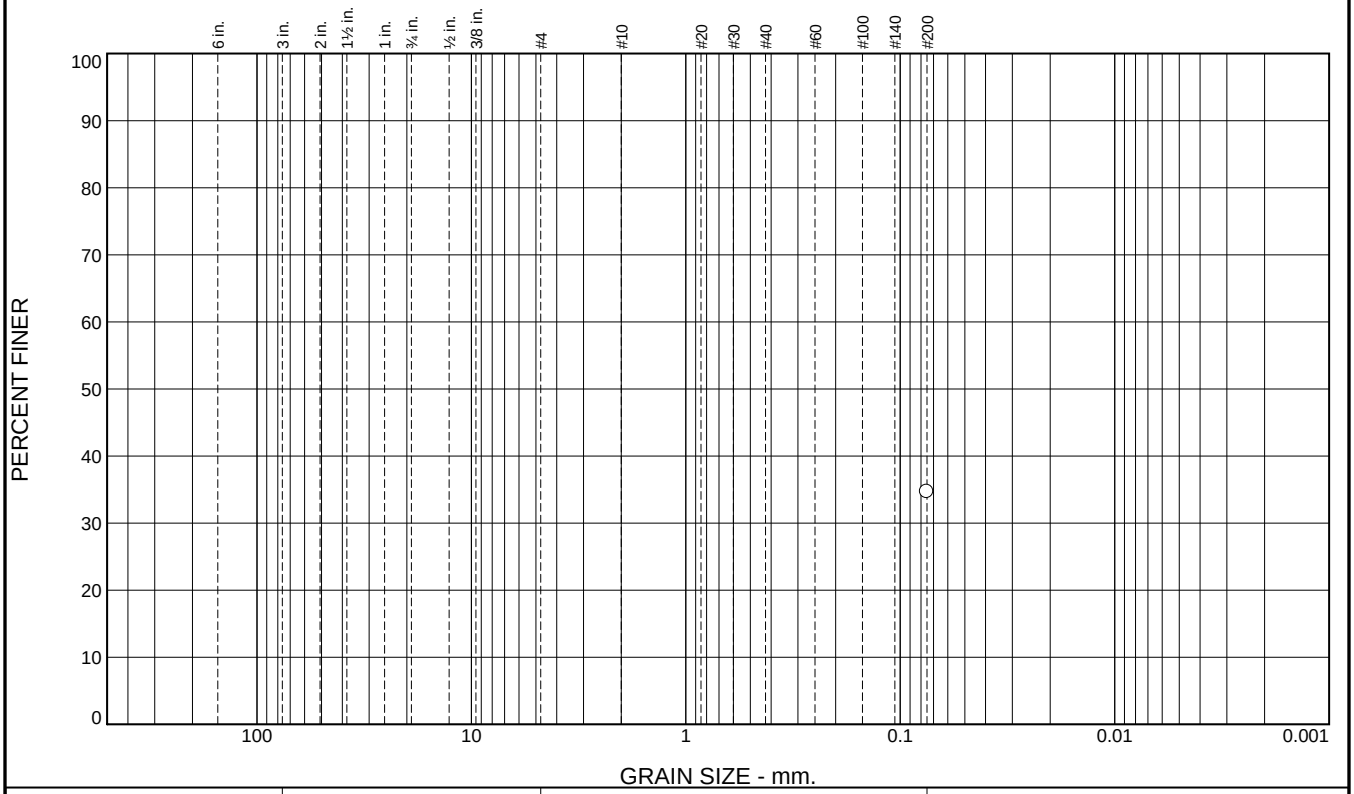
ENGEO INCORPORATED

Client: CenterPoint Integrated Solutions, LLC
Project: CarMax Dealership - Pleasanton, CA

Project No: 10327.000.000

Tested By: TB **Checked By:** DS

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
						34.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#200	34.7		

* (no specification provided)

Soil Description

See exploration logs

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= D_{85}= D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

GS: ASTM D1140

Sample Number: 1-B9 @ 11 **Depth:** 11.0 feet

Date: 5.13.13

ENGEO INCORPORATED

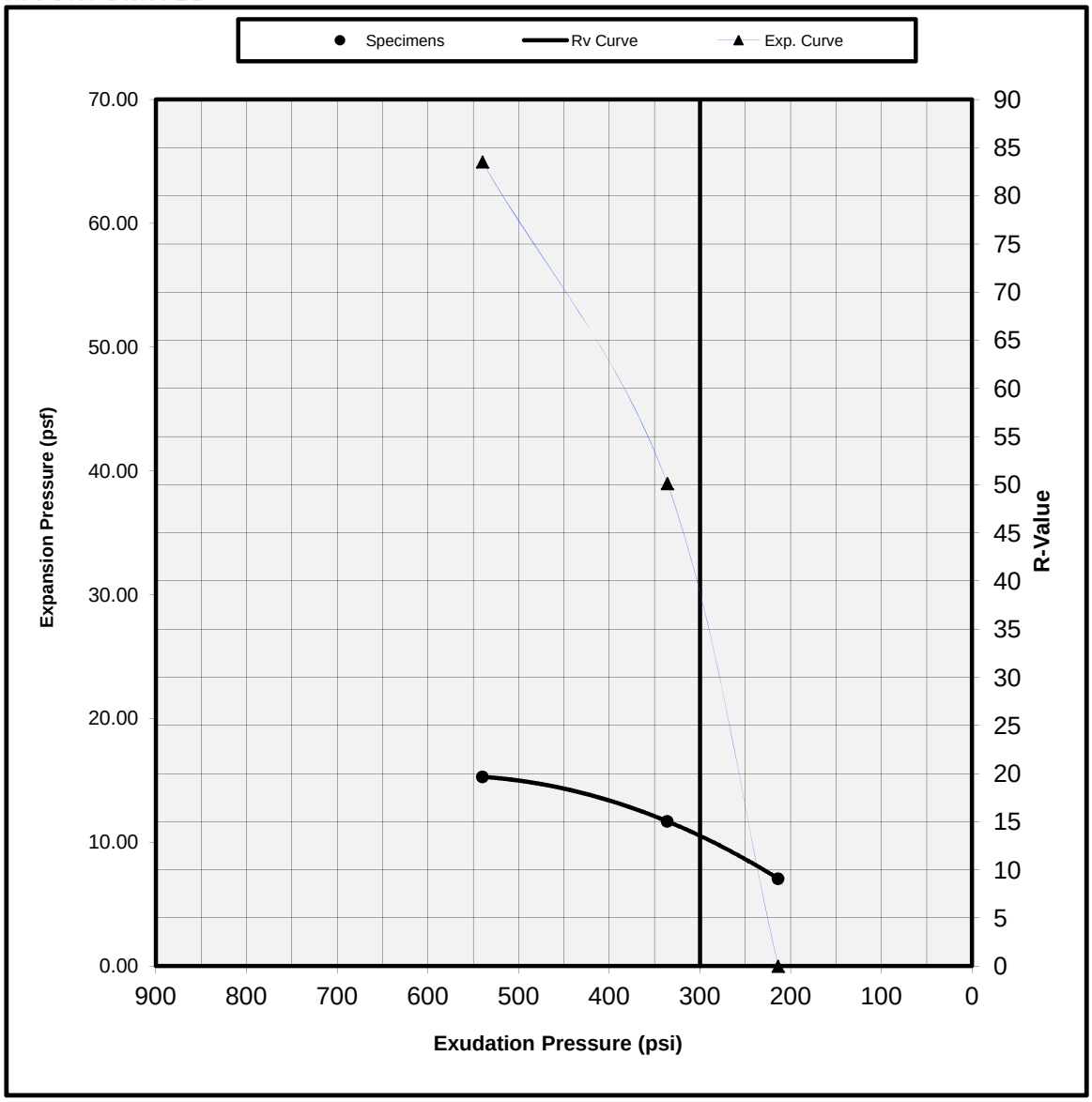
Client: CenterPoint Integrated Solutions, LLC
Project: CarMax Dealership - Pleasanton, CA

Project No: 10327.000.000

Tested By: TB **Checked By:** DS

ENGEO INCORPORATED

R VALUE TEST REPORT
CTM-301



Date: 05/14/13
Project Name: 10237.000.000
Project Number: Carmax Dealership- Pleasanton
Sample Location: Bulk 1-B22@ top 3ft
Description: See exploration logs
Test Performed By: DB
Reviewed By: DS

Specimen	Specimen 1	Specimen 2	Specimen 3
Exudation Pressure (p.s.i.)	540	336	214
Expansion dial (0.0001")	15	9	0
Expansion Pressure (p.s.f.)	65	39	0
Resistance Value, "R"	20	15	9
% Moisture at Test	16.4	17.7	19.0
Dry Density at Test, p.c.f.	111.8	108.2	105.2
"R" Value at Exudation Pressure of 300 psi.	14		
Expansion Pressure (psf) at Exudation Pressure of 300 psi.	30		

Lab Address : 2057 San Ramon Valley Blvd., San Ramon, CA 94583

California State Certified Laboratory No. 2153

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Client: ENGEO Incorporated
Client's Project No.: 10237.000.000
Client's Project Name: Automotive Dealership Pleasanton
Date Sampled: 7-May-13
Date Received: 10-May-13
Matrix: Soil
Authorization: Signed Chain of Custody

Date of Report: 20-May-2013

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Conductivity (umhos/cm)*	Resistivity (100% Saturation) (ohms-cm)	Sulfide (mg/kg)*	Chloride (mg/kg)*	Sulfate (mg/kg)*
1305079-001	1-B14 @ 6"	310	8.2	-	2,600	-	31	19
1305079-002	1-B28 @ 6"	300	8.2	-	1,800	-	55	250

Method:	ASTM D1498	ASTM D4972	ASTM D1125M	ASTM G57	ASTM D4658M	ASTM D4327	ASTM D4327
Detection Limit:	-	-	10	-	50	15	15
Date Analyzed:	17-May-2013	17-May-2013	-	16-May-2013	-	17-May-2013	17-May-2013

Cheryl McMillen
Laboratory Director

* Results Reported on "As Received" Basis
N.D. - None Detected

Quality Control Summary - **All laboratory quality control parameters were found to be within established limits**

1305079

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: 10237.000.000	PROJECT NAME: Automotive Dealership Pleasanton
SAMPLED BY: (SIGNATURE/PRINT) Julia Kelson	
PROJECT MANAGER: Pedro Espinosa (925) 395-2555	
ROUTING: E-MAIL	pespinosa@engeo.com ausher@engeo.com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	ASTM Corrosivity Analysis															REMARKS REQUIRED DETECTION LIMITS
1-B14@6"	05/07/13		soil	1	1 gal zip	na	X															no description
1-B28@6"	05/07/13		soil	1	1 gal zip	na	X															no description

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
	05/09/13 8:30 AM	5/10 9:00			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS: Standard 10-day turn-around time	

ENGEO INCORPORATED
2010 CROW CANYON PLACE, SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 837-2973 FAX (888) 279-2698
WWW.ENGEO.COM

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

APPENDIX C

Cone Penetration Test Report and Liquefaction Analysis

APPENDIX C

ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA

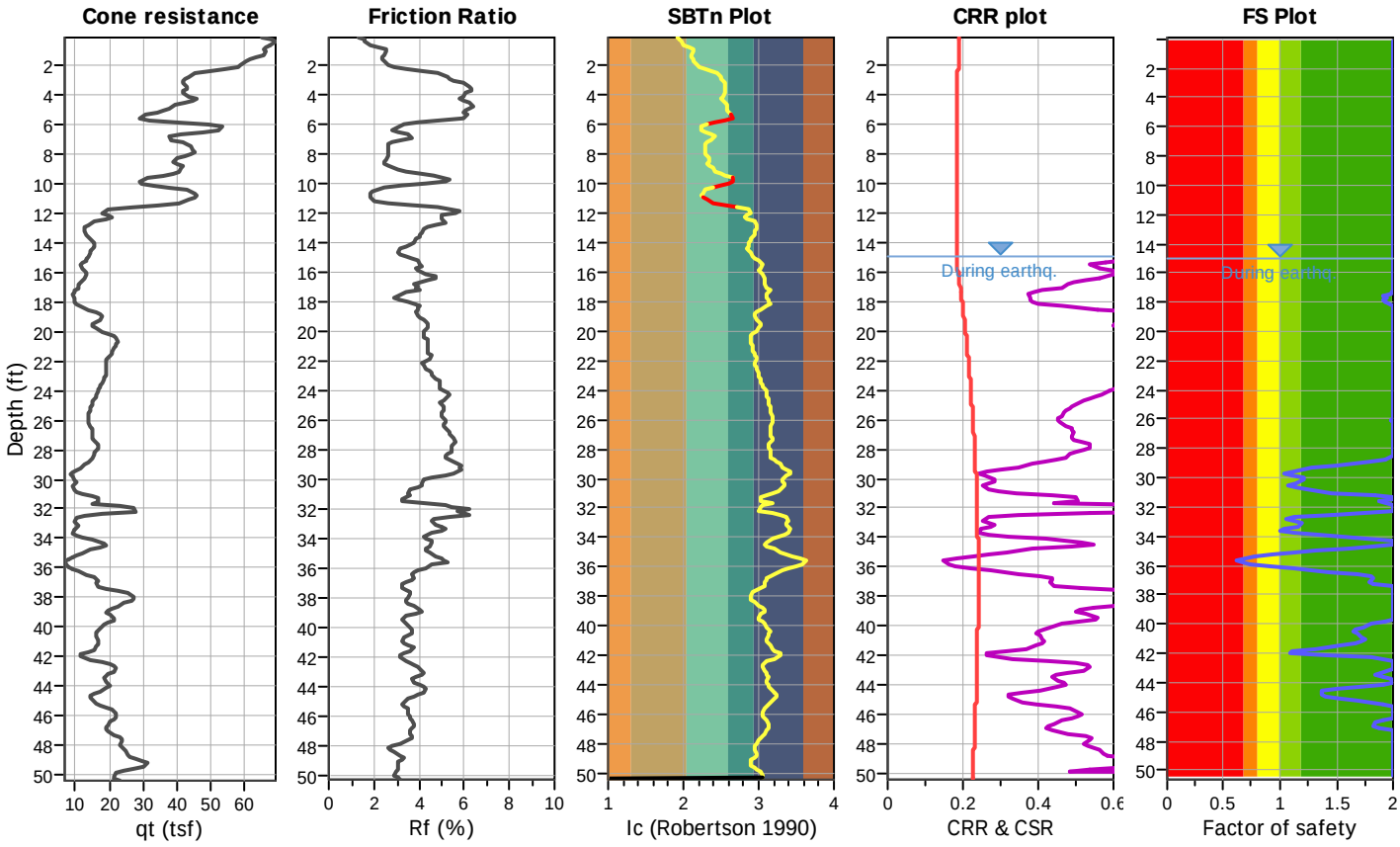
LIQUEFACTION ANALYSIS REPORT

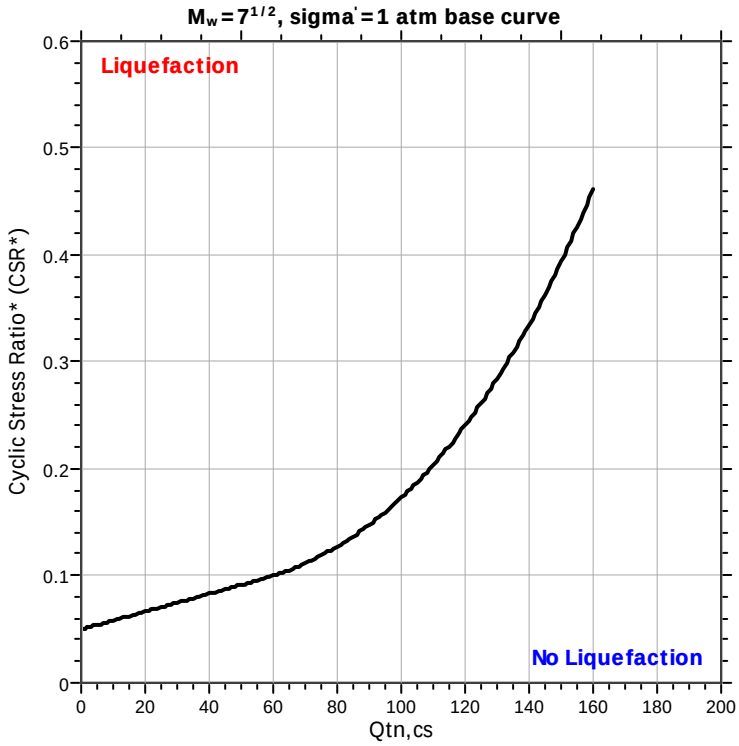
Project title : 10237.000.000 **Location : CarMax Pleasanton**

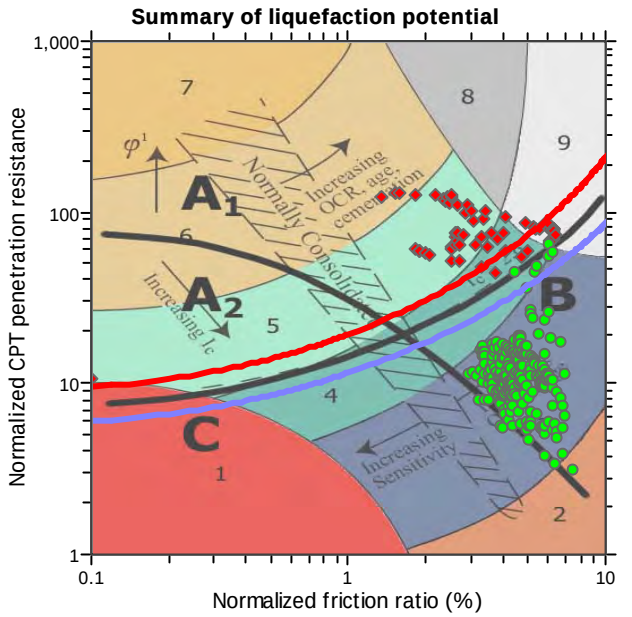
CPT file : 1-CPT1

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	18.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	Yes		
Peak ground acceleration:	0.40	Unit weight calculation:	Based on SBT	K_σ applied:	No		

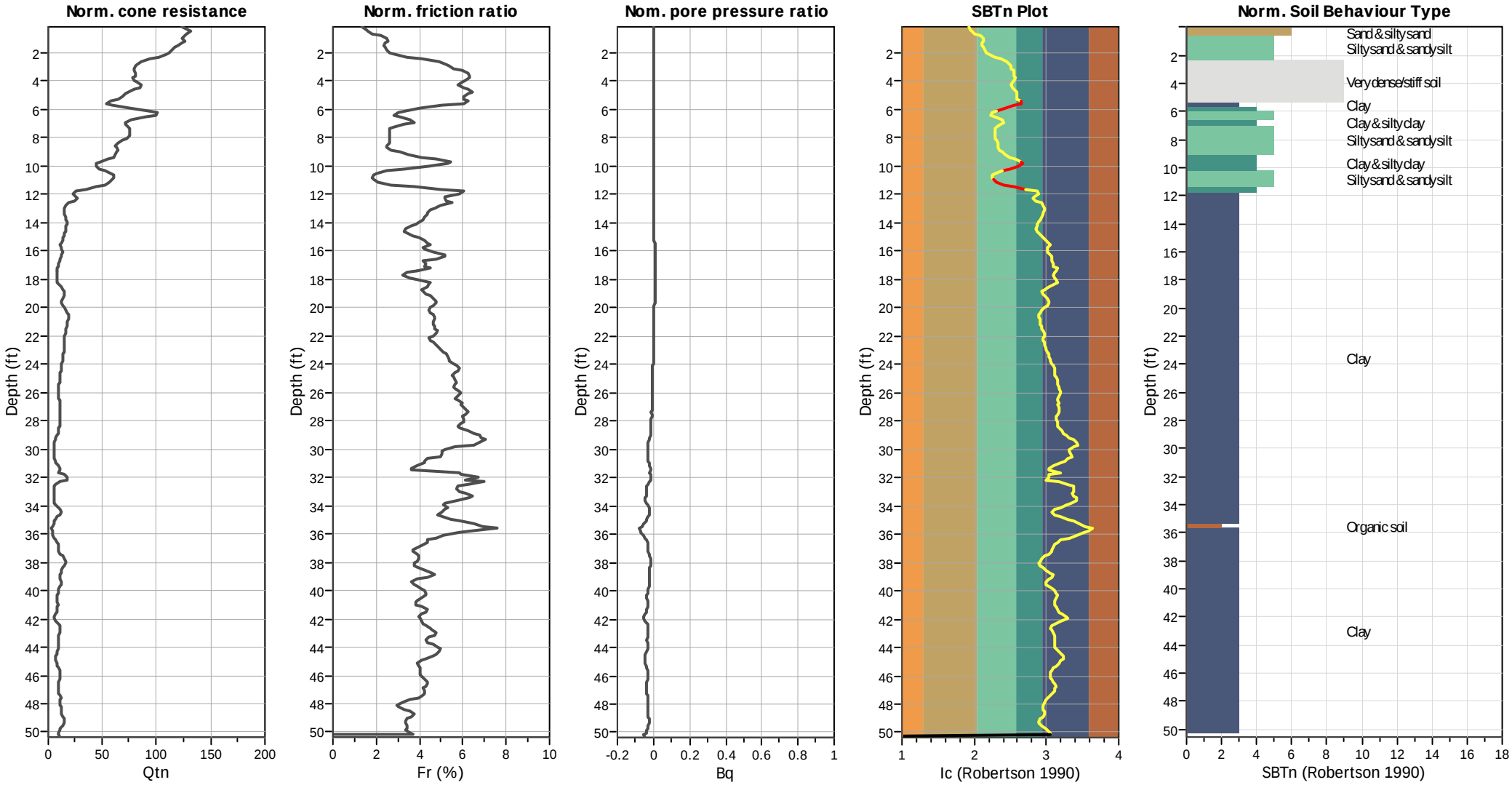






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots (normalized)



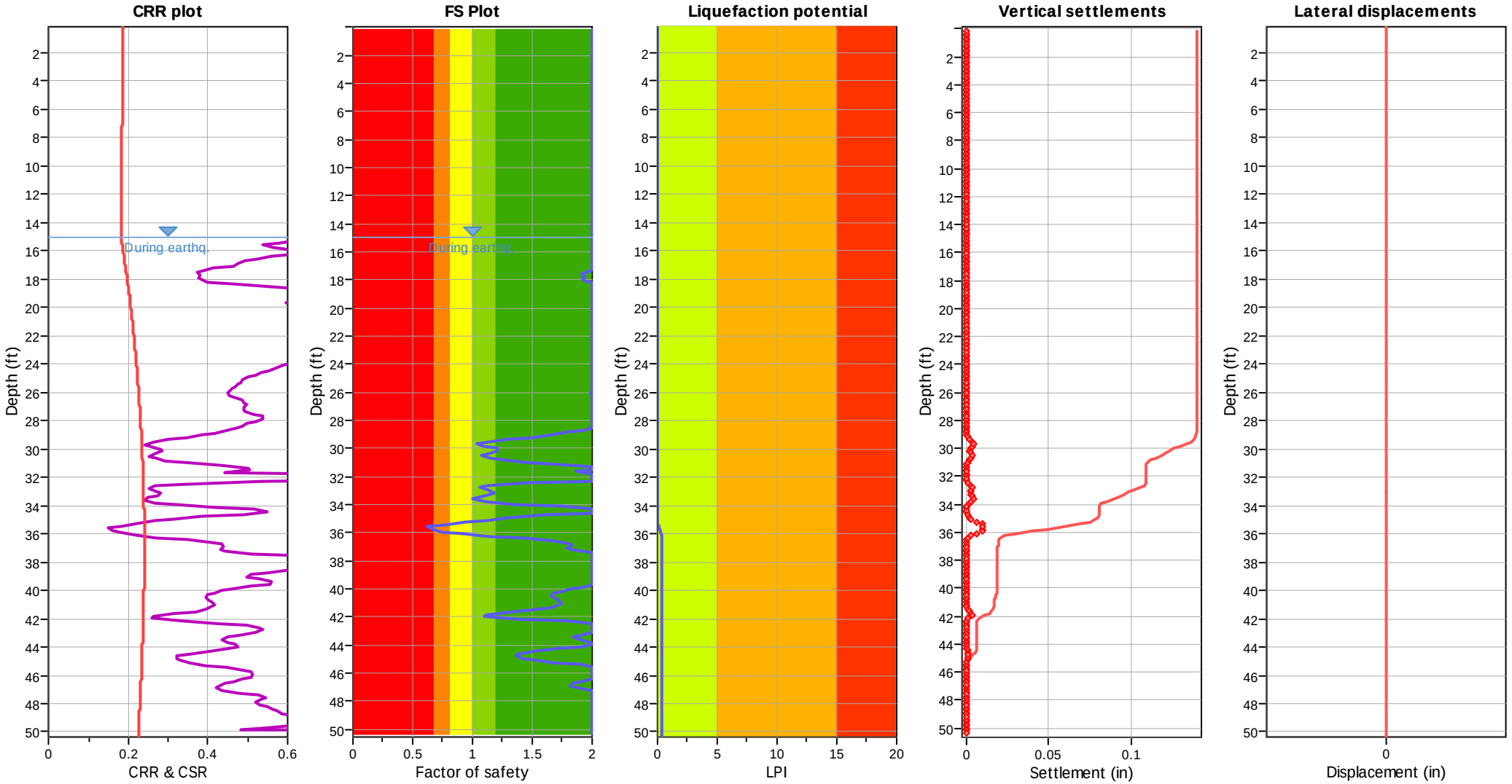
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liquefaction are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA

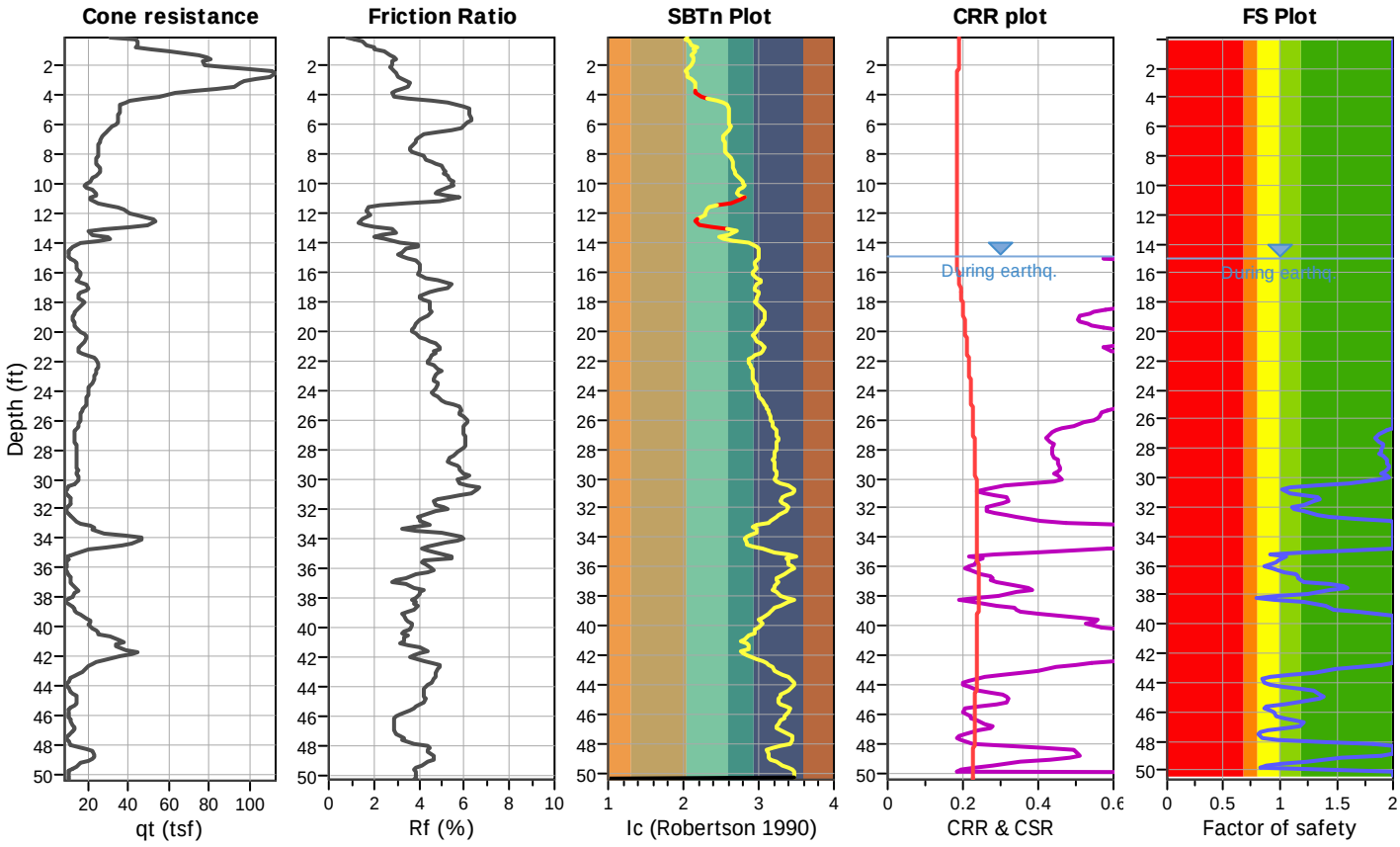
LIQUEFACTION ANALYSIS REPORT

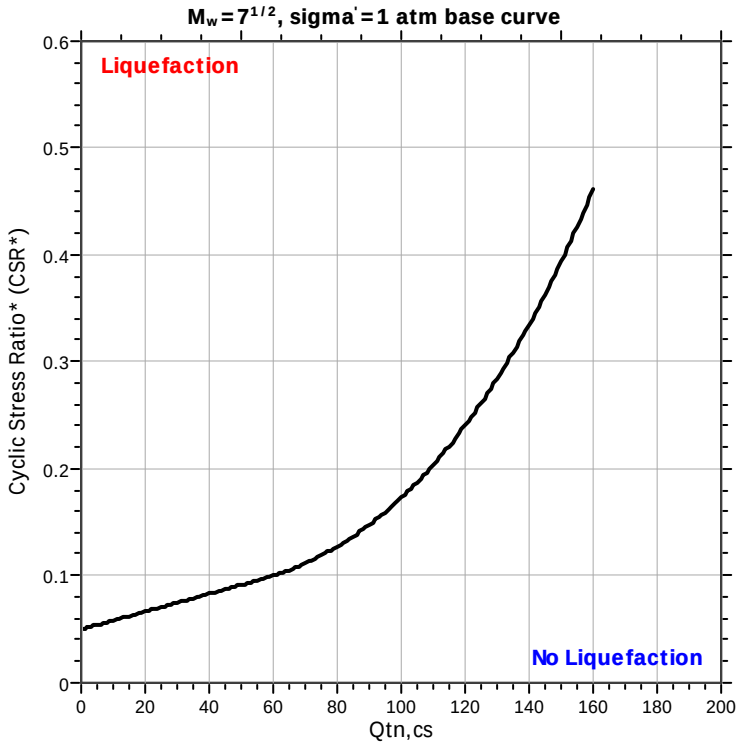
Project title : 10237.000.000 **Location : CarMax Pleasanton**

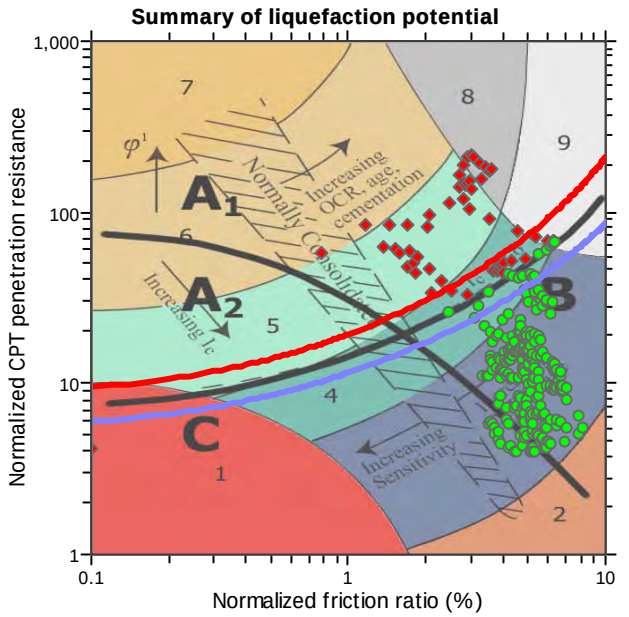
CPT file : 1-CPT2

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	18.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	Yes		
Peak ground acceleration:	0.40	Unit weight calculation:	Based on SBT	K_σ applied:	No		

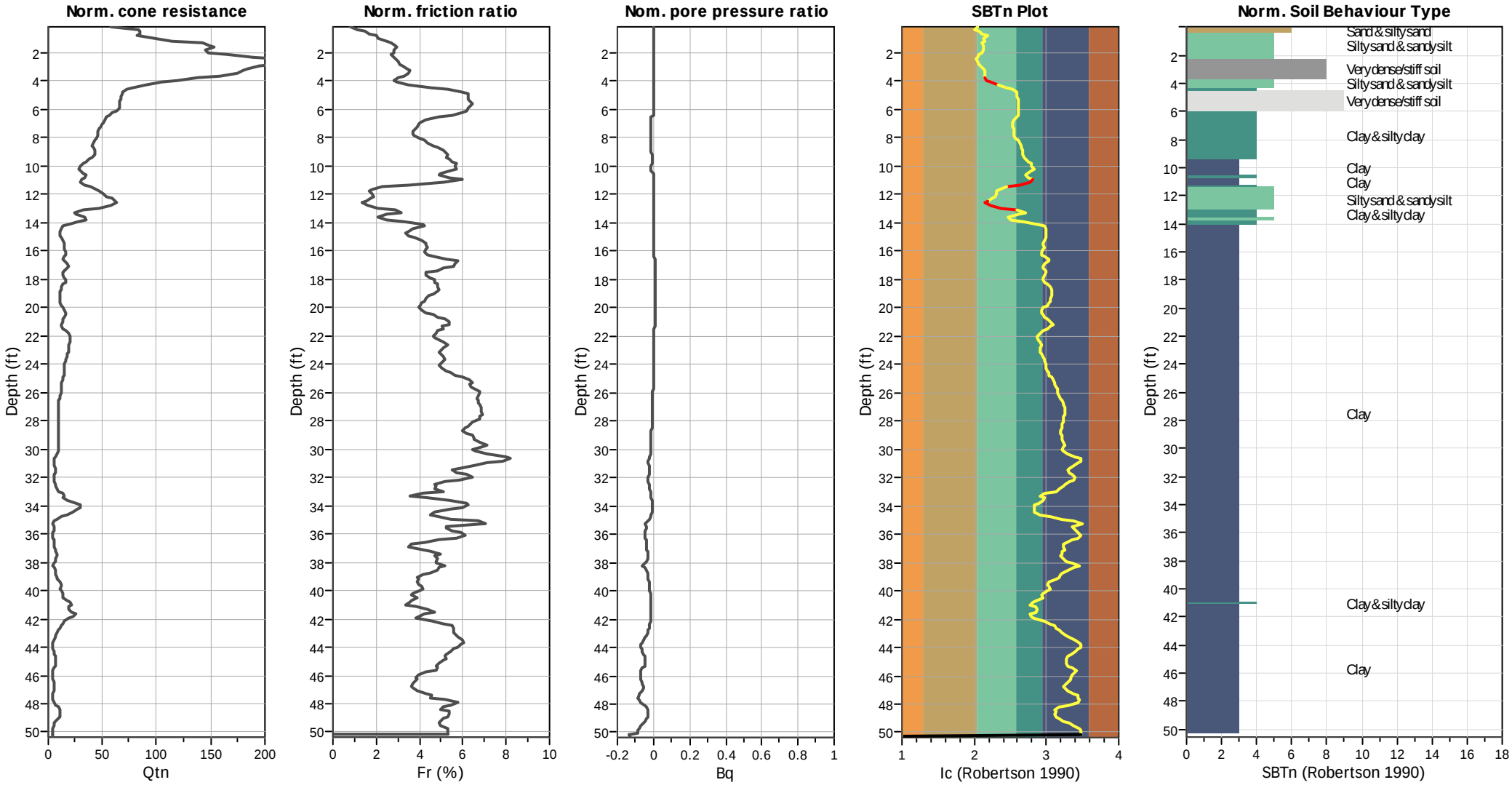






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots (normalized)



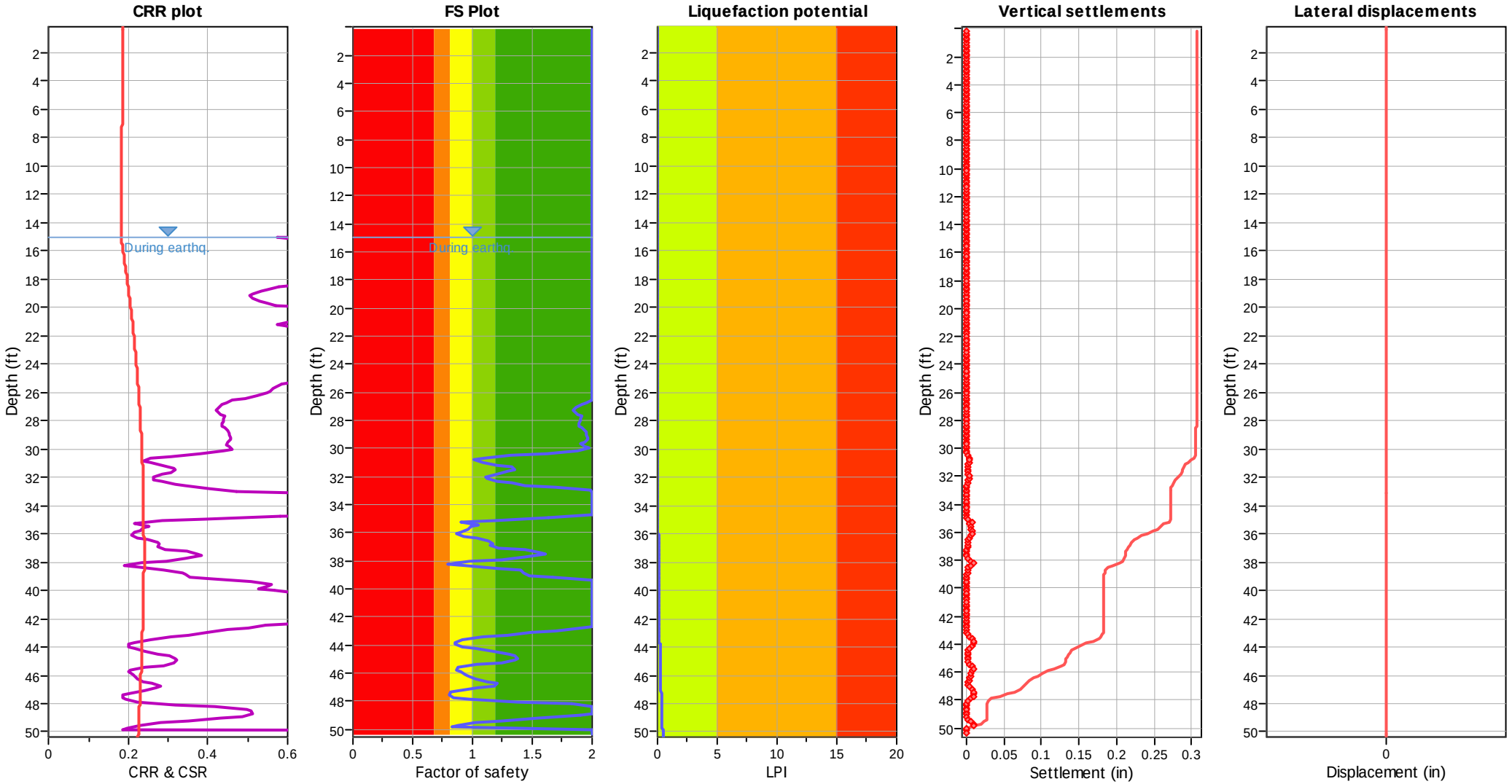
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liquefaction are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA

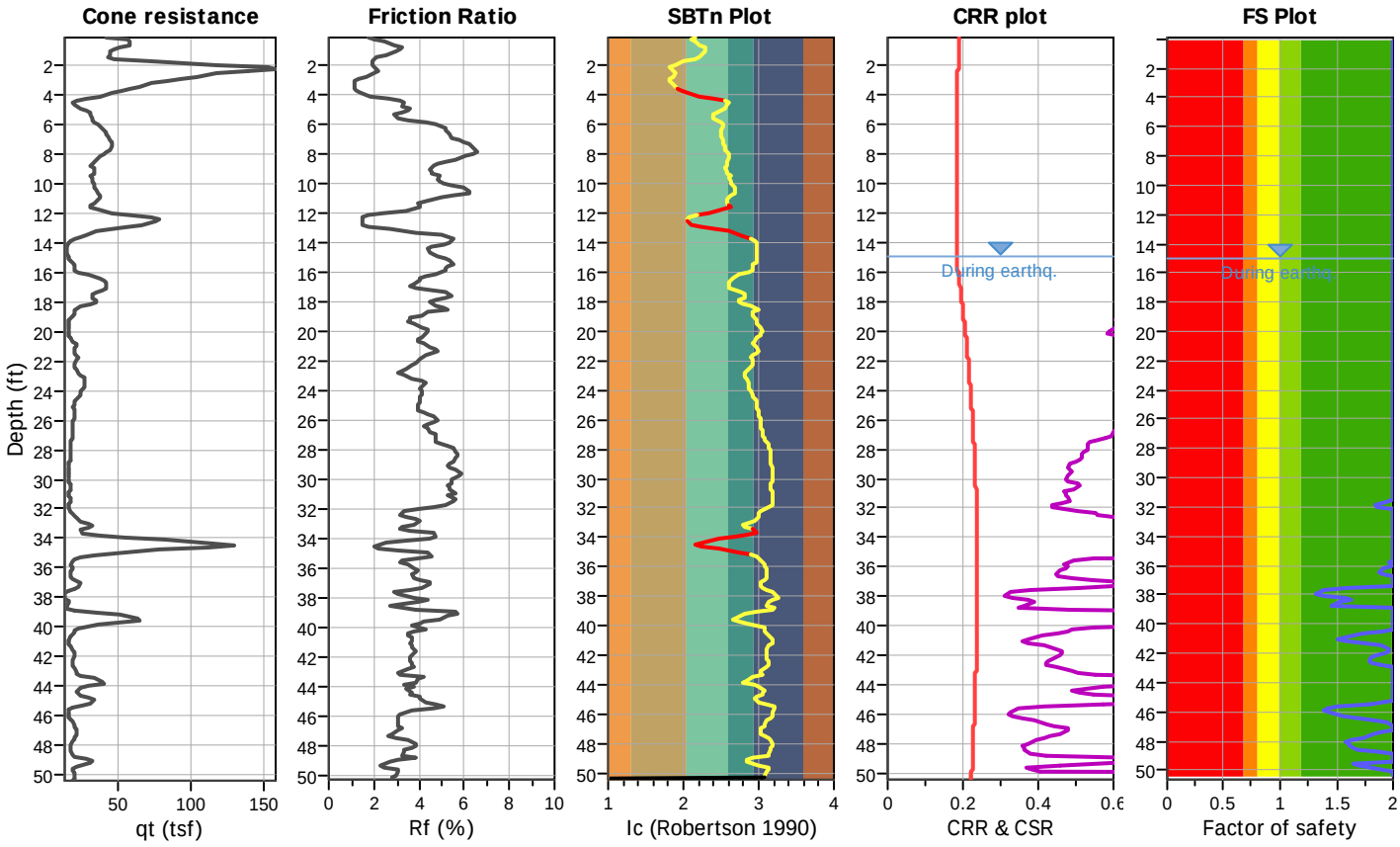
LIQUEFACTION ANALYSIS REPORT

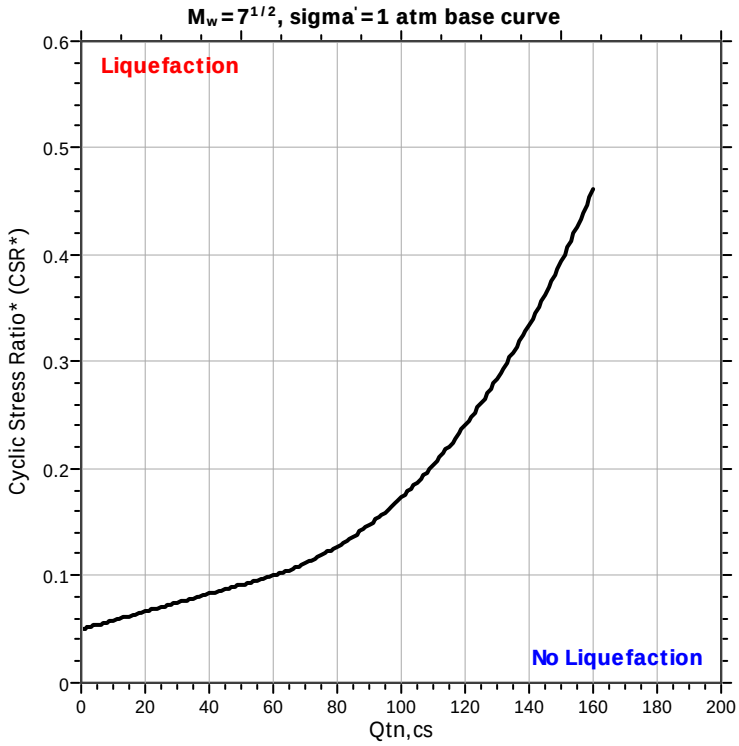
Project title : 10237.000.000 **Location : CarMax Pleasanton**

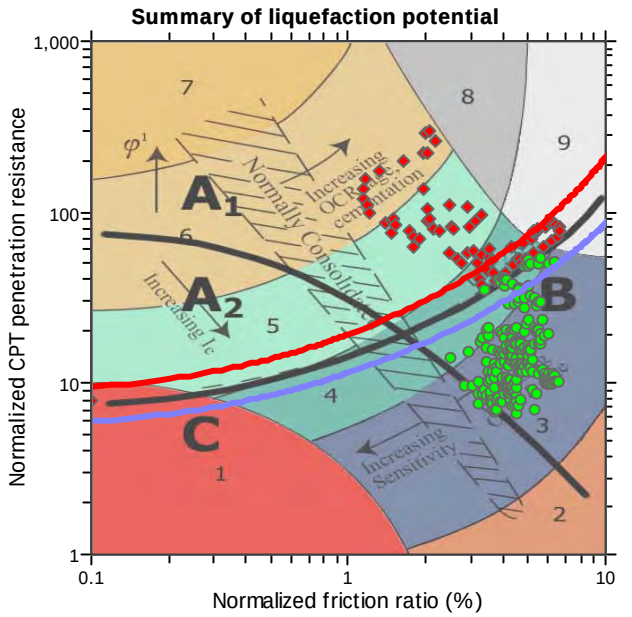
CPT file : 1-CPT3

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	18.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	Yes		
Peak ground acceleration:	0.40	Unit weight calculation:	Based on SBT	K_σ applied:	No		

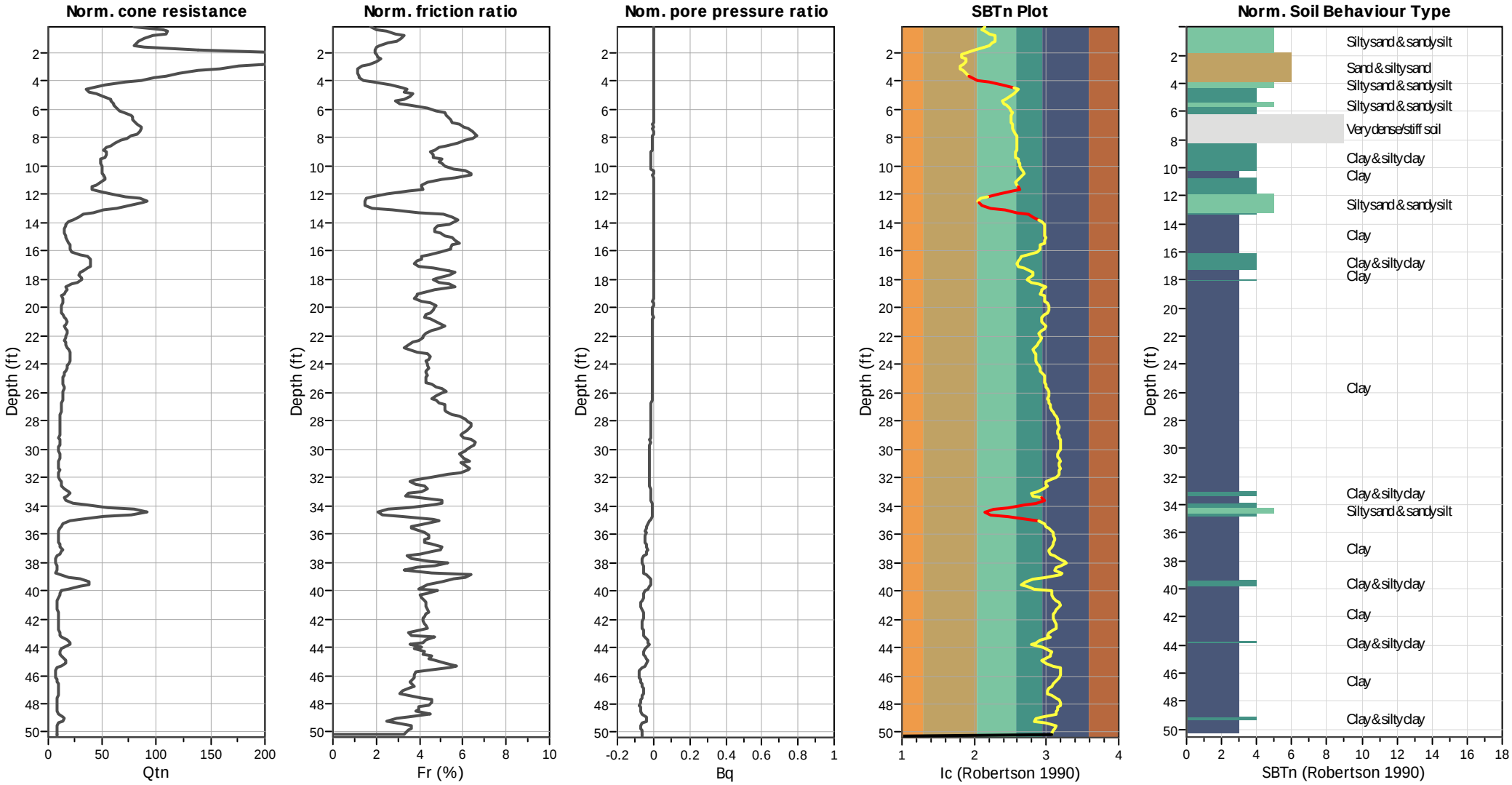






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots (normalized)



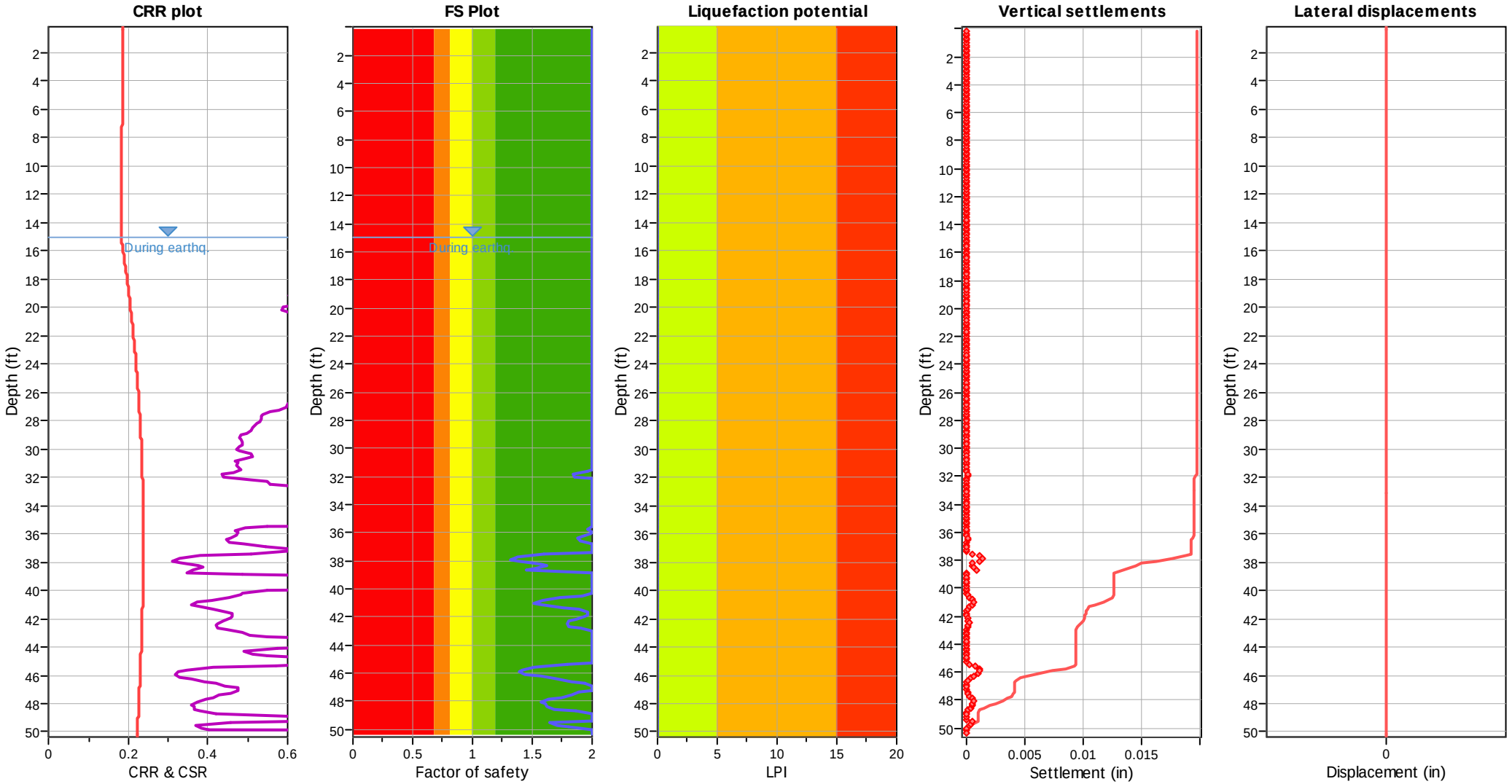
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liquefaction are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA

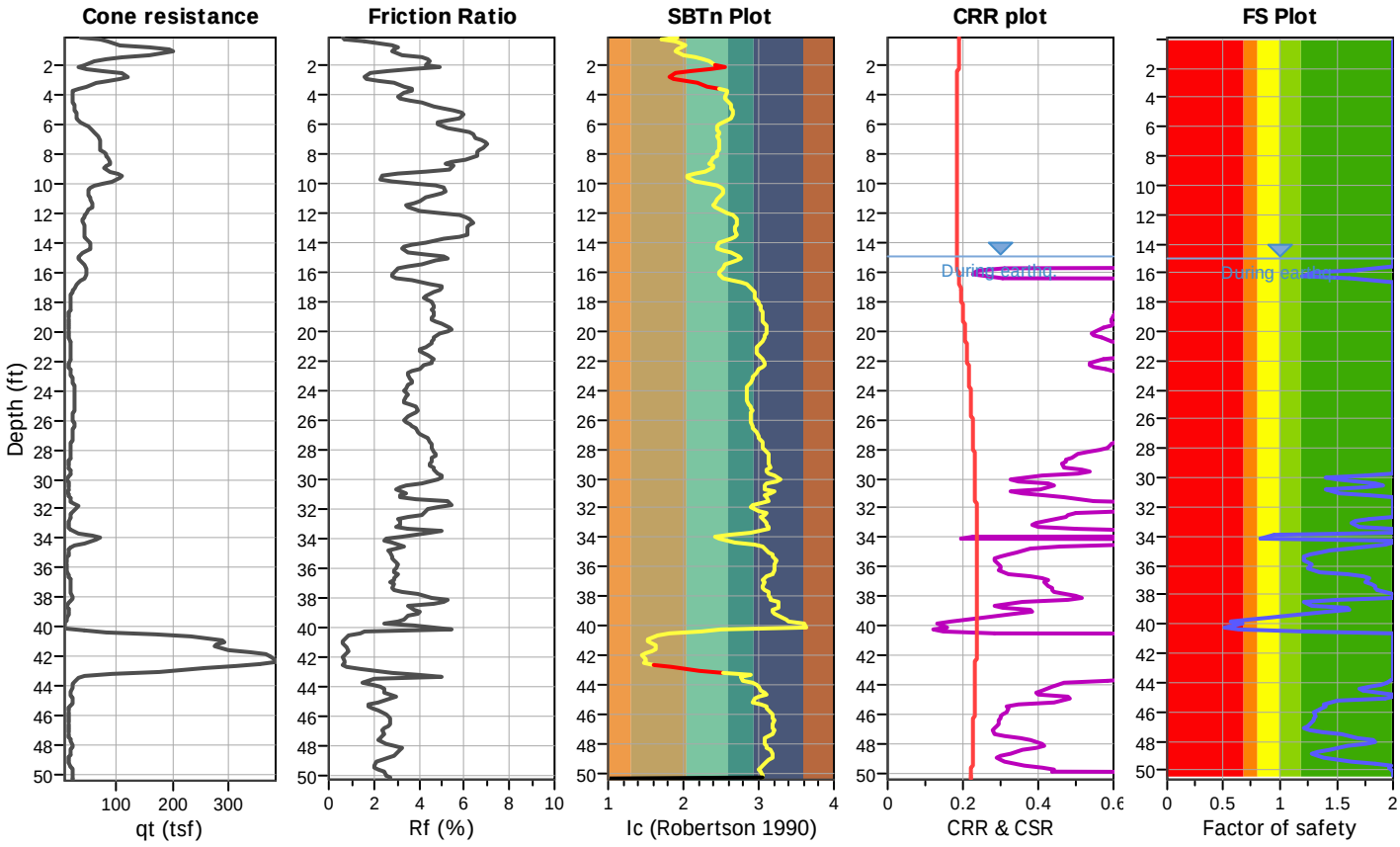
LIQUEFACTION ANALYSIS REPORT

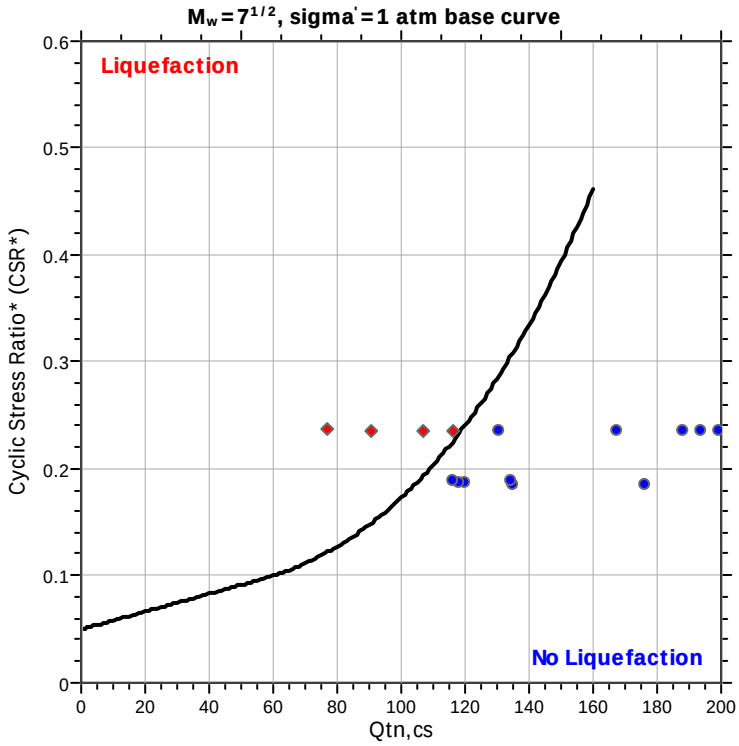
Project title : 10237.000.000 **Location : CarMax Pleasanton**

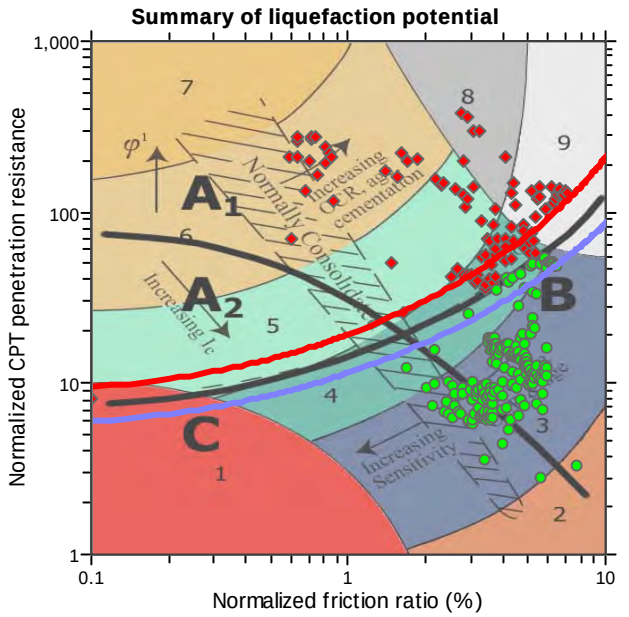
CPT file : 1-CPT4

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	18.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	Yes		
Peak ground acceleration:	0.40	Unit weight calculation:	Based on SBT	K_σ applied:	No		

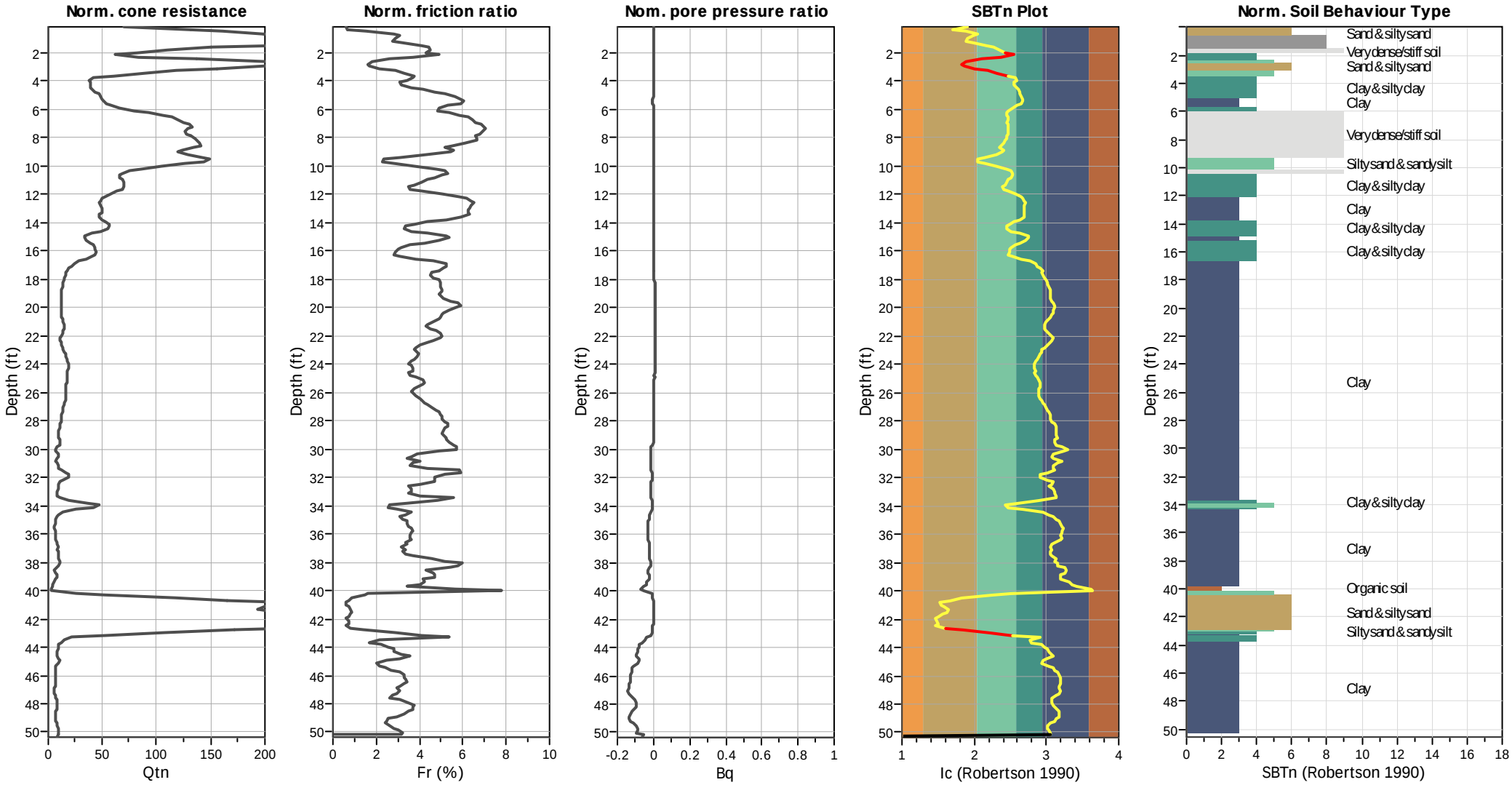






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots (normalized)



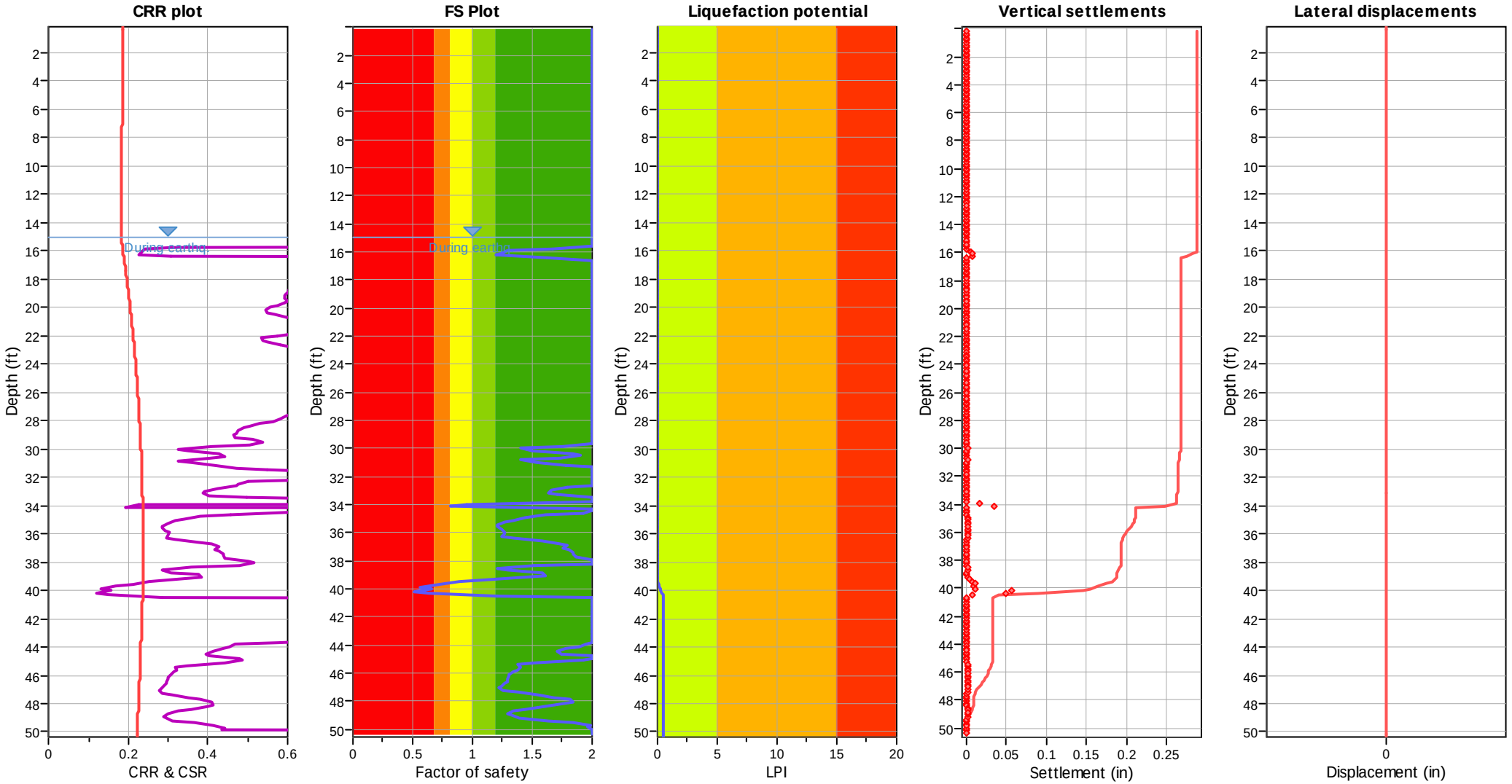
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
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Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liquefaction are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

ENGEO Incorporated
2010 Crow Canyon Place, Suite 250
San Ramon, CA

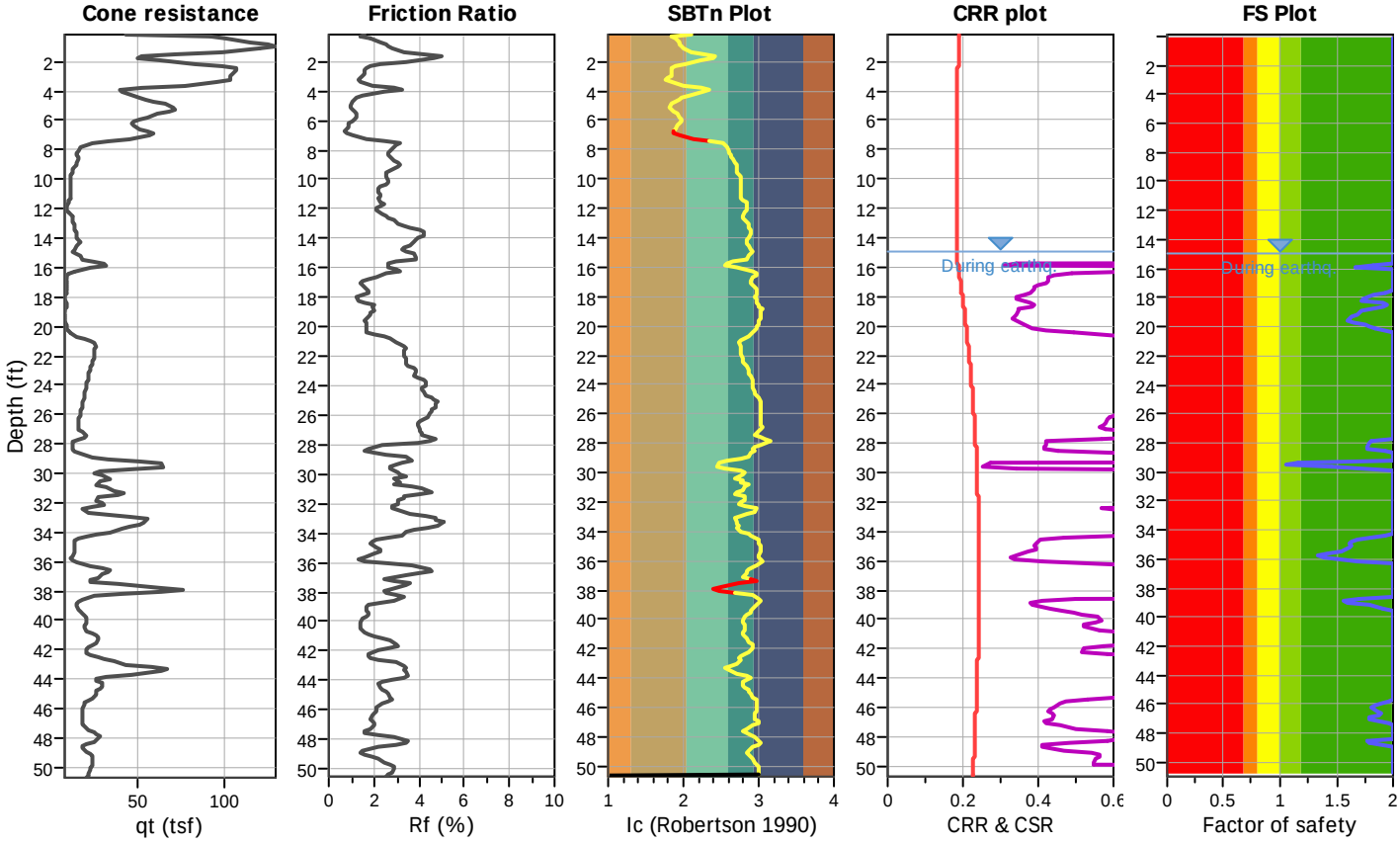
LIQUEFACTION ANALYSIS REPORT

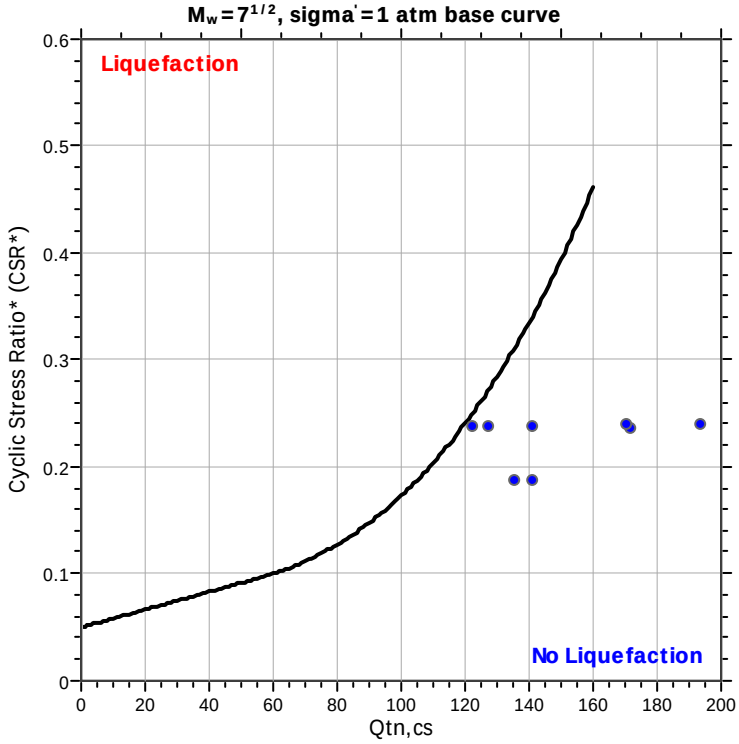
Project title : 10237.000.000 **Location : CarMax Pleasanton**

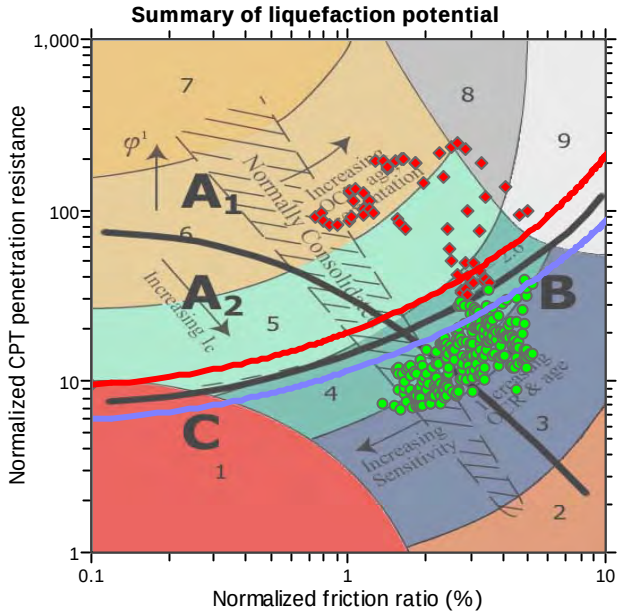
CPT file : 1-CPT5

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	18.00 ft	Use fill:	No	Clay like behavior applied:	All soils
Fines correction method:	Robertson (2009)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.60	Ic cut-off value:	2.60	Trans. detect. applied:	Yes		
Peak ground acceleration:	0.40	Unit weight calculation:	Based on SBT	K_σ applied:	No		







Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
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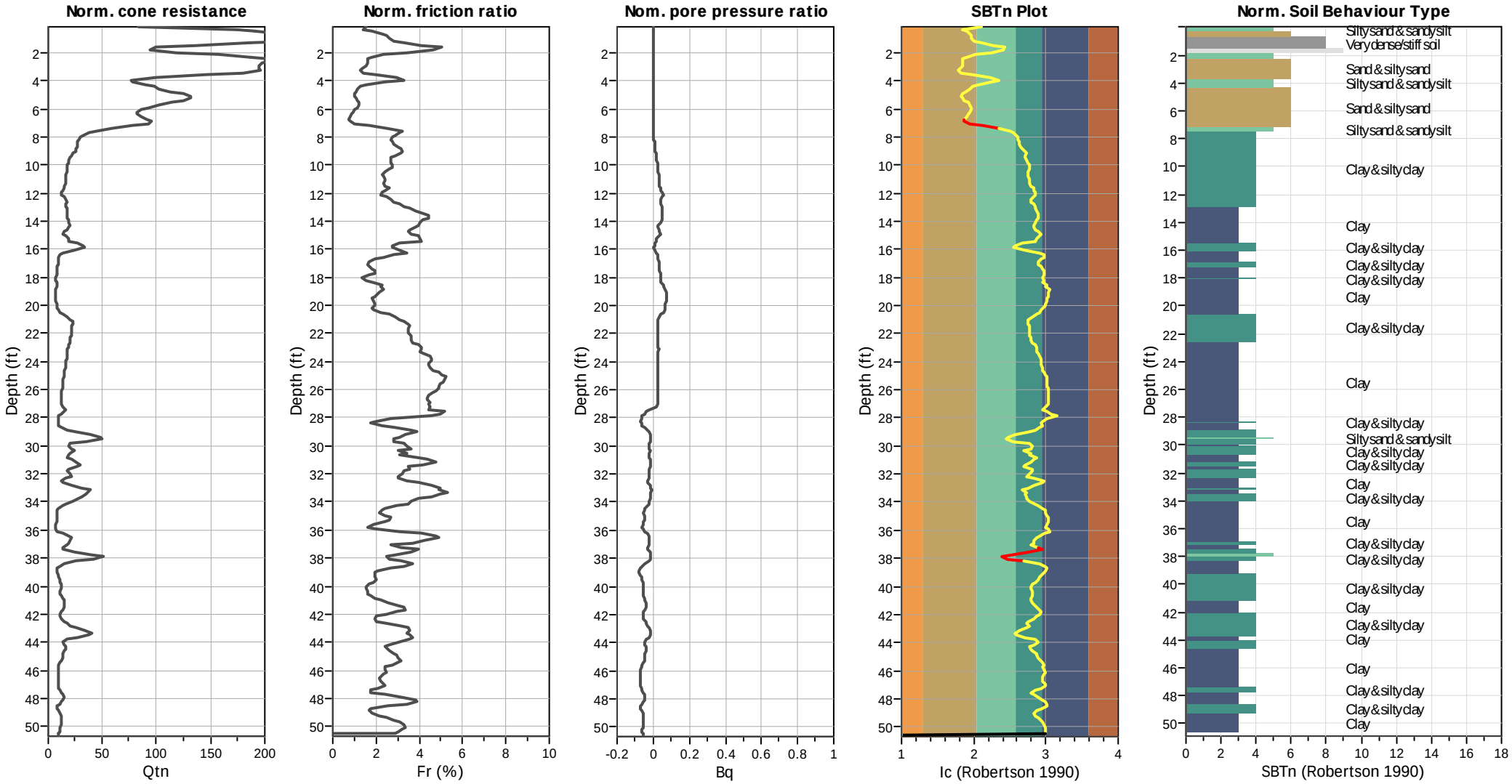
CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
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Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
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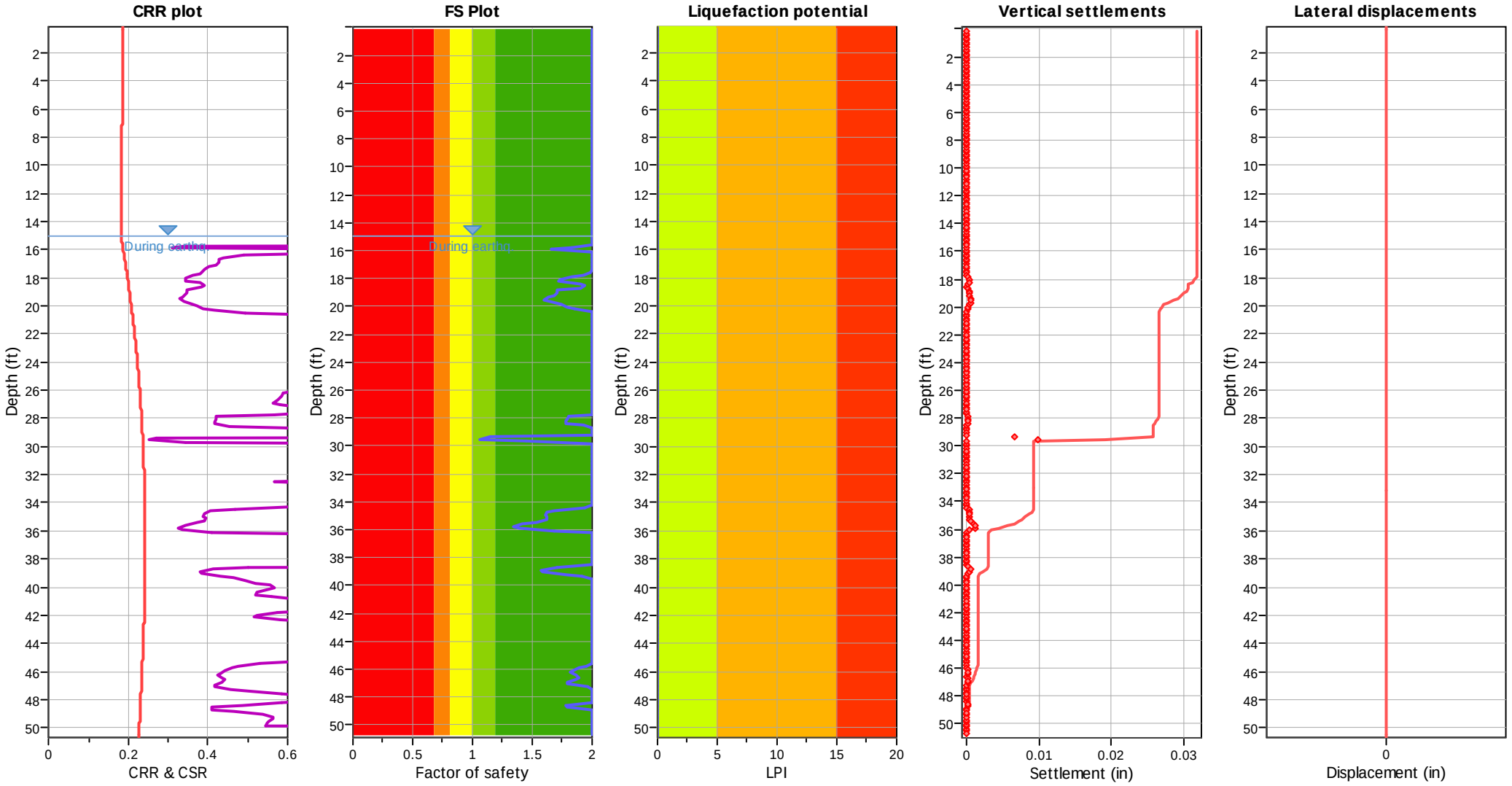
9. Very stiff fine grained

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.60	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.40	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	18.00 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liquefaction are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

APPENDIX D

Pavement Calculations

APPENDIX D

Pavement Calculations (Referenced Caltrans Highway Design Manual)

Chapter 610 – Determining the Traffic Index

$$TI = 9.0 * \left(\frac{ESAL*LDF}{10^6}\right)^{0.119}$$ (Section 613.3)

TI; Traffic Index

ESAL; Equivalent Single Axle Loads

Light Duty ESAL = 7,500

Heavy Duty ESAL = 75,000

LDF; Lane Distribution Factor

LDF = 1.0 (based on Table 613.3B)

$$TI = 9.0 * \left(\frac{7{,}500*1.0}{10^6}\right)^{0.119} = 5.0$$

$$TI = 9.0 * \left(\frac{75{,}000*1.0}{10^6}\right)^{0.119} = 6.6$$

TI = 5.0 for Light Duty

TI = 7.0 for Heavy Duty

(TI for Light Duty and Heavy Duty loads compared to Table 613.3C.)

Chapter 620 – Rigid Pavement Section Thickness

Figure 623.1

1) Table 623.1A, R-Value = 14 (10≤R≤40), Subgrade Type II
2) Climate Region, Inland Valley
3) See Table 623.1G, TI = 5.0, 7.0 (TI<9.0), without Lateral Support

-Jointed Plan Concrete Pavement = 0.75 feet
-Aggregate Base = 1.00 feet

Concrete Thickness = 9 inches

Aggregate Base Thickness = 12 inches

Chapter 630 – Flexible Pavement Section Thickness

TI Light Duty = 5.0
TI Heavy Duty = 7.0
Subgrade R-Value = 14
Class 2 Aggregate Base R-Value = 78

$GE = 0.0384 * TI * (100 - R\_Value)$ (inches)
GE; Gravel Equivalent

$GE_{TOTAL} = 0.0384 * 5.0 * (100 - 14) = 16.51\ inches$

$GE_{AC} = 0.0384 * 5.0 * (100 - 78) = 4.22\ inches$

$Gf = \frac{5.67}{TI^{0.5}}$
Gf; Gravel Factor

$Gf_{AC} = \frac{5.67}{5.0^{0.5}} = 2.54$ (for asphalt)

$Gf_{AB} = 1.1$ (for aggregate base)

Asphalt Factor of Safety = FS = 2.4

$Thickness\ of\ AC = \frac{GE_{AC} + FS}{Gf_{AC}} = \frac{4.22 + 2.4}{2.54} = 2.61\ inches$

Thickness of AC from Specification = 3.0 inches

$Thickness\ of\ AB = \frac{GE_{TOTAL} - Gf_{AC} * Thickness\ of\ AC}{Gf_{AB}} = \frac{16.51 - 2.4 * 3.0}{1.1} = 8.08\ inches$

Thickness of AC from Specification = 9.0 inches

Appendix E: Hazards Information

E.1 - Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP
APN 946-4623-1
PLEASANTON, CALIFORNIA

Submitted to:
Ms. Amanda Steinle
CenterPoint Integrated Solutions
1240 Bergen Parkway, Suite A-250
Evergreen, CO 80439

Prepared by:
ENGEO Incorporated

May 31, 2013

Project No:
10237.000.000

Project No.
10237.000.000

May 31, 2013

Ms. Amanda Steinle
CenterPoint Integrated Solutions
1240 Bergen Parkway, Suite A-250
Evergreen, CO 80439

Subject: Proposed Carmax Automotive Dealership
I-580 and El Charro Road
Pleasanton, California

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Ms. Steinle:

ENGEO is pleased to present our phase I environmental site assessment of the subject property, (Property) located in Pleasanton, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding the Property.

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and ASTM 1527-05.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact us.

Sincerely,

ENGEO Incorporated

Divya Bhargava
db/sm/jf:esa

Shawn Munger, CHG

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

EXECUTIVE SUMMARY

ENGEO conducted a phase I environmental site assessment for the Property located south of I-580 and west of El Charro Road in Pleasanton, California (Figures 1 and 2). The approximately 19.77-acre Property is the western portion of the parcel identified as Assessor's Parcel Number (APN) 946-4623-1 (Figure 3).

The Property is currently comprised mostly of undeveloped open space. An unpaved gravel road extends in the northwestern portion of the Property. A review of historical records found that the Property has mostly been vacant, undeveloped, or used for dry farming and/or cattle grazing.

A soil stockpile (approximately 31,300 cubic yards) is currently present on the central portion of the Property. Personal communication with Mr. Stuart Cook, Surplus Property Authority, Alameda County Community Development Agency confirmed that this soil stockpile is a part of a larger soil stockpile (about 125,000 cubic yards) that was placed in the mid-1990s by a residential developer (KB Home) in anticipation of future residential development. The precise origin of this material is unknown. He mentioned that approximately half of the stockpile was removed and utilized by the adjacent senior continuing care community development to the west as "select" fill in 2011-2012. Approximately half of what remained of the stockpile was recently moved to the adjacent vacant property to the east, leaving approximately 31,300 cubic yards of the stockpiled soil.

We understand that the remaining stockpile will remain on the Property and might be used for grading or other purposes. Although the stockpiled soil has not been tested for environmental analysis, it has been characterized as "select" fill by the previous geotechnical assessments performed on the soil. The soil material has recently been used for the adjacent senior continuing care community developments and does not seem to be impacted. Based on these, we do not recommend environmental sampling of the stockpile at this time.

This assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources. A reconnaissance of the Property was conducted to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use or past use of the Property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found no documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs) and no historical RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E 1527-05 “Standard Practice for Environmental Site Assessments” and USEPA “Standards and Practices for All Appropriate Inquires”, 40 CFR Part 312. Based on the findings of this assessment, ENGEO recommends no further environmental studies at this time.

1.0 INTRODUCTION

ENGEO conducted a phase I environmental site assessment (ESA) for the Property located south of I-580 and west of El Charro Road in Pleasanton, California (Figures 1 and 2). The approximately 19.77-acre Property is the western portion of the parcel identified as Assessor's Parcel Number (APN) 946-4623-1 (Figure 3).

1.1 PURPOSE OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment was performed at the request of CenterPoint Integrated Solutions for the purpose of environmental due diligence during Property acquisition. The objective of this phase I ESA is to identify recognized environmental conditions associated with the Property. As defined in the ASTM Standard Practice E 1527-05, a REC is "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property".

1.2 DETAILED SCOPE OF SERVICES

The scope of services performed included the following:

- A review of environmental reports previously prepared for the Property.
- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.
- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on

contracted database research, out-of-house reports and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse; that is, reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase I ESA are valid for one year after completion of the report. Updates of portions of the assessment may be necessary after a period of 180 days after completion.

This phase I ESA is not intended to represent a complete soil or groundwater characterization, nor define the depth or extent of soil or groundwater contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the Property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil and groundwater samples could provide more definitive information concerning site-specific conditions. If additional assessment activities are considered for the Property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities. ENGEO can also not be held responsible from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

1.4 SPECIAL TERMS AND CONDITIONS

ENGEO has prepared this report for the exclusive use of our clients, CenterPoint Integrated Solutions and CarMax Auto Superstores California, Inc. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

Laboratory testing of soil or groundwater samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead-based paint, an inspection of light ballasts for polychlorinated biphenyls (PCBs), a radon evaluation, or a mold survey.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's assessment. Visual observations referenced in this report are intended only to represent conditions at the time of the reconnaissance. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage that occurred subsequent to the reconnaissance conducted by ENGEO personnel.

2.0 PROPERTY INFORMATION

2.1 SITE LOCATION

The Property is located south of I-580 and west of El Charro Road in Pleasanton, California (Figures 1 and 2). The approximately 19.77-acre Property is the western portion of the parcel identified as Assessor's Parcel Number (APN) 946-4623-1 (Figure 3).

2.2 SITE AND VICINITY CHARACTERISTICS

According to published topographic maps, the Property is relatively level at approximately 352 feet above mean sea level (msl). A review of the 1997 Graymer, et al. Geologic Map (USGS 1997) found that the Property is primarily underlain by Holocene-age floodplain deposits (Qhfp).

Geocheck – The Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) shows 15 Federal United States Geological Survey (USGS) wells and 15 State wells located within one mile of the Property. Well Number 40000185046 is mapped approximately 0.4 mile northeast of the Property and the groundwater level measurements for this well ranged between 23.6 and 29.7 feet below the ground surface between 1977 and 1981. Well Number 40000184976 is mapped approximately 0.4 mile southeast of the Property, and the groundwater level measurements for this well ranged between 62 and 260 feet below the ground surface between 1971 and 1981.

We reviewed the Department of Water Resources On-line Water Data Library for depth to water in the vicinity of the site. The website did not identify any wells within one mile of the Property.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

We reviewed the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website and map database to determine if any historic oil and/or gas wells were located within the Property. No wells were mapped within one mile of the Property.

2.3 CURRENT USE OF PROPERTY/DESCRIPTION OF SITE IMPROVEMENTS

The Property is currently comprised mostly of undeveloped open space. The Property appears to have been recently graded. An unpaved gravel road extends in the northwestern portion of the Property.

A soil stockpile (approximately 31,300 cubic yards) is currently present on the central portion of the Property. In 2006, Kleinfelder conducted a preliminary geotechnical evaluation of the Property and discovered a soil stockpile (Kleinfelder, 2006). As stated in their report, Kleinfelder was informed by Alameda County that the stockpile was placed in the mid-1990s by a residential

developer (KB Home). In another investigation conducted by Kleinfelder in 2007, they estimated the volume of the stockpile as 125,000 cubic yards and reported that the stockpile was covered with dry grasses and weeds (Kleinfelder, 2007). They concluded that the stockpile material was suitable for use as compacted fill for the proposed Auto Mall site.

A geotechnical investigation was conducted at the Staples Ranch property by Berlogar Geotechnical Consultants (BGC) in 2008 (BGC, 2008). In their report, BGC mentioned that the large mounds of soil observed in the north-central portion may be associated with adjacent developments to the west. In 2010, BGC conducted an assessment of the stockpile at the Property and estimated the volume as 120,000 cubic yards (BGC, 2010).

Personal communication with Mr. Stuart Cook, Surplus Property Authority, Alameda County Community Development Agency, confirmed that this soil stockpile is a part of the larger soil stockpile (about 125,000 cubic yards) that was placed in the mid-1990s by a residential developer (KB Home) in anticipation of future residential development. The precise origin of this material is unknown. He mentioned that approximately half of the stockpile was removed and utilized by the adjacent senior continuing care community developments to the west as "select" fill in 2011-2012. Approximately half of what remained of the stockpile was recently moved to the adjacent vacant property to the east, leaving approximately 31,300 cubic yards of the stockpiled soil on the subject Property.

2.4 CURRENT USE OF ADJOINING PROPERTIES

To the north, the Property is bordered by I-580. To the west, the Property is adjoined by a senior continuing care community, which is currently being constructed on the adjacent lot to the west. A detention basin exists on the adjacent lot to the south of the Property, along with a neighborhood park under development to the south of the Property. To the east, the Property is adjoined by vacant undeveloped land and El Charro Road.

3.0 RECORDS REVIEW

3.1 PREVIOUS ENVIRONMENTAL REPORTS

Harza Kaldveer Consulting Engineers, Phase I Preliminary Site Assessment for Proposed Retail and Service Commercial Site, Pleasanton, California, November 17, 1993.

In November 1993, Harza Kaldveer Consulting Engineers (Harza Kaldveer) performed a phase I ESA on the Property and the adjoining property to the east, encompassing a total area of 36 acres (Harza, 1993). Harza reported that the Property was a part of a larger ranch and had been agricultural land from at least 1957 until 1986. Since the Property had been used for cattle grazing and dry farming, Harza conducted a limited chemical soil assessment to evaluate the extent of potential soil impacts due to the historical of organochlorine pesticides (OCPs). The results of the soil sampling indicated that OCPs were not present in detectable quantities.

Harza's investigation revealed the presence of an unlisted diesel fuel leak associated with an aboveground storage tank (AST) on Staples Ranch (an adjacent property to the south). Soil samples collected in the vicinity of the tank contained up to 1,900 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as diesel (TPH-d). These tanks are discussed in further detail in Section 3.3.5.

During their reconnaissance, Harza also reported the presence of a groundwater monitoring well (designated as Well 3S-1E-3L1 by the Alameda County Water Conservation and Flood Control District – Zone 7) on the western boundary of the Property.

Based on their assessment, Harza recommended the following:

- Additional evaluation of the potential impact of the adjacent fuel release on the subject Property.

- Abandonment of the existing groundwater monitoring well present on the western boundary of the Property in accordance with State and Local requirements.

Versar, Inc., Report of Abandonment of Two Groundwater Wells – Staples Ranch, El Charro Road, Pleasanton, California, November 5, 2001.

In August 2001, Versar, Inc. (Versar) abandoned two groundwater monitoring wells (Well 3S-1E-3L1 and another well) in accordance with the Zone 7 protocols and permits.

KPA, LLC, Phase I Environmental Site Assessment, Staples Ranch/Pleasanton Auto Mall, El Charro Rd. & I-580 Interchange, Pleasanton, California, November 30, 2005.

In November 2005, KPA, LLC (KPA) performed a phase I ESA on the proposed Pleasanton Auto Mall and the Staples Ranch (which included the Property and the adjoining property to the east). KPA reported that the Property was undeveloped and consisted of open fields overgrown with weeds and remnant orchard trees along the west perimeter. Based on the historical records review, KPA found that the Alameda County Department of Environmental Health (ACEH) contained records on file for the site that documented one underground storage tank and three ASTs associated with Staples Ranch. County records further indicated that the UST and one AST were removed and disposed. The remaining two ASTs containing TPH-d had leaked and impacted the soil on the adjoining property. The ASTs were removed and the soil was remediated in accordance with a plan approved by the local agency. Based on their assessment, KPA concluded that adequate measures had been taken to remediate the soil contamination caused by the releases from the two ASTs located in the adjacent property to the east, and no further studies or investigations were recommended. These tanks are discussed in further detail in Section 3.3.5.

3.2 PROPERTY RECORDS

3.2.1 Title Report/Ownership

The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to state and the detail of information presented in a Title Report can vary greatly by jurisdiction. As a result, ENGEO utilizes a Title Report, when provided to us, as a supplement to other historical record sources.

A Preliminary Title Report for the Property, prepared by the Chicago Title Company and dated October 16, 2012, was provided for our review. The Property title is vested in Surplus Property Authority of Alameda County, a public corporation. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix D.

3.3 HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Property.

3.3.1 Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Property had been recorded. The following maps were provided to us through an EDR Historical Topographic Map Report, presented in Appendix C.

TABLE 3.3.1-1
Historical Topographic Maps

Quad	Year	Series	Scale
Pleasanton	1906	15-minute	1:62500
Pleasanton	1947	15-minute	1:50000
Livermore	1953	7.5-minute	1:24000
Livermore	1953	15-minute	1:62500
Livermore	1961	7.5-minute	1:24000
Livermore	1961	15-minute	1:62500
Livermore	1968	7.5-minute	1:24000
Livermore	1973	7.5-minute	1:24000
Livermore	1980	7.5-minute	1:24000

1906 Map – The Property is shown as mostly undeveloped land with little relief. An unpaved road is mapped trending north-south and then west-east in the location of the unnamed road west of the Property, with another unpaved road mapped to the west of the Property. One structure is mapped south of the unpaved road on the adjacent property to the south, and two structures are mapped to the northwest of the Property. Two streams are mapped south of the Property – the Arroyo Las Positas and Arroyo Mocho. The Southern Pacific Railroad tracks are shown to the south of the Property. An unnamed road in the approximate location of I-580 is mapped north of the Property extending east-west.

1947 Map – US Route 50 (which is now known as I-580) is mapped north of the Property extending east-west. The Property and surrounding properties appear to have similar use as shown in the previous topographic map.

1953 Maps – The Property appears unchanged from the previous topographic maps. The adjacent property to the southeast now has seven structures. The Dow Airport is mapped to the northeast of the Property. Additional structures are noted to the west of the Property.

1961 Maps – An unnamed road trending north-south in the approximate location of El Charro Road is mapped east of the Property. Eight structures are now visible southeast of the Property around the unnamed road. The Santa Rita Rehabilitation Annex is mapped east of the unnamed road. Orchards are mapped southwest of the Property in the 1961 Livermore Quadrangle Map.

1968 Map – The Property and surrounding properties appear to have similar uses as shown in the previous topographic map, except for the addition of one structure south of the Property. US Route 50 north of the Property is now labeled as I-580.

1973 Map – The I-580 exit ramps are now mapped north of the Property. The unnamed road west of the Property, which was shown extending to I-580, does not extend north to I-580 in this map. The structure that was observed south of the Property in the 1968 map is no longer shown.

1980 Map – The use of the Property and surrounding properties appears unchanged from the previous topographic maps. Development has spread northwest of the Property.

3.3.2 Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Property and in the immediate vicinity. These photographs are presented in Appendix E.

TABLE 3.3.2-1
Aerial Photographs

Flyer	Year	Scale
Fairchild	1939	1"=500'
USGS	1949	1"=500'
Cartwright	1958	1"=500'
Cartwright	1966	1"=500'
WAC	1979	1"=500'
WAC	1984	1"=500'
EDR	1993	1"=500'
WAC	1999	1"=500'
EDR	2005	1"=500'
EDR	2006	1"=500'
EDR	2009	1"=500'
EDR	2010	1"=500'
EDR	2012	1"=500'

1939 Photograph – The 1939 photograph shows that the Property is mostly used for dry farming (hay or similar crop). Small structures are visible adjacent to the western boundary of the Property. An unpaved road is visible trending north-south and then west-east in the southwest Property area. The adjacent properties also appear to be used for dry farming and several structures are visible southeast of the Property. US Route 50 (which is now known as I-580) is visible along the northern boundary of the Property.

1949 Photograph – The use of the Property and adjacent properties evident in the 1949 photograph appears similar to the 1939 photograph. El Charro Road is visible east of the Property trending north-south. A part of the Property seems to be fallow or used for dry farming and a part appears to be plowed or flood-irrigated. One agricultural structure appears in the northwestern portion of the Property along the western boundary. Four other similar structures are visible in the adjacent property to the west. A channel is visible extending east-west in the northern portion of the Property.

1958 - 1966 Photographs – The Property still appears to be used for dry farming. Other conditions near the Property are similar to those depicted on earlier photographs.

1979 Photograph – The entire Property and the adjacent property to the west appears to be affected by fire. Several structures are still visible to the southeast of the Property. The I-580 exit ramps appear north of the Property.

1984 Photograph – The Property appears to be used for dry farming. The agricultural structure on the Property visible in the previous photographs is no longer present. One structure is visible on the adjacent property to the west.

1993 Photograph – Conditions at the Property and adjoining properties are similar to those depicted on the previous photographs, except for the addition of residential developments to the east of the Property. The structure, which was visible on the adjacent property to the west in the previous photograph, is no longer present.

1999 Photograph – A large stockpile is visible in the central portion of the Property, with two access roads connecting to it. Other conditions at the Property and adjoining properties are similar to those depicted on the previous photographs.

2005 and 2006 Photographs – Vegetation appears to be growing on top of the stockpile. The remainder of the Property appears to be used for dry farming. Structures that were visible in the southeast of the Property are no longer present, and the adjacent property to the south also appears to be used for dry farming. A small cluster of trees is visible where the structures were located. Two other stockpiles are visible in the adjoining properties to the south and northwest of the Property.

2009 and 2010 Photographs – The Property and the adjoining properties to the east, west, and south appear to be fallow or undeveloped land.

2012 Photograph – The Property and the adjoining properties have been configured to the current conditions. Part of the large stockpile on the Property appears to be removed. A gravel road in the proposed location of Stoneridge Drive is visible south of the Property. A detention basin exists on the adjacent lot to the south of the Property. A few structures and some construction activities are visible in the adjacent parcel to the west.

3.3.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties. The Sanborn Map Report search summary is presented in Appendix B.

3.3.4 City Directory

City Directories, published since the 18th century for major towns and cities, list the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix F. There are no listings for the Property. Numerous other listings were identified in the vicinity of the Property; these are primarily associated with residential uses. The city directory search is located in Appendix F.

3.3.5 Government Agencies

The following agencies were contacted pertaining to possible past development and/or activity at the Property.

- City of Pleasanton Community Development Department, Building & Safety Services Division
- City of Pleasanton Community Development Department, Planning Services Division
- Livermore-Pleasanton Fire Department
- Alameda County Environmental Health Department
- Alameda County Public Works Agency, Building Inspection Division
- Alameda County Community Development Agency
- Alameda County Assessor's Office
- California Regional Water Quality Control Board
- Department of Toxic Substances Control

City of Pleasanton Community Development Department, Building and Safety Services Division – The City of Pleasanton Community Development Department, Building & Safety Services Division was contacted regarding historical records pertaining to the Property. No files were identified relating to the Property.

City of Pleasanton Community Development Department, Planning Services Division – The City of Pleasanton Community Development Department, Planning Services Division was contacted regarding historical records pertaining to the Property. We were directed to the City's website, which contained information about the proposed Staples Ranch Project, including the tentative maps, land use map, master plan, etc. The Property is a part of this proposed project, which includes neighboring parcels to the south, east, and west. In addition, we received the following files for the Staples Ranch Project:

- Stoneridge Drive Specific Plan Amendment/Staples Ranch, dated August 10, 2012, and includes modification to the land use map.

- Final Environmental Impact Report (EIR) for the Stoneridge Drive Specific Plan Amendment/Staples Ranch Project prepared by PBS&J, dated February 2009. The EIR was prepared for the greater 169.3-acre project Site, including the Staples Ranch and the Property is a part of this project.

- Final Supplement to the Stoneridge Drive Specific Plan Amendment/ Staples Ranch EIR, dated May 2010.

Livermore-Pleasanton Fire Department – The Livermore-Pleasanton Fire Department was contacted regarding files for the Property. No files were identified relating to the Property.

Alameda County Environmental Health Department – The ACEH Department was contacted to determine if files exist for the Property. The Property was not listed on the Department's website databases. Ms. Yolanda Cole informed us that since the Property does not have an assigned address, they do not have any files for the Property.

As discussed in Section 3.1, one UST (UST-2) and three ASTs (AGT-1, AGT-4, and AGT-5) existed on the adjoining property to the east and south at Staples Ranch. Harza had performed a Phase I ESA on the Staples Ranch property and conducted soil sampling in the vicinity of the tanks (Harza 1993a). TPH-d concentrations were observed up to 1,900 mg/kg in the vicinity of one of the AST (AGT-5) beneath the proposed Stoneridge Drive extension. The UST and ASTs were owned and operated by the Alameda County General Services Agency (GSA). The tanks were removed and contaminated soil was excavated. A No Further Action letter was issued by the ACEH for the UST and one AST (AGT-4) on July 14, 1994 (ACEH, 1994a).

Further investigations were conducted in the vicinity of former AGT-1 and AGT-5, including the soil sampling and installation of four monitoring wells. TPH-d was detected at low concentrations in soil in the vicinity of AGT-1, and ACEH issued a no further action letter for AGT-1 on December 28, 1994 (ACEH, 1994b). In the vicinity of AGT-5, investigations revealed that TPH-d had leaked from the tank. Elevated concentrations of TPH-d and benzene, toluene, ethylbenzene, and xylenes were detected in soil samples collected in the vicinity of AGT-5. In order to evaluate the impact to groundwater, quarterly groundwater monitoring was performed at the four monitoring wells for three quarters. Results of the groundwater monitoring indicated that groundwater had not been impacted due to the fuel leakage. It was concluded that the residual diesel fuel did not pose a risk to human health, and a No Further Action letter was issued by ACEH on February 29, 1996 (ACEH, 1996). Since the tanks and the associated contamination have been removed, this does not represent an environmental concern to the Property. Structures at the Staples Ranch property were demolished in 2001.

Alameda County Public Works Agency, Building Inspection Division – The Alameda County Public Works Agency, Building Inspection Division was contacted to determine if files exist for the Property. No files were identified relating to the Property.

Alameda County Community Development Agency – The Staples Property Master Plan was listed under the Surplus Property Authority of the Community Development Agency's website. No other information was listed.

Alameda County Assessor's Office – The Alameda County Assessor's Office website was viewed for information regarding the Property. Information on the website confirmed that the Property is identified by APN 946-4623-1.

California Regional Water Quality Control Board – The California Regional Water Quality Control Board's online database, GeoTracker, was reviewed for files relating to the Property and surrounding properties. There were no records for the Property listed in the GeoTracker database.

Freisman Ranch, located at 1600 Freisman, Livermore (about 0.3 mile east of the Property) was listed as a closed cleanup program site. Groundwater is listed as an impacted media, and potential contaminant is gasoline. Tanks and contaminated soil were removed from the site in 2003 and 2004. The Alameda County Environmental Health Services issued a closure letter for the site dated July 2, 2008 (ACEH, 2008). Since the residual soil and groundwater contamination at the site is limited in extent, it is not considered an environmental concern for the Property.

Department of Toxic Substances Control – The Department of Toxic Substances Control's online database, EnviroStor, was reviewed for files relating to the Property and surrounding properties. No files indicating an environmental hazard within a mile of the Property were found.

3.4 ENVIRONMENTAL RECORD SOURCES

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A. A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below:

3.4.1 Federal ASTM Standard/Supplemental Sources

3.4.1.1 Subject Property

The Property is not listed on the Federal ASTM Standard or supplemental sources.

3.4.1.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on Federal ASTM Standard or supplemental sources.

- RCRA-SQG – Resource Conservation and Recovery Act Information - Small Quantity Generators - RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

  Target Store No. 2771 *2800 Dublin Blvd*

3.4.2 State ASTM Standard/Supplemental Sources

3.4.2.1 Subject Property

The Property is not listed on the State ASTM Standard or supplemental sources.

3.4.2.2 Other Properties

The following database(s) include(s) facilities listed within the appropriate ASTM search distances of the Property on State ASTM Standard or supplemental sources.

- UST – The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

  Staples Ranch *El Charro Rd. (I-580/El Charro)*

- SLIC – SLIC Region comes from the California Regional Water Quality Control Board.

  Staples Ranch *0 El Charro*

- NOTIFY 65 – Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

  Airport/Las Positas Golf Course *1800 Freisman*

- Alameda County Contaminated Sites – A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

  Staples Ranch *0 El Charro*

3.4.3 Local ASTM Supplemental Sources

3.4.3.1 Subject Property

The Property is not listed on Local ASTM supplemental databases.

3.4.3.2 Other Properties

No properties within appropriate ASTM search distances of the Property were identified on Local ASTM Supplemental sources.

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose an environmental risk to the Property. Properties that are on the "Orphan Summary" list appear to be located beyond the ASTM recommended radius search criteria.

4.0 SITE RECONNAISSANCE

4.1 METHODOLOGY

ENGEO conducted a reconnaissance of the Property on May 15 and 22, 2013. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

4.2 GENERAL SITE SETTING

The Property is currently comprised mostly of undeveloped open space. The Property appears to have been recently graded. An unpaved gravel road extends in the northwestern portion of the Property. A soil stockpile (approximately 31,300 cubic yards) is present on the central portion of the Property. Based on our review of previous explorations and the results of our explorations performed in May 2013, we understand that the existing stockpile is of a clayey nature. During our reconnaissance, the stockpile appeared to be free of debris.

An AT&T manhole and an AT&T pole were observed along the eastern and the western edge of the Property, respectively. A covered small stockpile exists in the northwestern corner of the Property. Construction debris was observed along the southern edge of the Property.

4.3 EXTERIOR OBSERVATIONS

Structures. No structures were observed during the site reconnaissance.

Hazardous Substances and Petroleum Products in Connection with Identified Uses. No hazardous substances or petroleum products were observed within the Property during the reconnaissance.

Storage Tanks. No aboveground storage tanks or evidence of existing underground storage tanks was observed during the reconnaissance.

Odors. No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.

Pools of Potentially Hazardous Liquid. No pools of potentially hazardous liquid were observed within the Property at the time of our reconnaissance.

Drums. No drums were observed on the Property at the time of the reconnaissance.

Hazardous Substance and Petroleum Product Containers. No hazardous substance or petroleum product containers were observed on the Property at the time of our reconnaissance.

Polychlorinated Biphenyls (PCBs). No PCB-containing materials, including transformers, were observed within the Property during our reconnaissance.

Pits, Ponds and Lagoons. No pits, ponds or lagoons were observed within the Property at the time of our reconnaissance. A detention basin exists on the adjacent lot to the south of the Property.

Stained Soil/Pavement. No stained soil or pavement was observed within the Property at the time of our reconnaissance.

Stressed Vegetation. No signs of stressed vegetation were observed on the Property at the time of our reconnaissance.

Solid Waste/Debris No disposal of solid waste was observed at the Property. Construction debris was observed along the southern boundary of the Property.

Wastewater. No wastewater conveyance systems were observed at the Property during the reconnaissance.

Wells. No wells were found within the Property during our reconnaissance.

Septic Systems. No septic systems were found within the Property during our reconnaissance.

4.4 ASBESTOS-CONTAINING MATERIALS AND LEAD-BASED PAINT

An asbestos and lead-based paint survey was not conducted as part of this assessment. No structures were observed on the Property.

4.5 INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 25 tests were conducted within the Property zip code, with none of the tests exceeding the current EPA action level of 4 picocuries per liter [pCi/L][1]).

In accordance with ASTM E2600-10 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); there are no potential petroleum

[1] California Department of Health Services – Division of Drinking Water and Environmental Management – Radon (http://www.cdph.ca.gov/HealthInfo/environhealth/Documents/Radon/CaliforniaRadonDatabase.pdf).

hydrocarbon sources for vapor intrusion within 1/10 mile of the Property or volatile organic compound (VOCs) sources within ⅓ mile of the Property.

5.0 INTERVIEWS

Mr. Keith Henderson of CarMax Auto Superstores California, Inc., completed a client-based environmental questionnaire. In the questionnaire, Mr. Henderson did not identify potential environmentally related issues with the Property. A copy of the completed questionnaire is presented in Appendix G.

Mr. Stuart Cook completed a Key Site Manager questionnaire pertaining to the Property. In the questionnaire, Mr. Cook said that the Property has been used for agricultural purposes in the past (dry farming and cattle grazing). He mentioned that former USTs were formerly present on the property to the east. He mentioned that approximately 125,000 cubic yards of "select" fill material was stockpiled on the Property by KB Home in the mid-1990s in anticipation of a residential development. The precise origin of this material is unknown. Mr. Cook also indicated that approximately half of the 125,000 cubic yards was removed and utilized by the adjacent senior continuing care community development as "select" fill in 2011-2012. Approximately half (31,300 cubic yards) of what remained of the select stockpile was recently moved to the adjacent vacant property to the east, leaving approximately 31,300 cubic yards of the original 125,000 cubic yards on the Property. He did not identify any potential environmentally related issues with the Property. The questionnaire is presented in its entirety in Appendix G.

6.0 FINDINGS

The reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the Property. A review of regulatory databases maintained by county, state and federal agencies found no documentation of hazardous materials violations or discharge on the Property. No documented soil or groundwater contamination associated with abutting properties was found from the records research.

A review of historical records found that the Property has mostly been vacant, undeveloped, or used for dry farming and/or cattle grazing.

A soil stockpile (approximately 31,300 cubic yards) is currently present on the central portion of the Property. Personal communication with Mr. Stuart Cook, Surplus Property Authority, Alameda County Community Development Agency confirmed that this soil stockpile is a part of a larger soil stockpile (about 125,000 cubic yards) that was placed in the mid-1990s by a residential developer (KB Home) in anticipation of future residential development.

We understand that the existing stockpile would remain on the Property and might be used for grading or other purposes. Although the stockpiled soil has not been tested for environmental analysis, it has been characterized as "select" fill by the previous geotechnical assessments performed on the soil. The soil material has been recently used for the adjacent senior continuing

care community developments. Based on these factors, we do not recommend environmental sampling of the stockpile at this time.

Based on our findings, no Recognized Environmental Conditions (RECs) were identified for the Property.

7.0 OPINIONS AND DATA GAPS

It is our opinion that the findings of this study are based on a sufficient level of information obtained during our contracted scope of services to render a conclusion as to whether additional appropriate investigation is required to identify the presence or likely presence of a REC. No data gaps were identified during this process.

8.0 CONCLUSIONS

The study included a review of local, state and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources, a reconnaissance of the Property to review site use and current conditions to check for the storage, use, production or disposal of hazardous or potentially hazardous materials, and interviews with persons knowledgeable about current and past site use.

The site reconnaissance and records review did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found no documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property.

Based on the findings of this assessment, no Recognized Environmental Conditions (RECs) and no historical RECs were identified for the Property.

ENGEO has performed a phase I environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E 1527-05 “Standard Practice for Environmental Site Assessments” and USEPA “Standards and Practices for All Appropriate Inquires”, 40 CFR Part 312. Based on the findings of this assessment, no further studies are recommended at this time.

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FIGURES

LIST OF FIGURES

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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ORIGINAL FIGURE PRINTED IN COLOR

N

0 FEET 500

0 METERS 250

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

AERIAL MAP

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 2
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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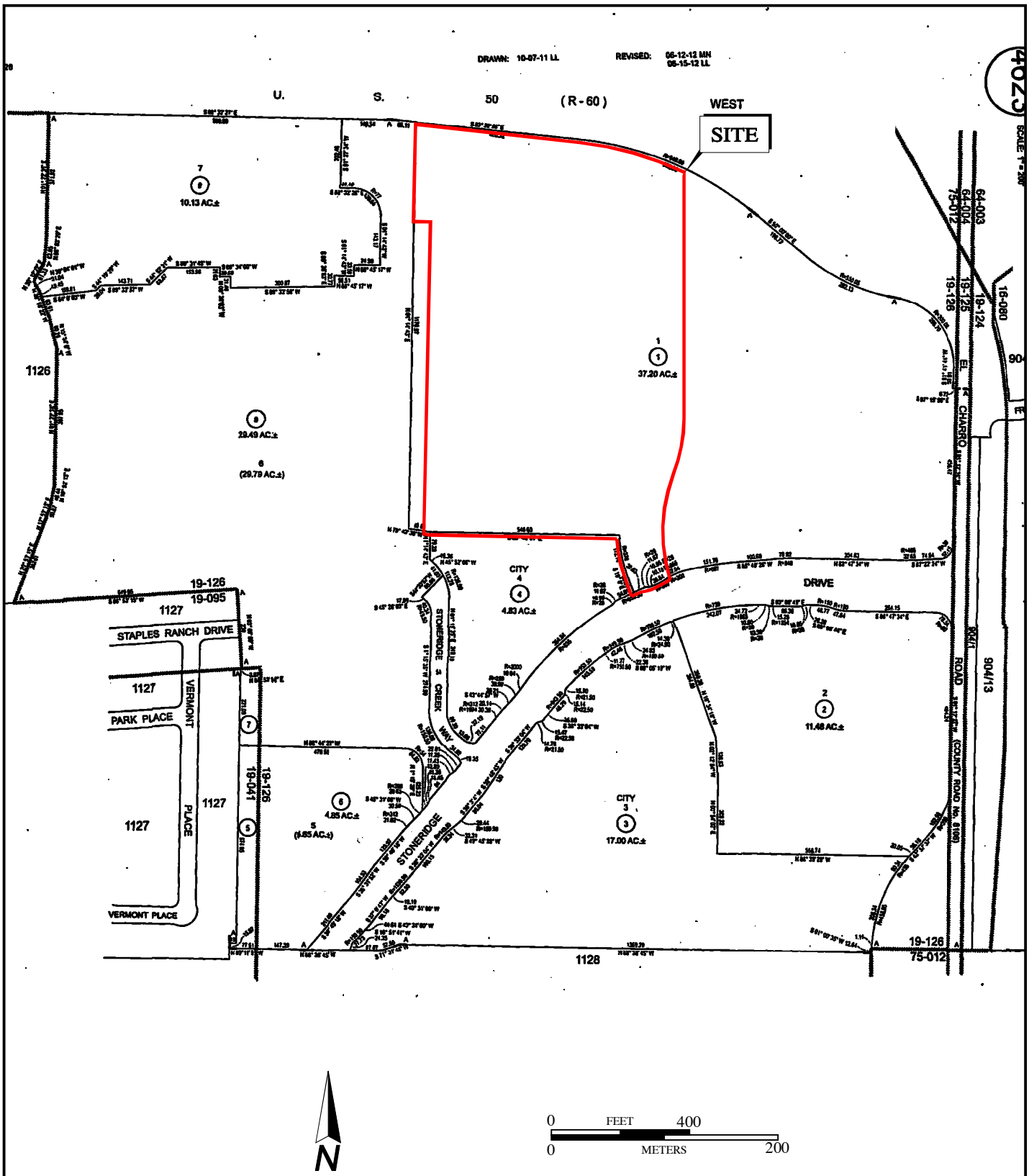
ORIGINAL FIGURE PRINTED IN COLOR



BASE MAP SOURCE: ALAMEDA COUNTY

ENGEO Expect Excellence	ASSESSOR'S PARCEL MAP PROPOSED CARMAX AUTOMOTIVE DEALERSHIP PLEASANTON, CALIFORNIA	PROJECT NO.: 10237.000.000 SCALE: AS SHOWN DRAWN BY: LL / CHECKED BY: JA	FIGURE NO. 3

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ORIGINAL FIGURE PRINTED IN COLOR

AT&T POLE ALONG EASTERN EDGE OF PROPERTY

AT&T POLE ALONG WESTERN EDGE OF PROPERTY

CONSTRUCTION DEBRIS ALONG SOUTHERN EDGE OF PROPERTY

GRAVEL ROAD IN NORTHWEST CORNER OF PROPERTY

ENGEO Expect Excellence

SITE PHOTOGRAPHS

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 4A
SCALE: NO SCALE		
DRAWN BY: LL	CHECKED BY: JA	

SMALL STOCKPILE IN NORTHWEST CORNER OF PROPERTY

VIEW LOOKING NORTH OF ROAD ON WESTERN EDGE OF PROPERTY

VIEW FROM SOUTHERN END, LOOKING NORTH

VIEW FROM WEST END LOOKING EAST AT STOCKPILE

ENGEO Expect Excellence

SITE PHOTOGRAPHS

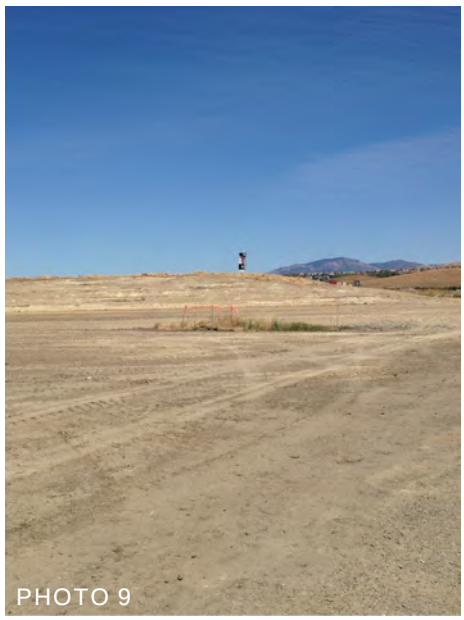
PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000	FIGURE NO. 4B
SCALE: NO SCALE	
DRAWN BY: LL	CHECKED BY: BB

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\10237\000\ESA\10237000000-ESA-4-SitePhotos-0513.dwg Plot Date: 6-24-13 SPATTERS

ORIGINAL FIGURE PRINTED IN COLOR



VIEW OF STOCKPILE LOOKING NORTH

VIEW OF NORTHEAST PORTION OF PROPERTY

VIEW OF NORTHERN PORTION OF PROPERTY

VIEW OF SOUTHEASTERN PORTION OF PROPERTY, LOOKING SOUTH

ENGEO Expect Excellence

SITE PHOTOGRAPHS

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000	FIGURE NO. 4C
SCALE: NO SCALE	
DRAWN BY: LL	CHECKED BY: BB

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\10237\000\ESA\10237000000-ESA-4-SitePhotos-0513.dwg Plot Date: 6-24-13 SPATTERS

ORIGINAL FIGURE PRINTED IN COLOR

VIEW OF SOUTHERN PORTION OF PROPERTY

VIEW OF WESTERN PORTION OF PROPERTY, LOOKING NORTH

VIEW OF SOUTHERN PORTION OF PROPERTY, LOOKING WEST

VIEW OF THE STOCKPILE

ENGEO Expect Excellence

SITE PHOTOGRAPHS

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000	FIGURE NO. 4D
SCALE: NO SCALE	
DRAWN BY: LL	CHECKED BY: BB

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\10237\000\ESA\10237000000-ESA-4-SitePhotos-0513.dwg Plot Date: 6-24-13 SPATTERS

ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report

APPENDIX A

Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Inquiry Number: 03597351.2r
May 03, 2013

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR).
The results of this search follow:

TARGET PROPERTY ADDRESS

CARMAX PLEASANTON
EL CHARRO ROAD
PLEASANTON, CA 94588
Elevation: 352 ft.
EDR Inquiry Number: 03597351.2r

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES SEARCH RESULTS

STANDARD ENVIRONMENTAL RECORDS

Site	Map ID Direction Distance Distance ft. Elevation ft.	NPL	Proposed NPL	NPL LIENS	Delisted NPL	CERCLIS	FEDERAL FACILITY	CERC-NFRAP	CORRACTS	RCRA-TSDF	RCRA-LQG	RCRA-SQG	RCRA-CESQG	US ENG CONTROLS	US INST CONTROL	LUCIS	ERNS	RESPONSE	ENVIROSTOR	SWF/LF	LUST	SLIC	Alameda County CS	INDIAN LUST	UST	AST	INDIAN UST	FEMA UST	VCP	INDIAN VCP
STAPLES RANCH 0 EL CHARRO PLEASANTON, CA 94566 S108246084	A1 SW < 1/8 307 ft. 351 ft. Lower																					X	X							
STAPLES RANCH EL CHARRO RD. (I-580/EL CHARRO) PLEASANTON, CA 94566 U003879962	A2 SW < 1/8 307 ft. 351 ft. Lower																								X					
TARGET STORE NO 2771 2800 DUBLIN BLVD DUBLIN, CA 94568 1014915658	3 NNE 1/8-1/4 903 ft. 355 ft. Higher											X																		

ADDITIONAL ENVIRONMENTAL RECORDS

Map ID	US BROWNFIELDS	ODI	DEBRIS REGION 9	WMUDS/SWAT	SWRCY	HAULERS	INDIAN ODI	US CDL	HIST Cal-Sites	SCH	Toxic Pits	CDL	US HIST CDL	CA FID UST	HIST UST	SWEEPS UST	LIENS 2	LIENS	DEED	HMIRS	CHMIRS	LDS	MCS	SPILLS 90	RCRA NonGen / NLR	DOT OPS	DOD	FUDS	CONSENT	ROD	UMTRA	US MINES	TRIS	TSCA	FTTS	HIST FTTS	SSTS	ICIS	PADS	MLTS	RADINFO	FINDS	RAATS	RMP	CA BOND EXP. PLAN	UIC	NPDES	Cortese	HIST CORTESE	CUPA Listings	Notify 65	DRYCLEANERS	WIP	ENF	HAZNET	EMI	INDIAN RESERV	SCRD DRYCLEANERS	COAL ASH DOE	COAL ASH EPA	HWT	HWP	Financial Assurance	2020 COR ACTION	US AIRS	PRP	WDS	EPA WATCH LIST	US FIN ASSUR	PCB TRANSFORMER	PROC
A1																																																																									
A2																																																																								
3																																																																								

EXECUTIVE SUMMARY

TARGET PROPERTY ADDRESS

CARMAX PLEASANTON
EL CHARRO ROAD
PLEASANTON, CA 94588
Elevation: 352 ft.
EDR Inquiry Number: 03597351.2r

SURROUNDING PROPERTY SEARCH RESULTS

Site	Map ID / Direction / Distance / Distance ft. / Elevation ft.
AIRPORT/LOS POSITAS GOLFCOURSE 1800 FRIESMAN PLEASANTON, CA 92561 S100179218	4 East 1/4-1/2 2337 ft. 361 ft. Higher

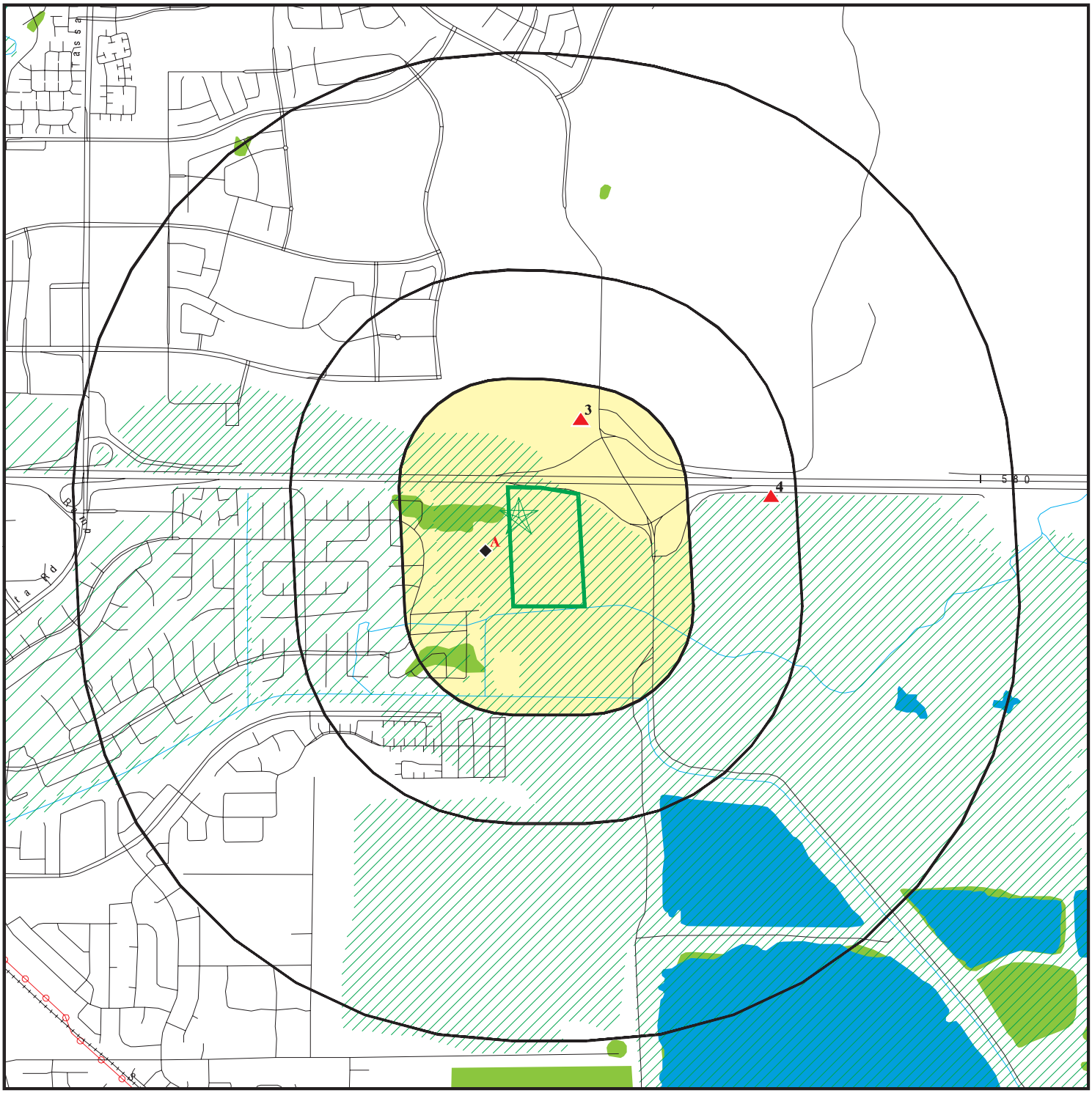
STANDARD ENVIRONMENTAL RECORDS

Database	AIRPORT/LOS POSITAS GOLFCOURSE
NPL	
Proposed NPL	
NPL LIENS	
Delisted NPL	
CERCLIS	
FEDERAL FACILITY	
CERC-NFRAP	
CORRACTS	
RCRA-TSDF	
RCRA-LQG	
RCRA-SQG	
RCRA-CESQG	
US ENG CONTROLS	
US INST CONTROL	
LUCIS	
ERNS	
RESPONSE	
ENVIROSTOR	
SWF/LF	
LUST	
SLIC	
Alameda County CS	
INDIAN LUST	
UST	
AST	
INDIAN UST	
FEMA UST	
VCP	
INDIAN VCP	

ADDITIONAL ENVIRONMENTAL RECORDS

Database	AIRPORT/LOS POSITAS GOLFCOURSE
US BROWNFIELDS	
ODI	
DEBRIS REGION 9	
WMUDS/SWAT	
SWRCY	
HAULERS	
INDIAN ODI	
US CDL	
HIST Cal-Sites	
SCH	
Toxic Pits	
CDL	
US HIST CDL	
CA FID UST	
HIST UST	
SWEEPS UST	
LIENS 2	
LIENS	
DEED	
HMIRS	
CHMIRS	
LDS	
MCS	
SPILLS 90	
RCRA NonGen / NLR	
DOT OPS	
DOD	
FUDS	
CONSENT	
ROD	
UMTRA	
US MINES	
TRIS	
TSCA	
FTTS	
HIST FTTS	
SSTS	
ICIS	
PADS	
MLTS	
RADINFO	
FINDS	
RAATS	
RMP	
CA BOND EXP. PLAN	
UIC	
NPDES	
Cortese	
HIST CORTESE	
CUPA Listings	
Notify 65	X
DRYCLEANERS	
WIP	
ENF	
HAZNET	
EMI	
INDIAN RESERV	
SCRD DRYCLEANERS	
COAL ASH DOE	
COAL ASH EPA	
HWT	
HWP	
Financial Assurance	
2020 COR ACTION	
US AIRS	
PRP	
WDS	
EPA WATCH LIST	
US FIN ASSUR	
PCB TRANSFORMER	
PROC	

OVERVIEW MAP - 03597351.2r



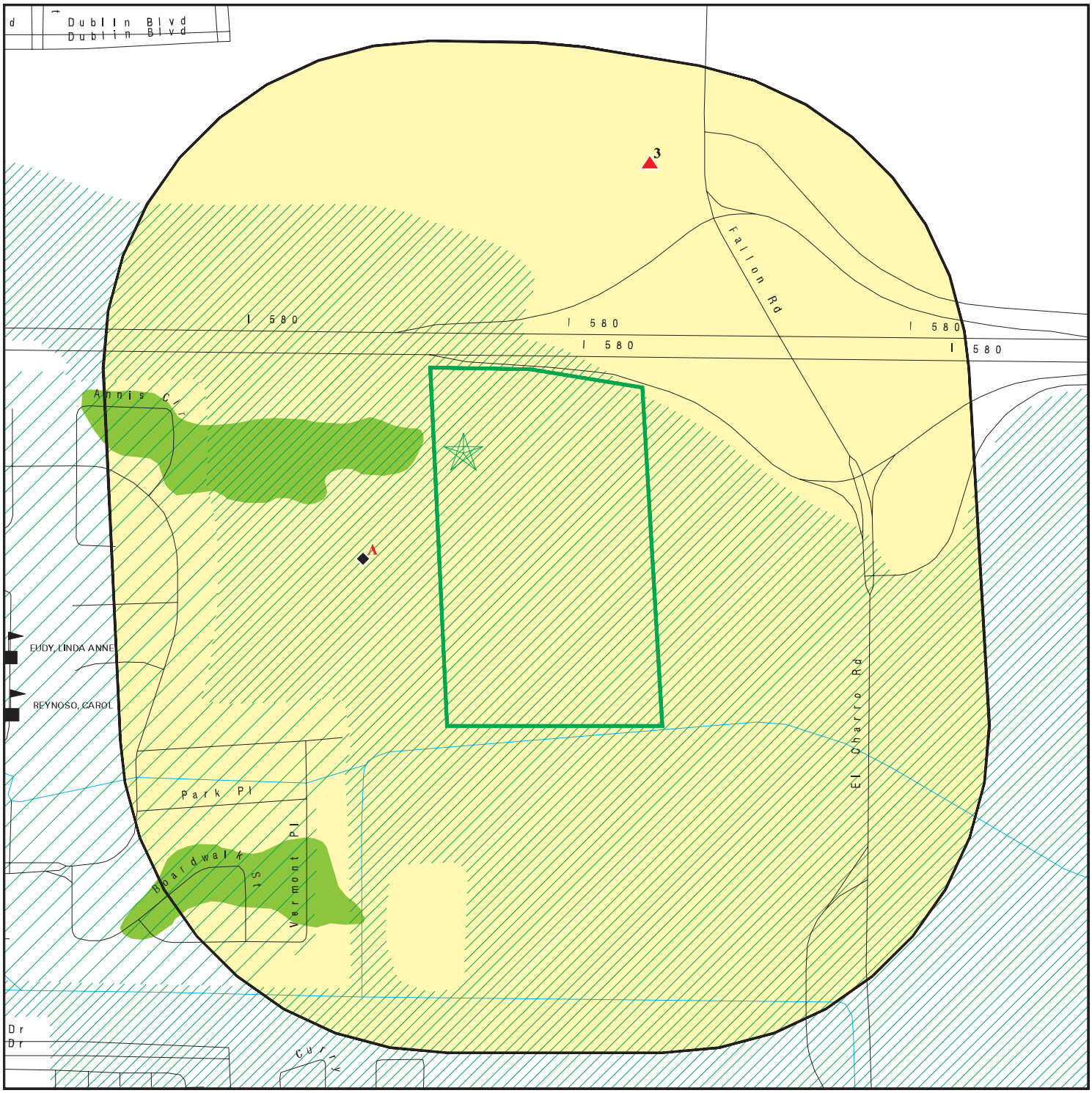
0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton CA 94588 LAT/LONG: 37.7001 / 121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY #: 03597351.2r DATE: May 03, 2013 7:53 pm

DETAIL MAP - 03597351.2r



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA
Oil & Gas pipelines from USGS
100-year flood zone
500-year flood zone
National Wetland Inventory

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Carmax Pleasanton	CLIENT: Engeo Inc.
ADDRESS: El Charro Road Pleasanton CA 94588	CONTACT: Jeff Adams INQUIRY #: 03597351.2r
LAT/LONG: 37.7001 / 121.8539	DATE: May 03, 2013 7:54 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	1	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		1	0	0	NR	NR	1
Alameda County CS	0.500		1	0	0	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		1	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	1	0	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PROC	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
SW
< 1/8
0.058 mi.
307 ft.

STAPLES RANCH
0 EL CHARRO
PLEASANTON, CA 94566

Site 1 of 2 in cluster A

SLIC **S108246084**
Alameda County CS **N/A**

Relative:
Lower

Actual:
351 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	02/29/1996
Global Id:	T06019744330
Lead Agency:	ALAMEDA COUNTY LOP
Lead Agency Case Number:	RO0002703
Latitude:	37.687497
Longitude:	-121.838873
Case Type:	Cleanup Program Site
Case Worker:	EC
Local Agency:	ALAMEDA COUNTY LOP
RB Case Number:	01S0659
File Location:	Stored electronically as an E-file
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Alameda County CS:

Status:	Case Closed
Record Id:	RO0002703
PE:	5502

A2
SW
< 1/8
0.058 mi.
307 ft.

STAPLES RANCH
EL CHARRO RD. (I-580/EL CHARRO)
PLEASANTON, CA 94566

Site 2 of 2 in cluster A

UST **U003879962**
N/A

Relative:
Lower

Actual:
351 ft.

UST:

Facility ID:	01-000-305010
Latitude:	37.66036
Longitude:	-121.86664

3
NNE
1/8-1/4
0.171 mi.
903 ft.

TARGET STORE NO 2771
2800 DUBLIN BLVD
DUBLIN, CA 94568

RCRA-SQG **1014915658**
CAR000221184

Relative:
Higher

Actual:
355 ft.

RCRA-SQG:

Date form received by agency:	08/15/2011
Facility name:	TARGET STORE NO 2771
Facility address:	2800 DUBLIN BLVD DUBLIN, CA 94568
EPA ID:	CAR000221184
Mailing address:	PO BOX 111 MINNEAPOLIS, MN 55440-0111
Contact:	BRAD ULLERY
Contact address:	PO BOX 111

TARGET STORE NO 2771 (Continued) **1014915658**

MINNEAPOLIS, MN 55440-0111
Contact country: US
Contact telephone: 800-587-2228
Contact email: FM.POC@TARGET.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: TARGET CORP
Owner/operator address: PO BOX 111
MINNEAPOLIS, MN 55440
Owner/operator country: US
Owner/operator telephone: 800-587-2228
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/26/2011
Owner/Op end date: Not reported

Owner/operator name: TARGET CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/26/2011
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET,

TARGET STORE NO 2771 (Continued) **1014915658**

WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D005
Waste name: BARIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

Waste code: D016
Waste name: 2,4-D

Waste code: P001
Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

Waste code: P046
Waste name: BENZENEETHANAMINE, ALPHA,ALPHA-DIMETHYL-

Waste code: P075
Waste name: NICOTINE, & SALTS

Violation Status: No violations found

---

4 **AIRPORT/LOS POSITAS GOLFCOURSE** **Notify 65** **S100179218**
East **1800 FRIESMAN** **N/A**
1/4-1/2 **PLEASANTON, CA 92561**
0.443 mi.
2337 ft.

Relative:
Higher

Actual:
361 ft.

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92561

Count: 22 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
PLEASANTON	U001598130	STARR CANYON RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598131	STRAWBERRY PEAK RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598132	SUGAR LOAF MOUNTAIN RADIO RELA	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598135	TAFT MOUNTAIN RADIO DELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598136	TASSAJARO RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598138	TEMBLOR PEAK RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598141	THOMPSON VALLEY RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598142	THREE PEAKS DOMESTIC EARTH SAT	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598143	TIMBER MOUNTAIN RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598144	TOPANGA RIDGE RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598146	TURQUOISE RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598147	TUSCAN BUTTE RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598148	UNION HILL RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598151	VACA HILL RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598154	VAQUEROS RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598155	VIEWLAND POWER FEED	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598156	WALKER RIDGE RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598157	WALPERT RIDGE RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598158	WARNER SPRINGS RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598160	WHITAKER PEAK RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598161	WILDOMAR RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST
PLEASANTON	U001598163	WOLF CREEK RADIO RELAY	5925 W LAS POSITAS BLVD	94566	HIST UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 04/05/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 10/09/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 04/05/2013
Next Scheduled EDR Contact: 03/11/2013
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 6

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/19/2012
Date Data Arrived at EDR: 12/26/2012
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/19/2012
Date Data Arrived at EDR: 12/26/2012
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 29

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/14/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/14/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 30

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/01/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 162

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-5092
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 45

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 156

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/14/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/10/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 9
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/26/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/14/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 66

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/14/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2012
Date Data Arrived at EDR: 09/12/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/16/2012
Date Data Arrived at EDR: 03/26/2012
Date Made Active in Reports: 06/14/2012
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/11/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/06/2012
Date Data Arrived at EDR: 01/29/2013
Date Made Active in Reports: 03/19/2013
Number of Days to Update: 49

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/05/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 57
Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/13/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146
Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011
Date Data Arrived at EDR: 09/08/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 21
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/06/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/26/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/28/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/08/2013
Date Data Arrived at EDR: 01/09/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/11/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 79

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/26/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 12/31/2012
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 01/02/2013
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 12/12/2012
Date Made Active in Reports: 01/04/2013
Number of Days to Update: 23
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 12/24/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/08/2013
Date Data Arrived at EDR: 01/29/2013
Date Made Active in Reports: 03/19/2013
Number of Days to Update: 49
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 14

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/29/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 04/23/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/20/2012
Date Data Arrived at EDR: 11/30/2012
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/19/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/19/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 03/06/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/15/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/15/2013
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 38
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/16/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/25/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/26/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/19/2013
Date Data Arrived at EDR: 02/20/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 28

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: N/A

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/02/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 04/04/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 11/15/2012
Date Data Arrived at EDR: 11/16/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 91

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 11/15/2012
Date Data Arrived at EDR: 11/16/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 91

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Annually

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/13/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/12/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/16/2013
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 36

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/16/2013
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 01/31/2013
Number of Days to Update: 14

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List
Cupa Facility List

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 04/04/2013
Number of Days to Update: 21

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 10/16/2012
Date Data Arrived at EDR: 10/17/2012
Date Made Active in Reports: 11/13/2012
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Varies

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/21/2012
Date Data Arrived at EDR: 01/04/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 49

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/04/2013
Date Data Arrived at EDR: 01/14/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 46

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/27/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/15/2013
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/04/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/08/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/27/2013
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 25

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/04/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 02/07/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 40

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/26/2012
Date Data Arrived at EDR: 06/27/2012
Date Made Active in Reports: 08/17/2012
Number of Days to Update: 51

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/13/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 36

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/12/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 12/28/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 28
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/21/2013
Date Data Arrived at EDR: 01/22/2013
Date Made Active in Reports: 03/19/2013
Number of Days to Update: 56
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/24/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 61
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/14/2013
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 01/31/2013
Number of Days to Update: 16
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county?s Certified Unified Program Agency database. California?s Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/18/2012
Date Data Arrived at EDR: 12/20/2012
Date Made Active in Reports: 02/08/2013
Number of Days to Update: 50

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/21/2013
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/25/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 03/08/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 22
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/13/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/19/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 29
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 37
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 14

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/05/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 43

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 02/05/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 50

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/29/2012
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2012
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 38

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/17/2012
Date Data Arrived at EDR: 08/20/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 44

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 11/06/2012
Date Made Active in Reports: 11/30/2012
Number of Days to Update: 24

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/25/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 24

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/02/2013
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 03/12/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/04/2013
Next Scheduled EDR Contact: 06/17/2013
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 34

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/11/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 22

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/12/2012
Date Data Arrived at EDR: 12/17/2012
Date Made Active in Reports: 01/22/2013
Number of Days to Update: 36

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 12/12/2012
Date Data Arrived at EDR: 12/17/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 39

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 01/10/2013
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 42

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2013
Date Data Arrived at EDR: 01/02/2013
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 23

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/01/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/11/2013
Next Scheduled EDR Contact: 06/24/2013
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/14/2013
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/30/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 42

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/21/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 01/28/2013
Date Data Arrived at EDR: 02/01/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 47

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/29/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 12/04/2012
Date Data Arrived at EDR: 12/20/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 36

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/19/2012
Date Data Arrived at EDR: 12/28/2012
Date Made Active in Reports: 01/30/2013
Number of Days to Update: 33

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/25/2013
Next Scheduled EDR Contact: 07/08/2013
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/18/2013
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 31

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 02/07/2013
Date Made Active in Reports: 03/15/2013
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/07/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/23/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/23/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/18/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CARMAX PLEASANTON
EL CHARRO ROAD
PLEASANTON, CA 94588

TARGET PROPERTY COORDINATES

Latitude (North):	37.7001 - 37° 42' 0.36''
Longitude (West):	121.8539 - 121° 51' 14.04''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	601037.1
UTM Y (Meters):	4172954.5
Elevation:	352 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	37121-F7 LIVERMORE, CA
Most Recent Revision:	1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

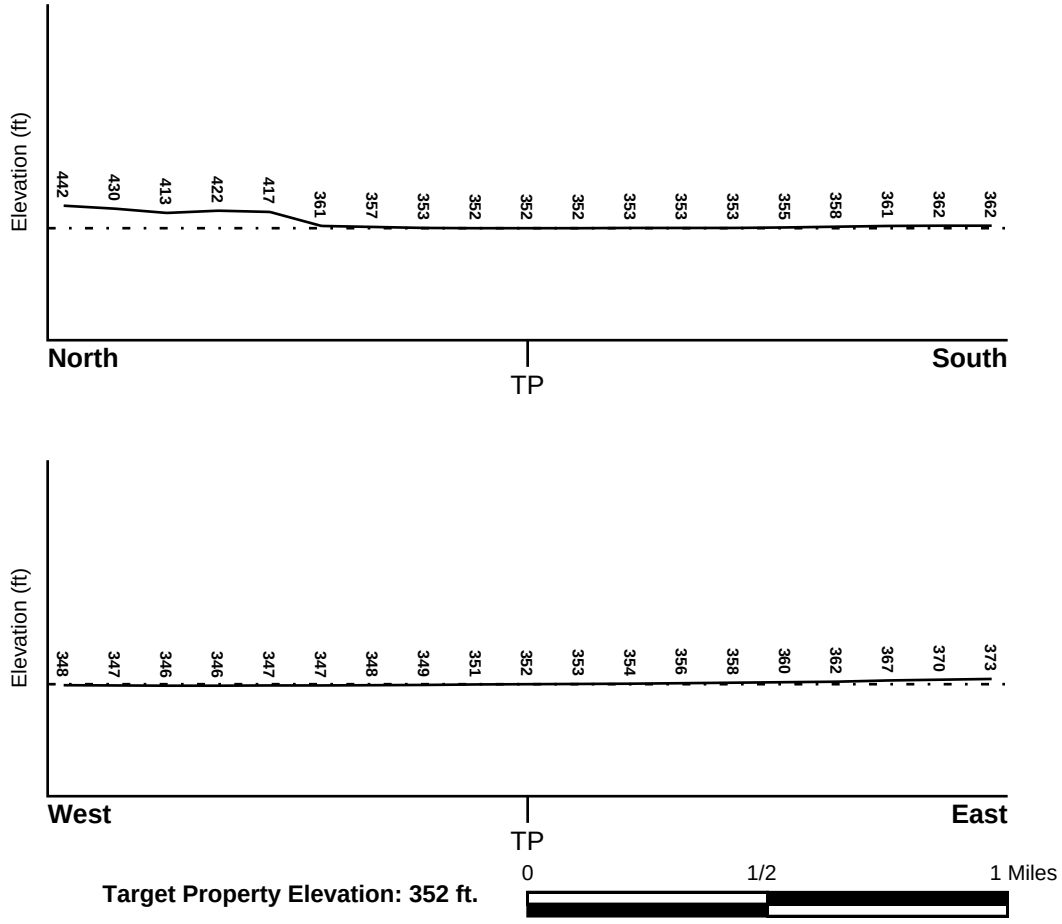
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
ALAMEDA, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06001C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
LIVERMORE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
4	1/4 - 1/2 Mile SE	SW

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

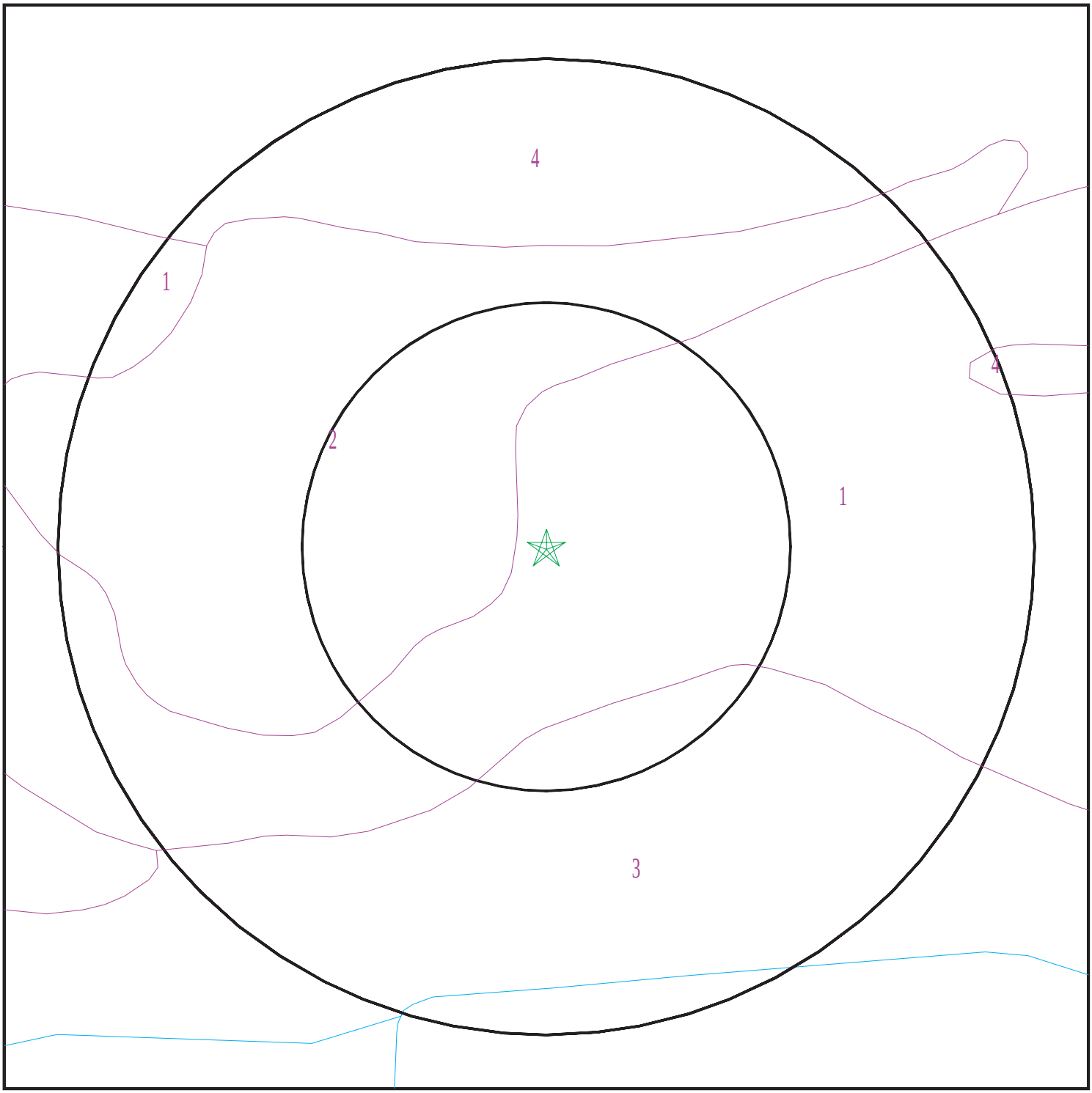
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 03597351.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Carmax Pleasanton	CLIENT:	Engeo Inc.
ADDRESS:	El Charro Road	CONTACT:	Jeff Adams
	Pleasanton CA 94588	INQUIRY #:	03597351.2r
LAT/LONG:	37.7001 / 121.8539	DATE:	May 03, 2013 7:54 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Clear Lake

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
2	35 inches	64 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: Pescadero

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	1 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.9
2	1 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.9
3	20 inches	72 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: Sycamore

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 137 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9
2	18 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Rincon

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	16 inches	51 inches	sandy clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
3	51 inches	59 inches	stratified sandy loam to clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000185046	1/4 - 1/2 Mile NE
3	USGS40000184976	1/4 - 1/2 Mile SE
5	USGS40000185029	1/2 - 1 Mile WNW
D12	USGS40000184963	1/2 - 1 Mile WSW
D13	USGS40000184960	1/2 - 1 Mile WSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
14	USGS40000184929	1/2 - 1 Mile SW
15	USGS40000185032	1/2 - 1 Mile West
16	USGS40000184928	1/2 - 1 Mile SE
18	USGS40000185003	1/2 - 1 Mile East
20	USGS40000184886	1/2 - 1 Mile SSW
F22	USGS40000184922	1/2 - 1 Mile SE
23	USGS40000184885	1/2 - 1 Mile SSE
E24	USGS40000184959	1/2 - 1 Mile ESE
25	USGS40000185107	1/2 - 1 Mile NNE
H31	USGS40000184887	1/2 - 1 Mile SSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

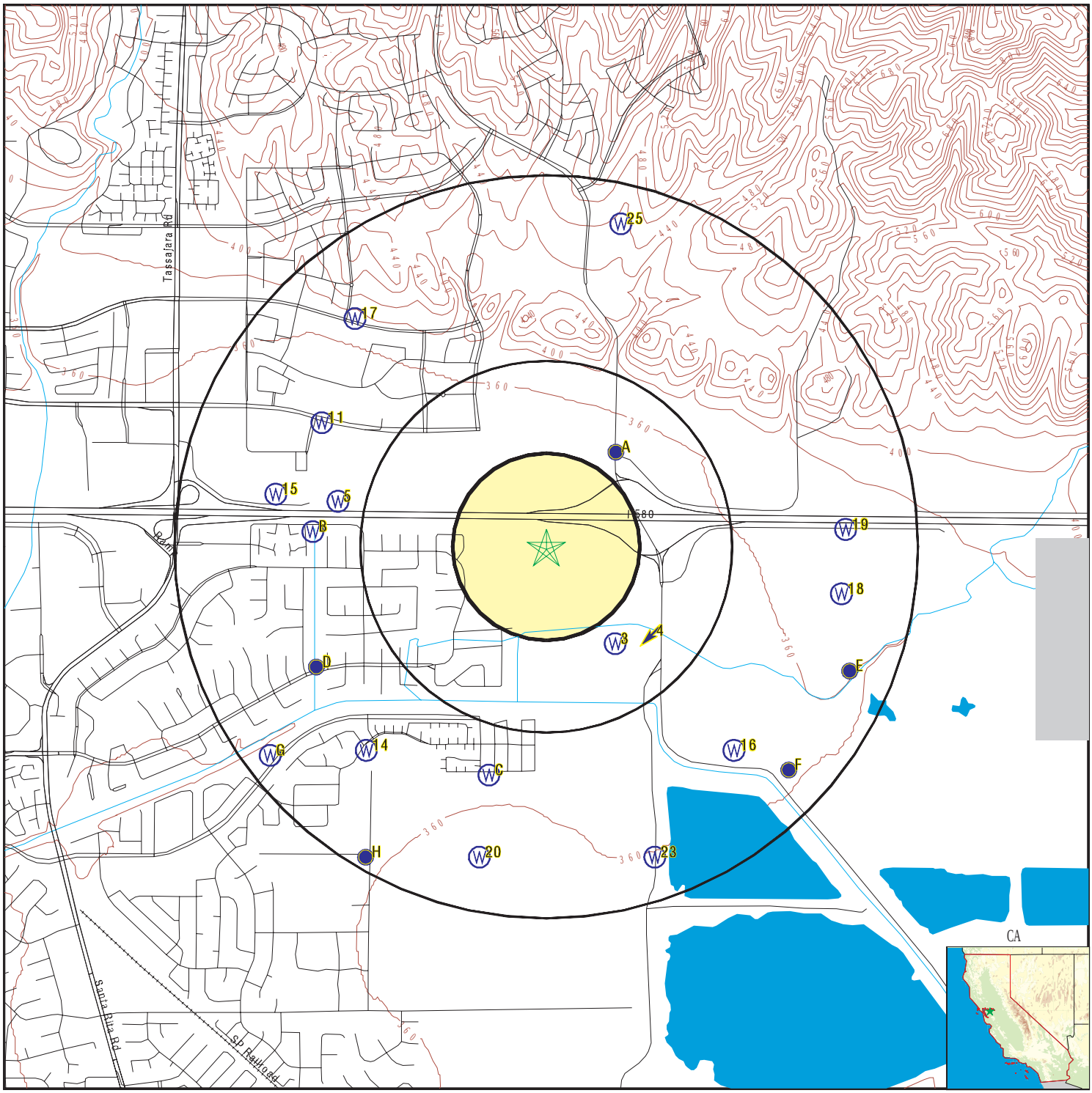
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADW50000030172	1/4 - 1/2 Mile NE
B6	CADW50000030150	1/2 - 1 Mile West
B7	CADW50000030152	1/2 - 1 Mile West
C8	CADW50000030068	1/2 - 1 Mile SSW
C9	CADW50000030069	1/2 - 1 Mile SSW
D10	CADW50000030102	1/2 - 1 Mile WSW
11	CADW50000030177	1/2 - 1 Mile WNW
17	CADW50000030191	1/2 - 1 Mile NW
19	CADW50000030153	1/2 - 1 Mile East
E21	CADW50000030099	1/2 - 1 Mile ESE
F26	CADW50000030067	1/2 - 1 Mile SE
G27	CADW50000030075	1/2 - 1 Mile SW
H28	CADW50000030050	1/2 - 1 Mile SSW
H29	CADW50000030051	1/2 - 1 Mile SSW
G30	32	1/2 - 1 Mile SW

PHYSICAL SETTING SOURCE MAP - 03597351.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Carmax Pleasanton	CLIENT:	Engeo Inc.
ADDRESS:	El Charro Road Pleasanton CA 94588	CONTACT:	Jeff Adams
		INQUIRY #:	03597351.2r
LAT/LONG:	37.7001 / 121.8539	DATE:	May 03, 2013 7:54 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
NE
1/4 - 1/2 Mile
Higher | **CA WELLS** | **CADW50000030172**

Latitude :	37.703778		
Longitude :	121.850453		
Site code:	377038N1218505W001	Casgem sta:	03S01E03G002M
Local well:	3S/1E 3G 2	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030172

A2
NE
1/4 - 1/2 Mile
Higher | **FED USGS** | **USGS40000185046**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374214121505801		
Monloc name:	003S001E03G002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.7038185
Longitude:	-121.8505114	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	334.50
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19771205	Welldepth:	50
Welldepth units:	ft	Wellholedepth:	50
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 42

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-09-08	27.8		1981-08-10	27.4	
1981-08-03	27.4		1981-07-13	27.1	
1981-06-08	26.3		1981-05-20	25.9	
1981-05-19	25.9		1981-04-22	24.9	
1981-03-25	24.5		1981-02-26	25.1	
1981-01-28	26.5		1981-01-27	26.9	
1980-12-30	27.2		1980-12-03	27.4	
1980-11-12	27.2		1980-10-08	26.6	
1980-07-17	25.5		1980-06-17	23.9	
1980-04-14	22.2		1980-02-27	23.6	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1979-10-19	27.3		1979-07-17	26.7	
1979-06-12	25.8		1979-06-04	25.7	
1979-05-21	25.2		1979-05-14	25.0	
1979-04-30	24.7		1979-04-26	24.6	
1979-04-09	24.0		1979-04-06	23.8	
1979-04-02	23.7		1979-03-27	23.8	
1979-03-19	24.6		1979-03-12	23.7	
1979-02-07	25.5		1979-01-18	25.2	
1978-10-25	27.9		1978-07-28	26.6	
1978-06-19	25.7		1978-05-19	25.0	
1978-01-18	28.6		1977-12-13	29.7	

3
SE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000184976**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374147121505801		
Monloc name:	003S001E03Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6963188
Longitude:	-121.8505114	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	352.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19260406	Welldepth:	350
Welldepth units:	ft	Wellholedepth:	350
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 22

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-10-22	72.7		1981-05-04	260.0	
1980-10-07	65.7		1980-04-16	62.0	
1979-09-20	72.2		1979-09-17	102.0	
1979-04-05	65.8		1978-03-16	84.4	
1977-09-26	100.6		1977-03-16	87.8	
1976-09-27	95.7		1976-03-09	78.3	
1975-09-15	96.2		1975-03-27	76.6	
1974-03-15	82.8		1973-09-26	108.0	
1973-03-15	93.3		1972-09-25	122.1	
1972-03-03	98.0		1971-09-13	132.0	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1971-04-05	95.0		1970-09-01	127.3	

4
SE
1/4 - 1/2 Mile
Higher

AQUIFLOW **51634**

Site ID:	01-1301
Groundwater Flow:	SW
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	15.3’
Date:	05/31/1988

5
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000185029**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374207121514701		
Monloc name:	003S001E04G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.7018742
Longitude:	-121.864123	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	347.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Alluvium		
Aquifer type:	Not Reported		
Construction date:	19760520	Welldepth:	52
Welldepth units:	ft	Wellholedepth:	52
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 12

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1979-06-04	31.3		1979-01-30	32.1	
1978-10-25	32.7		1978-07-28	31.5	
1978-05-19	30.5		1978-04-04	30.2	
1977-10-28	34.9		1977-09-26	34.8	
1977-05-19	33.6		1977-01-24	33.0	
1976-12-03	32.8		1976-10-08	32.7	

B6
West
1/2 - 1 Mile
Lower

CA WELLS **CADW50000030150**

Latitude :	37.70066		
Longitude :	121.865353		
Site code:	377007N1218654W002	Casgem sta:	03S01E04J006M
Local well:	3S/1E 4J 6	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030150

B7
West
1/2 - 1 Mile
Lower

CA WELLS **CADW50000030152**

Latitude :	37.700721		
Longitude :	121.865363		
Site code:	377007N1218654W001	Casgem sta:	03S01E04J005M
Local well:	3S/1E 4J 5	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030152

C8
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030068**

Latitude :	37.69119		
Longitude :	121.856711		
Site code:	376912N1218567W001	Casgem sta:	03S01E10D007M
Local well:	3S/1E 10D 7	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030068

C9
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030069**

Latitude :	37.69119		
Longitude :	121.856711		
Site code:	376912N1218567W002	Casgem sta:	03S01E10D008M
Local well:	3S/1E 10D 8	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030069

D10
WSW
1/2 - 1 Mile
Lower

CA WELLS **CADW50000030102**

Latitude :	37.695541		
Longitude :	121.865095		
Site code:	376955N1218651W001	Casgem sta:	03S01E04Q002M
Local well:	3S/1E 4Q 2	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030102

11
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030177**

Latitude :	37.704942		
Longitude :	121.864918		
Site code:	377049N1218649W001	Casgem sta:	03S01E04A001M
Local well:	3S/1E 4A 1	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030177

D12
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000184963**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374144121515101		
Monloc name:	003S001E04Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6954855
Longitude:	-121.865234	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Holocene Alluvium		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D13
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000184960**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374143121515101		
Monloc name:	003S001E04Q002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6952078
Longitude:	-121.865234	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	342.50
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Continental Rocks		
Aquifer type:	Not Reported		
Construction date:	19771102	Welldepth:	90
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 51

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-11-18	49.4		1981-09-21	49.9	
1981-09-14	49.9		1981-05-12	46.6	
1981-05-05	46.5		1981-04-28	46.4	
1981-04-21	46.4		1981-04-14	46.6	
1981-04-07	46.7		1981-03-31	47.0	
1981-03-24	47.1		1981-03-17	47.3	
1981-03-10	46.3		1981-03-03	47.5	
1981-02-25	47.6		1981-02-17	47.9	
1981-02-10	48.1		1981-02-03	48.2	
1981-01-27	48.2		1981-01-20	48.4	
1981-01-19	48.5		1981-01-12	48.6	
1981-01-05	48.5		1980-12-29	48.8	
1980-12-22	48.8		1980-12-16	48.7	
1980-12-09	49.0		1980-12-02	49.0	
1980-11-25	49.1		1980-11-18	49.0	
1980-11-10	49.0		1980-11-04	48.9	
1980-10-08	49.2		1980-10-01	49.2	
1980-07-29	49.5		1980-06-10	50.0	
1980-04-21	50.4		1980-01-09	54.2	
1979-10-16	56.4		1979-07-24	55.8	
1979-06-04	54.5		1979-04-05	56.7	
1979-02-02	61.8		1979-01-16	63.3	
1979-01-08	64.1		1978-10-13	68.4	
1978-07-27	67.2		1978-06-14	64.5	
1978-01-06	71.4		1977-12-19	71.4	
1977-12-13	71.4				

14
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000184929**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374132121514201		
Monloc name:	003S001E09A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6921523
Longitude:	-121.862734	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	349.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	145
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 48

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-10-26	53.9		1981-09-20	54.2	
1981-09-14	54.5		1981-08-17	54.5	
1981-07-20	53.4		1981-06-16	52.3	
1981-05-26	51.6		1981-05-19	51.4	
1981-05-12	51.2		1981-05-05	51.1	
1981-04-28	51.0		1981-04-21	51.0	
1981-04-14	51.2		1981-04-07	51.3	
1981-03-31	51.4		1981-03-24	51.7	
1981-03-17	51.9		1981-03-10	51.9	
1981-03-03	52.0		1981-02-25	52.1	
1981-02-17	52.4		1981-02-10	52.6	
1981-02-03	52.8		1981-01-27	52.8	
1981-01-19	53.0		1981-01-12	53.0	
1981-01-05	53.2		1980-12-29	53.2	
1980-12-22	53.2		1980-12-16	53.4	
1980-12-09	53.4		1980-12-02	53.4	
1980-11-25	53.9		1980-11-19	53.5	
1980-11-10	55.5		1980-11-04	53.2	
1980-10-07	53.7		1979-09-18	63.1	
1979-04-03	64.4		1978-09-14	76.0	
1978-08-18	77.9		1978-03-20	71.9	
1977-12-21	80.5		1977-09-27	81.3	
1977-03-17	75.0		1976-09-27	79.3	
1976-03-10	73.6		1975-09-23	76.5	

15
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000185032**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374208121515801		
Monloc name:	003S001E04J004M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.702152
Longitude:	-121.8671786	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	344.30
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19790501	Welldepth:	107
Welldepth units:	ft	Wellholedepth:	112
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 20

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1980-02-26	34.9		1980-01-22	36.9	
1980-01-10	35.9		1980-01-07	36.1	
1979-12-24	36.1		1979-12-10	36.3	
1979-11-26	36.4		1979-11-19	36.2	
1979-11-13	36.4		1979-10-29	36.5	
1979-10-15	36.6		1979-10-01	36.5	
1979-09-17	36.4		1979-08-27	36.3	
1979-08-13	36.2		1979-07-30	36.1	
1979-07-09	36.0		1979-06-25	36.0	
1979-06-12	36.1		1979-05-31	36.3	

16
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000184928**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374132121503701		
Monloc name:	003S001E10A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6921523
Longitude:	-121.8446779	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	355.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19510601	Welldepth:	253
Welldepth units:	ft	Wellholedepth:	253
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 7

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-05-18	70.0		1980-10-07	67.8	
1980-04-16	63.0		1979-04-05	68.3	
1977-09-26	104.1		1969-09-23	124.0	
1969-09-10	126.0				

17
NW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030191**

Latitude :	37.709006		
Longitude :	121.863291		
Site code:	377090N1218633W001	Casgem sta:	02S01E33R001M
Local well:	2S/1E 33R 1	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030191

18
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000185003**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374154121501801		
Monloc name:	003S001E02N002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6982631
Longitude:	-121.8394	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	360.10
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		

Aquifer type:	Not Reported		
Construction date:	19300101	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	80
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 71

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-21	19.1		1981-11-18	19.0	
1981-10-26	18.7		1981-09-30	18.9	
1981-09-08	19.1		1981-09-04	19.7	
1981-08-10	19.3		1981-07-13	19.5	
1981-06-29	19.4		1981-06-08	19.6	
1981-05-20	19.6		1981-04-22	19.4	
1981-03-25	20.3		1981-03-16	20.4	
1981-02-26	20.7		1981-01-28	21.2	
1980-12-30	22.3		1980-12-03	22.2	
1980-11-12	22.0		1980-11-04	21.7	
1980-10-20	21.5		1980-10-06	21.3	
1980-09-22	21.0		1980-09-09	20.7	
1980-08-25	20.3		1980-08-12	19.9	
1980-08-07	19.6		1980-07-28	19.3	
1980-07-16	18.9		1980-06-23	18.5	
1980-06-09	18.2		1980-05-29	18.0	
1980-05-26	17.8		1980-05-12	17.5	
1980-04-27	17.2		1980-04-14	16.8	
1980-03-31	16.1		1980-03-17	15.5	
1980-03-03	15.6		1980-02-18	19.1	
1980-02-04	19.2		1980-01-21	19.7	
1980-01-07	21.1		1979-12-24	21.1	
1979-12-10	21.1		1979-11-13	20.8	
1979-10-29	20.7		1979-10-15	20.6	
1979-09-17	20.4		1979-09-10	20.3	
1979-08-27	20.3		1979-08-20	20.3	
1979-08-13	20.0		1979-07-30	19.9	
1979-07-09	19.5		1979-06-26	19.4	
1979-05-14	19.4		1979-04-06	18.6	
1979-03-13	17.9		1979-01-16	19.0	
1979-01-08	19.7		1978-10-26	17.4	
1978-08-24	15.3		1978-06-23	17.3	
1978-06-12	16.9		1978-03-30	15.4	
1977-09-26	20.1		1977-08-04	20.9	
1961-05-04	24.0		1960-04-07	21.0	
1959-10-02	22.0				

19
East
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030153**

Latitude :	37.700777		
Longitude :	121.839195		
Site code:	377008N1218392W001	Casgem sta:	03S01E02M003M
Local well:	3S/1E 2M 3	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030153

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

20
SSW | **FED USGS** | **USGS40000184886**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374117121512201		
Monloc name:	003S001E10E001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6879858
Longitude:	-121.8571783	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	356.57
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19480101	Welldepth:	195
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 208

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-17	59.2		1981-10-26	60.0	
1981-06-08	58.8		1981-05-04	58.0	
1981-03-26	58.3		1980-12-05	59.5	
1980-10-07	60.1		1980-08-27	61.0	
1980-07-08	61.8		1979-04-04	69.4	
1979-01-23	75.0		1969-09-25	89.0	
1969-09-10	90.0		1969-08-28	89.3	
1969-08-13	90.5				
Note: The site was being pumped.					
1969-07-23	86.4				
Note: The site was being pumped.					
1969-07-10	80.5				
1969-06-25	108.5				
Note: The site was being pumped.					
1969-06-11	77.0		1969-05-28	76.0	
1969-05-14	76.5		1969-04-23	80.0	
1969-04-09	81.0		1969-03-26	87.0	
1969-03-13	83.0		1969-02-26	84.0	
1969-02-13	85.0		1969-01-22	94.0	
1969-01-08	94.1		1968-12-11	94.3	
1968-11-27	88.8		1968-11-13	84.0	
1968-10-25	86.7		1968-10-09	86.5	
1968-09-25	85.8		1968-09-11	88.8	
1968-08-28	90.6		1968-08-14	93.8	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1968-07-24	90.8	
1968-06-26	87.8	
1968-05-22	86.0	
1968-04-24	82.0	
1968-03-27	82.0	
1968-02-28	82.0	
1968-01-24	78.7	
1967-12-13	79.7	
1967-11-08	79.0	
1967-10-11	87.1	
1967-09-13	86.2	
1967-08-10	84.1	
1967-07-12	81.3	
1967-06-14	92.1	
Note: The site was being pumped.		
1967-05-25	80.8	
1967-04-26	82.9	
1967-03-22	83.9	
1967-02-21	84.9	
1967-01-24	87.8	
1967-01-10	78.9	
1966-12-07	88.6	
1966-11-02	93.6	
1966-10-11	95.0	
1966-09-07	97.0	
1966-08-10	99.2	
1966-06-08	93.3	
Note: The site was being pumped.		
1966-05-25	91.6	
1966-05-11	95.7	
Note: The site was being pumped.		
1966-04-06	93.1	
1966-03-09	89.9	
1966-02-09	85.0	
1966-01-12	87.5	
1965-12-01	87.6	
1965-11-03	87.0	
1965-09-15	86.6	
1965-08-18	94.6	
1965-07-21	85.0	
1965-06-16	82.2	
1965-05-05	82.0	
1965-04-07	84.7	
1965-03-04	85.7	
1965-02-10	82.8	
1965-01-07	91.0	
1964-12-02	93.0	
1964-11-04	96.1	
1964-10-01	102.1	
1964-09-03	117.0	
Note: The site was being pumped.		
1964-08-20	105.7	
Note: The site was being pumped.		
1964-08-13	104.4	
Note: The site was being pumped.		

Date	Feet below Surface	Feet to Sealevel
1968-07-10	87.8	
1968-06-12	91.8	
1968-05-08	84.0	
1968-04-10	80.5	
1968-03-13	82.5	
1968-02-14	73.5	
1967-12-27	79.0	
1967-11-22	78.9	
1967-10-25	86.5	
1967-09-27	86.0	
1967-08-23	85.8	
1967-07-25	82.1	
1967-06-28	80.1	
1967-05-11	81.8	
1967-04-12	83.0	
1967-03-08	83.6	
1967-02-08	85.2	
1967-01-11	88.0	
1966-12-28	86.8	
1966-11-23	89.7	
1966-10-26	93.0	
1966-09-21	98.0	
1966-08-24	95.0	
1966-07-13	94.5	
1966-03-23	84.1	
1966-02-23	82.5	
1966-01-26	79.0	
1965-12-15	87.0	
1965-11-17	93.5	
1965-10-06	87.1	
1965-09-01	86.5	
1965-08-05	93.4	
1965-07-07	82.8	
1965-06-02	84.5	
1965-04-21	82.8	
1965-03-17	84.5	
1965-02-17	87.0	
1965-01-21	88.8	
1964-12-16	93.9	
1964-11-18	95.0	
1964-10-15	97.4	
1964-09-17	108.8	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1964-08-06	107.5	
Note: The site was being pumped.		
1964-07-16	103.0	
Note: The site was being pumped.		
1964-07-02	101.5	
Note: The site was being pumped.		
1964-06-17	95.8	
1964-05-25	96.0	
1964-04-08	83.4	
1964-03-05	83.5	
1964-02-05	78.8	
1963-12-19	81.0	
1963-11-20	85.0	
1963-10-23	80.5	
1963-09-25	82.5	
1963-08-28	100.9	
Note: The site was being pumped.		
1963-08-14	100.5	
Note: The site was being pumped.		
1963-07-31	92.0	
Note: The site was being pumped.		
1963-07-17	88.9	
Note: The site was being pumped.		
1963-07-03	88.8	
Note: The site was being pumped.		
1963-06-19	86.1	
Note: The site was being pumped.		
1963-06-05	88.5	
1963-04-24	76.5	
1963-03-13	85.5	
1963-02-13	88.0	
1963-01-02	94.0	
1962-10-25	100.0	
1962-09-28	107.2	
1962-05-31	99.0	
1962-05-01	99.9	
1962-03-13	94.0	
1962-01-31	98.1	
1961-12-20	100.0	
1961-11-22	102.7	
1961-10-25	108.8	
1961-09-22	106.8	
1961-09-08	118.0	
Note: The site was being pumped.		
1961-08-28	119.5	
Note: The site was being pumped.		
1961-07-31	111.0	
Note: The site was being pumped.		
1961-05-29	89.3	
1961-05-02	85.1	
1960-11-17	96.0	
1959-11-06	85.4	
1958-10-23	69.1	
1957-10-17	96.0	
1956-10-16	86.2	

Date	Feet below Surface	Feet to Sealevel
1964-06-04	104.0	
1964-05-07	85.0	
1964-03-19	83.6	
1964-02-20	86.5	
1964-01-16	83.7	
1963-12-04	84.0	
1963-11-06	81.5	
1963-10-09	81.6	
1963-09-11	87.6	
1963-05-08	77.5	
1963-04-10	86.0	
1963-03-06	87.0	
1963-01-16	98.0	
1962-11-01	108.5	
1962-10-11	115.0	
1962-09-14	105.5	
1962-05-15	95.0	
1962-03-30	93.6	
1962-02-20	97.0	
1962-01-03	99.0	
1961-12-06	104.9	
1961-11-08	104.9	
1961-10-06	105.1	
1961-05-04	86.5	
1961-03-27	83.7	
1960-03-14	74.8	
1959-03-31	66.8	
1958-05-12	69.0	
1957-03-25	72.0	
1955-11-03	96.9	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1953-10-27	70.8		1950-11-03	90.7	
1950-04-10	71.9		1949-11-21	82.6	
1949-03-26	70.2		1948-11-11	77.1	

E21
ESE **CA WELLS** **CADW50000030099**
1/2 - 1 Mile
Higher

Latitude :	37.695298		
Longitude :	121.839155		
Site code:	376953N1218392W001	Casgem sta:	03S01E02N006M
Local well:	3S/1E 2N 6	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030099

F22
SE **FED USGS** **USGS40000184922**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374130121502701		
Monloc name:	003S001E10A002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6915967
Longitude:	-121.8419	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	362.20
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19790502	Welldepth:	88
Welldepth units:	ft	Wellholedepth:	88
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 111

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-28	49.9		1981-11-18	50.1	
1981-10-26	48.8		1981-09-30	47.6	
1981-09-15	49.1		1981-09-08	49.2	
1981-08-19	61.0		1981-08-10	50.2	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1981-07-13	49.6	
1981-05-26	49.9	
1981-05-12	48.0	
1981-04-28	48.1	
1981-04-14	48.5	
1981-03-31	49.2	
1981-03-18	49.5	
1981-03-10	49.9	
1981-02-25	49.9	
1981-02-10	51.1	
1981-01-27	52.0	
1981-01-12	52.2	
1980-12-29	52.3	
1980-12-16	51.6	
1980-12-02	50.9	
1980-11-18	51.1	
1980-11-04	49.1	
1980-10-24	48.9	
1980-10-14	48.9	
1980-09-29	49.2	
1980-09-15	49.4	
1980-09-02	49.2	
1980-08-18	49.2	
1980-08-06	50.0	
1980-07-21	50.0	
1980-07-15	50.6	
1980-06-30	51.4	
1980-06-16	51.9	
1980-06-09	52.0	
1980-05-26	51.8	
1980-05-12	52.2	
1980-04-28	51.2	
1980-04-14	50.4	
1980-03-31	49.3	
1980-03-17	48.4	
1980-03-03	48.0	
1980-02-18	53.8	
1980-02-04	53.6	
1980-01-21	53.0	
1980-01-07	59.3	
1979-12-24	59.4	
1979-12-10	58.9	
1979-11-26	58.5	
1979-11-13	58.1	
1979-10-29	56.4	
1979-10-15	56.2	
1979-09-24	56.7	
1979-09-04	58.2	
1979-08-13	57.7	
1979-07-16	56.9	
1979-06-12	55.2	
1979-05-10	55.2	
1981-06-08	49.4	
1981-05-19	49.2	
1981-05-05	48.6	
1981-04-21	48.1	
1981-04-07	48.6	
1981-03-24	49.4	
1981-03-17	49.8	
1981-03-03	49.9	
1981-02-17	50.6	
1981-02-03	51.5	
1981-01-19	52.2	
1981-01-05	52.1	
1980-12-22	52.1	
1980-12-09	51.3	
1980-11-25	51.6	
1980-11-10	50.0	
1980-11-03	49.0	
1980-10-20	48.9	
1980-10-06	49.2	
1980-09-22	49.3	
1980-09-09	50.0	
1980-08-25	49.7	
1980-08-12	49.5	
1980-07-28	49.8	
1980-07-16	50.5	
1980-07-08	50.7	
1980-06-23	52.1	
1980-06-10	51.9	
1980-06-02	51.8	
1980-05-19	51.9	
1980-05-05	52.0	
1980-04-21	50.7	
1980-04-07	50.0	
1980-03-24	48.7	
1980-03-10	48.0	
1980-02-25	47.7	
1980-02-11	54.0	
1980-01-28	53.1	
1980-01-14	56.4	
1979-12-31	59.3	
1979-12-18	59.3	
1979-12-03	58.7	
1979-11-19	58.2	
1979-11-05	57.4	
1979-10-22	55.7	
1979-10-08	56.5	
1979-09-10	57.5	
1979-08-27	58.4	
1979-07-30	56.6	
1979-06-25	55.4	
1979-05-31	55.6	

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

23
SSE | **FED USGS** | **USGS40000184885**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374117121505101		
Monloc name:	003S001E10G002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6879857
Longitude:	-121.8485669	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	354.40
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		
Aquifer type:	Not Reported		
Construction date:	19701215	Welldepth:	207
Welldepth units:	ft	Wellholedepth:	207
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 214

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-09-08	77.3		1981-08-10	76.6	
1981-07-13	75.1		1981-06-08	71.0	
1981-05-20	63.3		1981-04-22	69.0	
1981-03-25	67.7		1981-02-26	67.3	
1980-11-12	70.4		1980-08-26	71.1	
1980-01-30	70.3		1979-11-06	68.7	
1979-06-27	75.0		1979-05-16	70.3	
1979-04-05	67.9		1979-03-01	70.0	
1979-02-07	71.5		1979-01-02	76.2	
1978-12-08	79.7		1978-11-06	85.0	
1978-10-25	87.8		1978-10-05	93.3	
1978-09-14	93.5		1978-08-02	95.0	
1978-07-27	95.1		1978-07-05	93.6	
1978-05-31	91.8		1978-05-03	88.0	
1978-04-04	88.1		1978-03-16	88.4	
1978-03-02	89.7		1978-02-28	89.9	
1978-01-31	92.1		1978-01-04	96.5	
1977-12-06	98.3		1977-11-25	98.8	
1977-11-15	99.5		1977-11-01	100.8	
1977-10-18	103.4		1977-10-03	102.4	
1977-09-20	104.7		1977-09-06	105.7	
1977-08-22	104.8		1977-08-16	107.6	
1977-08-03	106.9		1977-07-21	102.7	
1977-07-01	102.9		1977-06-13	97.9	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1977-05-31	96.9	
1977-04-29	98.5	
1977-04-04	92.3	
1977-02-28	91.5	
1977-01-31	91.6	
1977-01-03	93.2	
1976-12-01	94.0	
1976-11-04	94.0	
1976-10-01	95.8	
1976-08-27	98.0	
1976-08-05	96.9	
1976-07-09	97.6	
1976-06-03	90.5	
1976-05-06	89.1	
1976-04-07	83.6	
1976-03-03	81.2	
1976-02-03	81.5	
1976-01-07	79.8	
1975-12-03	78.8	
1975-11-05	83.5	
1975-10-08	91.3	
1975-09-16	95.2	
1975-08-13	95.6	
1975-07-02	91.2	
1975-06-04	86.2	
1975-05-08	79.2	
1975-04-09	79.6	
1975-03-11	79.8	
1975-02-13	80.2	
1975-01-15	77.1	
1974-12-19	82.4	
1974-11-20	85.5	
1974-10-22	85.6	
1974-09-25	83.9	
1974-08-28	82.5	
1974-07-31	81.8	
1974-07-03	77.8	
1974-06-05	76.9	
1974-05-08	71.7	
1974-04-10	76.2	
1974-03-13	77.2	
1974-02-13	80.7	
1974-01-16	82.0	
1973-12-20	84.3	
1973-11-21	86.8	
1973-10-24	87.9	
1973-09-27	88.2	
1973-08-28	84.8	
1973-08-01	80.4	
1973-07-05	75.0	
1973-06-06	73.5	
1973-05-09	73.3	
1973-04-11	72.2	
1973-03-14	75.2	
1973-02-15	79.4	
1977-05-17	97.0	
1977-04-18	95.9	
1977-03-16	91.0	
1977-02-14	90.6	
1977-01-17	92.1	
1976-12-15	94.1	
1976-11-15	93.4	
1976-10-18	93.8	
1976-09-13	99.8	
1976-08-20	97.5	
1976-07-21	97.9	
1976-06-15	93.1	
1976-05-19	91.5	
1976-04-22	85.6	
1976-03-17	81.7	
1976-02-19	81.9	
1976-01-30	79.2	
1975-12-17	78.1	
1975-11-19	81.8	
1975-10-22	85.9	
1975-09-24	92.3	
1975-08-27	95.1	
1975-07-16	90.3	
1975-06-18	90.2	
1975-05-22	81.6	
1975-04-23	74.8	
1975-03-26	78.0	
1975-02-26	80.2	
1975-01-29	82.6	
1975-01-02	80.3	
1974-12-05	85.1	
1974-11-06	85.5	
1974-10-09	84.5	
1974-09-11	83.1	
1974-08-15	82.1	
1974-07-17	79.1	
1974-06-19	76.9	
1974-05-22	74.4	
1974-04-21	73.8	
1974-03-27	75.2	
1974-02-27	76.8	
1974-01-30	80.7	
1974-01-04	82.2	
1973-12-05	85.6	
1973-11-07	87.6	
1973-10-10	86.8	
1973-09-17	86.8	
1973-08-16	83.7	
1973-07-18	77.4	
1973-06-20	72.7	
1973-05-23	73.2	
1973-04-25	72.8	
1973-03-28	74.0	
1973-02-28	77.5	
1973-01-31	80.8	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1973-01-17	81.6		1973-01-03	83.5	
1972-12-20	84.0		1972-12-06	84.4	
1972-11-22	80.7		1972-11-08	81.0	
1972-10-25	84.1		1972-10-11	80.2	
1972-09-27	80.6		1972-09-12	83.5	
1972-08-30	82.1		1972-08-16	81.6	
1972-08-02	82.5		1972-07-20	84.5	
1972-07-05	83.7		1972-06-21	82.9	
1972-06-07	83.2		1972-05-24	87.0	
1972-05-10	87.2		1972-04-26	87.2	
1972-04-12	85.7		1972-03-29	86.5	
1972-03-15	89.2		1972-03-01	80.2	
1972-02-17	82.0		1972-02-02	86.6	
1972-01-19	81.3		1972-01-05	82.5	
1971-12-22	81.3		1971-12-08	78.0	
1971-11-24	78.2		1971-11-10	78.3	
1971-10-27	78.4		1971-10-13	77.0	
1971-09-30	79.1		1971-09-15	78.8	
1971-09-01	80.8		1971-08-18	80.0	
1971-08-04	79.9		1971-07-21	82.3	
1971-07-07	85.9		1971-06-23	85.7	
1971-06-09	82.9		1971-05-26	80.6	
1971-05-12	80.5		1971-04-28	79.0	
1971-04-14	79.5		1971-03-31	81.8	
1971-03-17	82.0		1971-03-03	81.9	
1971-02-18	79.5		1971-02-03	80.6	
1971-01-19	68.7		1971-01-06	81.0	
1970-12-23	79.5		1970-12-09	79.0	

E24
ESE **FED USGS** **USGS40000184959**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374143121501601		
Monloc name:	003S001E02N003M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6952077
Longitude:	-121.8388444	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	365.00
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Quaternary Alluvium		

Aquifer type:	Not Reported		
Construction date:	19611003	Welldepth:	316
Welldepth units:	ft	Wellholedepth:	316
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 47

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-17	71.4		1981-09-08	82.4	
1981-08-19	79.0		1981-08-10	80.9	
1981-07-13	81.5		1981-06-08	80.5	
1981-05-20	77.6		1981-04-22	74.0	
1981-03-30	71.7		1981-03-25	72.0	
1981-02-26	71.7		1981-01-28	71.9	
1980-12-30	73.0		1980-12-03	72.6	
1980-11-12	75.0		1980-10-08	74.5	
1980-08-19	75.0		1980-06-17	72.5	
1980-04-16	69.7		1980-03-07	71.6	
1979-11-06	76.1		1979-08-13	86.3	
1979-05-23	80.1		1979-04-06	74.9	
1979-02-07	79.5		1978-11-13	90.8	
1978-07-28	103.5		1978-05-19	98.5	
1978-03-06	96.1		1977-11-22	107.6	
1977-08-17	119.15		1977-04-28	108.0	
1977-03-21	101.1		1977-02-18	96.6	
1977-01-18	97.4		1976-12-21	99.8	
1976-11-23	100.3		1976-10-20	101.4	
1976-09-24	108.0		1976-08-26	108.0	
1976-07-22	105.0		1976-06-17	101.3	
1976-05-27	100.2		1976-04-28	100.2	
1976-03-25	91.4		1976-02-24	90.3	
1976-01-28	89.9				

25
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000185107**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374246121505701		
Monloc name:	002S001E34Q001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.7127071
Longitude:	-121.8502336	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Livermore Gravel		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	104
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

F26
SE
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030067**

Latitude :	37.691181		
Longitude :	121.84208		
Site code:	376912N1218421W001	Casgem sta:	03S01E10A002M
Local well:	3S/1E 10A 2	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030067

G27
SW
1/2 - 1 Mile
Lower

CA WELLS **CADW50000030075**

Latitude :	37.692314		
Longitude :	121.867136		
Site code:	376923N1218671W001	Casgem sta:	03S01E09B001M
Local well:	3S/1E 9B 1	Casgem s 1:	Industrial
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030075

H28
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030050**

Latitude :	37.687988		
Longitude :	121.862369		
Site code:	376880N1218624W001	Casgem sta:	03S01E09H010M
Local well:	3S/1E 9H10	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030050

H29
SSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000030051**

Latitude :	37.687988		
Longitude :	121.862369		
Site code:	376880N1218624W002	Casgem sta:	03S01E09H011M
Local well:	3S/1E 9H11	Casgem s 1:	Observation
County id:	1		
Basin cd:	2-10	Basin desc:	Livermore Valley
Org unit n:	North Central Region Office	Site id:	CADW50000030051

G30
SW **CA WELLS** **32**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	0110010-010	User ID:	ENG
FRDS Number:	0110010010	County:	Alameda
District Number:	04	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Treated
Source Lat/Long:	374130.0 1215200.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	STONERIDGE WELL 01 - TREATED		
System Number:	0110010		
System Name:	Zone 7 Water Agency		
Organization That Operates System:			
	5997 PARKSIDE DRIVE		
	PLEASANTON, CA 94588		
Pop Served:	147000	Connections:	35
Area Served:	DUBLIN-LIVERMORE-PLEASANTON		
Sample Collected:	03/16/2006	Findings:	19.4 C
Chemical:	SOURCE TEMPERATURE C		

H31
SSW **FED USGS** **USGS40000184887**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-374117121514501		
Monloc name:	003S001E09H005M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18050004	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	37.6879858
Longitude:	-121.8635674	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	350.00
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	19760210	Welldepth:	152
Welldepth units:	ft	Wellholedepth:	153
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1979-04-03	64.2		1977-10-11	87.7	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94588	23	0

Federal EPA Radon Zone for ALAMEDA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for ALAMEDA COUNTY, CA

Number of sites tested: 49

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.776 pCi/L	100%	0%	0%
Living Area - 2nd Floor	-0.400 pCi/L	100%	0%	0%
Basement	1.338 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC.

Sanborn Map Report

APPENDIX B

Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Inquiry Number: 3597351.3
May 03, 2013

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

5/03/13

Site Name:
Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Client Name:
Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583

EDR Inquiry # 3597351.3

Contact: Jeff Adams

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Engeo Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Carmax Pleasanton
Address: El Charro Road
City, State, Zip: Pleasanton, CA 94588
Cross Street:
P.O. # NA
Project: 10237.000.000
Certification # 6505-4741-9FE0

Sanborn® Library search results
Certification # 6505-4741-9FE0

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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APPENDIX C

ENVIRONMENTAL DATA RESOURCES, INC.

Historical Topographic Map Report

APPENDIX C

Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Inquiry Number: 3597351.4
May 06, 2013

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

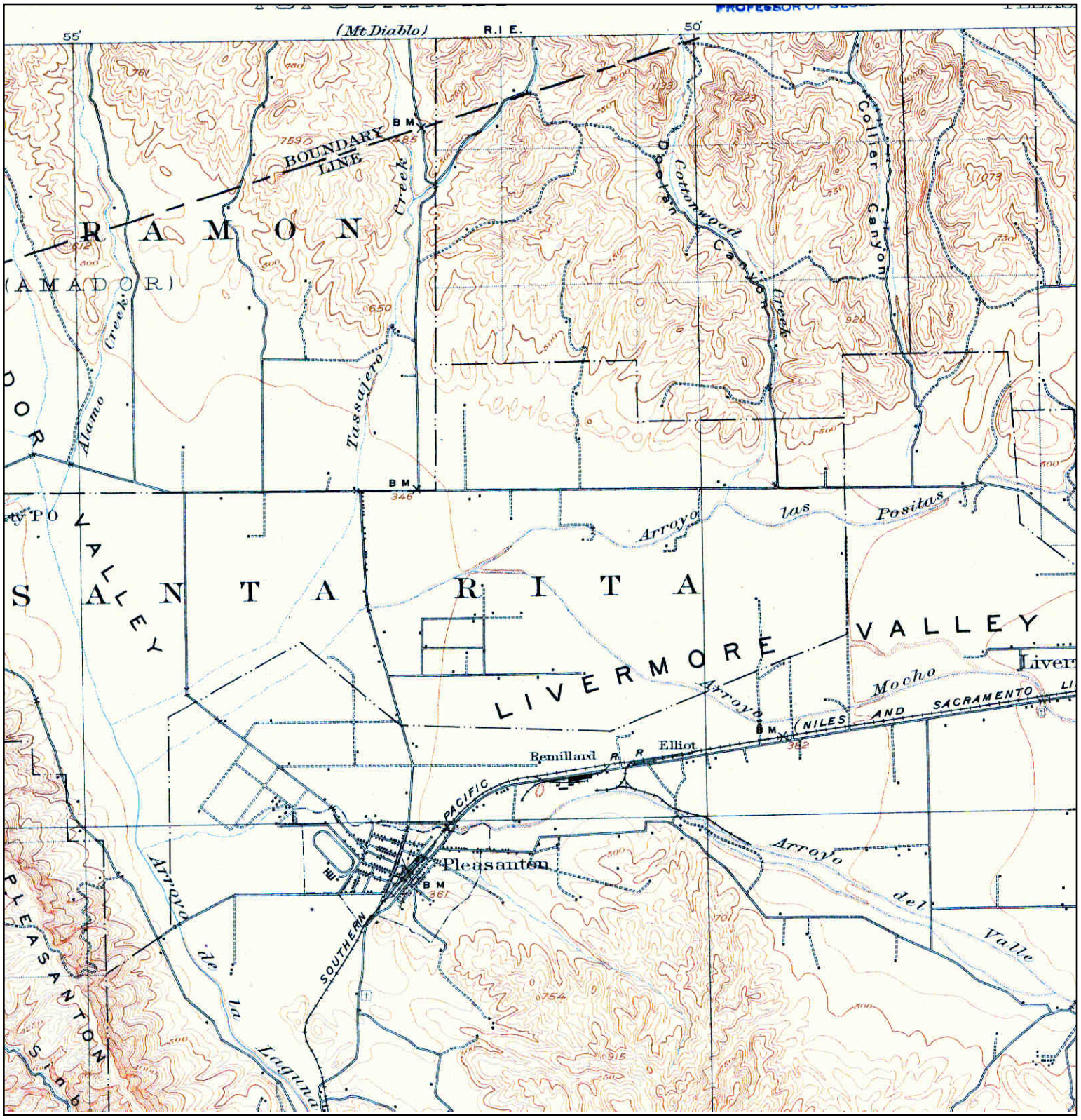
440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

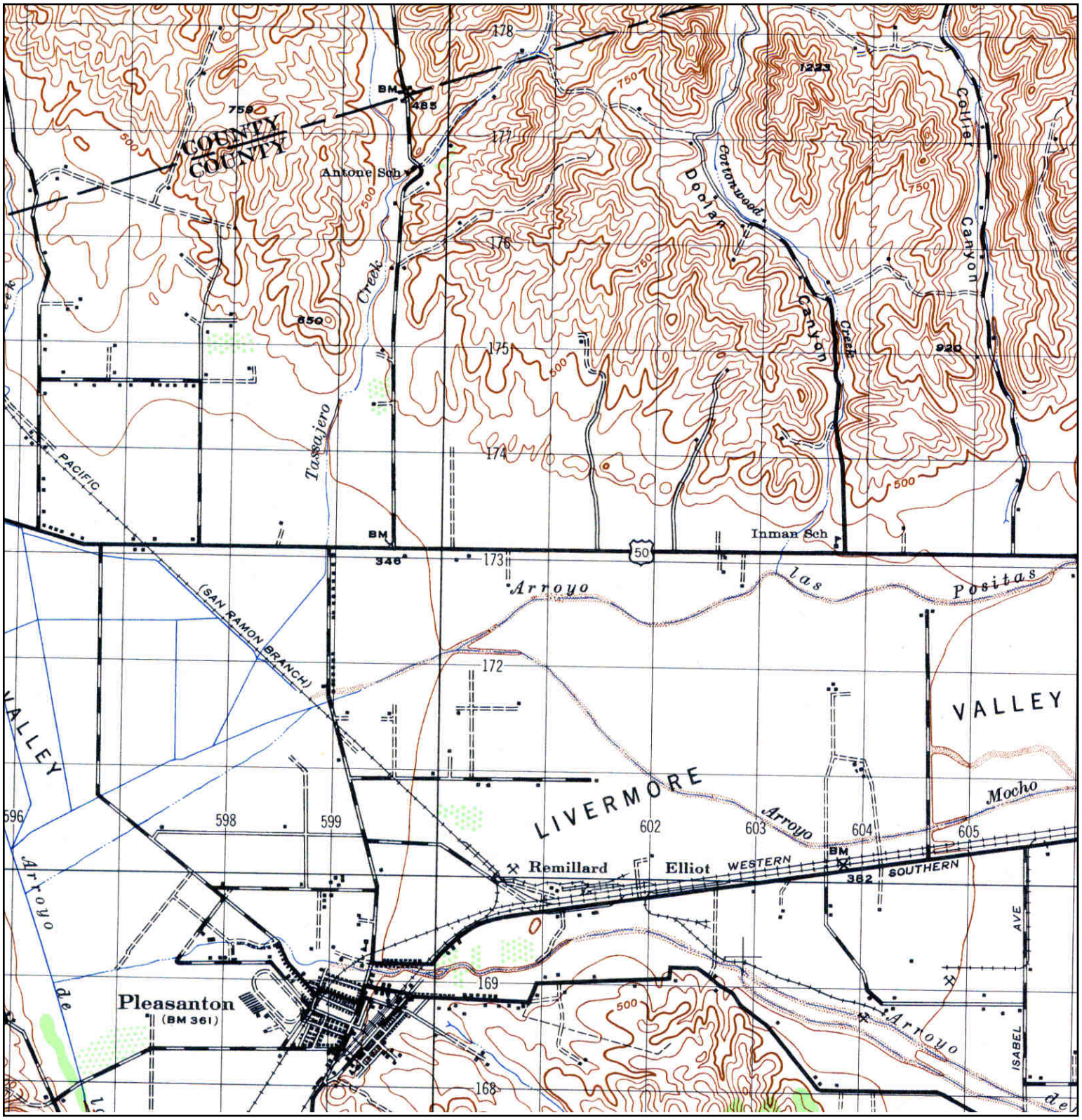
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map



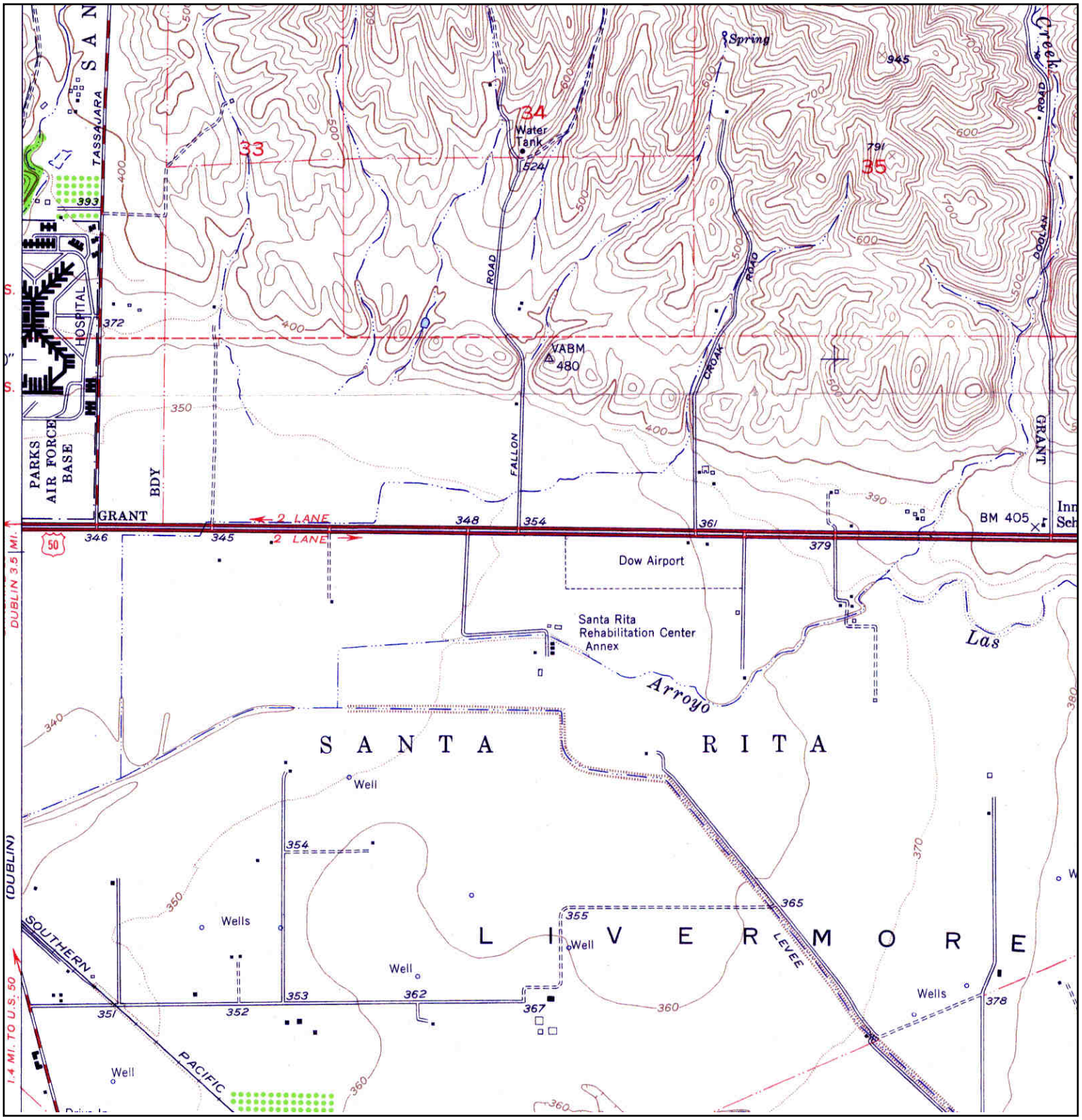
N	TARGET QUAD NAME: PLEASANTON MAP YEAR: 1906 SERIES: 15 SCALE: 1:62500	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



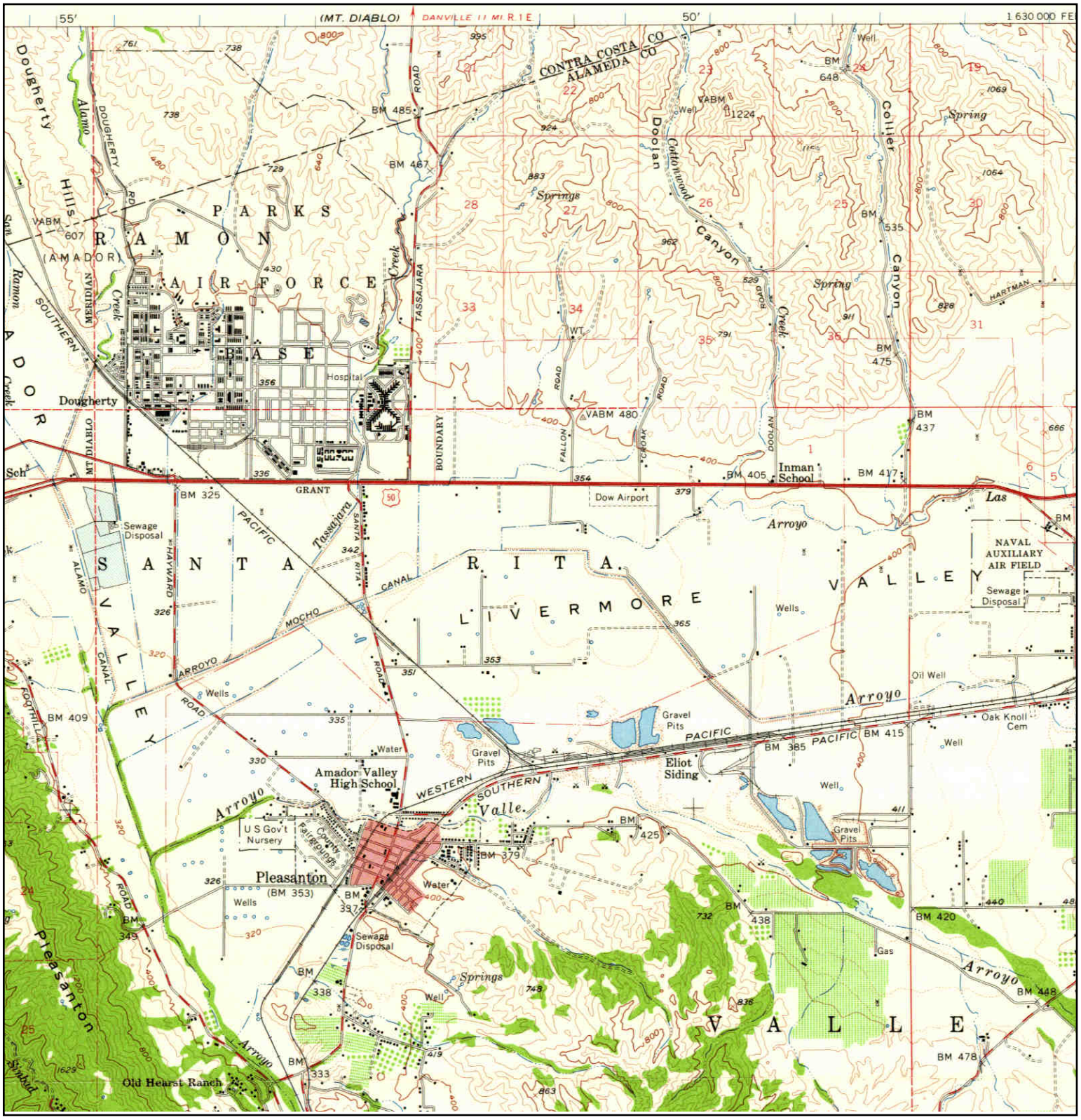
N	TARGET QUAD NAME: PLEASANTON MAP YEAR: 1947 SERIES: 15 SCALE: 1:50000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



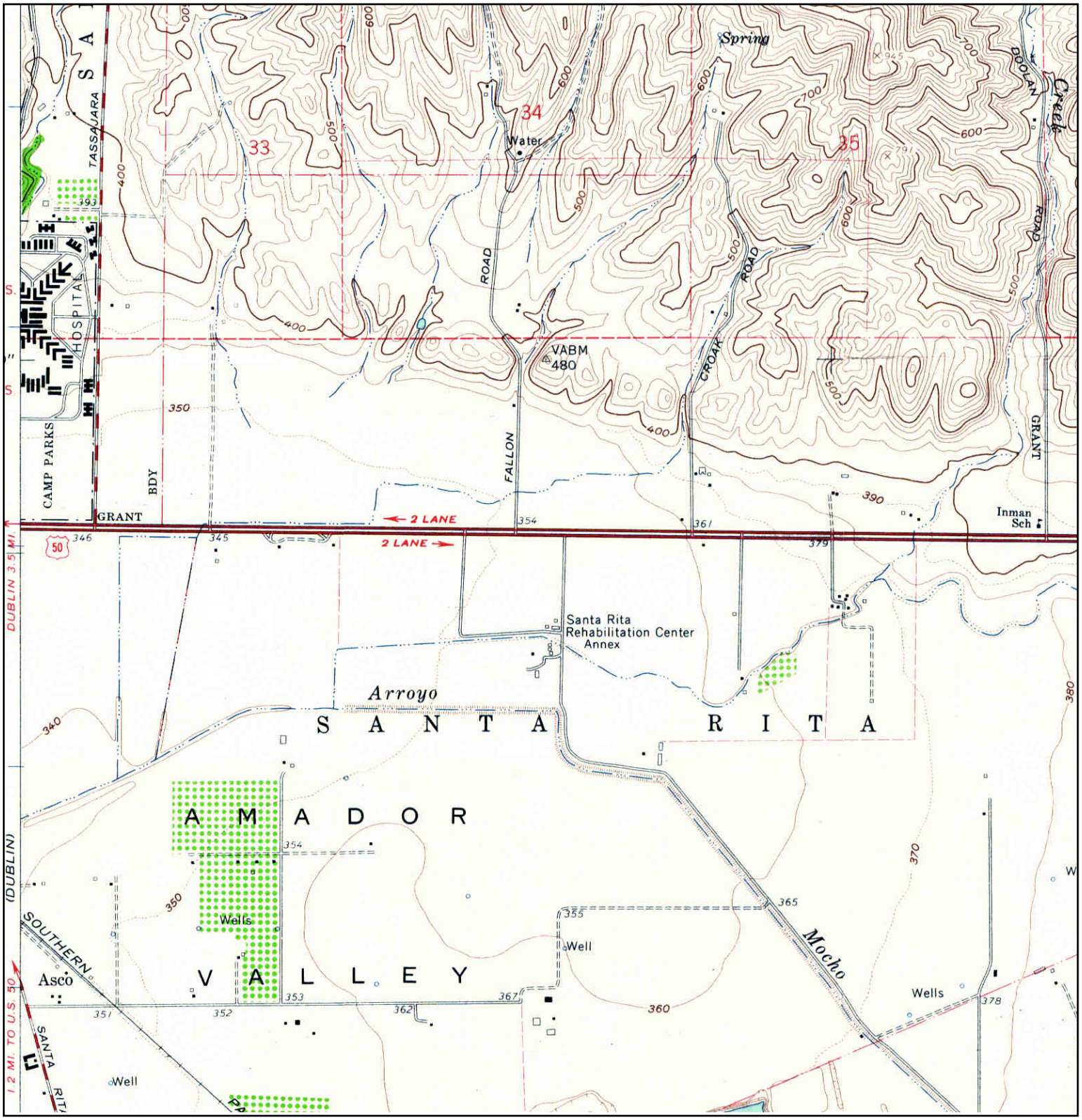
N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



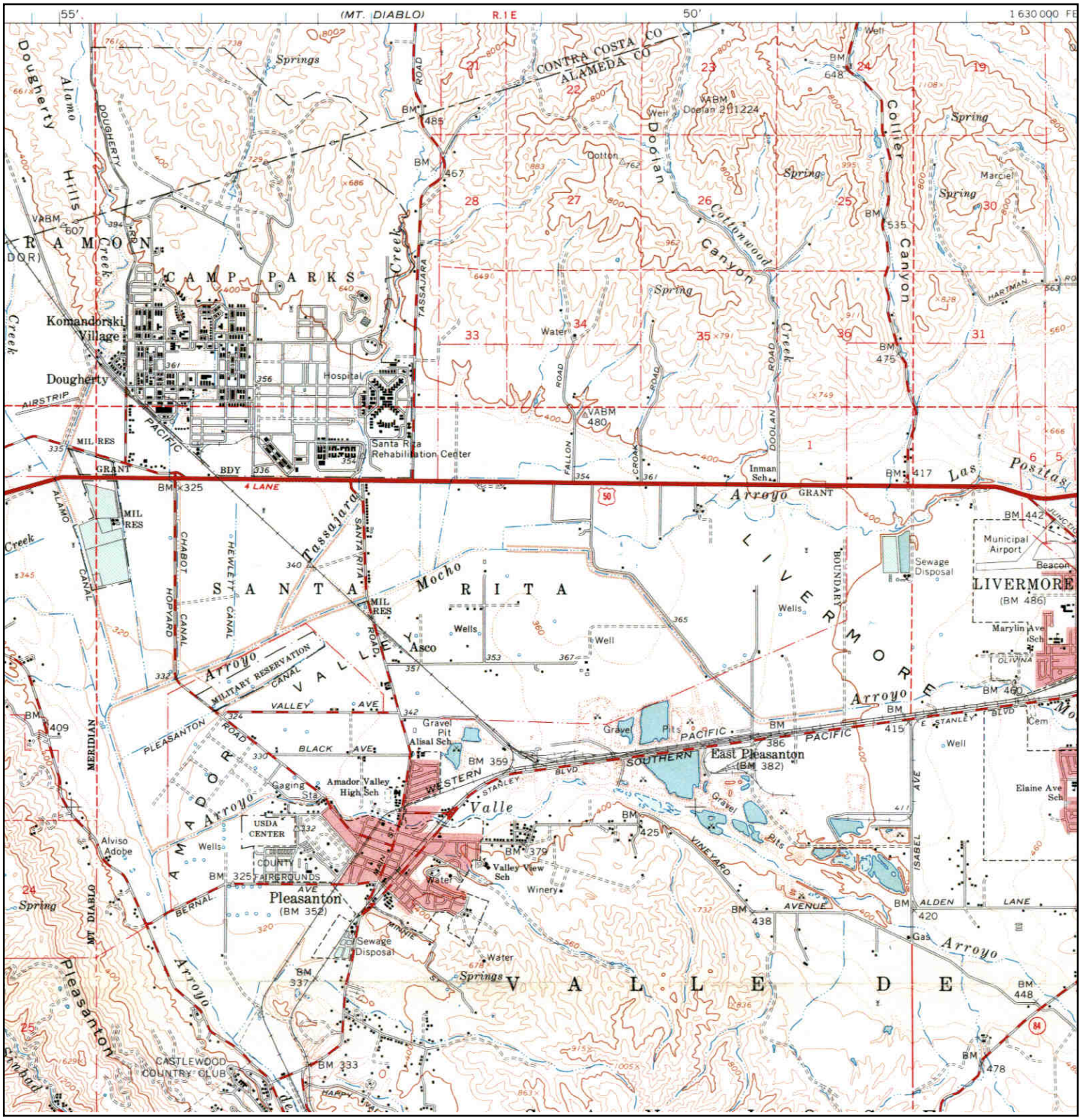
N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1953 SERIES: 15 SCALE: 1:62500	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



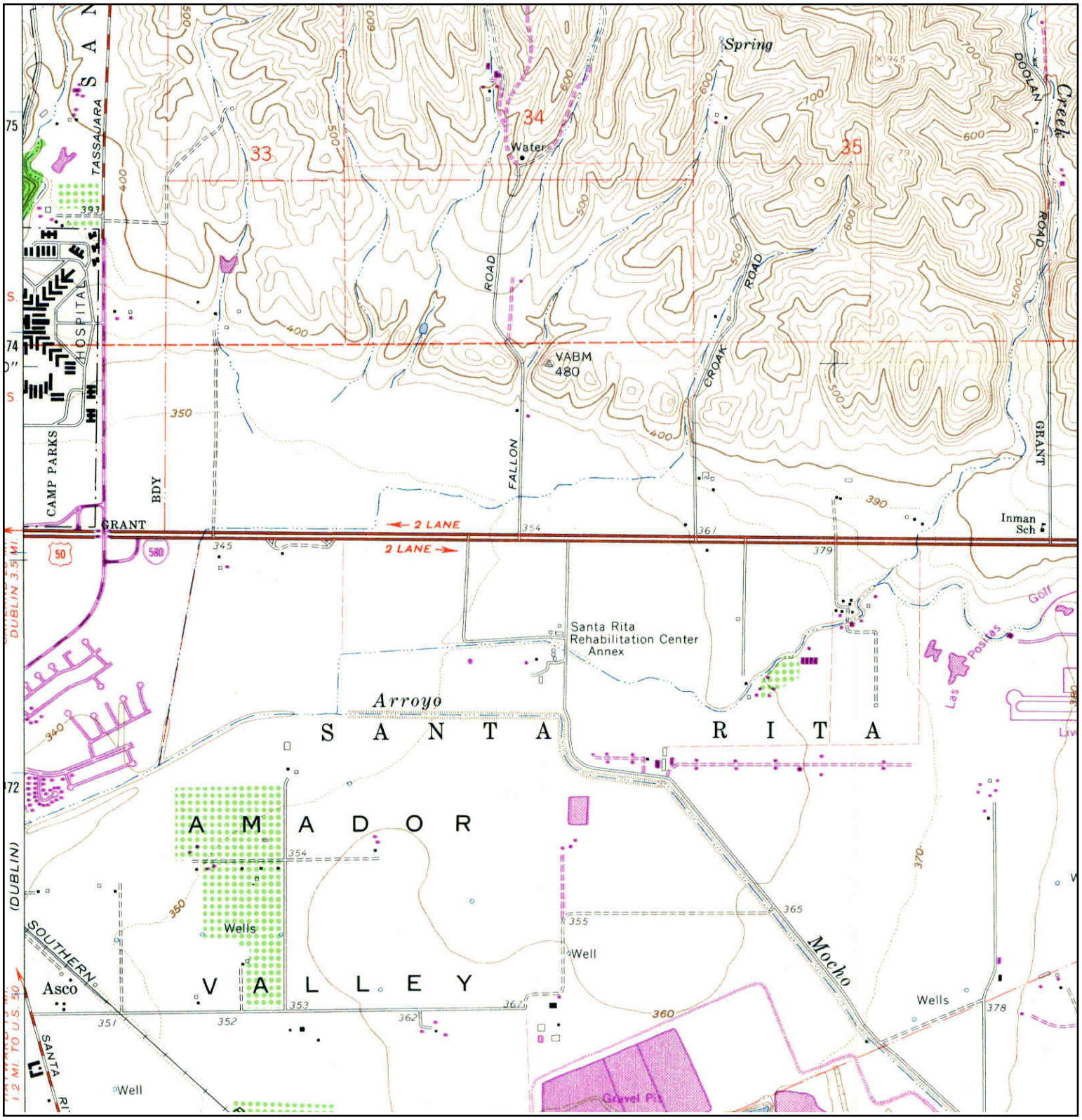
N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



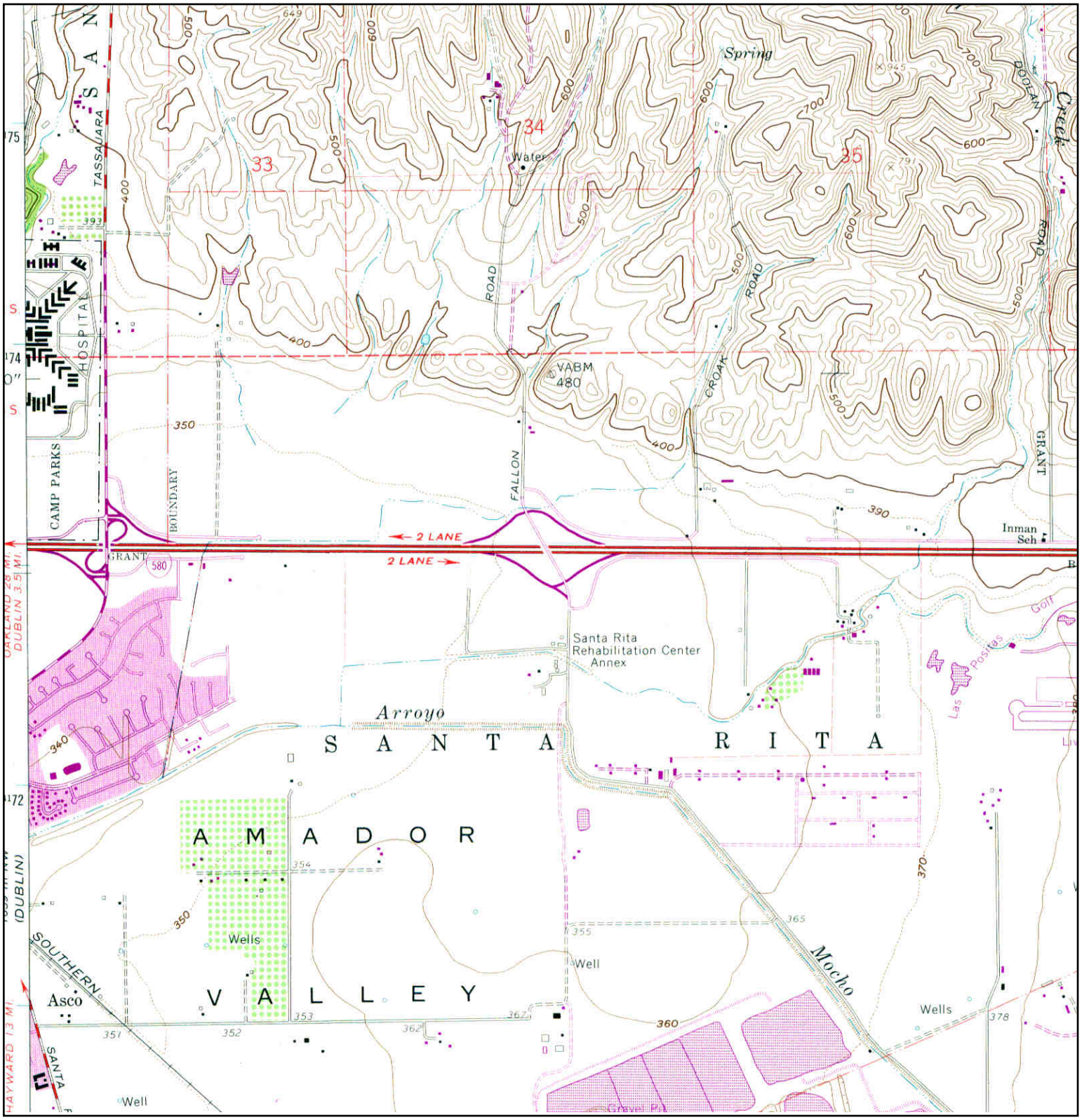
N	**TARGET QUAD**	SITE NAME: Carmax Pleasanton	CLIENT: Engeo Inc.
	NAME: LIVERMORE	ADDRESS: El Charro Road	CONTACT: Jeff Adams
	MAP YEAR: 1961	Pleasanton, CA 94588	INQUIRY#: 3597351.4
		LAT/LONG: 37.7001 / -121.8539	RESEARCH DATE: 05/06/2013
	SERIES: 15		
	SCALE: 1:62500		

Historical Topographic Map



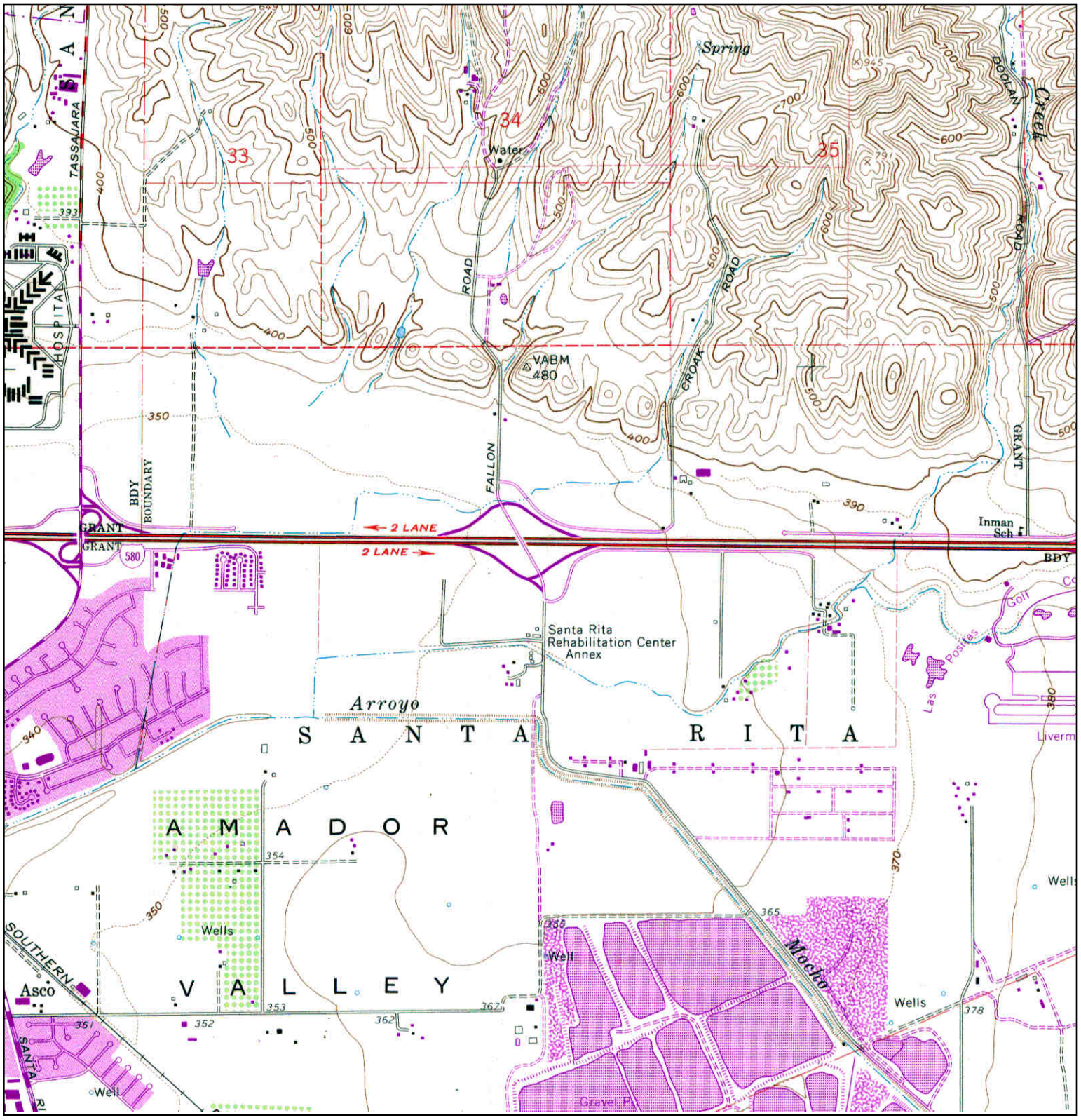
N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1968 PHOTOREVISED FROM :1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1973 PHOTOREVISED FROM :1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

Historical Topographic Map



N	TARGET QUAD NAME: LIVERMORE MAP YEAR: 1980 PHOTOREVISED FROM :1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Carmax Pleasanton ADDRESS: El Charro Road Pleasanton, CA 94588 LAT/LONG: 37.7001 / -121.8539	CLIENT: Engeo Inc. CONTACT: Jeff Adams INQUIRY#: 3597351.4 RESEARCH DATE: 05/06/2013

APPENDIX D

FIRST AMERICAN TITLE

Preliminary Title Report

APPENDIX D

CHICAGO TITLE COMPANY

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, ***Chicago Title Company*** *hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.*

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company, a Nebraska corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Morris Evans
Countersigned

Chicago Title Company
BY _____ President
ATTEST _____ Secretary

Visit Us on our Website: www.ctic.com

Chicago Title Company

ISSUING OFFICE: 2150 John Glenn Drive, Suite 400 • Concord, CA 94520

FOR SETTLEMENT INQUIRIES, CONTACT: Chicago Title Company - Oakland
1 Kaiser Plaza, Suite 745 • Oakland, CA 94612
510 451-8888 • FAX 510 465-0738

PRELIMINARY REPORT

Title Officer: Mark Goodrich
Escrow Officer: Laurie Edwards
Escrow No.: 12-**58204578**-LE

Title No.: 12-**58204578**-MG
Locate No.: CACTI7701-7701-5582-0058204578

TO: Alameda County Surplus Property Authority
224 W. Winton Ave #110
Hayward, CA 94544

ATTN: Stuart Cook

PROPERTY ADDRESS: APN: 946-4623-001, 946-1128-003-09, Pleasanton, California

EFFECTIVE DATE: October 16, 2012, 07:30 A.M.

The form of policy or policies of title insurance contemplated by this report is:

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   Surplus Property Authority of Alameda County, a public corporation

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

KK\KK 11/16/2012

LEGAL DESCRIPTION

EXHIBIT "A"

The land referred to herein below is situated in the City of Pleasanton and unincorporated area, County of Alameda, State of California and is described as follows:

Lot 1, Tract 8020, filed August 11, 2011, Book 313 of maps, Page 53, Alameda County Records.

APN: 946-4623-001 (New), 946-1128-003-09(Old)

AT THE DATE HEREOF, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. Taxes for the fiscal year 2012-2013, are not assessed.

2. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

3. **Any rights or easements,** with incidents thereto, to subterranean water, and furnishing thereof, underlying the land described herein, which may have been created in accordance with the terms and provisions of that certain agreement

Executed by:	Asa V. Mendenhall, et al., and Spring Valley Water Company
Recorded:	May 5, 1922, Instrument No. S-201311, Book 198, Page 277
Modified:	September 11, 1922, Instrument No. S-225014, Book 277, Page 134 both of Official Records

4. **Any rights or easements,** with incidents thereto, to subterranean water and furnishing thereof, underlying the land described herein, as granted by Spring Valley Water Company, A Corporation, to the City and County of San Francisco, by indenture

Recorded:	March 3, 1930, Instrument No. AA-13399, Book 2350, Page 1, of Official Records

5. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Telephone and Telegraph Company
Purpose:	Underground wires and cables
Recorded:	October 17, 1941, Instrument No. 00-57109, Book 4126, Page 178, of Official Records
Affects:	A 20-foot strip running easterly and westerly through said land as shown on Tract map 8020

6. **Waiver of any claims for damages** to said property by reason of the location, construction, landscaping or maintenance of the freeway adjoining said property, as contained in the deed to the State of California, recorded June 15, 1951, Instrument No. AF-50619, Book 6462, Page 461, of Official Records.

7. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company
Purpose:	Pole line
Recorded:	March 6, 1959, Instrument No. AQ-26281, Book 8953, Page 101, of Official Records
Affects:	The most northerly 17 feet, more or less, said land as shown on Tract map 8020

8. **Resolution** No. 110680 of the Board of Supervisors of the County of Alameda, declaring the easterly 40 feet of the land to be a public highway designated County Road No. 8106 and/or El Charro Road, a certified copy of which recorded January 21, 1965, Instrument No. AX-9503, Reel 1419, Image 563, of Official Records.

9. **The fact** that the ownership of said land does not include rights of access to or from the street, highway, or freeway abutting said land, such rights having been relinquished by the document,

Recorded:	August 22, 1969, Instrument No. 69-94807, Reel 2464, Image 460, of Official Records
Affects:	A portion of the northerly line of said land as shown on Tract map 8020

10. **Waiver of any claims for damages** to said property by reason of the location, construction, landscaping or maintenance of the freeway adjoining said property, as contained in the deed to the State of California, recorded August 22, 1969, Instrument No. 69-94807, Reel 2464, Image 460, of Official Records.

11. **The fact** that the ownership of said land does not include rights of access to or from the street, highway, or freeway abutting said land, such rights having been relinquished by the document,

Recorded:	December 16, 1969, Instrument No. 69-141422, Reel 2533, Image 530, of Official Records
Affects:	A portion of the northerly line of said land as shown on Tract map 8020

12. **Waiver of any claims for damages** to said property by reason of the location, construction, landscaping or maintenance of the freeway adjoining said property, as contained in the deed to the State of California, recorded December 16, 1969, Instrument No. 69-141422, Reel 2533, Image 530, of Official Records.

13. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company
Purpose:	Pipe lines
Recorded:	July 27, 1970, Instrument No. 70-79551, Reel 2661, Image 608, of Official Records
Affects:	A 30-foot strip along the northerly, northeasterly and easterly lines said land as shown on Tract map 8020

14. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Alameda County Flood Control and Water Conservation District
Purpose:	Pipe line
Recorded:	February 24, 1975, Instrument No. 75-22135, Reel 3884, Image 820, of Official Records
Affects:	A 25-foot strip near the northerly, northeasterly and easterly lines of said land as shown on Tract map 8020

15. **Waiver of any claims for damages** to said property by reason of the location, construction, landscaping or maintenance of the freeway adjoining said property, as contained in the deed to the State of California, recorded March 25, 1975, Instrument No. 75-36403, Reel 3912, Image 53, of Official Records.

16. **Matters** contained in that certain document entitled "Memorandum of Pre-Development & Corporation Agreement (El Charro Specific Plan & Prime Outlets Project, Livermore, Staples Ranch & Pleasanton California)" dated September 18, 2007, executed by and between City of Livermore, and The County of Alameda, and The Surplus Property Authority of the County of Alameda, a public corporation and The City of Pleasanton recorded June 30, 2009, Instrument No. 2009207102, of Official Records.

Reference is hereby made to said document for full particulars.

17. **Matters** contained in that certain document entitled "Development Agreement" dated September 21, 2010, executed by and between The Surplus Property Authority of the County of Alameda, a public corporation and City of Pleasanton recorded December 22, 2010, Instrument No. 2010-384579, of Official Records.

Reference is hereby made to said document for full particulars.

18. Matters contained in that certain unrecorded cost sharing agreement dated September 4, 2007, by & between The Surplus Property Authority of the County of Alameda, a public corporation, and The City of Livermore, as disclosed by the development agreement, Recorded December 22, 2010, Instrument No. 2010-384579, of Official Records.

19. Easements for the purposes shown below and rights incidental thereto as delineated or as offered, for dedication, on the map of Tract 8020, filed August 11, 2001, Book 313 of maps, Page 53, Alameda County Record.
Purpose: Emergency vehicle access, maintenance access, water line, private maintenance, public service & public pedestrian sidewalk
Affects: All those portions of said land, as shown on Lot 1, Tract 8020

20. **Recitals** as shown on that certain map recorded August 11, 2011, Book 313, Page 53, of Official Records, which, among other things states:

"The real property described below is dedicated as an easement for public purposes to The City of Pleasanton on behalf of the public strips of land designated within the boundary of the map as "MAE" (Maintenance Access Easement), are for access purposes.

Each lot containing the "MAE" will maintain that portion shown on said lot.".

Reference is made to said map for full particulars.

21. **Recitals** as shown on that certain map recorded August 11, 2011, Book 313, Page 53, of Official Records, which, among other things states:

"The real property described below is dedicated as an easement for public purposes to The City of Pleasanton on behalf of the public strips of land designated within the boundary of the map as "PPSE" (Public Pedestrian, Sidewalk Easement), for public access as an irrevocable offer of dedication.

Said area will be maintained by the owner(s) of Lot 1.".

Reference is made to said map for full particulars.

22. **Recitals** as shown on that certain map recorded August 11, 2011, Book 313, Page 53, of Official Records, which, among other things states:

"The real property designated within the boundary of this map as "PMAE" (Private Maintenance Access Easement), is reserved for the benefit of Lot 6, said area will be maintained by the owner(s) of Lot 1.

Said easement is not offered for dedication to the public.".

Reference is made to said map for full particulars.

23. Certificate of completion, executed by local Agency Information Commission, Recorded April 29, 2011, Series No. 2011-132646, of Official Records.

24. **Matters** contained in that certain document entitled "Notice of Disclosures, Conditions & Restrictions" dated August 11, 2011, executed by The Surplus Property Authority of the County of Alameda, a public corporation recorded August 11, 2011, Instrument No. 2011-231073, of Official Records.

Reference is hereby made to said document for full particulars.

25. **Matters** contained in that certain document entitled "Agreement (El Charro Transition-West)" dated August 1, 2011, executed by and between The County of Alameda, and The Surplus Property Authority of the County of Alameda, a public corporation and Calmat Co, a Delaware corporation, dba Vulcan Materials Company, Western division recorded August 4, 2011, Instrument No. 2011-224974, of Official Records.

Reference is hereby made to said document for full particulars.

26. **Covenants, conditions and restrictions** in the declaration of restrictions but omitting any covenants or restrictions, if any, including, but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law.

Recorded: August 25, 2011, Instrument No. 2011-244156, of Official Records

27. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Continuing Life Communities Pleasanton LLC
Purpose:	Maintenance of wall
Recorded:	December 21, 2011, Instrument No. 2011-370913, of Official Records
Affects:	Northwestern portion of said land

28. No open Deeds of Trust: CONFIRM BEFORE CLOSING

29. **Before issuing its policy of title insurance**, this Company will require for review, the following documents from the Limited Liability Company named below.

Limited Liability Company: Carmax Auto Superstores, LLC, a Virginia LLC

(a) A copy of its operating agreement and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member.

(b) Confirmation that its Articles of Organization (LLC-1), and Certificate of Amendment (LLC-2), any restated Articles of Organization (LLC-10) and/or Certificate of Correction (LLC-11) have been filed with the Secretary of State.

(c) If the Limited Liability Company is member-managed a full and complete current list of members certified by the appropriate manager or member.

(d) If the Limited Liability Company was formed in a foreign jurisdiction, evidence satisfactory to the Company, that it was validly formed, is in good standing and authorized to do business in the state of origin.

(e) If the Limited Liability Company was formed in a foreign jurisdiction, evidence satisfactory to the Company, that it has complied with California "doing business" laws, if applicable.

After review of the requested documents, the Company reserves the right to add additional items or make additional requirements prior to the issuance of any policy of title insurance.

30. **Any rights of the parties in possession** of a portion of, or all of, said land, which rights are not disclosed by the public record.

This Company will require, for review, a full and complete copy of any unrecorded agreement, contract, license and/or lease, together with all supplements, assignments and amendments thereto, before issuing any policy of title insurance without excepting this item from coverage. The Company reserves the right to except additional items and/or make additional requirements after reviewing said documents.

31. **Matters** which may be disclosed by an inspection and/or by a correct ALTA/ACSM Land Title Survey of said land that is satisfactory to this Company, and/or by inquiry of the parties in possession thereof.

32. **If extended coverage** title insurance will be requested, or if this report has been issued to facilitate a request for extended coverage title insurance, then the following would also be exceptions to coverage:

Any facts, rights, interests or claims which are not disclosed by the public records but which could be ascertained by making inquiry of the parties or persons in possession of the herein described land.

Any easements, liens (including but not limited to any Statutory Liens for labor or materials arising from any on-going or recently completed works of improvement), encumbrances, facts, rights, interest or claims which are not shown by the public records but which could be ascertained by an inspection of the herein described land.

Discrepancies, conflicts in boundary lines, shortages in area, encroachments or any other facts which a correct survey of the herein described land would disclose which are not shown by the public records and the requirement that said survey meets with the minimum standards for ALTA/ACSM land title surveys.

33. **This Company will require** an Owner's Affidavit to be completed by the party(ies) named below before any title assurance requested under this application will be issued.

Party(ies): Surplus Property Authority of Alameda County, a public corporation

The Company reserves the right to add additional items or make further requirements after review of the requested Affidavit.

END OF ITEMS

Note 1. The name(s) of the buyer(s) furnished with this application for Title Insurance is/are:

Carmax Auto Superstores, LLC, a Virginia LLC

If these names are incorrect, incomplete or misspelled, please notify the Company.

Note 2. There are NO deeds affecting said land, recorded within twenty-four (24) months of the date of this report.

Note 3. The charge for a policy of title insurance, when issued through this title order, will be based on the Basic (not Short-Term) Title Insurance Rate.

Note 4. **The application** for title insurance was placed by reference to only a street address or tax identification number.

Based on our records, we believe that the description in this report covers the parcel requested, however, if the legal description is incorrect a new report must be prepared.

If the legal description is incorrect, in order to prevent delays, the seller/buyer/borrower must provide the Company and/or the settlement agent with the correct legal description intended to be the subject of this transaction.

Note 5. If a county recorder, title insurance company, escrow company, real estate broker, real estate agent or association provides a copy of a declaration, governing document or deed to any person, California law requires that the document provided shall include a statement regarding any unlawful restrictions. Said statement is to be in at least 14-point bold face type and may be stamped on the first page of any document provided or included as a cover page attached to the requested document. Should a party to this transaction request a copy of any document reported herein that fits this category, the statement is to be included in the manner described.

Note 6. Wiring instructions for Chicago Title Company, Oakland, CA, are as follows:

Receiving Bank:	Wells Fargo 707 Wilshire Blvd., 13th Floor Los Angeles, CA 90017
ABA Routing No.:	121000248
Credit Account Name:	Chicago Title Company - Oakland 1 Kaiser Plaza, Suite 745, Oakland, CA 94612
Credit Account No.:	4121555106
Escrow No.:	12-**58204578**-LE

These wiring instructions are for this specific transaction involving the Title Department of the Concord office of Chicago Title Company. These instructions therefore should not be used in other transactions without first verifying the information with our accounting department. It is imperative that the wire text be exactly as indicated. Any extraneous information may cause unnecessary delays in confirming the receipt of funds.

Note 7. Any documents being executed in conjunction with this transaction must be signed in the presence of an authorized Company employee, an authorized employee of an agent, an authorized employee of the insured lender, or by using Bancserv or other approved third-party service. If the above requirements cannot be met, please call the company at the number provided in this report.

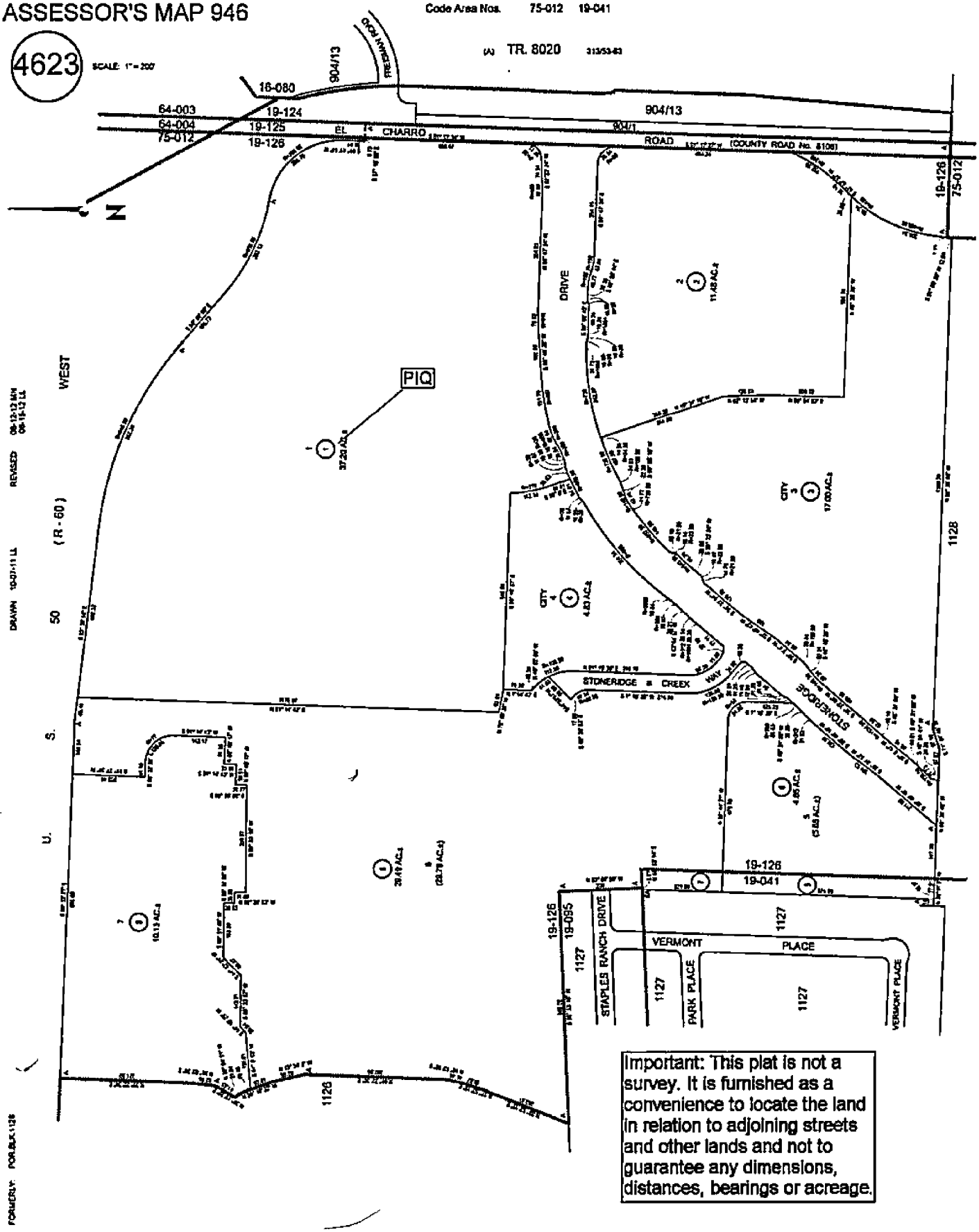
END OF NOTES

ASSESSOR'S MAP 946

4623 SCALE: 1" = 200'

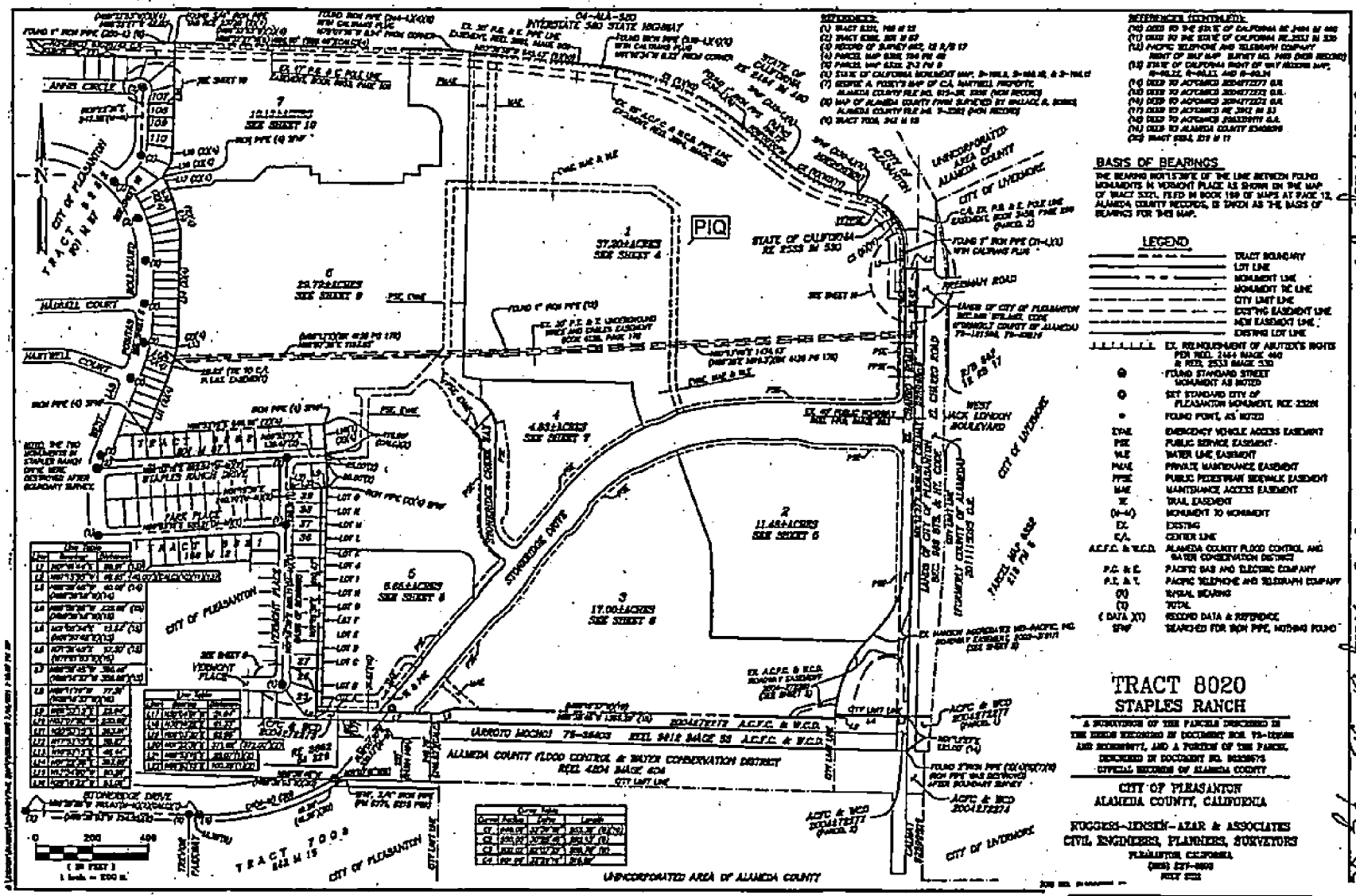
Code Area Nos. 75-012 19-041

(A) TR. 8020 313/53-63

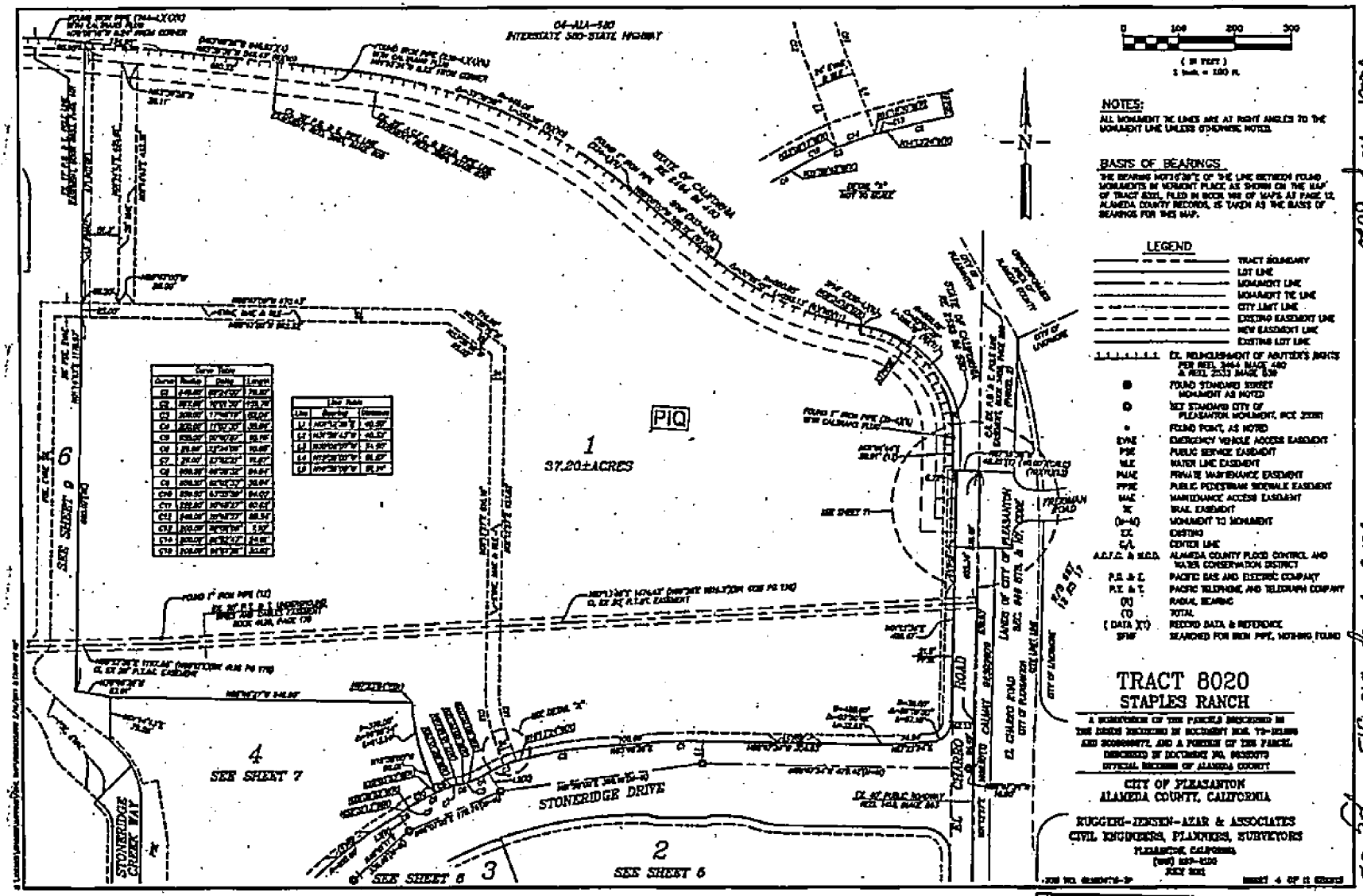


Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

TRA: 029C REF: HPN: 0 IND PG: 16

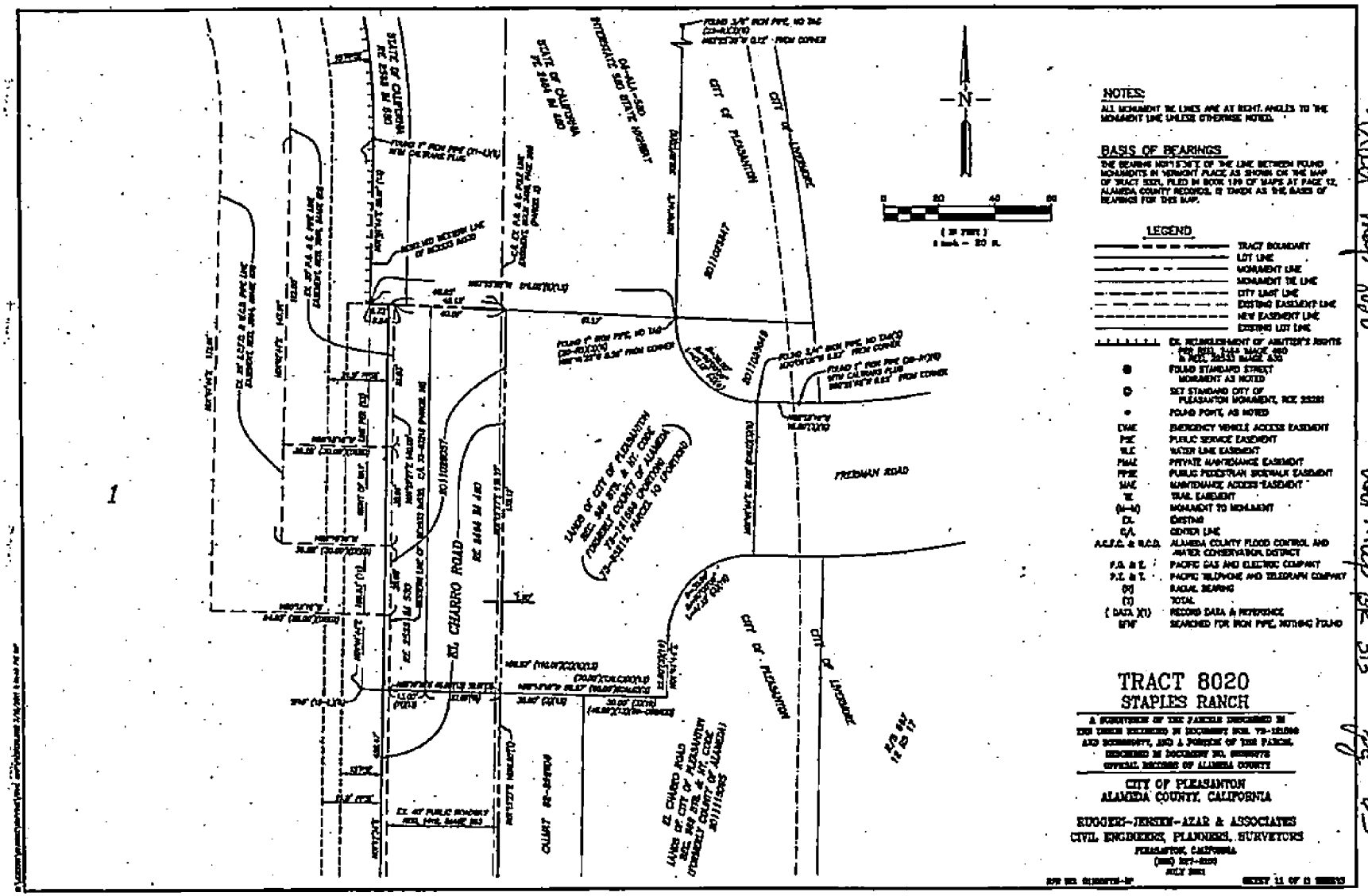


Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.



Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

tract map 8020 tract map Bk. 313 pg. 16



Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

ATTACHMENT ONE

AMERICAN LAND TITLE ASSOCIATION
RESIDENTIAL TITLE INSURANCE POLICY (6-1-87) EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
   - land use
   - improvements on the land
   - land division
   - environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at policy date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   - a notice of exercising the right appears in the public records on the Policy Date
   - the taking happened prior to the Policy Date and is binding on you if you bought the land without knowledge of the taking
3. Title Risks:
   - that are created, allowed, or agreed to by you
   - that are known to you, but not to us, on the Policy Date- unless they appeared in the public records
   - that result in no loss to you
   - that first affect your title after the Policy Date - this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   - to any land outside the area specifically described and referred to in Item 3 of Schedule A
     or
   - in streets, alleys, or waterways that touch your land

   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

In addition to the Exclusions, you are not insured against loss, costs, attorneys' fees, and the expenses resulting from:

1. Any rights, interests, or claims of parties in possession of the land not shown by the public records.
2. Any easements or liens not shown by the public records. This does not limit the lien coverage in Item 8 of Covered Title Risks.
3. Any facts about the land which a correct survey would disclose and which are not shown by the public records. This does not limit the forced removal coverage in Item 12 of Covered Title Risks.
4. Any water rights or claims or title to water in or under the land, whether or not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

SCHEDULE B, PART I
EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

PART I

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

FORMERLY AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (10-17-92) WITH A.L.T.A. ENDORSEMENT-FORM 1 COVERAGE EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at Date of Policy); or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
   (iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgement or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

ATTACHMENT ONE
(CONTINUED)

FORMERLY AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (10-17-92)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy, or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgement or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

ATTACHMENT ONE
(CONTINUED)

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes ordinances, laws and regulations concerning:
   a. building
   b. zoning
   c. Land use
   d. improvements on Land
   e. Land division
   f. environmental protection

This Exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
This Exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
   a. notice of exercising the right appears in the Public Records at the Policy Date; or
   b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they appear in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.d, 22, 23, 24 or 25.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any Land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 18.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 14, 15, 16 and 18, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 14:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 15:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 16:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 18:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 5,000.00

ATTACHMENT ONE
(CONTINUED)

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19 and 21, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 18:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 19:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 21:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 5,000.00

ATTACHMENT ONE
(CONTINUED)

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (10/13/01)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions or location of any improvements now or hereafter erected on the Land; (iii) a separation in ownership or a change in the dimensions or areas of the Land or any parcel of which the Land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the Public Records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without Knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (this paragraph does not limit the coverage provided under Covered Risks 8, 16, 18, 19, 20, 21, 22, 23, 24, 25 and 26); or
   (e) resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of the Insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the Land is situated.
5. Invalidity or unenforceability of the lien of the Insured Mortgage, or claim thereof, which arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, except as provided in Covered Risk 27, or any consumer credit protection or truth in lending law.
6. Real property taxes or assessments of any governmental authority which become a lien on the Land subsequent to Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 7, 8(e) and 26.
7. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This exclusion does not limit the coverage provided in Covered Risk 8.
8. Lack of priority of the lien of the Insured Mortgage as to each and every advance made after Date of Policy, and all interest charged thereon, over liens, encumbrances and other matters affecting the title, the existence of which are Known to the Insured at:
   (a) The time of the advance; or
   (b) The time a modification is made to the terms of the Insured Mortgage which changes the rate of interest charged, if the rate of interest is greater as a result of the modification than it would have been before the modification. This exclusion does not limit the coverage provided in Covered Risk 8.
9. The failure of the residential structure, or any portion thereof to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at Date of Policy.

ATTACHMENT ONE
(CONTINUED)

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07/26/10)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

Effective Date: 5/1/2008

Fidelity National Financial, Inc.
Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNF's privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

Personal Information Collected

We may collect Personal Information about you from the following sources:

- Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information, and income information;
- Information we receive from you through our Internet websites, such as your name, address, email address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
- Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transaction, account balances, and credit card information; and
- Information we receive from consumer or other reporting agencies and publicly recorded documents.

Disclosure of Personal Information

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:

- To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connection with an insurance transaction;
- To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
- To an insurance regulatory authority, or a law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
- To companies that perform marketing services on our behalf or to other financial institutions with which we have joint marketing agreements and/or
- To lenders, lien holders, judgment creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Effective Date: 5/1/2008

Disclosure to Affiliated Companies - We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties - We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlined herein or as otherwise permitted by law.

Confidentiality and Security of Personal Information

We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard Personal Information.

Access To Personal Information/
Requests for Correction, Amendment, or Deletion of Personal Information

As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law, we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

Changes to this Privacy Statement

This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

FNF Underwritten Title Company
CTC – Chicago Title Company

FNF Underwriter
CTIC – Chicago Title Insurance Company

Available Discounts

CREDIT FOR PRELIMINARY REPORTS AND/OR COMMITMENTS ON SUBSEQUENT POLICIES (CTIC)

Where no major change in the title has occurred since the issuance of the original report or commitment, the order may be reopened within 12 or 36 months and all or a portion of the charge previously paid for the report or commitment may be credited on a subsequent policy charge.

FEE REDUCTION SETTLEMENT PROGRAM (CTC and CTIC)

Eligible customers shall receive a $20.00 reduction in their title and/or escrow fees charged by the Company for each eligible transaction in accordance with the terms of the Final Judgments entered in *The People of the State of California et al. v. Fidelity National Title Insurance Company et al.,* Sacramento Superior Court Case No. 99AS02793, and related cases.

DISASTER LOANS (CTIC)

The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within 24 months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be 50% of the appropriate title insurance rate.

CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS (CTIC)

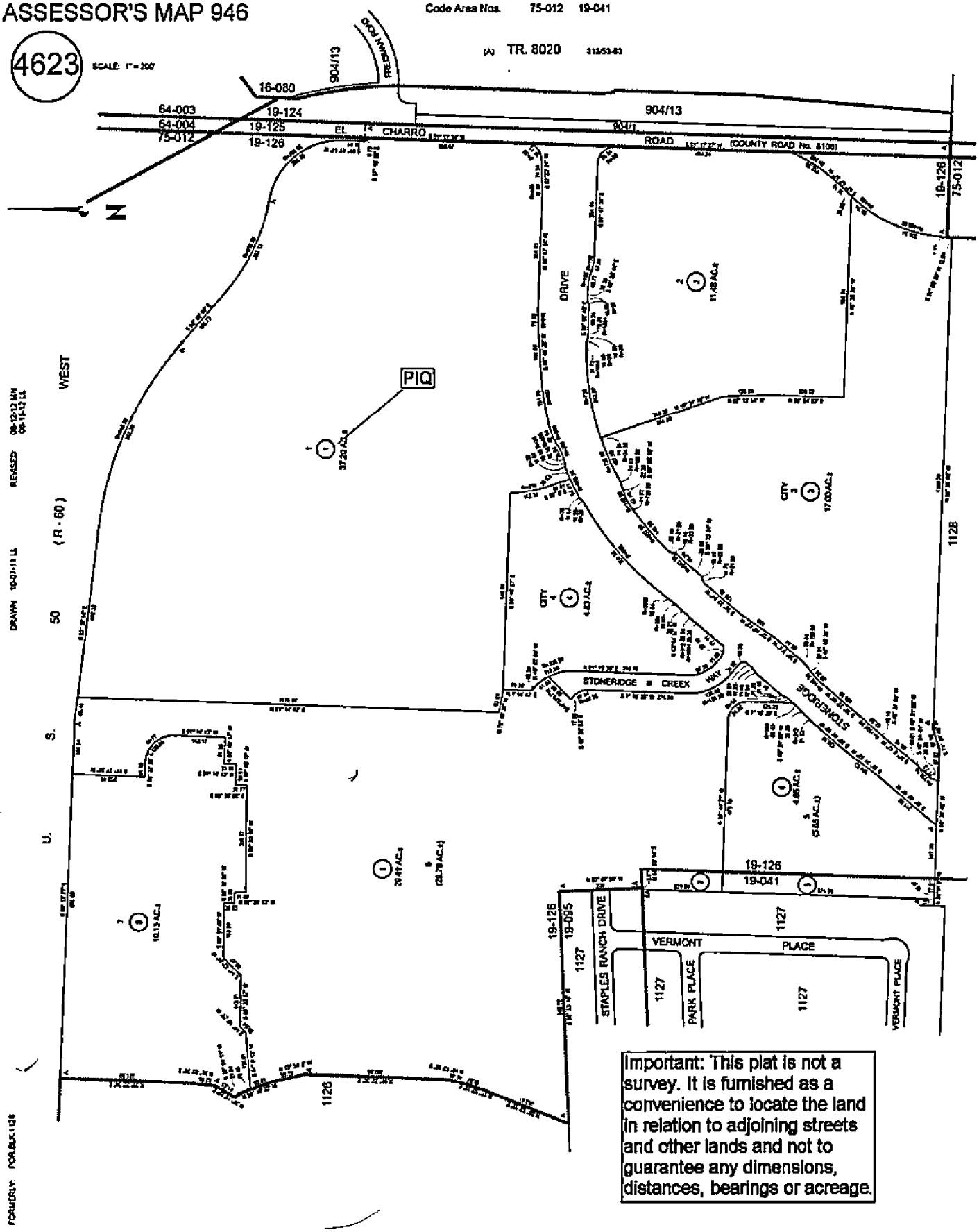
On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be 50% or 70% of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be 32% or 50% of the appropriate title insurance rate, depending on the type of coverage selected.

ASSESSOR'S MAP 946

4623 SCALE: 1" = 200'

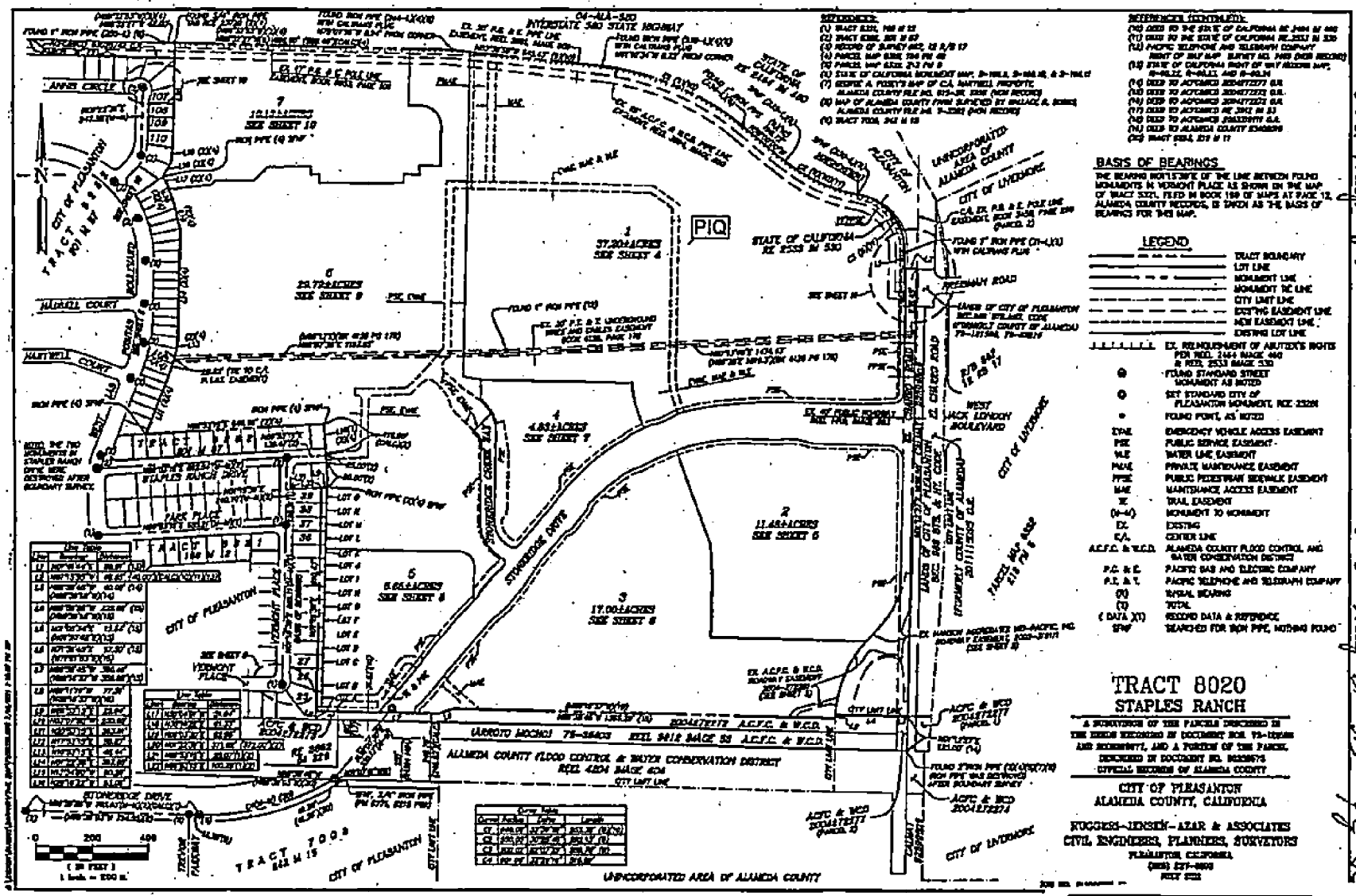
Code Area Nos. 75-012 19-041

(A) TR. 8020 313/53-63

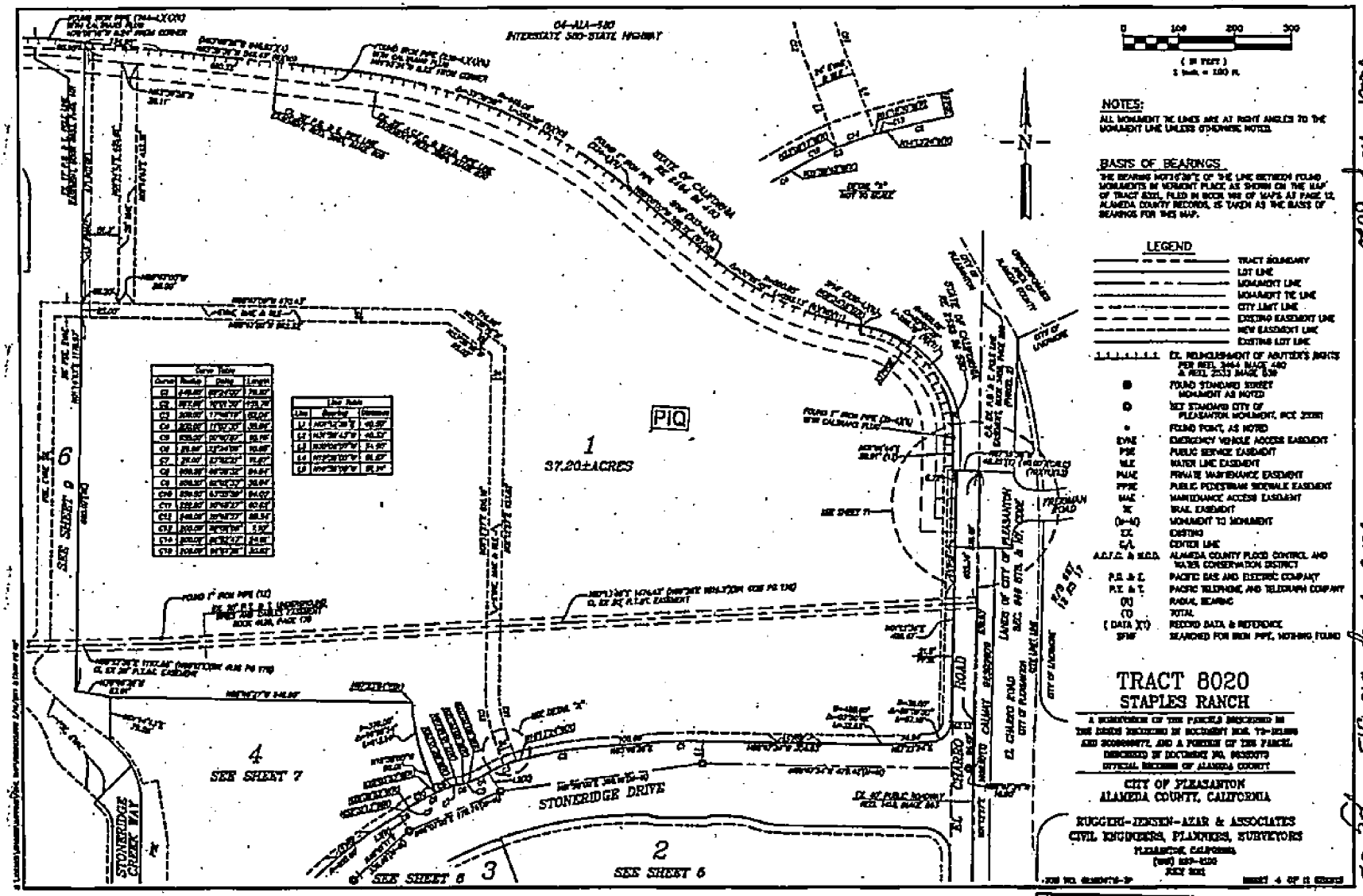


Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

TRA: 029C REF: HPN: 0 IND PG: 16

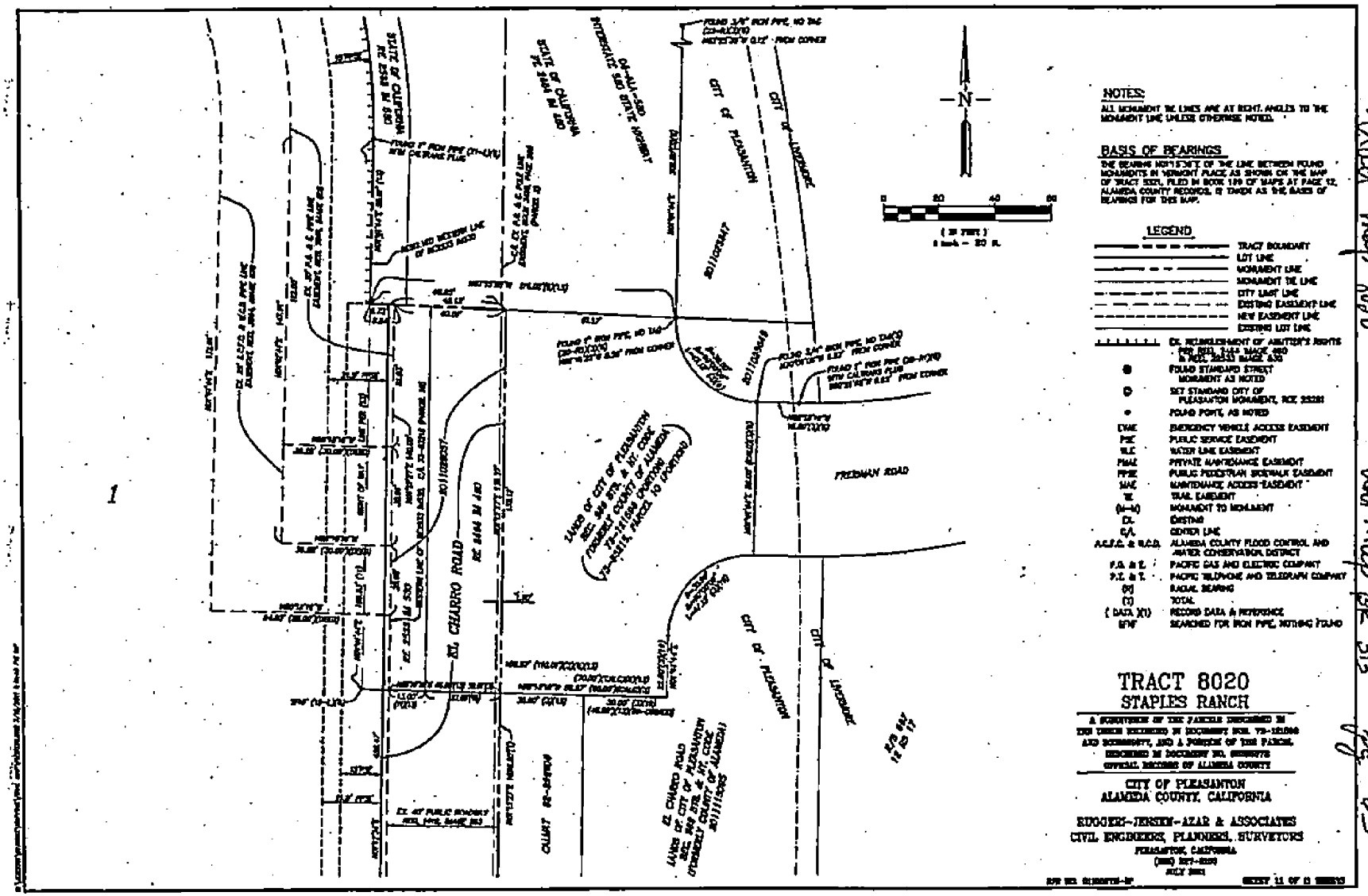


Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.



Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

tract map 8020 tract map Bk. 313 pg. 16



Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package

APPENDIX E

Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Inquiry Number: 3597351.5
May 08, 2013

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

Aerial Photography May 08, 2013

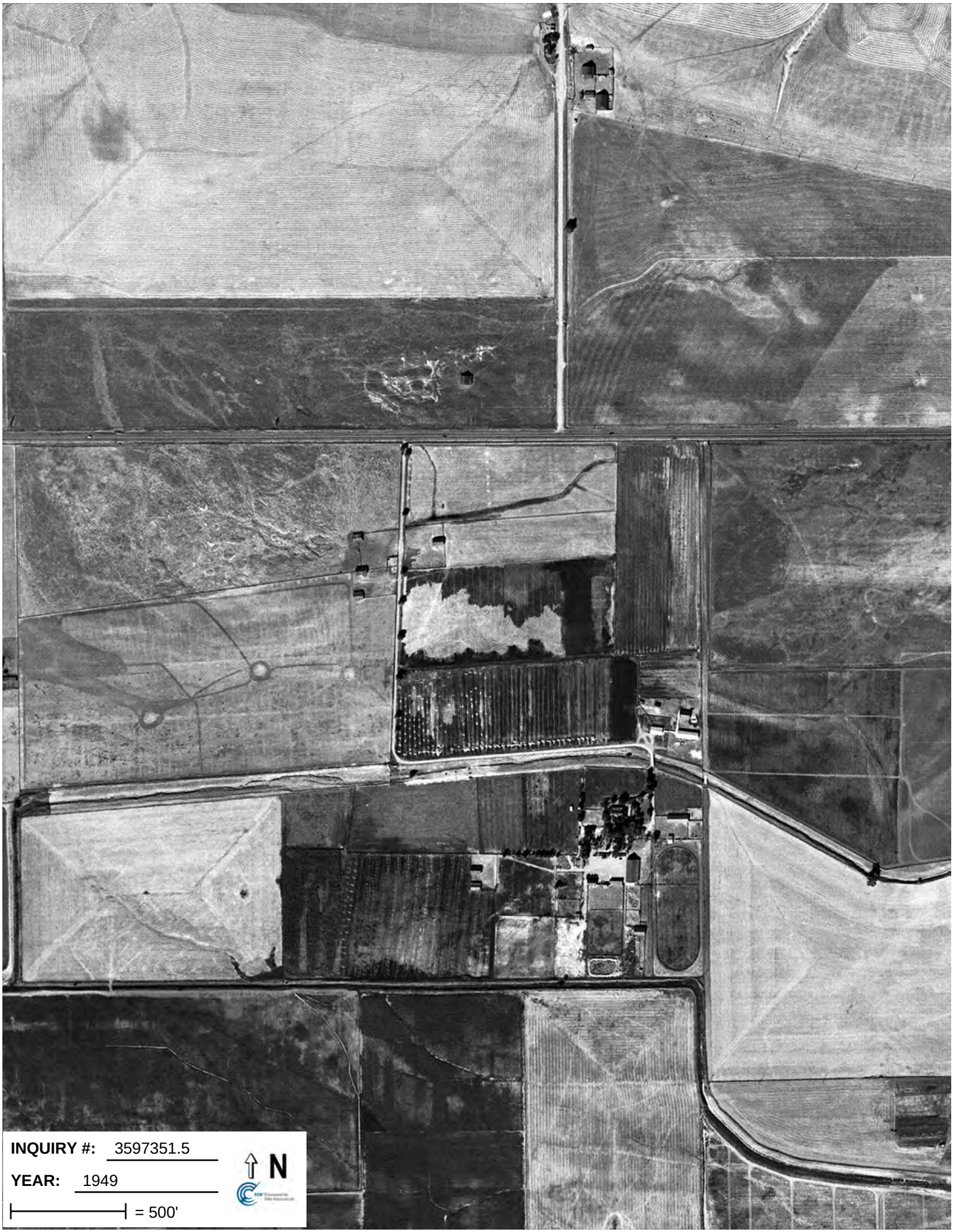
Target Property:

El Charro Road

Pleasanton, CA 94588

Year	***Scale***	***Details***	***Source***
1939	Aerial Photograph. Scale: 1"=500'	Flight Year: 1939	Fairchild
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	USGS
1958	Aerial Photograph. Scale: 1"=500'	Flight Year: 1958	Cartwright
1966	Aerial Photograph. Scale: 1"=500'	Flight Year: 1966	Cartwright
1979	Aerial Photograph. Scale: 1"=500'	Flight Year: 1979	WAC
1984	Aerial Photograph. Scale: 1"=500'	Flight Year: 1984	WAC
1993	Aerial Photograph. Scale: 1"=500'	/Composite DOQQ - acquisition dates: 1993	EDR
1999	Aerial Photograph. Scale: 1"=500'	Flight Year: 1999	WAC
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR


INQUIRY #: 3597351.5
YEAR: 1939
= 500'
N



INQUIRY #: 3597351.5

YEAR: 1949

= 500'

N

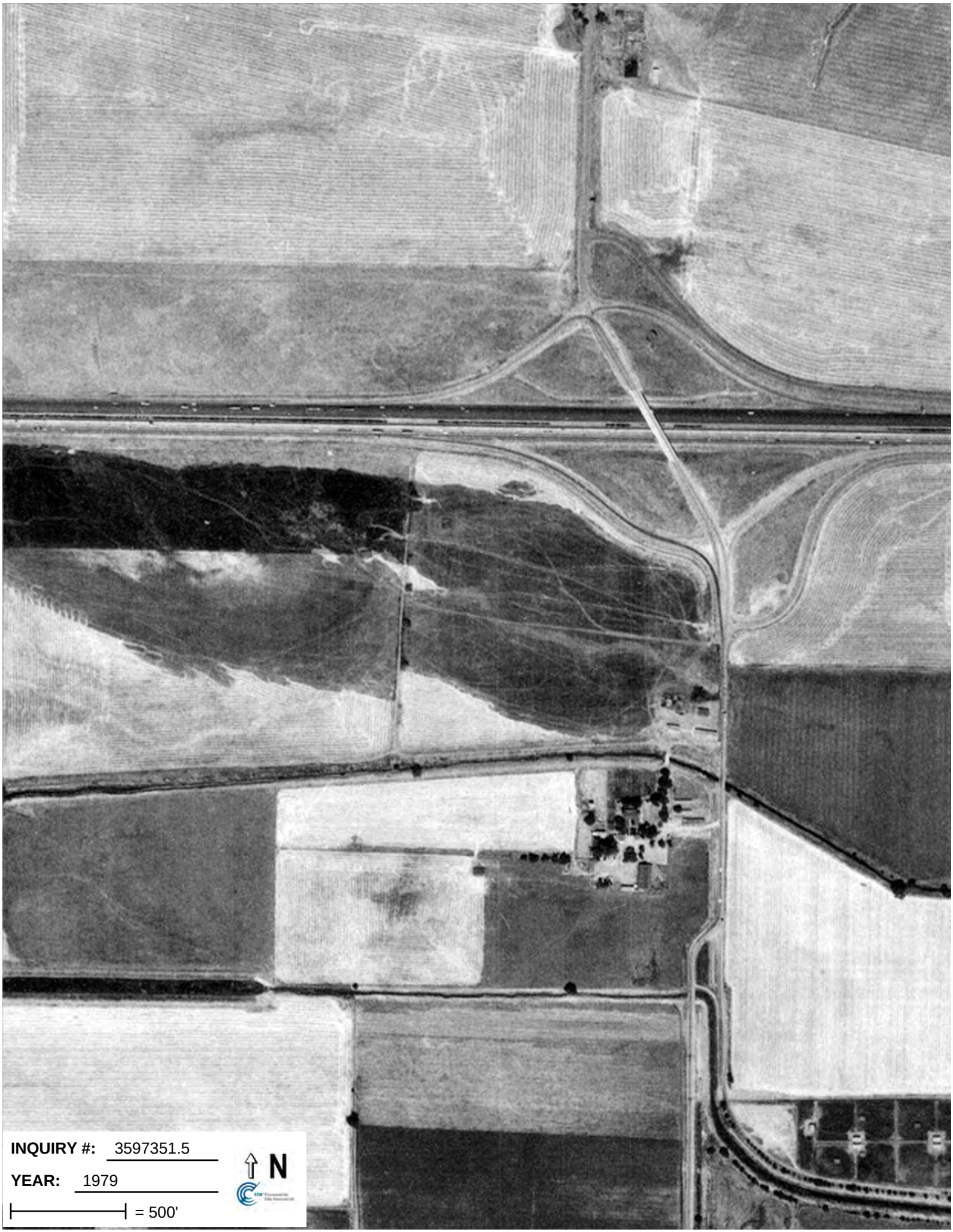

INQUIRY #: 3597351.5
YEAR: 1958
= 500'
N

INQUIRY #: 3597351.5

YEAR: 1966

= 500'

N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YEAR: 1979
= 500'
N

INQUIRY #: 3597351.5

YEAR: 1984

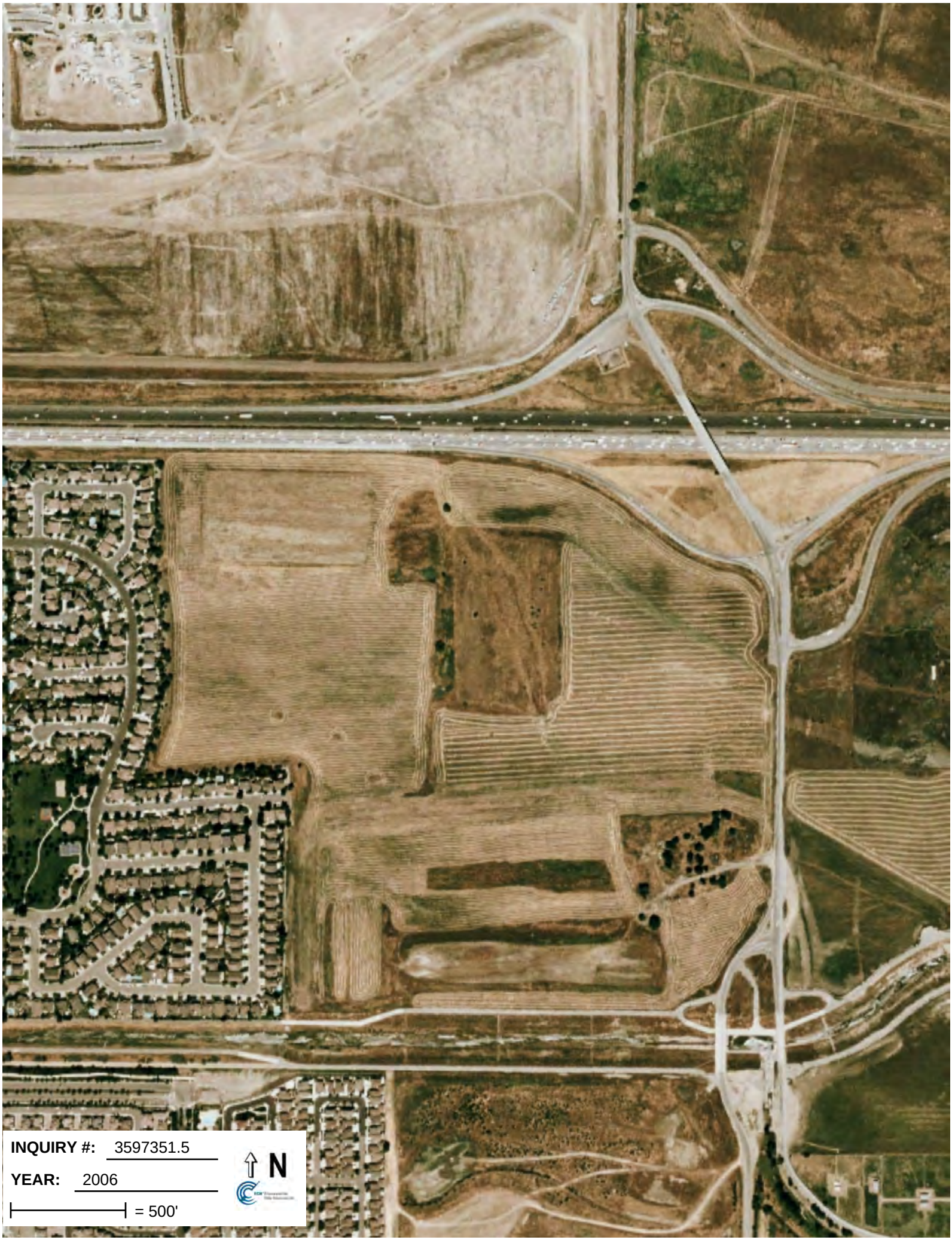
= 500'

N


INQUIRY #: 3597351.5
YEAR: 1993
= 500'
N


INQUIRY #: 3597351.5
YEAR: 1999
= 500'
N


INQUIRY #: 3597351.5
YEAR: 2005
= 500'
N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YEAR: 2006
= 500'
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INQUIRY #: 3597351.5
YEAR: 2009
= 500'
N


INQUIRY #: 3597351.5
YEAR: 2010
= 500'
N


INQUIRY #: 3597351.5
YEAR: 2012
= 500'
N

APPENDIX F

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory

APPENDIX F

Carmax Pleasanton
El Charro Road
Pleasanton, CA 94588

Inquiry Number: 3597351.6
May 08, 2013

The EDR-City Directory Image Report

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2010	☑	☐	Haines Criss-Cross Directory
2006	☑	☐	Haines Criss-Cross Directory
2001	☑	☐	Haines Criss-Cross Directory
1994	☑	☐	Haines Criss-Cross Directory
1989	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☑	☐	Haines Criss-Cross Directory

RECORD SOURCES

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

FINDINGS

TARGET PROPERTY STREET

El Charro Road
Pleasanton, CA 94588

Year	*CD Image*	*Source*
El Charro Road		
2010	pg A1	Haines Criss-Cross Directory
2006	pg A2	Haines Criss-Cross Directory
2006	pg A3	Haines Criss-Cross Directory
2001	pg A4	Haines Criss-Cross Directory
1994	pg A5	Haines Criss-Cross Directory
1989	pg A6	Haines Criss-Cross Directory
1985	pg A7	Haines Criss-Cross Directory
1980	pg A8	Haines Criss-Cross Directory
1975	pg A9	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 2010

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 2006

★ 0 BUS 10 RES 0 NEW

EL CHARRO RD 94588
PLEASANTON

WEALTH CODE 8

51	★ CHARRO FABRICATION	925-447-8111	
	★ CONCO FORM WORKS	925-961-8930	1
	★ RELIABLE TRUCKING INC	925-449-6150	3
52	★ VULCAN MATERIALS COMPANY	925-846-5125	2
501	★ JAMIESON CO	925-455-9000	+6
	★ RIGHT AWAY REDY MIX	925-443-2300	9

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 2006

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 2001

EL CHARRO RD 94588
PLEASANTON

51	* CHARRO FABRICATION	925-447-8111	
	* RELIABLE TRUCKING	925-449-8334	
52	* CALMAT CO	925-846-2852	7
	* CALMAT CO	925-846-5125	8
	* CALMAT CO	925-485-1501	8
501	* RIGHT AWAY REDY MIX	925-443-2300	9
770	* AIRDANCE FARM	925-461-4800	9
	* BEARE EQUESTRIAN SRVCS&TRNNG	925-462-6210	9
	GRAJEDA Jesse M	925-931-0262	+0

* 8 BUS 1 RES 1 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 1994

EL CHARRO RD 94588
PLEASANTON

WEALTH CODE 7

51	*CHARRO FABRICATION	447-8111	0
	*PAC STATES TOWING	373-8485	1
	*RELIABLE TRUCKING	449-8334	0
52	*INDSTRL ASPHALT INC	846-5125	2
501	*JAMIESON CO	455-9000	0
770	ADAMS Elven	417-0982	2
	*RANCHO DEL CHARRO	447-2418	

* 6 BUS 1 RES 0 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 1989

EL CHARRO RD 94566
PLEASANTON

501	*JAMIESON CO	846-2852 +9
	*JAMIESON CO	455-9001 +9
770	*RANCHO DEL CHARRO	447-2418
	VALDEZ Uriel	462-5103
NO #	*CHARRO FABRICATION	447-8111
NO #	*INDSTRL ASPHALT INC	846-5125 +9
NO #	*LARK RENTAL LTD INC	449-9244 +9
NO #	*RELIABLE CEMENT CO	449-8334 +9

* 7 BUS 1 RES 5 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 1985

* 0 BUS 9 RES 1 NEW

EL CHARRO RD 94566
PLEASANTON

501	JAMIESON CO	455-9000	0
	RHODES JAMIESON	455-9000	0
770	RANCHO DEL CHARRO	447-2418	
	SOTO ROBERTO	443-5361	0
	VALDEZ URIEL	462-5103	6
NO #	CHARRO FABRICATION	447-8111	9

* 4 BUS 2 RES 0 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

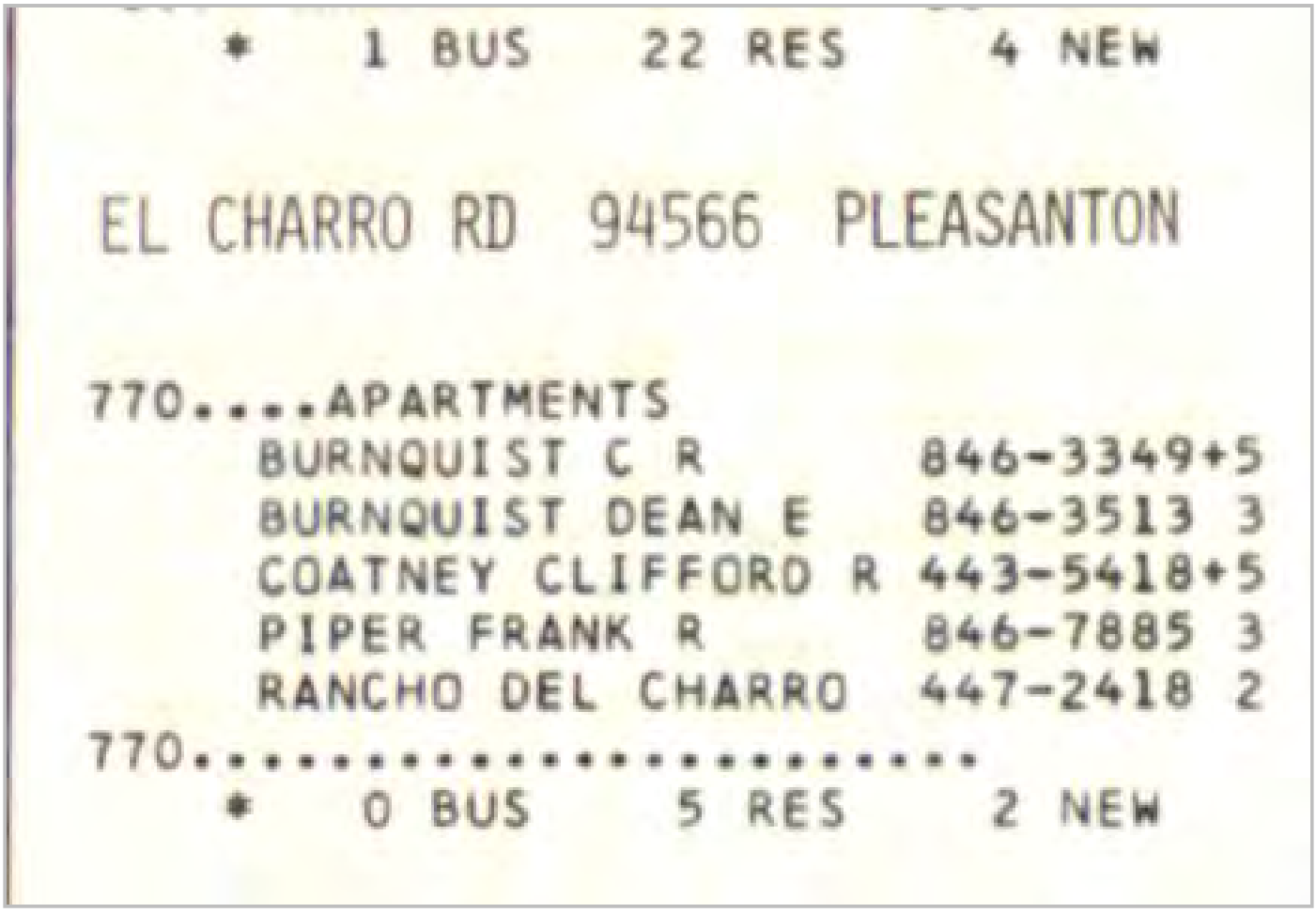
El Charro Road 1980

EL CHARRO RD 94566
PLEASANTON

501	*	JAMIESON CO	455-9000 +0
	*	RHODES JAMIESON	455-9000 +0
770		APARTMENTS	
		BURNQUIST DEAN E	846-3513 3
		MADRID VINCE	462-2427 9
		RANCHO DEL CHARRO	447-2418 2
		SOTO ROBERTO	443-5361 +0
		VALDEZ URIEL	462-5103 6
770			
	*	2 BUS 5 RES 3 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

El Charro Road 1975



```
    *    1 BUS    22 RES     4 NEW

EL CHARRO RD  94566  PLEASANTON


770....APARTMENTS
      BURNQUIST C R          846-3349+5
      BURNQUIST DEAN E       846-3513 3
      COATNEY CLIFFORD R     443-5418+5
      PIPER FRANK R          846-7885 3
      RANCHO DEL CHARRO      447-2418 2
770.........................
    *    0 BUS     5 RES     2 NEW
```

APPENDIX G

Environmental Site Assessment Questionnaires (2)

APPENDIX G

Project Name: CarMax Automotive Dealership Pleasanton
Project No. 10237.000.000

ENGEO
Expect Excellence

☒ 2010 Crow Canyon Place ▪ Suite 250 ▪ San Ramon, CA 94583	(925) 866-9000 ▪ Fax (888) 279-2698
☐ 2213 Plaza Drive ▪ Rocklin, CA 95765	(916) 786-8883 ▪ Fax (888) 279-2698
☐ 332 Pine Street ▪ Suite 300 ▪ San Francisco, CA 94104	(415) 284-9900 ▪ Fax (888) 279-2698
☐ 6399 San Ignacio Avenue ▪ Suite 150 ▪ San Jose, CA 95119	(408) 574-4900 ▪ Fax (888) 279-2698
☐ 580 N. Wilma Avenue▪ Suite A ▪ Ripon, CA 95366	(209) 835-0610 ▪ Fax (888) 279-2698
☐ 17675 Sierra Highway ▪ Santa Clarita, CA 91351	(661) 257-4004 ▪ Fax (888) 279-2698
☐ 8171 Trabuco Road ▪ Irvine, CA 92618	(949) 529-3479 ▪ Fax (888) 279-2698

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR CLIENT

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

   946-4623-1 Western Portion

2. Current property owner (name, address, voice/fax number):

   Alameda County Surplus Property Authority
   224 W. Winton Room 110, Hayward CA 94544
   Stuart Cook (510-670-6534)

3. Date current property owner assumed title of property:

   Not sure of transfer history

4. Current property development/improvements:

   Vacant Land

5. Past property use, development/improvements:

   Agricultural

6. Neighboring property uses:

   Senior center to West. Highway 580 to north
   Vacant to east. Park to the south

PART II

1. Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law?	☐ Yes	☑ No
2. Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law?	☐ Yes	☑ No
3. Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example are you involved in the same line of business as the current or former occupants of the *property* or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐ Yes	☑ No
4. If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property?*	☑ Yes	☐ No
5. Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, (a) do you know of specific chemicals that are present or once were present at the *property*? (b) do you know of spills or other chemical releases that have taken place at the *property*? (c) do you know of any environmental cleanups that have taken place at the *property*?	☐ Yes	☑ No
6. Based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*?	☐ Yes	☑ No

If a "Yes" response was provided to any of the above questions, please provide details below:

It's the market value of the property

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Keith Henderson

Signature: [signature] Date: 5/28/2013

Project Name: CarMax Automotive Dealership Pleasanton
Project No. 10237.000.000

ENGEO
Expect Excellence

☒ 2010 Crow Canyon Place ▪ Suite 250 ▪ San Ramon, CA 94583 (925) 866-9000 ▪ Fax (888) 279-2698
☐ 2213 Plaza Drive ▪ Rocklin, CA 95765 (916) 786-8883 ▪ Fax (888) 279-2698
☐ 332 Pine Street ▪ Suite 300 ▪ San Francisco, CA 94104 (415) 284-9900 ▪ Fax (888) 279-2698
☐ 6399 San Ignacio Avenue ▪ Suite 150 ▪ San Jose, CA 95119 (408) 574-4900 ▪ Fax (888) 279-2698
☐ 580 N. Wilma Avenue▪ Suite A ▪ Ripon, CA 95366 (209) 835-0610 ▪ Fax (888) 279-2698
☐ 17675 Sierra Highway ▪ Santa Clarita, CA 91351 (661) 257-4004 ▪ Fax (888) 279-2698
☐ 8171 Trabuco Road ▪ Irvine, CA 92618 (949) 529-3479 ▪ Fax (888) 279-2698

ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE FOR "KEY SITE MANAGER"

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):
   APN 946-4623-1 (western half)
   Pleasanton, CA.
2. Current property owner (name, address, voice/fax number):
   Alameda Co. Surplus Property Authority
   224 W. Winton, Room 110, Hayward, CA 94544
   Stuart Cook - Director. (510) 670-6534
3. Date current property owner assumed title of property:
   The property was transferred to the Surplus Property Authority from Alameda Co. in the 1990's. The County acquired it some time in the 1930s.
4. Current property development/improvements:
   None / vacant.
5. Past property use, development/improvements:
   Agricultural (dry land farming + cattle)
6. Neighboring property uses:
   Senior community + Neighborhood park under construction directly to ~~east~~ west + south.
   Vacant to east. Freeway to north.

PART II - The following questions should be answered to the best of your knowledge.

1.	Is/has the *property* or any adjoining property used/been used for industrial purposes?	☐ Yes	☒ No
2.	Has the *property* or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	☐ Yes	☒ No
3.	Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the *property* or at the facility?	☐ Yes	☒ No
4.	Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is 125,000 cubic yards.	☒ Yes	☐ No
5.	Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin?	☐ Yes	☒ No
6.	Are there currently, or have there been previously, any pits, ponds, or lagoons located on the *property* in connection with waste treatment or waste disposal?	☐ Yes	☒ No
7.	Is there currently, or has there been previously, any stained soil on the *property*?	☐ Yes	☒ No
8.	Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the *property*? (All fuel USTs were on property to the east)	☐ Yes	☒ No
9.	Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?	☐ Yes	☒ No
10.	Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	☐ Yes	☒ No
11.	Are there any domestic, irrigation or monitoring wells on the property?	☐ Yes	☒ No
12.	If the *property* is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	☐ Yes	☒ No
13.	Have you been informed of the past or current existence of *hazardous substances* or *petroleum products* or environmental violations with respect to the *property* or any facility located on the *property*?	☐ Yes	☒ No
14.	Have there been any *environmental site assessments* of the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?	☐ Yes	☒ No
15.	Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property*?	☐ Yes	☒ No
16.	Has there been any past agricultural use of the *property*, such as orchards or seed crop cultivation? Dry farming (hay) + cattle	☒ Yes	☐ No
17.	Have any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the *property*?	☐ Yes	☒ No
18.	Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	☐ Yes	☒ No

If a "Yes" response was provided to any of the above questions, please provide details below:

Approximately 125,000 cubic yards of "select" fill material was stockpiled on the property by KB Homes in the mid-1990s in anticipation of a residential development (which never got built). The precise origin of this material is unknown.

Approximately half of the 125,000 C.Y. was removed and utilized by the adjacent Senior community development as "select" fill in 2011-2012.

Approximately half (30,300 CY) of what remained of the select stockpile was recently moved to the adjacent vacant property to the east - leaving approx. 30,300 C.Y. of the original 125,000 C.Y. on the property.

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Stuart Cook

Signature: [signature] Date: 5/24/13

APPENDIX H

Qualifications of Environmental Professional

APPENDIX H

SHAWN MUNGER, CHG
PRINCIPAL GEOLOGIST

EDUCATION

BS, Geology, U.C. Davis, 1985

EXPERIENCE

Years with ENGEO: 25
Years with Other Firms: 0

REGISTRATIONS & CERTIFICATIONS

Certified Hydrogeologist, CA, 413
40 Hour HAZWOPER Training, CA
Certified Environmental Manager, NV, 1332
Registered Environmental Assessor II, CA, 20201
Professional Geologist, CA, 5810

SPECIALIZATIONS

- Environmental Assessments and Remediation
- Environmental Restoration
- Water Quality Studies
- Water Wells/Hydrogeology

Since joining ENGEO in 1985, Mr. Munger has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, phase I and II site assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation. He is Principal-in-Charge of our on-call contract with DTSC and the environmental components of our on-call contracts with the City of Sacramento and the County of Sacramento.

Selected Project Experience

Seacliff Estates—Richmond, CA
Principal in Charge. Mr. Munger provided oversight, review, and consultation during preparation of phase I and II site assessments and soil remediation. The 12-acre site was formerly part of Kaiser Shipyard No. 3 and was used for ship repair and maintenance along with scrap metal and salvage yards. The property was developed as a single-family residential subdivision.

Renaissance Square—Concord, CA
Project Manager. Mr. Munger provided consultation, data analysis, and field observation. This former automotive dealership was redeveloped as a five-story multi-family residential structure supported on slab-on-grade foundations, with two levels of below-grade parking. Petroleum hydrocarbon-impacted soil was encountered during excavation of the parking structure, which required characterization and remediation. Soil impacts were attributed to former sumps, USTs and hydraulic lifts.

Pleasant Hill BART Station—Walnut Creek, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and consultation during the preparation of a phase II environmental site assessment. The property is an existing BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas.

Mills Ranch—King City, CA
Principal in Charge. Mr. Munger provided principal oversight of phase I and II environmental site assessments and risk evaluations. The approximate 80-acre property is used for agricultural cultivation and commercial uses. The proposed mixed-use development includes over 400 single-family residential lots.

Select Foods Site/Cross Creek—Hayward, CA
Principal in Charge. Mr. Munger provided principal oversight, consultation, and data analysis. The property was a former processed food facility, a drum recycling business, battery manufacturing operation and a bus assembly plant. Following completion of soil remediation under RWQCB oversight, the property was developed into a single-family residential subdivision.

Southchase Property—West Sacramento, CA
Project Manager. Mr. Munger provided environmental consultation regarding soil contamination and site characterization work. The property is a former farm headquarters with storage structures and orchards.

Westshore—Richmond, CA
Project Manager. Mr. Munger conducted phase I and II site assessments, risk evaluations and prepared a soil management plan. The property was a former automotive manufacturing plant proposed for a multi-unit condominium development, including a 6-story podium structure to include five residential floors with 269 units and one parking floor.

Union Pacific Railroad Corridor—San Jose, CA.
Project Manager. Mr. Munger prepared a phase I and II environmental assessment. Work included a site reconnaissance, historical records research and recovery of soil samples with laboratory analysis. Lead impacted soil was identified which required risk evaluation. This former 1800 lineal foot section of the former Union Pacific Railroad Corridor was proposed for mixed-use development.

Sparklizing Cleaners and Laundry—Fremont, CA
Principal in Charge. Mr. Munger provided principal review and data analysis for this former dry cleaning facility which had released tetrachloroethylene (PCE) to site soil and groundwater. The project site consists of a drycleaning facility located within a commercial/retail center. Drycleaning operations have been conducted at the facility since 1974 and have resulted in chlorinated solvent impacts to soil and groundwater beneath the site. As a result, the CRWQCB opened a Spills, Leaks, Investigations, and Cleanups (SLIC) case and the site was referred to the Alameda County Water District (ACWD) for lead agency oversight. A series of soil and groundwater investigations identified a source area beneath the drycleaner suite and an adjoining retail suite. A CAP submitted to ACWD in 2009 involves using in-situ chemical oxidation (ISCO) to remediate groundwater and vadose zone soil impacts within the source area.

Mare Island, 3rd and Connelly Utility Corridor—Vallejo, CA
Principal in Charge. Mr. Munger provided principal oversight during demolition and soil excavation activities. The project consisted of utility demolition and soil excavation activities

required to prepare for construction of a 300 – foot water and sewer utility corridor along Connelly Street between 3rd Street and Azuar Drive.

Ivy Glen (Former Tredegar)—Fremont, CA
Principal in Charge. Mr. Munger provided oversight of site characterizations, risk evaluations and groundwater monitoring for this for this former industrial facility. The property was a former industrial facility with documented soil and groundwater contamination. Risk assessments allowed redevelopment of the site as a single-family residential subdivision. Groundwater monitoring continues to date as a result of residual docs beneath the property.

County Crossings Property—Antioch, CA
Principal in Charge. Mr. Munger provided environmental consultation and data review with regard to soil and groundwater contamination. Constituents of concern include petroleum hydrocarbons, nitrates and manganese. The approximately 264 acre site includes several former industrial facilities and petroleum pipelines. Soil and groundwater at the site has been impacted with petroleum hydrocarbons, nitrates and manganese. Planned uses include commercial, residential, retail, and a BART-oriented transit village. The center, which is currently in the entitlement phase, is estimated to break ground in 2011.

Arroyo Crossing—Livermore, CA
Principal in Charge. Mr. Munger provided oversight, data analysis and regulatory consultation while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. This former corporation yard and quarry site was developed into a single-family residential subdivision.

620 North Ninth Street—San Jose, CA
Principal in Charge. Mr. Munger provided oversight of soil, groundwater and soil gad characterizations, risk evaluations and remedial action plan preparation. Mr. Munger also closely interacted with RWQCB staff to achieve approval for residential development. The property is a former fruit packing plant and food preparation facility. The proposed development consists of a single-family residential subdivision.

Former SFPP Alignment—Concord, CA
Project Manager. Mr. Munger prepared a Phase I and II environmental assessment for a ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad (SPRR). Kinder Morgan petroleum pipelines existed within an easement along the property. Work included the recovery of soil and groundwater samples along the SP right of way. The site was a former ± 6,500-foot corridor formerly occupied by the Southern Pacific Railroad. Kinder Morgan petroleum pipelines existed within an easement along the property. The southern portion of the site was crossed by East Bay Municipal Utilities District water distribution lines and a multi-lane highway overpass. The corridor was developed as a self-storage facility.

Gale Ranch Middle School—San Ramon, CA
Principal in Charge. Mr. Munger provided review and supervision of a Preliminary Endangerment Assessment prepared for this school site under the oversight of DTSC. This former site was developed into a public middle school.

Highlands Ranch—Antioch, CA
Principal in Charge. Mr. Munger provided oversight, data analysis, and collaboration with RWQCB personnel. The project site consists of a 140-acre portion of the former Chevron Los Medanos Tank Farm located in Pittsburg, California. The site was historically occupied by 24 crude oil tanks and four wax ponds. Remediation of the crude oil tank and wax pond locations was conducted according to a remedial action plan (RAP) and oversight was provided by the CRWQCB. Remediation was performed over a period of four months and consisted of excavating approximately 110,000 cubic yards of impacted soil and placing the material in windrows for ex-situ bioremediation.

Hercules Property—Hercules, CA
Project Manager. Mr. Munger provided oversight of a phase I environmental site assessment, site asbestos survey, site characterization, and demolition observation/contaminant assessment. The project area consists of ± 167 acres located near and along the southeastern shore of San Pablo Bay in Hercules. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development includes single/multi family residential development with some commercial components.

Gold Rush Ranch and Golf Resort—Sutter creek, CA
Principal in Charge. Mr. Munger provided principal oversight during the preparation of a preliminary endangerment report, including soil, groundwater and surface water sampling. The project site consists of 945 acres of undeveloped land located near the City of Sutter Creek, California. The proposed development plan for the site involves the Gold Rush Ranch and Golf Resort, which includes an 18-hole championship golf course, 1,334 new homes, a commercial center, and open space. The client has entered into a VCA with the Department of Toxic Substances Control (DTSC) to address historic mine tailings at the site. A PEA was prepared to evaluate human health risks associated with elevated arsenic in tailings, soil, and surface water at the site. The PEA was approved by DTSC in 2009. Based on the findings of the PEA, a removal action workplan (RAW) will be prepared to address the human health risks associated with the arsenic impacts.

1000 Howe Road—Martinez, CA
Principal in Charge. Mr. Munger provided oversight and analysis for this soil remediation project. Mr. Munger worked closely with RWQCB personnel to develop a cost effective and timely closure for site closure and approval for residential development. The site is occupied by a general engineering contractor and was a former bus leasing company. Improvements at the property included an office/warehouse structure and an equipment yard. The proposed development consists of a single-family residential subdivision.

E.2 - Phase II Environmental Site Assessment

Project No.
10237.000.000

June 27, 2013

Ms. Amanda Steinle
CenterPoint Integrated Solutions
1240 Bergen Parkway, Suite A-250
Evergreen, CO 80439

Subject: Proposed Carmax Automotive Dealership
I-580 and El Charro Road
Pleasanton, California

RESULTS OF STOCKPILE SAMPLING

Reference: ENGEO; Phase I Environmental Site Assessment, Proposed Carmax Automotive Dealership, I-580 and El Charro Road, Pleasanton, California, Project No. 10237, May 31, 2013.

Dear Ms. Steinle:

We are pleased to submit this document summarizing our environmental sampling services conducted at the subject property (Property) located south of I-580 and west of El Charro Road in Pleasanton, California (Figure 1). The purpose of the study was to conduct limited environmental sampling for the approximately 32,000 cubic yards of stockpiled soil currently on-site to determine if this soil may be reused without restriction at the Property.

BACKGROUND

ENGEO conducted a phase I environmental site assessment for the Property in May 2013. The approximately 19.77-acre Property is the western portion of the parcel identified as Assessor's Parcel Number (APN) 946-4623-1.

A soil stockpile (approximately 32,000 cubic yards) is currently situated on the central portion of the Property. Personal communication with Mr. Stuart Cook, Surplus Property Authority, Alameda County Community Development Agency confirmed that this soil stockpile is a part of a larger soil stockpile (about 125,000 cubic yards) that was placed in the mid-1990s by a residential developer (KB Home) in anticipation of future residential development. The precise origin of this material is unknown. He mentioned that approximately half of the stockpile was removed and utilized by the adjacent senior continuing care community development to the west as "select" fill in 2011-2012. Approximately half of what remained of the stockpile was recently moved to the adjacent vacant property to the east, leaving approximately 32,000 cubic yards of the stockpiled soil. The approximate location of the stockpile on the Property is shown on Figure 2.

We understand that the stockpile will remain on the Property and may be used for grading or other purposes. The remaining stockpiled soil has not been tested for possible environmental impacts. It has been characterized as "select" fill by previous geotechnical assessments performed on the Property. In addition, use of the soil in 2011-12 as fill on the adjacent senior continuing care development did not expose potential environmental concerns. Based on these findings, we did not recommend environmental sampling of the stockpile. However, Carmax has authorized ENGEO to undertake a limited environmental sampling study to determine if the remaining stockpiled soil may be reused without restriction at the Property.

SCOPE OF INVESTIGATION

A total of sixteen soil samples were collected from each of the four corners of the stockpile at locations presented on Figure 2. The soil samples were recovered from between 3 to 9 inches below the ground surface and placed into pre-cleaned, laboratory-supplied 8-ounce glass jars, Upon collection, a label was placed on each sample and included a unique sample number, sample location, time/date collected, laboratory analysis, and the sampler's identification. The soil samples were placed in an ice-cooled chest and submitted under documented chain-of-custody to TestAmerica Laboratories, Inc., a State-accredited analytical laboratory in Pleasanton, California.

Four samples were analyzed on a discrete basis for the presence of the following analytes:

- Volatile organic compounds (VOCs) using EPA Test Method 8260B.
- Total petroleum hydrocarbon as gasoline (TPH-g) by EPA Test Method 8260B.

The sixteen soil samples were composited into four 4-point composite samples by Test America, and analyzed for the presence of the following analytes:

- Organochlorine pesticides (OCPs) using EPA Test Method 8081.
- Title 22 heavy metals (CAM-17 metals) using EPA Method 6020.
- Total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as motor-oil (TPH-mo) by EPA Test Method 8015 with silica gel cleanup.

RESULTS AND DISCUSSION

As presented in Table A, TPH-g and VOCs were not detected in any of the discrete samples collected from the stockpile. OCPs and TPH-mo were not detected in any of the composite soil samples. TPH-d was detected at low concentrations in three of the four composite samples. In addition, several metals (including arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, zinc, and mercury) were detected in the four composite samples. However, all these detected concentrations were below their respective current San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) environmental screening levels (ESLs) for

residential land use (SFRWQCB ESLs, 2013: Table A-1 – Shallow Soil Screening Levels for Residential Land Use where Groundwater is a Potential Drinking Water Source) and/or typical background concentrations.

A summary of the analytical data is presented in Table A. The laboratory analysis data is presented in its entirety in Appendix A.

Based on the results of the laboratory analysis, the stockpiled soil can be reused without restriction at the Property.

If you have any questions regarding this report, please do not hesitate to contact us.

Sincerely,

ENGEO Incorporated

Divya Bhargava
Project Engineer

Brian Flaherty, CHG
Principal

db/bf/bvv

Attachments: Figures
Table A – Soil Analytical Data
Appendix A – Laboratory Analysis Report

FIGURES

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: BF	

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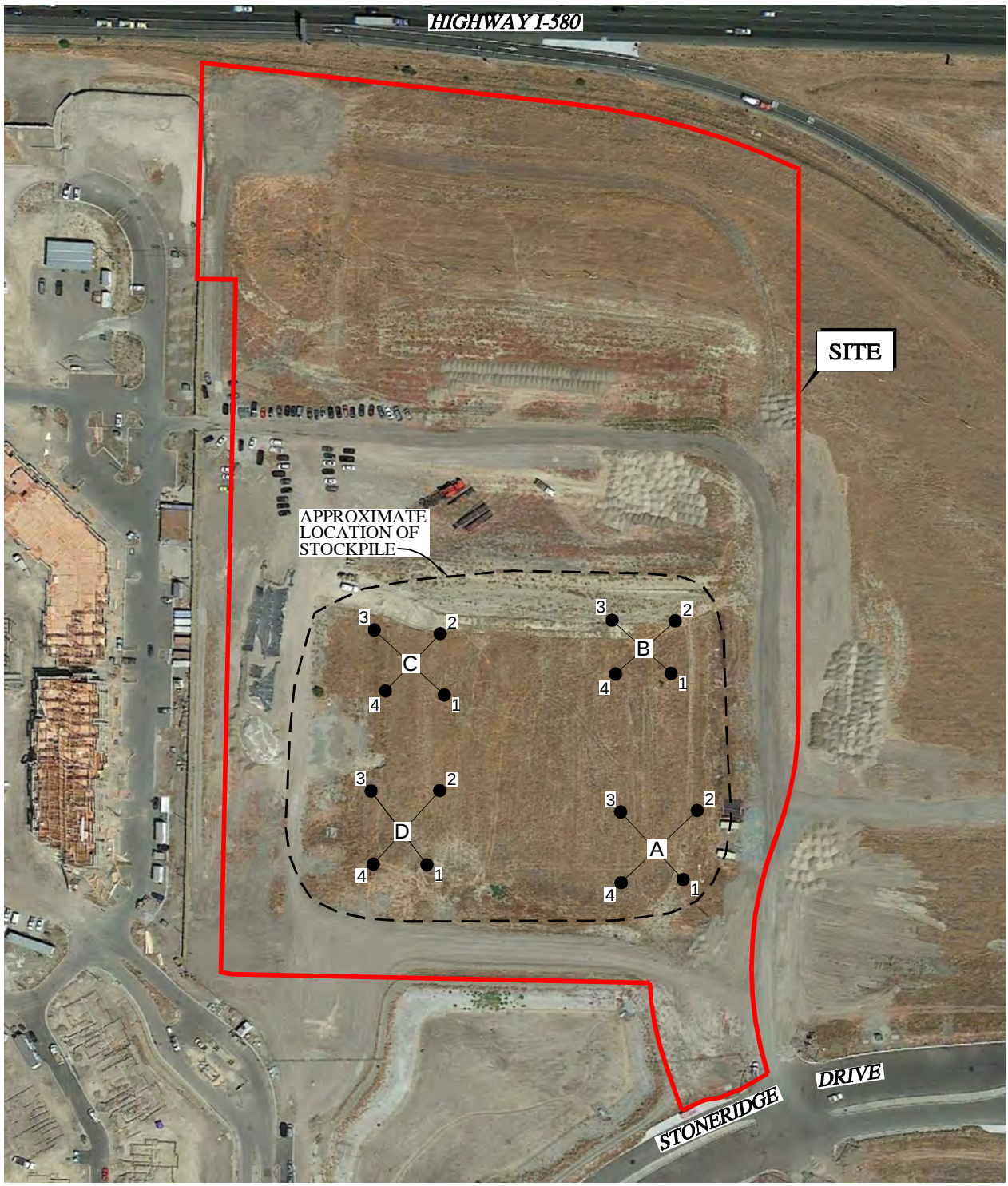
ORIGINAL FIGURE PRINTED IN COLOR



N

0 FEET 200
0 METERS 100

EXPLANATION

APPROXIMATE LOCATION OF COMPOSITE SOIL SAMPLE

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

SOIL SAMPLING LOCATIONS

PROPOSED CARMAX AUTOMOTIVE DEALERSHIP

PLEASANTON, CALIFORNIA

PROJECT NO.: 10237.000.000		FIGURE NO. 2
SCALE: AS SHOWN		
DRAWN BY: DLB	CHECKED BY: BF	

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ORIGINAL FIGURE PRINTED IN COLOR

Table A

Soil Analytical Data

10237.000.000
June 27, 2013

TABLE A

SOIL ANALYTICAL DATA

SAMPLE	DATE	DEPTH	Type of sample	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	OCPs	TPH-diesel	TPH-motor-oil	TPH-gasoline	VOCs
		(ft.)		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	µg/Kg	mg/Kg	mg/Kg	µg/Kg	µg/Kg
Screening Level[1]				**20**	**0.39**	**750**	**4**	**12**	**N/A**	**23**	**230**	**80**	**6.7**	**40**	**150**	**10**	**20**	**0.78**	**200**	**600**	**N/A**	**100**	**100**	**100**	**N/A**
A-1	6/13/2013	0.25-0.75	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
B-2	6/13/2013	0.25-0.75	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
C-3	6/13/2013	0.25-0.75	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
D-4	6/13/2013	0.25-0.75	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
A-1,2,3,4	6/13/2013	0.25-0.75	Composite	ND	4.8	740	0.45	ND	110	21	41	10	0.07	ND	160	ND	ND	ND	59	66	ND	ND	ND	NA	NA
B-1,2,3,4	6/13/2013	0.25-0.75	Composite	ND	4.7	600	ND	ND	89	17	35	7.7	0.096	ND	150	ND	ND	ND	56	55	ND	1.3	ND	NA	NA
C-1,2,3,4	6/13/2013	0.25-0.75	Composite	ND	ND	420	ND	ND	95	18	34	7.3	0.08	ND	170	ND	ND	ND	50	54	ND	1.4	ND	NA	NA
D-1,2,3,4	6/13/2013	0.25-0.75	Composite	ND	4.8	520	ND	ND	100	19	38	8.2	0.075	ND	170	ND	ND	ND	56	61	ND	1.1	ND	NA	NA

Notes:

NA = not analyzed

ND = not detected

[1] Regional Water Quality Control Board Environmental Screening Level for Residential Land Use - where Groundwater is a Current or Potential Drinking Water Source (Table A-1).

APPENDIX A

Laboratory Analysis Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50308-1
Client Project/Site: Carmax Pleasanton-Stockpile Sampling

For:
Engeo, Inc.
2010 Crow Canyon Place
Suite 250
San Ramon, California 94583

Attn: Mr. Richard Gandolfo

Authorized for release by:
6/20/2013 4:14:31 PM

Afsaneh Salimpour, Project Manager I
afsaneh.salimpour@testamericainc.com

Table of Contents

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
X	Surrogate is outside control limits
F	RPD of the MS and MSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Job ID: 720-50308-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50308-1

Comments
No additional comments.

Receipt
The samples were received on 6/13/2013 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 27.7º C.

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries and %RPD for batch #138451 were outside control limits. This is attributed to matrix interferences.

Method(s) 8260B: Internal standard response for the following sample 50308-AMS exceeded the lower control limit and confirmed by MSD. As such, the sample results may be biased high.

Method(s) 8260B: Internal standard response for the following sample 50308-19 exceeded the lower control limit and confirmed by reanalysis. As such, the sample results may be biased high.

Method(s) 8260B: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch #138526 recovered outside control limits for the following analytes: Acetone.

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No other analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

GC Semi VOA
No other analytical or quality issues were noted.

Metals

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1 — Lab Sample ID: 720-50308-1

No Detections.

Client Sample ID: A-1,2,3,4 — Lab Sample ID: 720-50308-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.8		3.8		mg/Kg	4		6010B	Total/NA
Barium	740		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.45		0.38		mg/Kg	4		6010B	Total/NA
Chromium	110		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	21		0.77		mg/Kg	4		6010B	Total/NA
Copper	41		5.8		mg/Kg	4		6010B	Total/NA
Lead	10		1.9		mg/Kg	4		6010B	Total/NA
Nickel	160		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	59		1.9		mg/Kg	4		6010B	Total/NA
Zinc	66		5.8		mg/Kg	4		6010B	Total/NA
Mercury	0.070		0.0094		mg/Kg	1		7471A	Total/NA

Client Sample ID: B-2 — Lab Sample ID: 720-50308-7

No Detections.

Client Sample ID: B-1,2,3,4 — Lab Sample ID: 720-50308-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.3		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Arsenic	4.7		3.8		mg/Kg	4		6010B	Total/NA
Barium	600		1.9		mg/Kg	4		6010B	Total/NA
Chromium	89		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	17		0.76		mg/Kg	4		6010B	Total/NA
Copper	35		5.7		mg/Kg	4		6010B	Total/NA
Lead	7.7		1.9		mg/Kg	4		6010B	Total/NA
Nickel	150		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	56		1.9		mg/Kg	4		6010B	Total/NA
Zinc	55		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.096		0.0090		mg/Kg	1		7471A	Total/NA

Client Sample ID: C-3 — Lab Sample ID: 720-50308-13

No Detections.

Client Sample ID: C-1,2,3,4 — Lab Sample ID: 720-50308-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.4		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Barium	420		1.9		mg/Kg	4		6010B	Total/NA
Chromium	95		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	18		0.76		mg/Kg	4		6010B	Total/NA
Copper	34		5.7		mg/Kg	4		6010B	Total/NA
Lead	7.3		1.9		mg/Kg	4		6010B	Total/NA
Nickel	170		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	50		1.9		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: C-1,2,3,4 (Continued)

Lab Sample ID: 720-50308-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	54		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.080		0.0088		mg/Kg	1		7471A	Total/NA

Client Sample ID: D-4

Lab Sample ID: 720-50308-19

No Detections.

Client Sample ID: D-1,2,3,4

Lab Sample ID: 720-50308-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	1.1		0.99		mg/Kg	1		8015B	Silica Gel Cleanup
Arsenic	4.8		3.8		mg/Kg	4		6010B	Total/NA
Barium	520		1.9		mg/Kg	4		6010B	Total/NA
Chromium	100		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	19		0.76		mg/Kg	4		6010B	Total/NA
Copper	38		5.7		mg/Kg	4		6010B	Total/NA
Lead	8.2		1.9		mg/Kg	4		6010B	Total/NA
Nickel	170		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	56		1.9		mg/Kg	4		6010B	Total/NA
Zinc	61		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.075		0.0097		mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1
Date Collected: 06/13/13 14:43
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-1
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Acetone	ND		50		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Benzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Dichlorobromomethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Bromobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chlorobromomethane	ND		20		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Bromoform	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Bromomethane	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
2-Butanone (MEK)	ND		50		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
n-Butylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
sec-Butylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
tert-Butylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Carbon disulfide	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Carbon tetrachloride	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chloroethane	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chloroform	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chloromethane	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
2-Chlorotoluene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
4-Chlorotoluene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Chlorodibromomethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,3-Dichloropropane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1-Dichloropropene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Ethylene Dibromide	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Dibromomethane	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Dichlorodifluoromethane	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1-Dichloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2-Dichloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1-Dichloroethene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2-Dichloropropane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Ethylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Hexachlorobutadiene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
2-Hexanone	ND		50		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Isopropylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
4-Isopropyltoluene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Methylene Chloride	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Naphthalene	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
N-Propylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Styrene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1
Date Collected: 06/13/13 14:43
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-1
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Tetrachloroethene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Toluene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Trichloroethene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Trichlorofluoromethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Vinyl acetate	ND		50		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Vinyl chloride	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Xylenes, Total	ND		10		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
2,2-Dichloropropane	ND		5.0		ug/Kg		06/17/13 17:31	06/17/13 19:10	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg		06/17/13 17:31	06/17/13 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*45 - 131*	*06/17/13 17:31*	*06/17/13 19:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*60 - 140*	*06/17/13 17:31*	*06/17/13 19:10*	*1*
Toluene-d8 (Surr)	*97*		*58 - 140*	*06/17/13 17:31*	*06/17/13 19:10*	*1*

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1,2,3,4
Date Collected: 06/13/13 14:43
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-5
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.98		mg/Kg		06/18/13 13:30	06/19/13 00:16	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		06/18/13 13:30	06/19/13 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.02*		*0 - 1*	*06/18/13 13:30*	*06/19/13 00:16*	*1*
p-Terphenyl	*95*		*38 - 148*	*06/18/13 13:30*	*06/19/13 00:16*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Dieldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endrin aldehyde	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endrin ketone	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Heptachlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Heptachlor epoxide	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
4,4'-DDT	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
4,4'-DDE	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
4,4'-DDD	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endosulfan I	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endosulfan II	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
alpha-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
beta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
delta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Methoxychlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Toxaphene	ND		40		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
Chlordane (technical)	ND		40		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
alpha-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1
gamma-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*57 - 122*	*06/15/13 13:45*	*06/17/13 22:22*	*1*
DCB Decachlorobiphenyl	*89*		*21 - 136*	*06/15/13 13:45*	*06/17/13 22:22*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 21:16	4
Arsenic	**4.8**		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Barium	**740**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Beryllium	**0.45**		0.38		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Cadmium	ND		0.48		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Chromium	**110**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Cobalt	**21**		0.77		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Copper	**41**		5.8		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Lead	**10**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Molybdenum	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Nickel	**160**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Selenium	ND		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:11	4

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1,2,3,4
Date Collected: 06/13/13 14:43
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-5
Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.96		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Thallium	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Vanadium	**59**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:11	4
Zinc	**66**		5.8		mg/Kg		06/14/13 13:14	06/17/13 15:11	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.070**		0.0094		mg/Kg		06/14/13 12:01	06/17/13 16:55	1

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: B-2
Date Collected: 06/13/13 15:07
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-7
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Acetone	ND	*	46		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Benzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Dichlorobromomethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Bromobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chlorobromomethane	ND		19		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Bromoform	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Bromomethane	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
2-Butanone (MEK)	ND		46		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
n-Butylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
sec-Butylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
tert-Butylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Carbon disulfide	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Carbon tetrachloride	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chloroethane	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chloroform	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chloromethane	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
2-Chlorotoluene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
4-Chlorotoluene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Chlorodibromomethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2-Dichlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,3-Dichlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,4-Dichlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,3-Dichloropropane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1-Dichloropropene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2-Dibromo-3-Chloropropane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Ethylene Dibromide	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Dibromomethane	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Dichlorodifluoromethane	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1-Dichloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2-Dichloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1-Dichloroethene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
cis-1,2-Dichloroethene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
trans-1,2-Dichloroethene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2-Dichloropropane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
cis-1,3-Dichloropropene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
trans-1,3-Dichloropropene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Ethylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Hexachlorobutadiene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
2-Hexanone	ND		46		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Isopropylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
4-Isopropyltoluene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Methylene Chloride	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
4-Methyl-2-pentanone (MIBK)	ND		46		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Naphthalene	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
N-Propylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Styrene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1,1,2-Tetrachloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: B-2
Date Collected: 06/13/13 15:07
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-7
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Tetrachloroethene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Toluene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2,3-Trichlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2,4-Trichlorobenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1,1-Trichloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1,2-Trichloroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Trichloroethene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Trichlorofluoromethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2,3-Trichloropropane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,2,4-Trimethylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
1,3,5-Trimethylbenzene	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Vinyl acetate	ND		46		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Vinyl chloride	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Xylenes, Total	ND		9.3		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
2,2-Dichloropropane	ND		4.6		ug/Kg		06/18/13 19:25	06/19/13 01:46	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		06/18/13 19:25	06/19/13 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*45 - 131*	*06/18/13 19:25*	*06/19/13 01:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*123*		*60 - 140*	*06/18/13 19:25*	*06/19/13 01:46*	*1*
Toluene-d8 (Surr)	*103*		*58 - 140*	*06/18/13 19:25*	*06/19/13 01:46*	*1*

Client Sample ID: B-1,2,3,4

Date Collected: 06/13/13 15:05
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-10

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1.3**		0.99		mg/Kg		06/18/13 13:30	06/19/13 00:40	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		06/18/13 13:30	06/19/13 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.02*		*0 - 1*	*06/18/13 13:30*	*06/19/13 00:40*	*1*
p-Terphenyl	*87*		*38 - 148*	*06/18/13 13:30*	*06/19/13 00:40*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Dieldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endrin aldehyde	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endrin ketone	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Heptachlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Heptachlor epoxide	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
4,4'-DDT	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
4,4'-DDE	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
4,4'-DDD	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endosulfan I	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endosulfan II	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
alpha-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
beta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
delta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Methoxychlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Toxaphene	ND		39		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
Chlordane (technical)	ND		39		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
alpha-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1
gamma-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*57 - 122*	*06/15/13 13:45*	*06/17/13 22:39*	*1*
DCB Decachlorobiphenyl	*91*		*21 - 136*	*06/15/13 13:45*	*06/17/13 22:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 21:21	4
Arsenic	**4.7**		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Barium	**600**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Beryllium	ND		0.38		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Cadmium	ND		0.48		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Chromium	**89**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Cobalt	**17**		0.76		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Copper	**35**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Lead	**7.7**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Molybdenum	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Nickel	**150**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Selenium	ND		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:24	4

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: B-1,2,3,4
Date Collected: 06/13/13 15:05
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-10
Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.95		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Thallium	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Vanadium	**56**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:24	4
Zinc	**55**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:24	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.096**		0.0090		mg/Kg		06/14/13 12:01	06/17/13 16:58	1

Client Sample ID: C-3
Date Collected: 06/13/13 15:22
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-13
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Acetone	ND	*	45		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Benzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Dichlorobromomethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Bromobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chlorobromomethane	ND		18		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Bromoform	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Bromomethane	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
2-Butanone (MEK)	ND		45		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
n-Butylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
sec-Butylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
tert-Butylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Carbon disulfide	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Carbon tetrachloride	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chloroethane	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chloroform	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chloromethane	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
2-Chlorotoluene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
4-Chlorotoluene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Chlorodibromomethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2-Dichlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,3-Dichlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,4-Dichlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,3-Dichloropropane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1-Dichloropropene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2-Dibromo-3-Chloropropane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Ethylene Dibromide	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Dibromomethane	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Dichlorodifluoromethane	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1-Dichloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2-Dichloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1-Dichloroethene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
cis-1,2-Dichloroethene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
trans-1,2-Dichloroethene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2-Dichloropropane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
cis-1,3-Dichloropropene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
trans-1,3-Dichloropropene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Ethylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Hexachlorobutadiene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
2-Hexanone	ND		45		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Isopropylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
4-Isopropyltoluene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Methylene Chloride	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
4-Methyl-2-pentanone (MIBK)	ND		45		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Naphthalene	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
N-Propylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Styrene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1,1,2-Tetrachloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: C-3
Date Collected: 06/13/13 15:22
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-13
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Tetrachloroethene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Toluene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2,3-Trichlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2,4-Trichlorobenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1,1-Trichloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1,2-Trichloroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Trichloroethene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Trichlorofluoromethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2,3-Trichloropropane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,2,4-Trimethylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
1,3,5-Trimethylbenzene	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Vinyl acetate	ND		45		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Vinyl chloride	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Xylenes, Total	ND		9.0		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
2,2-Dichloropropane	ND		4.5		ug/Kg		06/18/13 19:25	06/19/13 02:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		230		ug/Kg		06/18/13 19:25	06/19/13 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*45 - 131*	*06/18/13 19:25*	*06/19/13 02:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*60 - 140*	*06/18/13 19:25*	*06/19/13 02:14*	*1*
Toluene-d8 (Surr)	*101*		*58 - 140*	*06/18/13 19:25*	*06/19/13 02:14*	*1*

Client Sample ID: C-1,2,3,4
Date Collected: 06/13/13 15:17
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-15
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1.4**		0.99		mg/Kg		06/18/13 13:30	06/19/13 01:05	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		06/18/13 13:30	06/19/13 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.003*		*0 - 1*	*06/18/13 13:30*	*06/19/13 01:05*	*1*
p-Terphenyl	*83*		*38 - 148*	*06/18/13 13:30*	*06/19/13 01:05*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Dieldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endrin aldehyde	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endrin ketone	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Heptachlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Heptachlor epoxide	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
4,4'-DDT	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
4,4'-DDE	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
4,4'-DDD	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endosulfan I	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endosulfan II	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
alpha-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
beta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
delta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Methoxychlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Toxaphene	ND		40		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
Chlordane (technical)	ND		40		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
alpha-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1
gamma-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*57 - 122*	*06/15/13 13:45*	*06/17/13 22:56*	*1*
DCB Decachlorobiphenyl	*102*		*21 - 136*	*06/15/13 13:45*	*06/17/13 22:56*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Arsenic	ND		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Barium	**420**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Beryllium	ND		0.38		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Cadmium	ND		0.48		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Chromium	**95**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Cobalt	**18**		0.76		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Copper	**34**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Lead	**7.3**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Molybdenum	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Nickel	**170**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Selenium	ND		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:28	4

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: C-1,2,3,4
Date Collected: 06/13/13 15:17
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-15
Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.95		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Thallium	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Vanadium	**50**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:28	4
Zinc	**54**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:28	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.080**		0.0088		mg/Kg		06/14/13 12:01	06/17/13 17:00	1

Client Sample ID: D-4
Date Collected: 06/13/13 15:40
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-19
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Acetone	ND	*	48		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Benzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Dichlorobromomethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Bromobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chlorobromomethane	ND		19		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Bromoform	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Bromomethane	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
2-Butanone (MEK)	ND		48		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
n-Butylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
sec-Butylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
tert-Butylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Carbon disulfide	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Carbon tetrachloride	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chloroethane	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chloroform	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chloromethane	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
2-Chlorotoluene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
4-Chlorotoluene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Chlorodibromomethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2-Dichlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,3-Dichlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,4-Dichlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,3-Dichloropropane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1-Dichloropropene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2-Dibromo-3-Chloropropane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Ethylene Dibromide	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Dibromomethane	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Dichlorodifluoromethane	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1-Dichloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2-Dichloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1-Dichloroethene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
cis-1,2-Dichloroethene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
trans-1,2-Dichloroethene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2-Dichloropropane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
cis-1,3-Dichloropropene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
trans-1,3-Dichloropropene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Ethylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Hexachlorobutadiene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
2-Hexanone	ND		48		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Isopropylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
4-Isopropyltoluene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Methylene Chloride	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
4-Methyl-2-pentanone (MIBK)	ND		48		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Naphthalene	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
N-Propylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Styrene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1,1,2-Tetrachloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: D-4
Date Collected: 06/13/13 15:40
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-19
Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Tetrachloroethene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Toluene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2,3-Trichlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2,4-Trichlorobenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1,1-Trichloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1,2-Trichloroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Trichloroethene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Trichlorofluoromethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2,3-Trichloropropane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,2,4-Trimethylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
1,3,5-Trimethylbenzene	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Vinyl acetate	ND		48		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Vinyl chloride	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Xylenes, Total	ND		9.6		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
2,2-Dichloropropane	ND		4.8		ug/Kg		06/18/13 19:25	06/19/13 02:42	1
Gasoline Range Organics (GRO) -C5-C12	ND		240		ug/Kg		06/18/13 19:25	06/19/13 02:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*45 - 131*	*06/18/13 19:25*	*06/19/13 02:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*125*		*60 - 140*	*06/18/13 19:25*	*06/19/13 02:42*	*1*
Toluene-d8 (Surr)	*100*		*58 - 140*	*06/18/13 19:25*	*06/19/13 02:42*	*1*

Client Sample ID: D-1,2,3,4

Date Collected: 06/13/13 15:30
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-20

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**1.1**		0.99		mg/Kg		06/18/13 13:30	06/19/13 01:29	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		06/18/13 13:30	06/19/13 01:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 1*	*06/18/13 13:30*	*06/19/13 01:29*	*1*
p-Terphenyl	*77*		*38 - 148*	*06/18/13 13:30*	*06/19/13 01:29*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Dieldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endrin aldehyde	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endrin ketone	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Heptachlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Heptachlor epoxide	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
4,4'-DDT	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
4,4'-DDE	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
4,4'-DDD	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endosulfan I	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endosulfan II	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
alpha-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
beta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
delta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Methoxychlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Toxaphene	ND		39		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
Chlordane (technical)	ND		39		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
alpha-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1
gamma-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*57 - 122*	*06/15/13 13:45*	*06/17/13 23:13*	*1*
DCB Decachlorobiphenyl	*102*		*21 - 136*	*06/15/13 13:45*	*06/17/13 23:13*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Arsenic	**4.8**		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Barium	**520**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Beryllium	ND		0.38		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Cadmium	ND		0.48		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Chromium	**100**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Cobalt	**19**		0.76		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Copper	**38**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Lead	**8.2**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Molybdenum	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Nickel	**170**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Selenium	ND		3.8		mg/Kg		06/14/13 13:14	06/17/13 15:33	4

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: D-1,2,3,4
Date Collected: 06/13/13 15:30
Date Received: 06/13/13 15:50

Lab Sample ID: 720-50308-20
Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.95		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Thallium	ND		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Vanadium	**56**		1.9		mg/Kg		06/14/13 13:14	06/17/13 15:33	4
Zinc	**61**		5.7		mg/Kg		06/14/13 13:14	06/17/13 15:33	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.075**		0.0097		mg/Kg		06/14/13 12:01	06/17/13 17:02	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-138451/5
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg			06/17/13 15:30	1
Acetone	ND		50		ug/Kg			06/17/13 15:30	1
Benzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Dichlorobromomethane	ND		5.0		ug/Kg			06/17/13 15:30	1
Bromobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Chlorobromomethane	ND		20		ug/Kg			06/17/13 15:30	1
Bromoform	ND		5.0		ug/Kg			06/17/13 15:30	1
Bromomethane	ND		10		ug/Kg			06/17/13 15:30	1
2-Butanone (MEK)	ND		50		ug/Kg			06/17/13 15:30	1
n-Butylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
sec-Butylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
tert-Butylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Carbon disulfide	ND		5.0		ug/Kg			06/17/13 15:30	1
Carbon tetrachloride	ND		5.0		ug/Kg			06/17/13 15:30	1
Chlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Chloroethane	ND		10		ug/Kg			06/17/13 15:30	1
Chloroform	ND		5.0		ug/Kg			06/17/13 15:30	1
Chloromethane	ND		10		ug/Kg			06/17/13 15:30	1
2-Chlorotoluene	ND		5.0		ug/Kg			06/17/13 15:30	1
4-Chlorotoluene	ND		5.0		ug/Kg			06/17/13 15:30	1
Chlorodibromomethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,3-Dichloropropane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1-Dichloropropene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			06/17/13 15:30	1
Ethylene Dibromide	ND		5.0		ug/Kg			06/17/13 15:30	1
Dibromomethane	ND		10		ug/Kg			06/17/13 15:30	1
Dichlorodifluoromethane	ND		10		ug/Kg			06/17/13 15:30	1
1,1-Dichloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2-Dichloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1-Dichloroethene	ND		5.0		ug/Kg			06/17/13 15:30	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			06/17/13 15:30	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2-Dichloropropane	ND		5.0		ug/Kg			06/17/13 15:30	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			06/17/13 15:30	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			06/17/13 15:30	1
Ethylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Hexachlorobutadiene	ND		5.0		ug/Kg			06/17/13 15:30	1
2-Hexanone	ND		50		ug/Kg			06/17/13 15:30	1
Isopropylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
4-Isopropyltoluene	ND		5.0		ug/Kg			06/17/13 15:30	1
Methylene Chloride	ND		10		ug/Kg			06/17/13 15:30	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			06/17/13 15:30	1
Naphthalene	ND		10		ug/Kg			06/17/13 15:30	1
N-Propylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Styrene	ND		5.0		ug/Kg			06/17/13 15:30	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-138451/5
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
Tetrachloroethene	ND		5.0		ug/Kg			06/17/13 15:30	1
Toluene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
Trichloroethene	ND		5.0		ug/Kg			06/17/13 15:30	1
Trichlorofluoromethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			06/17/13 15:30	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			06/17/13 15:30	1
Vinyl acetate	ND		50		ug/Kg			06/17/13 15:30	1
Vinyl chloride	ND		5.0		ug/Kg			06/17/13 15:30	1
Xylenes, Total	ND		10		ug/Kg			06/17/13 15:30	1
2,2-Dichloropropane	ND		5.0		ug/Kg			06/17/13 15:30	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg			06/17/13 15:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*45 - 131*		*06/17/13 15:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*60 - 140*		*06/17/13 15:30*	*1*
Toluene-d8 (Surr)	*97*		*58 - 140*		*06/17/13 15:30*	*1*

Lab Sample ID: LCS 720-138451/6
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	54.2		ug/Kg		108	70 - 144
Acetone	250	224		ug/Kg		90	30 - 162
Benzene	50.0	49.2		ug/Kg		98	70 - 130
Dichlorobromomethane	50.0	54.0		ug/Kg		108	70 - 131
Bromobenzene	50.0	51.7		ug/Kg		103	70 - 130
Chlorobromomethane	50.0	52.1		ug/Kg		104	70 - 130
Bromoform	50.0	55.4		ug/Kg		111	59 - 158
Bromomethane	50.0	52.2		ug/Kg		104	59 - 132
2-Butanone (MEK)	250	254		ug/Kg		102	53 - 124
n-Butylbenzene	50.0	54.1		ug/Kg		108	70 - 142
sec-Butylbenzene	50.0	54.0		ug/Kg		108	70 - 136
tert-Butylbenzene	50.0	54.2		ug/Kg		108	70 - 130
Carbon disulfide	50.0	49.6		ug/Kg		99	60 - 140
Carbon tetrachloride	50.0	54.7		ug/Kg		109	70 - 138
Chlorobenzene	50.0	51.1		ug/Kg		102	70 - 130
Chloroethane	50.0	51.0		ug/Kg		102	65 - 130
Chloroform	50.0	52.4		ug/Kg		105	77 - 127

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-138451/6
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	50.0	41.8		ug/Kg		84	55 - 140
2-Chlorotoluene	50.0	54.8		ug/Kg		110	70 - 138
4-Chlorotoluene	50.0	54.3		ug/Kg		109	70 - 136
Chlorodibromomethane	50.0	47.1		ug/Kg		94	70 - 146
1,2-Dichlorobenzene	50.0	49.8		ug/Kg		100	70 - 130
1,3-Dichlorobenzene	50.0	52.1		ug/Kg		104	70 - 131
1,4-Dichlorobenzene	50.0	52.2		ug/Kg		104	70 - 130
1,3-Dichloropropane	50.0	56.2		ug/Kg		112	70 - 140
1,1-Dichloropropene	50.0	54.1		ug/Kg		108	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/Kg		107	60 - 145
Ethylene Dibromide	50.0	57.3		ug/Kg		115	70 - 140
Dibromomethane	50.0	53.0		ug/Kg		106	70 - 139
Dichlorodifluoromethane	50.0	41.5		ug/Kg		83	37 - 158
1,1-Dichloroethane	50.0	48.1		ug/Kg		96	70 - 130
1,2-Dichloroethane	50.0	50.6		ug/Kg		101	70 - 130
1,1-Dichloroethene	50.0	44.3		ug/Kg		89	76 - 122
cis-1,2-Dichloroethene	50.0	51.8		ug/Kg		104	70 - 138
trans-1,2-Dichloroethene	50.0	47.7		ug/Kg		95	67 - 130
1,2-Dichloropropane	50.0	50.0		ug/Kg		100	73 - 127
cis-1,3-Dichloropropene	50.0	53.9		ug/Kg		108	68 - 147
trans-1,3-Dichloropropene	50.0	47.8		ug/Kg		96	70 - 136
Ethylbenzene	50.0	53.2		ug/Kg		106	80 - 137
Hexachlorobutadiene	50.0	46.4		ug/Kg		93	70 - 132
2-Hexanone	250	257		ug/Kg		103	44 - 133
Isopropylbenzene	50.0	57.7		ug/Kg		115	88 - 128
4-Isopropyltoluene	50.0	53.4		ug/Kg		107	70 - 133
Methylene Chloride	50.0	42.1		ug/Kg		84	70 - 134
4-Methyl-2-pentanone (MIBK)	250	257		ug/Kg		103	60 - 160
Naphthalene	50.0	51.1		ug/Kg		102	60 - 147
N-Propylbenzene	50.0	56.2		ug/Kg		112	70 - 130
Styrene	50.0	46.9		ug/Kg		94	70 - 130
1,1,1,2-Tetrachloroethane	50.0	51.5		ug/Kg		103	70 - 130
1,1,2,2-Tetrachloroethane	50.0	55.5		ug/Kg		111	70 - 146
Tetrachloroethene	50.0	52.5		ug/Kg		105	70 - 132
Toluene	50.0	50.5		ug/Kg		101	80 - 128
1,2,3-Trichlorobenzene	50.0	48.2		ug/Kg		96	60 - 140
1,2,4-Trichlorobenzene	50.0	48.4		ug/Kg		97	60 - 140
1,1,1-Trichloroethane	50.0	52.8		ug/Kg		106	70 - 130
1,1,2-Trichloroethane	50.0	54.8		ug/Kg		110	70 - 130
Trichloroethene	50.0	50.6		ug/Kg		101	70 - 133
Trichlorofluoromethane	50.0	55.5		ug/Kg		111	60 - 140
1,2,3-Trichloropropane	50.0	56.2		ug/Kg		112	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.6		ug/Kg		93	60 - 140
1,2,4-Trimethylbenzene	50.0	55.8		ug/Kg		112	70 - 130
1,3,5-Trimethylbenzene	50.0	56.2		ug/Kg		112	70 - 131
Vinyl acetate	50.0	56.4		ug/Kg		113	38 - 176
Vinyl chloride	50.0	47.6		ug/Kg		95	58 - 125

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-138451/6
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	100	114		ug/Kg		114	70 - 146
o-Xylene	50.0	56.7		ug/Kg		113	70 - 140
2,2-Dichloropropane	50.0	60.6		ug/Kg		121	70 - 162

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*104*		*58 - 140*

Lab Sample ID: LCS 720-138451/8
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	977		ug/Kg		98	61 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*108*		*60 - 140*
Toluene-d8 (Surr)	*105*		*58 - 140*

Lab Sample ID: LCSD 720-138451/7
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	50.0	55.1		ug/Kg		110	70 - 144	2	20
Acetone	250	221		ug/Kg		89	30 - 162	1	30
Benzene	50.0	48.5		ug/Kg		97	70 - 130	1	20
Dichlorobromomethane	50.0	55.0		ug/Kg		110	70 - 131	2	20
Bromobenzene	50.0	52.5		ug/Kg		105	70 - 130	1	20
Chlorobromomethane	50.0	51.9		ug/Kg		104	70 - 130	0	20
Bromoform	50.0	56.2		ug/Kg		112	59 - 158	1	20
Bromomethane	50.0	51.9		ug/Kg		104	59 - 132	1	20
2-Butanone (MEK)	250	278		ug/Kg		111	53 - 124	9	20
n-Butylbenzene	50.0	53.7		ug/Kg		107	70 - 142	1	20
sec-Butylbenzene	50.0	53.7		ug/Kg		107	70 - 136	1	20
tert-Butylbenzene	50.0	53.6		ug/Kg		107	70 - 130	1	20
Carbon disulfide	50.0	49.7		ug/Kg		99	60 - 140	0	20
Carbon tetrachloride	50.0	53.4		ug/Kg		107	70 - 138	2	20
Chlorobenzene	50.0	51.1		ug/Kg		102	70 - 130	0	20
Chloroethane	50.0	49.4		ug/Kg		99	65 - 130	3	20
Chloroform	50.0	52.3		ug/Kg		105	77 - 127	0	20
Chloromethane	50.0	41.8		ug/Kg		84	55 - 140	0	20
2-Chlorotoluene	50.0	55.2		ug/Kg		110	70 - 138	1	20
4-Chlorotoluene	50.0	54.8		ug/Kg		110	70 - 136	1	20
Chlorodibromomethane	50.0	47.4		ug/Kg		95	70 - 146	1	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-138451/7
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	50.0	50.7		ug/Kg		101	70 - 130	2	20
1,3-Dichlorobenzene	50.0	52.7		ug/Kg		105	70 - 131	1	20
1,4-Dichlorobenzene	50.0	52.8		ug/Kg		106	70 - 130	1	20
1,3-Dichloropropane	50.0	55.6		ug/Kg		111	70 - 140	1	20
1,1-Dichloropropene	50.0	53.8		ug/Kg		108	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	50.0	55.5		ug/Kg		111	60 - 145	4	20
Ethylene Dibromide	50.0	56.7		ug/Kg		113	70 - 140	1	20
Dibromomethane	50.0	53.3		ug/Kg		107	70 - 139	1	20
Dichlorodifluoromethane	50.0	40.6		ug/Kg		81	37 - 158	2	20
1,1-Dichloroethane	50.0	47.6		ug/Kg		95	70 - 130	1	20
1,2-Dichloroethane	50.0	50.6		ug/Kg		101	70 - 130	0	20
1,1-Dichloroethene	50.0	44.3		ug/Kg		89	76 - 122	0	20
cis-1,2-Dichloroethene	50.0	51.7		ug/Kg		103	70 - 138	0	20
trans-1,2-Dichloroethene	50.0	47.9		ug/Kg		96	67 - 130	0	20
1,2-Dichloropropane	50.0	49.8		ug/Kg		100	73 - 127	1	20
cis-1,3-Dichloropropene	50.0	54.7		ug/Kg		109	68 - 147	1	20
trans-1,3-Dichloropropene	50.0	48.2		ug/Kg		96	70 - 136	1	20
Ethylbenzene	50.0	52.7		ug/Kg		105	80 - 137	1	20
Hexachlorobutadiene	50.0	45.9		ug/Kg		92	70 - 132	1	20
2-Hexanone	250	264		ug/Kg		106	44 - 133	3	20
Isopropylbenzene	50.0	56.7		ug/Kg		113	88 - 128	2	20
4-Isopropyltoluene	50.0	53.3		ug/Kg		107	70 - 133	0	20
Methylene Chloride	50.0	41.5		ug/Kg		83	70 - 134	1	20
4-Methyl-2-pentanone (MIBK)	250	267		ug/Kg		107	60 - 160	4	20
Naphthalene	50.0	52.2		ug/Kg		104	60 - 147	2	20
N-Propylbenzene	50.0	57.1		ug/Kg		114	70 - 130	2	20
Styrene	50.0	46.4		ug/Kg		93	70 - 130	1	20
1,1,1,2-Tetrachloroethane	50.0	51.6		ug/Kg		103	70 - 130	0	20
1,1,2,2-Tetrachloroethane	50.0	57.6		ug/Kg		115	70 - 146	4	20
Tetrachloroethene	50.0	52.4		ug/Kg		105	70 - 132	0	20
Toluene	50.0	51.1		ug/Kg		102	80 - 128	1	20
1,2,3-Trichlorobenzene	50.0	48.2		ug/Kg		96	60 - 140	0	20
1,2,4-Trichlorobenzene	50.0	47.2		ug/Kg		94	60 - 140	2	20
1,1,1-Trichloroethane	50.0	52.7		ug/Kg		105	70 - 130	0	20
1,1,2-Trichloroethane	50.0	54.4		ug/Kg		109	70 - 130	1	20
Trichloroethene	50.0	50.8		ug/Kg		102	70 - 133	0	20
Trichlorofluoromethane	50.0	54.2		ug/Kg		108	60 - 140	2	20
1,2,3-Trichloropropane	50.0	58.7		ug/Kg		117	70 - 146	4	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	47.5		ug/Kg		95	60 - 140	2	20
1,2,4-Trimethylbenzene	50.0	55.7		ug/Kg		111	70 - 130	0	20
1,3,5-Trimethylbenzene	50.0	56.4		ug/Kg		113	70 - 131	0	20
Vinyl acetate	50.0	59.1		ug/Kg		118	38 - 176	5	20
Vinyl chloride	50.0	46.8		ug/Kg		94	58 - 125	2	20
m-Xylene & p-Xylene	100	112		ug/Kg		112	70 - 146	1	20
o-Xylene	50.0	56.5		ug/Kg		113	70 - 140	0	20
2,2-Dichloropropane	50.0	58.3		ug/Kg		117	70 - 162	4	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-138451/7
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		45 - 131
1,2-Dichloroethane-d4 (Surr)	101		60 - 140
Toluene-d8 (Surr)	103		58 - 140

Lab Sample ID: LCSD 720-138451/9
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			1000	963		ug/Kg		96	61 - 128	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	94		45 - 131
1,2-Dichloroethane-d4 (Surr)	104		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: 720-50308-1 MS
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: A-1
Prep Type: Total/NA
Prep Batch: 138468

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		50.0	68.1	F	ug/Kg		136	69 - 130
Acetone	ND		250	373		ug/Kg		149	37 - 150
Benzene	ND		50.0	54.7		ug/Kg		109	70 - 130
Dichlorobromomethane	ND		50.0	59.2		ug/Kg		118	64 - 135
Bromobenzene	ND		50.0	54.5		ug/Kg		109	70 - 130
Chlorobromomethane	ND		50.0	62.8		ug/Kg		126	65 - 130
Bromoform	ND		50.0	59.2		ug/Kg		118	58 - 132
Bromomethane	ND		50.0	52.8		ug/Kg		106	56 - 130
2-Butanone (MEK)	ND		250	324		ug/Kg		129	41 - 150
n-Butylbenzene	ND		50.0	49.5		ug/Kg		99	60 - 145
sec-Butylbenzene	ND		50.0	52.1		ug/Kg		104	64 - 137
tert-Butylbenzene	ND		50.0	52.3		ug/Kg		105	63 - 134
Carbon disulfide	ND		50.0	46.8		ug/Kg		94	10 - 150
Carbon tetrachloride	ND		50.0	52.8		ug/Kg		106	54 - 130
Chlorobenzene	ND		50.0	54.9		ug/Kg		110	70 - 130
Chloroethane	ND		50.0	52.1		ug/Kg		104	61 - 130
Chloroform	ND		50.0	58.5		ug/Kg		117	67 - 130
Chloromethane	ND		50.0	44.5		ug/Kg		89	50 - 131
2-Chlorotoluene	ND		50.0	54.7		ug/Kg		109	70 - 130
4-Chlorotoluene	ND		50.0	54.5		ug/Kg		109	70 - 130
Chlorodibromomethane	ND		50.0	52.4		ug/Kg		105	60 - 141
1,2-Dichlorobenzene	ND		50.0	53.4		ug/Kg		107	70 - 130
1,3-Dichlorobenzene	ND		50.0	53.4		ug/Kg		107	70 - 130
1,4-Dichlorobenzene	ND		50.0	53.9		ug/Kg		108	70 - 130
1,3-Dichloropropane	ND		50.0	66.0	F	ug/Kg		132	70 - 130
1,1-Dichloropropene	ND		50.0	54.6		ug/Kg		109	67 - 130

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-50308-1 MS
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: A-1
Prep Type: Total/NA
Prep Batch: 138468

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	ND		50.0	63.5		ug/Kg		127	57 - 130
Ethylene Dibromide	ND		50.0	69.4	F	ug/Kg		139	66 - 135
Dibromomethane	ND		50.0	66.2	F	ug/Kg		132	65 - 131
Dichlorodifluoromethane	ND		50.0	40.4		ug/Kg		81	38 - 130
1,1-Dichloroethane	ND		50.0	52.4		ug/Kg		105	67 - 130
1,2-Dichloroethane	ND		50.0	65.1		ug/Kg		130	70 - 130
1,1-Dichloroethene	ND		50.0	48.7		ug/Kg		97	64 - 130
cis-1,2-Dichloroethene	ND		50.0	56.6		ug/Kg		113	68 - 131
trans-1,2-Dichloroethene	ND		50.0	52.2		ug/Kg		104	70 - 130
1,2-Dichloropropane	ND		50.0	57.3		ug/Kg		115	65 - 133
cis-1,3-Dichloropropene	ND		50.0	56.3		ug/Kg		113	46 - 139
trans-1,3-Dichloropropene	ND		50.0	49.7		ug/Kg		99	55 - 131
Ethylbenzene	ND		50.0	55.5		ug/Kg		111	65 - 130
Hexachlorobutadiene	ND		50.0	41.3		ug/Kg		83	58 - 132
2-Hexanone	ND		250	254		ug/Kg		101	44 - 150
Isopropylbenzene	ND		50.0	58.0		ug/Kg		116	65 - 130
4-Isopropyltoluene	ND		50.0	51.1		ug/Kg		102	69 - 134
Methylene Chloride	ND		50.0	51.6		ug/Kg		103	63 - 130
4-Methyl-2-pentanone (MIBK)	ND		250	286		ug/Kg		114	51 - 140
Naphthalene	ND		50.0	46.0		ug/Kg		92	45 - 146
N-Propylbenzene	ND		50.0	54.0		ug/Kg		108	70 - 130
Styrene	ND		50.0	44.8		ug/Kg		90	58 - 135
1,1,1,2-Tetrachloroethane	ND		50.0	56.8		ug/Kg		114	64 - 133
1,1,2,2-Tetrachloroethane	ND		50.0	63.4		ug/Kg		127	70 - 131
Tetrachloroethene	ND		50.0	53.8		ug/Kg		108	67 - 130
Toluene	ND		50.0	52.8		ug/Kg		106	70 - 130
1,2,3-Trichlorobenzene	ND		50.0	42.8		ug/Kg		86	58 - 138
1,2,4-Trichlorobenzene	ND		50.0	43.6		ug/Kg		87	49 - 144
1,1,1-Trichloroethane	ND		50.0	54.0		ug/Kg		108	57 - 133
1,1,2-Trichloroethane	ND		50.0	68.4	F	ug/Kg		137	68 - 132
Trichloroethene	ND		50.0	54.5		ug/Kg		109	66 - 130
Trichlorofluoromethane	ND		50.0	53.1		ug/Kg		106	61 - 130
1,2,3-Trichloropropane	ND		50.0	67.3		ug/Kg		135	62 - 150
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	49.9		ug/Kg		100	52 - 130
1,2,4-Trimethylbenzene	ND		50.0	56.1		ug/Kg		112	64 - 140
1,3,5-Trimethylbenzene	ND		50.0	53.8		ug/Kg		108	67 - 134
Vinyl acetate	ND		50.0	ND	F	ug/Kg		21	52 - 150
Vinyl chloride	ND		50.0	49.5		ug/Kg		99	62 - 130
m-Xylene & p-Xylene	ND		100	117		ug/Kg		117	70 - 130
o-Xylene	ND		50.0	60.1		ug/Kg		120	68 - 130
2,2-Dichloropropane	ND		50.0	70.8	F	ug/Kg		142	63 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*128*		*60 - 140*
Toluene-d8 (Surr)	*99*		*58 - 140*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-50308-1 MSD
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: A-1
Prep Type: Total/NA
Prep Batch: 138468

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	ND		49.3	72.1	F	ug/Kg		146	69 - 130	6	20
Acetone	ND		247	388	F	ug/Kg		157	37 - 150	4	20
Benzene	ND		49.3	51.9		ug/Kg		105	70 - 130	5	20
Dichlorobromomethane	ND		49.3	56.9		ug/Kg		115	64 - 135	4	20
Bromobenzene	ND		49.3	56.4		ug/Kg		114	70 - 130	3	20
Chlorobromomethane	ND		49.3	69.0	F	ug/Kg		140	65 - 130	9	20
Bromoform	ND		49.3	51.2		ug/Kg		104	58 - 132	14	20
Bromomethane	ND		49.3	46.9		ug/Kg		95	56 - 130	12	20
2-Butanone (MEK)	ND		247	349		ug/Kg		142	41 - 150	8	20
n-Butylbenzene	ND		49.3	45.7		ug/Kg		93	60 - 145	8	20
sec-Butylbenzene	ND		49.3	49.7		ug/Kg		101	64 - 137	5	20
tert-Butylbenzene	ND		49.3	50.4		ug/Kg		102	63 - 134	4	20
Carbon disulfide	ND		49.3	40.6		ug/Kg		82	10 - 150	14	20
Carbon tetrachloride	ND		49.3	44.4		ug/Kg		90	54 - 130	17	20
Chlorobenzene	ND		49.3	52.5		ug/Kg		106	70 - 130	5	20
Chloroethane	ND		49.3	35.3	F	ug/Kg		72	61 - 130	38	20
Chloroform	ND		49.3	57.7		ug/Kg		117	67 - 130	1	20
Chloromethane	ND		49.3	42.2		ug/Kg		86	50 - 131	5	20
2-Chlorotoluene	ND		49.3	55.5		ug/Kg		113	70 - 130	2	20
4-Chlorotoluene	ND		49.3	54.9		ug/Kg		111	70 - 130	1	20
Chlorodibromomethane	ND		49.3	50.6		ug/Kg		103	60 - 141	4	20
1,2-Dichlorobenzene	ND		49.3	53.2		ug/Kg		108	70 - 130	0	20
1,3-Dichlorobenzene	ND		49.3	54.4		ug/Kg		110	70 - 130	2	20
1,4-Dichlorobenzene	ND		49.3	54.8		ug/Kg		111	70 - 130	2	20
1,3-Dichloropropane	ND		49.3	71.8	F	ug/Kg		146	70 - 130	8	20
1,1-Dichloropropene	ND		49.3	47.2		ug/Kg		96	67 - 130	14	20
1,2-Dibromo-3-Chloropropane	ND		49.3	61.8		ug/Kg		125	57 - 130	3	20
Ethylene Dibromide	ND		49.3	76.8	F	ug/Kg		156	66 - 135	10	20
Dibromomethane	ND		49.3	68.9	F	ug/Kg		140	65 - 131	4	20
Dichlorodifluoromethane	ND		49.3	37.3		ug/Kg		76	38 - 130	8	20
1,1-Dichloroethane	ND		49.3	50.2		ug/Kg		102	67 - 130	4	20
1,2-Dichloroethane	ND		49.3	71.7	F	ug/Kg		145	70 - 130	10	20
1,1-Dichloroethene	ND		49.3	41.7		ug/Kg		85	64 - 130	15	20
cis-1,2-Dichloroethene	ND		49.3	55.3		ug/Kg		112	68 - 131	2	20
trans-1,2-Dichloroethene	ND		49.3	47.8		ug/Kg		97	70 - 130	9	20
1,2-Dichloropropane	ND		49.3	55.4		ug/Kg		112	65 - 133	3	20
cis-1,3-Dichloropropene	ND		49.3	53.0		ug/Kg		107	46 - 139	6	20
trans-1,3-Dichloropropene	ND		49.3	47.2		ug/Kg		96	55 - 131	5	20
Ethylbenzene	ND		49.3	50.5		ug/Kg		102	65 - 130	9	20
Hexachlorobutadiene	ND		49.3	44.7		ug/Kg		91	58 - 132	8	20
2-Hexanone	ND		247	224		ug/Kg		91	44 - 150	12	20
Isopropylbenzene	ND		49.3	49.3		ug/Kg		100	65 - 130	16	20
4-Isopropyltoluene	ND		49.3	48.4		ug/Kg		98	69 - 134	6	20
Methylene Chloride	ND		49.3	53.4		ug/Kg		108	63 - 130	3	20
4-Methyl-2-pentanone (MIBK)	ND		247	299		ug/Kg		121	51 - 140	5	20
Naphthalene	ND		49.3	43.8		ug/Kg		89	45 - 146	5	20
N-Propylbenzene	ND		49.3	50.9		ug/Kg		103	70 - 130	6	20
Styrene	ND		49.3	35.2	F	ug/Kg		71	58 - 135	24	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: 720-50308-1 MSD
Matrix: Solid
Analysis Batch: 138451

Client Sample ID: A-1
Prep Type: Total/NA
Prep Batch: 138468

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		49.3	52.2		ug/Kg		106	64 - 133	9	20
1,1,2,2-Tetrachloroethane	ND		49.3	72.4	F	ug/Kg		147	70 - 131	13	20
Tetrachloroethene	ND		49.3	55.8		ug/Kg		113	67 - 130	4	20
Toluene	ND		49.3	46.1		ug/Kg		94	70 - 130	13	20
1,2,3-Trichlorobenzene	ND		49.3	39.6		ug/Kg		80	58 - 138	8	20
1,2,4-Trichlorobenzene	ND		49.3	40.5		ug/Kg		82	49 - 144	7	20
1,1,1-Trichloroethane	ND		49.3	47.7		ug/Kg		97	57 - 133	12	20
1,1,2-Trichloroethane	ND		49.3	76.0	F	ug/Kg		154	68 - 132	11	20
Trichloroethene	ND		49.3	53.0		ug/Kg		107	66 - 130	3	20
Trichlorofluoromethane	ND		49.3	42.0	F	ug/Kg		85	61 - 130	23	20
1,2,3-Trichloropropane	ND		49.3	80.4	F	ug/Kg		163	62 - 150	18	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		49.3	42.1		ug/Kg		85	52 - 130	17	20
1,2,4-Trimethylbenzene	ND		49.3	51.8		ug/Kg		105	64 - 140	8	20
1,3,5-Trimethylbenzene	ND		49.3	51.7		ug/Kg		105	67 - 134	4	20
Vinyl acetate	ND		49.3	ND	F	ug/Kg		13	52 - 150	50	20
Vinyl chloride	ND		49.3	45.4		ug/Kg		92	62 - 130	9	20
m-Xylene & p-Xylene	ND		98.6	105		ug/Kg		106	70 - 130	11	20
o-Xylene	ND		49.3	54.2		ug/Kg		110	68 - 130	10	20
2,2-Dichloropropane	ND		49.3	59.3		ug/Kg		120	63 - 130	18	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*144*	*X*	*60 - 140*
Toluene-d8 (Surr)	*98*		*58 - 140*

Lab Sample ID: MB 720-138526/4
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg			06/18/13 19:10	1
Acetone	ND		50		ug/Kg			06/18/13 19:10	1
Benzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Dichlorobromomethane	ND		5.0		ug/Kg			06/18/13 19:10	1
Bromobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Chlorobromomethane	ND		20		ug/Kg			06/18/13 19:10	1
Bromoform	ND		5.0		ug/Kg			06/18/13 19:10	1
Bromomethane	ND		10		ug/Kg			06/18/13 19:10	1
2-Butanone (MEK)	ND		50		ug/Kg			06/18/13 19:10	1
n-Butylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
sec-Butylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
tert-Butylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Carbon disulfide	ND		5.0		ug/Kg			06/18/13 19:10	1
Carbon tetrachloride	ND		5.0		ug/Kg			06/18/13 19:10	1
Chlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Chloroethane	ND		10		ug/Kg			06/18/13 19:10	1
Chloroform	ND		5.0		ug/Kg			06/18/13 19:10	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-138526/4
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10		ug/Kg			06/18/13 19:10	1
2-Chlorotoluene	ND		5.0		ug/Kg			06/18/13 19:10	1
4-Chlorotoluene	ND		5.0		ug/Kg			06/18/13 19:10	1
Chlorodibromomethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,3-Dichloropropane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1-Dichloropropene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			06/18/13 19:10	1
Ethylene Dibromide	ND		5.0		ug/Kg			06/18/13 19:10	1
Dibromomethane	ND		10		ug/Kg			06/18/13 19:10	1
Dichlorodifluoromethane	ND		10		ug/Kg			06/18/13 19:10	1
1,1-Dichloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2-Dichloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1-Dichloroethene	ND		5.0		ug/Kg			06/18/13 19:10	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			06/18/13 19:10	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2-Dichloropropane	ND		5.0		ug/Kg			06/18/13 19:10	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			06/18/13 19:10	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			06/18/13 19:10	1
Ethylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Hexachlorobutadiene	ND		5.0		ug/Kg			06/18/13 19:10	1
2-Hexanone	ND		50		ug/Kg			06/18/13 19:10	1
Isopropylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
4-Isopropyltoluene	ND		5.0		ug/Kg			06/18/13 19:10	1
Methylene Chloride	ND		10		ug/Kg			06/18/13 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			06/18/13 19:10	1
Naphthalene	ND		10		ug/Kg			06/18/13 19:10	1
N-Propylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Styrene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
Tetrachloroethene	ND		5.0		ug/Kg			06/18/13 19:10	1
Toluene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
Trichloroethene	ND		5.0		ug/Kg			06/18/13 19:10	1
Trichlorofluoromethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			06/18/13 19:10	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			06/18/13 19:10	1
Vinyl acetate	ND		50		ug/Kg			06/18/13 19:10	1
Vinyl chloride	ND		5.0		ug/Kg			06/18/13 19:10	1
Xylenes, Total	ND		10		ug/Kg			06/18/13 19:10	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-138526/4
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		5.0		ug/Kg			06/18/13 19:10	1
Gasoline Range Organics (GRO) -C5-C12	ND		250		ug/Kg			06/18/13 19:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*45 - 131*		*06/18/13 19:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*60 - 140*		*06/18/13 19:10*	*1*
Toluene-d8 (Surr)	*102*		*58 - 140*		*06/18/13 19:10*	*1*

Lab Sample ID: LCS 720-138526/5
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	59.4		ug/Kg		119	70 - 144
Acetone	250	303		ug/Kg		121	30 - 162
Benzene	50.0	46.0		ug/Kg		92	70 - 130
Dichlorobromomethane	50.0	61.3		ug/Kg		123	70 - 131
Bromobenzene	50.0	52.0		ug/Kg		104	70 - 130
Chlorobromomethane	50.0	54.0		ug/Kg		108	70 - 130
Bromoform	50.0	58.3		ug/Kg		117	59 - 158
Bromomethane	50.0	48.6		ug/Kg		97	59 - 132
2-Butanone (MEK)	250	222		ug/Kg		89	53 - 124
n-Butylbenzene	50.0	47.6		ug/Kg		95	70 - 142
sec-Butylbenzene	50.0	45.3		ug/Kg		91	70 - 136
tert-Butylbenzene	50.0	48.0		ug/Kg		96	70 - 130
Carbon disulfide	50.0	42.6		ug/Kg		85	60 - 140
Carbon tetrachloride	50.0	56.8		ug/Kg		114	70 - 138
Chlorobenzene	50.0	51.8		ug/Kg		104	70 - 130
Chloroethane	50.0	47.3		ug/Kg		95	65 - 130
Chloroform	50.0	53.7		ug/Kg		107	77 - 127
Chloromethane	50.0	42.1		ug/Kg		84	55 - 140
2-Chlorotoluene	50.0	48.3		ug/Kg		97	70 - 138
4-Chlorotoluene	50.0	48.9		ug/Kg		98	70 - 136
Chlorodibromomethane	50.0	62.1		ug/Kg		124	70 - 146
1,2-Dichlorobenzene	50.0	50.9		ug/Kg		102	70 - 130
1,3-Dichlorobenzene	50.0	51.3		ug/Kg		103	70 - 131
1,4-Dichlorobenzene	50.0	50.7		ug/Kg		101	70 - 130
1,3-Dichloropropane	50.0	55.9		ug/Kg		112	70 - 140
1,1-Dichloropropene	50.0	52.5		ug/Kg		105	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	52.1		ug/Kg		104	60 - 145
Ethylene Dibromide	50.0	57.0		ug/Kg		114	70 - 140
Dibromomethane	50.0	54.5		ug/Kg		109	70 - 139
Dichlorodifluoromethane	50.0	36.0		ug/Kg		72	37 - 158
1,1-Dichloroethane	50.0	49.5		ug/Kg		99	70 - 130
1,2-Dichloroethane	50.0	56.7		ug/Kg		113	70 - 130
1,1-Dichloroethene	50.0	43.2		ug/Kg		86	76 - 122
cis-1,2-Dichloroethene	50.0	50.4		ug/Kg		101	70 - 138

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-138526/5
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	50.0	46.8		ug/Kg		94	67 - 130
1,2-Dichloropropane	50.0	52.5		ug/Kg		105	73 - 127
cis-1,3-Dichloropropene	50.0	67.2		ug/Kg		134	68 - 147
trans-1,3-Dichloropropene	50.0	62.7		ug/Kg		125	70 - 136
Ethylbenzene	50.0	45.1		ug/Kg		90	80 - 137
Hexachlorobutadiene	50.0	52.9		ug/Kg		106	70 - 132
2-Hexanone	250	255		ug/Kg		102	44 - 133
Isopropylbenzene	50.0	47.3		ug/Kg		95	88 - 128
4-Isopropyltoluene	50.0	47.2		ug/Kg		94	70 - 133
Methylene Chloride	50.0	47.1		ug/Kg		94	70 - 134
4-Methyl-2-pentanone (MIBK)	250	256		ug/Kg		102	60 - 160
Naphthalene	50.0	52.2		ug/Kg		104	60 - 147
N-Propylbenzene	50.0	46.1		ug/Kg		92	70 - 130
Styrene	50.0	51.6		ug/Kg		103	70 - 130
1,1,1,2-Tetrachloroethane	50.0	59.2		ug/Kg		118	70 - 130
1,1,2,2-Tetrachloroethane	50.0	49.0		ug/Kg		98	70 - 146
Tetrachloroethene	50.0	52.7		ug/Kg		105	70 - 132
Toluene	50.0	44.1		ug/Kg		88	80 - 128
1,2,3-Trichlorobenzene	50.0	54.3		ug/Kg		109	60 - 140
1,2,4-Trichlorobenzene	50.0	55.2		ug/Kg		110	60 - 140
1,1,1-Trichloroethane	50.0	53.6		ug/Kg		107	70 - 130
1,1,2-Trichloroethane	50.0	55.8		ug/Kg		112	70 - 130
Trichloroethene	50.0	51.4		ug/Kg		103	70 - 133
Trichlorofluoromethane	50.0	49.4		ug/Kg		99	60 - 140
1,2,3-Trichloropropane	50.0	50.6		ug/Kg		101	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.2		ug/Kg		92	60 - 140
1,2,4-Trimethylbenzene	50.0	50.7		ug/Kg		101	70 - 130
1,3,5-Trimethylbenzene	50.0	48.8		ug/Kg		98	70 - 131
Vinyl acetate	50.0	66.6		ug/Kg		133	38 - 176
Vinyl chloride	50.0	41.2		ug/Kg		82	58 - 125
m-Xylene & p-Xylene	100	105		ug/Kg		105	70 - 146
o-Xylene	50.0	48.0		ug/Kg		96	70 - 140
2,2-Dichloropropane	50.0	60.2		ug/Kg		120	70 - 162

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*112*		*60 - 140*
Toluene-d8 (Surr)	*103*		*58 - 140*

Lab Sample ID: LCS 720-138526/7
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	1000	1070		ug/Kg		107	61 - 128

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-138526/7
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*116*		*60 - 140*
Toluene-d8 (Surr)	*101*		*58 - 140*

Lab Sample ID: LCSD 720-138526/6
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			50.0	61.2		ug/Kg		122	70 - 144	3	20
Acetone			250	196	*	ug/Kg		78	30 - 162	43	30
Benzene			50.0	46.0		ug/Kg		92	70 - 130	0	20
Dichlorobromomethane			50.0	61.4		ug/Kg		123	70 - 131	0	20
Bromobenzene			50.0	51.1		ug/Kg		102	70 - 130	2	20
Chlorobromomethane			50.0	54.7		ug/Kg		109	70 - 130	1	20
Bromoform			50.0	59.9		ug/Kg		120	59 - 158	3	20
Bromomethane			50.0	49.5		ug/Kg		99	59 - 132	2	20
2-Butanone (MEK)			250	224		ug/Kg		90	53 - 124	1	20
n-Butylbenzene			50.0	46.8		ug/Kg		94	70 - 142	2	20
sec-Butylbenzene			50.0	44.5		ug/Kg		89	70 - 136	2	20
tert-Butylbenzene			50.0	47.5		ug/Kg		95	70 - 130	1	20
Carbon disulfide			50.0	43.0		ug/Kg		86	60 - 140	1	20
Carbon tetrachloride			50.0	57.9		ug/Kg		116	70 - 138	2	20
Chlorobenzene			50.0	51.5		ug/Kg		103	70 - 130	1	20
Chloroethane			50.0	48.6		ug/Kg		97	65 - 130	3	20
Chloroform			50.0	53.5		ug/Kg		107	77 - 127	0	20
Chloromethane			50.0	43.2		ug/Kg		86	55 - 140	3	20
2-Chlorotoluene			50.0	47.3		ug/Kg		95	70 - 138	2	20
4-Chlorotoluene			50.0	47.7		ug/Kg		95	70 - 136	2	20
Chlorodibromomethane			50.0	63.6		ug/Kg		127	70 - 146	2	20
1,2-Dichlorobenzene			50.0	51.1		ug/Kg		102	70 - 130	0	20
1,3-Dichlorobenzene			50.0	50.9		ug/Kg		102	70 - 131	1	20
1,4-Dichlorobenzene			50.0	49.9		ug/Kg		100	70 - 130	2	20
1,3-Dichloropropane			50.0	57.0		ug/Kg		114	70 - 140	2	20
1,1-Dichloropropene			50.0	51.8		ug/Kg		104	70 - 130	1	20
1,2-Dibromo-3-Chloropropane			50.0	56.4		ug/Kg		113	60 - 145	8	20
Ethylene Dibromide			50.0	59.2		ug/Kg		118	70 - 140	4	20
Dibromomethane			50.0	55.3		ug/Kg		111	70 - 139	1	20
Dichlorodifluoromethane			50.0	35.3		ug/Kg		71	37 - 158	2	20
1,1-Dichloroethane			50.0	49.4		ug/Kg		99	70 - 130	0	20
1,2-Dichloroethane			50.0	57.9		ug/Kg		116	70 - 130	2	20
1,1-Dichloroethene			50.0	43.3		ug/Kg		87	76 - 122	0	20
cis-1,2-Dichloroethene			50.0	50.5		ug/Kg		101	70 - 138	0	20
trans-1,2-Dichloroethene			50.0	46.5		ug/Kg		93	67 - 130	1	20
1,2-Dichloropropane			50.0	52.9		ug/Kg		106	73 - 127	1	20
cis-1,3-Dichloropropene			50.0	67.6		ug/Kg		135	68 - 147	1	20
trans-1,3-Dichloropropene			50.0	63.8		ug/Kg		128	70 - 136	2	20
Ethylbenzene			50.0	44.2		ug/Kg		88	80 - 137	2	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-138526/6
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobutadiene			50.0	51.8		ug/Kg		104	70 - 132	2	20
2-Hexanone			250	264		ug/Kg		105	44 - 133	3	20
Isopropylbenzene			50.0	47.0		ug/Kg		94	88 - 128	1	20
4-Isopropyltoluene			50.0	46.7		ug/Kg		93	70 - 133	1	20
Methylene Chloride			50.0	47.6		ug/Kg		95	70 - 134	1	20
4-Methyl-2-pentanone (MIBK)			250	265		ug/Kg		106	60 - 160	4	20
Naphthalene			50.0	52.6		ug/Kg		105	60 - 147	1	20
N-Propylbenzene			50.0	44.9		ug/Kg		90	70 - 130	3	20
Styrene			50.0	51.4		ug/Kg		103	70 - 130	0	20
1,1,1,2-Tetrachloroethane			50.0	59.3		ug/Kg		119	70 - 130	0	20
1,1,2,2-Tetrachloroethane			50.0	50.3		ug/Kg		101	70 - 146	3	20
Tetrachloroethene			50.0	52.2		ug/Kg		104	70 - 132	1	20
Toluene			50.0	43.6		ug/Kg		87	80 - 128	1	20
1,2,3-Trichlorobenzene			50.0	54.0		ug/Kg		108	60 - 140	1	20
1,2,4-Trichlorobenzene			50.0	54.2		ug/Kg		108	60 - 140	2	20
1,1,1-Trichloroethane			50.0	54.2		ug/Kg		108	70 - 130	1	20
1,1,2-Trichloroethane			50.0	56.4		ug/Kg		113	70 - 130	1	20
Trichloroethene			50.0	51.3		ug/Kg		103	70 - 133	0	20
Trichlorofluoromethane			50.0	47.1		ug/Kg		94	60 - 140	5	20
1,2,3-Trichloropropane			50.0	51.5		ug/Kg		103	70 - 146	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	47.3		ug/Kg		95	60 - 140	2	20
1,2,4-Trimethylbenzene			50.0	50.0		ug/Kg		100	70 - 130	1	20
1,3,5-Trimethylbenzene			50.0	48.2		ug/Kg		96	70 - 131	1	20
Vinyl acetate			50.0	70.0		ug/Kg		140	38 - 176	5	20
Vinyl chloride			50.0	42.3		ug/Kg		85	58 - 125	3	20
m-Xylene & p-Xylene			100	103		ug/Kg		103	70 - 146	1	20
o-Xylene			50.0	47.6		ug/Kg		95	70 - 140	1	20
2,2-Dichloropropane			50.0	60.8		ug/Kg		122	70 - 162	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*115*		*60 - 140*
Toluene-d8 (Surr)	*103*		*58 - 140*

Lab Sample ID: LCSD 720-138526/8
Matrix: Solid
Analysis Batch: 138526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			1000	1070		ug/Kg		107	61 - 128	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*119*		*60 - 140*
Toluene-d8 (Surr)	*104*		*58 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-138515/1-A
Matrix: Solid
Analysis Batch: 138485

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 138515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		06/18/13 13:30	06/19/13 05:09	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		06/18/13 13:30	06/19/13 05:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0*		*0 - 1*	*06/18/13 13:30*	*06/19/13 05:09*	*1*
p-Terphenyl	*105*		*38 - 148*	*06/18/13 13:30*	*06/19/13 05:09*	*1*

Lab Sample ID: LCS 720-138515/2-A
Matrix: Solid
Analysis Batch: 138485

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 138515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	82.2	66.6		mg/Kg		81	36 - 112

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*110*		*38 - 148*

Lab Sample ID: LCSD 720-138515/3-A
Matrix: Solid
Analysis Batch: 138485

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 138515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	82.9	69.1		mg/Kg		83	36 - 112	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*101*		*38 - 148*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-138405/1-A
Matrix: Solid
Analysis Batch: 138462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Dieldrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Endrin aldehyde	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Endrin	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Endrin ketone	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Heptachlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Heptachlor epoxide	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
4,4'-DDT	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
4,4'-DDE	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
4,4'-DDD	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Endosulfan I	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 720-138405/1-A
Matrix: Solid
Analysis Batch: 138462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
alpha-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
beta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
delta-BHC	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Endosulfan sulfate	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Methoxychlor	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Toxaphene	ND		40		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
Chlordane (technical)	ND		40		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
alpha-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1
gamma-Chlordane	ND		2.0		ug/Kg		06/15/13 13:45	06/17/13 20:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*57 - 122*	*06/15/13 13:45*	*06/17/13 20:41*	*1*
DCB Decachlorobiphenyl	*98*		*21 - 136*	*06/15/13 13:45*	*06/17/13 20:41*	*1*

Lab Sample ID: LCS 720-138405/2-A
Matrix: Solid
Analysis Batch: 138462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	16.6	14.4		ug/Kg		87	65 - 120
Dieldrin	16.6	14.8		ug/Kg		89	72 - 120
Endrin aldehyde	16.6	14.1		ug/Kg		85	57 - 120
Endrin	16.6	14.9		ug/Kg		89	68 - 120
Endrin ketone	16.6	14.4		ug/Kg		87	67 - 120
Heptachlor	16.6	14.3		ug/Kg		86	69 - 120
Heptachlor epoxide	16.6	14.9		ug/Kg		90	68 - 120
4,4'-DDT	16.6	15.8		ug/Kg		95	51 - 120
4,4'-DDE	16.6	15.1		ug/Kg		91	70 - 120
4,4'-DDD	16.6	14.9		ug/Kg		90	69 - 120
Endosulfan I	16.6	14.7		ug/Kg		88	62 - 120
Endosulfan II	16.6	14.4		ug/Kg		87	65 - 120
alpha-BHC	16.6	14.4		ug/Kg		87	70 - 120
beta-BHC	16.6	15.8		ug/Kg		95	81 - 120
gamma-BHC (Lindane)	16.6	14.6		ug/Kg		88	72 - 120
delta-BHC	16.6	14.9		ug/Kg		90	74 - 120
Endosulfan sulfate	16.6	14.9		ug/Kg		90	67 - 120
Methoxychlor	16.6	17.0		ug/Kg		103	61 - 142
alpha-Chlordane	16.6	14.8		ug/Kg		89	70 - 120
gamma-Chlordane	16.6	14.8		ug/Kg		89	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*85*		*57 - 122*
DCB Decachlorobiphenyl	*94*		*21 - 136*

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 720-138405/3-A
Matrix: Solid
Analysis Batch: 138462

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138405

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin			16.5	14.6		ug/Kg		88	65 - 120	1	20
Dieldrin			16.5	14.7		ug/Kg		89	72 - 120	1	20
Endrin aldehyde			16.5	14.0		ug/Kg		85	57 - 120	1	20
Endrin			16.5	14.7		ug/Kg		89	68 - 120	1	20
Endrin ketone			16.5	14.3		ug/Kg		87	67 - 120	1	20
Heptachlor			16.5	14.3		ug/Kg		87	69 - 120	0	20
Heptachlor epoxide			16.5	14.9		ug/Kg		90	68 - 120	0	20
4,4'-DDT			16.5	15.6		ug/Kg		94	51 - 120	1	20
4,4'-DDE			16.5	14.9		ug/Kg		91	70 - 120	1	20
4,4'-DDD			16.5	14.7		ug/Kg		89	69 - 120	1	20
Endosulfan I			16.5	14.6		ug/Kg		88	62 - 120	1	20
Endosulfan II			16.5	14.3		ug/Kg		87	65 - 120	1	35
alpha-BHC			16.5	14.5		ug/Kg		88	70 - 120	1	20
beta-BHC			16.5	15.5		ug/Kg		94	81 - 120	1	20
gamma-BHC (Lindane)			16.5	14.6		ug/Kg		89	72 - 120	0	20
delta-BHC			16.5	14.8		ug/Kg		90	74 - 120	1	20
Endosulfan sulfate			16.5	14.8		ug/Kg		90	67 - 120	1	20
Methoxychlor			16.5	16.8		ug/Kg		102	61 - 142	1	20
alpha-Chlordane			16.5	14.6		ug/Kg		89	70 - 120	1	20
gamma-Chlordane			16.5	14.6		ug/Kg		89	68 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*86*		*57 - 122*
DCB Decachlorobiphenyl	*92*		*21 - 136*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-138360/1-A
Matrix: Solid
Analysis Batch: 138465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Arsenic	ND		1.0		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Barium	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Beryllium	ND		0.10		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Cadmium	ND		0.13		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Chromium	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Cobalt	ND		0.20		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Copper	ND		1.5		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Lead	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Molybdenum	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Nickel	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Selenium	ND		1.0		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Silver	ND		0.25		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Thallium	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1
Vanadium	ND		0.50		mg/Kg		06/14/13 13:14	06/17/13 14:31	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-138360/1-A
Matrix: Solid
Analysis Batch: 138465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		1.5		mg/Kg		06/14/13 13:14	06/17/13 14:31	1

Lab Sample ID: LCS 720-138360/2-A
Matrix: Solid
Analysis Batch: 138465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	47.1		mg/Kg		94	80 - 120
Arsenic	50.0	47.5		mg/Kg		95	80 - 120
Barium	50.0	48.3		mg/Kg		97	80 - 120
Beryllium	50.0	49.4		mg/Kg		99	80 - 120
Cadmium	50.0	50.9		mg/Kg		102	80 - 120
Chromium	50.0	49.6		mg/Kg		99	80 - 120
Cobalt	50.0	49.4		mg/Kg		99	80 - 120
Copper	50.0	50.4		mg/Kg		101	80 - 120
Lead	50.0	49.5		mg/Kg		99	80 - 120
Molybdenum	50.0	49.0		mg/Kg		98	80 - 120
Nickel	50.0	49.8		mg/Kg		100	80 - 120
Selenium	50.0	47.9		mg/Kg		96	80 - 120
Silver	25.0	23.6		mg/Kg		95	80 - 120
Thallium	50.0	50.5		mg/Kg		101	80 - 120
Vanadium	50.0	47.9		mg/Kg		96	80 - 120
Zinc	50.0	48.3		mg/Kg		97	80 - 120

Lab Sample ID: LCSD 720-138360/3-A
Matrix: Solid
Analysis Batch: 138465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138360

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	50.0	47.5		mg/Kg		95	80 - 120	1	20
Arsenic	50.0	47.7		mg/Kg		95	80 - 120	0	20
Barium	50.0	48.1		mg/Kg		96	80 - 120	0	20
Beryllium	50.0	48.9		mg/Kg		98	80 - 120	1	20
Cadmium	50.0	51.0		mg/Kg		102	80 - 120	0	20
Chromium	50.0	48.9		mg/Kg		98	80 - 120	1	20
Cobalt	50.0	49.6		mg/Kg		99	80 - 120	0	20
Copper	50.0	50.0		mg/Kg		100	80 - 120	1	20
Lead	50.0	49.6		mg/Kg		99	80 - 120	0	20
Molybdenum	50.0	49.3		mg/Kg		99	80 - 120	0	20
Nickel	50.0	49.8		mg/Kg		100	80 - 120	0	20
Selenium	50.0	48.1		mg/Kg		96	80 - 120	0	20
Silver	25.0	23.7		mg/Kg		95	80 - 120	1	20
Thallium	50.0	50.6		mg/Kg		101	80 - 120	0	20
Vanadium	50.0	47.5		mg/Kg		95	80 - 120	1	20
Zinc	50.0	48.7		mg/Kg		97	80 - 120	1	20

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-138348/1-A
Matrix: Solid
Analysis Batch: 138463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		06/14/13 12:01	06/17/13 15:50	1

Lab Sample ID: LCS 720-138348/2-A
Matrix: Solid
Analysis Batch: 138463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.858		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 720-138348/3-A
Matrix: Solid
Analysis Batch: 138463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 138348

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.833	0.850		mg/Kg		102	80 - 120	1	20

GC/MS VOA

Analysis Batch: 138451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-1	A-1	Total/NA	Solid	8260B/CA_LUFT MS	138468
720-50308-1 MS	A-1	Total/NA	Solid	8260B/CA_LUFT MS	138468
720-50308-1 MSD	A-1	Total/NA	Solid	8260B/CA_LUFT MS	138468
LCS 720-138451/6	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 720-138451/8	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-138451/7	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-138451/9	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-138451/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Prep Batch: 138468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-1	A-1	Total/NA	Solid	5030B	
720-50308-1 MS	A-1	Total/NA	Solid	5030B	
720-50308-1 MSD	A-1	Total/NA	Solid	5030B	

Analysis Batch: 138526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-7	B-2	Total/NA	Solid	8260B/CA_LUFT MS	138550
720-50308-13	C-3	Total/NA	Solid	8260B/CA_LUFT MS	138550
720-50308-19	D-4	Total/NA	Solid	8260B/CA_LUFT MS	138550
LCS 720-138526/5	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 720-138526/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-138526/6	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-138526/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	
MB 720-138526/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	

Prep Batch: 138550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-7	B-2	Total/NA	Solid	5030B	
720-50308-13	C-3	Total/NA	Solid	5030B	
720-50308-19	D-4	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 138405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	3546	
720-50308-10	B-1,2,3,4	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 138405 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-15	C-1,2,3,4	Total/NA	Solid	3546	
720-50308-20	D-1,2,3,4	Total/NA	Solid	3546	
LCS 720-138405/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-138405/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-138405/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 138462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	8081A	138405
720-50308-10	B-1,2,3,4	Total/NA	Solid	8081A	138405
720-50308-15	C-1,2,3,4	Total/NA	Solid	8081A	138405
720-50308-20	D-1,2,3,4	Total/NA	Solid	8081A	138405
LCS 720-138405/2-A	Lab Control Sample	Total/NA	Solid	8081A	138405
LCSD 720-138405/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	138405
MB 720-138405/1-A	Method Blank	Total/NA	Solid	8081A	138405

Analysis Batch: 138485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Silica Gel Cleanup	Solid	8015B	138515
720-50308-10	B-1,2,3,4	Silica Gel Cleanup	Solid	8015B	138515
720-50308-15	C-1,2,3,4	Silica Gel Cleanup	Solid	8015B	138515
720-50308-20	D-1,2,3,4	Silica Gel Cleanup	Solid	8015B	138515
LCS 720-138515/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	138515
LCSD 720-138515/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	138515
MB 720-138515/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	138515

Prep Batch: 138515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Silica Gel Cleanup	Solid	3546	
720-50308-10	B-1,2,3,4	Silica Gel Cleanup	Solid	3546	
720-50308-15	C-1,2,3,4	Silica Gel Cleanup	Solid	3546	
720-50308-20	D-1,2,3,4	Silica Gel Cleanup	Solid	3546	
LCS 720-138515/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-138515/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-138515/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Metals

Prep Batch: 138348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	7471A	
720-50308-10	B-1,2,3,4	Total/NA	Solid	7471A	
720-50308-15	C-1,2,3,4	Total/NA	Solid	7471A	
720-50308-20	D-1,2,3,4	Total/NA	Solid	7471A	
LCS 720-138348/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 720-138348/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
MB 720-138348/1-A	Method Blank	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 138360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	3050B	
720-50308-10	B-1,2,3,4	Total/NA	Solid	3050B	
720-50308-15	C-1,2,3,4	Total/NA	Solid	3050B	
720-50308-20	D-1,2,3,4	Total/NA	Solid	3050B	
LCS 720-138360/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 720-138360/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
MB 720-138360/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 138463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	7471A	138348
720-50308-10	B-1,2,3,4	Total/NA	Solid	7471A	138348
720-50308-15	C-1,2,3,4	Total/NA	Solid	7471A	138348
720-50308-20	D-1,2,3,4	Total/NA	Solid	7471A	138348
LCS 720-138348/2-A	Lab Control Sample	Total/NA	Solid	7471A	138348
LCSD 720-138348/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	138348
MB 720-138348/1-A	Method Blank	Total/NA	Solid	7471A	138348

Analysis Batch: 138465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	6010B	138360
720-50308-10	B-1,2,3,4	Total/NA	Solid	6010B	138360
720-50308-15	C-1,2,3,4	Total/NA	Solid	6010B	138360
720-50308-20	D-1,2,3,4	Total/NA	Solid	6010B	138360
LCS 720-138360/2-A	Lab Control Sample	Total/NA	Solid	6010B	138360
LCSD 720-138360/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	138360
MB 720-138360/1-A	Method Blank	Total/NA	Solid	6010B	138360

Analysis Batch: 138490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50308-5	A-1,2,3,4	Total/NA	Solid	6010B	138360
720-50308-10	B-1,2,3,4	Total/NA	Solid	6010B	138360

Lab Chronicle

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: A-1

Lab Sample ID: 720-50308-1

Date Collected: 06/13/13 14:43

Matrix: Solid

Date Received: 06/13/13 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			138468	06/17/13 17:31	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	138451	06/17/13 19:10	AC	TAL PLS

Client Sample ID: A-1,2,3,4

Lab Sample ID: 720-50308-5

Date Collected: 06/13/13 14:43

Matrix: Solid

Date Received: 06/13/13 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138405	06/15/13 13:45	ND	TAL PLS
Total/NA	Analysis	8081A		1	138462	06/17/13 22:22	JZ	TAL PLS
Silica Gel Cleanup	Prep	3546			138515	06/18/13 13:30	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138485	06/19/13 00:16	DH	TAL PLS
Total/NA	Prep	7471A			138348	06/14/13 12:01	ECT	TAL PLS
Total/NA	Analysis	7471A		1	138463	06/17/13 16:55	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138465	06/17/13 15:11	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138490	06/17/13 21:16	SLK	TAL PLS

Client Sample ID: B-2

Lab Sample ID: 720-50308-7

Date Collected: 06/13/13 15:07

Matrix: Solid

Date Received: 06/13/13 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			138550	06/18/13 19:25	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	138526	06/19/13 01:46	AC	TAL PLS

Client Sample ID: B-1,2,3,4

Lab Sample ID: 720-50308-10

Date Collected: 06/13/13 15:05

Matrix: Solid

Date Received: 06/13/13 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138405	06/15/13 13:45	ND	TAL PLS
Total/NA	Analysis	8081A		1	138462	06/17/13 22:39	JZ	TAL PLS
Silica Gel Cleanup	Prep	3546			138515	06/18/13 13:30	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138485	06/19/13 00:40	DH	TAL PLS
Total/NA	Prep	7471A			138348	06/14/13 12:01	ECT	TAL PLS
Total/NA	Analysis	7471A		1	138463	06/17/13 16:58	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138465	06/17/13 15:24	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138490	06/17/13 21:21	SLK	TAL PLS

Lab Chronicle

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Client Sample ID: C-3

Lab Sample ID: 720-50308-13

Date Collected: 06/13/13 15:22
Date Received: 06/13/13 15:50

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			138550	06/18/13 19:25	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	138526	06/19/13 02:14	AC	TAL PLS

Client Sample ID: C-1,2,3,4

Lab Sample ID: 720-50308-15

Date Collected: 06/13/13 15:17
Date Received: 06/13/13 15:50

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138405	06/15/13 13:45	ND	TAL PLS
Total/NA	Analysis	8081A		1	138462	06/17/13 22:56	JZ	TAL PLS
Total/NA	Prep	3546			138405	06/15/13 13:45	ND	TAL PLS
Total/NA	Analysis	8081A		1	138462	06/17/13 22:56	JZ	TAL PLS
Silica Gel Cleanup	Prep	3546			138515	06/18/13 13:30	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138485	06/19/13 01:05	DH	TAL PLS
Total/NA	Prep	7471A			138348	06/14/13 12:01	ECT	TAL PLS
Total/NA	Analysis	7471A		1	138463	06/17/13 17:00	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138465	06/17/13 15:28	SLK	TAL PLS

Client Sample ID: D-4

Lab Sample ID: 720-50308-19

Date Collected: 06/13/13 15:40
Date Received: 06/13/13 15:50

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			138550	06/18/13 19:25	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	138526	06/19/13 02:42	AC	TAL PLS

Client Sample ID: D-1,2,3,4

Lab Sample ID: 720-50308-20

Date Collected: 06/13/13 15:30
Date Received: 06/13/13 15:50

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			138405	06/15/13 13:45	ND	TAL PLS
Total/NA	Analysis	8081A		1	138462	06/17/13 23:13	JZ	TAL PLS
Silica Gel Cleanup	Prep	3546			138515	06/18/13 13:30	DFR	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	138485	06/19/13 01:29	DH	TAL PLS
Total/NA	Prep	7471A			138348	06/14/13 12:01	ECT	TAL PLS
Total/NA	Analysis	7471A		1	138463	06/17/13 17:02	SLK	TAL PLS
Total/NA	Prep	3050B			138360	06/14/13 13:14	CDT	TAL PLS
Total/NA	Analysis	6010B		4	138465	06/17/13 15:33	SLK	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
8081A	Organochlorine Pesticides (GC)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Engeo, Inc.
Project/Site: Carmax Pleasanton-Stockpile Sampling

TestAmerica Job ID: 720-50308-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50308-1	A-1	Solid	06/13/13 14:43	06/13/13 15:50
720-50308-5	A-1,2,3,4	Solid	06/13/13 14:43	06/13/13 15:50
720-50308-7	B-2	Solid	06/13/13 15:07	06/13/13 15:50
720-50308-10	B-1,2,3,4	Solid	06/13/13 15:05	06/13/13 15:50
720-50308-13	C-3	Solid	06/13/13 15:22	06/13/13 15:50
720-50308-15	C-1,2,3,4	Solid	06/13/13 15:17	06/13/13 15:50
720-50308-19	D-4	Solid	06/13/13 15:40	06/13/13 15:50
720-50308-20	D-1,2,3,4	Solid	06/13/13 15:30	06/13/13 15:50

CHAIN OF CUSTODY RECORD

146574

720-50308

6/20/2013

PROJECT NUMBER	PROJECT NAME
10237.000.000	Carmax Pleasanton - Stockpile Sampling

SAMPLED BY: (SIGNATURE/PRINT)
Divya Bhargava

PROJECT MANAGER (SIGNATURE/PRINT)
Pedro Espinosa

ROUTING: E-MAIL dbhargava@engeo com

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	organochlorine pesticides (EPA 8081)	CAM-17 Metals (EPA 6010)	TPH-diesel and TPH-moptor-oil (EPA 8015) with silica gel cleanup	VOCs (EPA 8260B)	TPH-gasoline (EPA 8260B)	REMARKS REQUIRED DETECTION LIMITS
A-1	6/13/2013	2:43	Soil	1	8 oz	none	C	C	C	D	D	Run as 4-point composite
A-2	6/13/2013	2:45	Soil	1	8 oz	none	C	C	C			
A-3	6/13/2013	2:47	Soil	1	8 oz	none	C	C	C			
A-4	6/13/2013	2:50	Soil	1	8 oz	none	C	C	C			
B-1	6/13/2013	3:05	Soil	1	8 oz	none	C	C	C			
B-2	6/13/2013	3:07	Soil	1	8 oz	none	C	C	C	D	D	Run as 4-point composite
B-3	6/13/2013	3:10	Soil	1	8 oz	none	C	C	C			
B-4	6/13/2013	3:12	Soil	1	8 oz	none	C	C	C			
C-1	6/13/2013	3:17	Soil	1	8 oz	none	C	C	C			
C-2	6/13/2013	3:19	Soil	1	8 oz	none	C	C	C			Run as 4-point composite
C-3	6/13/2013	3:22	Soil	1	8 oz	none	C	C	C	D	D	
C-4	6/13/2013	3:25	Soil	1	8 oz	none	C	C	C			
D-1	6/13/2013	3:30	Soil	1	8 oz	none	C	C	C			
D-2	6/13/2013	3:34	Soil	1	8 oz	none	C	C	C			Run as 4-point composite
D-3	6/13/2013	3:36	Soil	1	8 oz	none	C	C	C			
D-4	6/13/2013	3:40	Soil	1	8 oz	none	C	C	C	D	D	

720-50308 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE/TIME	REMARKS	
	6/13/13 15:50		6-13-13 1550	Run "D" as discrete samples, Run "Cs" as Composite 5-day turnaround	

27.7°C 4hrs

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (925) 866-0199
WWW.ENGEO.COM

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

Login Sample Receipt Checklist

Client: Engeo, Inc.

Job Number: 720-50308-1

Login Number: 50308

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix F:
Stormwater Quality Report

CARMAX - PLEASANTON

11/13/2013

STORM WATER QUALITY REPORT

This preliminary Storm Water Quality Report for the CARMAX - PLEASANTON development describes the storm water quality improvements proposed to meet the Municipal Separate Storm Sewer Systems (MS4) NPDES Permit with respect to the Alameda County C.3 Guidance document.

M&S Job# 19703.000

Preliminary Storm Water Management Plan
for the project entitled:

CARMAX - PLEASANTON

Prepared by:

MACKAY & SOMPS

DRAFT

James F. Templeton Jr., PE

MacKay & Somps Civil Engineers Inc.
5142 Franklin Drive, Suite B
Pleasanton, CA 94588

TABLE OF CONTENTS

INTRODUCTION

This preliminary Storm Water Quality Report for the CARMAX - PLEASANTON development describes the storm water quality improvements proposed to meet the Municipal Separate Storm Sewer Systems (MS4) NPDES Permit with respect to the Alameda County C.3 Guidance document.

This report has been prepared to accompany the CARMAX-PLEASANTON Planned Development (PD) application package and provides a description of the treatment measures. The City of Pleasanton has a very detailed storm water checklist that should be used as a starting point for the evaluation of the design and elements proposed, this checklist is included in Appendix A of this report.

STORM WATER QUALITY

BACKGROUND

The City of Pleasanton is covered under the Municipal Separate Storm Sewer Systems (MS4) NPDES Permit No. CAS0029831 issued to the Alameda Countywide Clean Water Program (ACCWP) under Order Number R2-2003-002. The overall storm water management strategy within this program is based on a hierarchical approach advocated by local agencies and particularly by the Alameda Countywide Clean Water Program in their C.3 Storm Water Technical Guidance (Version 4, dated May 14, 2013). The hierarchical approach has the following levels:

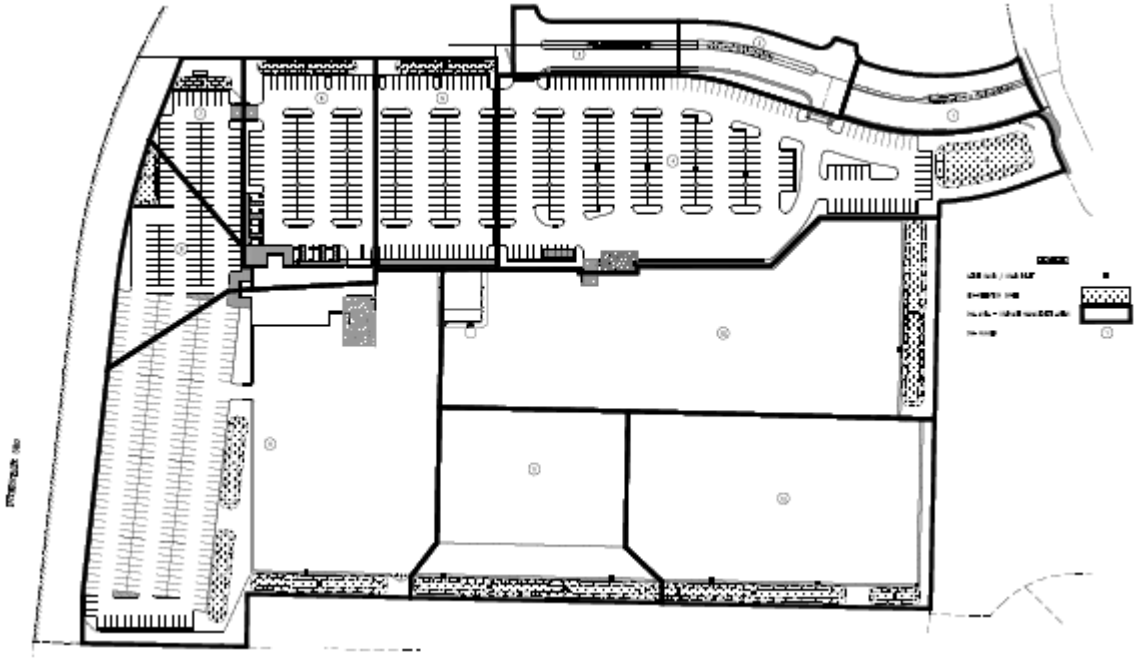
- Level I – Site Design
  One key element of the SWMP for the CARMAX-PLEASANTON project will be to incorporate appropriate site design elements that enhance efforts to limit water quality impacts. Properly implemented features in essence "set the stage" for an effective plan by establishing a land use pattern that limits the amount of directly connected impervious areas (DCIAs), clusters buildings/pavement areas, encourages infiltration and runoff reduction to the greatest extent practicable and complements other BMPs that may be used.
- Level II – Source Control
  Another primary focus of this SWMP (and any SWMP) is a strong source control program. This approach capitalizes on the fact that it is generally more effective, in terms of both impact and cost; to prevent or limit constituents of concern from being released than it is to remove them from the environment once they have been mobilized (BASMAA, 1999).
- Level III – Treatment Measures
  The term "treatment measures" refers to those BMPs that are designed to reduce constituents of concern once they have been mobilized in storm water runoff. They should properly be seen as a "last line of defense" in the overall suite of BMPs that are employed. Treatment measures are generally considered necessary BMPs since even the most aggressive site design and source control programs cannot guarantee that constituents of concern will not be mobilized from the site.

METHODOLOGY / CRITERIA

The primary water quality consideration of this Basis of Design Report pertains to Level III of the Clean Water Program, Treatment Measures. In order to develop an efficient water quality network with respect to the existing land plan, bio-retention cells are being employed as the treatment areas for the site.

Due to site restrictions, the combination flow and volume method was utilized for each drainage management area (DMA) treatment mechanisms (bio-retention cells)as outlined in Chapter 5 of the C.3 Storm Water Technical Guidance handbook (ACCWP).

A map of the treatment areas is included below.



RESULTS

Based on the impervious areas shown below, the project meets the Alameda Countywide Clean Water Program requirements detailed in their C.3 Storm Water Technical Guidance (Version 4, dated May 14, 2013). It should be noted that these features are preliminary and will continue to be refined through the design process. A calculation for each DMA can be found in Appendix C and a table summarizing those calculations is included below.

BASIN SIZING TABLE

Drainage Management Area (DMA)	*Impervious Area (SF)*	*Proposed Bio-Retention Area (SF)*	*Sizing Ratio (3% Min)*
1	17,150	515	3.0%
2	14,550	505	3.5%
3	13,170	505	3.8%
4	107,250	3,985	3.0%
5	37,880	1,350	3.6%
6	44,540	1,350	3.0%
7	14,440	440	3.0%
8	25,370	987	3.9%
9	161,160	4,900	3.0%
10	123,720	3,780	3.1%
11	57,080	2,800	4.9%
12	84,670	3,080	3.6%

APPENDIX A – CITY OF PLEASANTON STORM WATER REQUIREMENTS CHECKLIST

THE CITY OF PLEASANTON

FORM A

Planning Level (P), Design Level (D) Impervious Surface Form

To be submitted with initial Planning Application (P) for all projects creating or replacing 2,500 sq. ft. or more impervious area and with design plan sets (D) to Building and Engineering.

Date of Application: 11/12/13 **Type of Application:** [X] Planning Review [ ] Building/Engineering Review

Project Location or Address: A PORTION OF STAPLES RANCH SPECIFIC PLAN CA

If no address (Parcel/Tract No., Lot No., APN(s): 946-1128-003-009

Project Name (if applicable): CARMAX – PLEASANTON

Project Description (attach sheet if need more space): AUTO RETAILER

Project Type: [X] Commercial/Industrial [ ] Residential Subdivision [ ] Single Family Residence [ ] Mixed Use [ ] Auto-Service Facility
[ ] Retail Gasoline Outlet [ ] Restaurant [ ] Parking Lot [ ] Public Agency

Type of Impervious Surface (1)	Existing Impervious Surface (in Sq. Ft.) (2)	Proposed Impervious Surface (in Sq. Ft.)			
		Removed and Replaced Impervious Surface		New Impervious Surface	
		At Planning Level (3)	At Design Level (4)	At Planning Level (5)	At Design Level (6)
Building(s) footprint, driveway(s), patio(s), impervious deck(s)				61,772	
Uncovered parking lot (including top deck of parking structure)				314,939	
Impervious trails, miscellaneous paving or structures				311,890	
Off-lot impervious surface (streets, sidewalks and/or bike lanes built as part of new street)	N/A			–	
Total Impervious Surface in Square Feet				688,601	

☐ **Add column total (3) and (5) at Planning Level:** 688,601 **Sq. Ft.** 15.81 **Acres**

☐ **Add column total (4) and (6) at Design Level:** _____ **Sq. Ft.** _____ **Acres**

Form continues, see page 2

FORM A (Continued)

Projects Creating/Replacing 5,000 Sq. Ft. or More of Impervious Surface (complete the following):

- Project Site Area: 1,557,705.6 sq. Ft. 35.76 Acres; Total Area Disturbed: 856,389.6 Sq. Ft. 19.66 Acres
- Is the proposed floor area ratio (FAR) ≥ 200%: ☐ Yes ☒ No

  If yes, the proposed FAR is: _____ %
- Is the number of dwelling units per acre (DU/Ac) proposed ≥ 25 DU/Ac: ☐ Yes ☒ No

  If yes, the proposed DU/Ac is: _____
- Will there be surface parking spaces on site: ☒ Yes ☐ No

  If yes, the proposed number of surface parking spaces (not including ADA, emergency vehicle, and loading/unloading spaces) is: 422
- Type of Design Professional: ☐ Architect ☐ Landscape Architect ☐ Licensed Soils Engineer ☒ Licensed Civil Engineer ☐ Other _____
- Design Professional's Address: 5142 FRANKLIN DR, SUITE B
- Design Professional's Phone: (925) 225-0690 Fax: (925) 225-0698 Email: cguenther@msce.com
- Property Owner's Name: ALAMEDA COUNTY SURPLUS PROPERTY AUTHORITY

All Projects:

By signing below, I declare under penalty of perjury, that to the best of my knowledge, the square footage and other information presented herein is accurate and complete.

Planning Level			
Design Level			
	Signature of Design Professional	Print Name	Date

☐ **Include project plans showing: (1) existing impervious surface area; (2) impervious surface area to be removed and replaced; and (3) any other impervious surface area to be created. Additional information may be required after an initial analysis by City staff. Incorrect impervious area calculations may delay a project application(s) and/or permit(s).**

If you need additional information or have questions about the impervious surface requirements, please see http://www.cityofpleasantonca.gov/business/planning/StormWater.html *or contact the City of Pleasanton Engineering Division, Development Services Section, at (925) 931-5650 or (925) 931-5656*

For City Staff Use Only—City Application/Permit No:

FORM B

Infiltration/Rainwater Harvesting and Use Feasibility Screening Worksheet

*Apply these screening criteria for **C.3 Regulated Projects*** required to implement Provision C.3 stormwater treatment requirements. If the agency has already determined that Provision C.3 treatment requirements will be met using infiltration facilities or rainwater harvesting and use, this form is not required. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (*). Contact municipal staff to determine whether the project meets **Special Project*** criteria. If the project meets Special Project criteria, it will receive LID treatment reduction credits.*

1. Applicant Info

Site Address: A PORTION OF STAPLES RANCH SPECIFIC PLAN, CA APN: 946-1128-003-009

Applicant Name: CARMAX AUTO SUPERSTORES Phone No.: (804) 747-0422

Mailing Address: 12800 TUCKAHOE CREEK PKWY RICHMOND, VA 23238

2. Feasibility Screening for Infiltration

Do site soils either (a) have a **saturated hydraulic conductivity*** (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?[1]

☒ Yes (continue)

☐ No – complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, there is no need to complete the rest of this screening worksheet.

3. Recycled Water Use

Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

☐ The project is installing a recycled water plumbing system, and the installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Skip to Section 6.

4. Calculate the Potential Rainwater Capture Area* for Screening of Harvesting and Use

Complete this section for the entire project area. If rainwater harvesting and use is infeasible for the entire site, and the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then complete Sections 4 and 5 of this form for each of these buildings. For Special Projects that receive < 100% LID treatment reduction, skip Sections 4 through 6 of this form and use the Rainwater Harvesting and Use Feasibility Worksheet to determine feasibility of harvest and use.

4.1 Table 1 is completed for (check one): ☒ The whole project ☐ Area of 1 building roof (10,000 sq.ft. min.)

Table 1: Calculation of the Potential Rainwater Capture Area*

The Potential Rainwater Capture Area may consist of either the entire project area or one building with a roof area of 10,000 sq. ft. or more.

	1	2	3	4
	Pre-Project Impervious surface[2] (sq.ft.), if applicable	Proposed Impervious Surface[2] (IS), in sq. ft.		Post-project landscaping (sq.ft.), if applicable
		Replaced[3] IS	Created[4] IS	
a. Enter the totals for the area to be evaluated:	—	—	688,601	
b. Sum of replaced and created impervious surface:	N/A	688,601		N/A
c. Area of existing impervious surface that will NOT be replaced by the project.	—	N/A		N/A

[1] Base this response on the site-specific soil report, if available. If this is not available, consult soil hydraulic conductivity maps in Attachment 3.

[2] Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the **C.3.d amount of runoff***.

[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

[4] "Created" means the project will install new impervious surface where there is currently no impervious surface.

* For definitions, see Glossary (Attachment 1).

4.2 Answer this question ONLY if you are completing this section for the entire project area. If existing impervious surface will be replaced by the project, does the area to be replaced equal at least 50%, but less than 100%, of the existing area of impervious surface? *(Refer to Table 1, Row "a". Is the area in Column 2 ≥ 50%, but < 100%, of Column 1?)*

☐ Yes, C.3. stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced. This is known as the 50% rule.

☒ No, C.3. requirements apply only to the impervious area created and/or replaced.

4.3 Enter the square footage of the **Potential Rainwater Capture Area***. If you are evaluating only the roof area of a building, or you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1:

688,601 square feet.

4.4 Convert the measurement of the **Potential Rainwater Capture Area*** from square feet to acres (divide the amount in Item 4.3 by 43,560):

15.81 acres.

5. Feasibility Screening for Rainwater Harvesting and Use

5.1 Use of harvested rainwater for landscape irrigation:

Is the onsite landscaping LESS than 2.5 times the size of the **Potential Rainwater Capture Area*** (Item 4.3)? (Note that the landscape area(s) would have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

☐ Yes (continue) ☒ No – direct runoff from impervious areas to **self-retaining areas*** OR refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

5.2 Use of harvested rainwater for toilet flushing or non-potable industrial use:

a. Residential Projects: Proposed number of dwelling units:_____
Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:

_____)

Is the number of dwelling units per impervious acre LESS than 100 (assuming 2.7 occupants/unit)?

☐ Yes (continue) ☐ No – complete the Rainwater Harvesting/Use Feasibility Worksheet.

b. Commercial/Industrial Projects: Proposed interior floor area:_____ (sq. ft.)

Calculate the proposed interior floor area (sq.ft.) per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:*

_____

Does square footage of the interior floor space per impervious acre equal LESS than 70,000?

☐ Yes (continue) ☐ No – complete the Rainwater Harvesting/Use Feasibility Worksheet

c. School Projects: Proposed interior floor area:_____ (sq. ft.)

Calculate the proposed interior floor area per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:*

_____.

Does square footage of the interior floor space per impervious acre equal LESS than 21,000?)

☐ Yes (continue) ☐ No – complete the Rainwater Harvesting/Use Feasibility Worksheet

* For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.b, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gal/day): _____

Is the non-potable demand LESS than 2,400 gal/day per acre of the Potential Rainwater Capture Area?

☐ Yes (continue) ☐ No – refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

6. Use of Biotreatment

If only the "Yes" boxes were checked for all questions in Sections 2 and 5, or the project will have a recycled water system for non-potable use (Section 3), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.

7. Results of Screening Analysis

Based on this screening analysis, the following steps will be taken for the project. (If biotreatment is allowed, check the biotreatment option only. If further analysis is needed, check all that apply):

☒ Implement biotreatment measures (such as an appropriately designed bioretention area).

☐ Conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.

☐ Conduct further analysis of rainwater harvesting and use by (check one):

☐ Completing the Rainwater Harvesting and Use Feasibility Worksheet for:

☐ The entire project

☐ Individual building(s), if applicable, describe:_____

☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report

☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report.

Signature Print Name Date

Circle one: (Licensed Soils Engineer / Licensed Civil Engineer / Licensed Architect / Licensed Landscape Architect)

Name, address and telephone number of the Consultant's office.

* For definitions, see Glossary (Attachment 1).

LID Feasibility Worksheet
Attachment 1: Glossary

Bioinfiltration Area

A type of low development treatment measure designed to have a surface ponding area that allows for evapotranspiration, and to filter water through 18 inches of engineered biotreatment soil. After the water filters through the engineered soil, it encounters a 12-inch layer of rock in which an underdrain is typically installed. If the underlying soils have a saturated hydraulic conductivity rate of 1.6" per hour or greater, then the C.3.d amount of runoff is treated by evapotranspiration and infiltration. If the soils have a lower hydraulic conductivity rate, then the bioinfiltration area treats stormwater with evapotranspiration, some infiltration, and the remaining amount of the C.3.d amount of runoff is filtered and released into the underdrain. The difference between a bioinfiltration area and a bioretention area is that the bioinfiltration area is never lined with an impermeable layer; whereas, a bioretention area may be lined or unlined.

Bioretention Area

A type of low development treatment measure designed to have a surface ponding area that allows for evapotranspiration, and to filter water through 18 inches of engineered biotreatment soil. After the water filters through the engineered soil, it encounters a 12-inch layer of rock in which an underdrain is typically installed. If the underlying soils have a saturated hydraulic conductivity rate of 1.6" per hour or greater, then the C.3.d amount of runoff is treated by evapotranspiration and infiltration. If the soils have a lower hydraulic conductivity rate, or if infiltration is prohibited and the bioretention area is lined with an impermeable layer, then the bioretention area treats stormwater with evapotranspiration, some or no infiltration, and the remaining amount of the C.3.d amount of runoff is filtered and released into the underdrain. The difference between a bioinfiltration area and a bioretention area is that the bioinfiltration area is never lined with an impermeable layer; whereas, a bioretention area may be lined or unlined.

Biotreatment

A type of low impact development treatment allowed under Provision C.3.c of the ***MRP****, if infiltration, evapotranspiration and rainwater harvesting and use are infeasible. As required by Provision C.3.c.i(2)(vi), biotreatment systems shall be designed to have a surface area no smaller than what is required to accommodate a 5 inches/hour stormwater runoff surface loading rate and shall use biotreatment soil as specified in the biotreatment soil specifications approved by the Regional Water Board, or equivalent.

C.3 Regulated Projects:

Development projects as defined by Provision C.3.b.ii of the ***MRP****. This includes public and private projects that create and/or replace 10,000 square feet or more of impervious surface, and restaurants, retail gasoline outlets, auto service facilities, and uncovered parking lots (stand-alone or part of another use) that create and/or replace 5,000 square feet or more of impervious surface. Single family homes that are not part of a larger plan of development are specifically excluded.

C.3.d Amount of Runoff

The amount of stormwater runoff from C.3 Regulated Projects that must receive stormwater treatment, as described by hydraulic sizing criteria in Provision C.3.d of the ***MRP****.

Heritage Tree

An individual tree of any size or species given the 'heritage tree' designation as defined by the municipality's tree ordinance or other section of the municipal code.

Infiltration Devices

Infiltration facilities that are deeper that they are wide and designed to infiltrate stormwater runoff into the subsurface and, as designed, bypass the natural groundwater protection afforded by surface soil. These devices include dry wells, injection wells and infiltration trenches (includes French drains).

Infiltration Facilities

A term that refers to both infiltration devices and measures.

Infiltration Measures

Infiltration facilities that are wider than they are deep (e.g., bioinfiltration, infiltration basins and shallow wide infiltration trenches and dry wells).

Low Impact Development (LID) Treatment

Removal of pollutants from stormwater runoff using the following types of stormwater treatment measures: rainwater harvesting and use, infiltration, evapotranspiration, or, where these are infeasible, biotreatment.

Municipal Regional Stormwater Permit (MRP)

The municipal stormwater NPDES permit under which discharges are permitted from municipal separate storm sewer systems throughout Alameda County and the other NPDES Phase I jurisdictions within the San Francisco Bay Region.

Potential Rainwater Capture Area

The impervious area from which rainwater may be potentially be captured, if rainwater harvesting and use were implemented for a project. If the entire site is evaluated for rainwater harvesting and use feasibility, this consists of the impervious area of the proposed project; for redevelopment projects that replace 50% or more of the existing impervious surface, it also includes the areas of existing impervious surface that are not modified by the project. If only a roof area is evaluated for rainwater harvesting and use feasibility, the potential rainwater capture area consists only of the applicable roof area.

Screening Density

A threshold of density (e.g., number of units or interior floor area) per acre of impervious surface, associated with a certain potential demand for non-potable water, for C.3 regulated projects. The screening density varies according to location (see Attachment 2.) If the screening density is met or exceeded, the Rainwater Harvesting and Use Feasibility Worksheet must be completed for the project.

Self-Retaining Area

A portion of a development site designed to retain the first one inch of rainfall (by ponding and infiltration and/or evapotranspiration) without producing stormwater runoff. Self-retaining areas must have at least a 2:1 ratio of contributing area to a self-retaining area and a 3" ponding depth. Self-retaining areas may include graded depressions with landscaping or pervious pavement. **Areas that Contribute Runoff to Self-Retaining Areas** are impervious or partially pervious areas that drain to self-retaining areas.

Self-Treating Area

A portion of a development site in which infiltration, evapotranspiration and other natural processes remove pollutants from stormwater. Self-treating areas may include conserved natural open areas, areas of landscaping, green roofs and pervious pavement. Self-treating areas treat only the rain falling on them and do not receive stormwater runoff from other areas.

Special Projects

Certain types of smart growth, high density and transit oriented development projects that are allowed, under Provision C.3.e.ii of the MRP, to receive LID treatment reductions. The specific development project types will be described in an amendment to the MRP, anticipated in Fall 2011.

Total Project Cost

Total project cost includes the construction (labor) and materials cost of the physical improvements proposed; however, it does not include land, transactions, financing, permitting, demolition, or off-site mitigation costs.

LID Feasibility Worksheet
Attachment 2: Toilet-Flushing Demand Required for Rainwater Harvesting Feasibility per Impervious Acre (IA) [1,2]

Table 1 - Alameda County:

Rain Gauge[3]	Required Demand (gal/day/IA)[4]	Residential		Office/Retail[5]		Schools[6]	
		No. of residents per IA[7]	Dwelling Units per IA[8]	Employees per IA[9]	Interior Floor Area (sq.ft./IA)[10]	Employees[11] per IA	Interior Floor Area (sq.ft./IA)[12]
Berkeley	5,900	690	255	860	172,000	170	51,000
Dublin	4,100	480	177	590	118,000	120	36,000
Hayward	4,800	560	207	700	140,000	140	42,000
Palo Alto	2,900	340	125	420	84,000	90	27,000
San Jose	2,400	280	103	350	70,000	70	21,000

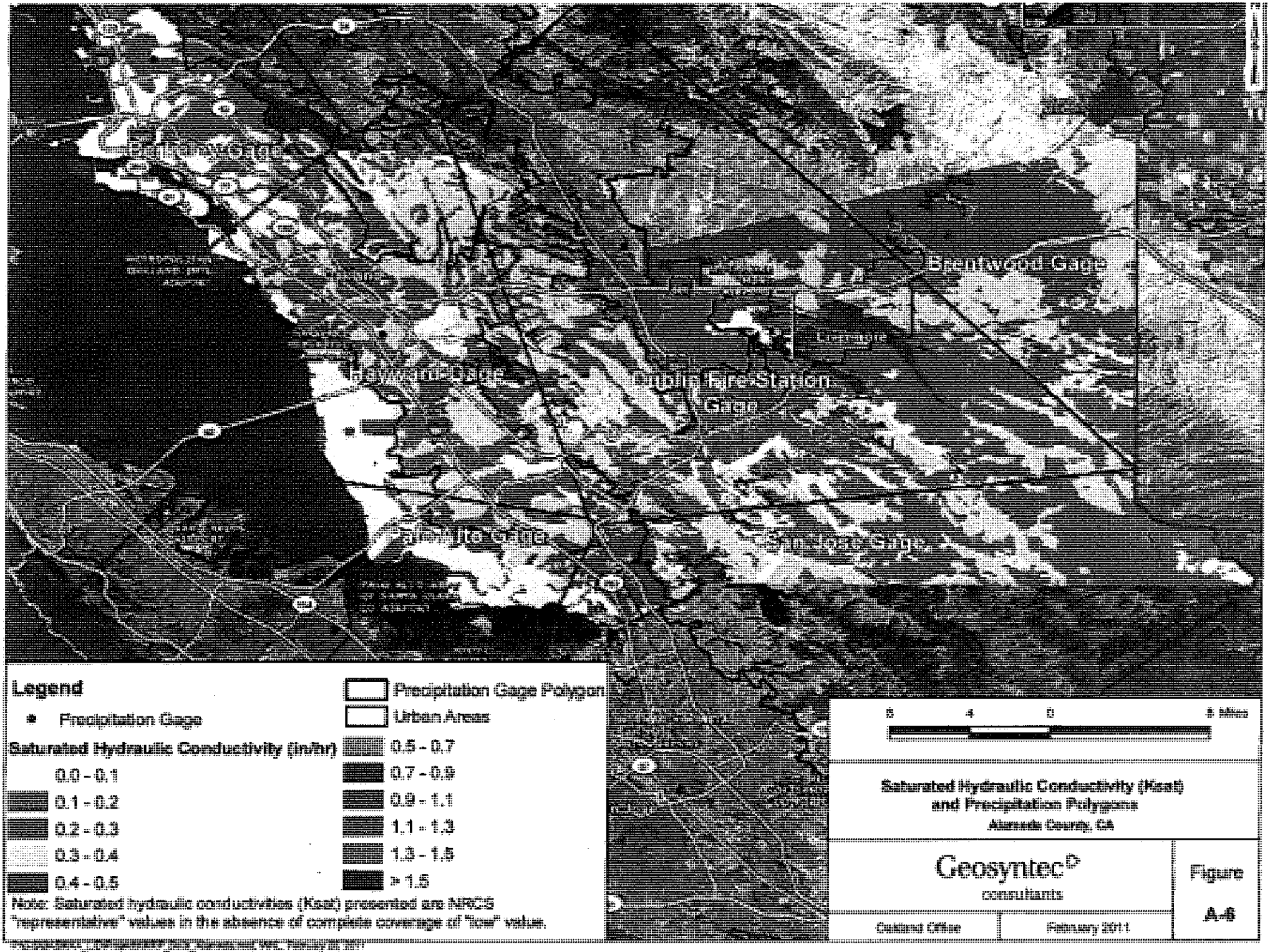
Notes:

1. Demand thresholds obtained from the "Harvest and Use, Infiltration and Evapotranspiration Feasibility/Infeasibility Criteria Report" (LID Feasibility Report) submitted to the Regional Water Board on May 1, 2011.
2. Toilet flushing demands assume use of low flow toilets per the California Green Building Code.
3. See Attachment 3 to identify the rain gauge that corresponds to the project site.
4. Required demand per acre of impervious area to achieve 80% capture of the C.3.d runoff volume with the maximum allowable drawdown time for cistern of 50,000 gallons or less, from Table 9 of the LID Feasibility Report.
5. "Office/Retail" includes the following land uses: office or public buildings, hospitals, health care facilities, retail or wholesale stores, and congregate residences.
6. "Schools" includes day care, elementary and secondary schools, colleges, universities, and adult centers.
7. Residential toilet flushing demand identified in Table 10 of the LID Feasibility Report.
8. Residential toilet flushing demand divided by the countywide average number of persons per household (US Census data reported on www.abag.org), as follows: Alameda County: 2.71 persons per household.
9. Office/retail employee toilet flushing demand identified in Table 10 of the LID Feasibility Report.
10. Interior floor area required for rainwater harvest and use feasibility per acre of impervious area is based on the number of employees in Column 5 multiplied by an occupant load factor of 200 square feet per employee (reference: 2010 California Plumbing Code, Chapter 4, Plumbing Fixtures and Fitting Fixtures, Table A, page 62.)
11. School employee toilet flushing demand identified in Table 10 of the LID Feasibility Report. Each school employee represents 1 employee and 5 "visitors" (students and others).
12. Interior floor area required for rainwater harvest and use feasibility per acre of impervious area is based on the number of employees in Column 7 multiplied by 6 to account for visitors, then multiplied by an occupant load factor of 50 square feet per employee (reference: 2010 California Plumbing Code).

LID Feasibility Worksheet

Attachment 3:

Countywide Map with
Rain Gauge Areas
And
Soil Hydraulic Conductivity (Ksat)


Brentwood Gate
Dublin Fire Station
Gate
San Jose Gate
Legend
Precipitation Gage
Precipitation Gage Polygon
Urban Areas
Saturated Hydraulic Conductivity (in/hr)
0.0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.7
0.7 - 0.9
0.9 - 1.1
1.1 - 1.3
1.3 - 1.5
> 1.5
Note: Saturated hydraulic conductivities (Ksat) presented are NRCS "representative" values in the absence of complete coverage of "low" value.
8 4 0 8 Miles
Saturated Hydraulic Conductivity (Ksat) and Precipitation Polygons
Alameda County, CA
Geosyntec consultants
Oakland Office
February 2011
Figure
A-6

FORM C

N/A PER FORM B SECTION 2

cleanwater PROGRAM

Infiltration Feasibility Worksheet

Municipal Regional Stormwater Permit (MRP)
Stormwater Controls for Development Projects

Complete this worksheet for **C.3 Regulated Projects*** *for which the soil hydraulic conductivity (Ksat) exceeds 1.6. Use this checklist to determine the feasibility of treating the* **C.3.d *amount of runoff**** *with infiltration. Where it is infeasible to treat the C.3.d amount of runoff* with infiltration or rainwater harvesting and use, stormwater may be treated with* **biotreatment*** *measures. See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).*

1. Enter Project Data.

1.1 Project Name:

1.2 Project Address:

1.3 Applicant/Agent Name:

1.4 Applicant/Agent Address:

1.5 Applicant/Agent Email: Applicant / Agent Phone:

2. Evaluate Infiltration Feasibility.

Check "Yes" or "No" to indicate whether the following conditions apply to the project. If "Yes" is checked for any question, then infiltration is infeasible, and you can continue to Item 3.1 without answering any further questions in Section 2. If all of the answers in Section 2 are "No," then infiltration is feasible, and you may design ***Infiltration facilities**** *for the area from which runoff must be treated. Items 2.1 through 2.3 address the feasibility of using* ***Infiltration facilities****, as well as the potential need to line bioretention areas.*

		Yes	No
2.1	Would infiltration facilities at this site conflict with the location of existing or proposed underground utilities or easements, or would the siting of infiltration facilities at this site result in their placement on top of underground utilities, or otherwise oriented to underground utilities, such that they would discharge to the utility trench, restrict access, or cause stability concerns? (If yes, attach evidence documenting this condition.)	☐	☐
2.2	Is there a documented concern that there is a potential on the site for soil or groundwater pollutants to be mobilized? (If yes, attach documentation of mobilization concerns.)	☐	☐
2.3	Are geotechnical hazards present, such as steep slopes, areas with landslide potential, soils subject to liquefaction, or would an infiltration facility need to be built less than 10 feet from a building foundation or other improvements subject to undermining by saturated soils? (If yes, attach documentation of geotechnical hazard.)	☐	☐

Respond to Questions 2.4 through 2.8 only if the project proposes to use an **Infiltration device***.

2.4	Do local water district or other agency's policies or guidelines regarding the locations where infiltration may occur, the separation from seasonal high groundwater, or setbacks from potential sources of pollution prevent infiltration devices from being implemented at this site? (If yes, attach evidence documenting this condition.)	☐	☐

		Yes	No
2.5	Would construction of an infiltration device require that it be located less than 100 feet away from a septic tank, underground storage tank with hazardous materials, or other potential underground source of pollution? (If yes, attach evidence documenting this claim.)	☐	☐

Infiltration Feasibility Worksheet

		Yes	No
2.6	*Is there a seasonal high groundwater table or mounded groundwater that would be within 10 feet of the base of an infiltration device* constructed on the site? (If yes, attach documentation of high groundwater.)*	☐	☐
2.7	Are there land uses that pose a high threat to water quality – including but not limited to industrial and light industrial activities, high vehicular traffic (i.e., 25,000 or greater average daily traffic on a main roadway or 15,000 or more average daily traffic on any intersecting roadway), automotive repair shops, car washes, fleet storage areas, or nurseries? (If yes, attach evidence documenting this claim.)	☐	☐
2.8	Is there a groundwater production well within 100 feet of the location where an infiltration device would be constructed? (If yes, attach map showing the well.)	☐	☐

3. Results of Feasibility Determination

		Infeasible	Feasible
3.1	Based on the results of the Section 2 feasibility analysis, infiltration is (check one):	☐	☐

→ *If "FEASIBLE" is indicated for Item 3.1, then the amount of stormwater requiring treatment must be treated with infiltration (or rainwater harvest and use, if feasible).* ***Infiltration facilities**** *may be designed for the area from which runoff must be treated.*

→ *If "INFEASIBLE" is checked for item 3.1, then the applicant may use appropriately designed biotreatment facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.*

Signature Print Name Date

Circle one: (Licensed Soils Engineer / Licensed Civil Engineer / Licensed Architect / Licensed Landscape Architect)

Name, address and telephone number of the Consultant's office.

LID Feasibility Worksheet
Attachment 1: Glossary

Bioinfiltration Area

A type of low development treatment measure designed to have a surface ponding area that allows for evapotranspiration, and to filter water through 18 inches of engineered biotreatment soil. After the water filters through the engineered soil, it encounters a 12-inch layer of rock in which an underdrain is typically installed. If the underlying soils have a saturated hydraulic conductivity rate of 1.6" per hour or greater, then the C.3.d amount of runoff is treated by evapotranspiration and infiltration. If the soils have a lower hydraulic conductivity rate, then the bioinfiltration area treats stormwater with evapotranspiration, some infiltration, and the remaining amount of the C.3.d amount of runoff is filtered and released into the underdrain. The difference between a bioinfiltration area and a bioretention area is that the bioinfiltration area is never lined with an impermeable layer, whereas, a bioretention area may be lined or unlined.

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LID Feasibility Worksheet
Attachment 2: Toilet-Flushing Demand Required for Rainwater Harvesting Feasibility per Impervious Acre (IA) [1,2]

Table 1 - Alameda County:

Rain Gauge[3]	Required Demand (gal/day/IA)[4]	Residential		Office/Retail[5]		Schools[6]	
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Palo Alto	2,900	340	125	420	84,000	90	27,000
San Jose	2,400	280	103	350	70,000	70	21,000

Notes:

1. Demand thresholds obtained from the "Harvest and Use, Infiltration and Evapotranspiration Feasibility/Infeasibility Criteria Report" (LID Feasibility Report) submitted to the Regional Water Board on May 1, 2011.
2. Toilet flushing demands assume use of low flow toilets per the California Green Building Code.
3. See Attachment 3 to identify the rain gauge that corresponds to the project site.
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5. "Office/Retail" includes the following land uses: office or public buildings, hospitals, health care facilities, retail or wholesale stores, and congregate residences.
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7. Residential toilet flushing demand identified in Table 10 of the LID Feasibility Report.
8. Residential toilet flushing demand divided by the countywide average number of persons per household (US Census data reported on www.abag.org), as follows: Alameda County: 2.71 persons per household.
9. Office/retail employee toilet flushing demand identified in Table 10 of the LID Feasibility Report.
10. Interior floor area required for rainwater harvest and use feasibility per acre of impervious area is based on the number of employees in Column 5 multiplied by an occupant load factor of 200 square feet per employee (reference: 2010 California Plumbing Code, Chapter 4, Plumbing Fixtures and Fitting Fixtures, Table A, page 62.)
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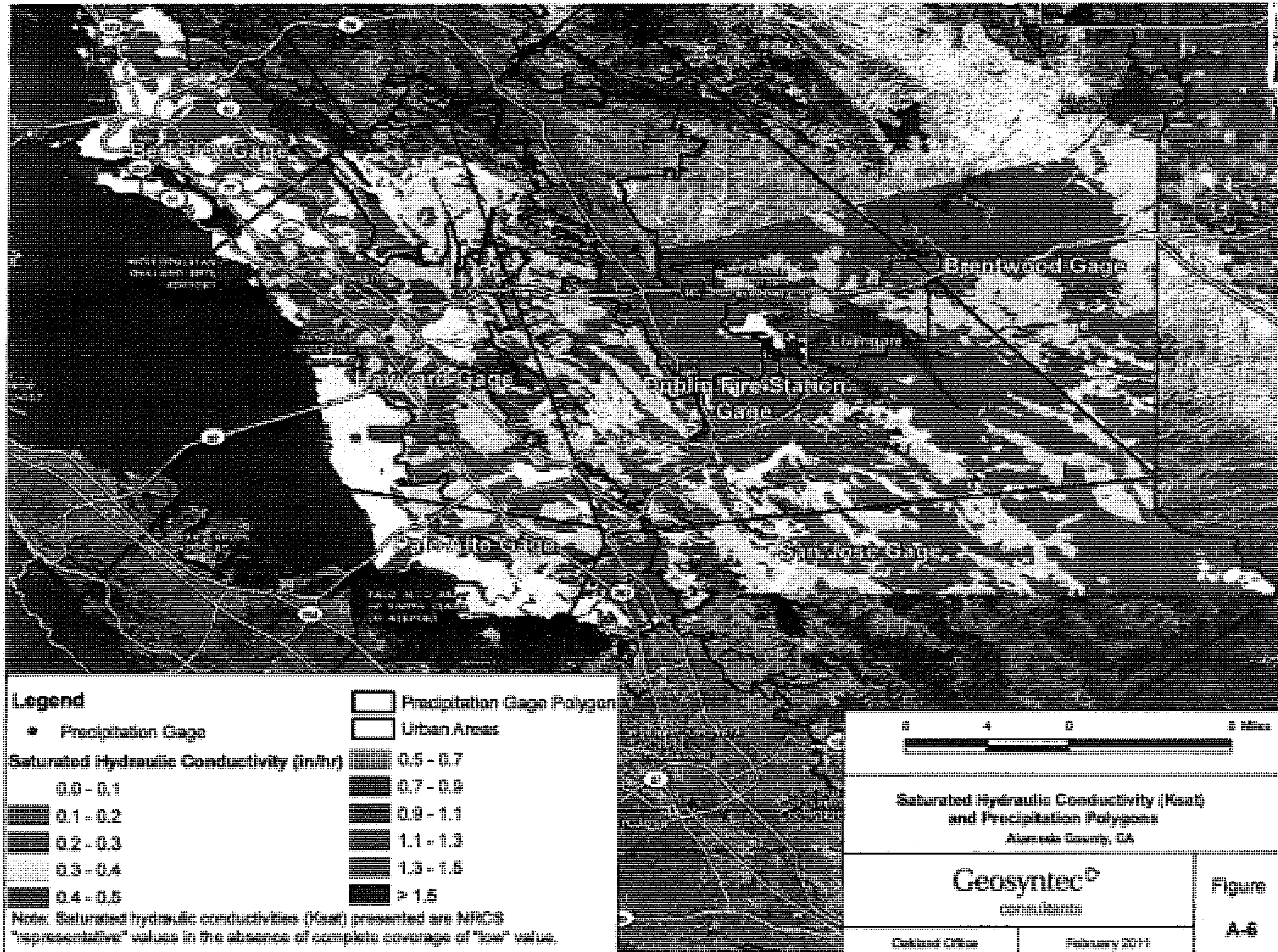
LID Feasibility Worksheet

Attachment 3:

Countywide Map with
Rain Gauge Areas
And
Soil Hydraulic Conductivity (Ksat)



Brentwood Gage
Dublin Fire Station Gage
Hayward Gage
Legend
Precipitation Gage
Saturated Hydraulic Conductivity (in/hr)
0.0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
Precipitation Gage Polygon
Urban Areas
0.5 - 0.7
0.7 - 0.9
0.9 - 1.1
1.1 - 1.3
1.3 - 1.5
> 1.5
Note: Saturated hydraulic conductivities (Ksat) presented are NRCS "representative" values in the absence of complete coverage of "low" value.
8 4 0 8 Miles
Saturated Hydraulic Conductivity (Ksat) and Precipitation Polygons
Alameda County, CA
Geosyntec consultants
Oakland Office
February 2011
Figure
A-6

N/A PER FORM B SECTION 5.1

cleanwater PROGRAM

FORM D

Rainwater Harvesting and Use Feasibility Worksheet
Municipal Regional Stormwater Permit (MRP)
Stormwater Controls for Development Projects

Complete this worksheet for all **C.3 Regulated Projects*** for which the project density exceeds the **screening density***. Use this worksheet to determine the feasibility of treating the **C.3.d amount of runoff*** with rainwater harvesting and use for indoor, non-potable water uses. Where it is infeasible to treat the C.3d amount of runoff with either harvesting and use or infiltration, stormwater may be treated with **biotreatment*** measures. See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).

Complete this worksheet for the entire project area. If rainwater harvesting and use is infeasible for the entire project, and the project includes one or more buildings that each individually has a roof area of 10,000 square feet, then complete a separate copy of this form for each of these buildings (in this case, complete only the sections of the form that make sense for the roof area evaluation).

1. Enter Project Data.

1.1 Project Name: _____

1.2 Project Address: _____

1.3 Applicant/Agent Name: _____

1.4 Applicant/Agent Address: _____

(For projects with a potential non-potable water use other than toilet flushing, skip to Question 5.1)

1.5 Project Type: _____ If residential or mixed use, enter # of dwelling units: _____

1.6 Enter square footage of non-residential interior floor area.: _____

1.7 Total area being evaluated (entire project or individual roof with an area > 10,000 sq.ft.): _____ sq.ft.

1.8 If it is a **Special Project***, indicate the percentage of **LID treatment*** reduction: _____ percent
(Item 1.8 applies only to entire project evaluations, not individual roof area evaluations.)

1.9 Total area being evaluated, adjusted for Special Project LID treatment reduction credit: _____ sq.ft.
(This is the total area being evaluated that requires LID treatment.)

2. Calculate Area of Self-Treating Areas, Self-Retaining Areas, and Areas Contributing to Self-Retaining Areas.

2.1 Enter square footage of any **self-treating areas*** in the area that is being evaluated: _____ sq.ft.

2.2 Enter square footage of any **self-retaining areas*** in the area that is being evaluated: _____ sq.ft.

2.3 Enter the square footage of areas contributing runoff to **self-retaining area***: _____ sq.ft.

2.4 TOTAL of Items 2.1, 2.2, and 2.3: _____ sq.ft.

3. Subtract credit for self-treating/self-retaining areas from area requiring treatment.

3.1 Subtract the TOTAL in Item 2.4 from the adjusted area being evaluated (Item 1.9). This is the **potential rainwater capture area***: _____ sq.ft.

3.3 Convert the potential rainwater capture area (Item 3.1) from square feet to acres _____ acres

4. Determine feasibility of use for toilet flushing based on demand

4.1 Project's dwelling units per acre of potential rain capture area (Divide the number in 1.5 by the number in 3.3) _____ dwelling units/acre

4.2 Non-residential interior floor area per acre of potential rain capture area (Divide the number in 1.6 by the number in 3.3) _____ Int. non-res. floor area/acre

* See definitions in Glossary (Attachment 1)

*Note: formulas in Items 4.1 and 4.2 are set up, respectively, for a residential or a non-residential project. Do not use these pre-set formulas for mixed use projects. **For mixed use projects**, evaluate the residential toilet flushing demand based on the dwelling units per acre for the residential portion of the project (use a prorated acreage, based on the percentage of the project dedicated to residential use). Then evaluate the commercial toilet flushing demand per acre for the commercial portion of the project (use a prorated acreage, based on the percentage of the project dedicated to commercial use).*

Rainwater Harvesting and Use Feasibility Worksheet

4.3	Refer to the applicable countywide table in Attachment 2. Identify the number of dwelling units per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility.	_____ dwelling units/acre
4.4	Refer to the applicable countywide table in Attachment 2. Identify the square feet of non-residential interior floor area per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility.	_____ int. non-res. floor area/acre

Check "Yes" or "No" to indicate whether the following conditions apply. If "Yes" is checked for any question, then rainwater harvesting and use is infeasible. As soon as you answer "Yes", you can skip to Item 6.1. If "No" is checked for all items, then rainwater harvesting and use is feasible and you must harvest and use the C.3.d amount of stormwater, unless you infiltrate the C.3.d amount of stormwater.*

4.5	Is the project's number of dwelling units per acre of potential rainwater capture area (listed in Item 4.1) LESS than the number identified in Item 4.3?	☐ Yes ☐ No
4.6	Is the project's square footage of non-residential interior floor area per acre of potential rainwater capture area (listed in Item 4.2) LESS than the number identified in Item 4.4?	☐ Yes ☐ No

5. Determine feasibility of rainwater harvesting and use based on factors other than demand.

5.1	Does the requirement for rainwater harvesting and use at the project conflict with local, state, or federal ordinances or building codes?	☐ Yes ☐ No
5.2	Would the technical requirements cause the harvesting system to exceed 2% of the **Total Project Cost***, or has the applicant documented economic hardship in relation to maintenance costs? (If so, attach an explanation.)	☐ Yes ☐ No
5.3	Do constraints, such as a slope above 10% or lack of available space at the site, make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water? (If so, attach an explanation.)	☐ Yes ☐ No
5.4	Are there geotechnical/stability concerns related to the surface (roof or ground) where a cistern would be located that make the use of rainwater harvesting infeasible? (If so, attach an explanation.)	☐ Yes ☐ No
5.5	Does the location of utilities, a septic system and/or **heritage trees*** limit the placement of a cistern on the site to the extent that rainwater harvesting is infeasible? (If so, attach an	☐ Yes ☐ No

Note: It is assumed that projects with significant amounts of landscaping will either treat runoff with landscape dispersal (self-treating and self-retaining areas) or will evaluate the feasibility of harvesting and using rainwater for irrigation using the curves in Appendix F of the LID Feasibility Report.

* See definitions in Glossary (Attachment 1)

6. Results of Feasibility Determination

		Infeasible	Feasible
6.1	Based on the results of the feasibility analysis in Item 4.4 and Section 5, rainwater harvesting/use is (check one):	☐	☐

→ If "FEASIBLE" is indicated for Item 6.1 the amount of stormwater requiring treatment must be treated with harvesting/use, unless it is infiltrated into the soil.

→ If "INFEASIBLE" is checked for Item 6.1, then the applicant may use appropriately designed ***bioretention*** **[1] facilities for compliance with C.3 treatment requirements. If Ksat > 1.6 in./hr., and infiltration is unimpeded by subsurface conditions, then the bioretention facilities are predicted to infiltrate 80% or more average annual runoff. If Ksat < 1.6, maximize infiltration of stormwater by using bioretention if site conditions allow, and remaining runoff will be discharged to storm drains via facility underdrains. If site conditions preclude infiltration, a lined bioretention area or flow-through planter may be used.*

Signature (and Print Name) Date

Circle one: (licensed Soils Engineer/Licensed Civil Engineer/Licensed Architect/ Licensed Landscape

Name, address and telephone number of Consultant's Office

* See definitions in Glossary (Attachment 1)

LID Feasibility Worksheet
Attachment 1: Glossary

Bioinfiltration Area

A type of low development treatment measure designed to have a surface ponding area that allows for evapotranspiration, and to filter water through 18 inches of engineered biotreatment soil. After the water filters through the engineered soil, it encounters a 12-inch layer of rock in which an underdrain is typically installed. If the underlying soils have a saturated hydraulic conductivity rate of 1.6" per hour or greater, then the C.3.d amount of runoff is treated by evapotranspiration and infiltration. If the soils have a lower hydraulic conductivity rate, then the bioinfiltration area treats stormwater with evapotranspiration, some infiltration, and the remaining amount of the C.3.d amount of runoff is filtered and released into the underdrain. The difference between a bioinfiltration area and a bioretention area is that the bioinfiltration area is never lined with an impermeable layer; whereas, a bioretention area may be lined or unlined.

Bioretention Area

A type of low development treatment measura designed to have a surfece ponding area that allows for evapotranspiration, and to filter water through 18 inches of engineered biotreatment soil. After the water filters through the engineared soil, it encounters a 12-inch layer of rock in which an underdrain is typically installed. If the underlying soils have a saturated hydraulic conductivity rate of 1.6" per hour or greater, then the C.3.d amount of runoff is treated by evapotranspiration and infiltration. If the soils have a lower hydraulic conductivity rate, or if infiltration is prohibited and the bioretention area is lined with an impermeable layer, then the bioretention area treats stormwater with evapotranspiration, some or no infiltration, and the remaining amount of the C.3.d amount of runoff is filtered and released into the underdrain. The difference between a bioinfiltration area and a bioretention area is that the bioinfiltration area is never lined with an impermeable layer, whereas, a bioretention area may be lined or unlined.

Biotreatment

A type of low impact development treatment allowed under Provision C.3.c of the ***MRP****, if infiltration, evapotranspiration and rainwater harvesting and use are infeasible. As required by Provision C.3.c.i(2)(vi), biotreatment systems shall be designed to have a surface area no smaller than what is required to accommodate a 5 inches/hour stormwater runoff surface loading rate and shall use biotreatment soil as specified in the biotreatment soil specifications approved by the Regional Water Board, or equivalent.

C.3 Regulated Projects:

Development projects as defined by Provision C.3.b.ii of the ***MRP****. This includes public end private projects that create and/or replace 10,000 square feet or more of impervious surface, and restaurants, retail gasoline outlets, auto service facilities, and uncovered parking lots (stand-alone or part of another use) that create and/or replace 5,000 square feet or more of impervious surface. Single family homes that are not part of a larger plan of development are specifically excluded.

C.3.d Amount of Runoff

The amount of stormwater runoff from C.3 Regulated Projects that must receive stormwater treatment, as described by hydraulic sizing criteria in Provision C.3.d of the ***MRP****.

Heritage Tree

An individual tree of any size or species given the 'heritage tree' designation as defined by the municipality's tree ordinance or other section of the municipal code.

Infiltration Devices

Infiltration facilities that are deeper that they are wide and designed to infiltrate stormwater runoff into the subsurface and, as designed, bypass the natural groundwater protection afforded by surface soil. These devices include dry wells, injection wells and infiltration trenches (includes French drains).

Infiltration Facilities

A term that refers to both infiltration devices and measures.

Infiltration Measures

Infiltration facilities that are wider than they are deep (e.g., bioinfiltration, infiltration basins and shallow wide infiltration trenches and dry wells).

Low Impact Development (LID) Treatment

Removal of pollutants from stormwater runoff using the following types of stormwater treatment measures: rainwater harvesting and use, infiltration, evapotranspiration, or, where these are infeasible, biotreatment.

Municipal Regional Stormwater Permit (MRP)

The municipal stormwater NPDES permit under which discharges are permitted from municipal separate storm sewer systems throughout Alameda County and the other NPDES Phase I jurisdictions within the San Francisco Bay Region.

Potential Rainwater Capture Area

The impervious area from which rainwater may be potentially be captured, if rainwater harvesting and use were implemented for a project. If the entire site is evaluated for rainwater harvesting and use feasibility, this consists of the impervious area of the proposed project; for redevelopment projects that replace 50% or more of the existing impervious surface, it also includes the areas of existing impervious surface that are not modified by the project. If only a roof area is evaluated for rainwater harvesting and use feasibility, the potential rainwater capture area consists only of the applicable roof area.

Screening Density

A threshold of density (e.g., number of units or interior floor area) per acre of impervious surface, associated with a certain potential demand for non-potable water, for C.3 regulated projects. The screening density varies according to location (see Attachment 2.) If the screening density is met or exceeded, the Rainwater Harvesting and Use Feasibility Worksheet must be completed for the project.

Self-Retaining Area

A portion of a development site designed to retain the first one inch of rainfall (by ponding and infiltration and/or evapotranspiration) without producing stormwater runoff. Self-retaining areas must have at least a 2:1 ratio of contributing area to a self-retaining area and a 3" ponding depth. Self-retaining areas may include graded depressions with landscaping or pervious pavement. **Areas that Contribute Runoff to Self-Retaining Areas** are impervious or partially pervious areas that drain to self-retaining areas.

Self-Treating Area

A portion of a development site in which infiltration, evapotranspiration and other natural processes remove pollutants from stormwater. Self-treating areas may include conserved natural open areas, areas of landscaping, green roofs and pervious pavement. Self-treating areas treat only the rain falling on them and do not receive stormwater runoff from other areas.

Special Projects

Certain types of smart growth, high density and transit oriented development projects that are allowed, under Provision C.3.e.ii of the MRP, to receive LID treatment reductions. The specific development project types will be described in an amendment to the MRP, anticipated in Fall 2011.

Total Project Cost

Total project cost includes the construction (labor) and materials cost of the physical improvements proposed; however, it does not include land, transactions, financing, permitting, demolition, or off-site mitigation costs.

LID Feasibility Worksheet
Attachment 2: Toilet-Flushing Demand Required for Rainwater Harvesting Feasibility per Impervious Acre (IA) [1,2]

Table 1 - Alameda County:

Rain Gauge[3]	Required Demand (gal/day/IA)[4]	Residential		Office/Retail[5]		Schools[6]	
		No. of residents per IA[7]	Dwelling Units per IA[8]	Employees per IA[9]	Interior Floor Area (sq.ft./IA)[10]	Employees[11] per IA	Interior Floor Area (sq.ft./IA)[12]
Berkeley	5,900	690	255	860	172,000	170	51,000
Dublin	4,100	480	177	590	118,000	120	36,000
Hayward	4,800	560	207	700	140,000	140	42,000
Palo Alto	2,900	340	125	420	84,000	90	27,000
San Jose	2,400	280	103	350	70,000	70	21,000

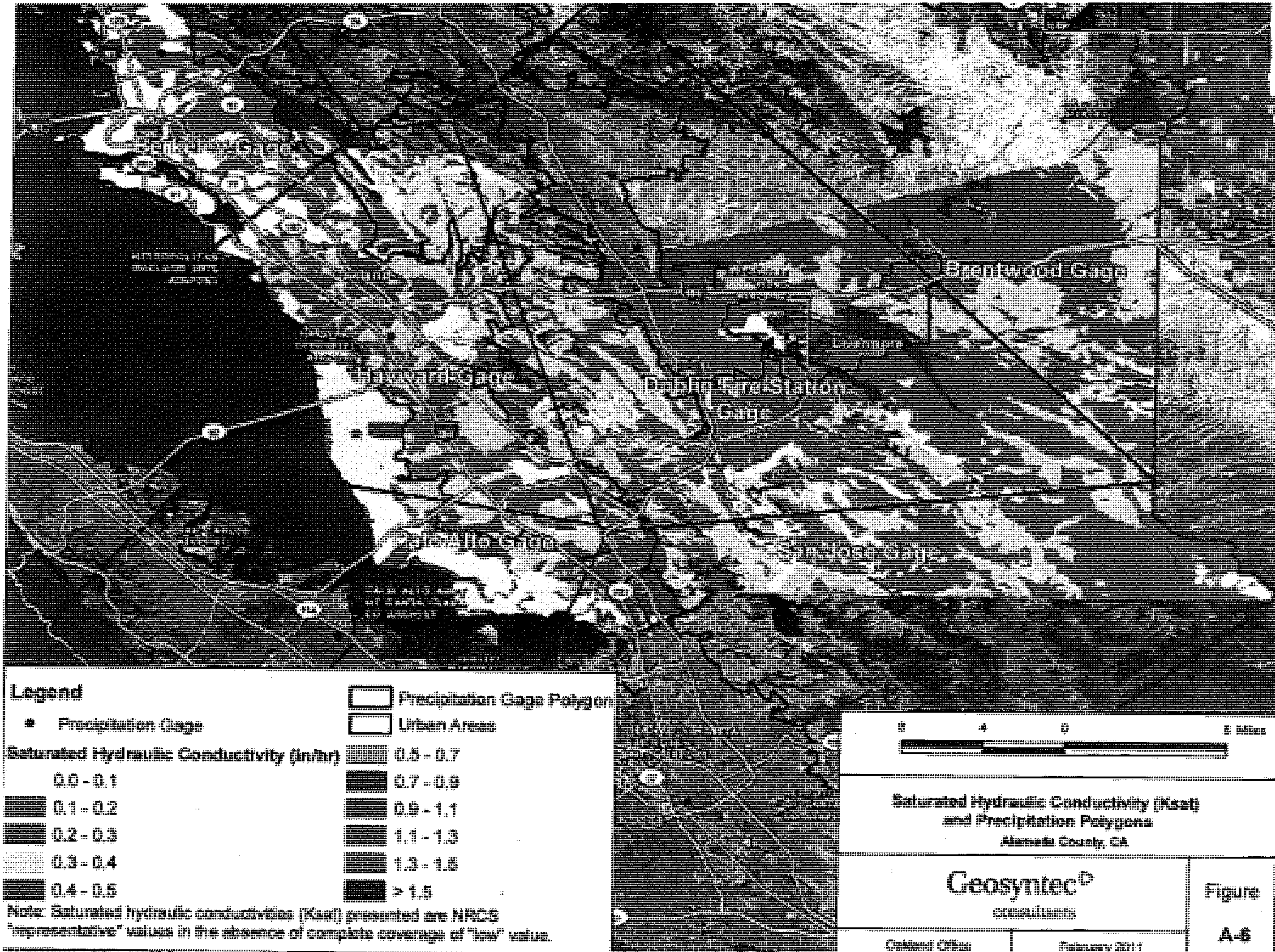
Notes:

1. Demand thresholds obtained from the "Harvest and Use, Infiltration and Evapotranspiration Feasibility/Infeasibility Criteria Report" (LID Feasibility Report) submitted to the Regional Water Board on May 1, 2011.
2. Toilet flushing demands assume use of low flow toilets per the California Green Building Code.
3. See Attachment 3 to identify the rain gauge that corresponds to the project site.
4. Required demand per acre of impervious area to achieve 80% capture of the C.3.d runoff volume with the maximum allowable drawdown time for cistern of 50,000 gallons or less, from Table 9 of the LID Feasibility Report.
5. "Office/Retail" includes the following land uses: office or public buildings, hospitals, health care facilities, retail or wholesale stores, and congregate residences.
6. "Schools" includes day care, elementary and secondary schools, colleges, universities, and adult centers.
7. Residential toilet flushing demand identified in Table 10 of the LID Feasibility Report.
8. Residential toilet flushing demand divided by the countywide average number of persons per household (US Census data reported on www.abag.org), as follows: Alameda County: 2.71 persons per household.
9. Office/retail employee toilet flushing demand identified in Table 10 of the LID Feasibility Report.
10. Interior floor area required for rainwater harvest and use feasibility per acre of impervious area is based on the number of employees in Column 5 multiplied by an occupant load factor of 200 square feet per employee (reference: 2010 California Plumbing Code, Chapter 4, Plumbing Fixtures and Fitting Fixtures, Table A, page 62.)
11. School employee toilet flushing demand identified in Table 10 of the LID Feasibility Report. Each school employee represents 1 employee and 5 "visitors" (students and others).
12. Interior floor area required for rainwater harvest and use feasibility per acre of impervious area is based on the number of employees in Column 7 multiplied by 6 to account for visitors, then multiplied by an occupant load factor of 50 square feet per employee (reference: 2010 California Plumbing Code).

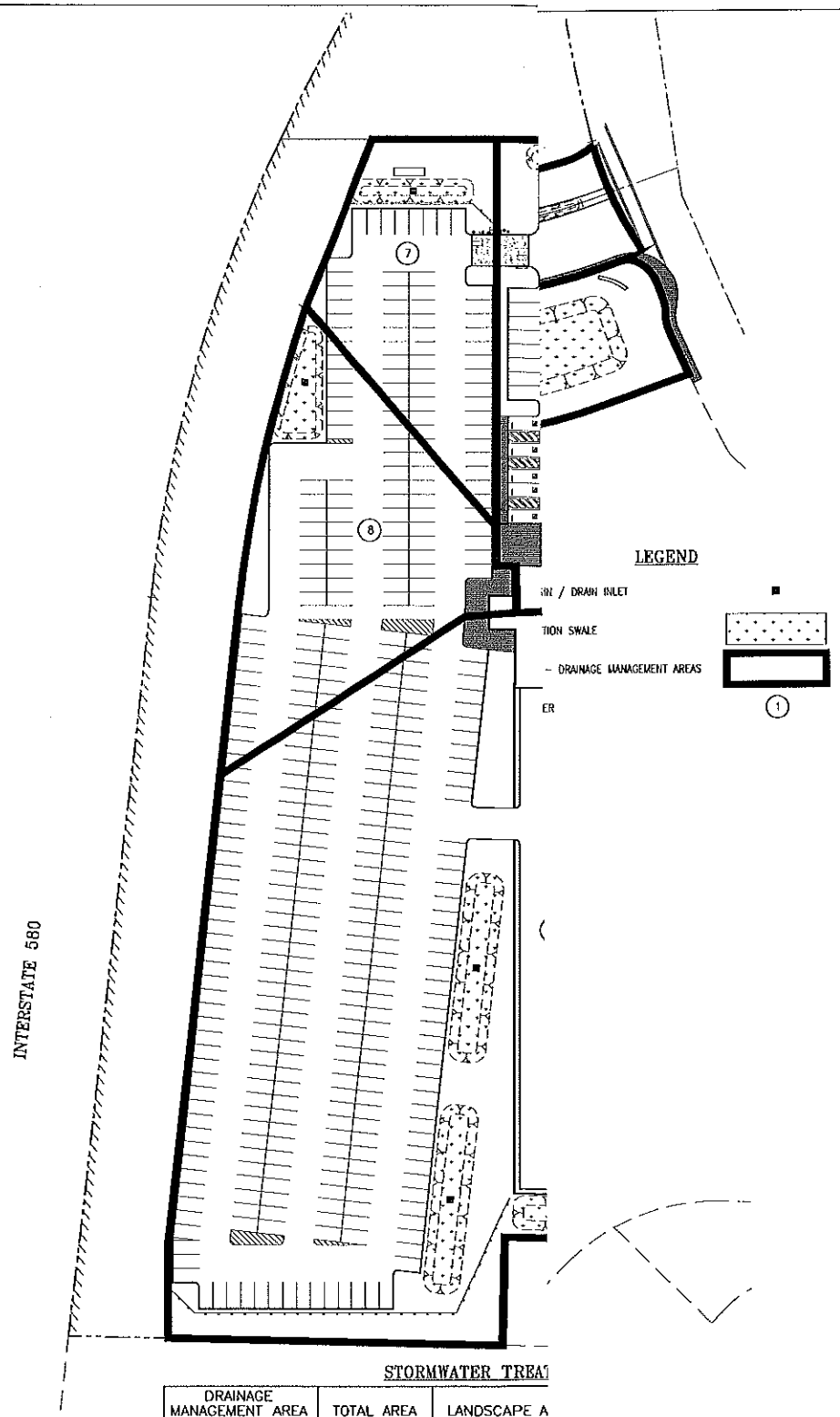
LID Feasibility Worksheet

Attachment 3:

Countywide Map with
Rain Gauge Areas
And
Soil Hydraulic Conductivity (Ksat)


Brentwood Gage
Dublin Fire Station Gage
Hayward Gage
San Jose Gage
Legend
Precipitation Gage
Precipitation Gage Polygon
Urban Areas
Saturated Hydraulic Conductivity (in/hr)
0.0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5
0.5 - 0.7
0.7 - 0.9
0.9 - 1.1
1.1 - 1.3
1.3 - 1.5
> 1.5
Note: Saturated hydraulic conductivities (Ksat) presented are NRCS "representative" values in the absence of complete coverage of "low" value.
8 4 0 8 Miles
Saturated Hydraulic Conductivity (Ksat) and Precipitation Polygons
Alameda County, CA
Geosyntec
consultants
Figure
A-6
Oakland Office
February 2011

APPENDIX B – STORM WATER QUALITY PLAN



STORMWATER TREAT

DRAINAGE MANAGEMENT AREA (DMA)	TOTAL AREA (SF)	LANDSCAPE A (SF)
1	18,490	440
2	18,890	3,460
3	16,140	2,100
4	136,460	22,390
5	44,690	4,730
6	52,610	5,990
7	20,040	4,450
8	29,270	2,240
9	190,350	19,500
10	138,370	7,780
11	67,460	3,160
12	99,880	8,410

MACKAY & SOMPS
1953 2013
51428 FRANKLIN DR, PLEASANTON, CA 94588 (925)225-0690

REGISTERED PROFESSIONAL ENGINEER
JAMES F. TEMPLETON JR.
No.43061
EXP. 3/31/14
CIVIL
STATE OF CALIFORNIA

PLANS PREPARED UNDER THE DIRECTION OF:

BY: JAMES F. TEMPLETON JR. RCE #43061
EXPIRES: MARCH 31, 2014

NOT RELEASED FOR CONSTRUCTION

APPROVAL

CARMAX PE

REVISIONS

REV. NO	DATE	DESCRIPTION	BY

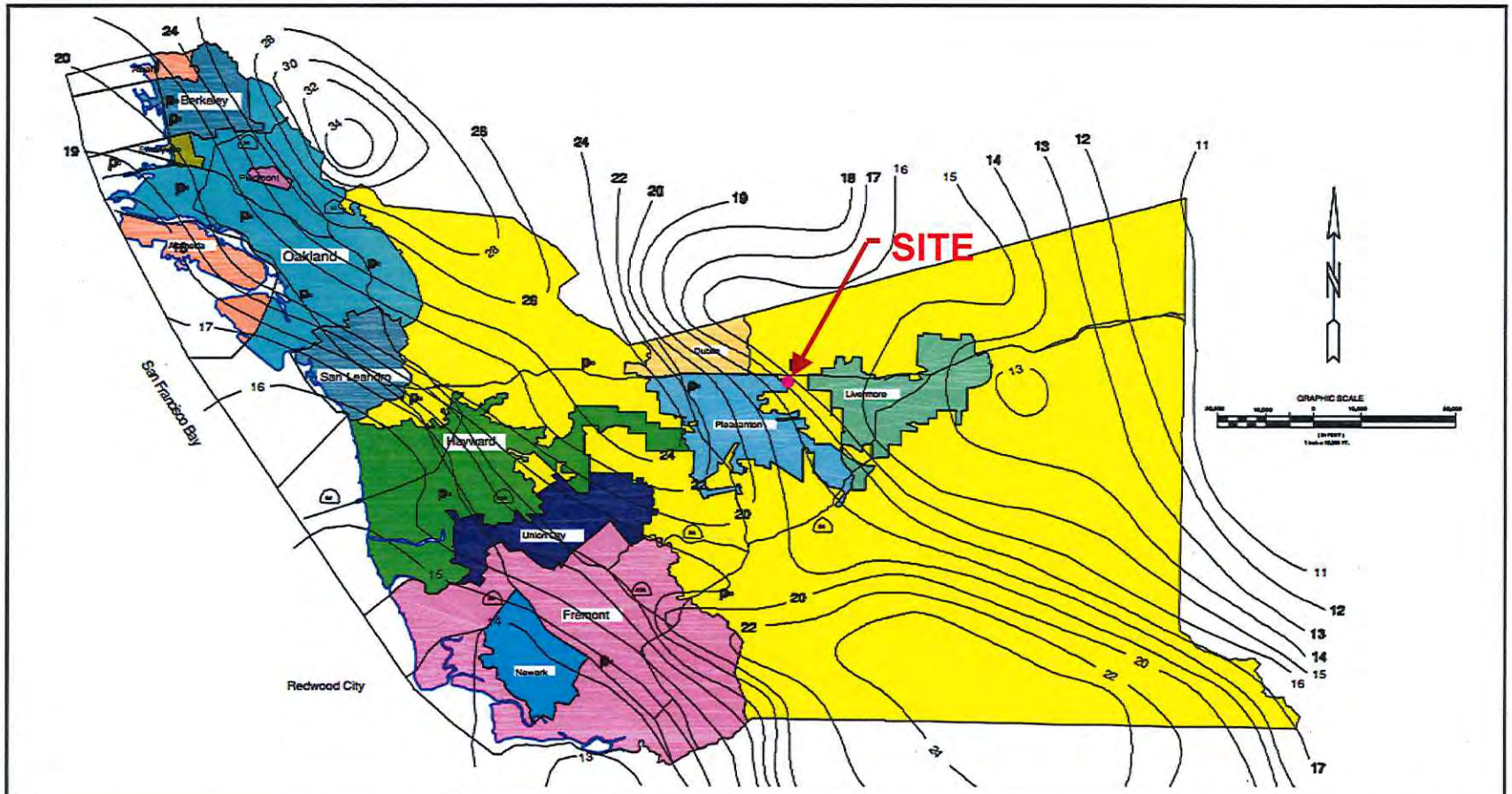
CARMAX
THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE WEST COAST, INC.
12800 TUCKAHOE CREEK PARKWAY RICHMOND, VA 23238
(804) 747-0422

STORE NO. 6068
PLEASANTON, CA

PROJECT NO. 19703.000
DATE NOVEMBER 2013
SHEET TITLE
STORM WATER QUALITY PLAN

SHEET NO. C7.0

APPENDIX C – DRAINAGE MANAGEMENT AREA CALCULATIONS



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	MEAN ANNUAL PRECIPITATION (VALUES IN INCHES)	DATE: MAY 2003 **ATTACHMENT-6**

CARMAX - PLEASANTON
Drainage Management Area #1

19703
11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	17,150	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	440	sq ft
Calculations		
Effective Impervious Area[5]	17,194	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	874	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	686	sq ft
Bio-Retention Area (6" ponding)[10]	500	sq ft
Bio-Retention Area (12" ponding)[10]	390	sq ft
Provided Bio-Retention Area[11]	515	sq ft
Depth of Ponding[12]	5.11	in
Sizing Ratio[13]	3.0%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON
Drainage Management Area #2

19703
11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	14,550	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	3,460	sq ft

Calculations		
Effective Impervious Area[5]	14,896	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	757	cu ft
Rain Event Duration[8]	3.05	hours

Results		
Basin Area per 4% Approximate Sizing Factor[9]	582	sq ft
Bio-Retention Area (6" ponding)[10]	430	sq ft
Bio-Retention Area (12" ponding)[10]	340	sq ft
Provided Bio-Retention Area[11]	505	sq ft
Depth of Ponding[12]	2.74	in
Sizing Ratio[13]	3.5%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #3 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	13,170	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	2,100	sq ft
Calculations		
Effective Impervious Area[5]	13,380	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	680	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	527	sq ft
Bio-Retention Area (6" ponding)[10]	390	sq ft
Bio-Retention Area (12" ponding)[10]	300	sq ft
Provided Bio-Retention Area[11]	505	sq ft
Depth of Ponding[12]	0.91	in
Sizing Ratio[13]	3.8%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #4 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	107,250	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	22,390	sq ft
Calculations		
Effective Impervious Area[5]	109,489	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	5,563	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	4,290	sq ft
Bio-Retention Area (6" ponding)[10]	3,150	sq ft
Bio-Retention Area (12" ponding)[10]	2,460	sq ft
Provided Bio-Retention Area[11]	3,985	sq ft
Depth of Ponding[12]	1.51	in
Sizing Ratio[13]	3.7%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #5 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	37,880	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	4,730	sq ft
Calculations		
Effective Impervious Area[5]	38,353	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	1,949	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	1,515	sq ft
Bio-Retention Area (6" ponding)[10]	1,110	sq ft
Bio-Retention Area (12" ponding)[10]	860	sq ft
Provided Bio-Retention Area[11]	1,350	sq ft
Depth of Ponding[12]	2.08	in
Sizing Ratio[13]	3.6%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #6 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	44,540	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	5,990	sq ft

Calculations		
Effective Impervious Area[5]	45,139	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	2,294	cu ft
Rain Event Duration[8]	3.05	hours

Results		
Basin Area per 4% Approximate Sizing Factor[9]	1,782	sq ft
Bio-Retention Area (6" ponding)[10]	1,300	sq ft
Bio-Retention Area (12" ponding)[10]	1,020	sq ft
Provided Bio-Retention Area[11]	1,350	sq ft
Depth of Ponding[12]	5.14	in
Sizing Ratio[13]	3.0%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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Drainage Management Area #7 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	14,440	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	4,450	sq ft
Calculations		
Effective Impervious Area[5]	14,885	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	756	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	578	sq ft
Bio-Retention Area (6" ponding)[10]	430	sq ft
Bio-Retention Area (12" ponding)[10]	340	sq ft
Provided Bio-Retention Area[11]	440	sq ft
Depth of Ponding[12]	5.38	in
Sizing Ratio[13]	3.0%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #8 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	25,370	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	2,240	sq ft
Calculations		
Effective Impervious Area[5]	25,594	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	1,301	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	1,015	sq ft
Bio-Retention Area (6" ponding)[10]	740	sq ft
Bio-Retention Area (12" ponding)[10]	580	sq ft
Provided Bio-Retention Area[11]	987	sq ft
Depth of Ponding[12]	0.57	in
Sizing Ratio[13]	3.9%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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Drainage Management Area #9 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	161,160	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	19,500	sq ft
Calculations		
Effective Impervious Area[5]	163,110	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	8,288	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	6,446	sq ft
Bio-Retention Area (6" ponding)[10]	4,690	sq ft
Bio-Retention Area (12" ponding)[10]	3,660	sq ft
Provided Bio-Retention Area[11]	4,900	sq ft
Depth of Ponding[12]	5.05	in
Sizing Ratio[13]	3.0%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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Drainage Management Area #10 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	123,720	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	7,780	sq ft
Calculations		
Effective Impervious Area[5]	124,498	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	6,326	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	4,949	sq ft
Bio-Retention Area (6" ponding)[10]	3,580	sq ft
Bio-Retention Area (12" ponding)[10]	2,790	sq ft
Provided Bio-Retention Area[11]	3,780	sq ft
Depth of Ponding[12]	4.84	in
Sizing Ratio[13]	3.1%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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CARMAX - PLEASANTON 19703
Drainage Management Area #11 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	57,080	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	3,160	sq ft
Calculations		
Effective Impervious Area[5]	57,396	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	2,916	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	2,283	sq ft
Bio-Retention Area (6" ponding)[10]	1,650	sq ft
Bio-Retention Area (12" ponding)[10]	1,290	sq ft
Provided Bio-Retention Area[11]	2,800	sq ft
Depth of Ponding[12]	0.00	in
Sizing Ratio[13]	4.9%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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Drainage Management Area #12 11/13/2013
TCT

Bio-Retention Sizing Calculation

Combination Flow and Volume Approach
Per Alameda County C.3 Guidance Document dated May 2013

Inputs	Value	Units
Mean Annual Precipitation[1]	16.7	in
Gross Impervious Surfaces[2]	84,670	sq ft
Interceptor Tree Impervious Area Reduction[3]	0	sq ft
Pervious Surfaces[4]	8,410	sq ft
Calculations		
Effective Impervious Area[5]	85,511	sq ft
Adjusted Unit Basin Storage Volume[6]	0.61	in
Required Captured Volume[7]	4,345	cu ft
Rain Event Duration[8]	3.05	hours
Results		
Basin Area per 4% Approximate Sizing Factor[9]	3,387	sq ft
Bio-Retention Area (6" ponding)[10]	2,460	sq ft
Bio-Retention Area (12" ponding)[10]	1,920	sq ft
Provided Bio-Retention Area[11]	3,080	sq ft
Depth of Ponding[12]	1.68	in
Sizing Ratio[13]	3.6%	

Notes:

[1] Mean Annual Precipitation (MAP) determined using the map of Alameda County provided as Appendix D of the May 2013 Stormwater Technical Guidance document.
[2] Impervious Surfaces includes all impervious surfaces (Roof Areas, Paving, Sidewalks, etc)
[3] Per Section 4.5, the impervious area can be reduced for each existing tree that is preserved and each new evergreen or deciduous tree planted that meets the requirements of section 4.5.1 of the May 2013 C.3 Stormwater Technical Guidance document.
[4] Pervious surfaces (Landscaping, properly designed pervious paving)
[5] Effective impervious area includes the total Impervious Surfaces -Interceptor Tree credit+(0.1)*Pervious Surfaces
[6] For MAP> 16.4 inches the Oakland Airport Gauge is utilized (MAP = 18.35, Unit Basin Storage Volume = 0.67). For MAP< 16.4 inches the San Jose Airport Gauge is utilized (MAP= 14.4, Unit Basin Storage Volume= 0.56).
[7] Required Capture Volume is equal to the Adjusted Unit Basin Storage Volume x the Impervious Area.
[8] Rain Event Duration assumes an intensity of 0.2 in/hr, the Adjusted Unit Basin Volume is divided by the intensity.
[9] Calculated Basin Area using a flow based calculation only, no ponding. (4% method)
[10] The May 2013 Stormwater Technical Guidance document recommends ponding depths between 6 and 12 inches within a Bio-Retention Facility or Flow Thru Planter.
[11] The Bio-Retention Area provided on the site design
[12] The depth of ponding the provided Bio-Retention Area will have in the design event
[13] Sizing Ratio is the provided Bio-Retention Area versus the Gross Impervious Area.

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Appendix G:
Traffic Comparison Memo

TJKM
Transportation Consultants

Vision That Moves Your Community

MEMORANDUM

Date: May 21, 2013

To: Chris Guenther and Chris Ragan, MacKay & Somps

Project No.: 013-531

From: Chris Kinzel

Jurisdiction: Pleasanton

Subject: Trip Generation, Pleasanton Carmax

This is to provide a trip generation comparison between the trips in the Stoneridge Drive Specific Plan and the current Carmax proposal.

Stoneridge Drive Specific Plan

Land use: "Auto Mall". SDSP allocated 37 acres to this land use, with a total of 331,000 square feet. Source: SDSP Amendment/Staples Ranch EIR, Table 3.6-4.

Trip generation: a.m. trip rate = 2.05 trips/ksf, p.m. trip rate = 2.64 trips/ksf
Trips: a.m. 678 trips, p.m. 874 trips for entire 37 acres. Source: SDSP EIR, Tables 3.9-9 and 3.9-10

Proposed Carmax Development

Land use: 20 acres with 10,625 square feet of sales and 55,200 square feet of service.

Trip generation:
Sales (ITE land use 841) a.m. rate = 2.03, p.m. rate = 2.59.
Peak hour trips: a.m. = 22 trips, p.m. = 28 trips
Service (ITE land use 942) a.m. rate = 2.94, p.m. = 3.38
Peak hour trips: a.m. = 163 trips, p.m. = 187 trips
Total trips from 20 acre site: a.m. = 185 trips, p.m. = 215

Comparison after converting SDSP trips to 20 acre equivalent

Stoneridge Drive Specific Plan = 367 a.m. trips, 473 p.m. trips for 20 acres
Proposed Carmax = 185 a.m. trips, 215 p.m. trips for 20 acres

Carmax is 50 percent of SDSP a.m. trips and 45 percent of SDSP p.m. trips.

Please contact me if there are questions on this analysis.

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